AirCom®

CATALOGUE 2021

PRESSURE & VOLUME FLOW

measuring & regulating, Air Treatment



MINIATURE PRESSURE REGULATOR

	DESCRIPTION		PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
FACTORY-SET OUTLET PRESSURE	Cartridge (regulator)		2 / 3 / 4 / 6	Cartridge	233	**1.02**
	higher accuracy		2 / 3 / 4 / 6	G¼ fm	233F	**1.03**
	without exhaust	17 x 25	2 / 3 /... /10	G¼ fm	R13	**1.04**
	for compressed air	34 x 52	1 / 2 /... / 8	G¼	231	**1.05**
	for liquids	34 x 52	1 / 2 /... / 8	G¼	239A	**1.06**
	for drinking water	34 x 52	1 / 2 /... / 8	G¼	239K	9.03
	for oxygen	34 x 52	1 / 2 /... / 8	G¼	239M	**1.06**
	relieving		2 / 3 /... / 8	G¼ - G¾	232	**1.07**
SLIM DESIGN	extremely small	19 x 40	0.2 ... 2 / 8	M5	RR-M5	**1.08**
	also with FKM and EPDM	18 x 65	0.2 ... 1.4 / 7	M5 / ⅛″NPT	MAR	www*
VERY ACCURATE	very lightweight		0.03 ... 0.24 / 6	⅛″NPT	R800	**1.09**
	very lightweight		0.03 ... 0.24 / 6	10-32″ and flange	R900	**1.09**
	modular		0.01 ... 0.7 / 7	flange	R6	**1.10**
	interlockable		0.01 ... 0.7 / 7	M5, G⅛, G¼, SS	R7	**1.11**
	FDA approved		0.1 ... 1 /12	G⅛ and G¼	R037	**1.12**
	plastic		0.1 ... 1 /12	G⅛ and G¼	R039-F	**1.13**
	inlet pressure compensated		0.1 ... 3 / 6	G⅛	R309	**1.14**
	up to 25 bar supply pressure		0.1 ... 3 /16	G⅛ and G¼	R310	**1.14**
	slim design		0 ... 0.35 / 7	M5 and flange	RT	www*
	inlet pressure compensated		0.2 ... 2 / 9	flange	R342	www*
	without constant bleed		0.2 ... 2 / 9	G⅛ and G¼	R344	www*
	very accurate		0.05 ... 2 / 8	G⅛	RI	www*
	very accurate		0.05 ... 2 / 8	G⅛ and flange	R90	5.02
STANDARD	increased accuracy		0.1 ... 1 /12	G⅛ and G¼	R039	**1.13**
	also for water,	brass	0.1 ... 1 /11	G⅛ and G¼	R364	**1.15**
	made of aluminium		0.1 ... 1 /11	G⅛ and G¼	R374	**1.15**
	even for oxygen		0.2 ... 2.5 / 8	G⅛	R307	**1.16**
	even for oxygen		0 ... 0.25 / 8	flange	R308	**1.17**
CARTRIDGE	up to 260 l/min		1 ... 8	G⅛ u. G¼	RC	**1.18**

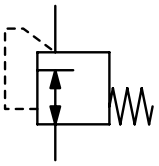


1

* visit our webshop: www.aircom.net

CARTRIDGE PRESSURE REGULATOR 233

Description	Cartridge pressure regulator suitable for assembly block.
Media	compressed air or non-corrosive gases
Supply pressure	max. 12 bar
Adjustment	Select the pressure regulator according to the desired outlet pressure. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Relieving function	non-relieving
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F
Material	Body: brass Piston: brass Elastomer: NBR Filter: stainless steel



G¼
for compressed air

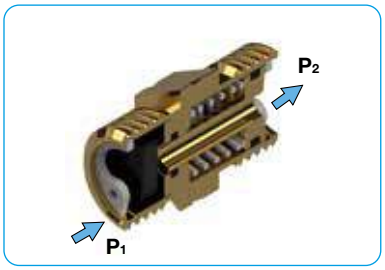
Dimensions A mm	Dimensions A/F mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Outlet pressure bar*2	Order number	A*
Factory-set outlet pressure			P1: max. 12 bar, non-relieving, outlet pressure accuracy *2			**233**	
24	14	350	12	G¼fm	2	**233G0220**	
					3	**233G0230**	
					4	**233G0240**	
					6	**233G0260**	



233

Special options, add the appropriate letter

NPT	connection thread	233G**X**2.0



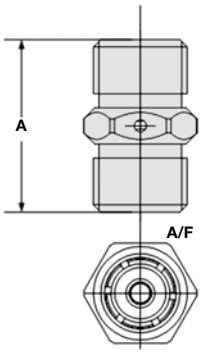
cross-section

Accessories, enclosed

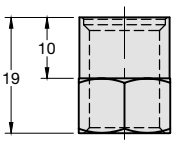
Adapter G¼	**263F0221**

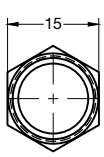


233 incl. adapter

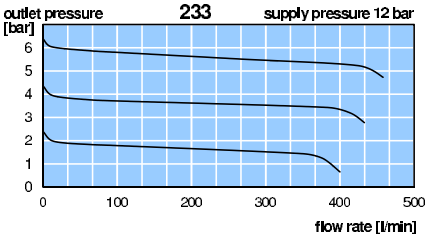


233





263F0221



*1 P_e = 12 bar; Δp = 0.5 bar

*2 Tolerance: 2 bar ± 0,6 bar (air, P_e = 6 bar, 10 Nl/min)
4 bar ± 0,8 bar (air, P_e = 6 bar, 10 Nl/min)
6 bar ± 1,0 bar (air, P_e = 10 bar, 10 Nl/min)

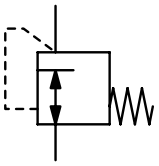
* Product group

PDF CAD
www.aircom.net

Order example:
233G0220

IN-LINE REGULATOR WITH FACTORY-SET OUTLET PRESSURE R13

Description	In-line pressure regulator with factory-set non-adjustable outlet pressure, reducing from e.g. 10 bar to 5 bar. The regulator R13 is suited for basic pressure control only with an outlet pressure tolerance of ± 30%. The outlet pressure stated below is valid for 15 bar inlet pressure. For other inlet pressure please refer to the according item from the diagram.
Benefits	• Higher safety through lower pressure. Tools and equipment protected against pressure damages. • Cost reduction through substantially reduced air consumption. Longer service life. • Noise reduction for tools.
Media	compressed air or non-corrosive gases
Supply pressure	max. 15 bar
Adjustment	Select the pressure regulator according to the desired outlet pressure. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Relieving function	non-relieving, therefore not recommended for applications such as nailers
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: brass Elastomer: NBR/Buna-N, optionally FKM



G¼
for compressed air

Dimensions ØA mm	B mm	A/F mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Outlet pressure bar	Order number	A*
Basic accuracy regulator				P1: max. 15 bar, non-relieving, outlet pressure accuracy ±30%, made of brass			**R13**	
17	34	17	300	15	G¼ fm	2	**R13-02D**	
						3	**R13-02E**	
						4	**R13-02F**	
						5	**R13-02G**	
						6	**R13-02H**	
						7	**R13-02I**	
						8	**R13-02K**	
						10	**R13-02M**	



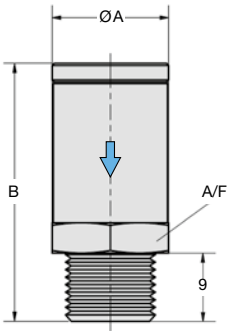
R13

Special options, add the appropriate letter

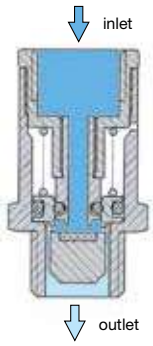
FKM elastomer		R13-02 . **V**
for oxygen	specially cleaned, with oxygen grease not combineable with FKM elastomer	R13-02 . **15**



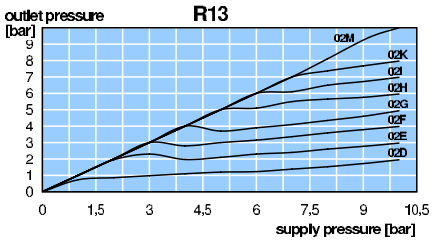
R13

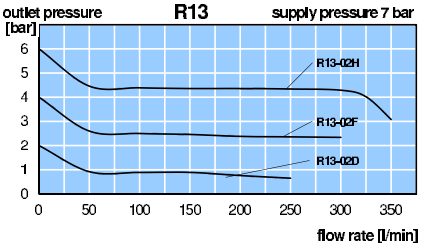


R13



cross-section





*1 at 7 bar supply pressure, 6 bar outlet pressure and 2 bar pressure drop

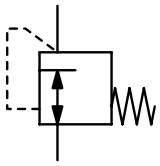
* Product group

PDF CAD
www.aircom.net

Order example:
R13-02D

IN-LINE REGULATOR WITH FACTORY-SET OUTLET PRESSURE "SAVEAIR®" 231

Description	In-line pressure regulator with factory-set non-adjustable outlet pressure, reducing from e.g. 15 bar to 5 bar. The regulator is suited for basic pressure control only with an outlet pressure tolerance of approx. ± 10%*2. Non-relieving function, therefore not recommended for applications such as nailers.
Benefits	• Higher safety through lower pressure. Tools and equipment protected against pressure damages • Cost reduction through substantially reduced air consumption • Noise reducing for tools
Media	compressed air, non-corrosive gases
Supply pressure	max. 18 bar
Adjustment	Select the pressure regulator according to the desired outlet pressure. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Relieving function	non-relieving
Temperature range	0 °C to 60 °C / 32 °F to 140 °F
Material	Body: zinc Elastomer: NBR/Buna-N



G¼
compressed air

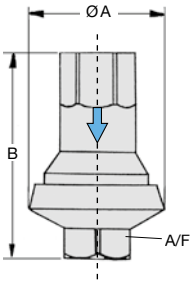
Dimensions ØA mm	B mm	A/F mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Outlet pressure bar*2	Order number	A*
Regulator for air „SaveAir®“				**P1: max. 18 bar, non-relieving, accuracy *2, made of zinc**			**231**	
34	52	17	400	18	G¼	1	**231A0210**	
			600			2	**231A0220**	
			700			3	**231A0230**	
			700			4	**231A0240**	
			700			5	**231A0250**	
			800			6	**231A0260**	
			800			7	**231A0270**	
			800			8	**231A0280**	



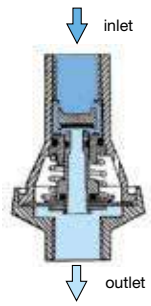
231

Special options, add the appropriate letter

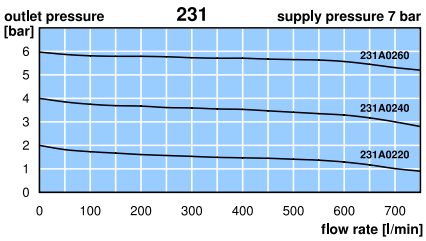
NPT	connection thread	231A**1**2. .
deviant pressure range	indicate on order	231A . 2**XX**



231



cross-section



*1 P_e = 12 bar; Δp = 0.5 bar

*2 Tolerance: < 4 bar ± 0.3 bar (air, P_e = 6 bar, 10 Nl/min)
≥ 4 bar ± 10% (air, P_e = 10 bar, 10 Nl/min)

* Product group

PDF CAD
www.aircom.net

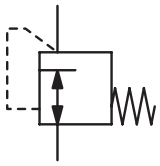
Order example:
231A0210

BRASS IN-LINE REGULATOR WITH FACTORY-SET OUTLET PRESSURE 239A / 239M

Miniature

1

General information	In-line pressure regulator with factory-set outlet pressure, reducing from e.g. 10 bar to 5 bar. The regulator is suited for basic pressure control only with an outlet pressure tolerance of approx. ±10%*2. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Description	239A: regulator for liquids, compressed air and non-corrosive gases 239M: medical industry and pharmaceutics
Application	water, hydraulic and sprinkler systems, cooler, cleaning systems
Supply pressure	max. 10 bar for liquids or oxygen max. 18 bar for compressed air and non-corrosive gases
Temperature range	0 °C to 60 °C / 32 °F to 140 °F
Material	Body: nickel-plated brass Inner parts: brass Elastomer: NBR/Buna-N for 239A, FKM for 239M



G¼,
for compressed air, water, O_2

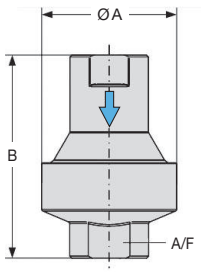
Dimensions ØA mm	B mm	A/F mm	Flow rate water l/min*1	air	Supply pressure max. bar	Connection thread G	Outlet pressure bar*2	Order number	A*
Regulator for compr. air / water made of brass, P_1: max. 18 bar / 10 bar, NBR/Buna-N, outlet pressure accuracy *2								**239A**	
34	52	17	10	400	18/10	G¼	1	**239A0210**	
			10	600			2	**239A0220**	
			10	700			3	**239A0230**	
			10	700			4	**239A0240**	
			10	700			5	**239A0250**	
			10	800			6	**239A0260**	
			10	800			7	**239A0270**	
			10	800			8	**239A0280**	
Regulator for oxygen made of brass, P_1: max. 10 bar, FKM, outlet pressure accuracy *2								**239M**	
34	52	17	-	400	10	G¼	1	**239M0210**	
			-	600			2	**239M0220**	
			-	700			3	**239M0230**	
			-	700			4	**239M0240**	
			-	700			5	**239M0250**	
			-	800			6	**239M0260**	
			-	800			7	**239M0270**	
			-	800			8	**239M0280**	



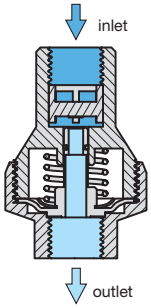
239A / 239M

Special options, add the appropriate letter

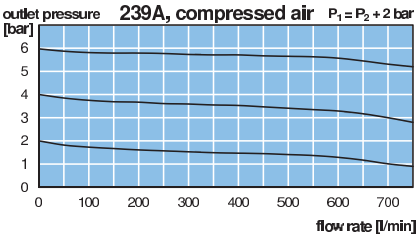
NPT	connection thread	239A**1** . . .
deviant pressure range	indicate on order	239 . . 2**XX**

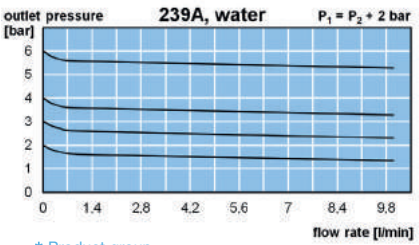


239A / 239M



cross-section





* Product group

*1 P_1 = 10 bar; Δp = 0.8 bar

*2 Tolerance: < 4 bar ± 0.3 bar (air, P_e = 6 bar, 10 Nl/min)
≥ 4 bar ± 10% (air, P_e = 10 bar, 10 Nl/min)

PDF CAD
www.aircom.net

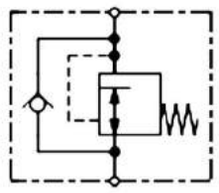
Order example:
239A0210

Miniature



1

Description	In-line pressure regulator with factory-set outlet pressure, reducing from e.g. 15 bar to 6 bar. With an outlet pressure tolerance of only ±10% *2 it is especially suitable for nailing machines.
Benefits	• Higher safety through lower pressure. Tools and equipment protected against pressure damages. • Cost reduction through substantially reduced air consumption. Longer service life. • Noise reduction for tools.
Media	compressed air or non-corrosive gases
Supply pressure	max. 25 bar
Adjustment	Select the pressure regulator according to the desired outlet pressure. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Relieving function	relieving at removal of supply pressure
Temperature range	0 °C to 80 °C / 32 °F to 176 °F
Material	Body: aluminium Elastomer: NBR/Buna-N



G¼ up to G¾ compressed air

Regulator with relieving function

P1: max. 25 bar, accuracy*2, aluminium — **232**

Dimensions ØA mm	B mm	A/F 1 mm	A/F 2 mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Outlet pressure bar*2	Order number
19	69	16	19	500	25	G¼ia	2	232F0220
				550			3	232F0230
				600			4	232F0240
				650			5	232F0250
				700			6	232F0260
				750			7	232F0270
				800			8	232F0280
19	59	16	19	500	25	G¼	2	232A0220
				550			3	232A0230
				600			4	232A0240
				650			5	232A0250
				700			6	232A0260
				750			7	232A0270
				800			8	232A0280
25	63	22	25	1 400	25	G⅜	2	232A0320
				1 600			3	232A0330
				1 800			4	232A0340
				2 000			5	232A0350
				2 200			6	232A0360
				2 400			7	232A0370
				2 600			8	232A0380
30	68	27	30	1 400	25	G½	2	232A0420
				1 600			3	232A0430
				1 800			4	232A0440
				2 000			5	232A0450
				2 200			6	232A0460
				2 400			7	232A0470
				2 600			8	232A0480
40	102	34	40	2 500	25	G¾	2	232A0520
				3 200			4	232A0540
				3 900			6	232A0560
				4 600			8	232A0580



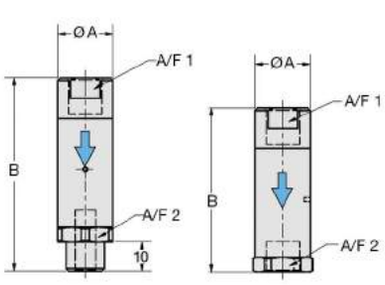
232F
with female / male thread



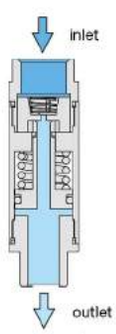
232A
with female thread

Special options, add the appropriate letter

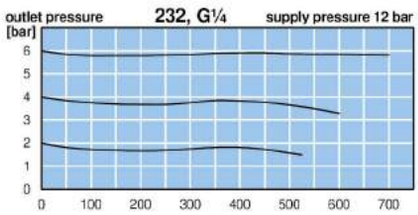
NPT	connection thread	232. **1** . . .
deviant pressure range	indicate on order	232. . . **XX**



232F 232A



cross-section



*1 P_e = 12 bar; Δp = 0.5 bar

*2 Tolerance: < 4 bar ± 0.3 bar (air, P_e = 6 bar, 10 Nl/min)
≥ 4 bar ± 10% (air, P_e = 10 bar, 10 Nl/min)

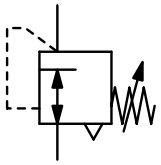
* Product group

PDF CAD
www.aircom.net

Order example: 232F0220

MICRO PRESSURE REGULATOR RR-M5

Description	Highly compact piston-operated regulator, suitable for panel mounting and basic pressure regulation.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 6 bar at 0.2 ... 2 bar pressure range, max. 10 bar at 1 ... 8 bar pressure range
Adjustment	by knurled-head screw with locknut
Relieving function	relieving for air, non-relieving for water
Gauge port	not available
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: nickel-plated brass Elastomer: NBR/Buna-N Inner valve: stainless steel and brass



M5
compressed air or liquids

Dimensions A mm	B mm	A/F mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread M5	Pressure range bar	Order number
Pressure regulator for air				**supply pressure max. 6 / 10 bar, relieving**			**RR-M5**
19	40	17	70	6	M5	0.2...2	**RR-M5A**
17	40	17	70	10	M5	1.0...8	**RR-M5C**



RR-M5

Dimensions A mm	B mm	A/F mm	Flow rate l/min	Supply pressure max. bar	Connection thread M5	Pressure range bar	Order number
Pressure regulator for water				**supply pressure max. 6 / 10 bar, non-relieving**			**RR-M5**
19	40	17	1.2	6	M5	0.2...2	**RR-M5AK**
17	40	17	1.2	10	M5	1.0...8	**RR-M5CK**



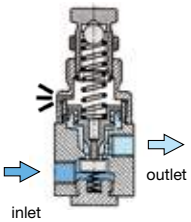
RR-M5

Special options, add the appropriate letter

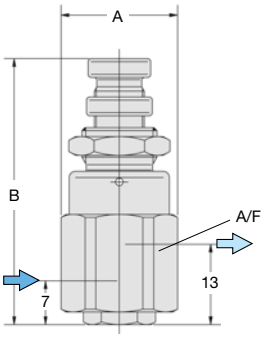
for oxygen	specially cleaned, with oxygen grease	minimum purchase 50 pieces	RR-M5 . . K**15**

Accessories, enclosed

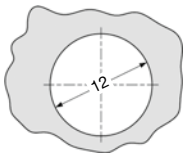
plastic panel nut	**M12x1K**



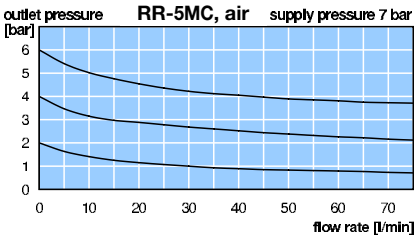
cross-section



RR-M5



panel cut-out



*1 for compressed air: 7 bar supply pressure and 6 bar outlet pressure and 2 bar pressure drop
for water: supply pressure 2 bar above outlet pressure

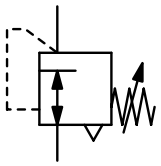
* Product group

PDF CAD
www.aircom.net

Order example:
RR-M5A

PLASTIC MINIATURE PRECISION PRESSURE REGULATOR R800 / R900

Description	Miniature precision regulator with high supply sensitivity. small dimension, low weight. Hysteresis-free adjustment up to 20 turns.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 10 bar		
Accuracy		**R800 / R900 / R901**	**R810 / R910 / R911**
	at supply pressure variation of 1 bar:	< 7 mbar pressure deviation	< 20 mbar pressure deviation
	at supply pressure removal/reapplication:	< 7 mbar pressure deviation	< 17 mbar pressure deviation
	setting accuracy:	< 2.5 mbar	< 5 mbar
Air consumption		0.35 l/min at 7 bar supply	pressure increase for flow <20 ml/min
Relieving function	relieving, optionally non-relieving		
Relief capacity	15 l/min at 0.35 bar outlet above set-point	**Gauge port**	not available
Temperature range	4 °C to 66 °C / 40 °F to 150 °F		
Material	Body: polysulfones Inner valve: stainless steel and acetal	Elastomer:	NBR/Buna-N



10-32 UNF, ⅛″ NPT or flangeable compressed air

Dimensions A mm	B mm	C mm	Pressure adjustment by	Flow rate l/min*1	Pressure range bar	Order number for manifold with o-ring C*	Order number 10-32 UNF standard C*
Precision pressure regulator				supply pressure max. 10 bar, relieving, with constant bleed			**R900**
29	78	8	**knob**	65	0.03…0.24	**R900-3,5MWK**	**R900-3,5WK**
					0.03… 0.7	**R900- 10MWK**	**R900- 10WK**
					0.03… 2.1	**R900- 30MWK**	**R900- 30WK**
					0.03… 4.2	**R900- 60MWK**	**R900- 60WK**
					0.03… 6.2	**R900- 90MWK**	**R900- 90WK**
29	60	8	**spindle**	65	0.03…0.24	**R900-3,5MWOS**	**R900-3,5WOS**
					0.03… 0.7	**R900- 10MWOS**	**R900- 10WOS**
					0.03… 2.1	**R900- 30MWOS**	**R900- 30WOS**
					0.03… 4.2	**R900- 60MWOS**	**R900- 60WOS**
					0.03… 6.2	**R900- 90MWOS**	**R900- 90WOS**
29	43	8	**preset**	65	to be indicated	**R901- . . M**	**R901- . .**



R800- . . WK mounting nut incl.

R900- . . WK mounting nut incl.

Special options, add the appropriate letter

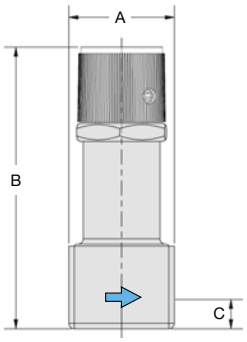
⅛″ NPT	connection thread, width 40 mm	R**8**. . - . . W . .
non-relieving	without constant bleed	R . **1** . - . . . . .
for oxygen	specially cleaned	R . . . - . . . . **.15**



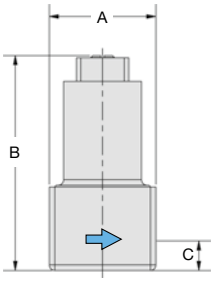
R910- . . WOS mounting nut incl.

Accessories, enclosed B*

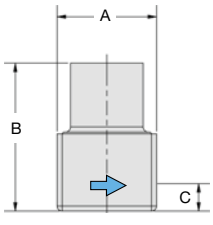
mouting bracket made of steel for R800 and R900 **BW15-01**



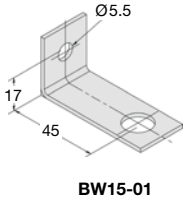
R900- . . WK



R900- . . WOS



R901- . .

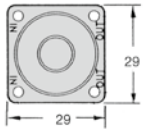


BW15-01

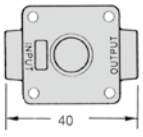


R901- . .

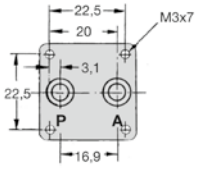
R900- . . MWOS mounting nut incl.



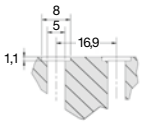
R900- ….



R800- ….

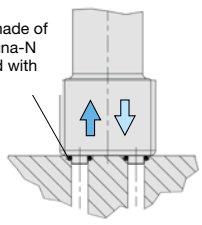


R900- . . M

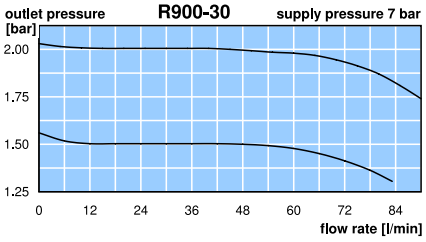


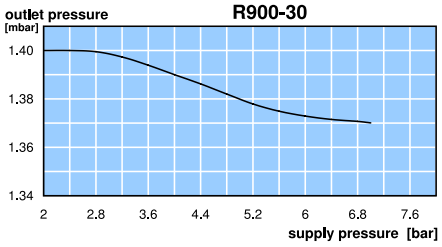
R900- . . M

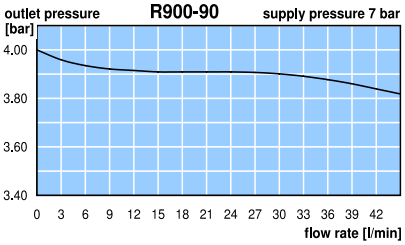
o-ring made of NBR/Buna-N supplied with unit



R900- . . M







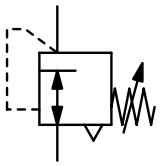
*1 at 7 bar supply pressure and max. outlet pressure

* Product group

PDF CAD
www.aircom.net

Order example: R900-3,5MWK

	Description
Pressure regulator R6	Design as R7 but for bottom-sided flange assembly via fittings and o-rings made of NBR/Buna-N. Mounting through four screws (M3) with extremely small screw heads.
Pressure regulator RP	This model guards against unauthorised tampering of pressure. Alternatively available with preset pressure. The pressure is to be set between 30 mbar and 2.8 bar. Its height is reduced to 49 mm.
Diverter block M5000	M3000 features four ports sideways and one on top. All ports can be provided with threads or blank slides, the ports sideways optionally with connector slides.
Top cover	• blank cover (B) • with G⅛ thread (1) • with G¼ thread (2) • with M5 thread (10-32 UNF)
Connector slide	to join two units • without through hole (C) • with through hole (U)
Assembly	After loosening the bottom screw any placements of threads, connector and blank slides are possible. Sealing results from o-rings made of NBR/Buna-N.
Temperature range	4 °C to 70 °C / 39.2 °F to 158 °F
Material	Body: glass fiber-reinforced Celcon Inner valve: stainless steel and Celcon Elastomer: NBR/Buna-N



M5, G⅛, G¼ or quick connector

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G/flange	Pressure range bar	Order number	C*
Precision regulator with flange				with adjusting knob, relieving, gauge port G⅛ on one side			**R6**	
47	92	-	140	10	flange	0.01 ... 0.7	**R6-010-B1BB**	
						0.02 ... 2.1	**R6-030-B1BB**	
						0.03 ... 4.1	**R6-060-B1BB**	
						0.03 ... 7.0	**R6-100-B1BB**	
Regulator with adjustment lock				adjustment with socket wrench, relieving, gauge port G⅛ on one side			**RP**	
47	49	14	140	10	G⅛	0.03 ... 2.8 *2	**RP7-040-111B**	
32	49	-			flange	0.03 ... 2.8 *2	**RP6-040-B1BB**	
Diverter block G⅛				e.g. all ports G⅛			**M5000**	
47	42	14	without filter	-	G⅛	-	**M5000-11111**	
		-	with filter, 380 µm		connection		**M5001-11111**	



R6



RP7 for socket wrench — **RP6** with flange



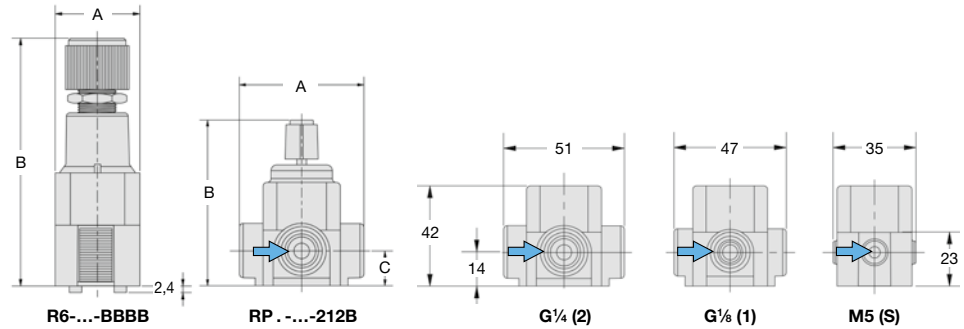
M5000-SBSBS — **M5000-1S1SB**



M5000-11111, G⅛ — **M5000-22222, G¼**

Special options and accessories

see adjoining page



R6-...-BBBB — **RP . -...-212B** — **G¼ (2)** — **G⅛ (1)** — **M5 (S)**

flange — **diverter block M5000-.....**

blind plate
B

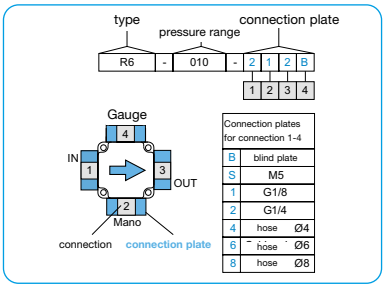
connector slide
U pass — **C** blind

connector slide M5
S In — **S** Out

thread G⅛
1 In — **1** Out — **G** gauge

thread G¼
2 In — **2** Out

diverter cap
B blind — **S** M5 — **1** G⅛ — **2** G¼



connector slides configuration

*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

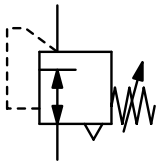
*2 indicate preset pressure on order

* Product group

PDF CAD
www.aircom.net

Order example: R6-010-B1BB

Description	Miniature pressure regulator with unique modular dovetail design allowing its individual use or assembly into a modular combination of pneumatic components through connector slides.		
Identification marking	The item no. includes a four-digit number starting with the input port and continuing counterclockwise. The digit corresponds with the type of connector slide, e.g. **1** for G⅛, **2** for G¼ or **B** for blank.		
Pressure regulator R7	Designed for precise regulation of pressure. The regulator possesses a 20 turn adjustment range and excellent repeatability. The valve seat is protected by a filter/strainer at the input port.		
Media	5 µm filtered compressed air and non-corrosive gases	**Supply pressure**	max. 10 bar
Accuracy	at supply pressure variation of 1 bar: at supply pressure removal/reapplication: at variations in temperature of 25 °C / K:		< 10 mbar pressure deviation < 10 mbar pressure deviation < 10 mbar pressure deviation
Air consumption	0.3 l/min at 7 bar supply pressure	**Adjustment**	by knob
Relieving function	relieving	**Mounting position**	any
Gauge port	G⅛ via threaded slide		



M5, G⅛, G¼ or quick connector

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Pressure rang bar	Order number	C*
Precision regulator				with adjusting knob, relieving, gauge port G⅛ on one side			**R7**	
47	92	14	140	10	G⅛	0.01 ... 0.7	**R7-010-111B**	
						0.02 ... 2.1	**R7-030-111B**	
						0.03 ... 4.1	**R7-060-111B**	
						0.03 ... 7.0	**R7-100-111B**	
51	92	14	140	10	G¼	0.01 ... 0.7	**R7-010-212B**	
						0.02 ... 2.1	**R7-030-212B**	
						0.03 ... 4.1	**R7-060-212B**	
						0.03 ... 7.0	**R7-100-212B**	



R7-...-1B1B, G⅛



R7-...-2B2BS, G¼

Special options, add the appropriate letter or number

with spindle		screwdriver adjustment, height 77 mm	R.-...-....**S**
thread	**M5**	connection thread	R.-...-**S**...
	G⅛		R.-...-**1**...
	G¼		R.-...-**2**...
quick connector	**Ø 4**	external diameter of hose	R.-...-**4**...
	Ø 6		R.-...-**6**...
	Ø 8		R.-...-**8**...
breech plate			R.-...-**B**...
connection plate		with permanent pressure supply	R.-...-**U**...
		without passage, modular combination of two devices	R.-...-**C**...
wall mounting		at breech plate	R.-...-**W**...

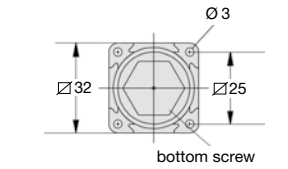


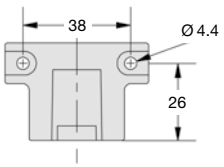
R7-...-SBSBS with spindle, M5 | **R7-...-4B4B w/ quick connector Ø4**

Accessories, enclosed

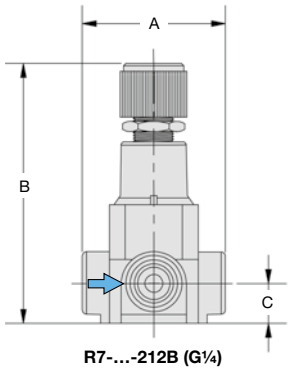
B*

pressure gauge	Ø 23 mm, 0...*2 bar, G⅛	**MA2301-..*2**

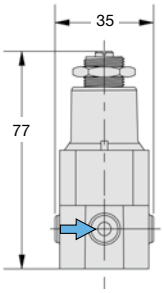




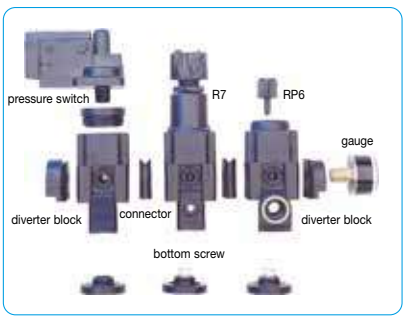
R7-MMB wall mounting



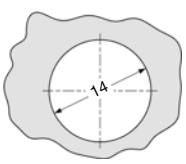
R7-...-212B (G¼) with adjusting knob



R7-...-S1SBS (M5) with spindle



example for assembly



panel cut-out



example for assembly

*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar

* Product group

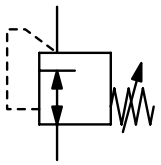
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R7-010-111B

MINIATURE PRESSURE REGULATOR WITH FDA APPROVAL R037

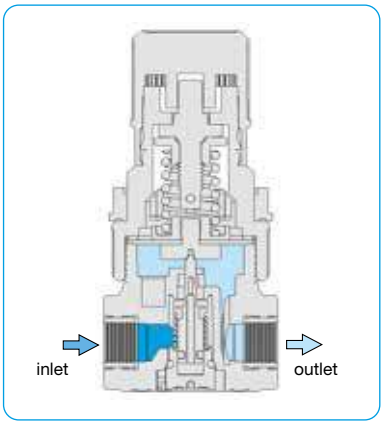
Description	Diaphragm miniature pressure regulator made of plastic and of small and lightweight design. All parts coming into contact with the medium are approved by the FDA.
Application area	food industry and water circulation, e.g. for dialysis devices
Media	compressed air, non-corrosive gases, deionized water or other liquids
Supply pressure	max. 16 bar
Adjustment	by plastic knob with snap-lock
Relieving function	non-relieving
Gauge port	not available
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: POM technopolymer with thread insert of SST 316, approved by FDA and WRAS Elastomer: EPDM with thread insert of SST 316, approved by FDA and KTW Valve and O-ring: Hytrel and EPDM, FDA-approved Grease: Klüber, UH184-201



G⅛, FDA, deionized water compressed air or liquids



R037



cross-section

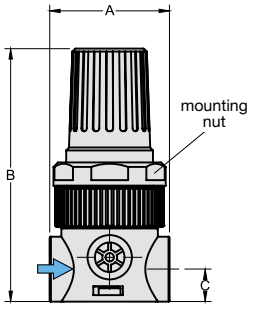
Dimensions A mm	B mm	C mm	Flow rate water l/min*1	air l/min	Connection thread G	Pressure range bar	Order number C*
Pressure regulator w. FDA approval					supply pressure max. 16 bar, non-relieving EPDM, with inlet pressure compensation		**R037**
41	86	11	5	350	G⅛	0.1 … 1	**R037-010K**
						0.1 … 2	**R037-01AK**
						0.2 … 4	**R037-01BK**
						0.3 … 8	**R037-01CK**
						0.4 … 12	**R037-01DK**
41	86	11	5	380	G¼	0,1 … 1	**R037-020K**
						0,1 … 2	**R037-02AK**
						0,2 … 4	**R037-02BK**
						0,3 … 8	**R037-02CK**
						0,4 … 12	**R037-02DK**

Special options, add the appropriate letter or number

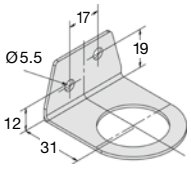
for oxygen	specially cleaned, with oxygen grease	R037-0 . . K**15**

Accessories, enclosed B*

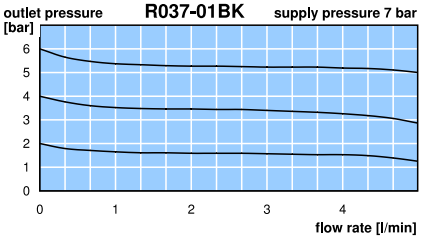
mounting bracket	made of steel	**BW30-02**
mounting nut	made of plastic	**M30x1,5K**
	made of aluminium	**M30x1,5A**



R037



BW30-02



*1 supply pressure 1 bar above outlet pressure

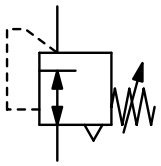
* Product group

PDF CAD
www.aircom.net

Order example: R037-010K

PRECISION PRESSURE REGULATOR MADE OF PLASTIC R039

Description	Diaphragm miniature pressure regulator of small and lightweight design. The regulator has increased accuracy due to a rolling diaphragm and a piston compensated to inlet pressure.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 16 bar
Air consumption	R039 without constant bleed — R039-F with max. 3 l/min air consumption
Adjustment	by plastic knob with snap-lock
Relieving function	relieving for compressed air, red adjusting knob; non-relieving for liquids, black adjusting knob
Gauge port	G⅛ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for NBR/Buna-N
Material	Body: POM with brass thread insert Elastomer: NBR/Buna-N Inner valve: brass



G⅛ and G¼ compressed air or liquids

Dimensions A mm	B mm	C mm	Flow rate water l/min*1	air l/min*1	Connection thread G	Pressure range bar	Order number for water C* non-relieving	Order number for compressed air C* relieving
Regulator w. increased accuracy						supply pressure max. 16 bar, w. rolling diaphragm, inlet pressure-compensated		**R039**
41	86	11	5	350	G⅛	0.1 … 1	**R039-010K**	**R039-010**
						0.2 … 2	**R039-01AK**	**R039-01A**
						0.2 … 4	**R039-01BK**	**R039-01B**
						0.3 … 8	**R039-01CK**	**R039-01C**
						0.3 … 12	**R039-01DK**	**R039-01D**
41	86	11	5	380	G¼	0.1 … 1	**R039-020K**	**R039-020**
						0.2 … 2	**R039-02AK**	**R039-02A**
						0.2 … 4	**R039-02BK**	**R039-02B**
						0.3 … 8	**R039-02CK**	**R039-02C**
						0.3 … 12	**R039-02DK**	**R039-02D**
Precision pressure regulator						with air consumption, P_1: max. 16 bar, w. rolling diaphragm, inlet pressure-compensated		**R039-F**
41	86	11	5	350	G⅛	0.1 … 1		**R039-010F**
						0.2 … 2		**R039-01AF**
						0.2 … 4		**R039-01BF**
						0.3 … 8		**R039-01CF**
						0.3 … 12		**R039-01DF**
41	86	11	5	380	G¼	0.1 … 1		**R039-020F**
						0.2 … 2		**R039-02AF**
						0.2 … 4		**R039-02BF**
						0.3 … 8		**R039-02CF**
						0.3 … 12		**R039-02DF**



R039



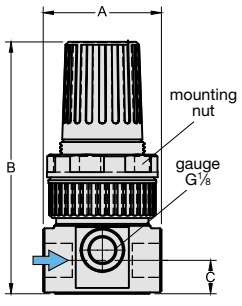
R039-.K

Special options, add the appropriate letter

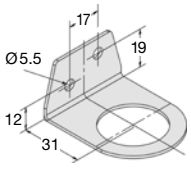
adjustment lock	non-adjustable knob		R039-0 . . **T**
without gauge port			R039-0 . . **X02**
for oxygen	specially cleaned, with oxygen grease	not for R039-0..F	R039-0 . . K**15**

Accessories, enclosed B*

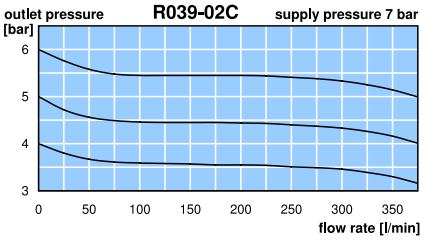
pressure gauge	Ø 40 mm, 0…*2 bar, G⅛	**MA4001- . . *2**
mounting bracket	made of steel	**BW30-02**
mounting nut	made of plastic	**M30x1,5K**
	made of aluminium	**M30x1,5A**

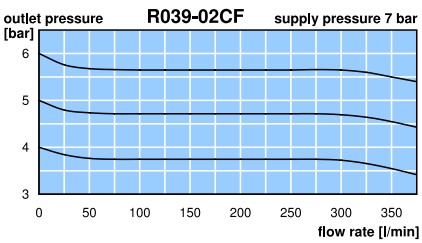


R039



BW30-02





*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop, for water: supply pressure 2 bar above outlet pressure
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0…16 bar

* Product group

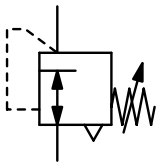
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R039-010K

BRASS PRESSURE REGULATOR FOR MANY MEDIA, PRECISE R309 / R310

Description	R310: Diaphragm pressure regulator made of brass without constant bleed. R309: Precision pressure regulator with highly accurate inner valve and sensitive convoluted diaphragm. Of proven reliability and durability and designed for precise pressure regulation in the event of disturbances in flow, supply pressure or temperature.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 25 bar for R310, max. 14 bar for R309 and R310-15
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving for R310
Gauge port	R310: G⅛ on both sides of the body, one screw plug supplied — R309: not available
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F for NBR / Buna-N 0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: brass — Elastomer: NBR/Buna-N, optionally FKM or EPDM, e.g. for brake fluid Spring cage: POM — Inner valve: stainless steel and brass



G⅛ and G¼ compressed air or liquids

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Pressure range bar	Order number C*
Pressure regulator				supply pressure max. 25 bar, relieving, gauge port G⅛, inlet pressure-compensated			**R310**
40	80	16.5	220	25	G⅛	0.1 ... 3	**R310-01B**
						0.4 ... 10	**R310-01D**
						0.5 ... 16	**R310-01E**
40	80	16.5	220	25	G¼	0.1 ... 3	**R310-02B**
						0.4 ... 10	**R310-02D**
						0.5 ... 16	**R310-02E**



R310

Precision press. regulator				P1: max. 14 bar, relieving, inlet pressure-compensated without constant bleed, suitable for oxygen			**R309**
36	77	15	220	14	G⅛	0.1 ... 3	**R309-01B**
						0.4 ... 6	**R309-01C**



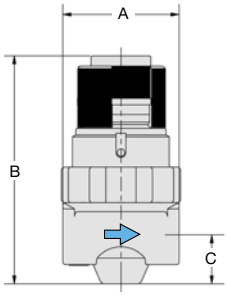
R309
accessory: mounting nut

Special options, add the appropriate letter or number

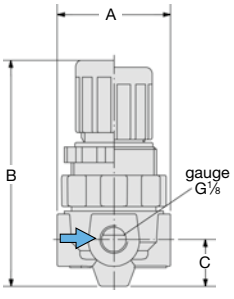
non-relieving	without relieving function	R310-0. . **K**
for oxygen	specially cleaned, P_1: max. 14 bar, P_2: max. 10 bar	R310-0. . K**15**
FKM elastomer		R310-0. . **V**
EPDM elastomer	non-relieving, e.g. for brake fluid	R310-0. . **KE**

Accessories, enclosed B*

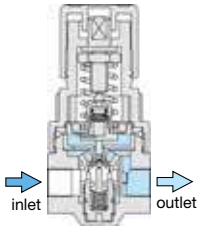
pressure gauge	Ø 40 mm, 0...*2 bar, G⅛	R310 only	**MA4001-. .*2**
mounting bracket	made of steel		**BW30-02**
mounting nut	made of plastic		**M30x1,5K**
	made of brass		**M30x1,5M**



R309



R310



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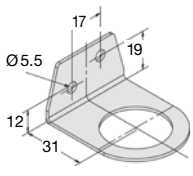
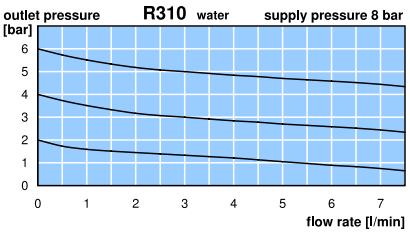
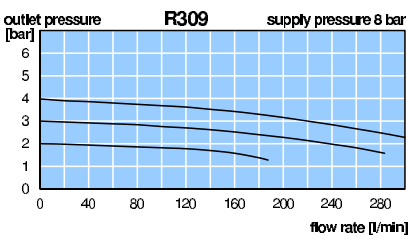
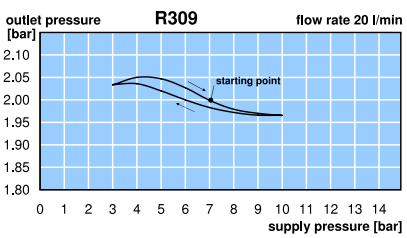
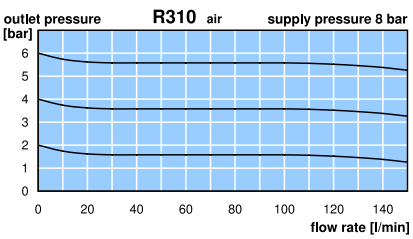


BW30-02









*1 for compressed air: 8 bar supply pressure, 4 bar outlet pressure and 1 bar pressure drop
*2 **01** = 0...1 bar, **04** = 0...4 bar, **10** = 0...10 bar, **16** = 0...16 bar

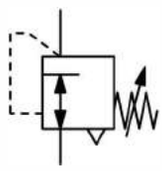
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R310-01B

Description	Compact regulator with diaphragm
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 21 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G⅛ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F 0 °C to 80 °C / 32 °F to 176 °F, for spring cage made of brass
Material	Body: brass at R364, aluminium at R374 Spring cage: glass fibre reinforced plastic, optionally brass Elastomer: NBR/Buna-N, optionally FKM Inner valve: brass, optionally stainless steel



G⅛ and G¼ compressed air or liquids

Dimensions A mm	B mm	C mm	Flow rate m³/h*1	l/min*1	Connection thread G	Pressure range bar	Order number A*
Brass pressure regulator					supply pressure max. 21 bar, relieving		**R364**
35	76	12	27	450	G⅛	0.1 ... 1.0	**R364-010**
						0.2 ... 1.8	**R364-01A**
						0.2 ... 4.0	**R364-01B**
						0.3 ... 9.0	**R364-01C**
						0.5 ... 11	**R364-01D**
35	76	12	27	450	G¼	0.1 ... 1.0	**R364-020**
						0.2 ... 1.8	**R364-02A**
						0.2 ... 4.0	**R364-02B**
						0.3 ... 9.0	**R364-02C**
						0.5 ... 11	**R364-02D**
Aluminium pressure regulator					supply pressure max. 21 bar, relieving		**R374**
35	76	12	27	450	G⅛	0.1 ... 1.0	**R374-010**
						0.2 ... 1.8	**R374-01A**
						0.2 ... 4.0	**R374-01B**
						0.3 ... 9.0	**R374-01C**
						0.5 ... 11	**R374-01D**
35	76	12	27	450	G¼	0.1 ... 1.0	**R374-020**
						0.2 ... 1.8	**R374-02A**
						0.2 ... 4.0	**R374-02B**
						0.3 ... 9.0	**R374-02C**
						0.5 ... 11	**R374-02D**



R364
made of brass



R374
made of aluminium

Special options, add the appropriate letter

NPT	connection thread	R3.4-0..**N**
non-relieving	without relieving function	R3.4-0..**K**
adjustment lock	socket wrench adjustment, height 64 mm	R3.4-0..**T**
free of grease and oil	specially cleaned, suitable for oxygen	R3.4-0..**L**
FKM elastomer	inner parts made of brass	R3.4-0..**X64**
	inner parts made of stainless steel	R3.4-0..**X08**

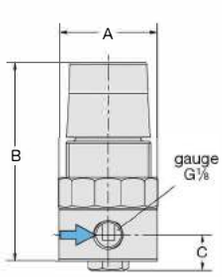
Accessories, enclosed B*

pressure gauge	Ø 40 mm, 0...*2 bar, G⅛	**MA4001-...*2**
mounting bracket	made of steel	**BW30-02**
mounting nut	made of plastic	**M30x1,5K**
	made of aluminium	**M30x1,5A**

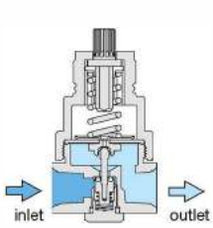


R364-02CT
with adjustment lock

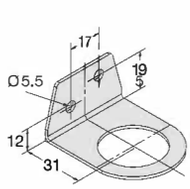
R364-02CX82
brass throughout



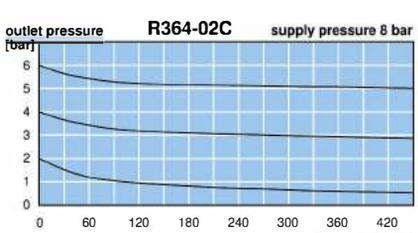
R364 / R374



cross-section



BW30-02



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **01** = 0...1 bar, **02** = 0...2,5 bar, **04** = 0...4 bar, **10** = 0...10 bar, **16** = 0...16 bar

* Product group

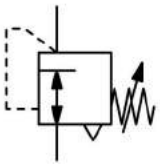
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R364-010

MINIATURE PRECISION PRESSURE REGULATOR ⍁ 30 MM R307

Description	Precision pressure regulator made of plastic, with diaphragm, with tamper-proof knob and without constant bleed. Excellent for portable systems thanks to small size and light weight of only 70 g.
Media	compressed air or non-corrosive gases
Supply pressure	max. 10 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G⅛ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F
Material	Body: POM Elastomer: NBR/Buna-N Inner valve: brass



G⅛

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Pressure range bar	Order number	C*
Miniature pressure regulator				supply pressure max. 10 bar, relieving, without constant bleed			**R307**	
30	64	8	360	10	G⅛	0.2 ... 2.5	**R307-01B**	
						0.2 ... 3.5	**R307-01C**	
						0.2 ... 8.0	**R307-01D**	



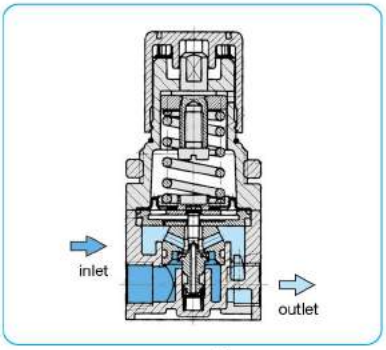
R307

Special options, add the appropriate letter

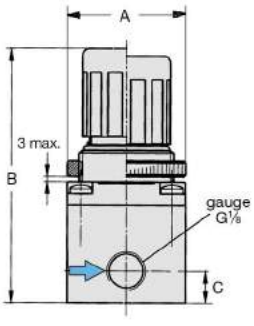
non-relieving	without relieving function	R307-01 . **K**
for oxygen	specially cleaned, with oxygen grease	R307-01 . K**15**

Accessories, enclosed B*

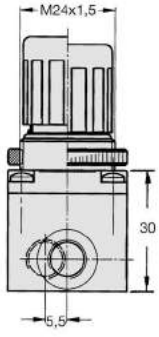
pressure gauge	Ø 23 mm, 0...*2 bar, G⅛	**MA2301-. .**.*2
mounting nut	made of brass	**M24x1,5M**



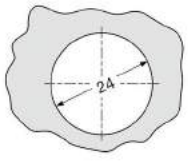
cross-section



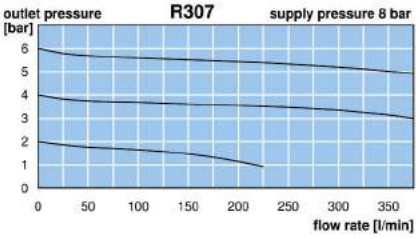
R307

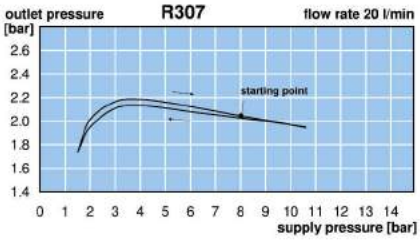


R307



panel cut-out





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0...4 bar, **10** = 0...10 bar

* Product group

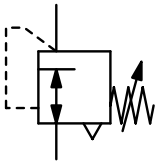
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R307-01B

MINIATURE PRECISION PRESSURE REGULATOR ⍁ 30 MM, WITH FLANGE R308

Description	Precision pressure regulator, made of plastic, with diaphragm, with tamper-proof knob and without constant bleed. Excellent for portable systems thanks to small size and light weight of only 70 g.
Media	compressed air or non-corrosive gases
Supply pressure	max. 10 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	not available
Mounting position	any
Temperature range	0° C to 60 °C / 32 °F to 140 °F
Material	Body: POM Elastomer: NBR/Buna-N Inner valve: brass



flangeable

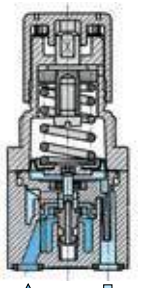
Dimensions A mm	Dimensions B mm	Flow rate l/min*1	Supply pressure max. bar	Connection	Pressure range bar	Order number	C*
Precision regulator with flange			supply pressure max. 10 bar, relieving, without constant bleed			**R308**	
30	64	200	10	flange	0 ... 0.25	**R308-P00**	
					0.2 ... 2.5	**R308-P0B**	
					0.2 ... 3.5	**R308-P0C**	
					0.2 ... 8.0	**R308-P0D**	



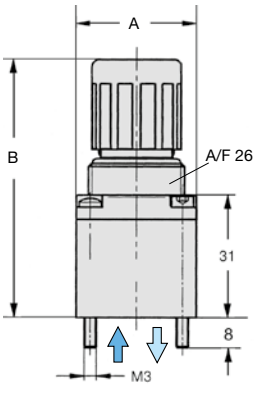
R308
flangeable

Special options, add the appropriate letter

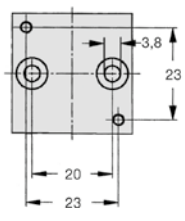
non-relieving	without relieving function	R308-P0. **K**
or oxygen	specially cleaned, with oxygen grease	R308-P0. K**15**



cross-section



R308



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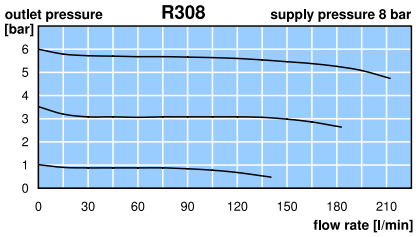


*1 for compressed air: 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

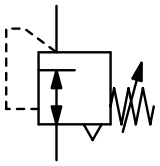
* Product group

PDF CAD
www.aircom.net

Order example
R308-P00

CARTRIDGE PRESSURE REGULATOR RC

Description	Piston-operated cartridge pressure regulator suitable for assembly block.
Media	compressed air filtered to 50 µm, lubricated or unlubricated
Supply pressure	max. 10 bar
Adjustment	by knurled-head screw with locknut
Relieving function	relieving
Gauge port	not available
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: nickel-plated brass Elastomer: NBR/Buna-N



G⅛ and G¼

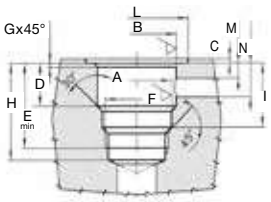
Dimensions A mm	B mm	C mm	A/F mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G	Pressure range bar	Order number	C*
Cartridge regulator					supply pressure max. 10 bar, relieving, without constant bleed			**RC**	
15	57	15	14	150	10	G⅛	1…8 bar	**RC-01C**	
19	63	18	17	260	10	G¼	1…8 bar	**RC-02C**	
Step drill for cartridge seat								**RCS**	
16	-	-	-			G⅛		**RCS-01**	
20	-	-	-			G¼		**RCS-02**	



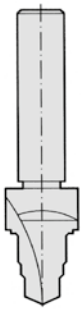
RC-01C



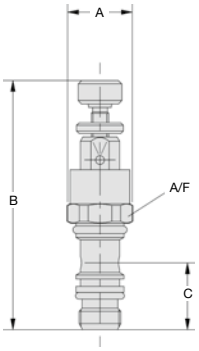
RC-02C



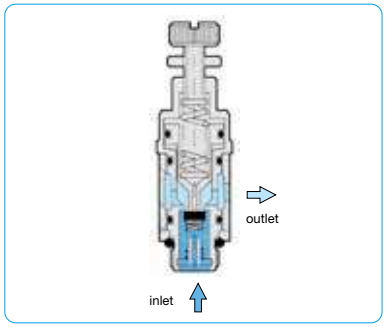
drilled hole



RCS



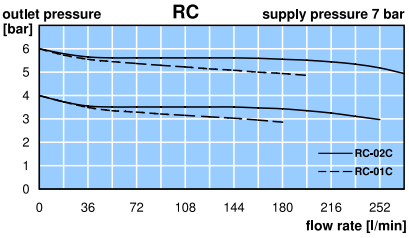
RC



cross-section

drill	F	A	B	C	D
RCS-01	⅛	9.8 - 0.1/-0	11.2 ± 0.05	0.5 ± 0.5	15.6 ± 0.07
RCS-02	¼	13.5 + 0.1/-0	14.4 ± 0.05	0.5 ± 0.5	17.5 ± 0.07

drill	E	G	H	I	L	M	N
RCS-01	24.6	0.3	27	18.1 ± 0.2	15.4	3.5	12
RCS-02	28	0.4	31.2	20.8 ± 0.2	19.4	3.5	13.5



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group

PDF CAD
www.aircom.net

Order example:
RC-01C

STANDARD PRESSURE REGULATORS

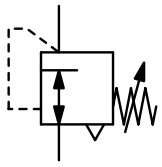
DESCRIPTION	SUPPLY PRESSURE	PRESSURE RANGE	CONNECTION	SERIES	PAGE
	max. bar	bar	thread		
„Maxi“-Series, robust, interlockable	21	0.2 … 1.8 / 17	G¼ - G1	R20, R21	**2.02**
made of plastic, also for liquids	12,5	0 … 4 / 12	G⅛ - G1	R035 … R095	**2.03**
extremely robust, high flow rate	21	0.2 … 1.8 / 17	G¼ - G3	R119	**2.04**
Series „D“, made of aluminium	30	0.2 … 1.5 / 15	G⅛ - G2	RD1 ... RD4	**2.06**
with joint supply	16	0.1 … 3 / 16	G⅛ - G½	RB, R035	**2.08**
lockable pressure regulator	16	0.1 … 3 / 16	G⅛ and G1	RS	**2.09**
270° adjustment dial pressure regulator	21	0 … 3 / 11	G¼ - G2	R11 … R41	**2.10**



Standard

2

Description	Piston-type high-capacity regulator of modular design with exchangeable inserts. Can be interlocked with filter or lubricator without double nipples. Each ”Maxi” regulator may be taken from a fixed line in seconds simply by removing the mounting bolts.
Media	compressed air or non-corrosive gases
Supply pressure	max. 21 bar
Adjustment	R20: by plastic knob with snap-lock R21: by T-handle with locknut
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	R20: 0 °C to 50 °C / 32 °F to 122 °F R21: 0 °C to 80 °C / 32 °F to 176 °F
Material	Body: zinc die-cast Spring cage: zinc die-cast, adjusting knob made of glass fibre reinforced plastic Elastomer: NBR/Buna-N Inner valve: brass and plastic



G¼ up to G1

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	A*
”Maxi” pressure regulator						supply pressure max. 21 bar, relieving, without pressure gauge		**R20**	
89	162	38	3.4	240	4000	G¼	0.2 … 1.8	**R20-02A**	
							0.2 … 4.0	**R20-02B**	
							0.3 … 9.0	**R20-02C**	
							0.5 … 17	**R20-02D**	
89	162	38	4.2	300	5000	G⅜	0.2 … 1.8	**R20-03A**	
							0.2 … 4.0	**R20-03B**	
							0.3 … 9.0	**R20-03C**	
							0.5 … 17	**R20-03D**	
89	162	38	5.2	372	6200	G½	0.2 … 1.8	**R20-04A**	
							0.2 … 4.0	**R20-04B**	
							0.3 … 9.0	**R20-04C**	
							0.5 … 17	**R20-04D**	
111	162	38	6.1	432	7200	G¾	0.2 … 1.8	**R20-06A**	
							0.2 … 4.0	**R20-06B**	
							0.3 … 9.0	**R20-06C**	
							0.5 … 17	**R20-06D**	
111	162	38	6.3	450	7500	G1	0.2 … 1.8	**R20-08A**	
							0.2 … 4.0	**R20-08B**	
							0.3 … 9.0	**R20-08C**	
							0.5 … 17	**R20-08D**	



R20



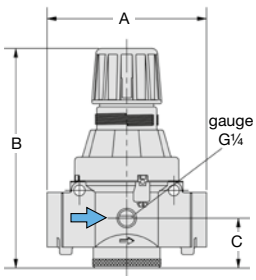
R21

Special options, add the appropriate letter

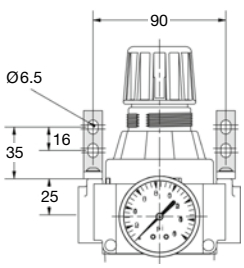
T-handle	including locknut	R**21**-0 . .
NPT	connection thread	R2 . -0 . . **N**
non-relieving	without relieving function	R2 . -0 . . **K**

Accessories, enclosed

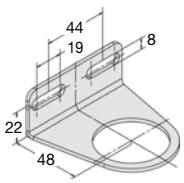
pressure gauge	Ø 63 mm, 0…*2 bar, G¼	up to 16 bar	**MA6302-..***2 B*
	Ø 63 mm, 0…25 bar, G¼	up to 25 bar	**MA6302-..25** B*
mounting bracket	assembly at spring cage		**BW45-02** B*
mounting nut	made of plastic		**M45x1,5K** B*
	made of aluminium		**M45x1,5A** B*
set of brackets	made of steel		**MK20-0100**



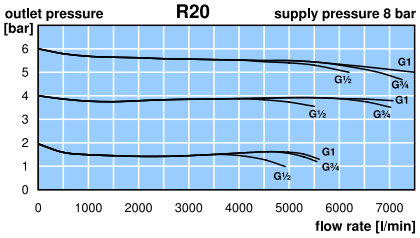
R20



MK20-0100



BW45-02



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar, **25** = 0…25 bar

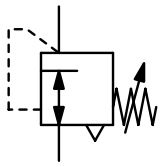
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R20-02A

Description	Modular regulator, easy to interlock with other regulators, filters or filter regulators of the same series, without the need for double nipples or any other fittings. A sensitive rolling diaphragm allows good pressure regulation.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 12.5 bar, max. 10 bar for R035, max. 16 bar bei R042
Adjustment	by plastic knob with snap-lock, R035 without snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G⅛ on both sides of the body (G¼ at R095), one screw plug supplied
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 177 °F
Material	Body: nylon, POM at R035 and R042 Elastomer: NBR/Buna-N Inner valve: brass Thread insert: brass



G⅛ up to G1

Standard 2

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	B*
Pressure regulator supply pressure max. 12.5 bar, for series R035 max. 10 bar, for series R042 max. 16 bar, relieving, without pressure gauge								**R0**	
36	61	12	0.11	15	250	G⅛	0 … 6	**R035-01B**	
for battery assembly, see also catalogue page "regulator for joint supply"							0 … 6	**R035-01RB**	
42	102	20	0.36	51	850	G¼	0 … 4	**R042-02B**	
							0 … 8	**R042-02C**	
							0 … 12	**R042-02D**	
52	129	38	0.59	84	1400	G⅜	0 … 4	**R050-03B**	
							0 … 8	**R050-03C**	
							0 … 12	**R050-03D**	
52	129	38	0.63	90	1500	G½	0 … 4	**R052-04B**	
							0 … 8	**R052-04C**	
							0 … 12	**R052-04D**	
63	145	42	1.0	138	2300	G½	0 … 4	**R075-04B**	
							0 … 8	**R075-04C**	
							0 … 12	**R075-04D**	
137	145	42	1.0	144	2400	G¾	0 … 4	**R080-06B**	
							0 … 8	**R080-06C**	
							0 … 12	**R080-06D**	
115	222	48	6.3	900	15000	G1	0 … 4	**R095-08B**	
							0 … 8	**R095-08C**	
							0 … 12	**R095-08D**	



R035



R042



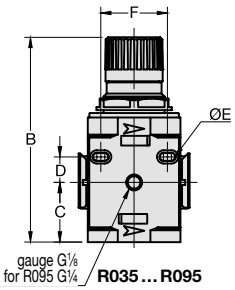
R080

Special options, add the appropriate letter

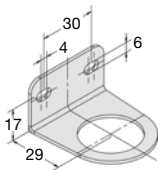
non-relieving	without relieving function, also for liquids	R0 . . -0 . . **K**

Accessories, enclosed

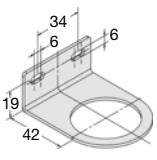
pressure gauge	Ø 23 mm, 0…*2 bar, G⅛, max. 12 bar	for R035	**MA2301-. .** *2
	Ø 40 mm, 0…*2 bar, G⅛	for R042	**MA4001-. .** *2
	Ø 50 mm, 0…*2 bar, G⅛	for R050 to R080	**MA5001-. .** *2
	Ø 63 mm, 0…*2 bar, G¼	for R095	**MA6302-. .** *2
mounting bracket	made of steel, mounting nut at the device	for R042	**BW30-01**
		for R050 to R080	**BW42-01**
set of brackets	made of steel	for R095	**BW00-02**
connection clips		for R035	**C350100018**



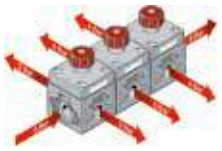
R035 … R095



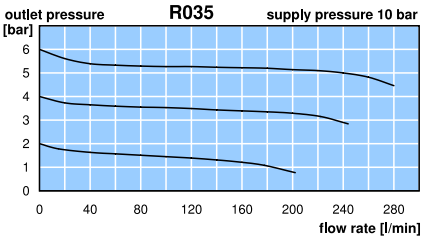
BW30-01

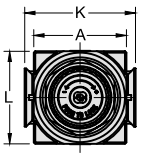


BW42-01



R035-01RB battery assembly

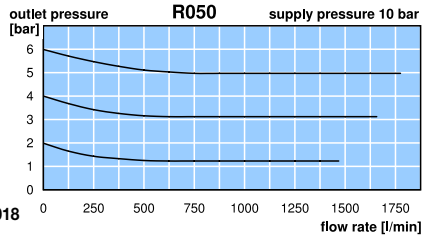




series	D	Ø E	F	K	L
R035	8	3.5	20	–	36
R042	10.5	4.5	31	–	42
R050/52	16	5.5	41	63	52
R075	17.5	5.5	45	75	63
R080	17.5	5.5	45	–	63
R095	65	8.5	174	115	95



R035 assembly with connecting clips C350100018



*1 at 10 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar

* Product group

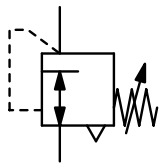
Accessories and mounting brackets: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R035-01B

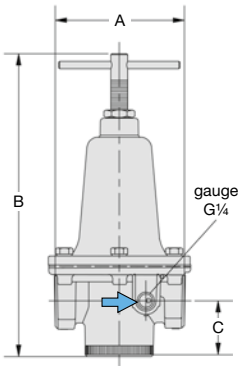
„STANDARD“ PRESSURE REGULATOR R119

Description	High-capacity diaphragm regulator of solid design suitable for many applications. Ideal for installations where constant line pressure at wide flow variations. From size G2 on it is a pilot-operated piston regulator with an excellent regulation characteristic curve.
Media	compressed air or non-corrosive gases
Supply pressure	max. 21 bar
Air consumption	from size G2 on the regulator's air consumption is about 0.1 l/min.
Adjustment	by T-handle with locknut from size G2 on by plastic knob with snap-lock on the pilot regulator up to size G½ optionally by handwheel, for control panel integration
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, screw plugs supplied **Mounting position** any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Inner valve: brass Diaphragm: NBR/Buna-N Bottom screw: reinforced nylon

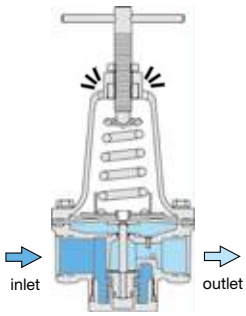


G¼ up to G3

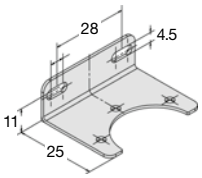
Dimensions A mm	B mm	C mm	K_V-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	A*
„Standard“ pressure regulator supply pressure max. 21 bar, relieving, without pressure gauge								**R119**	
70	157	35	1.5	150	2500	G¼	0.2 ... 1.8	**R119-02A**	
							0.2 ... 4.0	**R119-02B**	
							0.3 ... 9.0	**R119-02C**	
							0.5 ... 17	**R119-02D**	
70	157	35	1.7	168	2800	G⅜	0.2 ... 1.8	**R119-03A**	
							0.2 ... 4.0	**R119-03B**	
							0.3 ... 9.0	**R119-03C**	
							0.5 ... 17	**R119-03D**	
83	172	38	3.6	360	6000	G½	0.2 ... 1.8	**R119-04A**	
							0.2 ... 4.0	**R119-04B**	
							0.3 ... 9.0	**R119-04C**	
							0.5 ... 17	**R119-04D**	
113	265	49	5.4	540	9000	G¾	0.3 ... 9.0	**R119-06C**	
							0.5 ... 17	**R119-06D**	
113	265	49	6.0	600	10000	G1	0.3 ... 9.0	**R119-08C**	
							0.5 ... 17	**R119-08D**	



R119-02 ... -12



cross-section



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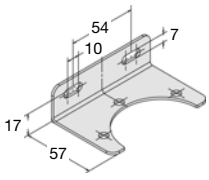


BW00-23



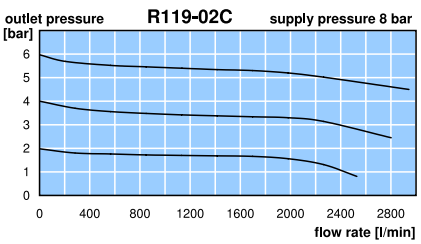
R119-04

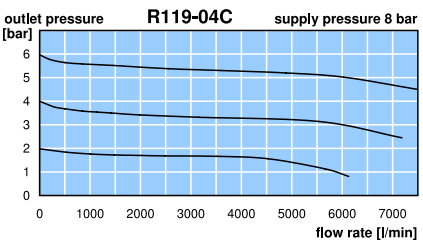


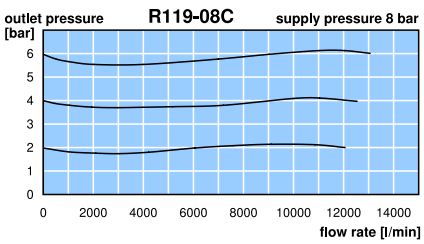
R119-06



R119-08







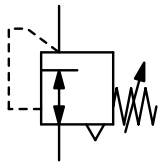
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group

PDF CAD
www.aircom.net

Order example: R119-02A

Description	High-capacity diaphragm regulator of solid design suitable for many applications. Ideal for installations where constant line pressure at wide flow variations. From size G2 on it is a pilot-operated piston regulator with an excellent regulation characteristic curve.
Media	compressed air or non-corrosive gases
Supply pressure	max. 21 bar
Air consumption	from size G2 on the regulator's air consumption is about 0.1 l/min.
Adjustment	by T-handle with locknut from size G2 on by plastic knob with snap-lock on the pilot regulator up to size G½ optionally by handwheel, for control panel integration
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, screw plugs supplied **Mounting position** any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Inner valve: brass Diaphragm: NBR/Buna-N Bottom screw: reinforced nylon



G¼ up to G3

„Standard“ pressure regulator supply pressure max. 21 bar, relieving, without pressure gauge — R119

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number
126	275	48	6.6	660	11000	G1¼*3	0.3…9.0	**R119-10C**
							0.5… 17	**R119-10D**
126	275	48	7.2	720	12000	G1½	0.3…9.0	**R119-12C**
							0.5… 17	**R119-12D**
186	300	79	35.4	2520	42000	G2	0.2…1.8	**R119-16A**
							0.2…4.0	**R119-16B**
							0.3…9.0	**R119-16C**
							0.5… 17	**R119-16D**
186	300	79	37.1	2640	44000	G2½	0.2…1.8	**R119-20A**
							0.2…4.0	**R119-20B**
							0.3…9.0	**R119-20C**
							0.5… 17	**R119-20D**
214	360	95	56.0	6600	110000	G3	0.2…1.8	**R119-24A**
							0.2…4.0	**R119-24B**
							0.3…9.0	**R119-24C**
							0.5… 17	**R119-24D**



R119-12



R119-16



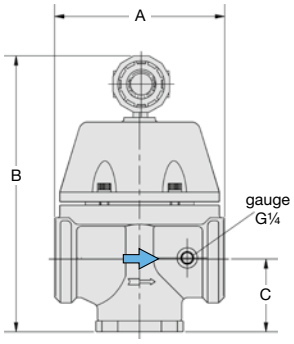
R119-16.F1
accessory: gauge

Special options, add the appropriate letter

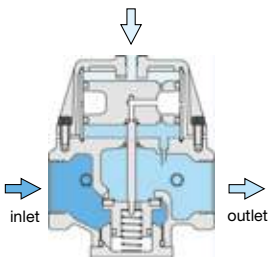
NPT	connection thread		R119-. . .**N**
non-relieving	without relieving function		R119-. . .**K**
FKM elastomer		for G¼ to G1½	R119-. . .**X64**
		for G3	R119-24.**X64**
panel mounting	with handwheel, hole diameter 16 mm	for G¼ to G½	R119-. . .**P**
flange connection	see chapter SST devices / flanges		R119-. . .**F.**
PWIS-free	for painting plants		R119-. . .**LA**

Accessories, enclosed

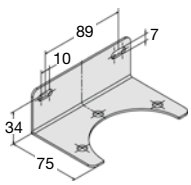
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	for G¼ to G½	**MA5002-..***2
	Ø 63 mm, 0…*2 bar, G¼	for G¾ to G3	**MA6302-..***2
mounting bracket	made of steel	for G¼ and G⅜	**BW00-22**
		for G½	**BW00-23**
		for G¾ to G1½	**BW00-24**



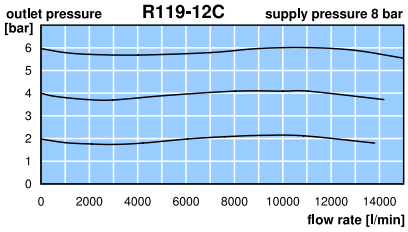
R119-16/-20

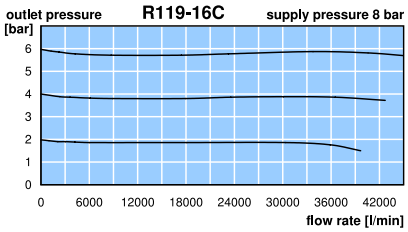


cross-section



BW00-24





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0…2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0…10 bar, **16** = 0…16 bar
*3 reduced by the next larger pressure regulator

* Product group

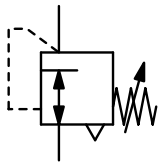
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R119-10C

Standard
2

Description	Good value pressure regulator of solid design. RD1 and RD3 are equipped with diaphragms, RD4 is piston-operated. Wall mounting through two drilled holes in the bodies of RD1 to RD3.
Media	compressed air or non-corrosive gases
Supply pressure	max. 30 bar
Adjustment	RD1/RD2: see chart, by plastic knob with snap-lock RD3: by handwheel RD4: by T-handle
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, G⅛ at RD1
Mounting position	any
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F for RD1, RD2 and RD4 -20 °C to 60 °C / -4 °F to 140 °F for RD3
Material	Body: aluminium Spring cage: plastic reinforced with glass fibre at RD1, nylon at RD2, aluminium at RD3/RD4 Elastomer: NBR/Buna-N Inner valve: brass at RD1/RD2, brass/aluminium at RD3/RD4



G¼ up to G2

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	P_1 max. bar	Connection thread G	Pressure range bar	Order number	A*
Pressure regulator							supply pressure max. 20 / 30 bar, relieving, without pressure gauge		**RD1...RD4**	
40	95	22	0.6	27	450	20	G⅛	0.2…1.5	**RD1-01A**	
								0.3…3.0	**RD1-01B**	
								0.5…8.0	**RD1-01D**	
								1.5… 15	**RD1-01E**	
40	95	22	0.6	27	450	20	G¼	0.2…1.5	**RD1-02A**	
								0.3…3.0	**RD1-02B**	
								0.5…8.0	**RD1-02D**	
								1.5… 15	**RD1-02E**	
64	151	48	3.0	108	1800	20	G⅜	0.2…1.5	**RD2-03A**	
								0.3…3.0	**RD2-03B**	
								0.5…8.0	**RD2-03D**	
								1.5… 15	**RD2-03E**	
64	151	48	3.0	108	1800	20	G½	0.2…1.5	**RD2-04A**	
								0.3…3.0	**RD2-04B**	
								0.5…8.0	**RD2-04D**	
								1.5… 15	**RD2-04E**	
130	190	54	8.4	195	3250	30	G¾	0.2…1.5	**RD3-06A**	
								0.3…3.0	**RD3-06B**	
								0.5…8.0	**RD3-06D**	
								1.5… 15	**RD3-06E**	
130	190	54	8.4	195	3250	30	G1	0.2…1.5	**RD3-08A**	
								0.3…3.0	**RD3-08B**	
								0.5…8.0	**RD3-08D**	
								1.5… 15	**RD3-08E**	
241	190	54	8.4	195	3250	30	G1¼	0.2…1.5	**RD3-10A**	
								0.3…3.0	**RD3-10B**	
								0.5…8.0	**RD3-10D**	
								1.5… 15	**RD3-10E**	
241	190	54	8.4	195	3250	30	G1½	0.2…1.5	**RD3-1AA**	
								0.3…3.0	**RD3-1AB**	
								0.5…8.0	**RD3-1AD**	
								1.5… 15	**RD3-1AE**	



RD1

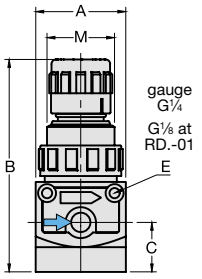


RD2

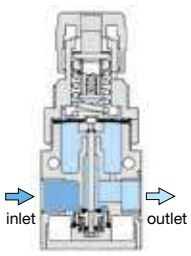


RD3-06/-08

series	D	Ø E	M
RD1	30	4.5	M30x1,5
RD2	51	5.5	M50x1,5
RD3	76	6.5	–
RD4	76	8.5	–



RD1 / RD2



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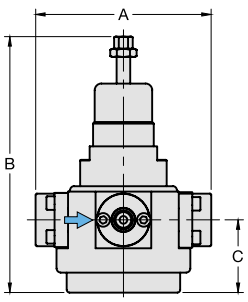
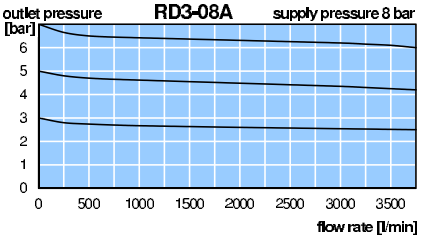


RD3



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0…16 bar

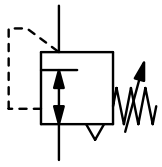
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: RD1-01A

Description	Good value pressure regulator of solid design. RD1 and RD3 are equipped with diaphragms, RD4 is piston-operated. Wall mounting through two drilled holes in the bodies of RD1 to RD3.
Media	compressed air or non-corrosive gases
Supply pressure	max. 30 bar
Adjustment	RD1/RD2: see chart, by plastic knob with snap-lock RD3: by handwheel RD4: by T-handle
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, G⅛ at RD1
Mounting position	any
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F for RD1, RD2 and RD4 -20 °C to 60 °C / -4 °F to 140 °F for RD3
Material	Body: aluminium Spring cage: plastic reinforced with glass fibre at RD1, nylon at RD2, aluminium at RD3/RD4 Elastomer: NBR/Buna-N Inner valve: brass at RD1/RD2, brass/aluminium at RD3/RD4



G¼ up to G2

Standard 2

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	P_1 max. bar	Connection thread G	Pressure range bar	Order number A*
Pressure regulator						supply pressure 30 bar, relieving, without pressure gauge			**RD1...RD4**
192	399	128	25.0	1320	22000	30	G1½	0.2...1.5	**RD4-12A**
								0.3...3.0	**RD4-12B**
								0.5...8.0	**RD4-12D**
								1.5... 15	**RD4-12E**
192	399	128	25.0	1320	22000	30	G2	0.2...1.5	**RD4-16A**
								0.3...3.0	**RD4-16B**
								0.5...8.0	**RD4-16D**
								1.5... 15	**RD4-16E**



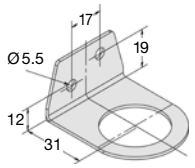
RD4

Special options, add the appropriate letter

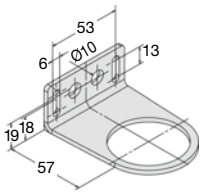
non-relieving	without relieving function	RD.-...**K**
30 bar operating pressure		RD.-...**H**

Accessories, enclosed B*

pressure gauge	Ø 40 mm, 0...*2 bar, G⅛	for RD1	**MA4001-..*2**
	Ø 50 mm, 0...*2 bar, G¼	for RD2	**MA5002-..*2**
	Ø 63 mm, 0...*2 bar, G¼	for RD3 and RD4	**MA6302-..*2**
mounting bracket	made of steel	for RD1	**BW30-02**
mounting nut	made of plastic	for RD1	**M30x1,5K**
mounting bracket	made of steel	for RD2	**BW50-03**
mounting nut	made of plastic	for RD2	**M50x1,5K**
mounting bracket	made of stainless steel	for RD3	**BW45-03S**
mounting nut	made of stainless steel	for RD3	**BW45-03S**

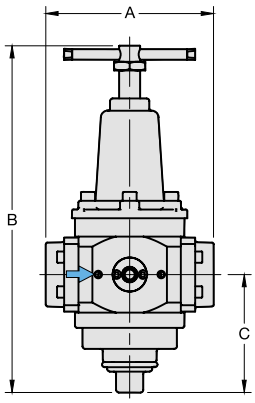


BW30-02

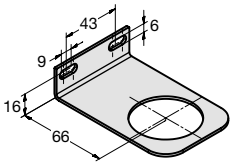


BW50-03

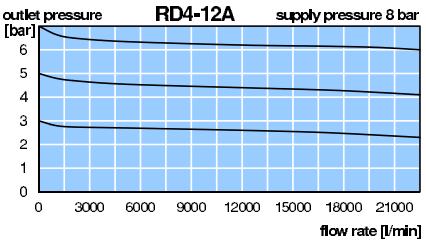
series	D	Ø E	M
RD1	30	4.5	M30x1,5
RD2	51	5.5	M50x1,5
RD3	76	6.5	–
RD4	76	8.5	–



RD4



BW45-03S



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **10** = 0...10 bar, **16** = 0...16 bar

* Product group

Gauges: see chapter for measuring devices

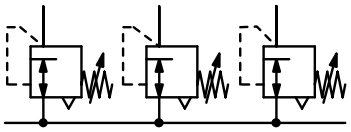
PDF CAD
www.aircom.net

Order example: RD4-12A

Standard

2

Description	Diaphragm pressure regulator, with joint pressure supply. Modular assembly without need for double nipples or other fittings. Outlet at rear side, gauge port in the front.
Media	compressed air or non-corrosive gases
Supply pressure	max. 16 bar, max. 10 bar for R035
Air consumption	without constant bleed
Adjustment	by plastic knob with snap-lock, R035 without snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G⅛ at R035 and RB-02, G¼ at all others
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: zinc die-cast, POM at R035 Adjusting knob: plastic Elastomer: NBR/Buna-N Inner valve: brass Thread insert: brass at R035



G⅛ up to G½ joint supply

Dimensions A mm	B mm	C mm	splitting mm	K_V-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	Price B* €
Pressure regulator supply pressure max. 16 bar, relieving Series R035 max. 10 bar, without pressure gauge									**RB / R035**	
36	61	12	36	0.11	15	250	G⅛	0 … 6	**R035-01RB**	
40	84	12	40	0.60	60	1 000	G¼	0.1 … 3	**RB-02B**	
								0.2 … 6	**RB-02C**	
								0.5 … 10	**RB-02D**	
48	94	22	45	1.3	126	2 100	G¼	0.1 … 3	**RB-A2B**	
								0.2 … 6	**RB-A2C**	
								0.5 … 10	**RB-A2D**	
								0.5 … 16	**RB-A2E**	
70	133	36	66	2.4	240	4 000	G½	0.1 … 3	**RB-04B**	
								0.2 … 6	**RB-04C**	
								0.5 … 10	**RB-04D**	
								0.5 … 16	**RB-04E**	



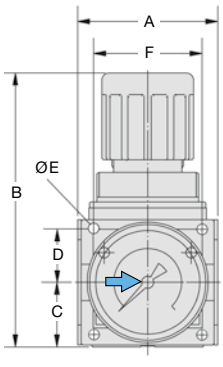
battery block R035



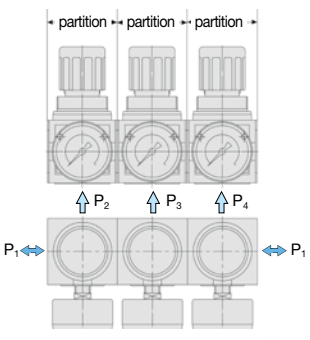
battery block RB

Accessories, enclosed

pressure gauge	Ø 23 mm, 0…*2 bar, G⅛		for RB-02 / R035	**MA2301-..*2**
	Ø 40 mm, 0…*2 bar, G¼, connection parts required		for RB-A2	**MA4001-..*2**
	Ø 50 mm, 0…*2 bar, G¼		for RB-03 / RB-04	**MA5001-..*2**
connection parts	adapter for MA4001, G¼m to G⅛f			**VI-0201**
mounting bracket	made of steel		for RB-02 / RB-A2	**BW30-02**
mounting nut	made of plastic		for RB-02 / RB-A2	**M30x1,5K**
mounting bracket	made of steel		for RB-04	**BW50-03**
mounting nut	made of plastic		for RB-04	**M50x1,5K**
connection clips	made of plastic		for R035	**C350100018**
connector kit	for RB-02	**KP00**		
	for RB-A2	**KP11**	for RB-04	**KP33**



series	D	Ø E	F
R035	8	3.5	20
RB-A2	12	4.4	36
RB-04	18	5.5	54





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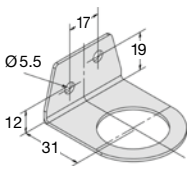
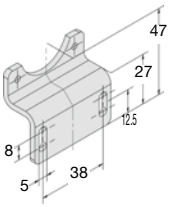
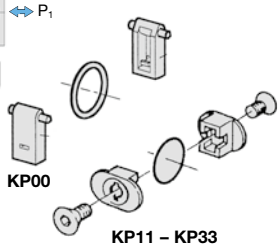


BW30-02

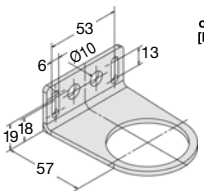


BW00-25

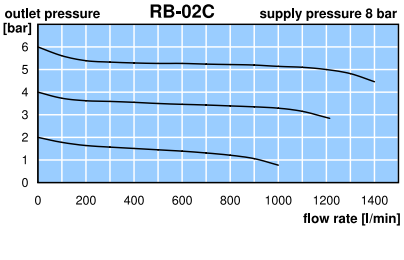


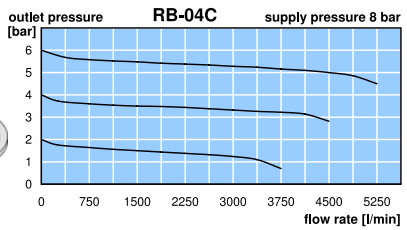
KP00

KP11 – KP33



BW50-03





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar

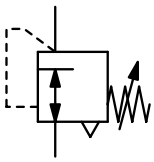
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R035-01RB

Description	Pressure regulator with diaphragm of solid design lockable with key				
Media	compressed air or non-corrosive gases				
Supply pressure	max. 16 bar				
Air consumption	no air consumption				
Adjustment	by handwheel, lockable				
Relieving function	relieving				
Gauge port	G⅛ on both sides of the body				
Mounting position	any				
Temperature range	-10°C to 60°C / 14°F to 140°F				
Material	Body:	zinc die-cast	Diaphragm:	NBR/Buna-N and brass	
	Lock cylinder:	brass	Bottem screw:	POM	
	Spring cage:	POM and brass	O-ring:	NBR/Buna-N	
	Adjusting spring:	steel zinc-plated	Return spring:	stainless steel	



G⅛ up to G1

Standard 2

Dimension A mm	B mm	C mm	K_V-value m³/h	Flow-rate m³/h*1	l/min*1	Connection thread G	Pressure range bar	Order Number	C*
Lockable pressure regulator supply pressure max. 16 bar, NBR elastomer for compressed air and neutral gases								**RS**	
40	113	22	1,2	60	1000	G⅛	0,1 ... 3	**RS-01A**	
							0,2 ... 6	**RS-01B**	
							0,5 ... 10	**RS-01C**	
48	123	27	1,4	90	1500	G¼	0,1 ... 3	**RS-02A**	
							0,2 ... 6	**RS-02B**	
							0,5 ... 10	**RS-02C**	
							0,5 ... 16	**RS-02D**	
69	156	35	5,2	360	6000	G½	0,1 ... 3	**RS-04A**	
							0,2 ... 6	**RS-04B**	
							0,5 ... 10	**RS-04C**	
							0,5 ... 10	**RS-04D**	
100	209	52	6,1	600	10000	G1	0,1 ... 3	**RS-08A**	
							0,2 ... 6	**RS-08B**	
							0,5 ... 10	**RS-08C**	
							0,5 ... 10	**RS-08D**	



RS-01 **RS-02**



RS-04 **RS-08**

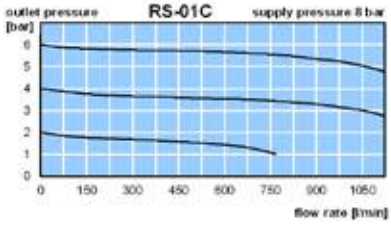
Special options, add the appropriate letter

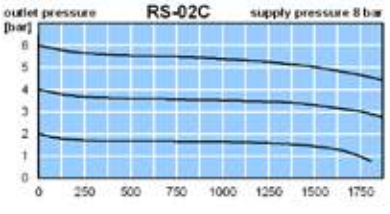
up to -40°C	low temperature version	RS-0 . . **X51**
FKM elastomer		RS-0 . . **V**

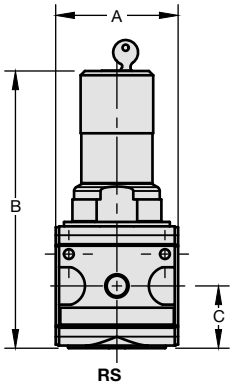
Accessories, enclosed

B*

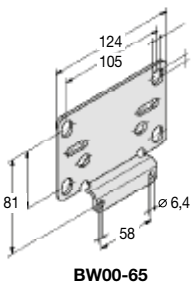
pressure gauge	Ø 40 mm,	0...*2 bar	G⅛	for G⅛	**MA4001-..*2**
	Ø 50 mm,	0...*2 bar	G¼	for G¼ and G½	**MA5002-..*2**
	Ø 63 mm,	0...*2 bar	G¼	for G1	**MA6302-..*2**
mounting nut	made of plastic			for G⅛ and G¼	**M30x1,5K**
	made of aluminium			for G⅛ and G¼	**M30x1,5A**
	made of plastic			G½	**M50x1,5K**
mounting bracket	made of steel			forr G⅛ and G¼	**BW30-02**
				for G½	**BW50-03**
				for G1	**BW00-65**



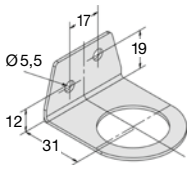




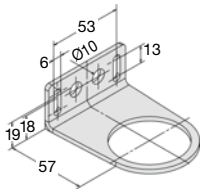
RS



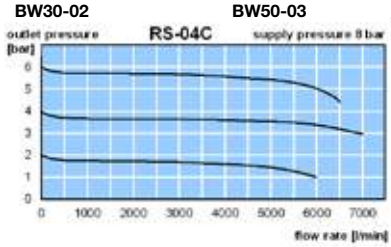
BW00-65

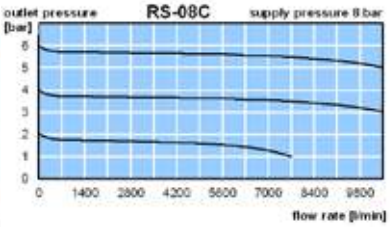


BW30-02



BW50-03





*1 at 8 bar supply pressure , 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar

* Product group

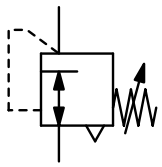
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: RS-01A

270° ADJUSTMENT DIAL PRESSURE REGULATOR, LOCKABLE R11…R41

Description	Piston-operated regulator with balanced valve design and high-relief flow. Features include a transparent pressure-calibrated, non-rising adjusting dial which can be mounted in any position so the dial face is always visible. Pressure setting in steps is possible.
Media	compressed air
Supply pressure	max. 21 bar, minimum 1 bar above outlet pressure
Air consumption	R21/R31/R41: max. 1.4 l/min depending on outlet pressure R11: without constant bleed
Adjustment	The full secondary pressure range can be dialed in less than a 270° turn proportional to handwheel with scale in bar or psi. This is advantageous if secondary pressure must be changed frequently.
Relieving function	relieving
Gauge port	G¼ on both sides of the body, not available at R11
Mounting position	any
Temperature range	0 °C to 65 °C / 32 °F to 149 °F
Material	Body: zinc die-cast Piston: acetal O-ring: NBR/Buna-N Valve seat: acetal, brass and NBR/Buna-N



G¼ up to G2
fast adjustment

Adjustment dial regulator

supply pressure max. 21 bar, relieving, with constant bleed, adjusting dial 270° turn wheel — **R11…R41**

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number B*
66	71	10	0.02	1.2	20	G¼	0… 3	**R11-C2-L**
							0…11	**R11-C2-O**
81	104	24	2.5	180	3000	G¼	0… 3	**R21-C2-L**
							0…11	**R21-C2-O**
81	104	24	3.8	270	4500	G⅜	0… 3	**R21-C3-L**
							0…11	**R21-C3-O**
81	104	43	4.2	300	5000	G½	0… 3	**R21-C4-L**
							0…11	**R21-C4-O**
109	132	43	6.8	480	8000	G¾	0… 3	**R31-C6-L**
							0…11	**R31-C6-O**
109	132	43	7.6	540	9000	G1	0… 3	**R31-C8-L**
							0…11	**R31-C8-O**
135	173	71	18.5	1320	22000	G1½	0… 3	**R41-CB-L**
							0…11	**R41-CB-O**
135	173	71	20.0	1440	24000	G2	0… 3	**R41-CC-L**
							0…11	**R41-CC-O**



R21



R31



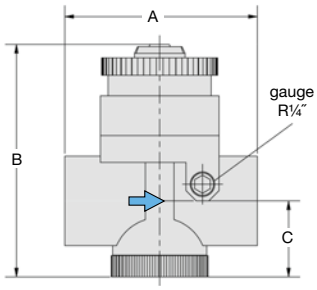
R41

Special options, add the appropriate letter

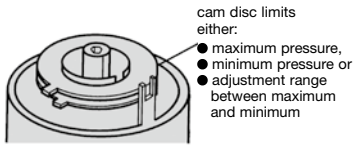
adjustment lock	RRP-95-585	R.1-C . - . **T**

Accessories, enclosed

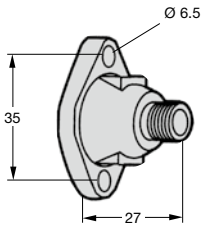
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	for R21 to R41	**MA5002-..*2**
mounting bracket	mounting through the gauge port at the back	for R21 to R41	**RRP-95-590**



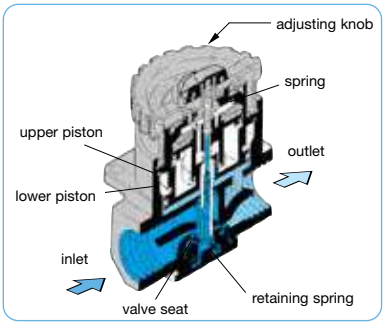
R11…R41



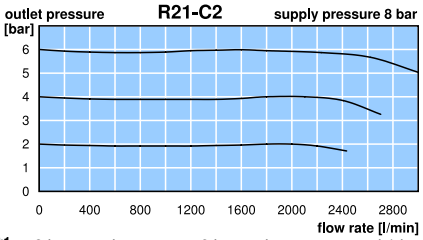
adjustment lock
RRP-95-585

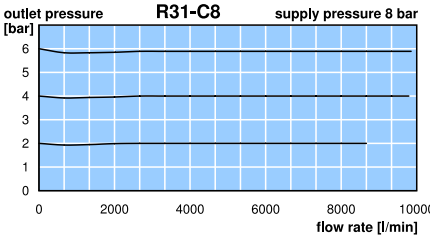


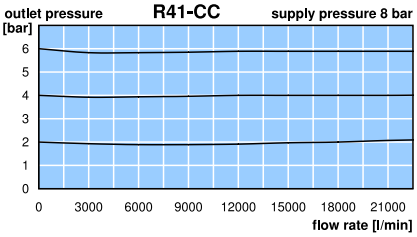
mounting bracket
RRP-95-590



cross-section







*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0…4 bar, **16** = 0…16 bar

* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R11-C2-L

LOW PRESSURE REGULATORS

	DESCRIPTION	SUPPLY PRESSURE max. bar	PRESSURE RANGE mbar	CONNECTION thread	SERIES	PAGE
STANDARD	also for propane and other gases	16	factory-set 50	G¼ - G½	R01	**3.02**
	miniature, manually adjustable	16	25 ... 50 / 1400	G¼ and G⅜	R01-5/-6	**3.03**
	miniature	10	20 ... 150	G½	R01-4	**3.03**
	for many different gases	0.4	2 ... 16 / 160	G½ - G2	RGDJ	**3.04**
	for many different gases	4	5 ... 12 / 350	G½ - G1½	RGB4	**3.05**
	for many different gases	7	5 ... 45 / 3000	G½ - G2	R160	**3.06**
	for many different gases	20	10 ... 18 / 4400	G1 - flange DN50	RZ	**3.08**
PRECISE	with relieving function	10	2 ... 45 / 350	G⅜ - G¾	R4100	**3.09**
	for pure gases 5.0	20	5 ... 50 / 1500	G½	RR	**3.10**
	Nullmatic	35	2 ... 120 / 31000	¼"NPT	R40	www*
	relatively small	10	2 ... 35 / 800	G¼ - G½	R110	5.11
MADE OF STAINLESS STEEL	for many different gases	7	5 ... 45 / 3000	G½ - G2	R3100	15.14
VOLUME BOOSTER	for many different gases	20	10 ... 350 / 1000	G1 - G2	RZ-J	6.12
	for many different gases	0.4	2 ... 55 / 100	G½ - G2	RGDJ-J	6.15
	for many different gases	4	5 ... 350	G½ - G1½	RGB4-J	6.15
BACK PRESSURE REGUL.	precise	10	2 ... 35 / 800	G¼ - G½	DB110	8.08
	precise	6	5 ... 45 / 3000	G½ - G2	DBC	8.11

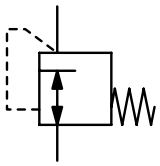


3

* see in our Webshop: www.aircom.net

LOW PRESSURE REGULATOR WITH FACTORY-SET OUTLET PRESSURE OF 50 MBAR R01

Description	Low pressure regulator with factory-set outlet pressure of 50 mbar and an integrated safety valve, (except for regulator R01-415), which opens at approx. 130-150 mbar. Therefore not for gas pressure regulation in closed rooms.	
Media	compressed air, propane, butane or other non-corrosive gases	
Supply pressure	max.16 bar at R01-415, R01-405,	max. 2.5 bar bei R01-319/-604/-641
Accuracy	at max. supply pressure and flow:	< 15 % FS pressure deviation
	at max. supply pressure without flow:	< 25 % FS pressure deviation
	at min. supply pressure and flow:	< 5 % FS pressure deviation
Air consumption	without constant bleed	
Relieving function	non-relieving	
Gauge port	G¼ on one side of the body, except on R01-319/-415	
Mounting position	any	
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F	
Material	Body: zinc die-cast, chrome-plated	Inner valve: brass
	Elastomer: NBR/Buna-N	



G¼ and G½
50 mbar

Low pressure regulator

supply pressure max. 2.5 / 16 bar, non-relieving, 50 mbar factory-set — **R01**

Dimensions A mm	B mm	ØT mm	Flow rate m³/h	l/min	Supply pressure max. bar	Connection thread G	Outlet pressure mbar	Order number	D*
100	44	86	1.2	20	16	G¼	50	**R01-415**	
138	92	118	3.0	50	2.5	G½	50	**R01-604**	
138	117	118	9.6	160	2.5	G½	50	**R01-641**	
160	133	145	19.8	330	2.5	G½	50	**R01-319**	
138	92	118	3.0	50	16	G½	50	**R01-405**	



R01-415



R01-319

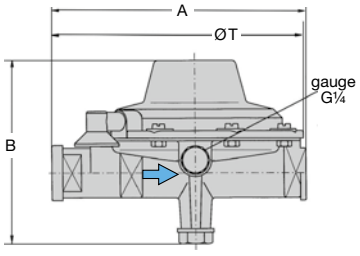
Accessories, enclosed

B*

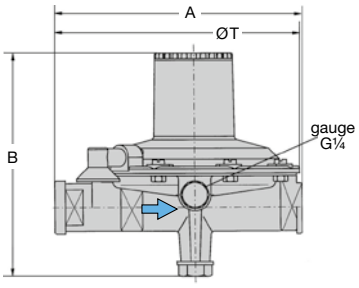
pressure gauge	Ø 63 mm, 0...60 mbar, G¼	not for R01-319/-415	**MA6302-B6**



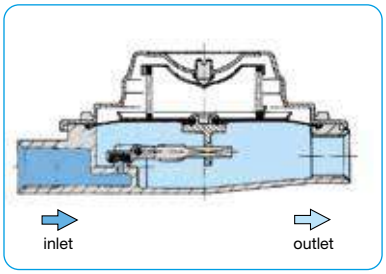
R01-604



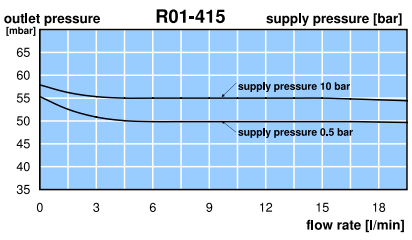
R01-405 / -604

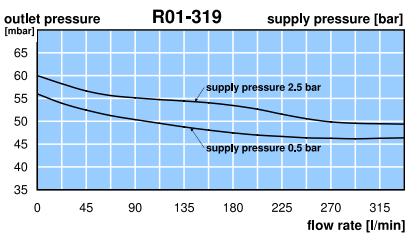


R01-641



cross-section





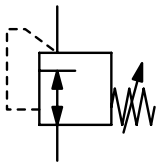
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R01-415

Description	The low pressure regulator is manually adjustable. Version R01-4 has an integrated safety valve which opens at a pressure of 1.5 times of the max. outlet pressure, thus not suitable for gas pressure regulation in closed rooms.
Media	compressed air, propane, butane or other non-corrosive gases as well as oil
Supply pressure	max. 16 bar at R01-5/-6, max. 10 bar at R01-4
Accuracy	at min. supply pressure and flow: < 5% FS pressure deviation at max. supply pressure and flow: < 15% FS pressure deviation at max. supply pressure without flow: < 25% FS pressure deviation
Air consumption	without constant bleed
Mounting position	any
Adjustment	R01-5/-6: by adjusting knob a. dial enabling eleven settings for different outlet pressures R01-4 by T-handle with locknut
Relieving function	non-relieving
Gauge port	G¼ on one side of the body, except on R01-5/-6
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N Inner valve: brass



G¼ up to G½
25…50/1400 mbar

Dimensions A mm	B mm	ØT mm	Flow rate l/min	Supply pressure empfohlen	Connection thread G	Pressure range mbar	Order number	D*
Low pressure regulator				supply pressure max. 16 bar, non-relieving, without gauge port			**R01-5/-6**	
100	68	68	13	2.5	G¼	25… 50	**R01-524-00**	
100	68	68	7	6.0	G¼	20… 200	**R01-524-05**	
100	68	68	26	6.0	G¼	70… 200	**R01-522-01**	
100	68	68	50	2.5	G¼	30… 200	**R01-524-06**	
103	50	83	40	6.0	G⅜*1	350…1400	**R01-626**	
103	50	83	140	6.0	G⅜*1	350…1400	**R01-627**	
Low pressure regulator				supply pressure max. 10 bar, non-relieving			**R01-4**	
138	127	117	140	2.5	G½	20… 150	**R01-411-01**	



R01-524-00



R01-627

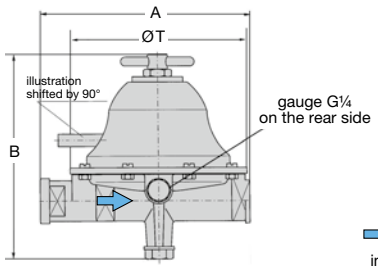


R01-411-01

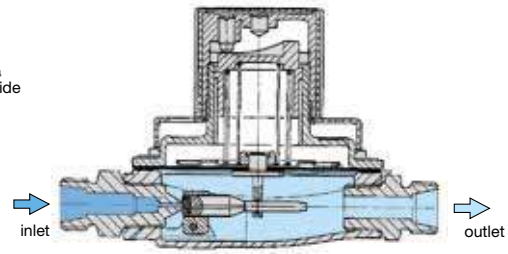
Accessories, enclosed

B*

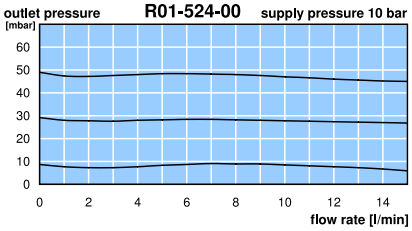
pressure gauge	Ø 63 mm, 0…250 mbar, G¼, capsule type	for R01-411-01	**MA6302-C3**

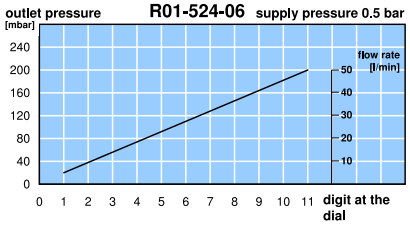


R01-411



cross-section





*1 G¼ eingangsseitig *2 G½ eingangsseitig

* Product group

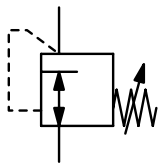
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R01-524-00

LOW PRESSURE REGULATOR, SUPPLY PRESSURE MAX. 400 MBAR RGDJ

Description	Highly sensitive low pressure regulator with inlet pressure compensation for high precision regulation. Zero shut-off prevents outlet pressure from increasing.
Media	compressed air or non-corrosive gases, dryly biogas H_2S < 200 ppm
Supply pressure	max. 400 mbar
Air consumption	without constant bleed
Adjustment	manual by turning the spindle under the cover of the spring cage
Relieving function	non-relieving
Accuracy	at maximum volume flow: < 20% FS pressure deviation
Gauge port	none as standard, optionally gauge port G¼ on one side from size R¾″ on
Mounting position	any, preferably bonnet upwards
Temperature range	-20 °C to 70 °C / -4 °F to 158 °F
Material	Body: aluminium Inner valve: aluminium and plastic Elastomer: NBR/Buna-N



R½″ up to R2″
2…16/160 mbar

Low pressure
3

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread R	Pressure range mbar	Order number	D*
Low pressure regulator supply pressure max. 400 mbar, non-relieving									**RGDJ**	
100	120	30	15	0.66	12	200	½″	2… 16	**RGDJ-04A**	
								10… 20	**RGDJ-04B**	
								16… 28	**RGDJ-04C**	
								22… 40	**RGDJ-04D**	
								40… 55	**RGDJ-04E**	
134	166	34	20	1.49	27	450	¾″	5… 15	**RGDJ-06A**	
								12… 25	**RGDJ-06B**	
								22… 35	**RGDJ-06C**	
								30… 50	**RGDJ-06D**	
								45… 65	**RGDJ-06E**	
								60… 80	**RGDJ-06G**	
								75…100	**RGDJ-06I**	
								100…160	**RGDJ-06L**	
134	166	34	25	2.6	51	850	1″	pressure range see R3/4	**RGDJ-08.**	
185	194	45	40	4.9	90	1500	1½″	5… 15	**RGDJ-12A**	
								12… 25	**RGDJ-12B**	
								22… 35	**RGDJ-12C**	
								30… 50	**RGDJ-12D**	
								45… 65	**RGDJ-12E**	
								60… 80	**RGDJ-12G**	
								75…100	**RGDJ-12I**	
								100…160	**RGDJ-12L**	
234	219	52	50	6.6	120	2000	2″	5… 15	**RGDJ-16A**	
								12… 25	**RGDJ-16B**	
								22… 35	**RGDJ-16C**	
								30… 50	**RGDJ-16D**	
								45… 65	**RGDJ-16E**	
								60… 80	**RGDJ-16G**	
								75…100	**RGDJ-16I**	



RGDJ-04



RGDJ-12

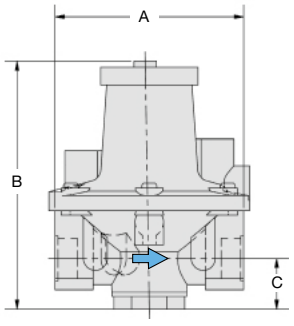
Special options, add the appropriate letter

Connection thread G¼	for pressure gauge	not for R½″	RGDJ-. . . **M**

Accessories, enclosed

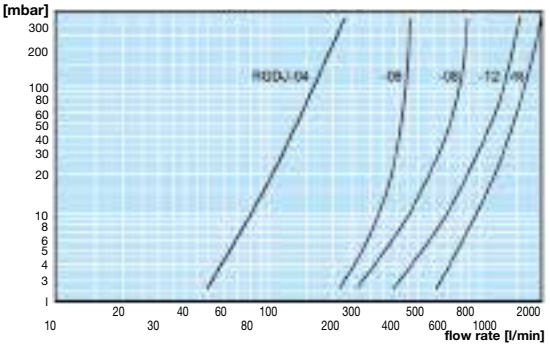
B*

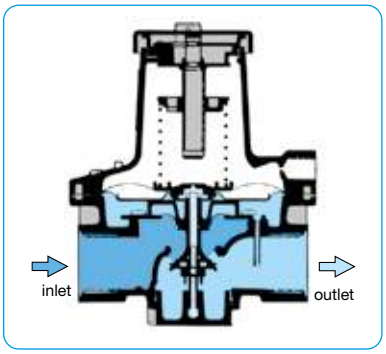
pressure gauge	Ø 63 mm, 0…*2 mbar, G¼	from R¾″	**MA6302-..*2**



RGDJ

ΔP pressure difference *3 [mbar] flow dependent on supply and outlet pressure





cross-section

*1 at 350 mbar supply pressure and 100 mbar outlet pressure
*2 **B6** = 0…60 mbar, **C2** = 0…160 mbar
*3 $\Delta p = P_1 - P_2$, difference between supply and outlet pressure

* Product group

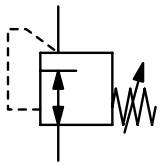
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: RGDJ-04A

LOW PRESSURE REGULATOR, SUPPLY PRESSURE MAX. 4 BAR RGB4

Description	Highly sensitive low pressure regulator with inlet pressure compensation for high precision regulation. Zero shut-off prevents outlet pressure from increasing.
Media	compressed air or non-corrosive gases
Supply pressure	max. 4 bar
Air consumption	without constant bleed
Adjustment	manual by turning the spindle under the cover of the spring cage
Relieving function	non-relieving
Accuracy	max. < 20% pressure drop at full flow
Gauge port	none as standard, optionally gauge port G¼ on one side at R½″ and R1″, standard G¼ at R1½″
Mounting position	any, preferably bonnet upwards
Temperature range	-15 °C to 60 °C / 5 °F to 140 °F
Material	Body: aluminium Inner valve: aluminium and plastic Elastomer: NBR/Buna-N



R½″ up to R1½″
5…12/350 mbar

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread R	Pressure range mbar	Order number	D*
Low pressure regulator supply pressure max. 4 bar, non-relieving									**RGB4**	
132	174	24	15	0.62	42	700	½″	5… 12	**RGB4-04A**	
								10… 30	**RGB4-04C**	
								25… 45	**RGB4-04D**	
								40… 60	**RGB4-04E**	
								55… 75	**RGB4-04F**	
								70… 90	**RGB4-04G**	
								85…105	**RGB4-04H**	
								100…160	**RGB4-04I**	
								150…230	**RGB4-04K**	
								220…350	**RGB4-04L**	
190	230	33	25	2.5	168	2800	1″	5… 12	**RGB4-08A**	
								10… 30	**RGB4-08C**	
								25… 45	**RGB4-08D**	
								40… 60	**RGB4-08E**	
								55… 75	**RGB4-08F**	
								70… 90	**RGB4-08G**	
								85…105	**RGB4-08H**	
								100…160	**RGB4-08I**	
								150…230	**RGB4-08K**	
								220…350	**RGB4-08L**	
190	265	55	40	5	336	5600	1½″	5… 12	**RGB4-12A**	
								10… 30	**RGB4-12C**	
								25… 45	**RGB4-12D**	
								40… 60	**RGB4-12E**	
								55… 75	**RGB4-12F**	
								70… 90	**RGB4-12G**	
								85…105	**RGB4-12H**	
								100…160	**RGB4-12I**	
								150…230	**RGB4-12K**	
								220…350	**RGB4-12L**	



RGB4-04



RGB4-08

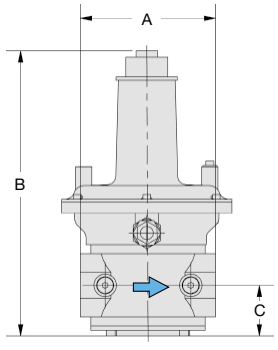
Special options, add the appropriate letter

connection thread G¼	for pressure gauge	for R½″ and R1″	RGB4-. . .**M**

Accessories, enclosed

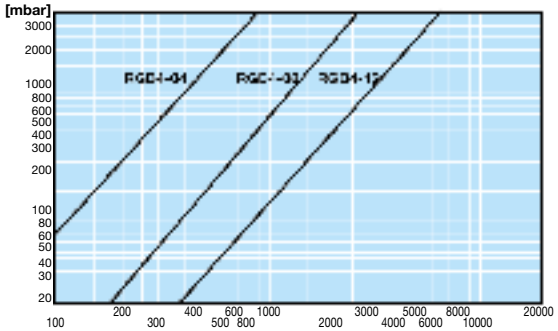
B*

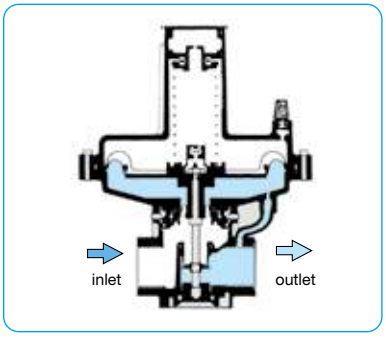
pressure gauge	Ø 63 mm, 0…*2 mbar, G¼	**MA6302-..*2**



RGB4

ΔP pressure difference *3 flow dependent on supply and outlet pressure





cross-section

*1 at 4 bar supply pressure and 100 mbar outlet pressure

*2 **B6** = 0…60 mbar, **C2** = 0…160 mbar, **C3** = 0…250 mbar, **C4** = 0…400 mbar

*3 $\Delta P = P_1 - P_2$ difference between supply and outlet pressure

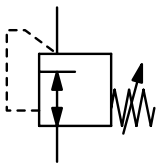
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
RGB4-04A

Description	Low pressure regulator with large diaphragm for good accuracy and high sensitivity.
Media	compressed air or non-corrosive gases
Supply pressure	see chapter, max. 7 bar, min. 1 bar
Air consumption	without constant bleed
Adjustment	for G½ and G¾: by handwheel with locknot for G1: by hexagon head screw with locknut
Relieving function	non-relieving
Gauge port	G¼ on both sides of the body, screw plug supplied
Mounting position	any
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F
Material	Body: aluminium coated O-rings: NBR/Buna-N, optionally FKM or EPDM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel / brass Spring cage: stainless steel



G½ up to G2
5…45/1200 mbar

Low pressure
3

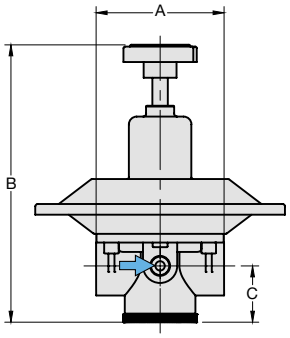
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	P_1 max. bar	Connection thread G	Pressure range mbar	Order number	D*
Low pressure regulator				supply pressure max. 6 / 7 bar, non-relieving, without constant bleed					**R160**	
82	188	38	0.75	60	1000	6	G½*3	5… 45	**R160-04A**	
								20… 200	**R160-04B**	
								150… 700	**R160-04C**	
154	233	69	1.4	96	1600	7	G¾	5… 45	**R160-06A**	
								10… 120	**R160-06B**	
								10… 400	**R160-06C**	
154	292	53	8.4	576	9600			15… 700	**R160-06D**	
								200…1200	**R160-06E**	
154	233	69	1.4	96	1600	7	G1	5… 45	**R160-08A**	
								10… 120	**R160-08B**	
								10… 400	**R160-08C**	
154	292	53	8.4	576	9600			15… 700	**R160-08D**	
								200…1200	**R160-08E**	
263	233	69	8.4	180	3000	7	G1¼	5… 45	**R160-10A**	
								10… 120	**R160-10B**	
								10… 400	**R160-10C**	
263	292	53	8.4	576	9600			15… 700	**R160-10D**	
								200…1200	**R160-10E**	
263	233	69	8.4	180	3000	7	G1½	5… 45	**R160-1AA**	
								10… 120	**R160-1AB**	
								10… 400	**R160-1AC**	
263	292	53	8.4	576	9600			15… 700	**R160-1AD**	
								200…1200	**R160-1AE**	



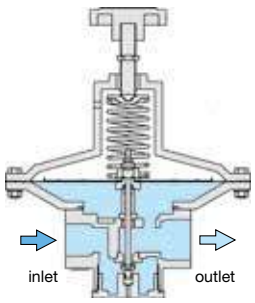
R160-04



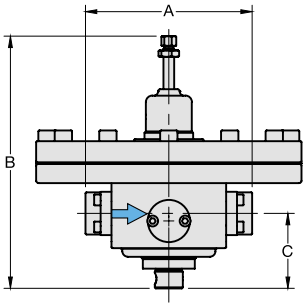
R160-06 /-08



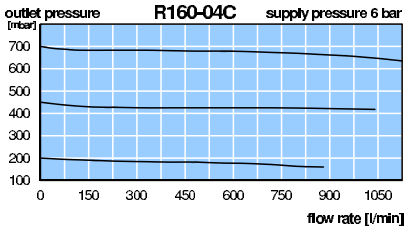
R160-04

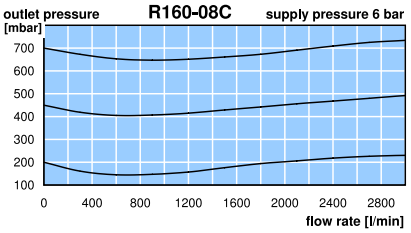


cross-section



R160-06/-08/-10/-1A (A/B/C)





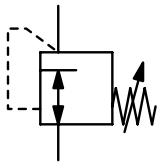
*1 at 6 bar supply pressure and max. outlet pressure *2 see description above *3 thread at outlet G¾

* Product group

PDF CAD
www.aircom.net

Order example:
R160-04A

Description	Low pressure regulator with large diaphragm for good accuracy and high sensitivity.
Media	compressed air or non-corrosive gases
Supply pressure	max. 7 bar, min. 1 bar
Air consumption	without constant bleed
Adjustment	for G½ and G¾: by handwheel with locknot for G1: by hexagon head screw with locknut
Relieving function	non-relieving
Gauge port	G¼ on both sides of the body, screw plug supplied
Mounting position	any
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F
Material	Body: aluminium coated O-rings: NBR/Buna-N, optionally FKM or EPDM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel / brass Spring cage: stainless steel



G½ up to G2
5…45/1200 mbar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	P_1 max. bar	Connection thread G	Pressure range mbar	Order number	D*
Low pressure regulator supply pressure max. 6 / 7 bar, non-relieving, without constant bleed									**R160**	
192	468	128	6.2	420	7000	6	G1½	20… 50	**R160-12A**	
								50… 150	**R160-12B**	
								150… 300	**R160-12C**	
			25	1680	28000			100…1000	**R160-12D**	
192	468	128	6.2	420	7000	6	G2	20… 50	**R160-16A**	
								50… 150	**R160-16B**	
								150… 300	**R160-16C**	
								100…1000	**R160-16D**	



R160-12/-16

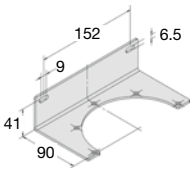
Special options, add the appropriate letter

NPT	connection thread, A=141 mm	for G½		R160-. . . **N**
NPT	connection thread	for G¾	to G2	R160-. . . **N**
SST inner parts	for ammonia NH_3			R160-. . . **02**
FKM -O-ring	PTFE diaphragm			R160-. . . **T**
EPDM-O-ring				R160-. . . **TE**
EPDM-O-ring	FDA-approval			R160-. . . **TD**
carbon dioxide	CO_2			R160-. . . **03**
argon	Ar			R160-. . . **05**
nitrogen	N_2			R160-. . . **07**
helium	He			R160-. . . **09**
hydrogen	H_2			R160-. . . **11**
methane	CH_4			R160-. . . **13**
natural gas *4				R160-. . . **14**
oxygen	O_2	for G½ bis G1½ (1A)		R160-. . . **15**
propane	C_3H_8			R160-. . . **16**
nitrous oxide	N_2O			R160-. . . **17**
flange connection	see chapter for stainless steel devices			R160-. . . **F.**

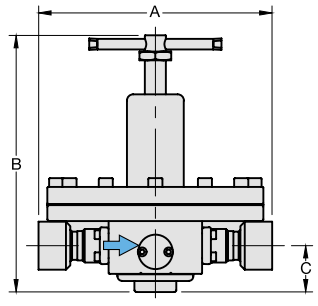
Accessories, enclosed

B*

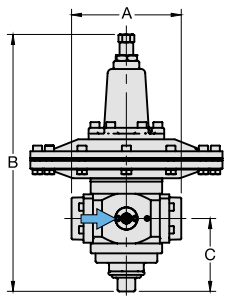
pressure gauge	Ø 63 mm, 0…*2 mbar, G¼, capsule type, connection parts required		**MA6302-. .** *2
	Ø 63 mm, 0…*2 bar, G¼, Bourdon tube, connection parts required		**MA6302-. .** *2
connection parts	for pressure gauge, made of brass, not for NH_3	for G½	**AM-01**
connection parts	for pressure gauge, made of stainless steel, for NH_3	for G½	**AM-03S**
mounting bracket	made of stainless steel	for G½	**BW00-26S**



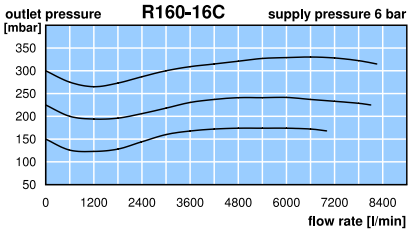
BW00-26S



R160-06/-08/-10/-1A/ (D/E)



R160-12/-16



*1 at 6 bar supply pressure and max. outlet pressure
*2 **B6** = 0…60 mbar, **C2** = 0…160 mbar, **C3** = 0...250 mbar, **C4** = 0…400 mbar, **01** = 0...1 bar, **04** = 0...4 bar, **06** = 0...6 bar
*4 without DVGW approval

* Product group

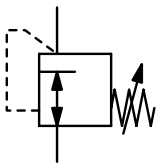
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R160-12A

LOW PRESSURE REGULATOR, SUPPLY PRESSURE MAX. 20 BAR RZ

Description	Highly sensitive diaphragm pressure regulator.
Media	compressed air or non-corrosive gases
Supply pressure	max. 20 bar depending on the accuracy range AR: the smaller P_1 the higher the accuracy, min. 1 bar max. 10 bar at pressure range < 120 mbar
Accuracy	at maximum volume flow < e.g. 10% FS pressure deviation
Air consumption	without constant bleed
Adjustment	manual by turning the spindle under the cover of the spring cage
Relieving function	non-relieving, optionally relieving
Relief capacity	Can be adjusted independently of outlet pressure. On non-relieving designs: blocked exhaust valve.
Gauge port	not available **Mounting position** any
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F
Material	Body: SG cast iron GGG50, GGG40 at DN50 Elastomer: NBR/Buna-N, optionally FKM Spring cage: aluminium Inner valve: brass and stainless steel



G1 up to flange DN50
15…20/4400 mbar

Low pressure 3

Low press. regulator w. positioning spring

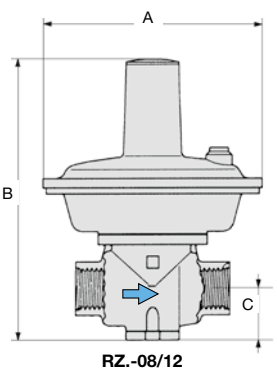
P1: max. 20 bar, non-relieving — **RZ**

Dimensions A mm	B mm	C mm	Accuracy %	Nominal size DN	Flow rate l/min*1	P_1 max. bar*2	Connection thread G	Pressure range mbar	Order number	D*
185	245	30	10	17	1800	10	G1	15 … 20	**RZ1-08A**	
			10		1800	10		20 … 30	**RZ1-08B**	
			10		1800	10		30 … 40	**RZ1-08C**	
			10		1800	10		40 … 70	**RZ1-08D**	
			10		1800	10		70 … 110	**RZ1-08E**	
			10		3300	16/20		110 … 180	**RZ2-08F**	
			10		3300	16/20		180 … 300	**RZ2-08G**	
			5		4100	16/20		300 … 700	**RZ3-08H**	
185	245	30	10	17	2700	10	G1½*3	15 … 20	**RZ1-12A**	
			10		2700	10		20 … 30	**RZ1-12B**	
			10		2700	10		30 … 40	**RZ1-12C**	
			10		2700	10		40 … 70	**RZ1-12D**	
			10		2700	10		70 … 110	**RZ1-12E**	
			10		5000	16/20		110 … 180	**RZ2-12F**	
			10		5000	16/20		180 … 300	**RZ2-12G**	
			5		5000	16/20		300 … 700	**RZ3-12H**	
254	460	80	5	22	15000	10	flange	10 … 18	**RZ1-16AF**	
			5		15000	10	DN50	15 … 30	**RZ1-16BF**	
			5		15000	10		25 … 49	**RZ1-16CF**	
			5		25000	10		40 … 75	**RZ1-16DF**	
			5		25000	10		62 … 120	**RZ1-16EF**	
			5		25000	10		100 … 170	**RZ1-16FF**	
			5		25000	20		145 … 270	**RZ1-16GF**	
			5		25000	20		230 … 350	**RZ1-16HF**	
			5	34	28000	20		280 … 720	**RZ2-16IF**	
			5		28000	20		840 …1250	**RZ2-16KF**	

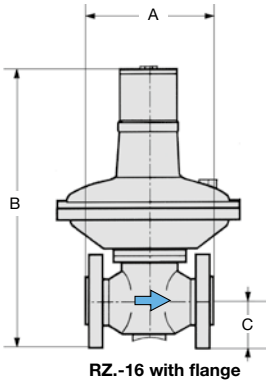
Special options, add the appropriate letter

further ranges	RZ3-08 / -12	700…1100	**I**	1100…2000	**J**	2000…3000	RZ3-. .	**K**
further ranges	RZ2-16	1050…2300	**L**			2000…4400	RZ3-16	**M**
relieving	with relieving function, adjustable						RZ .-. . .	**R**
FKM elastomer							RZ .-. . .	**V**
flange connection	see chapter for stainless steel devices / flanges						RZ .-. . .	**F.**

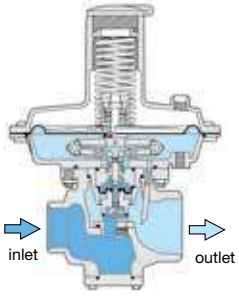
nitrogen	N_2:	**07**	**carbon dioxide**	CO_2:	**03**	**argon**	Ar:	RZ .-. . . **05**
helium	He:	**09**	**hydrogen**	H_2:	**11**	**methane**	CH_4:	RZ .-. . . **13**
oxygen	O_2:	**15** (max. 16 bar)	**propane**	C_3H_8:	**16**	**nitrous oxide**	N_2O:	RZ .-. . . **17**



RZ.-08/12



RZ.-16 with flange



cross-section

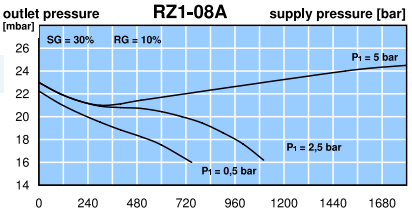
*1 at 4 bar supply pressure and max. outlet pressure *2 see description above *3 G1 thread at inlet

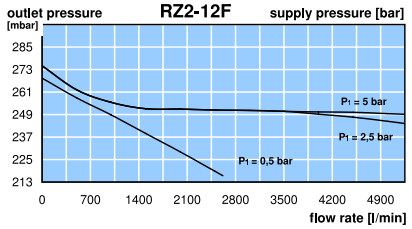


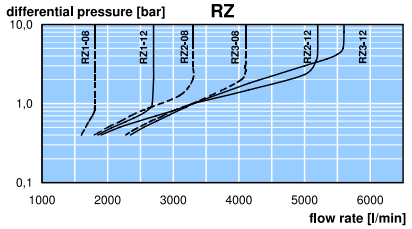
RZ2-08F



RZ1-16AF







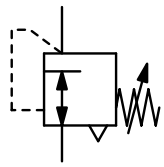
* Product group

PDF CAD
www.aircom.net

Order example:
RZ1-08A

PRECISION LOW PRESSURE REGULATOR, WITH RELIEVING FUNCTION R4100

Description	High precision diaphragm pressure regulator with high flow, without zero shut-off (counterpressure is required).
Media	compressed air or non-corrosive gases
Supply pressure	max. 10 bar
Accuracy	sensitivity < 2 mbar
Air consumption	without constant bleed
Adjustment	by handwheel with locknut
Relieving function	relieving
Gauge port	G¼ on both sides of the body, screw plug supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194°F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body aluminium die-cast Elastomer: NBR/Buna-N Inner valve: stainless steel, brass, aluminium and steel

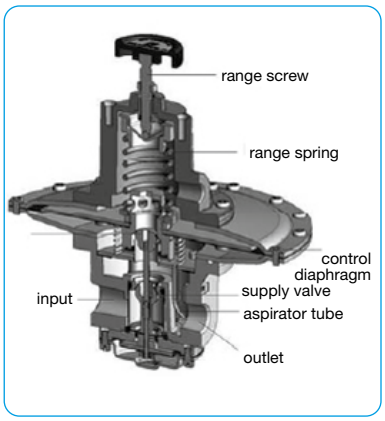


G⅜ up to G¾
2…45/350 mbar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range mbar	Order number	D*
Precision low pressure regulator							P1: max. 10 bar, relieving, without constant bleed	**R4100**	
87	219	40	0.24	30	500	G⅜	2… 45	**R4100-03A**	
							2… 95	**R4100-03B**	
							5…210	**R4100-03C**	
							5…350	**R4100-03D**	
87	219	40	0.27	36	600	G½	2… 45	**R4100-04A**	
							2… 95	**R4100-04B**	
							5…210	**R4100-04C**	
							5…350	**R4100-04D**	
87	219	40	0.30	42	700	G¾	2… 45	**R4100-06A**	
							2… 95	**R4100-06B**	
							5…210	**R4100-06C**	
							5…350	**R4100-06D**	



R4100



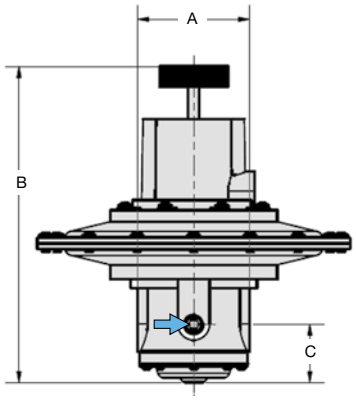
cross-section

Special options, add the appropriate letter

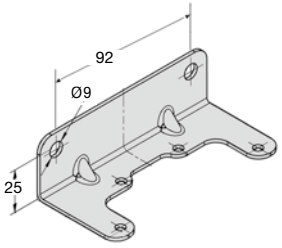
NPT	connection thread	R4100-. . .**N**
tapped exhaust	connection thread G¼	R4100-. . .**X12**
tamper-proof cap	made of aluminium, adjustment by screwdriver, height 295 mm	R4100-. . .**T**
FKM elastomer		R4100-. . .**V**
flange connection	see chapter for stainless steel devices / flanges	R4100-. . .**F.**

Accessories, enclosed B*

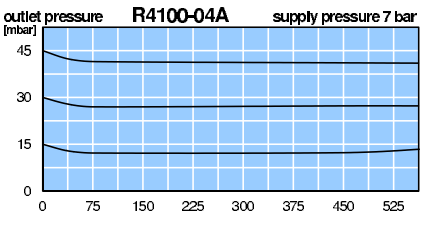
pressure gauge	Ø 63 mm, 0…*2 mbar, G¼	**MA6302-. .** *2
mounting bracket	made of steel	**BW00-47**



R4100



BW00-47



*1 at 10 bar supply pressure and max. outlet pressure *2 **B6** = 0...60 mbar, **C2** = 0...160 mbar, **C3** = 0...250 mbar, **C4** = 0...400 mbar

* Product group

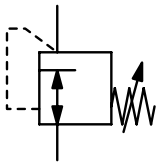
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R4100-03A

PRECISION LOW PRESSURE REGULATOR FOR PURE GASES UP TO 5.0 PURITY RR

Description	Precision regulator in mbar range without auxiliary power. Accurate and reliable regulation with large diaphragm for high sensitivity
Media	compressed air or non-corrosive gases up to 5.0 purity (99.999% vol.)
Supply pressure	max. 20 bar
Air consumption	without constant bleed
Adjustment	by handwheel with locknut
Relieving function	non-relieving
Gauge port	G½ on the bottom side of the body, screw plug supplied
Mounting position	any
Temperature range	-20 °C to 70 °C / -4 °F to 158 °F, for CO_2 up to 40 °C / 104 °F
Material	Body: grey-coated brass Diaphragm: EPDM with PTFE coating O-rings: NBR/Buna-N Inner valve: brass



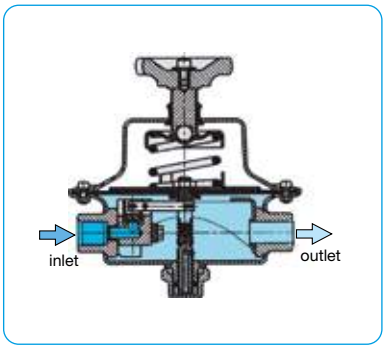
G½
5…50/1500 mbar

Low pressure 3

Dimensions A mm	B mm	C mm	Flow rate m³/h*1	l/min*1	Connection thread G	Pressure range mbar/bar	Order number	D*
Low pressure regulator					supply pressure max. 20 bar, non-relieving, without constant bleed		**RR**	
164	156	41	5	75	G½	5 … 50 mbar	**RR-04A**	
			12	200		10 … 100 mbar	**RR-04B**	
			30	500		50 … 500 mbar	**RR-04C**	
			45	750		0.1 … 1 bar	**RR-04D**	
			51	850		0.2 … 1.5 bar	**RR-04E**	



RR



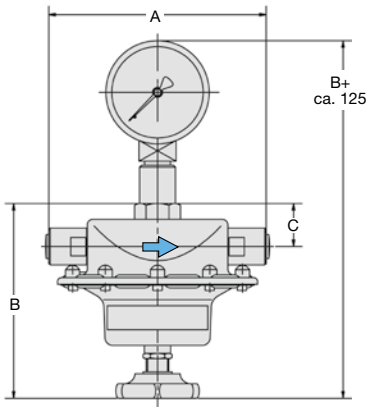
cross-section

Special options, add the appropriate letter

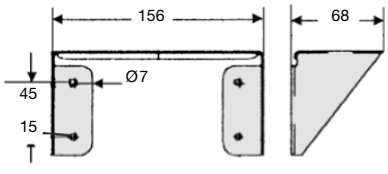
free of grease and oil	suitable for oxygen and flammable gases		RR- . . . **L**
pressure gauge	Ø 100 mm, 0… bar,	handwheel at the bottom	RR- . . . **G**

Accessories, enclosed

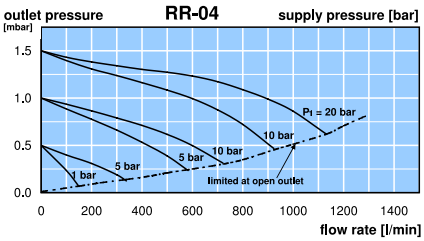
mounting bracket	made of steel	for RR-04	**BW00-64**

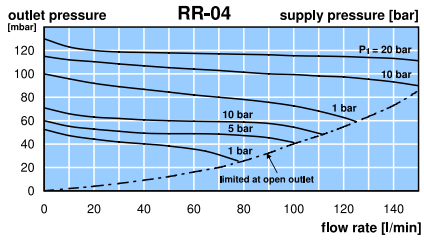


RR-04 with gauge



BW00-64





*1 at 6 bar supply pressure and open outlet

* Product group

PDF CAD
www.aircom.net

Order example:
RR-04A

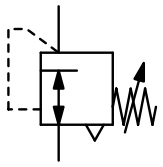
HIGH PRESSURE REGULATORS

	DESCRIPTION		SUPPLY PRESSURE max. bar	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
PRESS. REGULATOR	also for liqudis and O_2	Kv: 0.3 - 25.6	40	0.2 ... 3 / 35	G¼ - G2	R280	**4.02**
	for many different gases	Kv: 0.2 - 70	50	0.1 ... 1.5 / 50	G⅛ - G4	R120	**4.04**
	also for liquids	Kv: 1.3 - 3.2	60	0.5 ... 12 / 50	G¼ - G1	R286	**4.08**
	low cost	Kv: 0.02	207	0.1 ... 3.5 / 12	¼"NPT	RH83	**4.09**
	for many different gases	Kv: 0.05 - 3.5	200	0.1 ... 1.5 / 200	G¼ - G1¼	RH10	**4.10**
	gas cylinder pressure regulator		200	0 ... 1.5 / 40	DIN 477	RH201, RH202	**4.12**
	gas cylinder pressure regulator		300	0 ... 1.5 / 40	DIN 477	RH300	**4.13**
	gas cylinder pressure regulator		100	0 ... 10 / 60	G¼ - G½	RH-147	**4.14**
	gas cylinder pressure regulator		200	0 ... 10 / 60	G¼ - G½	RH-247	**4.14**
	gas cylinder pressure regulator		300	0 ... 10 / 60	G¼ - G½	RH-347	**4.14**
	miniature	Kv: 0.05	241	0.2 ... 2 / 7	⅛"NPT and ¼"NPT	RH0	**4.15**
	miniature	Kv: 0.05	414	0.5 ... 5 / 124	¼"NPT	RH1	**4.15**
	for pure gases 5.0	Kv: 0.9	207	0.2 ... 1.7 / 14	⅜"NPT and ½"NPT	RH2	**4.16**
	different pressure ranges	Kv: 0.05	414	0.3 ... 35 / 414	¼"NPT	HP300	**4.17**
	made of brass	Kv: 0.05	414	0.7 ...104 / 172	¼"NPT	HP400	**4.17**
	different pressure ranges	Kv: 0.05	300	0.1 ... 1.7 / 35	¼"NPT	HP500	**4.18**
	large nominal size	Kv: 1.7	260	0.7 ... 21 / 104	½"NPT and ¾"NPT	RH3	**4.19**
	large nominal size	Kv: 1.7	345	0.7 ... 21 / 172	½"NPT and ¾" NPT	RH3-U	**4.19**
	made of brass	Kv: 0.3	414	0 ... 14 / 28	⅜"NPT and ½" NPT	RH4	**4.20**
	different pressure ranges	Kv: 0.05	1 034	0.3 ... 35 / 690	¼"NPT	HP306	**4.21**
MADE OF SST	for many different gases	Kv: 0.05 - 3.5	200	1 ... 8 / 200	G¼ - G1¼	RH3000	15.16
	large nominal size	Kv: 1.7	310	0.7 ... 21 / 104	½"NPT and ¾"NPT	RH3-S1	**4.19**
	robust	Kv: 0.13	380	0.3 ... 2 / 35	¼"NPT	RHB-S	www
	large nominal size	Kv: 1.7	410	0.7 ... 21 / 172	½"NPT and ¾"NPT	RH3-S2	**4.19**
	different pressure ranges		690	0.3 ... 35 / 414	¼"NPT	HP300-S	**4.17**
	for different gases, wide variety		60	0.1 ... 1.5/ 50	G⅛ - G2	R3000	15.06
VACUUM REGULATOR	made of brass		4	0.06...1 bar_{abs}	¼"NPT	RDV	www
DIFFERENTIAL PRESS.	brass or stainless steel	Kv: 0.7 / 2.0	414	0 ... 1 / 24	½"NPT and ¾"NPT	RH44	**4.22**
VOLUME BOOSTER	ratio 1:2 to 1:19	Kv: 1.7	260	3 ... 42 / 104	½"NPT and ¾"NPT	RH3-J	6.14
	SST 1:2 to 1:19	Kv: 1.7	310	3 ... 42 / 104	½"NPT and ¾"NPT	RH3-JS1	6.14
	SST	Kv: 2.9	100	0.1 ... 24 / 99	G1	RLM, RLE	6.16
	made of brass		50	1 ... 15 / 50	G¼ - G2	R120-J	6.17



BRASS PRESSURE REGULATOR UP TO 40 BAR SUPPLY PRESSURE R280

Description	Diaphragm pressure regulator for supply pressure up to 40 bar, of solid design, completely made of brass.
Media	compressed air, non-corrosive gases or liquids. Regulator R280-16 is not suitable for liquids.
Supply pressure	max. 40 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	by handwheel for G¼ and G½, with locknut by T-handle for G¾ up to G1½ by knob for G2 by hexagonal spindle for range 0.5…16/25 bar, up to size G½ 14 mm A/F, otherwise 19 mm A/F
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F
Material	Body: brass, aluminium die-cast at G2 regulator Elastomer: NBR/Buna-N Inner valve: brass



G¼ up to G2, P_1: max. 40 bar
0.2…3/35 bar

Dimensions A mm	B mm	C mm	Pressure adjustment mit	K_v-value (m^3/h)	Flow-rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	B*
Brass pressure regulator supply pressure max. 40 bar, for compressed air relieving, without pressure gauge									**R280**	
45	104	23	handwheel	0.3	26	430	G¼	0.2… 3	**R280-02A**	
								0.2… 6	**R280-02B**	
								0.5…10	**R280-02C**	
								0.5…16	**R280-02D**	
								0.5…25	**R280-02E**	
72	145	30	handwheel	0.8	75	1250	G½	0.2… 3	**R280-04A**	
								0.2… 6	**R280-04B**	
								0.5…10	**R280-04C**	
			hexagonal spindle					0.5…16	**R280-04D**	
								0.5…25	**R280-04E**	
95	216	41	T-handle	4.8	450	7500	G¾*2	0.2… 3	**R280-06A**	
								0.2… 6	**R280-06B**	
								0.5…10	**R280-06C**	
			hexagonal spindle					0.5…16	**R280-06D**	
								0.5…25	**R280-06E**	
95	216	41	T-handle	5.0	468	7800	G1	0.2… 3	**R280-08A**	
								0.2… 6	**R280-08B**	
								0.5…10	**R280-08C**	
			hexagonal spindle					0.5…16	**R280-08D**	
								0.5…25	**R280-08E**	
128	240	50	T-handle	7.1	660	11000	G1¼*2	0.2… 3	**R280-10A**	
								0.2… 6	**R280-10B**	
								0.5…10	**R280-10C**	
			hexagonal spindle					0.5…16	**R280-10D**	
								0.5…25	**R280-10E**	



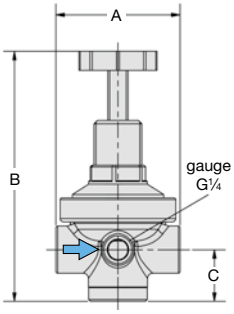
R280-02



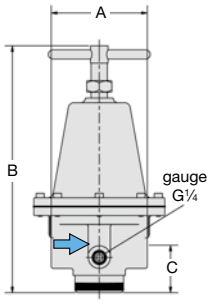
R280-04A / B / C



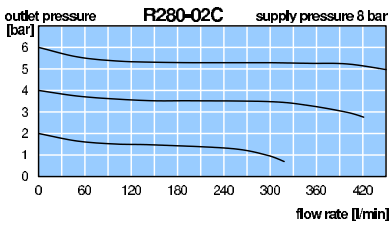
R280-10D / E

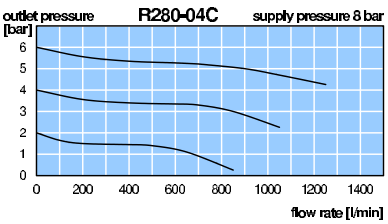


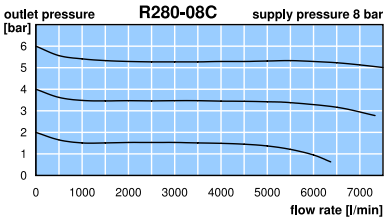
R280-02/-04



R280-06/-08/-10/-12







*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 reduced from next bigger thread

* Product group

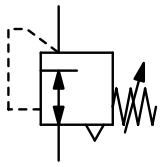
PDF CAD
www.aircom.net

Order example:
R280-02A

High pressure
4

BRASS PRESSURE REGULATOR UP TO 40 BAR SUPPLY PRESSURE R280

Description	Diaphragm pressure regulator for supply pressure up to 40 bar, of solid design, completely made of brass.
Media	compressed air, non-corrosive gases or liquids. Regulator R280-16 is not suitable for liquids.
Supply pressure	max. 40 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	by handwheel for G¼ and G½, with locknut by T-handle for G¾ up to G1½ by knob for G2 by hexagonal spindle for range 0.5…16/25 bar, up to size G½ 14 mm A/F, otherwise 19 mm A/F
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F
Material	Body: brass, aluminium die-cast at G2 regulator Elastomer: NBR/Buna-N Inner valve: brass



G¼ up to G2, P_1: max. 40 bar
0.2…3/35 bar

Dimensions A mm	B mm	C mm	Pressure adjustment mit	K_v-value (m^3/h)	Flow-rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	B*
Brass pressure regulator supply pressure max. 40 bar, for compressed air relieving, without pressure gauge									**R280**	
114	240	50	T-handle	7.7	720	12000	G1½	0.2… 3	**R280-12A**	
								0.2… 6	**R280-12B**	
								0.5…10	**R280-12C**	
			hexagonal spindle					0.5…16	**R280-12D**	
								0.5…25	**R280-12E**	
160	248	78	knob	25.6	2400	40000	G2	0.5… 6	**R280-16B**	
								0.5…10	**R280-16C**	
								0.5…16	**R280-16D**	
								0.5…25	**R280-16E**	
								0.5…35	**R280-16F**	



R280-12A/B/C

Special options, add the appropriate letter

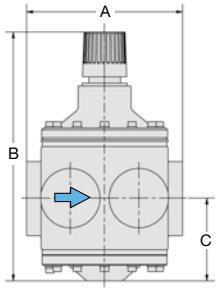
non-relieving	without relieving function	not for G2	R280-. . . **K**
for oxygen	specially cleaned, with oxygen grease, max. 60 °C/140 °F up to G1½		R280-. . . K**15**

Accessories, enclosed

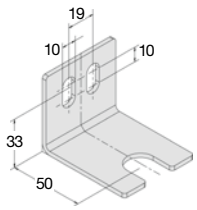
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	for G¼ and G½	**MA5002-. .**.*2
	Ø 50 mm, 0…25 bar, G¼	for G¼ and G½	**MA5002- 25**
	Ø 63 mm, 0…*2 bar, G¼	from G¾	**MA6302-. .**.*2
	Ø 63 mm, 0…25 bar, G¼	from G¾	**MA6302- 25**
mounting bracket	made of steel	for G¼	**BW20-03**
mounting nut	made of brass	for G¼	**M20x1,5M**
mounting bracket	made of steel	for G½	**BW28-01**
mounting nut	made of brass	for G½	**M28x1,5M**
mounting bracket	made of steel	for G¾ to G1½	**BW00-39**
mounting bracket	made of steel	for G2	**BW00-40**



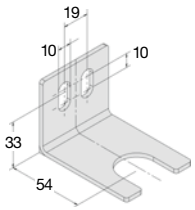
R280-16
accessory: gauge



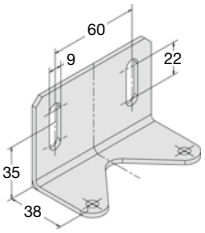
R280-16



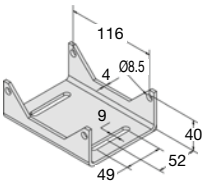
BW20-03



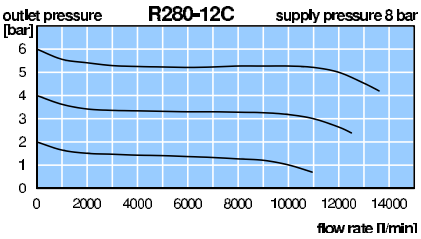
BW28-01

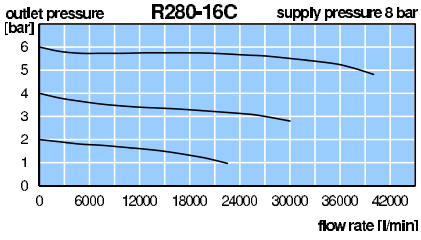


BW00-39



BW00-40





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar

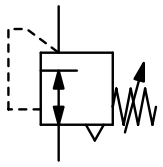
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R280-12A

Description	Pressure regulator of solid design. Made of brass or bronze. Series R120-0.A to -0.E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.
Media	compressed air, non-corrosive gases or liquids **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexagonal spindel (spanner size 24 mm) R120-16/-24/-32: by pilot pressure regulator
Relieving function	R120-B6: relieving R120-16/-24/-32: non-relieving
Gauge port	R120-01/-A2: G⅛ on both sides of the body, all others G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating



G⅛ up to G4
0.1 ... 1.5 / 50 bar

Brass pressure regulator

for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge — **R120**

Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	P_1 max. bar	Pressure range bar	Order number	B*
40	88	18	D	0.35	8	130	G⅛	30	0.1 ... 1.5	**R120-01A**	
			D		10	160		30	0.2 ... 3.0	**R120-01B**	
			D		15	250		30	0.5 ... 8.0	**R120-01C**	
			D		20	330		30	1 ... 15	**R120-01E**	
40	88	18	D	0.35	8	130	G¼	30	0.1 ... 1.5	**R120-A2A**	
			D		10	160		30	0.2 ... 3.0	**R120-A2B**	
			D		15	250		30	0.5 ... 8.0	**R120-A2C**	
			D		20	330		30	1 ... 15	**R120-A2E**	
69	146	35	D	1.4	16	260	G¼	30	0.1 ... 1.5	**R120-02A**	
			D		20	320		30	0.2 ... 3.0	**R120-02B**	
			D		30	500		30	0.5 ... 8.0	**R120-02C**	
			D		40	660		50	1 ... 15	**R120-02E**	
			P		50	840		50	2 ... 30	**R120-02F**	
69	161	35	P		60	1000		50	3 ... 50	**R120-02G**	
69	146	35	D	0.35	16	260	G⅜	30	0.1 ... 1.5	**R120-03A**	
			D		20	320		30	0.2 ... 3.0	**R120-03B**	
			D		30	500		30	0.5 ... 8.0	**R120-03C**	
			D		40	660		50	1 ... 15	**R120-03E**	
			P		50	840		50	2 ... 30	**R120-03F**	
69	154	36	P		60	1000		50	3 ... 50	**R120-03G**	

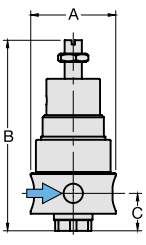


R120-01/-A2

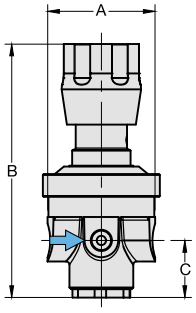


R120-02/-03

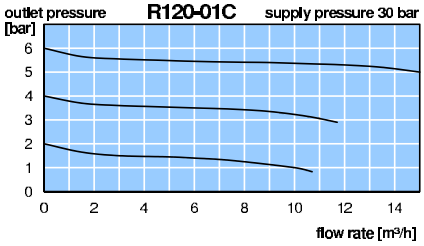
Special options and Accessories, see separate page

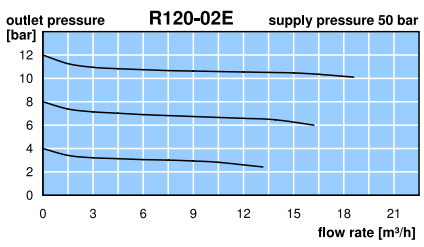


R120-01/-A2



R120-02/-03





*1 at max. supply pressure and max. outlet pressure

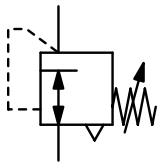
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R120-01A

Description	Pressure regulator of solid design. Made of brass or bronze. Series R120-0.A to -0.E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.
Media	compressed air, non-corrosive gases or liquids **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexagonal spindel (spanner size 24 mm) R120-16/-24/-32: by pilot pressure regulator
Relieving function	R120-B6: relieving R120-16/-24/-32: non-relieving
Gauge port	R120-01/-A2: G⅛ on both sides of the body, all others G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating



G⅛ up to G4
0.1 … 1.5 / 50 bar

Brass pressure regulator

for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge — **R120**

Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	P_1 max. bar	Pressure range bar	Order number	B*
78	171	37	D	3.0	27	450	G½	30	0.1 … 1.5	**R120-04A**	
			D		30	600		30	0.2 … 3.0	**R120-04B**	
			D		40	830		30	0.5 … 8.0	**R120-04C**	
			D		60	1250		50	1 … 15	**R120-04E**	
78	171	37	P		100	2080		50	2 … 30	**R120-04F**	
			P		120	2500		50	3 … 50	**R120-04G**	
114	290	66	D	9.8	75	1250	G¾	30	0.1 … 1.5	**R120-06A**	
			D		98	1600		30	0.2 … 3.0	**R120-06B**	
			D		170	2800		30	0.5 … 8.0	**R120-06C**	
			D		280	4600		50	1 … 15	**R120-06E**	
114	315	66	P		400	6600		50	2 … 30	**R120-06F**	
			P		500	8300		50	3 … 50	**R120-06G**	
114	290	66	D	9.8	75	1250	G1	30	0.1 … 1.5	**R120-08A**	
			D		98	1600		30	0.2 … 3.0	**R120-08B**	
			D		170	2800		30	0.5 … 8.0	**R120-08C**	
			D		280	4600		50	1 … 15	**R120-08E**	
114	315	66	P		400	6600		50	2 … 30	**R120-08F**	
			P		500	8300		50	3 … 50	**R120-08G**	



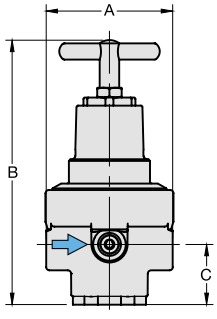
R120-04



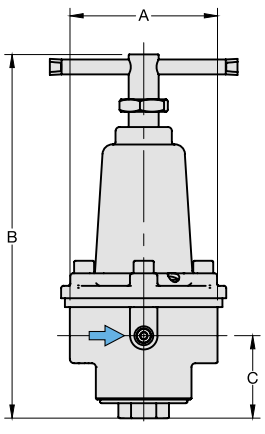
R120-06/-08

High pressure 4

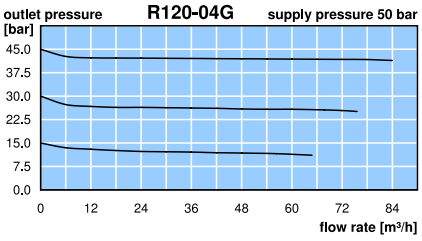
Special options and Accessories, see separate page

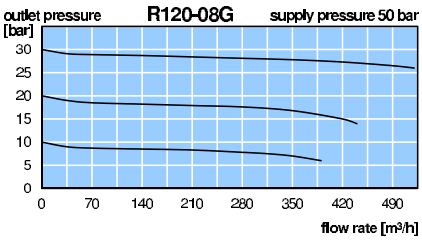


R120-04



R120-06/-08





*1 at max. supply pressure and max. outlet pressure

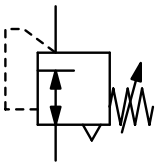
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R120-04A

Description	Pressure regulator of solid design. Made of brass or bronze. Series R120-0.A to -0.E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.
Media	compressed air, non-corrosive gases or liquids **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexagonal spindel (spanner size 24 mm) R120-16/-24/-32: by pilot pressure regulator
Relieving function	R120-B6: relieving R120-16/-24/-32: non-relieving
Gauge port	R120-01/-A2: G⅛ on both sides of the body, all others G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating



G⅛ up to G4
0.1 ... 1.5 / 50 bar

Brass pressure regulator

for compressed air, supply pressure max. 30 / 50 bar, relieving, without pressure gauge — **R120**

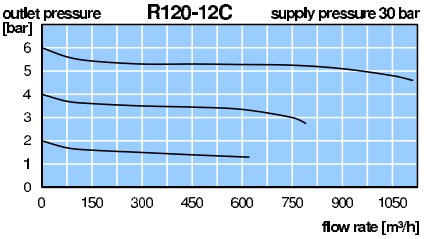
Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	P_1 max. bar	Pressure range bar	Order number	B*
180	387	128	P	25	400	6600	G1½	30	0.1 ... 1.5	**R120-12A**	
			P		670	11000		30	0.2 ... 3.0	**R120-12B**	
			P		1000	16600		30	0.5 ... 8.0	**R120-12C**	
			P		1500	25000		50	1 ... 15	**R120-12E**	
180	402	128	P		1600	27000		50	2 ... 30	**R120-12F**	
			P		2000	33000		50	3 ... 50	**R120-12G**	
180	387	128	P	25	400	6600	G2	30	0.1 ... 1.5	**R120-B6A**	
			P		670	11000		30	0.2 ... 3.0	**R120-B6B**	
			P		1000	16600		30	0.5 ... 8.0	**R120-B6C**	
			P		1500	25000		50	1 ... 15	**R120-B6E**	
180	402	128	P		1600	27000		50	2 ... 30	**R120-B6F**	
			P		2000	33000		50	3 ... 50	**R120-B6G**	
180	421	128	D	25	1800	30000	G2	30	0.1 ... 1.5	**R120-16AK**	
			D		2100	35000		30	0.2 ... 3.0	**R120-16BK**	
			D		2500	40000		30	0.3 ... 6.0	**R120-16CK**	
180	403	128	D		3500	50000		30	1 ... 15	**R120-16DK**	
389	434	118	D	65	2400	40000	flange	30	0.1 ... 1.5	**R120-24AKF**	
			D		5000	83000		30	0.2 ... 3.0	**R120-24BKF**	
			D		5000	83000	DN80	30	0.3 ... 6.0	**R120-24CKF**	
			D		6000	99000		30	1 ... 15	**R120-24DKF**	
389	434	118	D	65	2400	40000	flange	30	0.1 ... 1.5	**R120-32AKF**	
			D		3700	61000		30	0.2 ... 3.0	**R120-32BKF**	
			D		5000	83000	DN100	30	0.3 ... 6.0	**R120-32CKF**	
			D		6000	99000		30	1 ... 15	**R120-32DKF**	

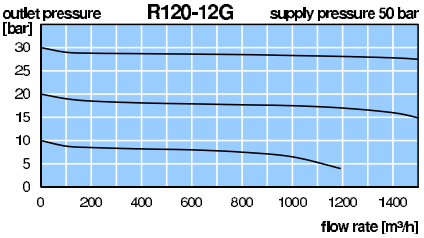


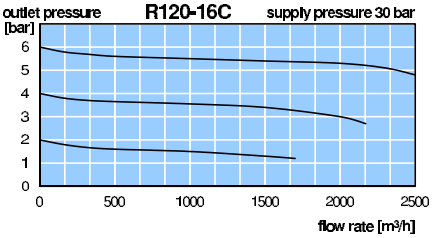
R120-12/-B6



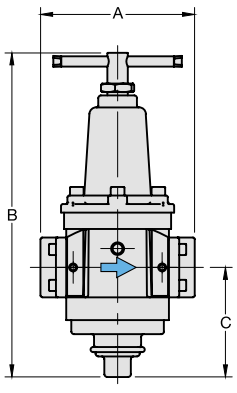
R120-16DK



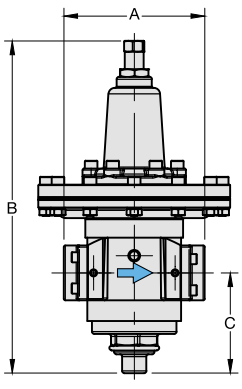




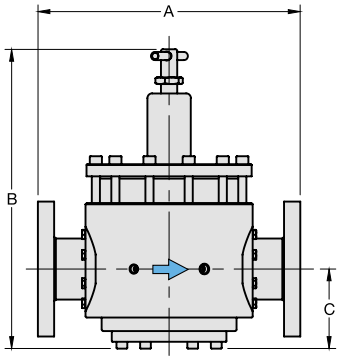
Special options and Accessories, see separate page



R120-12/-B6



R120-16



R120-24/-32

*1 at max. supply pressure and max. outlet pressure

* Product group

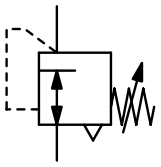
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R120-12A

High pressure
4

Description	Pressure regulator of solid design. Made of brass or bronze. Series R120-0.A to -0.E and R120-16 and -32 are equipped with diaphragms, all other are piston-operated.
Media	compressed air, non-corrosive gases or liquids **Supply pressure** see chart, max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	R120-01/-A2: with adjusting screw, at R120-02 with black knob R120-04 to -B6: with T-handle R120-16: with hexangonal spindel (spanner size 24 mm) R120-16/-24/-32: by pilot pressure regulator
Relieving function	R120-B6: relieving R120-16/-24/-32: non-relieving
Gauge port	R120-01/-A2: G⅛ on both sides of the body, all others G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C bis 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F, optionally high temperature version up to 130 °C / 266 °F
Material	Body: brass O-ring: FKM, optionally EPDM Spring cage: brass at R120-01 to -04, aluminum at R120-06 to -32 Inner valve: brass Diaphragm: NBR/Buna-N with PTFE coating

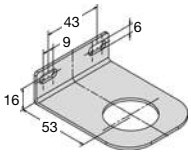


G⅛ up to G4
0.1 ... 1.5 / 50 bar

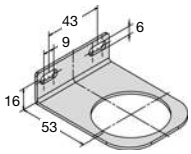
Dimensions A mm	B mm	C mm	Regul. system **D:** diaphragm **P:** piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	P_1 max. bar	Pressure range bar	Order number	B*

Special options, add the appropriate letter

NPT	connection thread		R120-. . . **N**
non-relieving	withour relieving function	up to R120-B6	R120-. . . **K**
down to - 40 °C	low temperature version		R120-. . .**X51**
up to 130 °C	high temperature version		R120-. . .**X54**
Spring cage made of POM	for G⅛ and G¼ (A2)		R120-. . .**X57**
EPDM O-ring	PTFE diaphragm		R120-. . . **E**
T-handle	instead of plastic knob	for R120-02	R120-02. **T**
PWIS-free	for painting plants		R120-. . .**LA**
carbon dioxide	CO_2		R120-. . . K**03**
argon	Ar		R120-. . . K**05**
nitrogen	N_2		R120-. . . K**07**
helium	He		R120-. . . K**09**
hydrogen	H_2		R120-. . . K**11**
methane	CH_4		R120-. . . K**13**
natural gas *3			R120-. . . K**14**
oxygen	O_2		R120-. . . K**15**
propane	C_3H_6		R120-. . . K**16**
nitrous oxide	N_2O		R120-. . . K**17**
water	H_2O		R120-. . . K**W**
flange connection	standard for R120-32, otherwise see chapter SST devices /flanges		R120-. . . **F**.



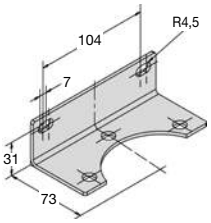
BW35-01S



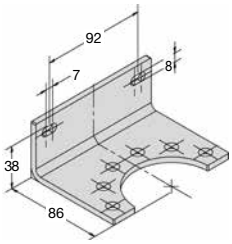
BW50-01S

Accessories, enclosed

pressure gauge	Ø 40 mm, 0...*2 bar, G⅛	for G⅛ and G¼ (A2)	**MA4001-..** *2
	Ø 50 mm, 0...*2 bar, G¼	for G¼ (02) up to G½	**MA5002-..** *2
	Ø 50 mm, 0...60 bar, G¼	for G¼ up to G½	**MA5002-60**
	Ø 63 mm, 0...*2 bar, G¼	for G¾ up to G4	**MA6302-..** *2
	Ø 63 mm, 0...60 bar, G¼	for G¾ up to G4	**MA6302-60**
gauge up to 130 °C	Ø 63 mm, 0...*2 bar, G¼ , stainless steel		**MS6302-..**2
mounting bracket	made of stainless steel	for G⅛ u. G¼ (A2)	**BW30-03S**
mounting nut	made of stainless steel	for G⅛ and G¼ (A2)	**M30x1,5S**
mounting bracket	made of stainless steel	for G¼ (02) and G⅜	**BW35-01S**
mounting nut	made of stainless steel	for G¼ (02) and G⅜	**M35x1,5S**
mounting bracket	made of stainless steel	for G½	**BW50-01S**
mounting nut	made of stainless steel	for G½	**M50x1,5S**
mounting bracket	made of steel	for G¾ and G1	**BW00-42**
		for G1½ and G2 (B6)	**BW00-43**



BW00-42



BW00-43

*1 at max. supply pressure and max. outlet pressure
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar
*3 without DVGW approval

* Product group

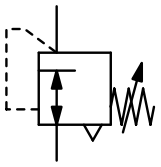
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
MA4001-02

BRASS PRESSURE REGULATOR UP TO 60 BAR SUPPLY PRESSURE R286

Description	Piston-operated pressure regulator of solid design, completely made of brass. For inlet pressure up to 60 bar.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 60 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	by handwheel, T-handle or hexagonal spindle, with locknut
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Inlet filter	stainless steel, 500 µm
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F
Material	Body: brass; Elastomer: NBR/Buna-N; Intermediate ring: brass at G¼, anodized aluminium at G1; Inner valve: brass



G¼ up to G1, P_1: max. 60 bar
0.5…12/50 bar

Dimensions A mm	B mm	C mm	Pressure adjustment mit	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	B*
Brass pressure regulator supply pressure max. 60 bar, for compressed air relieving, without pressure gauge									**R286**	
72	164	31	handwheel	1.3	120	2000	G¼	0.5…12	**R286-02C**	
								1.0…20	**R286-02E**	
			hexagonal spindle					2.0…35	**R286-02F**	
								3.0…50	**R286-02G**	
72	164	31	handwheel	1.6	150	2500	G⅜	0.5…12	**R286-03C**	
								1.0…20	**R286-03E**	
			hexagonal spindle					2.0…35	**R286-03F**	
								3.0…50	**R286-03G**	
72	156	35	handwheel	2.3	216	3500	G½	0.5…12	**R286-04C**	
								1.0…20	**R286-04E**	
			hexagonal spindle					2.0…35	**R286-04F**	
								3.0…50	**R286-04G**	
118	257	51	handwheel	3.2	300	5000	G1	0.5…12	**R286-08C**	
								1.0…20	**R286-08E**	
			hexagonal spindle					2.0…35	**R286-08F**	
								3.0…50	**R286-08G**	



R286-02C/E



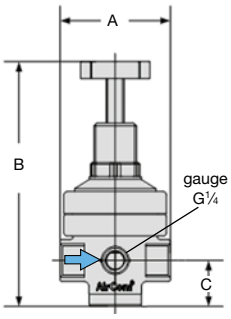
R286-08F/G

Special options, add the appropriate letter

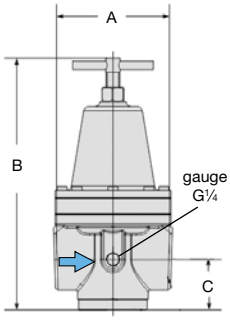
non-relieving	without relieving function, for liquids	R286-0..**K**

Accessories, enclosed

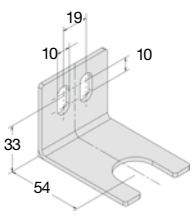
pressure gauge	Ø 50 mm,	0…10 bar, G¼	for G¼ to G½	**MA5002-10**
		0…25 bar, G¼	for G¼ to G½	**MA5002-25**
		0…60 bar, G¼	for G¼ to G½	**MA5002-60**
	Ø 63 mm,	0…16 bar, G¼	for G1	**MA6302-16**
		0…25 bar, G¼	for G1	**MA6302-25**
		0…60 bar, G¼	for G1	**MA6302-60**
mounting bracket	made of steel, mounting nut required		for G¼ to G½	**BW28-01**
mounting nut	made of brass		for G¼ to G½	**M28x1,5M**
mounting bracket	made of steel, assembly at spring cage		for G1	**BW00-45**



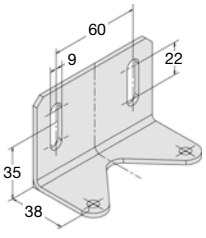
R286-02/-03/-04



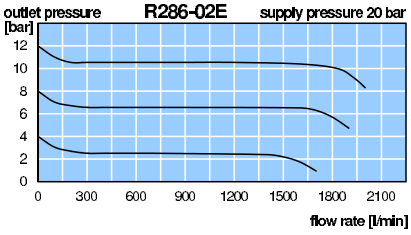
R286-08

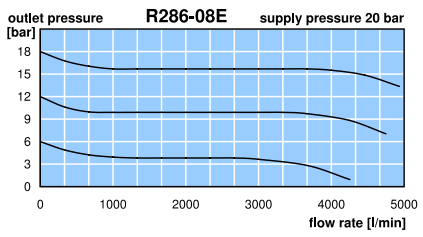


BW28-01



BW00-45





*1 at 20 bar supply pressure, 10 bar outlet pressure and 4 bar pressure drop

* Product group

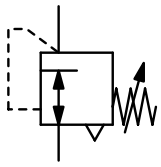
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R286-02C

HIGH PRESSURE REGULATOR UP TO 207 BAR SUPPLY PRESSURE RH83

Description	Diaphragm-operated high pressure regulator made of brass .
Media	compressed air, nitrogen, helium, krypton, carbon dioxide, neon, xenon
Supply pressure	max. 207 bar
Adjustment	by slotted screw with locknut
Relieving function	standard, optionally non-relieving
Connection thread	¼˝ NPT, two high pressure inlet ports and two regulated pressure outlet ports.
Mounting position	any
Temperature range	-34 °C to 60 °C / -29.2 °F to 140 °F
Material	Body: brass Diaphragm: NBR/Buna-N and acetal Seals: NBR/Buna-N Spring cage: zinc die-cast Valve seat: teflon, brass and stainless steel



P_1: max. 207 bar
0.1 ... 3.5/12 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number	D*
High pressure regulator 207 bar						for compressed air, relieving made of brass, NBR/Buna-N		**RH83**	
48	110	10	0.02	19.2	320	¼˝ NPT	0.1 ... 3.5	**RH83-02A**	
							0.3 ... 8.5	**RH83-02B**	
							0.7 ... 12	**RH83-02C**	



RH83

High pressure

4

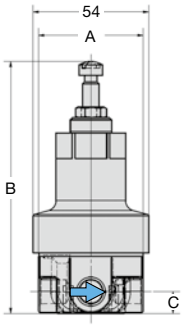
Special options, add the appropriate letter

non-relieving	without relieving function	RH83-02. **K**
carbon dioxide	CO_2	RH83-02. K**03**
argon	Ar	RH83-02. K**05**
nitrogen	N_2	RH83-02. K**07**
helium	He	RH83-02. K**09**
inert gas	krypton, neon, xenon	RH83-02. K**31**

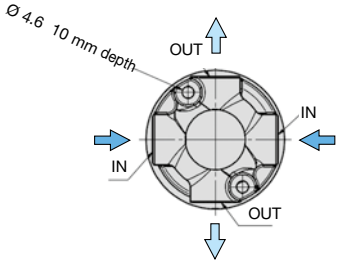
Accessories, enclosed

B*

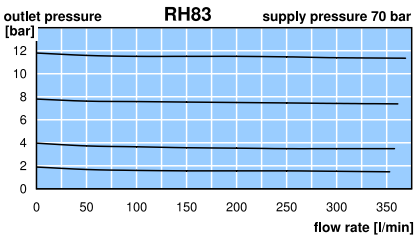
pressure gauge	Ø 50 mm, ¼˝NPT	**MA5002- . .*2N**



RH83



connections



*1 bei P_1 = 70 bar, P_2 = 4 bar und Δp = 0.35 bar

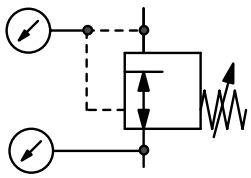
*2 **04** = 0...4 bar, **11** = 0...11 bar, **16** = 0...16 bar

* Product group

PDF CAD
www.aircom.net

Order example:
RH83-02A

Description	For outlet pressures up to 15 bar the regulator has a diaphragm, for higher outlets a piston. A sintered bronze filter at the inlet port protects against contamination.
Media	compressed air or non-corrosive gases
Supply pressure	max. 220 bar
Adjustment	RH10-02: by black plastic knob all others: by T-handle with locknut
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Safety relief valve	prevents from overpressure, see chart
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F **Mounting position** any
Material	Body: brass, nickel-plated at RH10-02 Inlet filter: sintered bronze Piston: brass at RH10-02 O-rings: EPDM or FKM, dependent on media Valve seat: nylon Diaphragm: stainless steel at RH10-02, NBR/Buna-N at all others



G¼ up to G1¼
1…8/220 bar

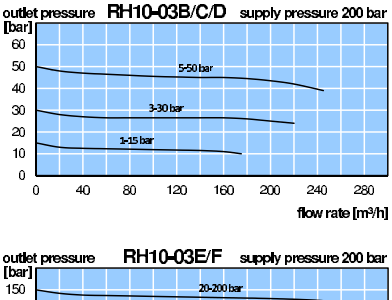
Dimensions A mm	B mm	C mm	Safety relief valve S: with valve	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread inlet / outlet	Pressure range bar	Order number	D*
High pressure regulator 220 bar							non-relieving, for compressed air, pressure gauges supplied		**RH10**	
176	145	35	S	0.05	80	1300	DIN 477 / G¼f	1… 8	**RH10-02A**	
			S					1… 15	**RH10-02B**	
176	163	35	S					3… 30	**RH10-02C**	
			S					5… 50	**RH10-02D**	
			S					10…100	**RH10-02E**	
			-					20…200	**RH10-02F**	
184	176	40	S	0.19	228	3800	DIN 477 / G⅜f	0.1… 1.5	**RH10-030**	
			S					1… 15	**RH10-03B**	
			S					3… 30	**RH10-03C**	
			S		RH10-**04** for DIN 477 / G½f			5… 50	**RH10-03D**	
184	186	40	-					10…100	**RH10-03E**	
			-					20…200	**RH10-03F**	
182	245	102	S	0.25	422	7000	G¾f / G⅜f	0.1… 1.5	**RH10-A30**	
			S					1… 15	**RH10-A3B**	
182	260	102	S					3… 30	**RH10-A3C**	
			S		RH10-**A4** for G¾f / G½f			5… 50	**RH10-A3D**	
182	195	35	-					10…100	**RH10-A3E**	
			-					20…200	**RH10-A3F**	
166	345	232	S	0.6	2000	33000	G¾a / G¾m	1… 8	**RH10-06A**	
			S					1… 15	**RH10-06B**	
166	358	245	S					3… 30	**RH10-06C**	
			S					5… 50	**RH10-06D**	
			-					10…100	**RH10-06E**	
253	370	242	S	1.8	3000	48000	G1m / G1m	1… 8	**RH10-08A**	
			S					1… 15	**RH10-08B**	
253	406	278	S					3… 30	**RH10-08C**	
			S					5… 50	**RH10-08D**	
253	406	278	-					20…200	**RH10-08F**	

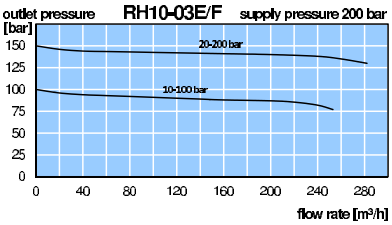


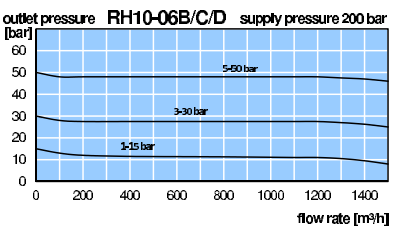
RH10-02B

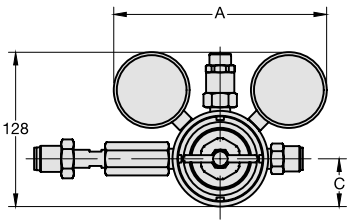


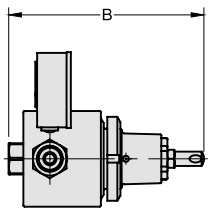
RH10-A3B07



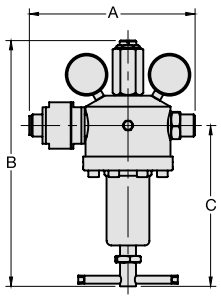








RH10-02/-03/-A3



RH10-06/-08/-10

*1 at 200 bar supply pressure and 15 bar outlet pressure

*2 max. 80 bar outlet pressure

* Product group

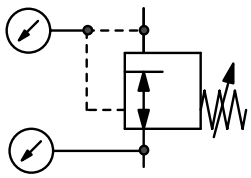
Stainless steel version: see chapter for stainless steel devices

PDF CAD
www.aircom.net

Order example:
RH10-02A

HIGH PRESSURE REGULATOR FOR OUTLET PRESSURE UP TO 200 BAR RH10

Description	For outlet pressures up to 15 bar the regulator has a diaphragm, for higher outlets a piston. A sintered bronze filter at the inlet port protects against contamination.
Media	compressed air or non-corrosive gases
Supply pressure	max. 220 bar
Adjustment	RH10-02: by black plastic knob all others: by T-handle with locknut
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Safety relief valve	prevents from overpressure, see chart
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F **Mounting position** any
Material	Body: brass, nickel-plated at RH10-02 Inlet filter: sintered bronze Piston: brass at RH10-02 O-rings: EPDM or FKM, dependent on media Valve seat: nylon Diaphragm: stainless steel at RH10-02, NBR/Buna-N at all others



G¼ up to G1¼
1…8/220 bar

Dimensions A mm	B mm	C mm	Safety relief valve S: with valve	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread inlet / outlet	Pressure range bar	Order number
High pressure regulator 220 bar							non-relieving, for compressed air, pressure gauges supplied		**RH10**
248	385	270	S	3.1	5000	80000	G1m / G1¼	1… 8	**RH10-10A**
			S					1… 15	**RH10-10B**
			S					3… 30	**RH10-10C**
248	420	305	S					5… 50	**RH10-10D**



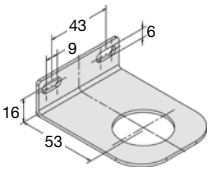
RH10-08B

Special options, add the appropriate letter

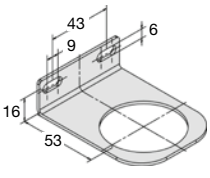
relieving	with relieving function, for compressed air	RH10-. . . **R**
FKM elastomer		RH10-. . . **V**
PTFE elastomer		RH10-. . . **T**
SST diaphragm	from RH10-03	RH10-. . . **S**
for panel mounting	for RH10-02 to -A3	RH10-. . . **P**
carbon dioxide *2	CO_2	RH10-. . . **03**
argon	Ar	RH10-. . . **05**
nitrogen	N_2	RH10-. . . **07**
helium	He	RH10-. . . **09**
hydrogen	H_2	RH10-. . . **11**
methane	CH_4	RH10-. . . **13**
oxygen	O_2	RH10-. . . **15**
propane	C_3H_8	RH10-. . . **16**
nitrous oxide	N_2O	RH10-. . . **17**
without cylinder connection		RH10-. . . **X40**

Accessories, enclosed C*

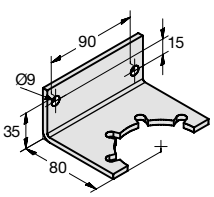
mounting bracket	made of stainless steel	for RH10-02	**BW35-01S**
mounting nut		for RH10-02	**M35x1,5S**
mounting bracket		for RH10-03 and -A3	**BW50-01S**
mounting nut		for RH10-03 and -A3	**M50x1,5S**
mounting bracket		for RH10-06	**BW00-31S**
		for RH10-08	**BW00-35S**



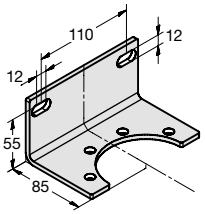
BW35-01S



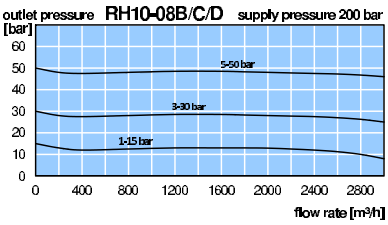
BW50-01S

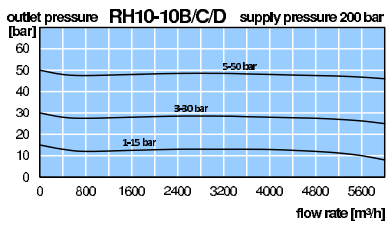


BW00-31S



BW00-35S





*1 at 200 bar supply pressure max. outlet pressure

*2 max. 80 bar outlet pressure

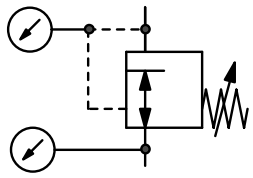
* Product group

Stainless steel version: see chapter for stainless steel devices

PDF CAD
www.aircom.net

Order example:
RH10-10A

Description	High pressure regulator for gas cylinders for reducing pressure of compressed air or liquid gases from a high level to the required pressure.
Supply pressure	max. 200 bar
Media	compressed air, oxygen or different gases
Connections	according to DIN 477
Adjustment	by T-handle
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Leakage rate	10^{-6} mbar l/s
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F
Material	Body: brass O-rings: NBR/Buna-N and EPDM Spring cage: brass Diaphragm: 65NBR4550, PTFE for outlet > 10 bar, stainless steel for pure gases up to 5.0



P_1: max. 200 bar
0 ... 1.5/40 bar

Dimensions A mm	B mm	C mm	Version 1-step 2-step	Flow rate m^3/h*2	l/min*2	Supply pressure max. bar	Pressure range bar	Order number	D*

Cylinder pressure regulator 200 bar

for compressed air, connections DIN 477, with inlet / outlet gauges — **RH201/RH202**

210	190	100	1-step	48	800	200	0 ... 10	**RH201-00C**
210	210	120		75	1250		0 ... 20	**RH201-00D**
				120	2000		0 ... 40	**RH201-00E**
240	190	100	2-step	8	133	200	0 ... 15	**RH202-00A**
				48	800		0 ... 10	**RH202-00C**



RH201, 1-step

Regulator for propane and acetylene

connections DIN 477, with inlet / outlet gauges — **RH201**

210	190	100	1-step	propane	C_3H_8	max. 8	0 ... 4.0	**RH201-00B16**
210	190	100	1-step	azetylene	C_2H_2	max. 26	0 ... 1.5	**RH201-00A19**

Special options, change the appropriate letter

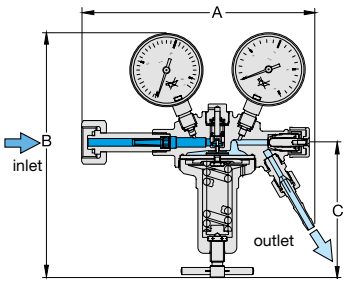
carbon dioxide	CO_2		RH20 .-...**03**
inert gas			RH20 .-...**04**
argon	Ar		RH20 .-...**05**
fuel gas			RH20 .-...**06**
nitrogen	N_2		RH20 .-...**07**
forming gas		up to 40 bar	RH20 .-...**08**
helium	He	up to 40 bar	RH20 .-...**09**
hydrogen	H_2		RH20 .-...**11**
testing gas		up to 40 bar	RH20 .-...**12**
oxygen	O_2	up to 40 bar	RH20 .-...**15**
chrome-plated body	inside and outside	1-step	RH201 -**C**....
chrome-plated body	inside and outside	2-step	RH202 -**C**....
metal diaphragm	5.0 purity	1-step	RH201 - .**M**...
		2-step	RH202 - .**M**...



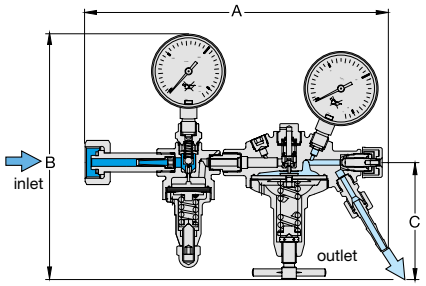
RH202, 2-step



RH201-C.., chrome-plated



cross-section, 1-step

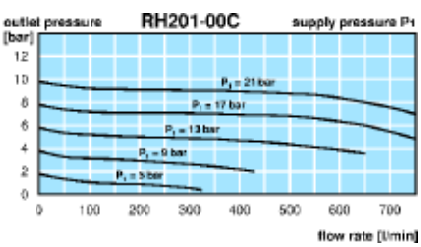


cross-section, 2-step

connection thread up to 200 bar		
gas type	**inlet** *1	**outlet**
compressed air	G⅝ m	G¼
oxygen	G¾ f	G¼
inert gas	W21, 8x1/14	G¼
CO_2 / argon	W21, 8x1/14	G¼
helium	W21, 8x1/14	G¼
fuel gas	W21, 8x1/14 LH	G⅜ LH
hydrogen	W21, 8x1/14 LH	G⅜ LH
forming gas	W21, 8x1/14 LH	G⅜ LH

connection thread up to 200 bar		
gas type	**inlet** *1	**outlet**
nitrogen	W24,32x1/14	G¼
testing gas	M19x1,5 LH	G⅜LH
nitrous oxide	G⅜	G¼
azetylene	clamp (cylinder)	G⅜a LH

flow rate - correction factor		
gas type		**factor**
compr. air		1.00
oxygen	O_2	0.95
carbon dioxide	CO_2	0.81
hydrogen	H_2	3.80
argon	Ar	0.85
helium	He	2.70
propane	C_3H_8	0.80
nitrous oxide	N_2O	0.80



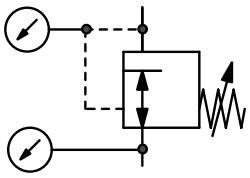
*1 Thread according to DIN 477, only left hand thread is marked LH, right hand RH is not marked.
*2 at supply pressure of 2x outlet pressure + 1 bar

* Product group

PDF CAD
www.aircom.net

Order example:
RH201-00C

Description	High pressure regulator for gas cylinders for reducing pressure of compressed air or liquid gases from a high level to the required pressure.
Supply pressure	max. 300 bar
Media	compressed air, oxygen or different gases
Connections	according to DIN 477
Adjustment	by T-handle
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Leakage rate	10^{-6} mbar l/s
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F
Material	Body: brass O-rings: NBR/Buna-N and EPDM Spring cage: brass Diaphragm: 65NBR4550, PTFE for outlet > 10 bar, stainless steel for pure gases up to 5.0



P_1: max. 300 bar
0…1.5/40 bar

Dimensions A mm	B mm	C mm	Version 1-step 2-step	Flow rate m^3/h*2	l/min*2	Supply pressure max. bar	Pressure range bar	Order number	D*
Cylinder pressure regulator 300 bar for compressed air, connections DIN 477, with inlet / outlet gauges								**RH300**	
210	190	100	1-step	48	800	300	0…10	**RH301-00C**	
210	210	120		75	1250		0…20	**RH301-00D**	
				120	2000		0…40	**RH301-00E**	
240	190	100	2-step	8	133	300	0…1,5	**RH302-00A**	
				48	800		0…10	**RH302-00C**	



RH301, 1-step



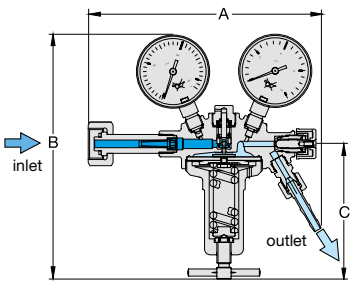
RH302, 2-step



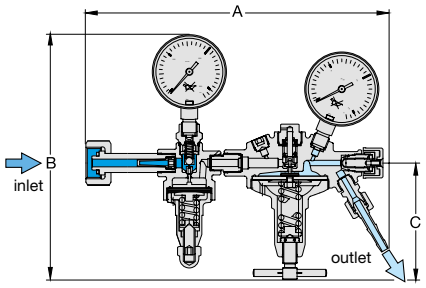
RH301-C.., chrome-plated

Special options, change the appropriate letter

compressed air	connection gauge $G^5/_8$		RH3**5** .-.. .
carbon dioxide	CO_2		RH30 .-…**03**
inert gas			RH30 .-…**04**
argon	Ar		RH30 .-…**05**
fuel gas			RH30 .-…**06**
nitrogen	N_2		RH30 .-…**07**
forming gas		up to 40 bar	RH30 .-…**08**
helium	He	up to 40 bar	RH30 .-…**09**
hydrogen	H_2		RH30 .-…**11**
testing gas		up to 40 bar	RH30 .-…**12**
oxygen	O_2	up to 20 bar	RH30 .-…**15**
chrome-plated body	inside and outside	1-step	RH301 -**C**….
chrome-plated body	inside and outside	2-step	RH302 -**C**….
metal diaphragm	5.0 purity	1-step	RH301 - **.M**…
		2-step	RH302 - **.M**…



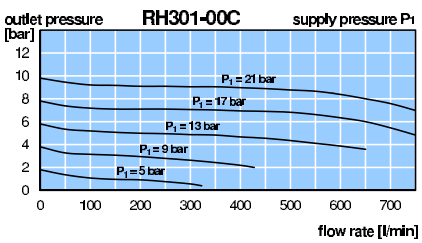
cross-section, 1-step



cross-section, 2-step

connection thread up to 300 bar		
gas type	**inlet** *1	**outlet**
fuel gas	W30x2 LH	$G^3/_8$ LH
all others	W30x2	G¼

flow rate - correction factor		
gas type		**factor**
compressed air		1.00
oxygen	O_2	0.95
carbon dioxide	CO_2	0.81
hydrogen	H_2	3.80
argon	Ar	0.85
helium	He	2.70
propane	C_3H_8	0.80
nitrous oxide	N_2O	0.80



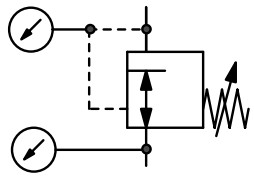
*1 Thread according to DIN 477, Only left hand thread is marked LH. Right hand RH is not marked.
*2 at supply pressure of 2x outlet pressure + 1 bar

* Product group

PDF CAD
www.aircom.net

Order example:
RH301-00C

Description	Main pressure regulator according to ISO 7291 up to 300 bar with G½ connection thread. A filter at the inlet port protects against contamination.
Media	compressed air, oxygen or different gases on request
Supply pressure	see chart, max. 300 bar
Connections	G¼ to G½, optionally according to DIN 477
Adjustment	by T-handle for RH-..7.510 / 520 / 525 by hexagonal spindle (spanner size 20 mm) for RH-..7.545 / 565
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Leakage rate	10^{-6} mbar l/s
Compensation	without supply pressure variation compensation
Temperature range	-30 °C to 60 °C / -22 °F to 140 °F
Material	Body: brass O-rings: NBR/Buna-N Spring cage: brass Diaphragm: 65NBR4550, stainless steel for oxygen > 20 bar



G¼ up to G½, P_1: max. 300 bar
0…10/60 bar

Main pressure regulator

for compressed air, supply and outlet pressure gauge supplied

Dimensions A mm	B mm	C mm	Flow rate m³/h*1	l/min*1	Supply pressure max. bar	Connection thread G	Pressure range bar	Order number RH
150	205	115	50	830	100	G½	0…10	**RH-147.510**
			75	1250			0…20	**RH-147.520**
200	310	215	170	2830			0…20	**RH-147.525**
			290	4830			15…40	**RH-147.545**
			450	7500			15…60	**RH-147.565**
150	205	115	50	830	200	G½	0…10	**RH-247.510**
			75	1250			0…20	**RH-247.520**
200	310	215	170	2830			0…20	**RH-247.525**
			290	4830			15…40	**RH-247.545**
			450	7500			15…60	**RH-247.565**
150	205	115	50	830	300	G½	0…10	**RH-347.510**
			75	1250			0…20	**RH-347.520**
200	310	215	170	2830			0…20	**RH-347.525**
			290	4830			15…40	**RH-347.545**
			450	7500			15…60	**RH-347.565**



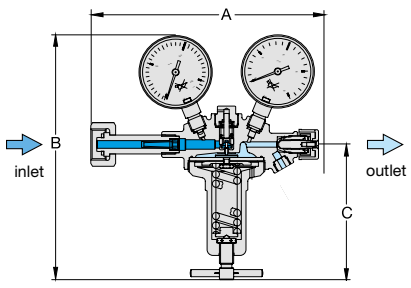
RH-.47.510 / 520



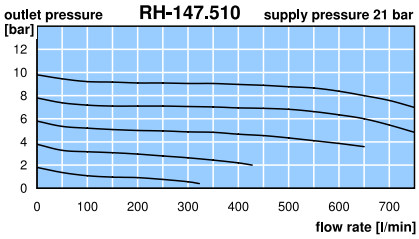
RH-.47.525 / 545 / 565

Special options, add the appropriate letter

G¼	connection thread, max. 100 bar		RH-.**27**….
G⅜	connection thread		RH-.**37**….
carbon dioxide	CO_2		RH-.47….**03**
inert gas			RH-.47….**04**
argon	Ar		RH-.47….**05**
fuel gas		up to 40 bar	RH-.47….**06**
nitrogen	N_2		RH-.47….**07**
forming gas		up to 40 bar	RH-.47….**08**
helium	He		RH-.47….**09**
hydrogen	H_2		RH-.47….**11**
testing gas		up to 40 bar	RH-.47….**12**
natural gas *2			RH-.47….**14**
oxygen	O_2	up to 20 bar	RH-.47….**15**
chrome plated body	inside and outside		RH-.47….**C**
metal diaphragm	5.0 purity		RH-.41….**M**



RH-…



*1 at supply pressure of 2 x outlet pressure +1 bar

*2 without DVGW-approval

* Product group

PDF CAD
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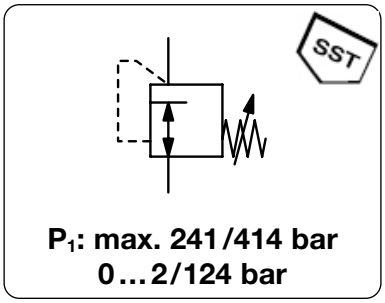
Order example:
RH-147.510

High pressure

4

Description	Diaphragm-operated high pressure regulator of small and light design.		
Adjustment	by black plastic knob	**Weight**	aluminium 200 g, brass 430 g
Relieving function	non-relieving	**Mounting position**	any
Gauge port	¼″ NPT for inlet and outlet pressure		

	RH0	RH1
Media	corrosive or non-corrosive gases up to purity 5.0	compressed air, non-corrosive gases or liquids
Supply pressure	max. 241 bar	max. 414 bar
Leakage rate	< 1 x 10^{-6} mbar l/s He	< 1 x 10^{-4} mbar l/s He
Temperature range	-40 °C to 60 °C / -40 °F to 140 °F	-25 °C to 75 °C / -13 °F to 167 °F
Body	brass, optionally stainless steel or aluminium	nickel-plated aluminium
Regulating system	diaphragm made of stainless steel	piston with EPDM o-ring, as option NBR/Buna-N or FKM
Valve seat	PFA or CTFE as option	CTFE or Vespel as option
Inner valve	brass, optionally stainless steel	stainless steel and aluminium



P_1: max. 241/414 bar
0…2/124 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h	l/min	Connection thread NPT	Pressure range bar	Order number	D*
High pressure regulator 241 bar						for gases, non-relieving brass, stainless steel diaphragm		**RH0**	
41	82	14	0.05	9*1	150*1	¼″ NPT	0.2… 2	**RH0-02A**	
							0.4… 4	**RH0-02B**	
							0.6… 7	**RH0-02C**	
High pressure regulator 414 bar						for gases and liquids, non-relieving aluminium, piston with EPDM		**RH1**	
41	76	13	0.05	84*2	1400*2	¼″ NPT	0.5… 5	**RH1-02A**	
							0.5… 10	**RH1-02B**	
							1.5… 15	**RH1-02C**	
41	76	13	0.05	192*3	3200*3	¼″ NPT	4.0… 48	**RH1-02D**	
							8.0… 83	**RH1-02E**	
							10…124	**RH1-02F**	



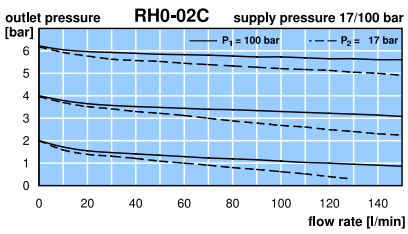
RH0

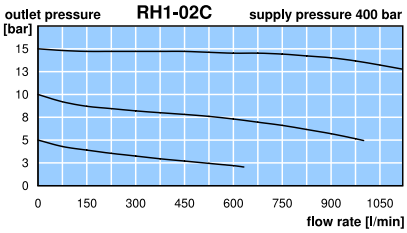


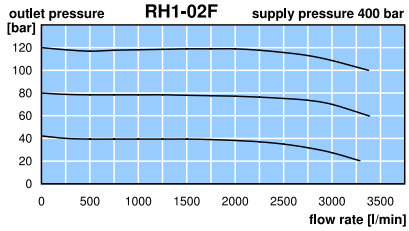
RH1

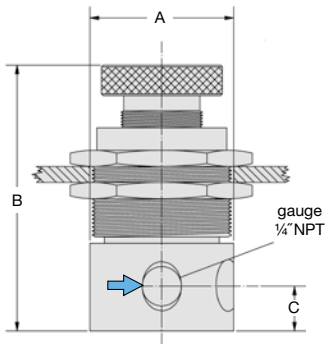
Special options, add the appropriate letter

⅛″NPT	connection thread	für RH0	RH0-0**1**.
aluminium body		für RH0	RH0-02.**A**
stainless steel body		für RH0	RH0-02.**S**
CTFE seat		für RH0	RH0-02.**X52**
CTFE seat	for stainless steel body	für RH0	RH0-02.**SX52**
Vespel seat		für RH1	RH1-02.**X45**
NBR o-ring		für RH1	RH1-02.**N**
FKM o-ring		für RH1	RH1-02.**V**
brass pressure gauge	inlet side **HM**	outlet side	RH.-02.**GM**
SST pressure gauge	inlet side **H**	outlet side	RH.-02.**G**
for panel mounting		für RH0	RH0-02.**P**

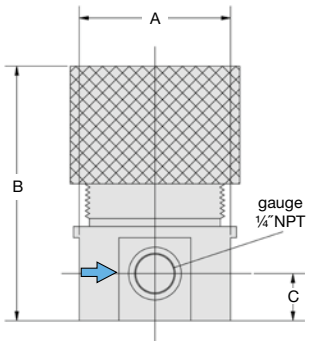




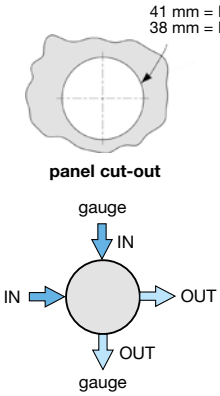




RH0-...P



RH1



connection diagram

*1 at 100 bar supply pressure and 6 bar outlet pressure
*2 at 400 bar supply pressure and 15 bar outlet pressure
*3 at 400 bar supply pressure and 120 bar outlet pressure

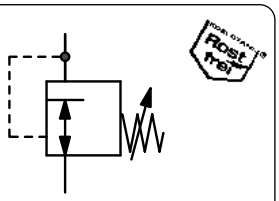
* Product group

PDF CAD
www.aircom.net

Order example:
RH0-02A

HIGH PRESSURE REGULATOR FOR PURE GASES UP TO 207 BAR RH2

Description	Diaphragm-operated high pressure regulator of small design and with high flow.				
Media	compressed air, non-corrosive gases or pure gases up to 5.0				
Supply pressure	max. 207 bar				
Test pressure	150 % of maximum supply pressure				
Leakage rate	< 2 x 10^{-8} mbar l/s He				
Adjustment	by black plastic knob				
Relieving function	non-relieving				
Gauge port	¼″ NPT for inlet and outlet pressure, shifted by 60°				
Mounting position	any				
Temperature range	-40 °C to 75 °C / -40 °F to 167 °F				
Material	Body:	brass or stainless steel 316	Spring cage:	nickel-plated brass	
	Diaphragm:	stainless steel 316	Seals:	PTFE	
	Valve seat:	CTFE	Inner valve:	stainless steel 316	



½″ NPT, P_1: max. 207 bar
0.2…1.7/14 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number	D*
Brass pressure regulator, ½″ NPT supply pressure max. 207 bar, non-relieving								**RH2**	
66	150	26	0.9	330	5500	½″ NPT	0.2…1.7	**RH2-04A**	
							0.2…3.5	**RH2-04B**	
							0.5…7.0	**RH2-04C**	
							1.0… 10	**RH2-04D**	
							1.0… 14	**RH2-04E**	
SST pressure regulator, ½″ NPT supply pressure max. 207 bar, non-relieving								**RH2**	
66	150	26	0.9	330	5500	½″ NPT	0.2…1.7	**RH2-04AS**	
							0.2…3.5	**RH2-04BS**	
							0.5…7.0	**RH2-04CS**	
							1.0… 10	**RH2-04DS**	
							1.0… 14	**RH2-04ES**	



RH2

High pressure

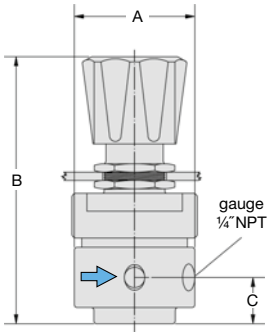
4

Special options, add the appropriate letter

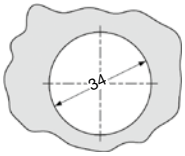
⅜″NPT	connection thread		RH2-0**3**.
brass pressure gauge	for brass body,	outlet side	RH2-0..**GM**
SST pressure gauge	for stainless steel body,	outlet side	RH2-0..**G**

Accessories, enclosed

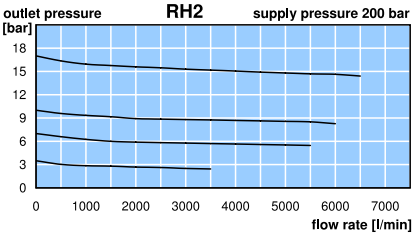
mounting nut	for panel mounting, made of stainless steel	**8686-1**



RH2



panel cut-out



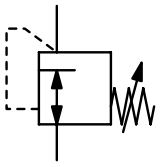
*1 at 200 bar supply pressure and 14 bar outlet pressure

* Product group

PDF CAD
www.aircom.net

Order example:
RH2-04A

Description	Piston-operated high pressure regulator HP300 / HP400 are marked by high flow and great reliability.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 690 bar at HP300, max. 414 bar at HP400		
Accuracy	at supply pressure variation of 7 bar: < 5 mbar pressure deviation at HP300, < 250 mbar pressure deviation at HP400		
Adjustment	by black plastic knob	**Leakage rate**	< 10^{-4} mbar l/s He
Relieving function	non-relieving, optionally relieving	**Gauge port**	¼″ NPT for inlet / outlet pressure, shifted by 70°
Mounting position	any		
Temperature range	-5 °C to 75 °C / 23 °F to 167 °F for HP300		-25 °C to 75 °C / -13 °F to 167 °F for HP400
Material Body:	brass, optionally stainless steel (spring cage brass), stainless steel completely on request		
Seals:	NBR at HP300 (relieving),		FKM at HP300 (non-relieving) / HP400
Spring cage:	brass at HP300,		nickel-plated at HP400
Valve seat:	Vespel at HP300 / HP400 (relieving),		Teflon PFA at HP400 (non-relieving)
Inner valve:	stainless steel		



¼″NPT, P_1: 300/690 bar
0.3…35/414 bar



HP300



HP400

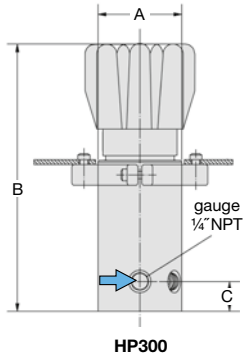
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number	D*
High pressure regulator 414 bar non-relieving, brass								**HP300**	
55	175	19	0.05	90	1500	¼″ NPT	0.3… 35	**HP300-035**	
							0.6… 55	**HP300-055**	
							0.7…104	**HP300-105**	
							1.0…172	**HP300-175**	
							1.7…276	**HP300-280**	
							3.4…414	**HP300-415**	
High pressure regulator 414 bar non-relieving, brass								**HP400**	
50	137	13	0.05	90	1500	¼″ NPT	0.7…104	**HP400-104**	
							1.0…172	**HP400-170**	

Special options, add the appropriate letter

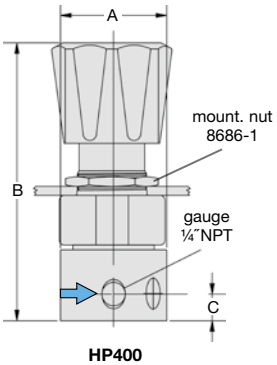
relieving				HP300-…**R**
				HP400-…**R**
body made of SST			(690 bar)	HP300-…**S**
			(414 bar)	HP400-…**S**
for oxygen	specially cleaned,	P_1 <300 bar	for HP300/400	HP.00-…**15**
for liquids	w/o filter at inlet, valve seat of Nylatron		for HP300	HP300-…**W**
	w/o filter at inlet, valve seat of Vespel		for HP400	HP400-…**W**
brass pressure gauge	for brass body, inlet side			HP.00-…**HM**
	for brass body, outlet side			HP.00-…**GM**
SST pressure gauge	for stainless steel body, inlet side			HP.00-…**H**
	for stainless steel body, outlet side			HP.00-…**G**

Accessories, enclosed

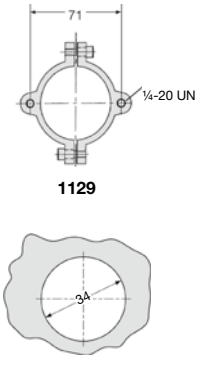
set of mounting brackets	aluminium	for HP300	**1129**
mounting nut	for panel mounting, made of stainless steel	for HP400	**8686-1**



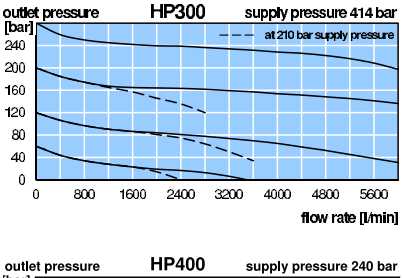
HP300

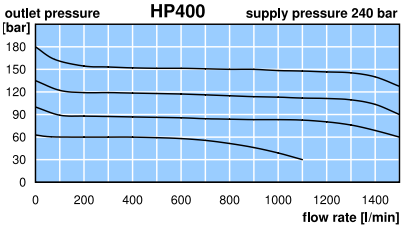


HP400



panel cut-out





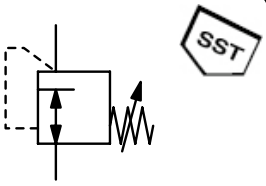
*1 at 240 bar supply pressure and 30 bar outlet pressure

* Product group

PDF CAD
www.aircom.net

Order example:
HP300-035

Description	Piston-operated high pressure regulator HP500R and diaphragm-operated HP500 are marked by high flow and great reliability.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 300 bar		
Accuracy	at supply pressure variation of 7 bar: < 120 mbar pressure deviation		
Adjustment	by black plastic knob	**Leakage rate**	< 2x 10^{-8} mbar l/s He
Relieving function	non-relieving, optionally relieving	**Gauge port**	¼″ NPT for inlet / outlet pressure, shifted by 70°
Mounting position	any		
Temperature range	-40 °C to 75 °C / -40 °F to 167 °F		
Material Body:	brass, optionally stainless steel (spring cage brass), stainless steel completely on request		
Seals:	FKM		
Spring cage:	nickel-plated	Valve seat:	Teflon PFA
Inner valve:	stainless steel	Diaphragm:	stainless steel



¼″ NPT, P_1: 300 bar
0.1 ... 1.7/35 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number	D*
High pressure regulator 300 bar non-relieving, brass								**HP500**	
50	137	19	0.05	90	1500	¼″ NPT	0.1 ... 1.7	**HP500-002**	
							0.1 ... 3.5	**HP500-004**	
							0.1 ... 7.0	**HP500-007**	
							0.2 ... 17	**HP500-017**	
							0.3 ... 35	**HP500-035**	



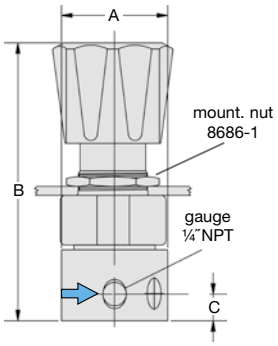
HP500

Special options, add the appropriate letter

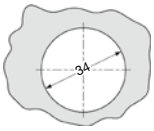
relieving		HP500-...**R**
body made of SST		HP500-...**S**
free of grease and oil	suitable for oxygen, P_1 <200 bar	HP500-...**L**
for liquids	w/o filter at inlet, valve seat of Vespel	HP500-...**W**
brass pressure gauge	for brass body, inlet side	HP500-...**HM**
	for brass body, outlet side	HP500-...**GM**
SST pressure gauge	for stainless steel body, inlet side	HP500-...**H**
	for stainless steel body, outlet side	HP500-...**G**

Accessories, enclosed

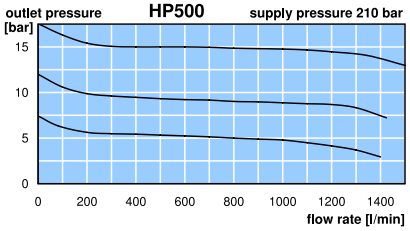
mounting nut	for panel mounting, made of stainless steel	**8686-1**



HP500



panel cut-out



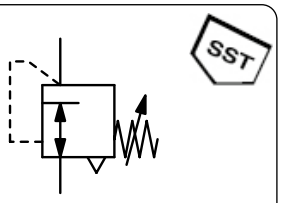
*1 at 240 bar supply pressure and 30 bar outlet pressure

* Product group

PDF CAD
www.aircom.net

Order example:
HP500-002

Description	High pressure regulator with high flow and high reliability. Large piston sensor for high sensitivity and balanced stem design for constant downstream pressure.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 260 bar, optionally up to 310 bar or 410 bar
Leakage rate	< 1 x 10^{-4} mbar l/s He
Adjustment	by black plastic knob
Relieving function	relieving, optionally non-relieving
Gauge port	none, optionally ¼″ NPT for inlet and outlet
Mounting position	any
Temperature range	-25 °C to 100 °C / -13 °F to 212 °F
Material	Body: brass, optionally stainless steel O-rings: NBR/Buna-N and FKM Main valve seat: CTFE, PTFE at RH3-04B Relieving valve: CTFE, PTFE at RH3-04B/-04C Inner valve: PTFE and brass, optionally stainless steel



P_1: max. 260/410 bar
0.7…21/104 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number	D*
High pressure regulator 260 bar, ½″NPT							relieving, brass	**RH3**	
76	203	45	1.7	420	7000	½″NPT	0.7… 21	**RH3-04B**	
							1.0… 42	**RH3-04C**	
							1.4… 70	**RH3-04D**	
							3.4…104	**RH3-04E**	



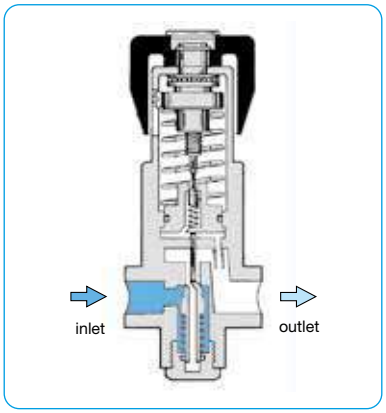
RH3

Special options, add the appropriate letter

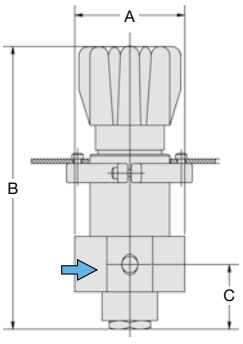
¾″NPT	connection thread		RH3-0**6**.
non-relieving	without relieving function		RH3-0. .**K**
stainless steel, 310 bar	body: stainless steel 316		RH3-0. .**S1**
stainless steel, 410 bar	body: stainless steel 316,	add. pre. range 3.4…172 bar (**F**)	RH3-0**S2**
brass, 345 bar	body: brass,	add. pre. range 3.4…172 bar (**F**)	RH3-0**U**
gauge port	¼″NPT for inlet and outlet		RH3-0**M**
brass pressure gauge	inlet side M**HM**	outlet side	RH3-0. .M**GM**
SST pressure gauge	inlet side M**H**	outlet side	RH3-0. .M**G**

Accessories, enclosed

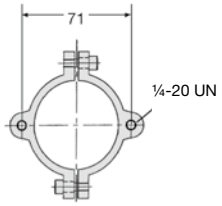
set of mounting brackets	for panel mounting	**1129**



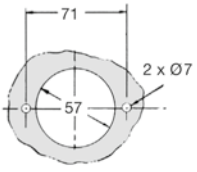
cross-section



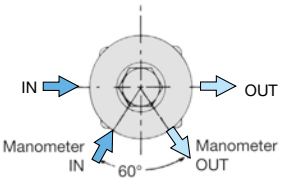
RH3



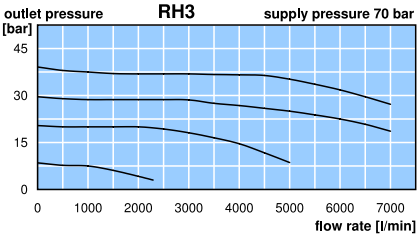
1129

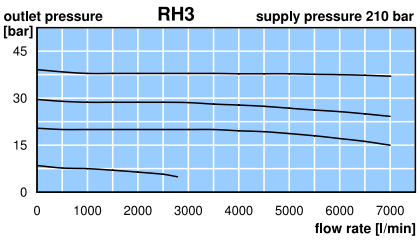


panel cut-out



gauge port, option "M"





*1 at 210 bar supply pressure and 40 bar outlet pressure

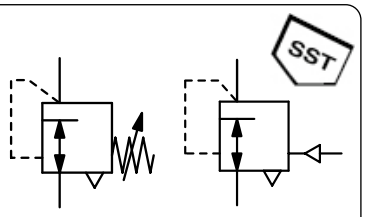
* Product group

PDF CAD
www.aircom.net

Order example:
RH3-04B

HIGH PRESSURE REGULATOR UP TO 414 BAR RH4

Description	High pressure regulator with balanced valve design ensuring stable downstream pressure. Excellent for low pressure.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 414 bar
Exhaust	for compressed air or gases: ¼″ NPT tapped exhaust for inlet and outlet
Leakage	bubble-tight
Adjustment	by black plastic knob, optionally pneumatical control through diaphragm or piston
Relieving function	for compressed air or gases: relieving for liquids: non-relieving
Gauge port	non, optionally ¼″ NPT for inlet and outlet
Mounting position	any
Temperature range	-26 °C to 74 °C / -15 °F to 165 °F
Weight	2.2 kg
Material	Body: brass, optionally 316 stainless steel; O-rings: NBR/Buna-N, on request FKM, Kalrez, E.P.; Main valve seat: Vespel SP21; Relieving valve: Vespel SP21; Inner valve: Monel, stainless steel; Filter: bronze, 40 µm, only for liquids



P_1: max. 414 bar
0…14/28 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number	D*
High pressure regulator 414 bar						brass body, Vespel SP21, NBR/Buna-N relieving, without gauge port		**RH4**	
76	159	19	0.3	510	8500	⅜″ NPT	0…14	**RH4-03A**	
							0…28	**RH4-03B**	
						½″ NPT	0…14	**RH4-04A**	
							0…28	**RH4-04B**	



RH4–...S

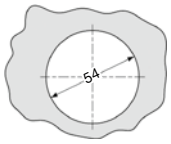
High pressure 4

Special options, add the appropriate letter

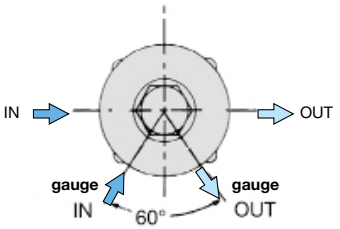
booster version	½″ NPT, 0…41 bar, brass, diaphragm control, $P_{St.}$= 5.8 bar		RH4- 04**J1**
	piston control		RH4- 04**J2**
non-relieving	without relieving function		RH4- 0 . .**K**
stainless steel body			RH4- 0 . .**S**
gauge port	¼″ NPT for inlet and outlet		RH4- 0 . .**M**
brass pressure gauge	inlet side M**HM**	outlet side	RH4- 0 . .M**GM**
SST pressure gauge	inlet side M**H**	outlet side	RH4- 0 . .M**G**

Accessories, enclosed

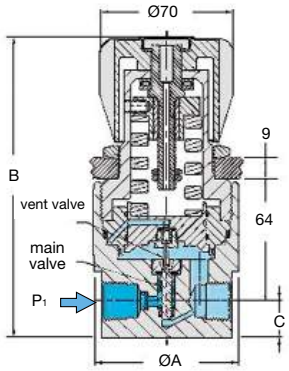
mounting nut	for panel mounting	**62634**



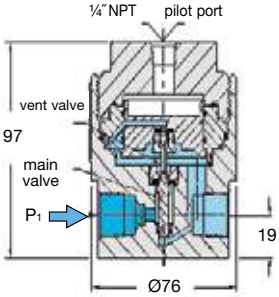
panel cut-out



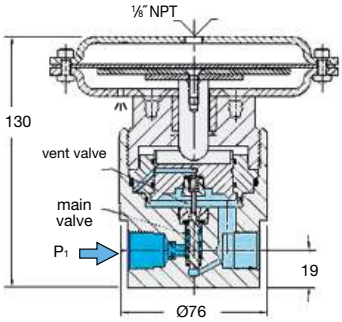
gauge port, option "M"



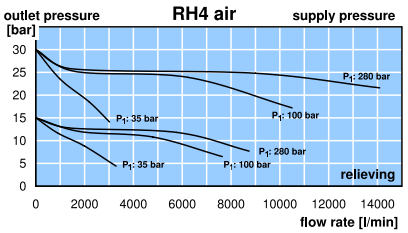
pressure regulator RH4

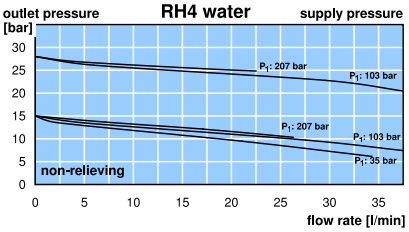


booster RH4-J2



booster RH4-J1





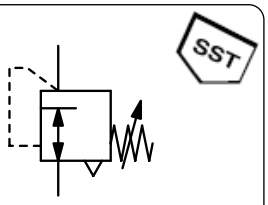
*1 at 280 bar supply pressure and 14 bar outlet pressure

* Product group

PDF CAD
www.aircom.net

Order example: RH4-03A

Description	High pressure regulator, piston operated, made of stainless steel, with high sensitivity, excellent accuracy and reliability.			
Media	compressed air and non-corresive gases or liquids (non-relieving version)			
Supply Pressure	max. 690 bar optionally 415 bar or 1034 bar			
Accuracy	at supply pressure variation of 7 bar: < 100 mbar			
Adjustment	by black plastic adjustment dial			
Relieving Function	standard relieving, optional non-relieving			
Gauge Ports	no ports, optional ¼"NPT for inlet and outlet pressure, shifted by 60°			
Temperature Range	-40° to 75°C / -40°F to 167°F			
Material	Body:	stainless steel 316	Mounting position:	any
	Seal:	NBR optional FKM	Spring Cage:	stainless steel 300
	Valve Seat:	Vespel	Filter:	40 µm, stainless steel 300, brass by option U
	Inner Valve:	stainless steel 300	Relieving Valve:	CTFE



P1: max. 415 / 1 034 bar
0,3 ... 35 / 690 bar

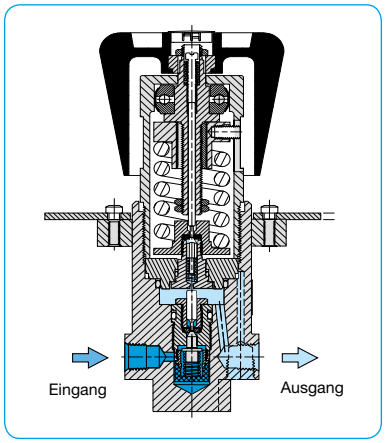
Dimensions A mm	B mm	ØC mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order Number	D*
High Pressure Regulator 690 bar						relieving, compressed air, stainless steal, NBR		**HP306**	
55	175	19	0,05	210	3600	¼" NPT	0.3 ... 35	HP306-035	
				230	3900	¼" NPT	0.3 ... 55	HP306-055	
				280	4800	¼" NPT	0.7 ... 105	HP306-105	
				320	5400	¼" NPT	1.0 ... 175	HP306-175	
				390	6500	¼" NPT	1.7 ... 275	HP306-280	
				420	7000	¼" NPT	3.4 ... 415	HP306-415	
				450	7500	¼" NPT	14 ... 690	HP306-690	



HP306
accessory: mounting bracket

Special options, add the appropriate letter

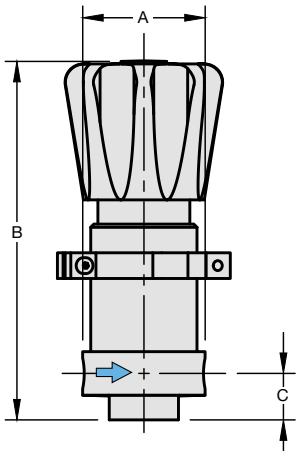
⅜"NPT	connection thread			HP306-...**03**
½"NPT	connection thread	not possible by option S		HP306-...**04**
FKM elastomer				HP306-...**V**
non-relieving	with FKM elastomer			HP306-...V**K**
for oxygen	special cleaned, P1 < 200 bar			HP306-...**15**
inlet pressure 415 bar	brass up to pressure range 3.4 ... 415			HP306-...**U**
inlet pressure 1034 bar	stainless steel			HP306-...**S**
tapped exhaust	with FKM elastomer, ¼"NPT			HP306-...V**X12**
gauge port	¼"NPT for inlet and outlet			HP306-...**M**
gauge brass	inlet side	M**HM**	outlet side	HP306-...M**GM**
gauge stainless steel	inlet side	M**H**	outlet side	HP306-...M**G**



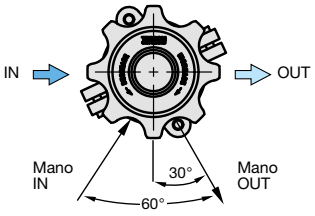
cross-section

Accessories, enclosed

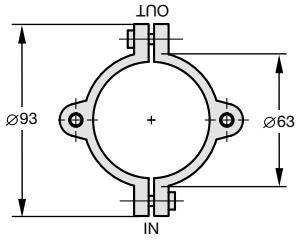
monting bracket	made of aluminium	**1129**



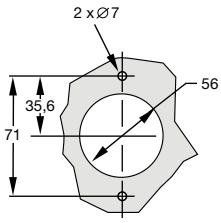
HP306



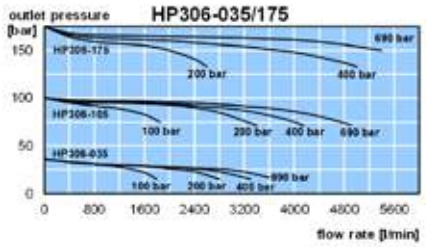
connection diagram

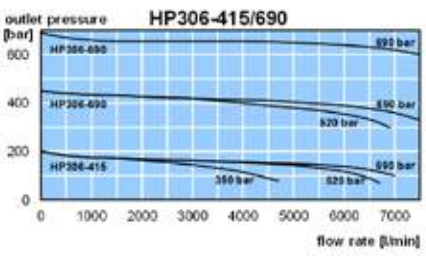


mounting bracket



panel cut-out





*1 at 690 bar inlet pressure, see diaphragm

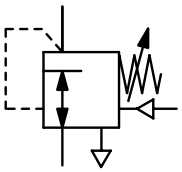
* Product group

PDF CAD
www.aircom.net

Order example:
HP306-035

DIFFERENTIAL PRESSURE REGULATOR P1: MAX. 414 BAR, P2: 0-103 BAR RH44

Description	The dome loaded, spring biased regulator is designed for pressure tracking applications to maintain a constant differential pressure. Venting allows for pressure tracking increases and decreases.		
Media	compressed air or gases according to the selected material		
Supply pressure	max. 414 bar	**Outlet pressure**	max. 103 bar
Exhaust	tapped exhaust ¼″ NPT	**Control port**	⅛″ NPT
Adjustment	hexagonal screw for spring tension	**Leakage**	bubble-tight
Gauge port	not available	**Mounting position**	any
Temperature range	-26 °C to 74 °C / -14 °F to 165 °F		
Material	Body: brass, optionally stainless steel 302 Valve seat and gasket: CTFE, Vespel O-Rings: FKM		



differential pressure 0-1/24 bar
reference pressure 0- 103 bar

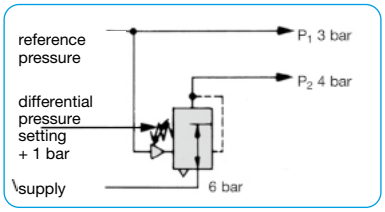
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate l/min*1	Connection thread NPT	Differential pressure range bar	Order number	D*
Differential pressure regulator				P1 max: 414 bar, PA max: 103 bar, brass relieving, PSR: 0 ... 103 bar, FKM / CTFE			**RH44**	
76	212	46	0.7	10000	½″ NPT	0... 1 bar	**RH44-04A**	
						0... 7 bar	**RH44-04B**	
						0... 14 bar	**RH44-04C**	
						0... 24 bar	**RH44-04D**	
76	212	46	2.0	21000	¾″ NPT	0... 1 bar	**RH44-06A**	
						0... 7 bar	**RH44-06B**	
						0... 14 bar	**RH44-06C**	
						0... 24 bar	**RH44-06D**	



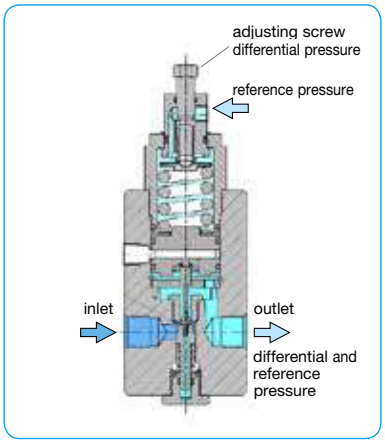
RH44

Special options, add the appropriate letter

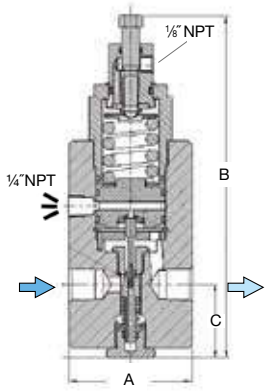
body	stainless steel	RH44-0..**S**



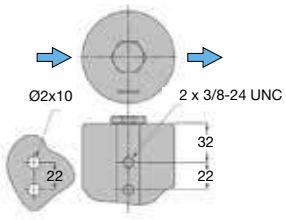
Example: differential pressure constant 1 bar



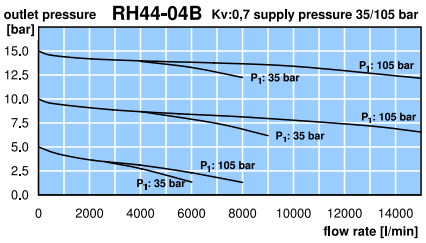
cross-section



RH44



panel-mounting



*1 bei P_1 = 105 bar, P_2 = 15 bar and Δp = 1 bar

* Product group

Stainless steel version: see chapter for stainless steel devices

PDF CAD
www.aircom.net

Order example: RH44-04A

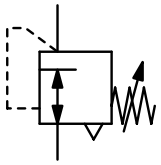
PRECISION PRESSURE REGULATOR

	DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
WITH CONSTANT BLEED	miniature	0.05 ... 2 / 8	G⅛ and flange	R90	**5.02**
	proven	0.02 ... 0.5 / 10	G¼	11-818	**5.03**
	proven	0.14 ... 1.7 / 8	G¼ and ¼"NPT	53.10	**5.04**
	many variations	0.01 ... 0.14 / 10	G¼ - G½	R230	**5.06**
	very precise	0.01 ... 0.14 / 28	G¼ - G½	10	**5.07**
	small design	0.001 ... 0.14 / 7	G¼ and G⅜	R300	**5.08**
	Nullmatic	0.002 ... 0.12 / 31	¼"NPT	R40	www*
	high exhaust	0.01 ... 3 / 10	G¼ - G½	R03	**5.10**
	low pressure	0.002 ... 0.35 / 0.8	G¼ - G½	R110	**5.11**
	2-stage	0,14 ... 2,7 / 8,2	G¼ - G¾	R700	**5.13**
	many pressure areas	0,03 ... 0,15 / 14	G¼ - G¾	R410	**5.14**
	high volume flow	0.001 ... 0.7 / 10	G1 and G1½	R102	**5.16**
	miniature	0.01 ... 0.35 / 7	M5 and flange	RT	www*
	miniature	0.005 ... 0.05 / 1.5	G½	RR	3.10
	clean room environment, SST	0.05 ... 2 / 4	G⅛, M5	RE1	15.04
	stainless steel	0.02 ... 1.5 / 10	G¼ and G½	R3150	15.05
WITHOUT CONSTANT BLEED	robust, low cost	0.01 ... 0.6 / 3.5	G¼ and G⅜	R216	**5.05**
	non-relieving	0.01 ... 0.14 / 10	G¼ - G½	R230-K	**5.06**
	non-relieving	0.01 ... 0.14 / 28	G¼ - G½	10-N	**5.07**
	small design	0.001 ... 0.14 / 7	G¼ and G⅜	R300-K	**5.08**
	high volume flow	0.03 ... 0.7 / 10	G¼ and G⅜	R100	**5.09**
	non-relieving	0.002 ... 0.35 / 0.8	G¼ - G½	R110-K	**5.11**
	robust	0.01 ... 0.5 / 16	G¼	R217	**5.12**
	high-precision	0.03 ... 0.7 / 17	G⅜ - G¾	R400	**5.15**
	non-relieving	0,03 ... 0,15 / 14	G¼ - G¾	R410-K	**5.14**
	non-relieving	0.001 ... 0.7 / 10	G1 and G1½	R102-K	**5.16**
	differential pressure regulator	0.01 ... 1 / 10	G¼ and G⅜	R650	6.04
	miniature	0.2 ... 2 / 9	flange	R342	www*
	miniature	0.2 ... 2 / 9	G⅛ and G¼	R344	www*
	miniature	0.1 ... 3 / 6	G⅛	R309	1.14
	miniature	0.2 ... 2.5 / 8	G⅛	R307	1.16
	miniature	0.2 ... 0.25 / 8	flange	R308	1.17



* visit our webshop: www.aircom.net

Description	Diaphragm precision pressure regulator of very small design and low air consumption
Media	compressed air or non-corrosive gases
Supply pressure	max. 10 bar
Accuracy	response sensitivity: ± 0.2 % FS repeatability: ± 0.3 % FS supply sensitivity: 35 mbar for a 7 bar supply pressure change
Air consumption	max. 3 l/min at 10 bar supply pressure. Consumption depends on supply pressure.
Adjustment	by handwheel with locknut
Relieving function	relieving
Gauge port	G⅛ on both sides of the body, screw plug supplied
Mounting position	any
Temperature range	10 °C to 70 °C / 50 °F to 158 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N Inner valve: stainless steel and brass



G⅛
0.05 ... 2 / 4 / 8 bar

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. bar	Connection thread G / flange	Pressure range bar	Order number	D*
Precision pressure regulator				supply pressure max. 10 bar, relieving, with constant bleed			**R90**	
35	94	10	200	10	G⅛	0.05...2	**R90-01A**	
						0.08...4	**R90-01B**	
						0.10...8	**R90-01C**	



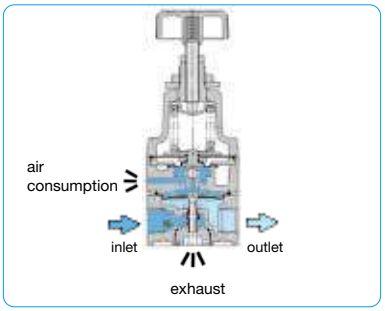
R90

Precision 5

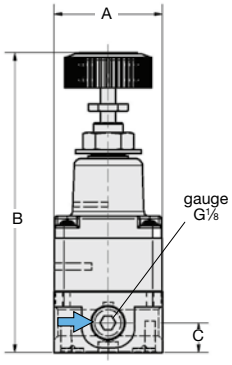
Accessories, enclosed

B*

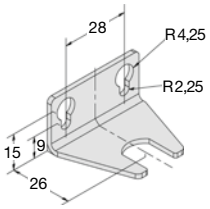
pressure gauge	Ø 23 mm, 0...*2 bar, G⅛	**MA2301-..*2**
mounting bracket	made of steel, mounting nut at the device	**BW10-02**



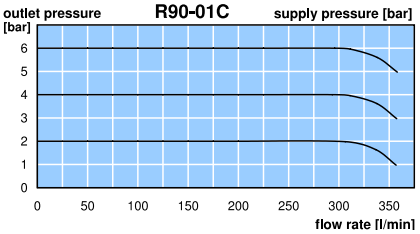
cross-section

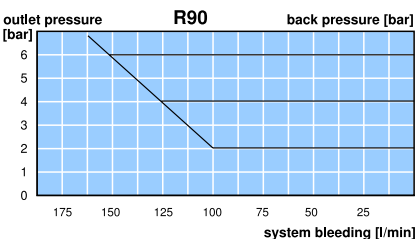


R90



BW10-02





*1 for compressed air : 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0...4 bar, **10** = 0...10 bar

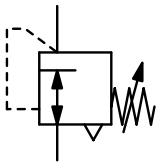
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R90-01A

Description	Precision pressure regulator designed for precise pressure control in the event of changes in flow and supply pressure. Due to constant bleed slight blow-off sounds existing.
Media	dry, oil-free and 25 µm filtered compressed air
Supply pressure	max. 8 bar for 0.02...0.5 bar, max. 10 bar for 0.07…4 bar, max. 14 bar for 0.4...10 bar
Accuracy	at varying supply pressures: < 20 mbar pressure deviation at varying volume flows: < 30 mbar pressure deviation at 5 °C / K temperature variation: < 3 mbar pressure deviation
Air consumption	max. 2 l/min, subject to outlet pressure
Adjustment	by handwheel for panel mounting, optionally by spindle
Relieving function	relieving, 3 mm exhaust diameter
Gauge port	G¼ on both sides of the body, optionally without gauge port **Mounting position** any
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Inner valve: brass, plastic Elastomer: NBR/Buna-N



G¼, 280 l/min

Dimensions A mm	B mm	C mm	Description	P_1 max. bar	Flow rate l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precison pressure regulator			P1: max. 8 / 10 / 14 bar, relieving, with constant bleed, accuracy < 30 mbar, K_v = 0.16 m³/h					**11-818**	
55	137	13	**handwheel**	8	280	G¼	0.02…0.5	**11-818-999**	
			w/o gauge port	10			0.07…4.0	**11-818-100**	
				14			0.40… 10	**11-818-110**	
55	137	13	**handwheel**	8	280	G¼	0.02…0.5	**11-818-987**	
			with gauge port	10			0.07…4.0	**11-818-993**	
				14			0.40… 10	**11-818-991**	
55	137	13	**spindle**	8	280	G¼	0.02…0.5	**11-818-998**	
			w/o gauge port	10			0.07…4.0	**11-818-101**	
				14			0.40… 10	**11-818-112**	



11-818-100

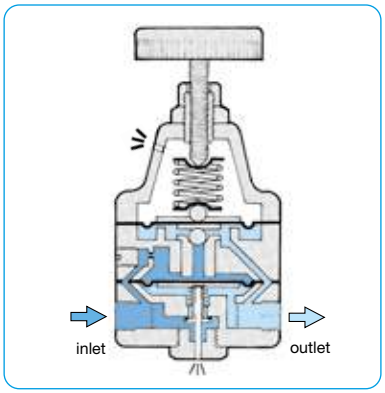
Special options, add the appropriate letter

tamper-proof cap	made of brass, adjustment by screwdriver, total height 108 mm	11-818-. . .**T**

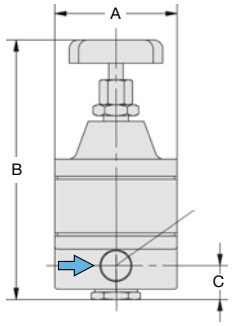
Accessories, enclosed

B*

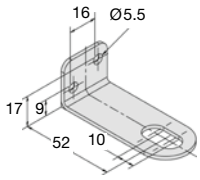
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MA5002-..*2**
mounting bracket	made of steel, mounting nut at the device	**BW12-01**
mounting nut	for metal sheet thickness from 2.5 up to 6 mm	**3081-01**



cross-section



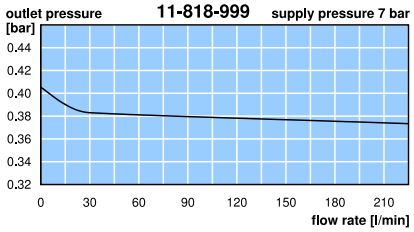
11-818

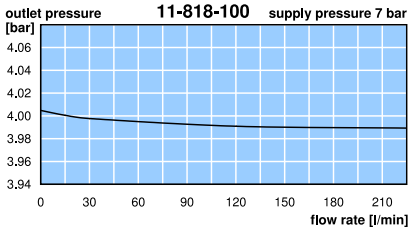


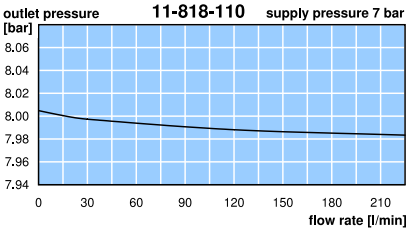
BW12-01



tamper-proof cap







*1 at 7 bar supply pressure and 1.4 bar outlet pressure

*2 **01** = 0…1 bar, **04** = 0…4 bar, **10** = 0…10 bar

* Product group

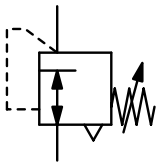
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: 11-818-999

HIGH-PRECISION PRESSURE REGULATOR, ACCURATE TO 5 MBAR 53.10

Description	Regulator of proven reliability and durability designed for precise pressure regulation in the event of changes in flow, supply pressure and temperature. Slight exhaust sounds are normal.
Note	To avoid leaks the mounting nut must be screwed tight.
Media	dry, oil-free and 25 µm filtered compressed air
Supply pressure	max. 10 bar
Accuracy	at varying supply pressures: < 1 mbar pressure deviation at varying volume flows: < 5 mbar pressure deviation
Air consumption	max. 2 l/min, subject to outlet pressure
Adjustment	by handwheel with locknut, for panel mounting **Mounting position** any
Relieving function	relieving, the exhaust valve's diameter is six times greater than the regulating valve's diameter
Gauge port	G¼ or ¼″ NPT on both sides of the body, identical with the connection thread
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Measuring capsule: beryllium copper Elastomer: NBR/Buna-N



G¼ and ¼″ NPT
280 l/min

Dimensions A mm	B mm	C mm	Description	K_V-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G/NPT	Pressure range bar	Order number	D*
Precision pressure regulator supply pressure max. 10 bar, relieving, with constant bleed, accuracy 5 mbar									**Manostat**	
54	70	14	**standard**	0.16	17	280	G¼	0.14…1.7	**53.1002.4X**	
								0.14…4.0	**53.1002.5X**	
								0.14…8.0	**53.1002.6X**	
54	70	14	**standard**	0.16	17	280	¼″ NPT	0.14…1.7	**53.1002.00**	
								0.14…4.0	**53.1003.00**	
								0.14…8.0	**53.1004.00**	

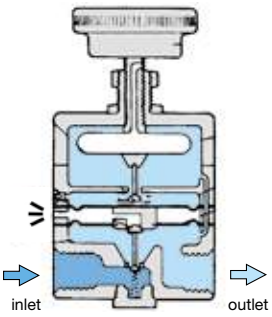


53.1002.6X

Precision
5

Special options, add the appropriate letter

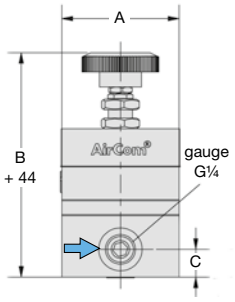
tamper-proof cap	aluminium, adjustment by screwdriver, total height 109 mm	53.1. . . . . **T**



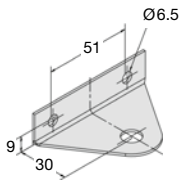
cross-section

Accessories, enclosed

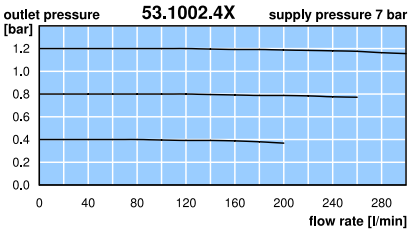
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MA5002-..*2**
connecting parts gauge	for NPT ports, adapter ¼″ NPT - G¼ female	**VP-0202N**
mounting bracket	made of steel, mounting nut at the device	**BW11-01**

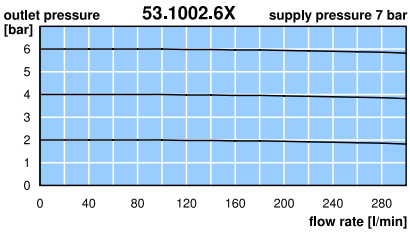


53.10…



BW11-01





*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar

* Product group

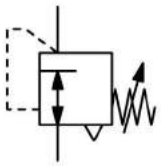
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
53.1002.4X

PRECISION REGULATOR WITHOUT CONSTANT BLEED, UP TO 3.5 BAR OUTLET PRESSURE R216

Description	Diaphragm pressure regulator with good regulation accuracy at varying volume flow, especially at low pressure.
Media	compressed air or non-corrosive gases
Supply pressure	max. 21 bar
Accuracy	response sensitivity: < 100 mbar
Air consumption	without constant bleed
Adjustment	by T-handle with locknut, mounting bracket not possible by handwheel, suitable for panel mounting
Relieving function	relieving, optionally non-relieving
Gauge port	G⅛ on the bottom side of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for handwheel version 0 °C to 80 °C / 32 °F to 176 °F for T-handle version for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast; Elastomer: NBR/Buna-N Spring cage: aluminium; Bottom screw: brass



G¼ and G⅜
750 l/min

Dimensions A mm	B mm	C mm	Adjustment by	K_V-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precision pressure regulator supply pressure max. 21 bar, relieving, without constant bleed									**R216**	
108	162	32	**T-handle**	0.39	42	700	G¼	0.01 ... 0.6	**R216-02E**	
								0.01 ... 1.6	**R216-02F**	
								0.01 ... 3.5	**R216-02H**	
				0.42	45	750	G⅜	0.01 ... 0.6	**R216-03E**	
								0.01 ... 1.6	**R216-03F**	
								0.01 ... 3.5	**R216-03H**	
108	162	32	**handwheel** for panel mounting	0.39	42	700	G¼	0.01 ... 0.6	**R216-02EP**	
								0.01 ... 1.6	**R216-02FP**	
								0.01 ... 3.5	**R216-02HP**	
				0.42	45	750	G⅜	0.01 ... 0.6	**R216-03EP**	
								0.01 ... 1.6	**R216-03FP**	
								0.01 ... 3.5	**R216-03HP**	



R216-02F



R216-03FP
for panel mounting

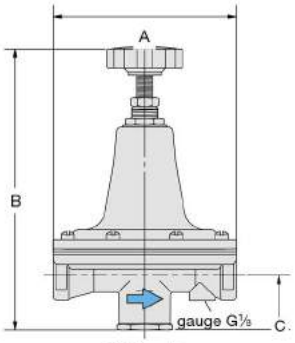
Special options, add the appropriate letter

non-relieving	without relieving function	R216-0. . **K**
NPT	connection thread	R216-0. . **N**
free of oil and grease	specially cleaned	R216-0. . **L**

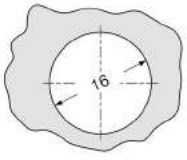
Accessories, enclosed

B*

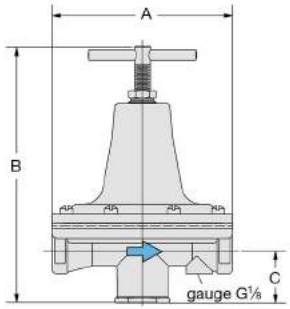
pressure gauge	Ø 63 mm, 0...*2 bar, G¼, connection parts required		**MA6302-..*2**
connection parts	for pressure gauge		**AM-02**
mounting bracket	made of steel, mounting nut at the device	for R216-0..P	**BW20-02**



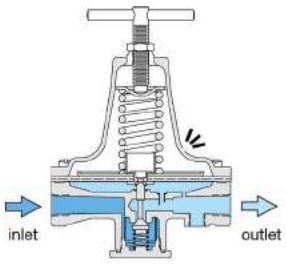
R216-...P



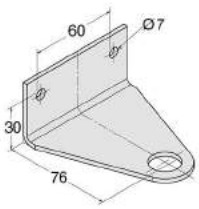
panel cut-out



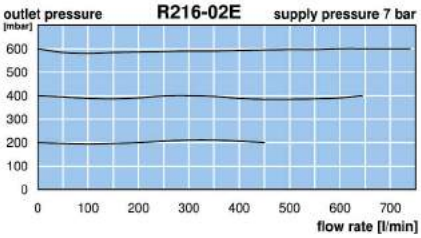
R216

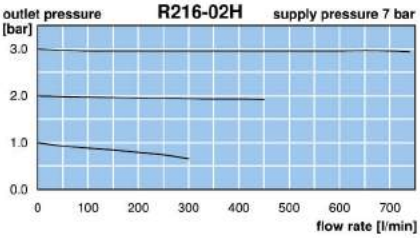


cross-section



BW20-02





*1 at 7 bar supply pressure and 3 bar outlet pressure

*2 **01** = 0...1 bar, **02** = 0...2.5 bar, **04** = 0...4 bar

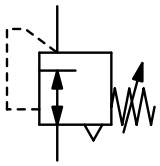
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R216-02E

Description	The diaphragm pressure regulator provides precision regulation in high flow applications. A balanced inner valve, sensitive rolling diaphragm and carefully positioned aspirator tube ensure constant outlet pressure even with changing supply pressure and flow fluctuations.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Accuracy	response sensitivity: < 4 mbar
Air consumption	max. 6 l/min, subject to outlet pressure
Adjustment	by handwheel with locknut
Relieving function	relieving, optionally non-relieving
Relief capacity	110 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, optionally ¼″ NPT **Mounting position** any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Inner valve: brass, galvanized steel Elastomer: NBR/Buna-N



G¼ up to G½, 900 l/min
10…140 mbar / 10 bar

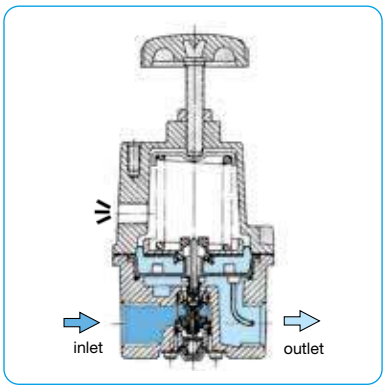
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precision pressure regulator supply pressure max. 17 bar, relieving, with constant bleed								**R230**	
67	154	16	0.5	54	900	G¼	0.01 … 0.14	**R230-020**	
							0.01 … 1.0	**R230-02A**	
							0.01 … 2.0	**R230-02B**	
							0.07 … 4.0	**R230-02C**	
							0.14 … 10	**R230-02D**	



R230

Special options, add the appropriate letter

G⅜	connection thread	R230-03 .
G½	connection thread, recommended for mbar range	R230-04 .
NPT	connection thread	R230-0 . .**N**
non-relieving	and without constant bleed	R230-0 . .**K**
reduced bleeding		R230-0 . .**X19**
tapped exhaust	connection thread G¼	R230-0 . .**X12**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 157 mm	R230-0 . .**T**
check valve	quick exhaust at supply pressure removal	R230-0 . .**X80**

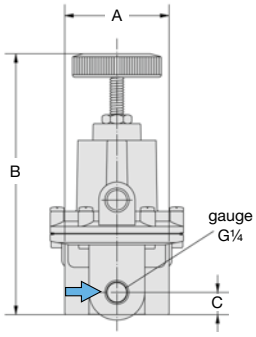


cross-section

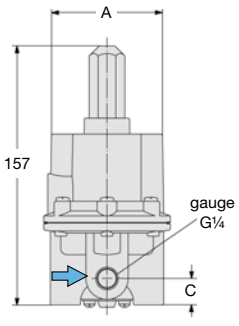
Accessories, enclosed

B*

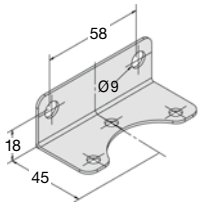
pressure gauge	Ø 63 mm, 0…160 mbar, G¼, capsule type	**MA6302-C2**
pressure gauge	Ø 50 mm, 0…*2 bar, G¼, Bourdon tube	**MA5002-..***2
gauge connectors	NPT connection thread, adapter ¼″ NPT to G¼ female	**VP-0202N**
mounting bracket	made of steel	**BW00-33**



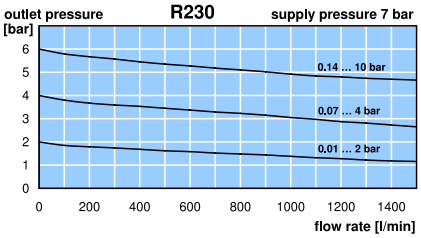
R230



with tamper-proof cap



BW00-33



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **01** = 0…1 bar, **02** = 0…2.5 bar, **06** = 0…6 bar, **10** = 0…10 bar

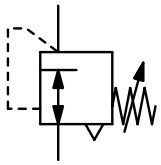
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R230-020

Description	The diaphragm pressure regulator provides precision regulation in high flow applications. A balanced inner valve, sensitive rolling diaphragm and carefully positioned aspirator tube ensure constant outlet pressure even with changing supply pressure and flow fluctuations.
Media	compressed air or non-corrosive gases
Supply pressure	max. 35 bar
Accuracy	response sensitivity: < 2 mbar
Air consumption	max. 6 l/min, subject to outlet pressure
Adjustment	by handwheel with locknut
Relieving function	relieving, optionally non-relieving
Relief capacity	150 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, optionally ¼″ NPT **Mounting position** any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Inner valve: brass, galvanized steel Elastomer: NBR/Buna-N, optionally FKM



G¼ up to G½, 1000 l/min
10…140 mbar / 28 bar

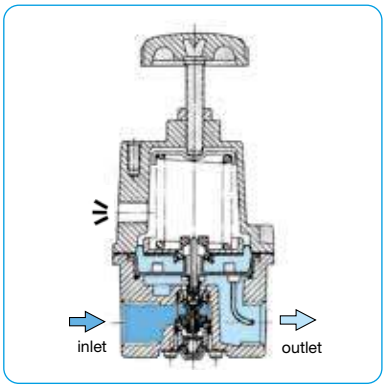
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar		Order number	D*
Precision pressure regulator									**Model 10**	
67	169	26	0.64	60	1000	G¼	0.01 …	0.14	**10212H**	
							0.01 …	0.7	**10222H**	
							0.01 …	1.4	**10202H**	
							0.01 …	2.1	**10232H**	
							0.07 …	4.1	**10242H**	
							0.14 …	10	**10262H**	
							0.20 …	14	**10272H**	
67	178	26	0.64	60	1000	G¼	0.30 …	21	**10282H**	
							0.30 …	28	**10292H**	



Model 10

Special options, add the appropriate letter

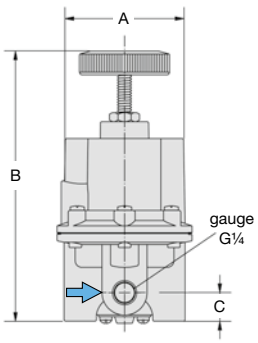
G⅜	connection thread	102.**3**H
G½	connection thread, recommended for mbar range	102.**4**H
NPT	connection thread	102.2
non-relieving	and without constant bleed	102.2.**N**
reduced bleeding	approx. 2 l/min	102.2.**B**
for small flow rate	high constant bleed for more sensitivity	102.2.**L**
tapped exhaust	G¼ connection thread	102.2.**E**
FKM elastomer		102.2.**J**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 166 mm	102.2.**T**
for oxygen	specially cleaned	102.2.**SC**
non-ferrous metal free	FKM elastomer	102.2.**X63**



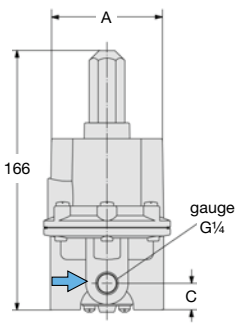
cross-section

Accessories, enclosed B*

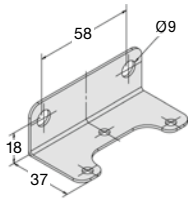
pressure gauge	Ø 63 mm, 0…160 mbar, G¼, capsule type	**MA6302-C2**
pressure gauge	Ø 50 mm, 0…*2 bar, G¼, Bourdon tube	**MA5002-..***2
gauge connectors	for NPT ports, adapter ¼″ NPT - G¼ female	**VP-0202N**
mounting bracket	made of steel	**BW00-34**



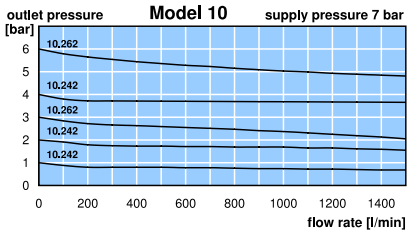
Model 10

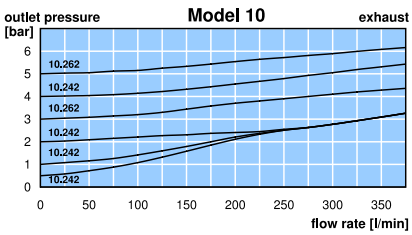


with tamper-proof cap



BW00-34





*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **01** = 0…1 bar, **02** = 0…2,5 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar, **25** = 0…25 bar, **60** = 0…60 bar

* Product group

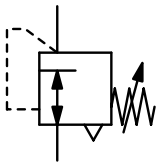
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: 10212H

PRECISION PRESSURE REGULATOR, SMALL DESIGN AND LIGHTWEIGHT R300

Description	Diaphragm pressure regulator of small and lightweight design with high flow capacity. It provides sensitive adjustment accurate to 2 mbar.
Media	compressed air or non-corrosive gases
Supply pressure	max. 18 bar
Accuracy	setting accuracy: < 2 mbar response sensitivity: < 2 mbar
Air consumption	max. 3 l/min, subject to outlet pressure
Adjustment	by handwheel with locknut
Relieving function	relieving
Relief capacity	55 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G⅛ on both sides of the body, screw plugs supplied **Mounting position** any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Inner valve: brass, galvanized steel Elastomer: NBR/Buna-N, optionally FKM



G¼ and G⅜
900 l/min

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precision pressure regulator supply pressure max. 18 bar, relieving with constant bleed								**R300**	
57	133	25	0.5	54	900	G¼	0.001 … 0.14	**R300-020**	
							0.01 … 0.7	**R300-021**	
							0.03 … 2.0	**R300-02A**	
							0.07 … 4.0	**R300-02B**	
							0.14 … 7.0	**R300-02C**	
57	133	25	0.5	54	900	G⅜	0.001 … 0.14	**R300-030**	
							0.01 … 0.7	**R300-031**	
							0.03 … 2.0	**R300-03A**	
							0.07 … 4.0	**R300-03B**	
							0.14 … 7.0	**R300-03C**	



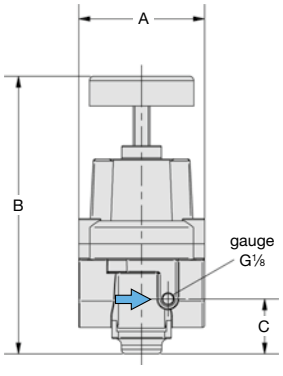
R300

Special options, add the appropriate letter

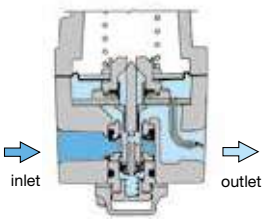
without constant bleed	non-relieving, for small flow rate	R300-0 . . **K**
NPT	connection thread	R300-0 . . **N**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 141 mm	R300-0 . . **T**
FKM elastomer		R300-0 . . **V**
for oxygen	specially cleaned, with oxygen grease	R300-0 . . K**15**

Accessories, enclosed B*

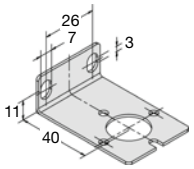
pressure gauge	Ø 63 mm, 0… 160 mbar, G¼ - connection parts required	**MA6302-C2**
pressure gauge	Ø 50 mm, 0…*2 bar, G⅛	**MA5001-..*2**
gauge connection parts	for MA6302-C2	**AM-04**
mounting bracket	made of steel	**BW00-46**



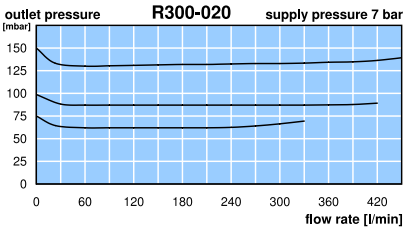
R300

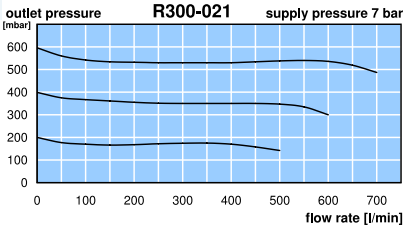


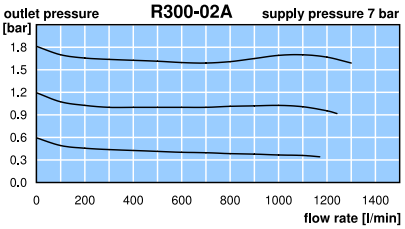
cross-section

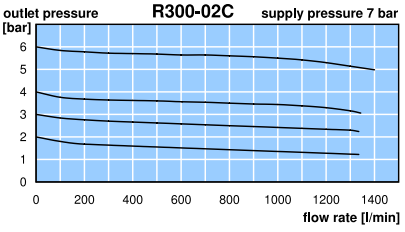


BW00-46









*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 **01** = 0…1 bar, **02** = 0…2,5 bar, **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0…16 bar, **C2** = 160 mbar

* Product group

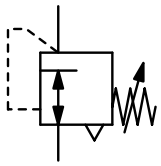
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R300-020

PRECISION PRESSURE REGULATOR WITHOUT CONSTANT BLEED R100

Description	Regulator provides precision regulation in high flow and high relief applications.
Media	compressed air or non-corrosive gases
Supply pressure	max. 18 bar
Accuracy	at supply pressure variation of 7 bar: < 7 mbar pressure deviation response sensitivity: < 2 mbar
Air consumption	without constant bleed
Adjustment	by handwheel with locknut
Relieving function	relieving
Relief capacity	200 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, screw plugs supplied **Mounting position** any
Temperature range	0 °C to 80 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: zinc die-cast Inner valve: aluminium, brass and neoprene Elastomer: NBR/Buna-N



G¼ and G⅜
1400 l/min

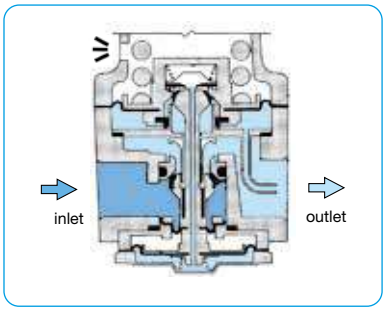
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precision pressure regulator						supply pressure max. 18 bar, relieving, without constant bleed		**R100**	
54	129	25	0.73	78	1300	G¼	0.03…0.7	**R100-021**	
							0.03…2.0	**R100-02A**	
							0.07…4.0	**R100-02B**	
							0.14… 10	**R100-02C**	
54	129	25	0.78	84	1400	G⅜	0.03…0.7	**R100-031**	
							0.03…2.0	**R100-03A**	
							0.07…4.0	**R100-03B**	
							0.14… 10	**R100-03C**	



R100

Special options, add the appropriate letter

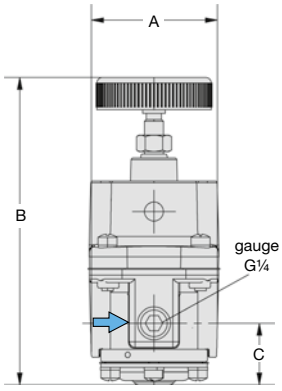
NPT	connection thread	R100-0. . **N**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 139 mm	R100-0. . **T**



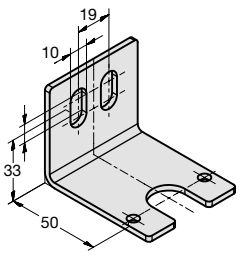
cross-section

Accessories, enclosed B*

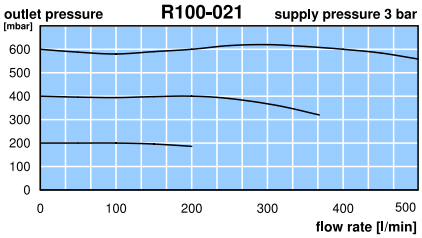
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MA5002-..**.*2
mounting bracket	made of steel	**BW20-04**

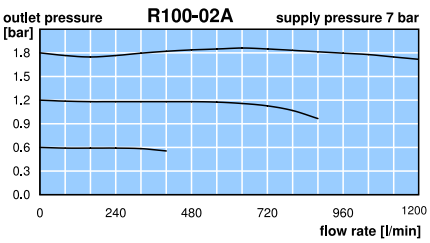


R100



BW20-04





*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 **01** = 0…1 bar, **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar

* Product group

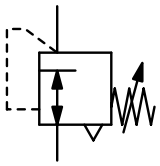
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R100-021

PRECISION PRESSURE REGULATOR WITH HIGH FLOW RATE AND EXHAUST R03

Description	Regulator provides precision regulation in high flow and high relief applications. The regulator is silicone-free and suitable for panel mounting.
Media	oil-free and 5 µm filtered compressed air or non-corrosive gases
Supply pressure	max. 16 bar
Accuracy	at supply pressure change from 2 bar to 7 bar: < 6 mbar pressure deviation at volume flow change from 0 l/min to 20 l/min: < 20 mbar pressure deviation response sensitivity: < 4 mbar
Air consumption	< 1.5 l/min at P_1= 5 bar, < 2 l/min at P_1= 7 bar, < 4 l/min at P_1= 10 bar, < 1% of volume flow
Adjustment	by handwheel with locknut, suitable for panel mounting
Relieving function	relieving
Relief capacity	700 l/min at 6 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -35 °C / -31 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N



G¼ up to G½
4500 l/min

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precision pressure regulator						supply pressure max. 16 bar, relieving, with constant bleed		**R03**	
82	200	41	2.1	198	3300	G¼*3	0.01 … 3	**R03-02A**	
							0.02 … 5	**R03-02B**	
							0.04 … 7	**R03-02C**	
							0.05 … 10	**R03-02D**	
82	200	41	2.4	228	3800	G⅜*3	0.01 … 3	**R03-03A**	
							0.02 … 5	**R03-03B**	
							0.04 … 7	**R03-03C**	
							0.05 … 10	**R03-03D**	
82	200	41	2.9	270	4500	G½	0.01 … 3	**R03-04A**	
							0.02 … 5	**R03-04B**	
							0.04 … 7	**R03-04C**	
							0.05 … 10	**R03-04D**	



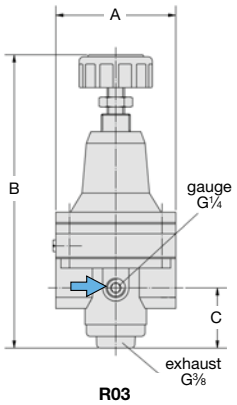
R03

Special options, add the appropriate letter

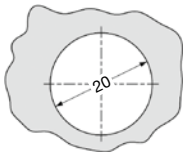
tamper-proof cap	total height 204 mm	R03-0. .**T**

Accessories, enclosed B*

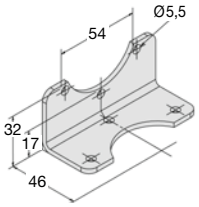
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MA5002-..*2**
mounting bracket	made of steel	**BW00-36**



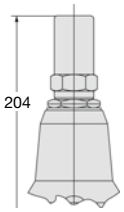
R03



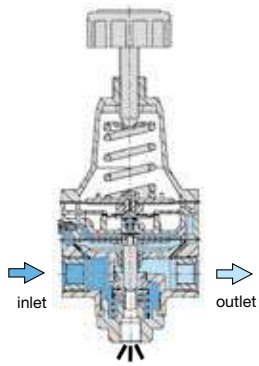
panel cut-out



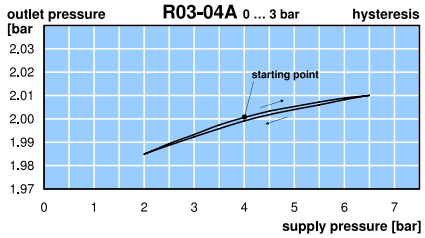
BW00-36

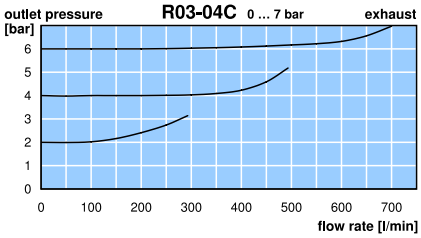


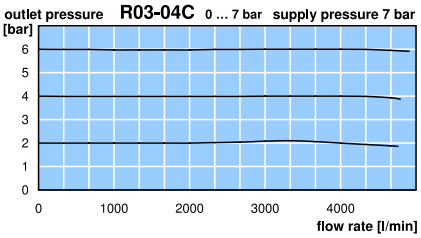
tamper-proof cap



cross-section







*1 at 7 bar supply pressure and 6 bar outlet pressure
*2 **04** = 0…4 bar, **06** = 0…4 bar, **10** = 0…10 bar

*3 standard unit G½ is reduced to smaller threads by fittings

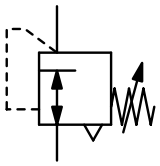
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R03-02A

Description	Diaphragm regulator with small dimensions. Suitables for low pressure and high accuracy applications, It's special diaphragm ensure constant outlet pressure even with changing supply pressure and flow fluctuations.
Media	compressed air or non-corrosive gases
Recommendation	connection thread G½ for pressure range 0...35 / 140 / 280 mbar
Supply pressure	max. 10 bar
Accuracy	response sensitivity: < 0,2 mbar **Air consumption** max. 2 l/min depending on outlet pressure
Adjustment	by handwheel with locknut
Relieving function	relieving, optionally non-relieving **Relief capacity** 14 l/min at 7 mbar above setpoint 70 mbar
Gauge port	G¼ on both sides of the body, optionally ¼"NPT
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Inner valve: stainless steel and galvanised steel Elastomer: NBR/Buna-N, optionally FKM



G¼ up to G½, 700 l/min
2…35 / 800 mbar

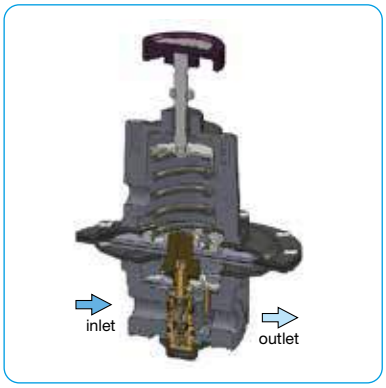
Dimensions A mm	B mm	C mm	K_v-value (m³/h)	Flow rate m³/h*1	l/min*1	Connection thread G	Pressure range mbar	Order number	D*
Precision regulator for low pressure supply pressure max. 10 bar, relieving, with constant bleed								**R110**	
67	180	25	0.4	42	700	G¼	2… 35	**R110-020**	
							2… 140	**R110-02A**	
							2… 280	**R110-02B**	
							2… 400	**R110-02C**	
							2… 800	**R110-02D**	
67	180	25	0.4	42	700	G½	2… 35	**R110-040**	
							2… 140	**R110-04A**	
							2… 280	**R110-04B**	
							2… 400	**R110-04C**	
							2… 800	**R110-04D**	



R110

Special options, add the appropriate letter

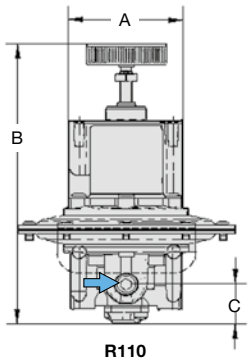
G⅜	connection thread	R110-0**3** .
NPT	connection thread	R110-0 . .**N**
non-relieving	without constant bleed	R110-0 . .**K**
reduced bleeding	ca. 1 l/min	R110-0 . .**X19**
tapped exhaust	connection thread G¼	R110-0 . .**X12**
FKM elastomer		R110-0 . .**V**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 183 mm	R110-0 . .**T**



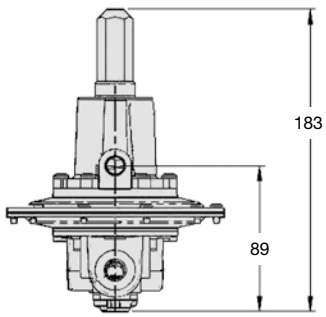
cross-section

Accessories, enclosed B*

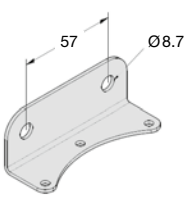
pressure gauge	Ø 63 mm, 0… *2 mbar, G¼, capsule type	**MA6302-. . . *2**
	Ø 63 mm, 0…600 mbar, G¼, Bourdon tube	**MA6302-C6**
	Ø 63 mm, 0… 1 bar, G¼, Bourdon tube	**MA6302-01**
gauge connectors	NPT connection thread, adapter ¼" NPT to G¼ female	**VP-0202N**
mounting bracket	made of steel	**BW00-58**



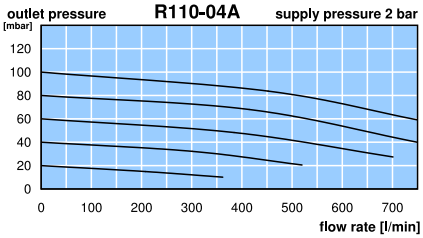
R110



with tamper-proof cap



BW00-58



*1 at 7 bar supply pressure, 800 mbar outlet pressure and 40 mbar pressure drop
*2 **B6** = 0…60 mbar, **C2** = 0…160 mbar, **C3** = 0…250 mbar, **C4** = 0…400 mbar

* Product group

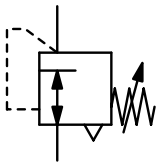
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R110-020

PRECISION REGULATOR WITHOUT CONSTANT BLEED, UP TO 16 BAR OUTLET PRESSURE R217

Description	Diaphragm pressure regulator with good regulation accuracy at varying volume flow.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 16 bar		
Accuracy	response sensitivity: < 350 mbar		
Air consumption	without constant bleed		
Adjustment	by handwheel with locknut, suitable for panel mounting		
Relieving function	relieving		
Gauge port	G¼ on both sides of the body, one screw plug supplied		
Mounting position	any		
Temperature range	0 °C to 80 °C / 32 °F to 176 °F		
Material	Body: zinc die-cast Spring cage: zinc die-cast Diaphragm: FKM	O-ring: NBR/Buna-N Bottom screw: POM	



G¼, up to 16 bar
600 l/min

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precision pressure regulator						supply pressure max. 16 bar, relieving, without constant bleed		**R217**	
82	148	20	0.3	36	600	G¼	0.01 … 0.5	**R217-020**	
							0.01 … 1	**R217-02A**	
							0.20 … 3	**R217-02B**	
							0.40 … 6	**R217-02C**	
							0.50 … 10	**R217-02D**	
							0.70 … 16	**R217-02E**	



R217

Special options,

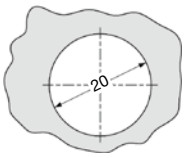
add the appropriate letter

free of grease and oil	specially cleaned	R217-0 . . **L**

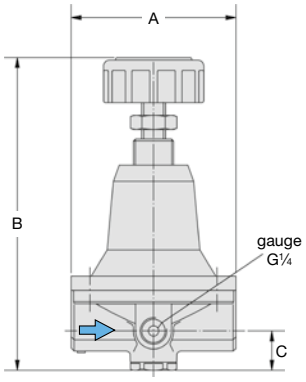
Accessories,

enclosed B*

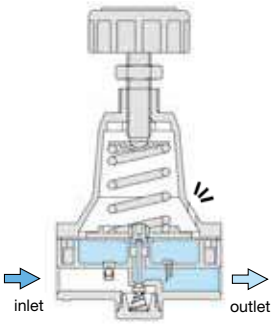
pressure gauge	Ø 63 mm, 0…*2 bar, G¼	**MA6302-..*2**
mounting bracket	made of steel	**BW00-36**



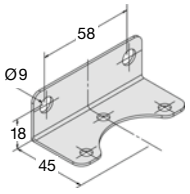
panel cut-out



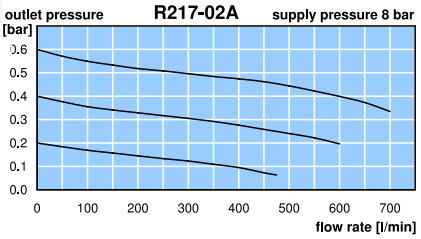
R217

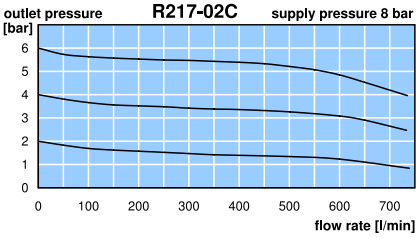


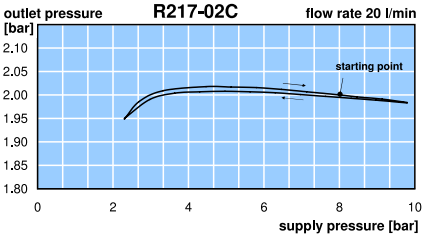
cross-section



BW00-36







*1 at 8 bar suppy pressure, 6 bar outlet pressure und 1 bar pressure drop
*2 **01** = 0…1 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar

* Product group

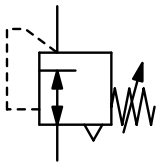
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R217-02A

HIGH-PRECISION TWO-STAGE PRECISION REGULATOR R700

Description	The diaphragm regulator provides high-precision two-stage regulation in high flow and high relief applications. A special diaphragm and balanced inner valve ensure constant outlet pressure even with changing supply pressure and flow fluctuations.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Accuracy	response sensitivity: < 2 mbar
Air consumtion	max. 3 l/min in depending on outlet pressure
Relieving function	relieving
Relief capacity	1000 l/min at 5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	¼″NPT on both sides of the body
Mounting position	any
Temperature range	0 °C to 71 °C / 32 °F to 160 °F, for appropriately conditioned compressed air down to -29 °C / -29 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N Inner valve: stainless steel, brass and aluminium



¼″NPT to ¾″NPT
4150 l/min



R700

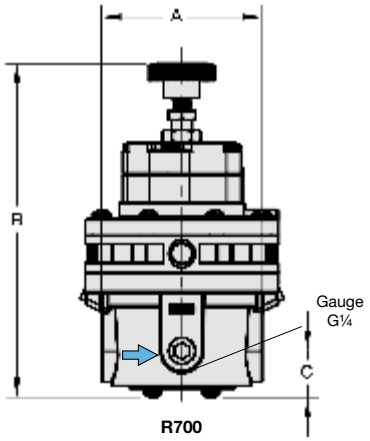
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order Number D*
Precision pressure regulator						supply pressure max. 17 bar, relieving, with constant bleed		**R700**
92	176	25	2.0	100	1600	¼″NPT	0.14…2.7	**R700-02A**
							0.14…4.1	**R700-02B**
							0.14…8.2	**R700-02C**
92	176	25	4.3	220	3600	½″NPT	0.14…2.7	**R700-04A**
							0.14…4.1	**R700-04B**
							0.14…8.2	**R700-04C**
92	176	25	5.0	250	4150	¾″NPT	0.14…2.7	**R700-06A**
							0.14…4.1	**R700-06B**
							0.14…8.2	**R700-06C**

Special options, add the appropriate letter

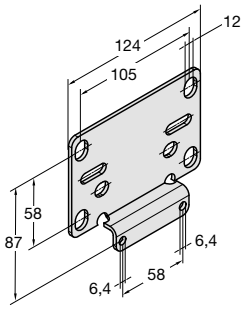
tapped exhaust	connection thread ¼″NPT	R700-0. .**X12**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 173 mm	R700-0. .**T**

Accessories, enclosed B*

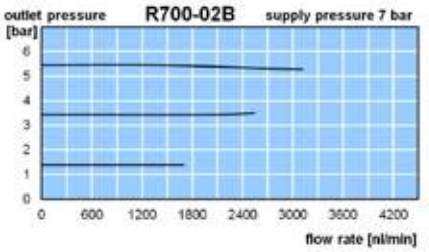
pressure gauge	Ø 63 mm, 0…*2 bar, G¼	**MA6302-..*2**
Gauge connectors	NPT connection thread, adapter ¼″NPT to G¼ female	**VP-0202N**
Mounting bracket	made of steel	**BW00-65**

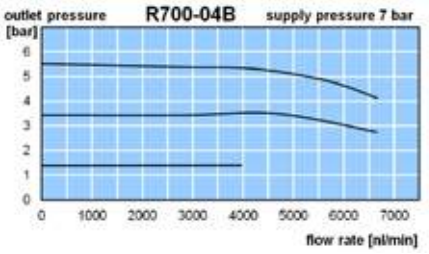


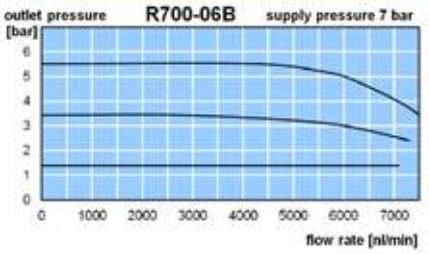
R700



BW00-65







*2 bei **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar

* Product group

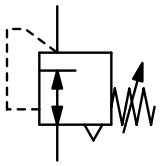
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R700-02A

PRECISION PRESSURE REGULATOR WITH CONSTANT BLEED R410

Description	The diaphragm regulator provides high-precision regulation in high flow and high relief applications. A special diaphragm and balanced inner valve ensure constant outlet pressure even with changing supply pressure and flow fluctuations.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Accuracy	response sensitivity: < 2 mbar
Air consumption	max. 3 l/min depending on outlet pressure
Relieving function	relieving, optionally non-relieving
Relief capacity	850 l/min at 5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	¼″NPT on both sides of the body
Mounting position	any
Temperature range	0 °C to 93 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: Aluminium die-cast Elastomer: NBR Inner valve: stainless steel, brass and aluminium



¼″NPT to ¾″NPT
4150 l/min

Dimensions A mm	B mm	C mm	K_v-Value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread NPT	Pressure range bar	Order number	D*
Precision pressure regulator							supply pressure max. 17 bar, relieving, with constant bleed	**R410**	
92	194	25	2.0	100	1600	¼″NPT	0.03 … 0.15	**R410-02A**	
							0.03 … 0.7	**R410-02B**	
							0.03 … 2.0	**R410-02C**	
							0.07 … 4.0	**R410-02D**	
							0.07 … 7.0	**R410-02E**	
							0.15 … 10	**R410-02F**	
							0.15 … 14	**R410-02G**	
92	194	25	4.3	200	3300	½″NPT	0.03 … 0.15	**R410-04A**	
							0.03 … 0.7	**R410-04B**	
							0.03 … 2.0	**R410-04C**	
							0.07 … 4.0	**R410-04D**	
							0.07 … 7.0	**R410-04E**	
							0.15 … 10	**R410-04F**	
							0.15 … 14	**R410-04G**	
92	194	25	5.0	250	4150	¾″NPT	0.03 … 0.15	**R410-06A**	
							0.03 … 0.7	**R410-06B**	
							0.03 … 2.0	**R410-06C**	
							0.07 … 4.0	**R410-06D**	
							0.07 … 7.0	**R410-06E**	
							0.15 … 10	**R410-06F**	
							0.15 … 14	**R410-06G**	



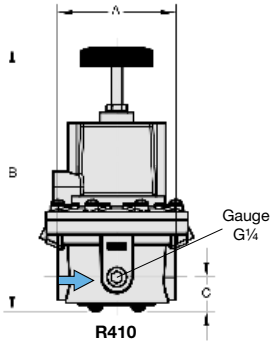
R410

Special options, add the appropiate letter

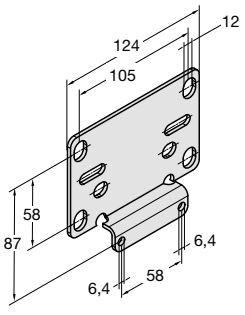
non-relieving	without constant bleed	R410-0 . . **K**
tapped exhaust	connection thread ¼″NPT	R410-0 . . **X12**
tamper-proof-cap	of aluminium, adjustment by screwdriver, total height 295 mm	R410-0 . . **T**

Accessories, enclosed B*

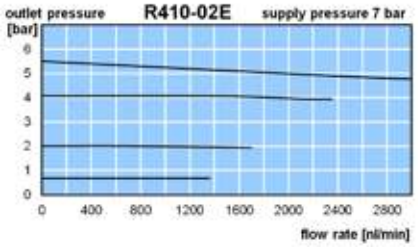
pressure gauge	Ø 63 mm, 0…*1 bar, G¼	**MA6302-..*1**
gauge connectors	NPT connection thread, adapter 1¼″NPT to G¼ female	**VP-0202N**
mounting bracket	made of steel	**BW00-65**

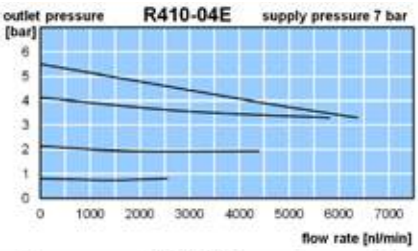


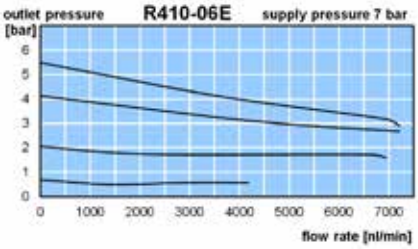
R410



BW00-65







*1 bei **01** = 0…1 bar, **02** = 0…2,5 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar

* Product group

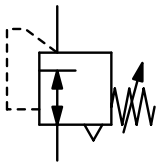
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R410-02A

PRECISION PRESSURE REGULATOR WITHOUT CONSTANT BLEED R400

Description	The diaphragm regulator provides high-precision regulation in high flow and high relief applications. A special diaphragm and balanced inner valve ensure constant outlet pressure even with changing supply pressure and flow fluctuations.
Media	compressed air or non-corrosive gases
Supply pressure	max. 18 bar
Accuracy	response sensitivity: < 2 mbar
Air consumption	without constant bleed
Adjustment	by handwheel with locknut
Relieving function	relieving
Relief capacity	1000 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, screw plugs supplied **Mounting position** any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel, brass, aluminium and steel



G⅜ up to G¾
4200 l/min

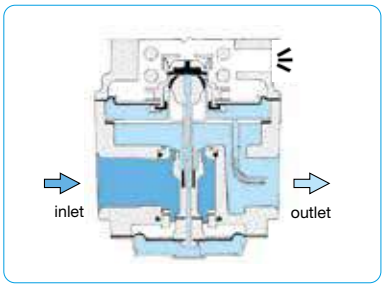
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precision pressure regulator						supply pressure max. 18 bar, relieving, without constant bleed		**R400**	
89	206	39	2.12	228	3800	G⅜	0.03 … 0.7	**R400-031**	
							0.03 … 2.0	**R400-03A**	
							0.07 … 4.0	**R400-03B**	
							0.15 … 10	**R400-03C**	
							0.35 … 17	**R400-03D**	
89	206	39	2.23	240	4000	G½	0.03 … 0.7	**R400-041**	
							0.03 … 2.0	**R400-04A**	
							0.07 … 4.0	**R400-04B**	
							0.15 … 10	**R400-04C**	
							0.35 … 17	**R400-04D**	
89	206	39	2.34	252	4200	G¾	0.03 … 0.7	**R400-061**	
							0.03 … 2.0	**R400-06A**	
							0.07 … 4.0	**R400-06B**	
							0.15 … 10	**R400-06C**	
							0.35 … 17	**R400-06D**	



R400

Special options, add the appropriate letter

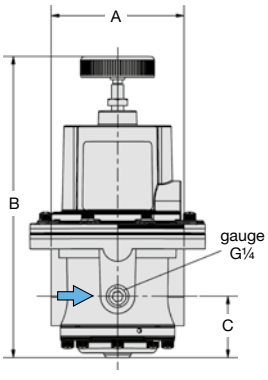
tapped exhaust	connection thread G¼	R400-0 . .**X12**
NPT	connection thread	R400-0 . .**N**
tamper-proof cap	of aluminium, adjustment by screwdriver, total height 295 mm	R400-0 . .**T**
FKM elastomer	up to 10 bar	R400-0 . .**V**



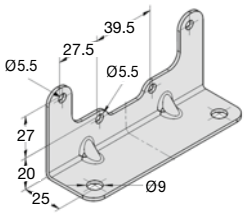
cross-section

Accessories, enclosed B*

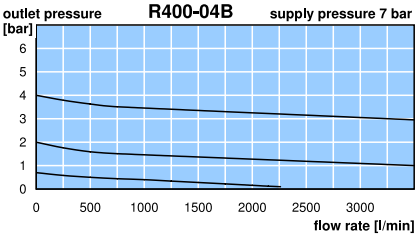
pressure gauge	Ø 63 mm, 0…*2 bar, G¼	**MA6302-..*2**
mounting bracket	made of steel	**BW00-47**

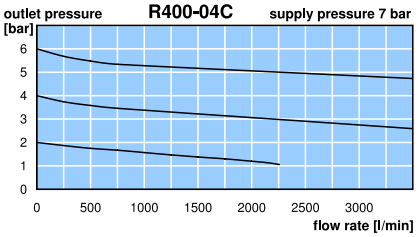


R400



BW00-47





* Product group

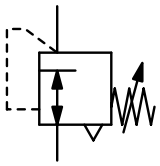
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R400-031

PRECISION PRESSURE REGULATOR FOR FLOW 30 000 L/MIN R102

Description	Provides precision regulation in high flow and high relief applications. A sensitive rolling diaphragm and balanced inner valve assure constant outlet pressure even with supply pressure and flow fluctuations.
Media	compressed air or non-corrosive gases
Supply pressure	max. 18 bar, optionally max. 35 bar
Accuracy	response sensitivity: < 2 mbar
Air consumption	0.5% of volume flow, max. 15 l/min
Adjustment	by T-handle with locknut
Relieving function	relieving, optionally non-relieving
Relief capacity	1200 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ for outlet pressure **Mounting position** any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM at 35 bar version Inner valve: stainless steel, brass, aluminium and steel



G1 and G1½
30 000 l/min

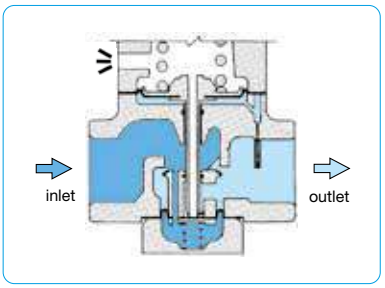
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Precision pressure regulator supply pressure max. 18 bar, relieving, with constant bleed								**R102**	
141	287	56	11.4	1680	28000	G1	0.001 ... 0.7	**R102-081**	
							0.03 ... 2.0	**R102-08A**	
							0.07 ... 4.0	**R102-08B**	
							0.14 ... 7.0	**R102-08C**	
							0.14 ... 10	**R102-08D**	
141	287	56	12.2	1800	30000	G1½	0.001 ... 0.7	**R102-121**	
							0.03 ... 2.0	**R102-12A**	
							0.07 ... 4.0	**R102-12B**	
							0.14 ... 7.0	**R102-12C**	
							0.14 ... 10	**R102-12D**	



R102

Special options, add the appropriate letter

NPT	connection thread	R102-. . . **N**
non-relieving	and without constant bleed	R102-. . . **K**
tapped exhaust	G⅜ connection thread	R102-. . . **X12**
supply pressure 35 bar	free of non-ferrous metal, FKM elastomer	R102-. . . **X62**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 295 mm	R102-. . . **T**

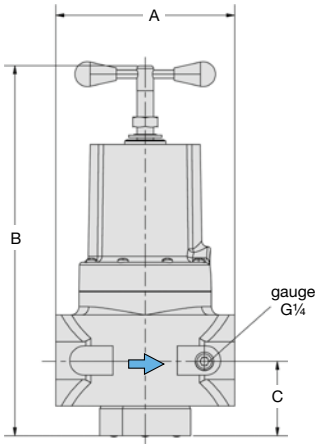


cross-section

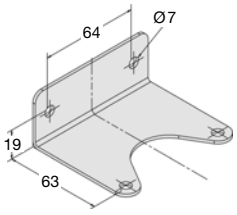
Accessories, enclosed

B*

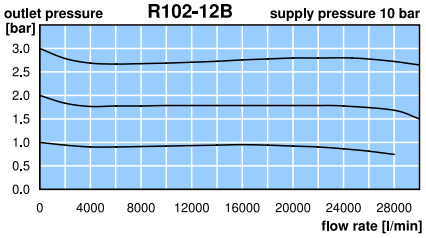
pressure gauge	Ø 63 mm, 0...*2 bar, G¼	**MA6302-..***2
mounting bracket	made of steel	**BW00-30**

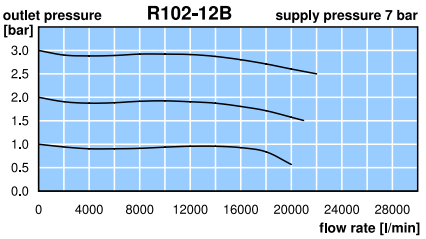


R102



BW00-30





*1 at 10 bar supply pressure and 2.8 bar outlet pressure
*2 **01** = 0...1 bar, **02** = 0...2.5 bar, **04** = 0...4 bar, **10** = 0...10 bar

* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

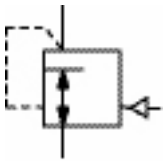
Order example:
R102-081

VOLUME BOOSTER

	DESCRIPTION	SUPPLY PRESSURE max. bar	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
PRECISE	with external feedback	16	0.2 ... 7	G¼	R218	**6.03**
	differential pressure also	17	0 ...1 / 10	G¼ and G⅜	R650	**6.04**
	ratio 1:1 up to 1:6	17	0 ... 10	G¼ and G½	R750	**6.05**
	different ratio	17	0 ... 10	G¼ - G½	R208	**6.06**
	differential pressure also	16	0 ... 10	G¼ - G½	R03-J	**6.07**
	high exhaust capacity	17	0 ... 10	¾″NPT u. 1″NPT	R600	**6.08**
	different ratio, high-precision	17	0 ... 10	G½ and G¾	R450	**6.09**
	high exhaust capacity	28	0.2 ... 18	G¼ - G1¼	R116	**6.10**
	high volume flow	17	0 ... 10	G1 and G1½	R200	**6.11**
	high exhaust capacity	17	0 ... 10	1½″NPT	R201	**6.11**
STANDARD	high volume flow	21	0.2 ... 18	G¼ - G3	R119-J	**6.13**
WITH RATIO	1:1 up to 1:6	17	max. 10	G¼ and G⅜	R750	**6.05**
	1:1 up to 1:6 and 2:1 up to 5:1	17	max. 10	G¼ and G⅜	R208	**6.06**
	1:1 up to 1:3 and 2:1 up to 3:1	17	max. 10	G½ and G¾	R450	**6.09**
LOW PRESSURE	also for gases	20	10 ... 350/1000 mbar	G1 - G2	RZ-J	**6.12**
	also for gases	0.4	2 ... 55/ 160 mbar	G½ - G2	RGDJ-J	**6.15**
	also for gases	4	5 ... 350 mbar	G½ - G1½	RGB4-J	**6.15**
HIGH PRESSURE	ratio 1:2 up to 1:19	260	3 ... 42 /104	½″NPT and ¾″NPT	RH3-J	**6.14**
	made of brass	100	0.1 ... 24 / 99	G1	RLM	**6.16**
	made of brass	50	1 ... 15 / 50	G¼ - G2	R120-J	**6.17**
MINIATURE	also for liquids	10	0 ... 6	G⅛	R035-JK	**6.02**
STAINLESS STEEL	ratio 1:2 up to 1:19	310	3 ... 42 /104	½″NPT and ¾″NPT	RH3-J	**6.14**
	made of stainless steel	100	0.1 ... 24 / 99	G1	RLE	**6.16**
	made of stainless steel	50	1 ... 15 / 50	G¼ - G2	R3000-J	15.18
	high exhaust capacity	17	0 ... 10	¾″NPT and 1″NPT	R601	15.20
PRESSURE BOOSTER	1:2 up to 1:10	12	4 ... 100	G¼ - G¾	AM	**6.18**
	1:2 up to 1:5, with storage	12	4 ... 40	G⅜ and G½	AP	**6.19**
	1:2, small design	10	3 ... 16	G⅛ - G½	AB	**6.20**



Description	Pilot-operated volume booster of small and light design. Also suitable as separator for media. The booster features a sensitive rolling diaphragm permitting good pressure constancy.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 10 bar
Pilot pressure	max. 6 bar, pilot port G¼
Transmission ratio	1:1 pilot pressure: outlet pressure
Relieving function	non-relieving
Gauge port	G⅛ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: POM Elastomer: NBR/Buna-N Inner valve: brass



G⅛

compressed air or liquids

Dimensions A mm	B mm	C mm	Flow rate m³/h*1	l/min*1	Connection thread G	Supply pressure max. bar	Pressure range bar	Order number	B*
Plastic booster								**R035-JK**	
36	48	12	15	250	G⅛	10	0… 6	**R035-01JK**	

supply pressure max. 10 bar, non-relieving, without constant bleed, transmission ratio 1:1

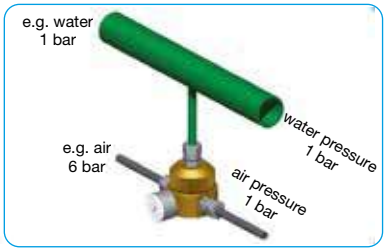


R035-01JK

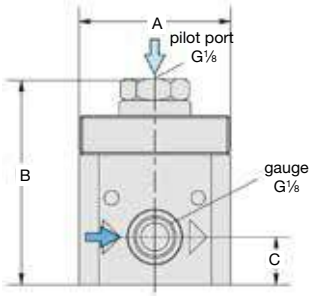
Accessories, enclosed

B*

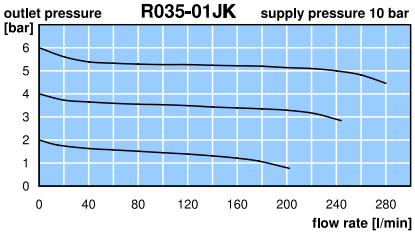
pressure gauge	Ø 23 mm, 0… 6 bar, G⅛	**MA2301-06**



example for media separator



R035-JK



*1 10 bar suppply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group

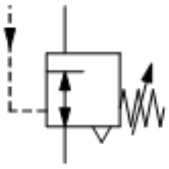
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R035-01JK

PRESSURE REGULATOR WITH EXTERNAL FEEDBACK R218

Description	Diaphragm pressure regulator in small design for regulation characteristics "feedback systems" in conjunction control precision with volume flow boosters. Due to the external feedback, regulation is significantly improved and the flow rate increased.
Media	compressed air and non-corrosive gases
Supply pressure	max. 16 bar — **Air consumption** approx. 3 to 6 l/min
Adjustment	by handwheel with snap-lock, for panel mounting
External Feedback	should be installed at the outlet of the booster, e.g. at the gauge port, or at the outlet pipe. This will measure the pressure drop at the output of the booster and the pilot pressure will be readjusted.
Relieving function	relieving
Gauge port	G¼ on both sides of the body, screw plugs supplied — **Feedback connection** G¼
Temperature range	0 °C to 60 °C / 32 °F to 140 °F — **Mounting position** any
Material	Body: zinc die-casting — Spring cage: zinc die-casting — Elastomer: FKM



G¼, max. 16 bar
420 l/min

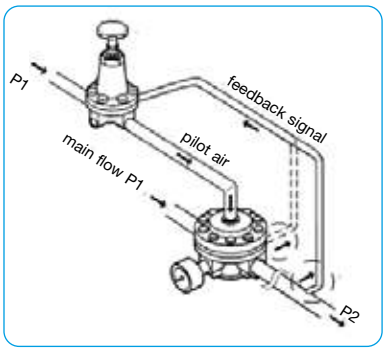
Dimensions A mm	B mm	C mm	K_V-value (m³/h)	Flow rate m³/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	D*
Regulator with external feedback supply pressure max. 16 bar, relieving, with air consumption								**R218**	
82	154	19	0.3	25	420	G¼	0.2…7.0	**R218-02C**	



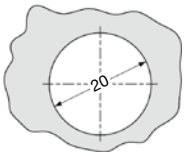
R218

Accessories, enclosed B*

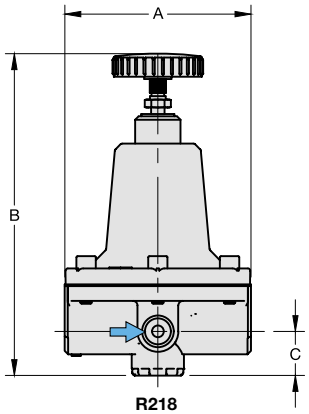
pressure gauge	Ø 63 mm, 0…10 bar, G¼	**MA6302-10**
mounting bracket	made of steel	**BW00-36**
mounting nut	made of brass	**M20x1,5M**



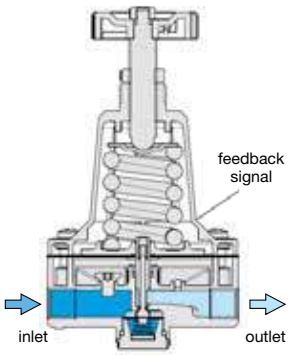
Example: combination with booster



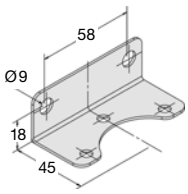
panel cut-out



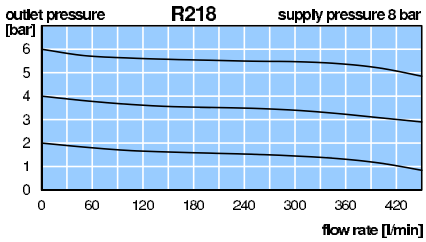
R218



cross-section



BW00-36



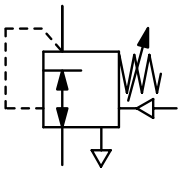
*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group

PDF CAD
www.aircom.net

Order example:
R218-02C

Description	Signal-operated regulator designed to provide outlet pressure which is the sum of the input signal pressure plus a preset bias. As an option, the relay can start with bias range -0.3 bar / -4 psi. The relay can also be used as a differential pressure regulator.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Pilot pressure	max. 10 bar, pilot port G¼
Accuracy	response sensitivity: < 1 mbar
Air consumption	without constant bleed
Relieving function	relieving, tapped exhaust standard G⅛
Relief capacity	110 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N Inner valve: brass



G¼ and G⅜, 1300 l/min parallel translation

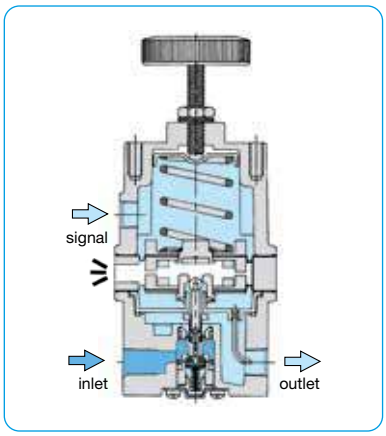
Dimensions A mm	B mm	C mm	Flow rate m³/h*1	l/min*1	Connection thread G	Supply recommended bar	Positive bias bar	Pressure range bar	Order number	D*
Positive bias relay						supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1			**R650**	
68	170	16	72	1200	G¼	5	0… 1	0…10	**R650-02C**	
						5	0… 2		**R650-02D**	
						8	0… 4		**R650-02E**	
						15	0…10		**R650-02F**	
68	170	16	78	1300	G⅜	5	0… 1	0…10	**R650-03C**	
						5	0… 2		**R650-03D**	
						8	0… 4		**R650-03E**	
						15	0…10		**R650-03F**	



R650

Special options, add the appropriate letter

negative bias	factory-set to -0.3 bar	R650-0 . .**Y**
NPT	connection thread	R650-0 . .**N**
tamper-proof cap	above spindle, total height 174 mm	R650-0 . .**T**

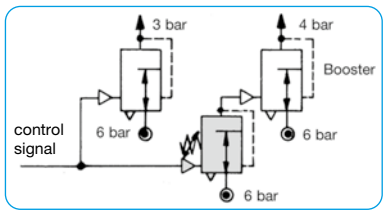


cross-section

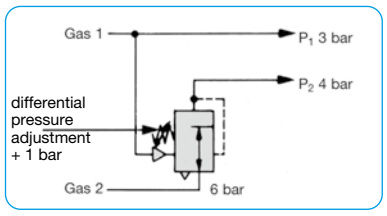
Accessories, enclosed

B*

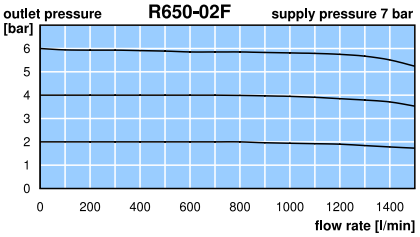
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MA5002-..*2**
mounting bracket	made of steel	**BW00-33**

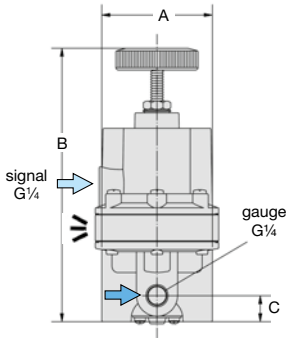


Example 1: constant differential pressure of 1 bar at high flow

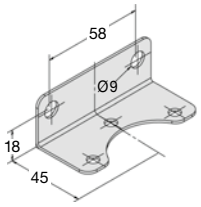


Example 2: constant differential pressure of 1 bar

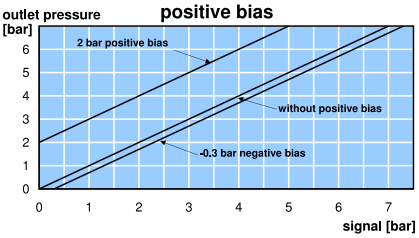




R650



BW00-33



*1 at 7 bar supply pressure and 6 bar outlet pressure
*2 **01** = 0...1 bar, **02** = 0...2.5 bar, **04** = 0...4 bar, **10** = 0...10 bar

* Product group

Gauges: see chapter for measuring devices

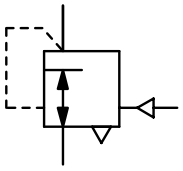
PDF CAD
www.aircom.net

Order example: R650-02C

Booster 6

PRECISION VOLUME BOOSTER WITH TRANSMISSION RATIO R750

Description	The volume booster with transmission ratio amplifies the outlet pressure at a 1:1 up to 1:6 ratio by a pneumatic pilot pressure, which has no constant bleed. That signal pressure has the same function as a spring in a common regulator: generating counter pressure on the diaphragm. This force is compensated by the outlet pressure on the diaphragm's bottom side. The ratio of pilot pressure to outlet pressure depends on the size of the operating diaphragms.
Media	compressed air or non-corrosive gases **Supply pressure** max. 17 bar
Pilot pressure	max. 10 bar at 1:1 ratio, 5 bar at 1:2, 3.3 bar at 1:3, 1.7 bar at 1:6, pilot port G¼
Accuracy	at supply variation of 3.5 bar: < 7 mbar 1:1, < 10 mbar at 1:2, < 21 mbar at 1:3, < 41 mbar at 1:6
	response sensitivity: < 2 mbar 1:1, < 3 mbar at 1:2, < 17 mbar at 1:3, < 23 mbar at 1:6
Air consumption	max. 3 l/min, subject to outlet pressure
Relieving function	relieving
Relief capacity	170 l/min at 1.5 bar outlet and 0.7 bar overpressure above setpoint
Gauge port	on both sides of the body, thread equal to regulator thread **Mounting position** any
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N Inner valve: brass and stainless steel



G¼ to G½, 1000 l/min
1:1 up to 1:6

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Signal pressure max. bar	Transmission ratio signal : outlet	Order number
Booster						with transmission ratio, relieving,	with constant bleed,	supply pressure max. 17 bar, pressure range 0...10 bar	**R750**
68	102	16	0.5	60	1000	G¼	10	1:1	**R750-02I**
							5.0	1:2	**R750-02K**
							3.3	1:3	**R750-02C**
							1.7	1:6	**R750-02M**
68	102	16	0.5	60	1000	G⅜	10	1:1	**R750-03I**
							5.0	1:2	**R750-03K**
							3.3	1:3	**R750-03C**
							1.7	1:6	**R750-03M**
68	102	16	0.5	60	1000	G½	10	1:1	**R750-04I**
							5.0	1:2	**R750-04K**
							3.3	1:3	**R750-04C**
							1.7	1:6	**R750-04M**



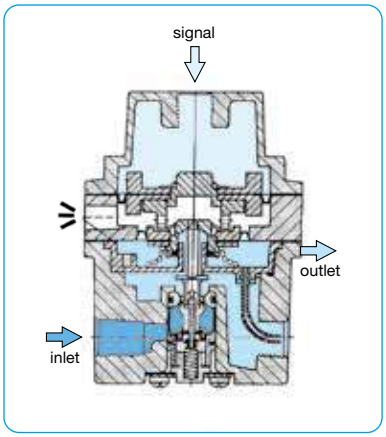
R750

Special options, add the appropriate letter

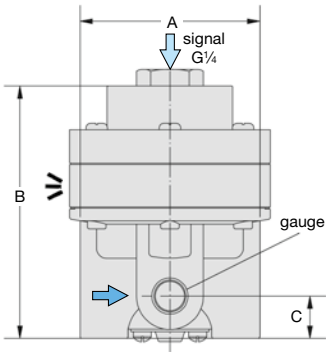
negative bias	factory-set to -0.3 bar	R750-0. .**Y**
NPT	connection thread	R750-0. .**N**
tapped exhaust	connection thread G¼	R750-0. .**X12**

Accessories, enclosed

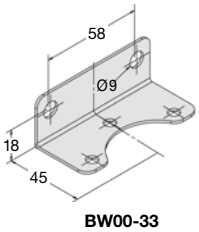
pressure gauge	Ø 50 mm, 0...*2 bar, G¼	**MA5002-..***2
mounting bracket	made of steel	**BW00-33**



cross-section



R750



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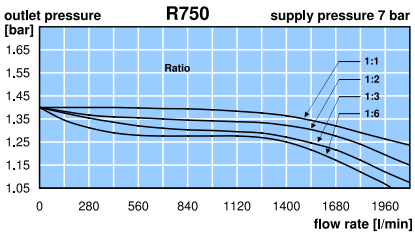
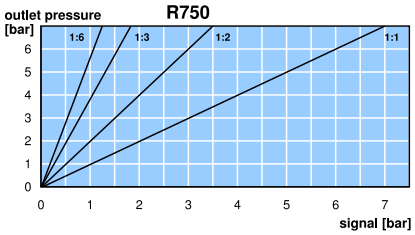




*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar

* Product group

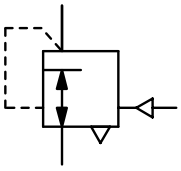
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R750-02I

PRECISION VOLUME BOOSTER WITH TRANSMISSION RATIO R208

Description	The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The pilot pressure has no constant bleed and shows the same function as a spring in a common regulator: generating counter pressure on the diaphragm.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Pilot pressure	max. 10 bar at 1:1 ratio, 5 bar at 1:2, 3.3 bar at 1:3, 2.5 bar at 1:4, 1.7 bar at 1:6 **Pilot port** G¼
Accuracy	at supply pressure variation of 7 bar: < 7 mbar pressure deviation transmission error: 1% from 1:1 to 1:3 ratio, 2% at greater or inverse transmission response sensitivity: 1 mbar at 1:1, 2 mbar at 1:2, 3 mbar at 1:3 and at inverse transmission
Air consumption	max. 3 l/min, subject to outlet pressure **Relieving function** relieving
Relief capacity	310 l/min at 1.5 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, screw plugs supplied **Mounting position** any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F, NBR, for appropriately conditioned compr. air down to -40 °C / -40 °F 0 °C to 90 °C / 32 °F to 194 °F, FKM, for appropriately conditioned compr. air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: brass and zinc-plated steel



G¼ to G½, 1300 l/min
1:1 up to 1:6, 2:1 up to 5:1

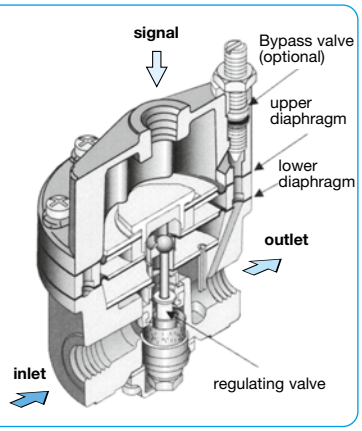
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pilot pressure max. bar	Transmission ratio signal : outlet	Order number D*
Booster							with transmission ratio, relieving, with constant bleed,	supply pressure max. 17 bar, pressure range 0...10 bar	**R208**
76	98	24	0.7	78	1300	G¼	10	1 : 1	**R208-02I**
							5.0	1 : 2	**R208-02K**
							3.3	1 : 3	**R208-02L**
76	110	24	0.7	78	1300	G¼	2.5	1 : 4	**R208-02M**
							2.0	1 : 5	**R208-02N**
							1.7	1 : 6	**R208-02O**
76	98	24	0.7	78	1300	G¼	10	2 : 1	**R208-02R**
								3 : 1	**R208-02S**
76	110	24	0.7	78	1300	G¼	10	4 : 1	**R208-02T**
								5 : 1	**R208-02U**



R208

Special options, add the appropriate letter

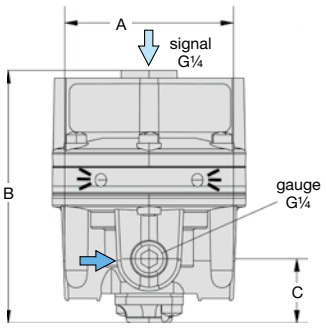
G⅜	connection thread		R208-03 .
G½	connection thread		R208-04 .
NPT	connection thread		R208-0 . **N**
non-relieving*3	without relieving function		R208-0 . **K**
tapped exhaust*3	connection thread G¼		R208-0 . **X12**
bypass with restrictor*4	between control chamber and outlet	1:1 only	R208-0 . **X16**
negative bias*3	preset to -0.24 bar, adjustable by 30 mbar		R208-0 . **Y**
silicone elastomer	supply pressure max. 5 bar	1:1 only	R208-0 . **A**
FKM elastomer			R208-0 . **V**



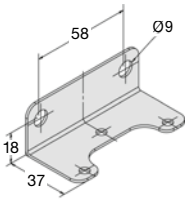
cross section

Accessories, enclosed B*

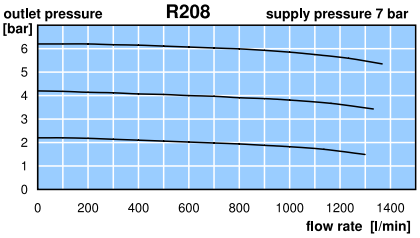
pressure gauge	Ø 50 mm, 0...*2 bar, G¼	**MA5002-..*2**
mounting bracket	made of steel	**BW00-34**



R208



BW00-34



*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar
*3 only for 1:1, 1:2, 1:3, 2:1 and 3:1
*4 not compatible with option Y

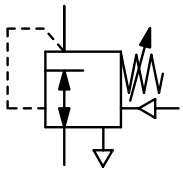
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R208-02I

Description	Pilot-operated volume booster with positive bias designed to supply outlet pressure equal to signal pressure plus an adjustable preset spring constant. With very high forward and reverse flow characteristics and excellent sensitivity. If requested the system pressure can also manually be adjusted up to 6 bar adding to the pilot pressure.
Media	oil-free and 5 µm filtered compressed air or non-corrosive gases
Supply pressure	max. 16 bar
Pilot pressure	max. 10 bar, accordingly lower in the case of manual pre-pressure setting **Pilot port** G⅛
Accuracy	at supply pressure change from 2 bar to 7 bar: < 6 mbar pressure deviation at flow rate change from 0 l/min to 20 l/min: < 20 mbar pressure deviation response sensitivity: < 2 mbar
Air consumption	1.5 l/min at P_1= 5 bar, 2 l/min at P_1= 7 bar, 4 l/min at P_1= 10 bar, < 1% of volume flow
Relieving function	relieving, tapped exhaust
Relief capacity	700 l/min at 6 bar outlet and 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Elastomer: NBR/Buna-N



G¼ up to G½, 4500 l/min parallel translation

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Positive bias bar	Pressure range bar	Order number	D*
Volume booster						supply pressure max. 16 bar, pilot pressure max. 10 bar, with constant bleed, tapped exhaust			**R03-J**	
82	106	41	2.0	198	3300	G¼*3	without	0.05…10	**R03-02J**	
			2.3	228	3800	G⅜*3			**R03-03J**	
			2.7	270	4500	G½			**R03-04J**	
Positive bias booster						supply pressure max. 16 bar, pilot pressure max. 10 bar, with constant bleed, tapped exhaust			**R03-J .**	
82	142	41	2.0	198	3300	G¼*3	0…1 bar	0.05…10	**R03-02J1**	
			2.3	228	3800	G⅜*3			**R03-03J1**	
			2.7	270	4500	G½			**R03-04J1**	
82	180	41	2.0	198	3300	G¼*3	0…6 bar	0.05…10	**R03-02J6**	
			2.3	228	3800	G⅜*3			**R03-03J6**	
			2.7	270	4500	G½			**R03-04J6**	



R03-..J



R03-..J1

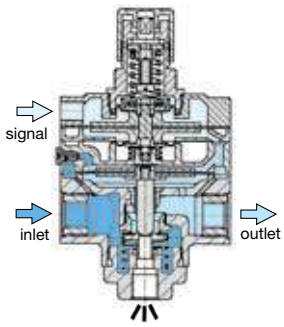


R03-..J6

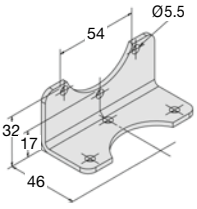
Accessories, enclosed

B*

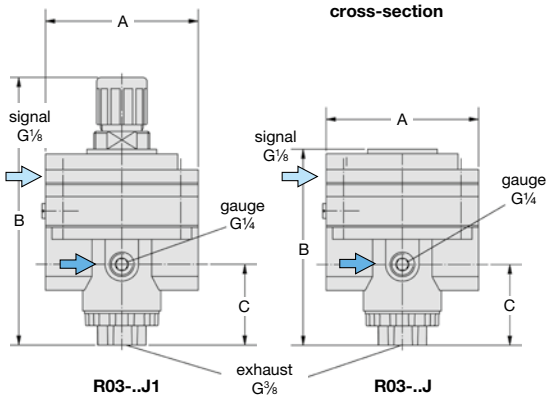
pressure gauge	Ø 50 mm, 0…*2 bar, G¼		**MA5002-..*2**
mounting nut	made of plastic	for R03-..J1	**M30x1,5K**
mounting bracket	made of steel		**BW00-36**

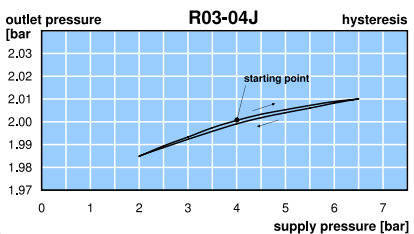


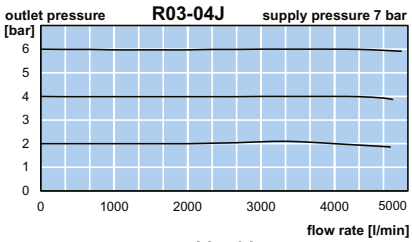
cross-section

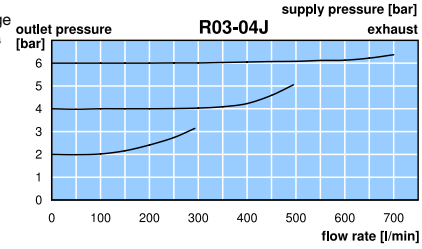


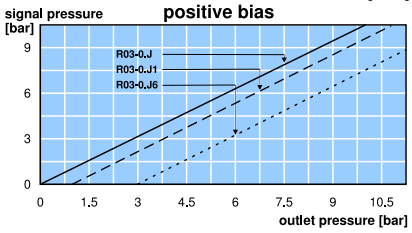
BW00-36











*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar
*3 standard unit G½ reduced to smaller threads by fittings

* Product group

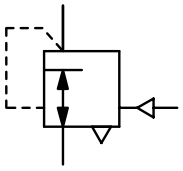
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R03-02J

PRECISION VOLUME BOOSTER WITH HIGH FLOW R450

Description	The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The pilot pressure has no constant bleed and shows the same function as a spring in a common regulator: generating counter pressure on the diaphragm. This force is compensated by the outlet pressure on the diaphragm's bottom side. The ratio of pilot pressure to outlet pressure depends on the size of the operating diaphragms.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Pilot pressure	max. 10 bar at 1:1, 2:1 and 3:1 ratio, 5 bar at 1:2, 3.3 bar at 1:3,
Pilot port	G¼
Accuracy	at supply pressure variation of 7 bar: < 7 mbar pressure deviation response sensitivity: 2.5 mbar
Internal air consumption	max. 3 l/min, depending on outlet pressure
Relieving function	relieving
Relief capacity	1100 l/min at 0.35 bar overpressure above setpoint
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Inner valve: brass and aluminium
	Elastomer: NBR/Buna-N, optionally FKM



G½ up to G¾, 4200 l/min
1:1 to 1:3, 2:1 and 3:1

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pilot pressure max. bar	Transmission ratio signal : outlet	Order number D*
Booster							with transmission ratio, relieving, with constant bleed, supply pressure max. 17 bar, pressure range 0...10 bar		**R450**
87	129	40	2.16	240	4000	G½	10	1 : 1	**R450-04I**
							5.0	1 : 2	**R450-04K**
							3.3	1 : 3	**R450-04L**
							10	2 : 1	**R450-04M**
							10	3 : 1	**R450-04N**
87	129	40	2.16	252	4200	G¾	10	1 : 1	**R450-06I**
							5.0	1 : 2	**R450-06K**
							3.3	1 : 3	**R450-06L**
							10	2 : 1	**R450-06M**
							10	3 : 1	**R450-06N**



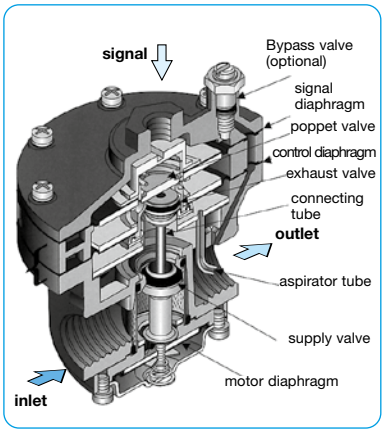
R450

Special options, add the appropriate letter

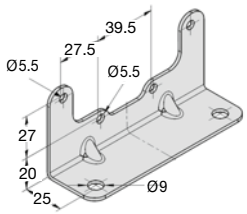
NPT	connection thread		R450-0 . .**N**
tapped exhaust	G½ connection thread, total height 148 mm		R450-0 . .**X12**
bypass with restrictor	from control chamber to outlet	1:1 only	R450-0 . .**X16**
external feedback	with connection thread G⅛		R450-0 . .**X27**
FKM elastomer			R450-0 . .**V**

Accessories, enclosed B*

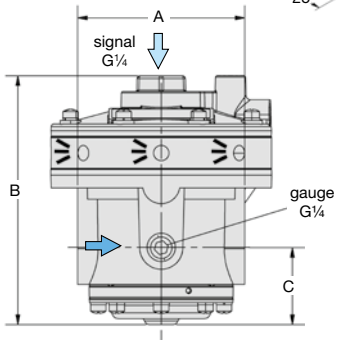
pressure gauge	Ø 63 mm, 0...*2 bar, G¼	**MA6302-..*2**
mounting bracket	made of steel	**BW00-47**



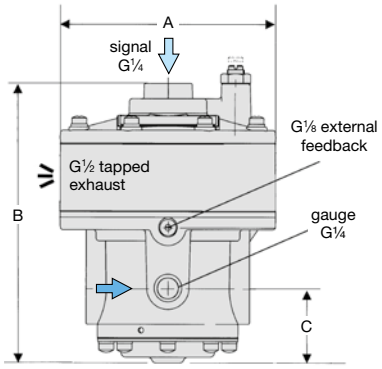
cross section



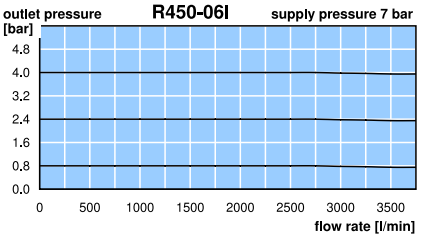
BW00-47



R450



R450-...X12X27



*1 at 7 bar supply pressure and 1.4 bar outlet pressure
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar

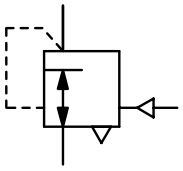
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R450-04I

Description	Ideal for continuous high-capacity requirements where reduced pressure must be held constant over wide variations in flow. The booster is equipped with a diaphragm. Transmission ratio 1:1 (pilot pressure to outlet pressure).		
Media	compressed air or non-corrosive gases	**Mounting position**	any
Supply pressure	max. 28 bar	**Pilot pressure**	max. 18 bar
Outlet pressure	0.2... 18 bar, max. 31 bar at G1½ a. G2	**Air consumption**	without constant bleed
Relieving function	6500 l/min at 6 bar, see diagram		
Ports	inlet / outlet: see chart gauge P_2: G¼	exhaust: gauge P_1:	G½ (up to overall size G½), G¾ (from size G¾ on) G⅛ (from size G¾ on)
Temperature range	-18 °C to 70 °C / 0 °F to 158 °F		
Material	Body: zinc die-cast, die-cast aluminum at G1½ a. G2 Elastomer: NBR/Buna-N		Inner valve: brass Bottom screw: nylon, glass fiber reinforced, ... G11/2 and G2



G¼ up to G2
12500 l/min

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Order number D*
Booster with high relief capacity				P_1: max. 28/31 bar, P_2: 0.2... 18 bar,		ratio 1:1 relieving		**R116**
80	129	39	15	4.3	270	4500	G¼	**R116-02**
				4.4	290	4800	G⅜	**R116-03**
				4.5	300	5000	G½	**R116-04**
93	149	48	25	9.5	690	11500	G¾	**R116-06**
				10.0	720	12000	G1	**R116-08**
				10.4	750	12500	G1¼	**R116-10**
152	183	89	40	35.4	2000	42000	G1½	**R116-10**
							G2	**R116-12**



R116-04



R116-08



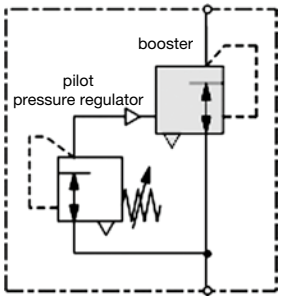
R116-12/-16

Special options, add the appropriate letter

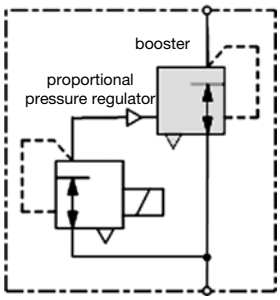
NPT	connection thread	R116-. .**N**
flange connection	see chapter SST devices / flanges	R116-. .**F**

Accessories, enclosed B*

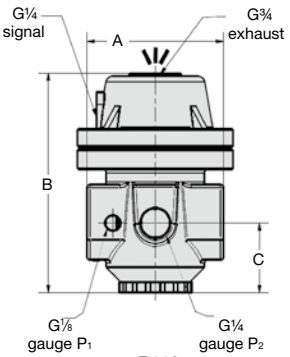
pressure gauge	Ø 50 mm, 0...*2 bar, G¼	for G¼ to G½	**MA5002-*2**
	Ø 63 mm, 0...*2 bar, G¼	for G¾ to G2	**MA6302-*2**
mounting bracket	made of aluminium	for G¼ to G1¼	**BW00-32**



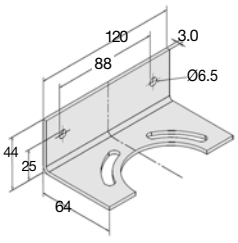
example: booster with pilot pressure regulator



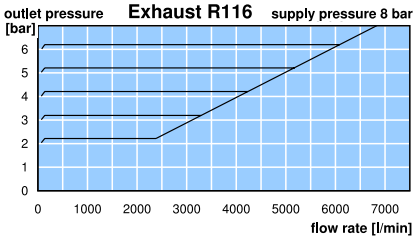
example: booster with proportional pressure regulator

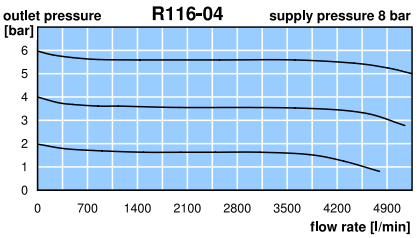


R116



BW00-32





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **10** = 0...10 bar, **16** = 0...16 bar, **25** = 0...25 bar

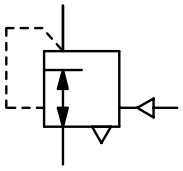
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R116-02

Description	The volume booster amplifies the volume at a 1:1 ratio of pilot pressure to outlet pressure. The pilot pressure has no constant bleed. The bias spring at booster R200 generates a positive shift of the pressure range between pilot pressure and outlet pressure. Booster R201 with great relief capacity is a combination of two R200 boosters. When the output pressure increases above the signal pressure, the diaphragm assembly moves upward to close the supply valve and open the exhaust valve. Excess output pressure exhausts through the exhaust port until it reaches the setpoint.		
Media	compressed air or non-corrosive gases	**Supply pressure**	max. 17 bar
Pilot pressure	max. 10 bar, pilot port G¼ at R200; ¼″ NPT at R201		
Accuracy	at supply pressure variation of 7 bar: < 20 mbar	**Response sensitivity**	30 mbar
Pressure deviation			
Air consumption	without constant bleed	**Relieving function**	relieving, optionally non-relieving
Relief capacity	1 800 l/min at 0.3 bar overpressure above setpoint at R200, 9 000 l/min at R201		
Gauge port	G¼ on both sides of the body at R200; ¼″ NPT at R201	**Mounting position**	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F		
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N on Dacron, optionally FKM Inner valve: stainless steel, cadmium-plated steel and brass		



G1 and G1½, 1½″ NPT
30 000 l/min

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Supply pressure max. bar	Pressure range bar	Order number	D*
Booster w. high volume flow							supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1		**R200**	
141	198	57	11.4	1 680	28 000	G1	17	0…10	**R200-08I**	
141	198	57	12.2	1 800	30 000	G1½	17	0…10	**R200-12I**	
Booster w. high exhaust capacity							supply pressure max. 17 bar, relieving, without constant bleed, transmission ratio 1:1		**R201**	
250	240	57	12.2	1 800	30 000	1½″ NPT	17	0…10	**R201-12I**	



R200



R201

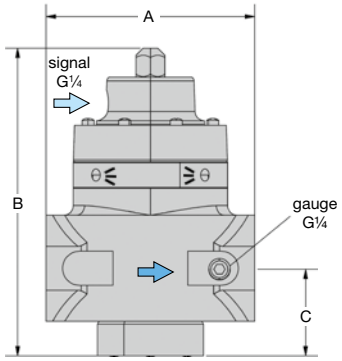
Special options, add the appropriate letter

NPT	connection thread	for R200	R200-..**IN**
non-relieving	without relieving function	for R200	R200-..**IK**
tapped exhaust	connection thread G⅜	for R200	R200-..**IX12**
FKM elastomer		for R200	R200-..**IV**

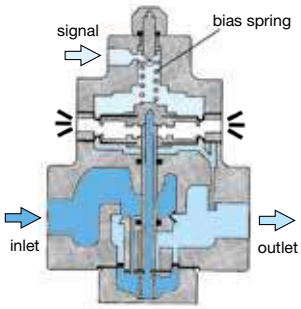
Accessories, enclosed

B*

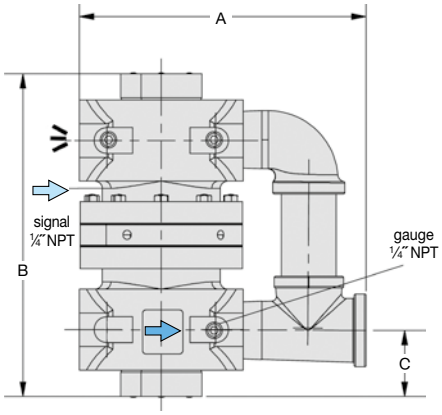
pressure gauge	Ø 63 mm, 0…*2 bar, G¼		**MA6302-..*2**
adapter	¼″ NPT male / G¼ female	for R201	**VP-0202N**
mounting bracket	made of steel	for R200	**BW00-41**



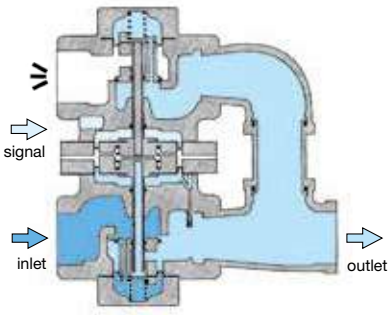
R200



cross-section



R201



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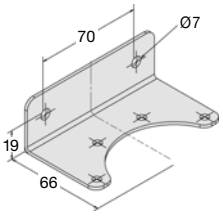
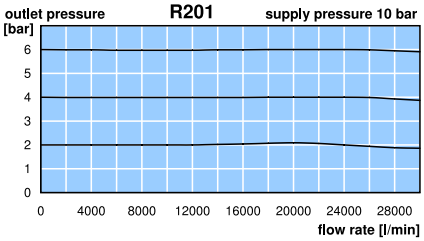


BW00-41



*1 at 10 bar supply pressure and 2.8 bar outlet pressure
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar

* Product group

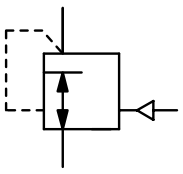
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R200-08I

LOW PRESSURE VOLUME BOOSTER UP TO 1 BAR, SUPPLY PRESSURE MAX. 20 BAR RZ-J

Description	Highly sensitive diaphragm low pressure volume booster with excellent regulating characteristics.
Media	compressed air or non-corrosive gases
Supply pressure	max. 20 bar depending on the accuracy: the smaller P_1 the higher the accuracy max. 10 bar at pressure range < 150 mbar
Pilot pressure	max. 1000 mbar
Air consumption	without constant bleed
Relieving function	non-relieving, optionally relieving
Accuracy	at max. flow rate < e.g. 10% pressure deviation of full scale
Gauge port	not available
Mounting position	any
Temperature range	-20 °C bis 60 °C / -4 °F to 140 °F
Material	Body: SG cast iron GGG50, GGG40 at G2 Elastomer: NBR/Buna-N, optionally FKM Spring cage: aluminium Inner valve: brass and stainless steel



G1 up to G2
10…150/1000 mbar

Dimensions A mm	B mm	C mm	Accuracy %	Nominal size DN	Flow rate l/min*1	P_1 max. bar*2	Connection thread G	Pressure range mbar	Order number	D*
Low pressure volume booster supply max. 20 bar, non-relieving, 1:1 transmission ratio									**RZ-J**	
100	245	30	10	17	1800	10	G1	15… 110	**RZ1-08J**	
			5		3300	20		180…1000	**RZ3-08J**	
185	245	30	10	17	2700	10	G1½*3	15… 110	**RZ1-12J**	
			5		5000	20		180…1000	**RZ3-12J**	
254	460	80	10	34	15000	10	G2	10… 350	**RZ1-16JF**	
			5		28000	20		350…1000	**RZ2-16JF**	



RZ1-08J

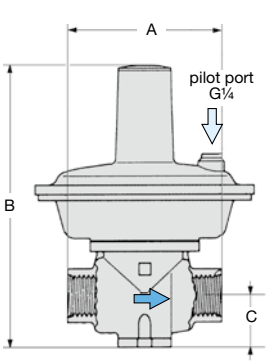
Special options, add the appropriate letter

relieving	with relieving function		RZ.-...**R**
FKM elastomer			RZ.-...**V**
flange connection	see chapter for SST devices / flanges	(not for RZ.-16J)	RZ.-...**F.**
carbon dioxide	CO_2		RZ.-...**03**
argon	Ar		RZ.-...**05**
nitrogen	N_2		RZ.-...**07**
helium	He		RZ.-...**09**
hydrogen	H_2		RZ.-...**11**
methane	CH_4		RZ.-...**13**
oxygen	O_2	up to 16 bar	RZ.-...**15**
propane	C_3H_6		RZ.-...**16**
nitrous oxide	N_2O		RZ.-...**17**

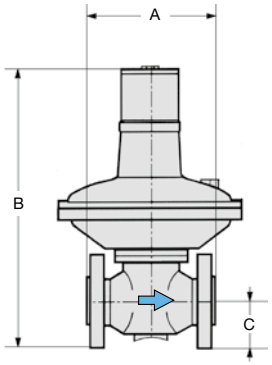


RZ1-16JF

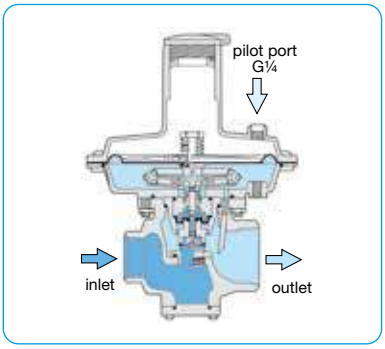
Booster 6



RZ.-08/12J



RZ.-16JF with flange



cross-section

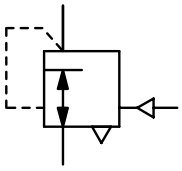
*1 at 4 bar supply pressure and max. outlet pressure *2 see description above *3 G1 thread at inlet

* Produkct group

PDF CAD
www.aircom.net

Order example: RZ1-08J

Description	Ideal for continuous high-capacity requirements where reduced pressure must be held constant over wide variations in flow. Booster with diaphragm up to regulator size G1½, with piston from regulator size G2 on. The booster is silicone-free.
Media	compressed air or non-corrosive gases
Supply pressure	max. 21 bar
Pilot pressure	max. 18 bar
Pilot port	G⅛ at regulator size G¼ and G⅜, pilot port G¼ from regulator size G½ on
Air consumption	approx. 1 l/min of pilot signal
Relieving function	relieving as standard, optionally non-relieving
Gauge port	G¼ on both sides of the body **Mounting position** any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F up to 80 °C / 176 °F at G3
Material	Body: zinc die-cast, aluminium at G3 Inner valve: brass Diaphragm: NBR/Buna-N, optionally FKM Bottom screw: reinforced nylon



G¼ up to G3
110 000 l/min

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Order number
Booster				supply pressure max. 21 bar, outlet pressure 0.2 ... 18 bar with constant bleed, transmission ratio 1:1, relieving				**R119-J**
70	86	35	5	2.1	102	1 700	G¼	**R119-02J**
70	86	35	10	2.8	150	2 500	G⅜	**R119-03J**
83	98	37	15	5.0	340	5 600	G½	**R119-04J**
113	123	49	20	7.6	540	9 000	G¾	**R119-06J**
113	123	49	25	8.4	600	10 000	G1	**R119-08J**
125	132	48	32	9.2	660	11 000	G1¼*3	**R119-10J**
125	132	48	40	10.0	720	12 000	G1½	**R119-12J**
186	225	79	50	35.4	2 520	42 000	G2	**R119-16J**
186	225	79	65	37.1	2 640	44 000	G2½	**R119-20J**
214	282	95	80	56.0	6 600	110 000	G3	**R119-24J**



R119-12J



R119-16J



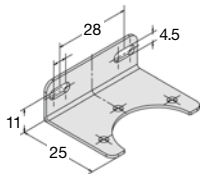
R119-24J

Special options, add the appropriate letter

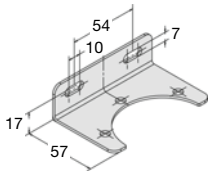
NPT	connection thread		R119-..J**N**
non-relieving	without relieving function		R119-..J**K**
FKM elastomer		for G¼ to G1½	R119-..J**X64**
		for G3	R119-24J**X64**
without constant bleed	inside the pilot chamber	for G¼ to G1½	R119-..J**X71**
flange connection	see chapter for SST devices / flanges		R119-..J**F**
external feedback	for faster and increased accuracy	for G3	R119-24J**X27**
pre-pressure regulation	340 mbar, advisable if P_1 is close to P_2	for G3	R119-24J**X06**

Accessories, enclosed

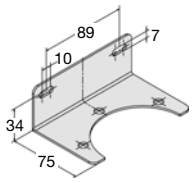
pressure gauge	Ø 50 mm, 0...*2 bar, G¼	for G¼ to G½	**MA5002-*2**
	Ø 63 mm, 0...*2 bar, G¼	for G¾ to G3	**MA6302-*2**
mounting bracket	made of steel	for G¼ and G⅜	**BW00-22**
		for G½	**BW00-23**
		for G¾ to G1½	**BW00-24**



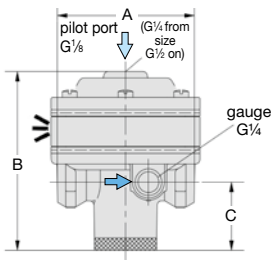
BW00-22



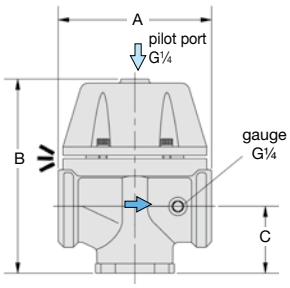
BW00-23



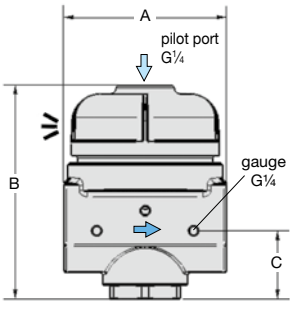
BW00-24



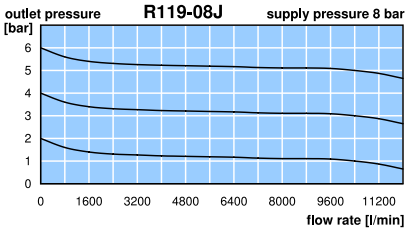
R119-02J../-12J

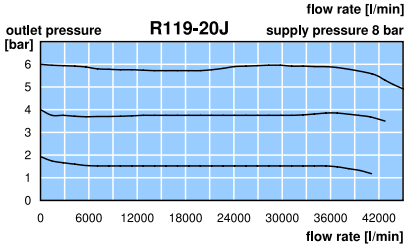


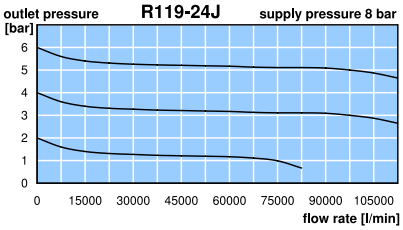
R119-16J/-20J



R119-24J







*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **10** = 0...10 bar, **16** = 0...16 bar, **25** = 0...25 bar
*3 reduced from the next largest booster

* Product group

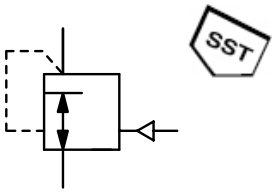
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R119-02J

HIGH PRESSURE VOLUME BOOSTER WITH TRANSMISSION RATIO, UP TO 310 BAR RH3-J

Description	Highly reliable high pressure volume booster with diaphragm and high flow. The booster features high sensitivity and excellent regulating characteristics.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 260 bar, optionally 345 bar or 310 bar
Test pressure	150% of maximum supply pressure according to regulations ANSI / ASME B31.3
Pilot pressure	see chart, pilot port G⅛
Leakage rate	< 1x 10^{-4} mbar l/s He
Air consumption	without constant bleed
Relieving function	non-relieving
Gauge port	not available, optionally ¼″ NPT at inlet and outlet
Mounting postition	any
Temperature range	-25 °C to 100 °C / -13 °F to 212 °F
Material	Body: brass, optionally stainless steel Elastomer: FKM Inner valve: PTFE, brass or optionally stainless steel



½″NPT, 1:2 up to 1:19
P_1: max. 260/310 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Pilot pressure max. bar	Pressure range bar	Transmission ratio signal : outlet	Order number	D*
High pressure booster supply pressure max. 260 bar, non-relieving, ½″NPT without constant bleed, without gauge port									**RH3-J**	
76	170	45	1.7	420	7000	21	3 ... 42	1 : 2	**RH3-J402**	
						17	5 ... 70	1 : 4	**RH3-J404**	
						5	3 ... 42	1 : 8	**RH3-J408**	
						5	5 ... 70	1 : 13	**RH3-J413**	
						5	10 ... 104	1 : 19	**RH3-J419**	



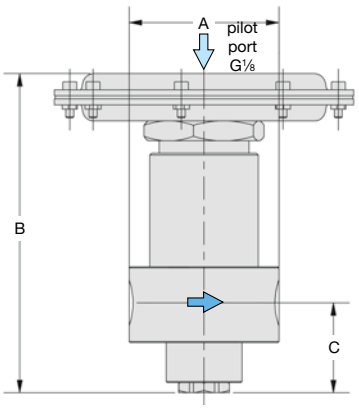
RH3-J

Special options, add the appropriate letter

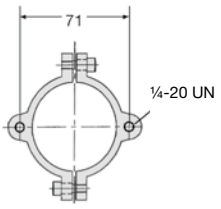
¾″NPT	connection thread			RH3-J**6**. .
SST, 310 bar	body made of stainless steel 316			RH3-J . . .**S1**
for liquids	no filter at inlet port			RH3- J . . .**W**
gauge port	¼″ NPT for inlet and outlet			RH3-J . . .**M**
brass gauge	for brass body, on the input side	M**HM**	output side	RH3-J . . .M**GM**
SST gauge	for SST body, on the input side	M**H**	output side	RH3-J . . .M**G**

Accessories, enclosed

set of brackets	for panel mounting	**1129**



RH3-J



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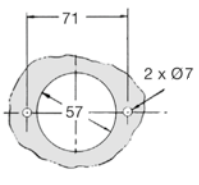
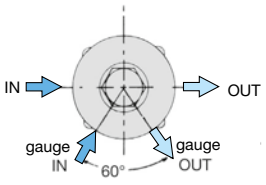
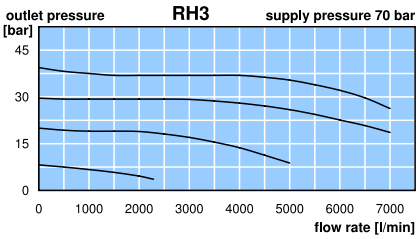
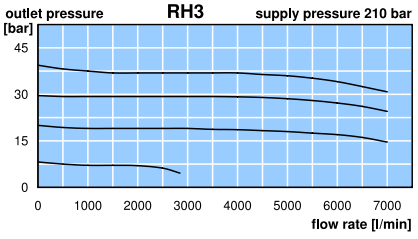


panel cut-out



gauge connection, option "M"





*1 at 210 bar supply pressure and 40 bar outlet pressure

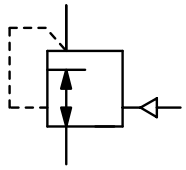
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
RH3-J402

Description	Highly sensitive low pressure volume booster with diaphragm and a 1:1 transmission ratio. Zero shut-off prevents the outlet pressure from increasing when there is no flow circulating.
Media	compressed air or non-corrosive gases
Supply pressure	max. 400 mbar at RGDJ-J, max. 4 bar at RGB4-J
Pilot pressure	max. 100 mbar at RGDJ-J, max. 350 mbar at RGB4-J, pilot port G¼
Air consumption	without constant bleed
Relieving function	non-relieving
Accuracy	at maximum volume flow: < 20% pressure deviation of full scale
Gauge port	not available, optionally G¼ on one side of the body from regulator size R¾" on
Mounting position	any, preferably spring cage pointing upwards
Temperature range	RGDJ-J: -20 °C to 70 °C / -4 °F to 158 °F RGB4J: -15 °C to 60 °C / -4 °F to 140 °F
Material	Body: aluminium Inner valve: aluminium and plastic Elastomer: NBR/Buna-N



R½″ up to R2″
2…55/350 mbar

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread R	Pressure range mbar	Order number D*
Low pressure booster *P₁ max. 400 mbar* non-relieving, without constant bleed, transmission ration 1:1									**RGDJ-J**
100	120	30	15	0.66	12	200	½″	2… 55	**RGDJ-04J**
134	166	34	20	1.49	27	450	¾″	5…160	**RGDJ-06J**
134	166	34	25	2.6	51	850	1″	5…160	**RGDJ-08J**
185	194	45	40	4.9	90	1500	1½″	5…160	**RGDJ-12J**
234	219	52	50	6.6	120	2000	2″	5…100	**RGDJ-16J**
Low pressure booster *P₁ max. 4 bar* non-relieving, without constant bleed, transmission ration 1:1									**RGB4-J**
132	174	24	15	0.62	42	700	½″	5…350	**RGB4-04J**
190	230	33	25	2.5	168	2800	1″	5…350	**RGB4-08J**
190	265	55	40	5	336	5600	1½″	5…350	**RGB4-12J**



RGDJ-04J



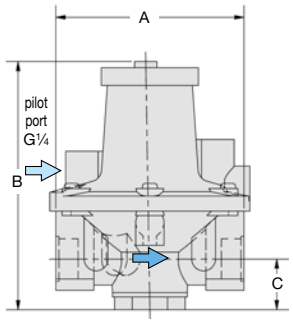
RGB4-12JM

Special options, add the appropriate letter

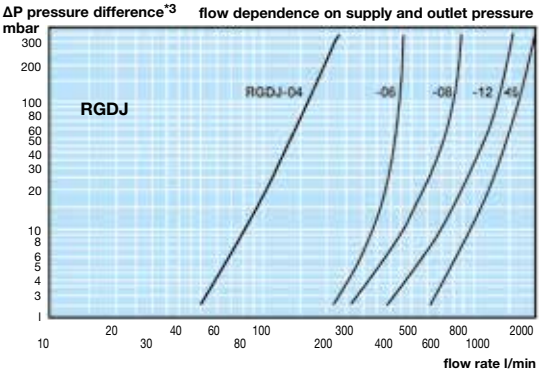
connection thread G¼	for pressure gauge	not for RGDJ-04J	RG. .-. . .**M**

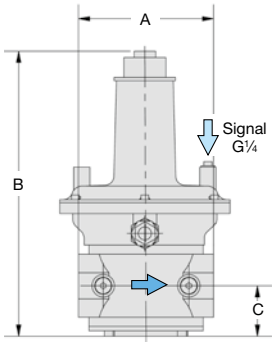
Accessories, enclosed B*

pressure gauge	Ø 63 mm, 0…*2 mbar, G¼	for R¾″ up to R2″	**MA6302-..*2**

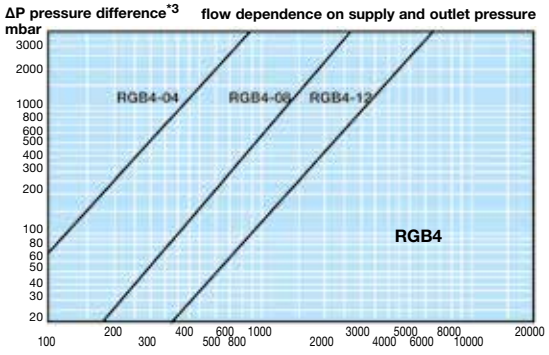


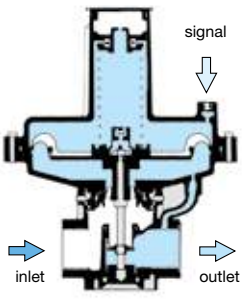
RGDJ-J





RGB4-J





cross section RGB4-J

*1 at 350 mbar supply pressure and 100 mbar outlet pressure
*2 **B6** = 0…60 mbar, **C2** = 0…160 mbar, **C4** = 0…400 mbar
*3 ΔP= P_1 - P_2 pressure difference between inlet and outlet pressure

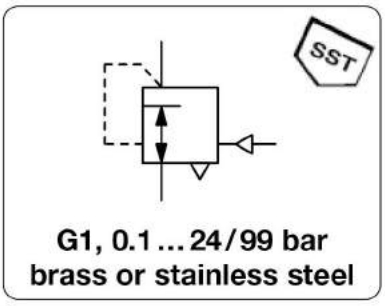
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: RGDJ-04J

Description	The pilot pressure regulator / booster regulates the outlet pressure through a signal pressure at ratio of 1:1. Functioning as a pressure regulator the pilot pressure may either be internally inducted from the inlet pressure or externally. The dome chamber is closed by a needle valve. Functioning as a volume booster the dome is controlled by a proportional pressure regulator or a pilot pressure regulator.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 25 bar for RL.-0.J1, max. 100 bar for RL.-0.J2, max. 40 bar for oxygen, max. 1.5 bar for acetylene
Pilot pressure	max. 24 bar for RL.-0.J1, max. 99 bar for RL.-0.J2, pilot port G¼
Accuracy	at supply pressure variation of 10 bar: 0.1 bar pressure deviation at temperature variation of 3 °C / K: 1% pressure deviation at internal pilot pressure
Air consumption	without constant bleed
Relieving function	non-relieving
Gauge port	not available
Mounting position	any, dome preferably mounted up
Temperature range	-20 °C to 100 °C / -4 °F to 212 °F for FKM, -40 °C to 130 °C / -40 °F to 266 °F for EPDM
Material	Body: brass or stainless steel 1.4571 Inner valve: brass or stainless steel 1.4571 Elastomer: FKM, optionally EPDM



G1, 0.1 ... 24/99 bar brass or stainless steel

Dimensions A	B	C	K_v-value	Flow rate		Connection thread	Supply pressure	Pressure range	Order number
mm	mm	mm	(m^3/h)	m^3/h*1	l/min*1	G	max. bar*2	bar	
Brass pressure regulator						supply pressure max. 25 / 100 bar, non-relieving, without constant bleed, transmission ratio 1:1, FKM			**RLM**
127	170	54	2.9	340	5600	G1	25	0.1 ... 24	**RLM-08J1**
				2500	60000	G1	100	0.5 ... 99	**RLM-08J2**
SST pressure regulator						supply pressure max. 25 / 100 bar, non-relieving, without constant bleed, transmission ratio 1:1, FKM			**RLE**
127	170	54	2.9	340	5600	G1	25	0.1 ... 24	**RLE-08J1**
				2500	60000	G1	100	0.5 ... 99	**RLE-08J2**



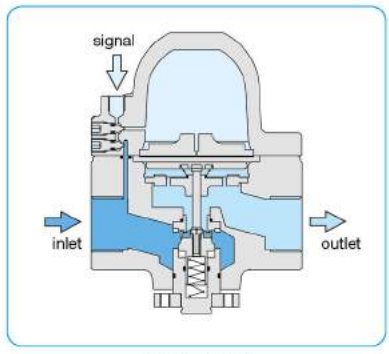
RLM, made of brass



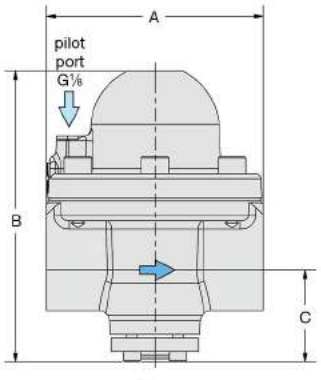
RLE, made of stainless steel

Special options, add the appropriate letter

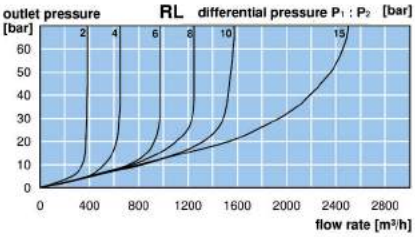
EPDM elastomer		RL.-0.J.**E**
carbon dioxide	CO_2	RL.-0.J.**03**
argon	Ar	RL.-0.J.**05**
nitrogen	N_2	RL.-0.J.**07**
helium	He	RL.-0.J.**09**
hydrogen	H_2	RL.-0.J.**11**
oxygen	O_2	RL.-0.J.**15**
propane	C_3H_8	RL.-0.J.**16**
nitrous oxide	N_2O	RL.-0.J.**17**



cross section



RL.



*1 RL.-J1: at 25 bar supply pressure and 5 bar outlet pressure
RL.-J2: at 85 bar supply pressure and 70 bar outlet pressure

*2 supply pressure max. 40 bar for oxygen
supply pressure max. 1.5 bar for acetylene

* Product group

PDF CAD
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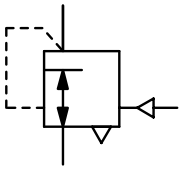
Order example: RLM-08J1

BRASS VOLUME BOOSTER, UP TO 50 BAR — R120-J

Description	Solid volume booster made of brass or bronze throughout with a 1:1 transmission ratio. R120-02J2 to R120-08J2 are diaphragm-operated, R120-12J, R120-16J and R120-..J5 are piston-operated.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Pilot pressure	max. 15 bar for R120-..J2, max. 50 bar for R120-..J5, pilot port G¼
Air consumption	without constant bleed
Relieving function	non-relieving, optionally relieving
Relief size	DN2
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, optionally low temperature version down to -40 °C / -40 °F
Material	Body: brass up to G½, bronze from G¾ on; O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE coating; Inner valve: brass



G¼ up to G2
1 ... 15/50 bar

Dimensions A	B	C	Regul. system D: diaphragm P: piston	K_v value	Flow rate		Connection thread	Pilot pressure	Pressure range	Order number
mm	mm	mm		(m^3/h)	m^3/h*1	l/min*1	G	max. bar	bar	
Booster made of brass				supply pressure max. 50 bar, non-relieving, without constant bleed, transmission ratio 1:1						**R120-J**
64	79	38	D	0.35	25	420	G¼	15	1 ... 15	**R120-02J2**
64	92	38	P					50	1 ... 50	**R120-02J5**
80	86	38	D	1	72	1200	G½	15	1 ... 15	**R120-04J2**
80	107	38	P					50	1 ... 50	**R120-04J5**
116	136	65	D	3.5	252	4200	G¾	15	1 ... 15	**R120-06J2**
116	150	65	P					50	1 ... 50	**R120-06J5**
116	136	65	D	4.2	300	5000	G1	15	1 ... 15	**R120-08J2**
116	150	65	P					50	1 ... 50	**R120-08J5**
180	242	109	P	11.8	840	14000	G1½	50	1 ... 50	**R120-12J5**
180	242	109	P	12.6	900	15000	G2	50	1 ... 50	**R120-16J5**



R120-02J2



R120-04J5



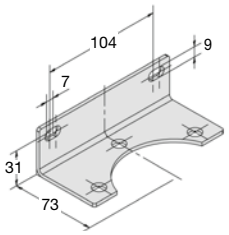
R120-06J2

Special options, add the appropriate letter

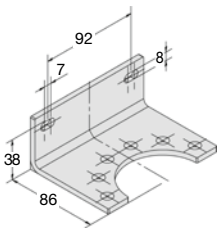
diaphragm relieving			for R120-02J2 up to R120-08J2				R120-..J.**R**
piston relieving			for R120-12J, R120-16J and R120-..J5				R120-..J.**R**
down to -40 °C			low temperature version				R120-..J.**X51**
up to 130 °C			hight temperature version				R120-..J.**X54**
EPDM elastomer			not for G2				R120-..J.**E**
tapped exhaust							R120-..J.R**X12**
nitrogen	N_2:	**07**	**carbon dioxide**	CO_2: **03**	**argon**	Ar:	R120-..J.**05**
helium	He:	**09**	**hydrogen**	H_2: **11**	**methane**	CH_4:	R120-..J.**13**
natural gas		**14**	**oxygen**	O_2: **15**	**propane**	C_3H_8:	R120-..J.**16**
			nitrous oxide	N_2O: **17**	**water**	H_2O:	R120-..J.**W**

Accessories, enclosed

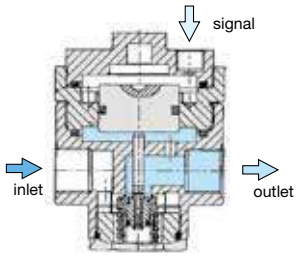
pressure gauge	Ø 50 mm, 0...*2 bar, G¼	for G¼ and G½	**MA5002-..*2**
pressure gauge	Ø 63 mm, 0...*2 bar, G¼	for G¾ up to G2	**MA6302-..*2**
mouting bracket	made of steel	for G¾ and G1	**BW00-42**
		for G1½ and G2	**BW00-43**



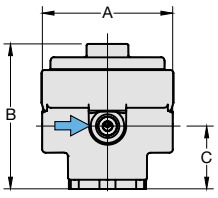
BW00-42



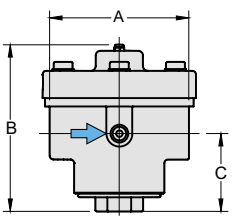
BW00-43



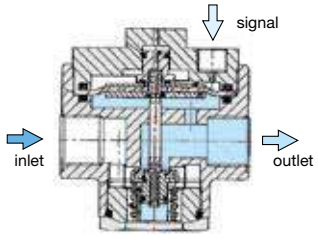
cross-section: with piston



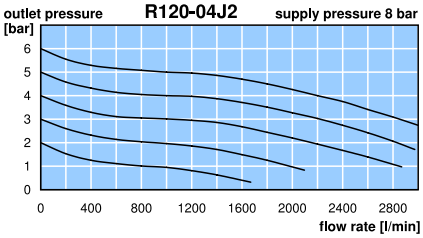
R120-02/-04J.

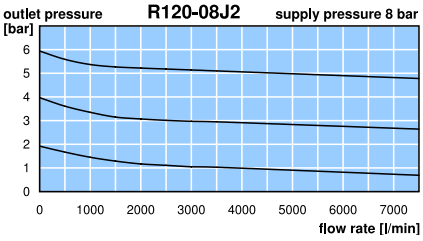


R120-06/-08/-12/-16J.



cross-section: with diaphragm





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0...2.5 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar, **60** = 0...60 bar

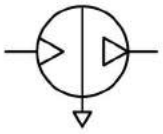
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R120-02J2

Description	The air amplifier compresses air or nitrogen from a standard pressure of 10 bar max. to the desired outlet pressure of 60 bar max. This is realised by cylinders with different ratios - simple, safe and economical. No electrical installation is required and there is no energy consumption once the final pressure has been reached. Service life 3 million cycles, full load operation 12 min max. per hour.
Media	lubricated, unlubricated and 50 µm filtered compressed air or nitrogen
Mounting position	any
Power device	Cylinder with integrated reversing valve, check valve and silencer. The pressure will be increased selective to the consumer. No energy consumption once final pressure is attained.
Drive pressure P_A	system air to drive the air amplifier, 2...10 bar
Supply pressure P_1	max. 12 bar, for instance nitrogen or compressed air
Outlet pressure P_2	amplified outlet or operating pressure of 20 bar to 100 bar maximum
Continuous operation	20% of the diagram values should maximally be realised at permanent running
Temperature range	0 °C to 60 °C / 32 °F to 140 °F
Sound level	max. 79 dB (A)
Material	Body: aluminium / Seals: NBR/Buna-N

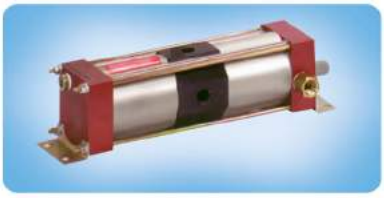


P_1: max. 12 bar, P_2: 100 bar
50 - 1 200 l/min

Pressure booster / Air amplifier

supply pressure P_1 max. 12 bar, for compressed air drive pressure P_A 2...10 bar — **AM**

Dimensions A mm	B mm	C mm	Weight kg	Connection thread G	Transmisson ratio $P_A : P_2$	Flow rate l/min	P_2 max. bar	Order number
86	343	84	3.3	G⅜	1 : 2	580*1	20	**AM20-0580**
187	324	135	8.5	G½	1 : 2	960*1	20	**AM20-0960**
285	427	180	21	G¾	1 : 2	1 200*1	20	**AM20-1200**
180	392	135	8.5	G½	1 : 3	230*2	32	**AM32-0230**
80	220	80	2.2	G⅜	1 : 4	50*3	40	**AM40-0050**
251	471	176	16	G⅜	1 : 5	360*4	60	**AM60-0360**
180	421	135	20	G¼	1 : 10	280*5	100	**AM100-0250**



AM20-0580



AM20-0960

Special options, add the appropriate letter

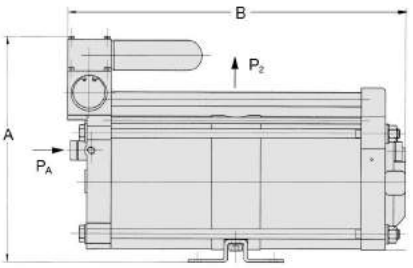
unlubricated operation seals	FEC seals for dry compressed air or nitrogen	AM . . - . . . . **T**
Ex-Atex	e.g. Ex II 3G/3D IIB x, more specifications possible	AM . . - . . . . **EX**
pressure booster for gas	up to max. 1500 bar outlet pressure	AM . . - . . . .
pressure booster for liquids		AM . . - . . . .



AM20-1200

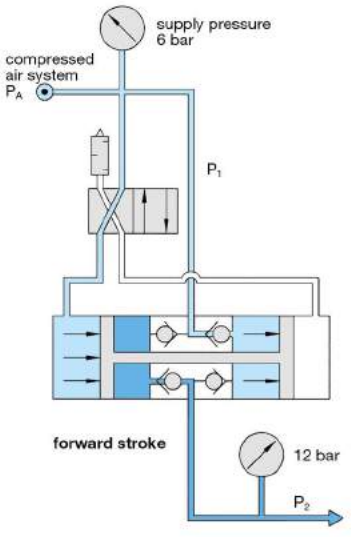


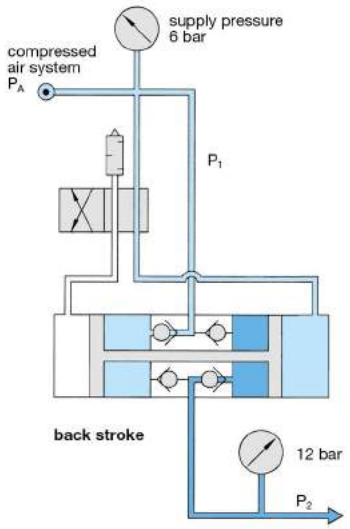
AM32-0230





AM40-0050





function principle for transmission ratio 1 : 2



AM60-0360

*1 at 6 bar supply and 8 bar outlet pressure under full load
*2 at 8 bar supply and 20 bar outlet pressure under full load
*3 at 6 bar supply and 16 bar outlet pressure under full load
*4 at 8 bar supply and 30 bar outlet pressure under full load
*5 at 8 bar supply and 40 bar outlet pressure under full load

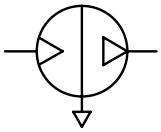
* Product group

Calculation examples can be found in the appendix

PDF **CAD** www.aircom.net

Order example: AM20-0580

Description	The air amplifier compresses air or nitrogen from a standard pressure of 10 bar max. to the desired outlet pressure of 40 bar max. This is realised by cylinders with different ratios - simple, safe and economical. No electrical installation is required and there is no energy consumption once the final pressure has been reached. Service life 3 million cycles, full load operation 12 min max. per hour.
Media	lubricated, unlubricated and 50 µm filtered compressed air or nitrogen
Amplifier station	The pressure booster has an additional tank, pressure regulator, filter, gauge, relief valve and switch-on valve. Pressure pulsation rates are low, air consumption peaks are compensated and the operating pressure can be adjusted.
Drive pressure P_A	system air to drive the air amplifier, 2…10 bar
Supply pressure P_1	max. 12 bar, for instance nitrogen or the system air
Outlet pressure P_2	amplified outlet or operating pressure of 20 bar to 40 bar maximum
Temperature range	0 °C to 60 °C / 32 °F to 140 °F — **Sound level** max. 79 dB (A)
Material	Body: aluminium Seals: NBR/Buna-N — Tank: coated steel, SST at AP40-0050



P_1: max. 12 bar, P_2: 40 bar
50 - 1200 l/min

Air amplifier station

supply pressure P_1 max. 12 bar, for compressed air drive pressure P_A 2...10 bar

Dimensions A mm	B mm	C mm	Weight kg	Tank volume l	Connection thread drive	P_1 / P_2	Transmission ratio P_A : P_2	Flow rate l/min*1	P_2 max. bar*5	AP Order number
220	400	360	13	3	G⅜	G⅜	1 : 2	580*1	20	**AP20-0580**
235	400	360	16	3	G½	G½	1 : 2	960*1	20	**AP20-0960**
656	844	381	49	40	G¾	G½	1 : 2	1200*1	20	**AP20-1200**
655	844	381	58	40	G½	G½	1 : 3	230*2	20	**AP20-0230**
365	400	133	5.3	0.8	G⅜	G⅜	1 : 4	50*3	40	**AP40-0050**
655	844	381	45	40	G½	G⅜	1 : 5	360*4	40	**AP40-0360**



AP20-0580 similar to AP20-0960 and AP40-0360



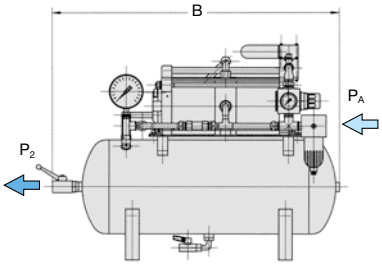
AP20-1200 similar to AP40-0360 and AP20-0230



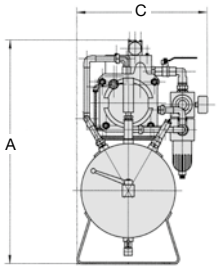
AP40-0050

Special options, add the appropriate letter

unlubricated operation seals	FEC seals for dry compressed air or nitrogen	AP . . -. . . . **T**
Atex	e.g. Ex II 3G/3D IIB x, further specifications possible	AP . . -. . . . **EX**
pressure booster for gas	up to max. 1500 bar outlet pressure	AP . . -. . . .



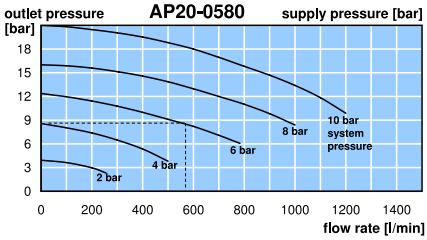
AP

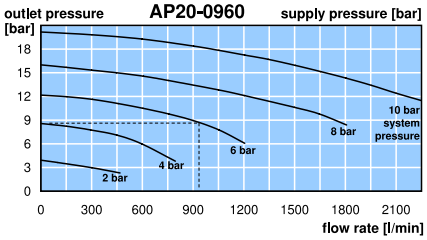


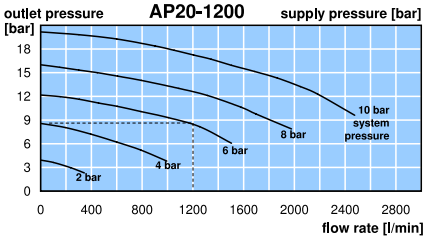
AP

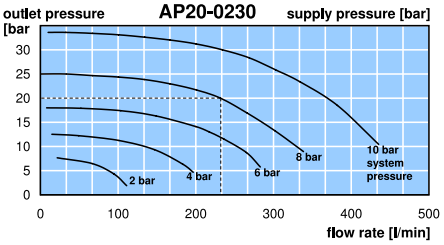
Booster 6

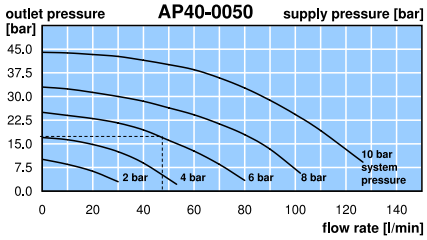
Performance diagrams for full load operations, max. 12 min/h. 20% of the values at permanent running

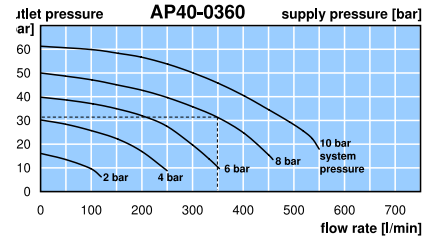












*1 at 6 bar supply and 8 bar outlet pressure under full load
*2 at 8 bar supply and 20 bar outlet pressure under full load
*3 at 6 bar supply and 16 bar outlet pressure under full load
*4 at 8 bar supply and 30 bar outlet pressure under full load
*5 outlet pressure P_2 limited by the pressure stage of the accumulator, higher pressure ranges on request

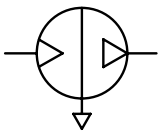
* Product group

Calculation examples can be found in the appendix

PDF CAD
www.aircom.net

Order example: AP20-0580

Description	The pressure booster doubles the system pressure of e.g. 5 bar to an outlet pressure of 10 bar. The pumping force of two cylindrical chambers compresses the air to the set outlet pressure within the third chamber while the fourth chamber is vented. Upon reaching the outlet pressure it is turned off, when falling below it is turned on automatically. Pressure boosters are used for occasional demand of compressed air.
Media	filtered lubricated and 50 µm filtered compressed air **Mounting position** any
Drive	double piston intensifier, ratio 1:2 Reversing, check and swichting valves provide for automatic control. Life time approx. 20 million switching cycles.
Inlet pressure P_1	2...8 bar **Outlet pressure P_2** 4...16 bar
Air tanks	are recommended. They compensate pressure fluctuations and allow short-term high volume flows. See circuit below.
Tank filling time	is a measure of booster performance. To reduce the filling time of the tank, it has to be prefilled with input pressure P_1. See circuit below.
Temperature range	-5 °C to 50 °C / 23 °F to 122 °F
Material	Cylinder: anodized aluminium seals: NBR/Buna-N



max. 4...16 bar
transmission ratio 1:2

Dimensions A mm	B mm	C mm	Weight kg	Connection thread G	Transmission ratio $P_A : P_2$	Flow rate l/min*1	Fill time 10l-tank s	Pressure range bar	Order number
Pressure booster					P_1 max. 8 bar, for compressed air				**AB**
100	192	70	1.5	G⅛	1 : 2	130	30	4...16	**AB040**
117	284	90	3.0	G⅜	1 : 2	260	15	4...16	**AB063**
176	468	155	12	G½	1 : 2	440	6	4...16	**AB100**
Pressure booster with regulator and gauge					P_1 max. 8 bar, for compressed air				**AB-D**
100	192	126	1.5	G⅛	1 : 2	130	30	4...16	**AB040D**
117	284	168	3.0	G⅜	1 : 2	260	15	4...16	**AB063D**
176	468	218	12	G½	1 : 2	440	6	4...16	**AB100D**



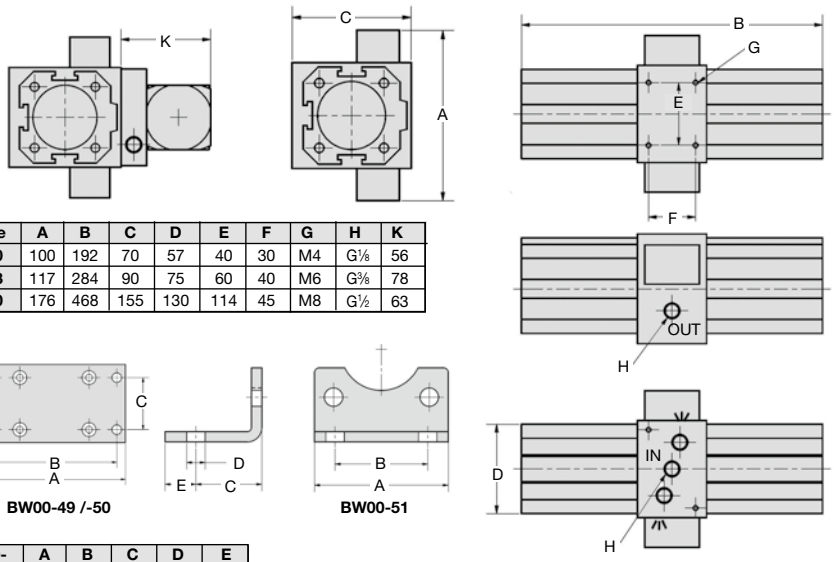
AB040



AB040D

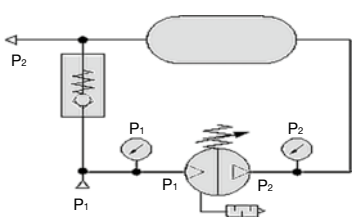
Accessories, enclosed

Mounting plate	made of steel, central attachment below	for AB040	**BW00-49**
		for AB063	**BW00-50**
Mounting bracket	made of steel, mounting at the side, 1 piece	for AB100	**BW00-51**

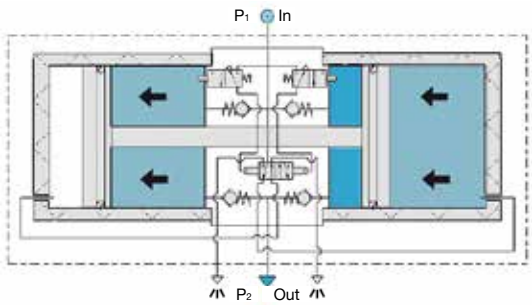


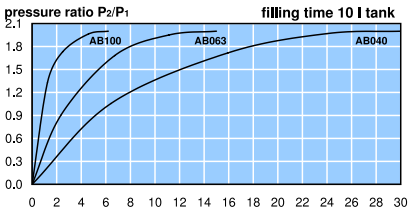
Device	A	B	C	D	E	F	G	H	K
AB040	100	192	70	57	40	30	M4	G⅛	56
AB063	117	284	90	75	60	40	M6	G⅜	78
AB100	176	468	155	130	114	45	M8	G½	63

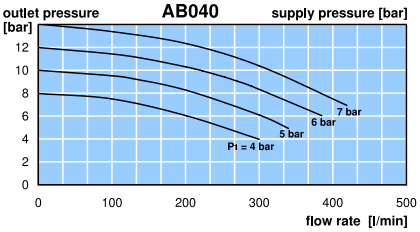
BW00-	A	B	C	D	E
49	82	72	30	45	5,5
50	110	98	53	70	M8
51	65	45	32	9	15

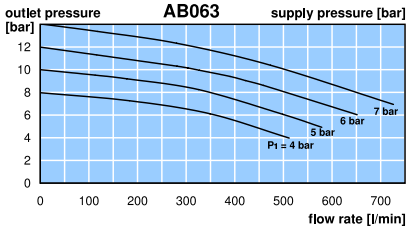


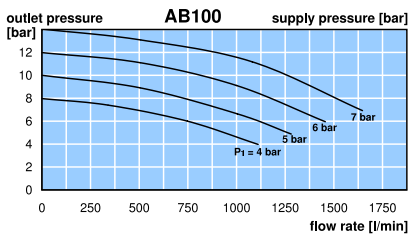
circuit with air tank











*1 at P_2 = 8 bar and 1 bar pressure drop

* Product group

Pressure booster with 2 l to 20 l tank on request

PDF CAD
www.aircom.net

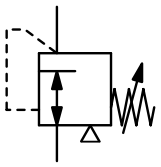
Order example:
AB040

VACUUM PRESSURE REGULATOR

DESCRIPTION		PRESSURE RANGE	CONNECTION thread	SERIES	PAGE
max. 22 l/min	miniature	-850 … 0 mbar	1/8″NPT	V800	**7.02**
max. 22 l/min	miniature	-850 … 0 mbar	10-32″ and flange	V900	**7.02**
max. 70 l/min	precise	-1 … +0,4 / 10 bar	G¼	R250	**7.03**
max. 330 l/min	precise	-990 ... 0 mbar	G¼ - G½	V170	**7.04**
max. 800 l/min	precise	-1 … +0.7 / 10 bar	G½ and G¾	R251	**7.05**
vacuum adjustment valve		-1 … -0.3	G⅛ - G1	V04	**7.06**
vacuum adjustment valve	precise	-1 … 0 bar	G¼ - G1	V05	**7.06**



Description	Miniature precision vacuum regulator with diaphragm and high outlet pressure constancy, small dimensions, low weight. 20-turn hysteresis-free adjustment range allows sensitive pressure setting.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. -1000 mbar		
Accuracy	at supply pressure variation of 170 mbar:	< 4 mbar pressure deviation	
	at supply pressure removal/reapplication:	< 7 mbar pressure deviation	
	setting accuracy:	< 2.5 mbar	
Air consumption	0.3 l/min at -1000 mbar supply pressure		
Adjustment	by plastic knob, adjusting screw or preset		
Gauge port	not available		
Mounting position	any		
Temperature range	4 °C to 66 °C / 39 °F to 151 °F		
Material	Body: polysulfone		
	Inner valve: stainless steel and acetal	Elastomer: NBR/Buna-N	



10-32˝ or flangeable
0 ... -350/-850 mbar

Dimensions A mm	B mm	C mm	Pressure adjustment by	Flow rate l/min	Vacuum range mbar	Order number
Vacuum regulator 10-32˝				supply pressure max. -1000 mbar, with constant bleed		**V900-W**
29	78	8	**adjusting knob**	22	-350 ... 0	**V900-10WK**
					-850 ... 0	**V900-30WK**
29	60	8	**adjusting screw**	22	-350 ... 0	**V900-10WOS**
					-850 ... 0	**V900-30WOS**
29	43	8	**preset**	22	indicate on order	**V901-..**
Vacuum reglator with flange				supply pressure max. -1000 mbar, with constant bleed		**V900-M**
29	78	8	**adjusting knob**	22	-350 ... 0	**V900-10MWK**
					-850 ... 0	**V900-30MWK**
29	60	8	**adjusting screw**	22	-350 ... 0	**V900-10MWOS**
					-850 ... 0	**V900-30MWOS**
29	43	8	**preset**	22	indicate on order	**V901-..M**

Special options, add the appropriate letter or number

⅛˝ NPT	connection thread, width 40 mm	**V8**..-.....

Accessories, enclosed

mounting bracket	made of steel	**BW15-01**



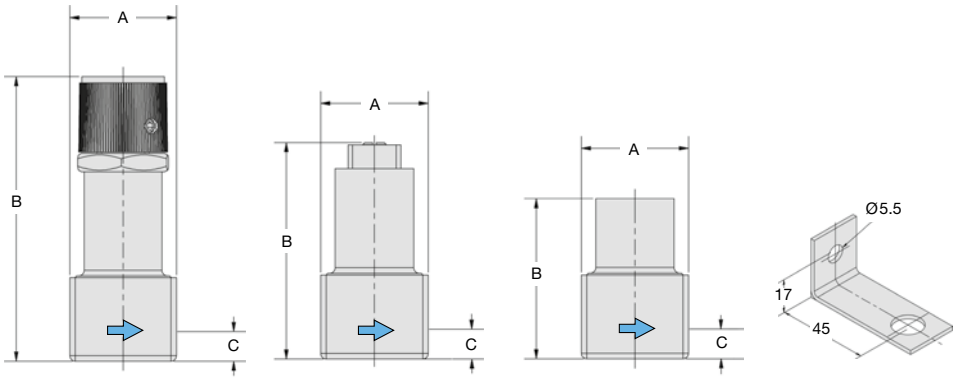
V800-..WK **V900-..WK**



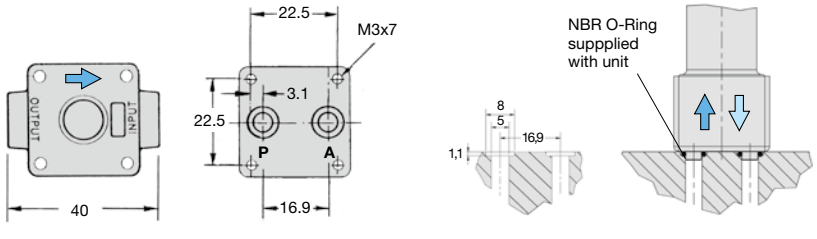
V900-..WOS



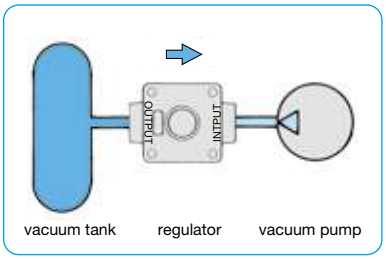
V901-..



V900-..WK **V900-..WOS** **V901-..** **BW15-01**



V800-.... **V900-..M** **V900-..M** **V900-..M**



vacuum connection

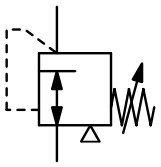
* Product group

PDF CAD
www.aircom.net

Order example: V900-10WK

PRECISION VACUUM PRESSURE REGULATOR 70 L/MIN R250

Description	Diaphragm vacuum regulator ensuring high precision in both vacuum and positive pressure range.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Accuracy	response sensitivity: < 2 mbar
Adjustment	by handwheel with locknut
Air consumption	max. 2.8 l/min in positive pressure range
Flow rate	70 l/min*1 in vacuum range, 900 l/min*2 in positive pressure range
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	-40 °C to 90 °C / -40 °F to 194 °F
Material	Body aluminium die-cast Inner valve: stainless steel and brass Elastomer: NBR/Buna-N



G¼
vacuum ... 0.14/10 bar

Dimensions A mm	B mm	C mm	D mm	K_v value m^3/h	Flow rate m^3/h*1	l/min*1	Connection thread G	Vacuum range bar	Order number	D*
Vacuum pressure regulator									**R250**	
68	184	20	65	0.78	4	70	G¼	-1 ... +0.14	**R250-020**	
								-1 ... +0.7	**R250-02A**	
								-1 ... +2.0	**R250-02B**	
								-1 ... +7.0	**R250-02C**	
								-1 ... + 10	**R250-02D**	

supply pressure max. 17 bar, with constant bleed



R250

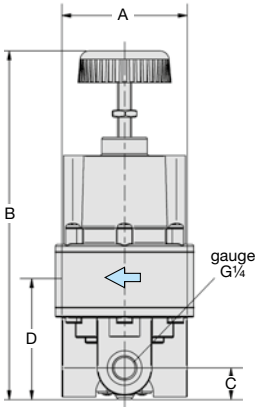
Special options, add the appropriate letter

NPT	connection thread	R250-0 . . **N**
tamper-proof cap	made of aluminium, adjustment by screwdriver, total height 189 mm	R250-0 . . **T**

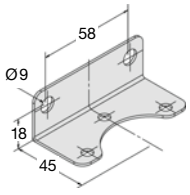
Accessories, enclosed

B*

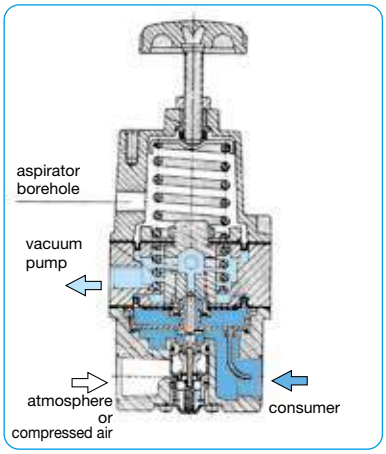
pressure gauge	Ø 63 mm, -1 ... 0 bar, G¼	**MA6302-00**
mounting bracket	made of steel	**BW00-33**



R250

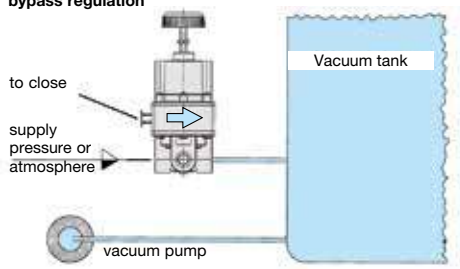


BW00-33

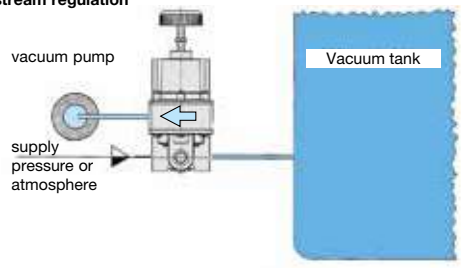


cross-section
connection for downstream regulation

bypass regulation ①



downstream regulation ②



Note
A strainer is provided on the atmospheric or pressure side, but an additional filter is recommended.

① **Bypass regulation**
Upstream installation is preferred when rapid exhaust of a tank or system is required. That way the vacuum pump acts directly upon the tank and is not being throttled by the vacuum regulator.

② **Downstream installation**
Preferred when rapid exhaust of a tank or system or over-pressure filling is required. The inlet pressure connection can optionally be left open to atmosphere.

*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure
*2 for compressed air at 7 bar supply pressure and 1.4 bar outlet pressure

* Product group

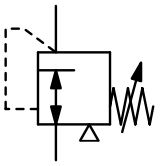
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R250-020

PRECISION VACUUM PRESSURE REGULATOR 330 L/MIN V170

Description	High precision diaphragm vacuum regulator with high flow capacity. A balanced vacuum valve minimizes the effects of variation.
Media	compressed air or non-corrosive gases
Accuracy	response sensitivity: < 2 mbar
Adjustment	by handwheel with locknut
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F for appropriately conditioned compressed air down to -40 °C / -40°F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel, brass, aluminium and steel



G¼ up to G½
-170 / -500 / -990 ... 0 mbar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range mbar	Order number	D*
Precision vacuum regulator							supply pressure max. -1000 mbar, without constant bleed	**V170**	
67	152	25	1.1	20	330	G¼	-170 … 0	**V170-02A**	
							-500 … 0	**V170-02B**	
							-990 … 0	**V170-02C**	
67	152	25	1.1	20	330	G⅜	-170 … 0	**V170-03A**	
							-500 … 0	**V170-03B**	
							-990 … 0	**V170-03C**	
67	152	25	1.1	20	330	G½	-170 … 0	**V170-04A**	
							-500 … 0	**V170-04B**	
							-990 … 0	**V170-04C**	



V170

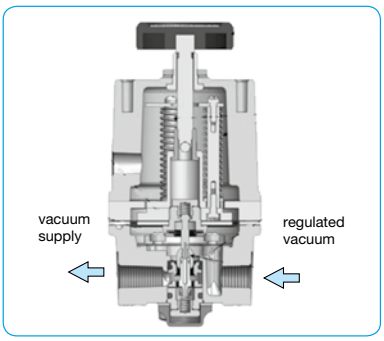
Special options, add the appropriate letter

NPT	connection thread	V170- 0 . . **N**
Verstellsicherung	made of aluminium, adjustment by screwdriver, total height 160 mm	V170- 0 . . **T**
FKM-Elastomere		V170- 0 . . **V**

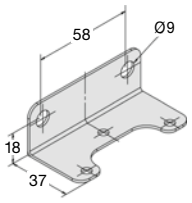
Accessories, enclosed

B*

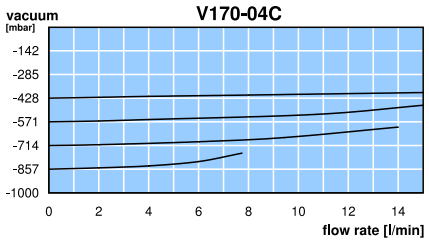
pressure gauge	Ø 63 mm, 0 bar down to -1bar, G¼	**MA6302-00**
mounting bracket	made of steel	**BW00-34**

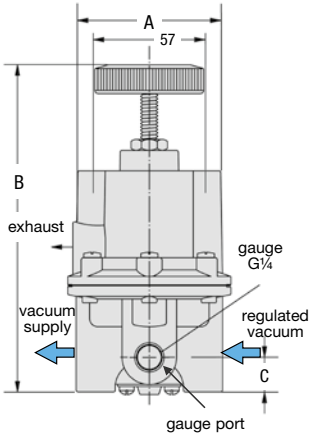


cross-section

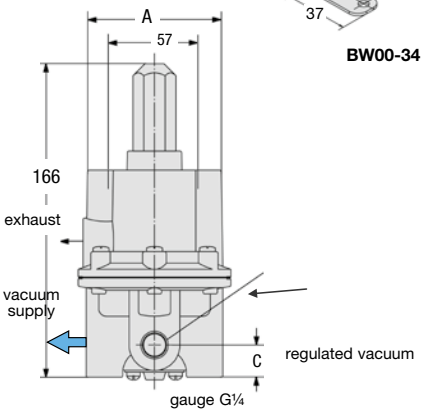


BW00-34

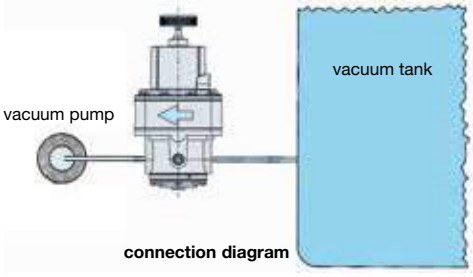




V170



with tamper proof cap



connection diagram

*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure

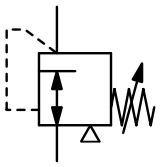
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

PRECISION VACUUM PRESSURE REGULATOR 800 L/MIN R251

Description	Diaphragm vacuum regulator ensuring high precision in both vacuum and positive pressure range.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Accuracy	response sensitivity: < 2.5 mbar
Adjustment	by handwheel with locknut
Air consumption	without constant bleed
Flow rate	800 l/min*1 in vacuum range, 4200 l/min*2 in positive pressure range
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	-40 °C to 90 °C / -40 °F to 194 °F
Material	Body: aluminium die-cast Inner valve: stainless steel and brass Elastomer: NBR/Buna-N



G½ and G¾
vacuum ... 0.7/10 bar

Dimensions A mm	B mm	C mm	D mm	K_v value m^3/h	Flow rate m^3/h*1	l/min*1	Connection thread G	Vacuum range bar	Order number	D*
Vacuum pressure regulator							supply pressure max. 17 bar, without constant bleed		**R251**	
87	238	40	98	2.5	48	800	G½	-1 ... +0.7	**R251-04A**	
								-1 ... +2.0	**R251-04B**	
								-1 ... + 10	**R251-04D**	
87	238	40	98	2.5	48	800	G¾	-1 ... +0.7	**R251-06A**	
								-1 ... +2.0	**R251-06B**	
								-1 ... + 10	**R251-06D**	



R251

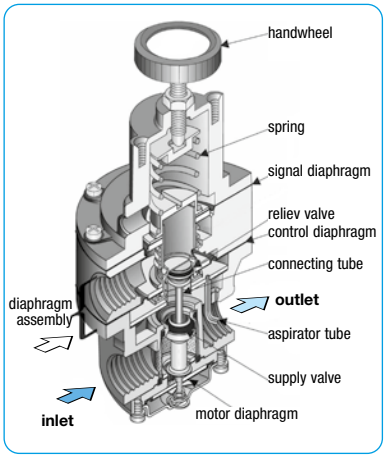
Special options, add the appropriate letter

NPT	connection thread	R251-0 . . **N**
tamper-proof cap	made of aluminium, adjustment by screwdriver, total height 240 mm	R251-0 . . **T**
FKM elastomer		R251-0 . . **V**

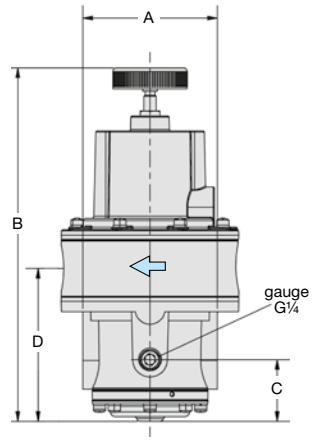
Accessories, enclosed

B*

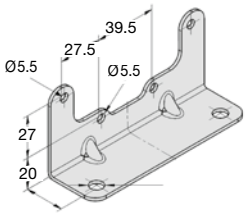
pressure gauge	Ø 63 mm, -1 ... 0 bar, G¼	**MA6302-00**
mounting bracket	made of steel	**BW00-47**



cross section
connection for downstream regulation

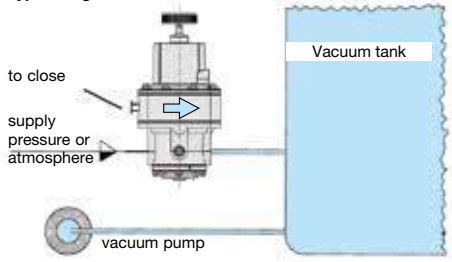


R251

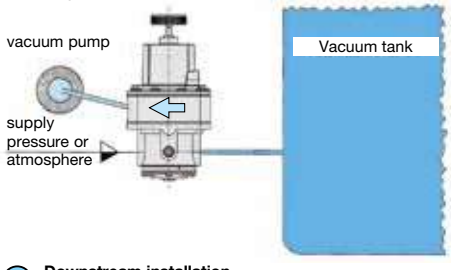


BW00-47

bypass regulation



downstream regulation



Note
A strainer is provided on the atmospheric or pressure side, but an additional filter is recommended.

1 Bypass regulation
Upstream installation is preferred when rapid exhaust of a tank or system is required. That way the vacuum pump acts directly upon the tank and is not being throttled by the vacuum regulator.

2 Downstream installation
Preferred when rapid exhaust of a tank or system or over-pressure filling is required. The inlet pressure connection can optionally be left open to atmosphere.

*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure
*2 for compressed air at 7 bar supply pressure and 1.4 bar outlet pressure

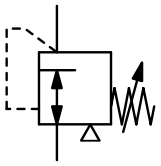
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R251-04A

Description	When these valves reach a certain precalibrated vacuum degree, they introduce atmospheric air into the circuit to prevent the increase of the actual value and keep it constant.
Application	They are used as safety valves on non-commissioned tanks or containers at high vacuum level and on vacuum cup lifting systems.
Media	compressed air or non-corrosive gases
Adjustment	V04: by rotating the spindle with lock nut in both directions V05: by knurled head screw or adjusting knob on spindle with fine thread
Mounting position	any
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F
Material	Body: nickel-plated brass Inner valve: spring steel and brass Elastomer: NBR/Buna-N



G⅛ up to G1
vacuum -1 ... 0 bar

Dimensions A mm	B mm	SW mm	Flow rate m³/h	l/min	Connection thread G	Vacuum-range bar	Order number	D*
Vacuum adjustment valve						Vacuum regulator with external leakage	**V04**	
45	7	12	4	60	G⅛	-1 ... - 0.3	**V04-01**	
57	15	24	20	330	G½	-1 ... - 0.3	**V04-04**	
60	12	30	40	660	G¾	-1 ... - 0.3	**V04-06**	
65	12	35	70	1100	G1	-1 ... - 0.3	**V04-08**	
Vacuum adjustment valve, precise						Vacuum regulator with external leakage	**V05**	
63	26	25	4	260	G¼	-1 ... 0	**V05-02**	
82	52	32	20	700	G1	-1 ... 0	**V05-08**	



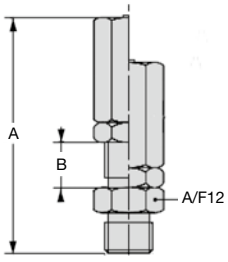
V04-01 **V04-04**



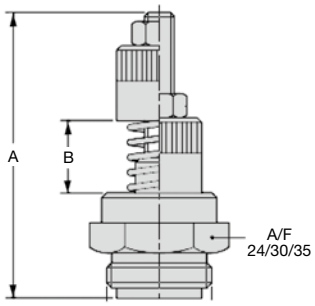
V04-06 **V04-08**



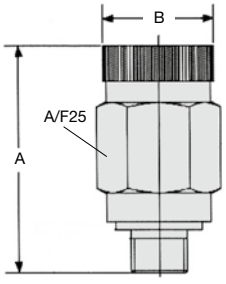
V05-02 **V05-08**



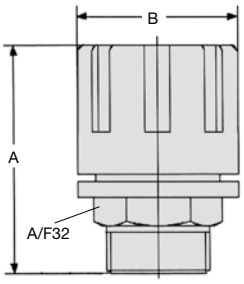
V04-01



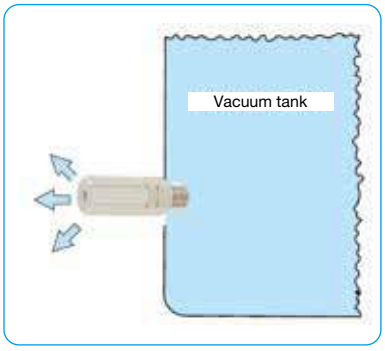
V04-04 / -06 / -08



V05-02



V05-08



* Product group

PDF CAD
www.aircom.net

Order example:
V04-01

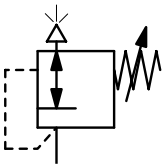
BACK PRESSURE REGULATOR

	DESCRIPTION	OVERPRESSURE	ADJUSTMENT RANGE	CONNECTION	DEVICE	PAGE
		max. bar	bar	thread		
STANDARD	aluminium	30	0.2 ... 1.5 / 15	G⅛ - G2	DBC	**8.02**
	brass	65	0.2 ... 1.5 / 50	G⅛ - G2	DBM	**8.04**
	- 40 °C	65	0.2 ... 1.5 / 50	G⅛ - G½	DBM-X51	**8.05**
	+130 °C	65	0.2 ... 1.5 / 50	G⅛ - G½	DBM-X54	**8.05**
PRECISE	high-precision	35	0.01 ... 0.14 / 28	G¼ - G½	10BP	**8.06**
	free of non-ferrous metal	35	0.01 ... 0.14 / 28	G¼ - G½	10BP-X63	**8.06**
	aluminium	17	0.01 ... 0.14 / 10	G¼ - ½"NPT	DB240	**8.07**
	aluminium	10	0.001 ... 0.14 / 7	G¼ and G⅜	DB300	**8.09**
	aluminium	17	0.03 ... 0.7 / 10	G⅜ - G¾	DB400	**8.10**
LOW PRESSURE	precise	10	0.002 ... 0.035 /0.8	G¼ - G½	DB110	**8.08**
	precise	6	0.005 ... 0.045 / 3	G½ - G2	DBC	**8.11**
PILOT-OPERATED	precise	17	0 ... 10	G¼ - G½	DB208	**8.12**
	precise	17	0 ... 10	G⅜ - G¾	DB450	**8.13**
MINIATURE	screw-in, knurled screw	21	1.7 ... 2.4 / 14	G¼ m	59	**8.14**
	screw-in, plastic knob	21	0 ... 3.5 / 7	G¼ m	130	**8.14**
	tapped exhaust	21	0 ... 1.0 / 7	G¼	134	**8.14**
STAINLESS STEEL	for many gases, FDA also	65	0.1 ... 1.5 / 50	G⅛ - G2	D3000	15.22
	- 40 °C	65	0.2 ... 1.5 / 50	G⅛ - G½	D3000-X51	15.25
	+130 °C	65	0.1 ... 1.5 / 50	G¼ - G2	D3000-X54	15.25
	low pressure	6	0.005 ... 0.045 / 3	G½ - G2	D3100	15.26



ALUMINIUM BACK PRESSURE REGULATOR DBC

Description	Back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Overpressure	max. 30 bar
Adjustment	by plastic knob with snap-lock for DBC-01, by handwheel for DBC-02 to -A6 by T-handle with locknut for DBC-06 to -16
Gauge port	G⅛ at DBC-01, G¼ from DBC-02 on, on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F
Material	Body: aluminium O-rings: NBR/Buna-N, optionally FKM or EPDM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: brass



G⅛ up to G2
0.1 … 1.5/15 bar

Aluminium back pressure regulator — overpressure max. 30 bar — DBC

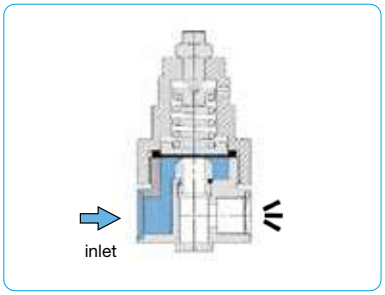
Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number	D*
40	78	13	D	200	30	G⅛	0.2 … 1.5	**DBC-01A**	
							0.3 … 3.0	**DBC-01B**	
							0.8 … 8.0	**DBC-01D**	
							1.5 … 15	**DBC-01E**	
40	78	13	D	200	30	G¼	0.2 … 1.5	**DBC-A2A**	
							0.3 … 3.0	**DBC-A2B**	
							0.8 … 8.0	**DBC-A2D**	
							1.5 … 15	**DBC-A2E**	
78	166	33	D	400	30	G¼	0.2 … 1.5	**DBC-02A**	
							0.3 … 3.0	**DBC-02B**	
							0.8 … 8.0	**DBC-02D**	
							1.5 … 15	**DBC-02E**	
78	166	33	D	500	30	G⅜	0.2 … 1.5	**DBC-03A**	
							0.3 … 3.0	**DBC-03B**	
							0.8 … 8.0	**DBC-03D**	
							1.5 … 15	**DBC-03E**	
82	175	38	D	2200	30	G½	0.2 … 1.5	**DBC-04A**	
							0.3 … 3.0	**DBC-04B**	
							0.8 … 8.0	**DBC-04D**	
							1.5 … 15	**DBC-04E**	
82	175	38	D	2500	30	G¾	0.2 … 1.5	**DBC-A6A**	
							0.3 … 3.0	**DBC-A6B**	
							0.8 … 8.0	**DBC-A6D**	
							1.5 … 15	**DBC-A6E**	



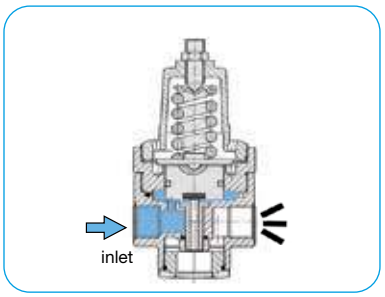
DBC-01/-A2



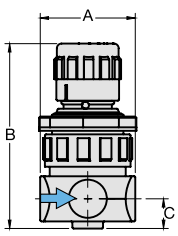
DBC-04/-A6



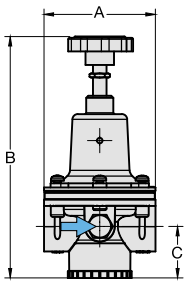
cross-section with diaphragm (D)



cross-section with piston (P)



DBC-01/-A2



DBC-02/-03/-04/-A6

*1 at 7 bar overpressure and open outlet
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar

* Product group

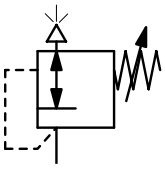
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: DBC-01A

ALUMINIUM BACK PRESSURE REGULATOR DBC

Description	Back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Overpressure	max. 30 bar
Adjustment	by plastic knob with snap-lock for DBC-01, by handwheel for DBC-02 to -A6 by T-handle with locknut for DBC-06 to -16
Gauge port	G⅛ at DBC-01, G¼ from DBC-02 on, on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F
Material	Body: aluminium O-rings: NBR/Buna-N, optionally FKM or EPDM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: brass



G⅛ up to G2
0.1 ... 1.5/15 bar

Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number D*
Aluminium back pressure regulator overpressure max. 30 bar								**DBC**
215	393	128	P	12000	30	G1½	0.2 ... 1.5	**DBC-12A**
							0.3 ... 3.0	**DBC-12B**
							0.8 ... 8.0	**DBC-12D**
							1.5 ... 15	**DBC-12E**
215	393	128	P	12000	30	G2	0.2 ... 1.5	**DBC-16A**
							0.3 ... 3.0	**DBC-16B**
							0.8 ... 8.0	**DBC-16D**
							1.5 ... 15	**DBC-16E**



DBC-12/-16

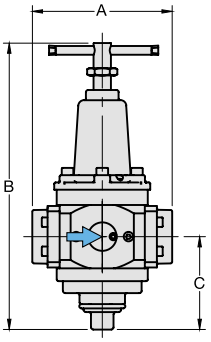
Special options, add the appropriate letter

NPT	connection thread	from G¼ (02)	DBC- . . . **N**
FKM o-ring	PTFE-diaphragm		DBC- . . . **V**
EPDM o-ring	PTFE-diaphragm		DBC- . . . **E**
flange connection	see chapter for stainless steel devices / flanges		DBC- . . . **F.**

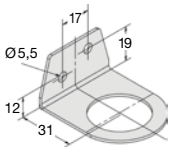
Accessories, enclosed

B*

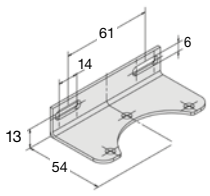
pressure gauges	Ø 50 mm, 0...*2 bar, G¼	for G¼	**MA5002-..*2**
pressure gauges	Ø 63 mm, 0...*2 bar, G¼	from G½	**MA6302-..*2**
mounting bracket	made of steel	for G⅛ and G¼ (A2)	**BW30-02**
mounting nut	made of aluminium	for G⅛ and G¼ (A2)	**M30x1,5A**
mounting bracket	made of steel	for G¼ (02) to G¾ (A6)	**BW00-44**
set of mount. brackets	made of steel	for G1½ and G2	**BW00-61**



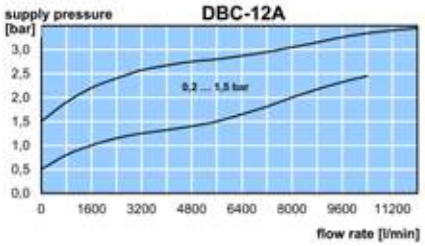
DBC-12/-16

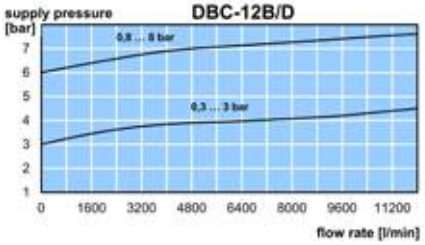


BW30-02



BW00-44





*1 at 7 bar overpressure and open outlet
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar
*3 G¾ thread at outlet

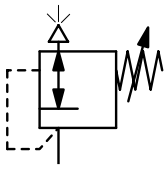
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DBC-06A

Description	Back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air, non-corrosive gases or liquids **Overpressure** see chart, max. 65 bar
Adjustment	by black plastic knob with snap-lock for DBM-02/-03 by T-handle with locknut for DBM-04/-08 by hexagonal spindle (spanner size 24 mm) with locknut for DBM-12/-16
Gauge port	G¼ on both sides of the body, from DBC-02 on screw plugs supplied
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, or low temperature version down to -40 °C / -40 °F
Mounting position	any
Material	Body: brass O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: brass



G⅛ up to G2
0.1…1.5/50 bar

Brass back pressure regulator

overpressure max. 30/65 bar

Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number DBM
69	150	35	D	800	30	G¼	0.2…1.5	DBM-02A
							0.3…3.0	DBM-02B
							0.8…8.0	DBM-02D
							1.5… 15	DBM-02E
69	145	35	P		65		3.0… 30	DBM-02F
69	160	35					5.0… 50	DBM-02G
69	150	35	D	800	30	G⅜	0.2…1.5	DBM-03A
							0.3…3.0	DBM-03B
							0.8…8.0	DBM-03D
							1.5… 15	DBM-03E
69	145	35	P		65		3.0… 30	DBM-03F
69	160	35					5.0… 50	DBM-03G
78	170	38	D	2500	30	G½	0.2…1.5	DBM-04A
							0.3…3.0	DBM-04B
							0.8…8.0	DBM-04D
							1.5… 15	DBM-04E
78	170	38	P		65		3.0… 30	DBM-04F
							5.0… 50	DBM-04G
118	291	66	D	8000	30	G¾	0.2…1.5	DBM-06A
							0.3…3.0	DBM-06B
							0.8…8.0	DBM-06D
							1.5… 15	DBM-06E
118	313	66	P		65		3.0… 30	DBM-06F
							5.0… 50	DBM-06G
118	291	66	D	8000	30	G1	0.2…1.5	DBM-08A
							0.3…3.0	DBM-08B
							0.8…8.0	DBM-08D
							1.5… 15	DBM-08E
118	313	66	P		65		3.0… 30	DBM-08F
							5.0… 50	DBM-08G



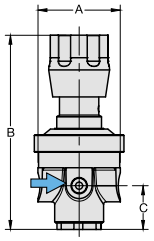
DBM-02/-03



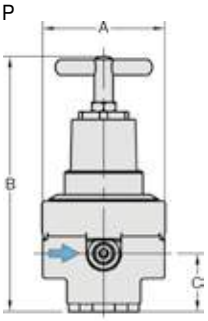
DBM-04



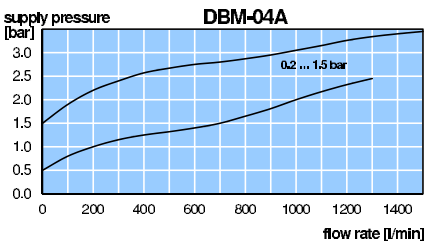
DBM-06/-08

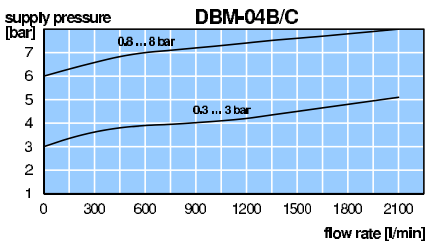


DBM-02/-03



DBM-04





*1 at 7 bar overpressure and open outlet
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar, **25** = 0…25 bar **60** = 0…60 bar

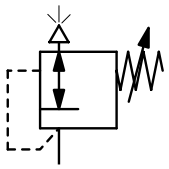
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DBM-02A

Description	Back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air, non-corrosive gases or liquids **Overpressure** see chart, max. 65 bar
Adjustment	by spindle with locknut for DBM-01 by black plastic knob with snap-lock for DBM-02/-03 by T-handle with locknut for DBM-04/-08 by hexagonal spindle (spanner size 24 mm) with locknut for DBM-12/-16
Gauge port	G¼ on both sides of the body, from DBC-02 on G⅛ at DBM-01, screw plugs supplied
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, or low temperature version down to -40 °C / -40 °F
Mounting position	any
Material	Body: brass O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: brass



G⅛ up to G2
0.1…1.5/50 bar

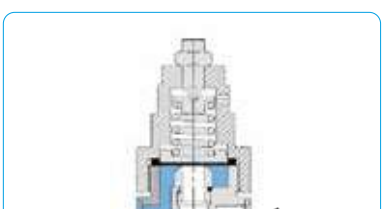
Dimensions A mm	B mm	C mm	Regul. system **D:** diaphragm **P:** piston	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number
Brass back pressure regulator					overpressure max. 30/65 bar			**DBM**
180	385	129	D	25000	30	G1½	0.2…1.5	**DBM-12A**
							0.3…3.0	**DBM-12B**
							0.8…8.0	**DBM-12D**
							1.5… 15	**DBM-12E**
180	400	129	P		65		3.0… 30	**DBM-12F**
							5.0… 50	**DBM-12G**
180	385	129	D	25000	30	G2	0.2…1.5	**DBM-16A**
							0.3…3.0	**DBM-16B**
							0.8…8.0	**DBM-16D**
							1.5… 15	**DBM-16E**
180	400	129	P		65		3.0… 30	**DBM-16F**
							5.0… 50	**DBM-16G**



DBM-12/-16

Special options, add the appropriate letter

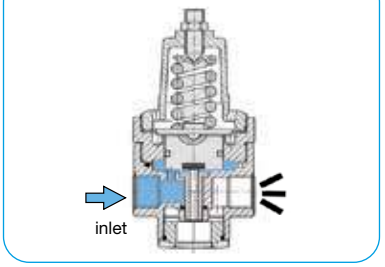
NPT	connection thread						DBM-. . . **N**
down to -40 °C/ -40 °F	low temperature version						DBM-. . . **X51**
up to 130 °C/ 266 °F	high temperature version						DBM-0 . . **X54**
EPDM o-ring	PTFE diaphragm						DBM-. . . **E**
T-handle	instead of knob			DBM-02 only			DBM-02. **T**
flange connection	see chapter for stainless steel devices / flanges						DBM-. . . **F.**
nitrogen	N_2:	**07**	**carbon dioxide**	CO_2: **03**	**argon**	Ar:	DBM-. . . **05**
helium	He:	**09**	**hydrogen**	H_2: **11**	**methane**	CH_4:	DBM-. . . **13**
oxygen	O_2:	**15**	**propane**	C_3H_8: **16**	**nitrous oxide**	N_2O:	DBM-. . . **17**
					water	H_2O:	DBM-. . . **W**



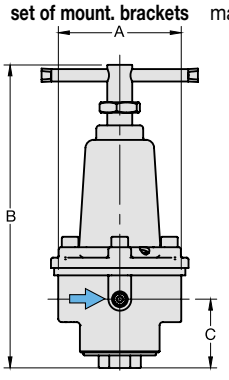
cross-section with diaphragm (D)

Accessories, enclosed

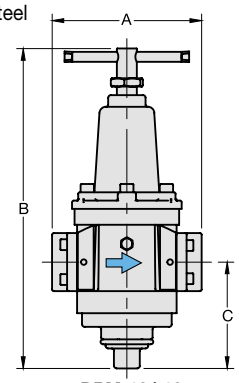
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	for G¼ and G½	**MA5002-..*2**
	Ø 63 mm, 0…*2 bar, G¼	for G¾ to G2	**MA6302-..*2**
	Ø 50 / Ø 63 mm, 0…25 bar, G¼	für G¼ bis G2	**MA ..02-25**
	Ø 50 / Ø 63 mm, 0…60 bar, G¼	für G¼ bis G2	**MA ..02-60**
mounting bracket	made of stainless steel	for G¼ and G⅜	**BW35-01S**
mounting nut	made of stainless steel	for G¼ and G⅜	**M35x1,5S**
mounting bracket	made of stainless steel	for G½	**BW50-01S**
mounting nut	made of stainless steel	for G½	**M50x1,5S**
mounting bracket	made of steel	for G¾ and G1	**BW00-42**
set of mount. brackets	made of steel	for G1½ and G2	**BW00-61**



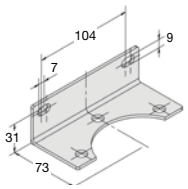
cross-section with piston (P)



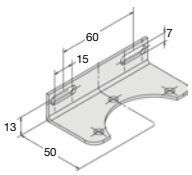
DBM-06/-08



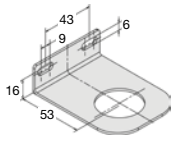
DBM-12/-16



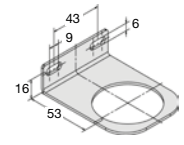
BW00-42



BW00-61



BW35-01S



BW50-01S

*1 at 7 bar overpressure and open outlet
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar, **25** = 0…25 bar **60** = 0…60 bar

* Product group

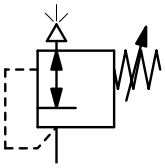
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DBM-12A

PRECISION BACK PRESSURE REGULATOR OF ADVANCED ACCURACY, UP TO 35 BAR 10BP

Description	The back pressure regulator is a high-flow, high-precision pneumatic relief valve with adjustable setpoint. It provides protection against overpressure in the downstream section of pneumatic systems. A convoluted diaphragm provides the sensitivity for venting to the atmosphere in response to the slightest upstream change.
Media	compressed air or non-corrosive gases
Overpressure	max. 21 bar up to pressure range of 14 bar, max. 35 bar beyond
Adjustment	by handwheel with locknut
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel and brass



G¼ up to G½, 1200 l/min
10…140 mbar/28 bar

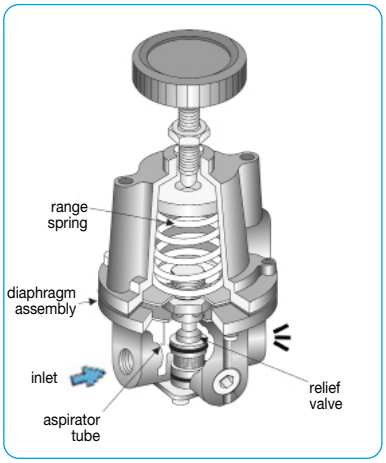
Dimensions A mm	B mm	C mm	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number	D*
Precision back pressure regulator overpressure max. 21/35 bar							**Model 10BP**	
67	162	19	1200	21	G¼	0.01… 0.14	**10212BPH**	
						0.01… 0.7	**10222BPH**	
						0.01… 2.1	**10232BPH**	
						0.07… 4.1	**10242BPH**	
						0.14… 10	**10262BPH**	
						0.20… 14	**10272BPH**	
67	171	19	1200	35	G¼	0.30… 21	**10282BPH**	
						0.30… 28	**10292BPH**	



Model 10BP

Special options, add the appropriate letter

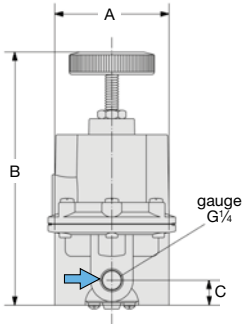
G⅜	connection thread	102.**3**BPH
G½	connection thread, recommended for mbar range	102.**4**BPH
NPT	connection thread	102.2BP
FKM elastomer		102..BP.**J**
free of non-ferrous metal	FKM elastomer	102..BP.**X63**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 159 mm	102..BP.**T**



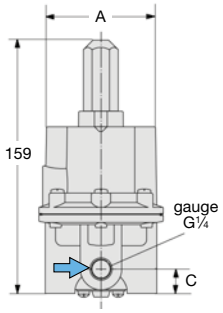
cross section

Accessories, enclosed B*

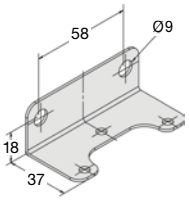
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MA5002-..*2**
	Ø 50 mm, 0… 25 bar, G¼	**MA5002-25**
	Ø 50 mm, 0… 60 bar, G¼	**MA5002-60**
	Ø 63 mm, 0…160 mbar, G¼	**MA6302-C2**
mounting bracket	made of steel	**BW00-34**



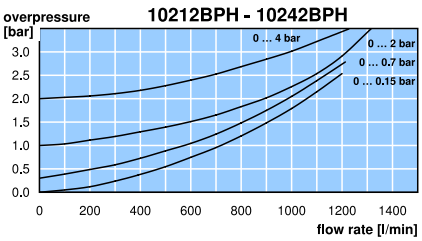
10BP

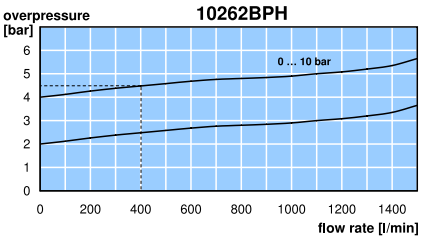


10BP with tamper-proof cap



BW00-34





*1 at 5 bar overpressure and open outlet
*2 **01** = 0…1 bar, **02** = 0…2.5 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar, **25** = 0…25 bar, **60** = 0…60 bar

* Product group

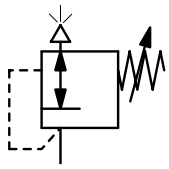
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: 10212BPH

Back pressure
8

Description	The back pressure regulator is a high-flow, high-precision pneumatic relief valve with adjustable setpoint. It provides protection against overpressure in the downstream section of pneumatic systems. A convoluted diaphragm provides the sensitivity for venting to the atmosphere in response to the slightest upstream change.
Media	compressed air or non-corrosive gases
Overpressure	max. 17 bar
Adjustment	by handwheel with locknut
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 70 °C / 32 °F to 158 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N Inner valve: stainless steel and brass



G¼ / ¼″ up to ½″ NPT
10…140 mbar/10 bar

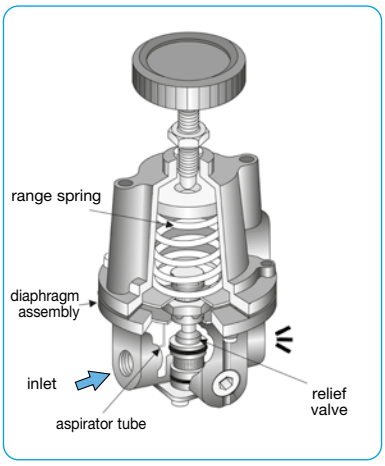
Dimensions A mm	B mm	C mm	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number	D*
Precision back pressure regulator				**overpressure max. 17 bar**			**DB240**	
67	154	19	1 100	17	G¼	0.01… 0.14	**DB240-020**	
						0.01… 1.0	**DB240-02A**	
						0.01… 2.0	**DB240-02B**	
						0.07… 4.0	**DB240-02C**	
						0.14… 10	**DB240-02D**	



DB240

Special options, add the appropriate letter

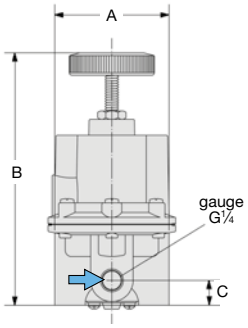
¼″ NPT	connection thread	DB240-0**2** . **N**
⅜″ NPT	connection thread	DB240-0**3** . **N**
½″ NPT	connection thread, recommended for mbar range	DB240-0**4** . **N**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 157 mm	DB240-0 . . **T**



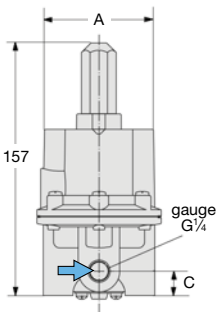
cross-section

Accessories, enclosed B*

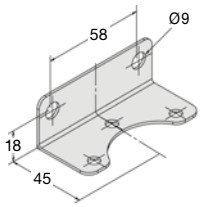
pressure gauge	Ø 50 mm, 0…*2 bar,	G¼, Bourdon tube, from 1 bar on	**MA5002-..*2**
	Ø 63 mm, 0…160 mbar,	G¼, capsule type	**MA6302-C2**
mounting bracket	made of steel		**BW00-33**



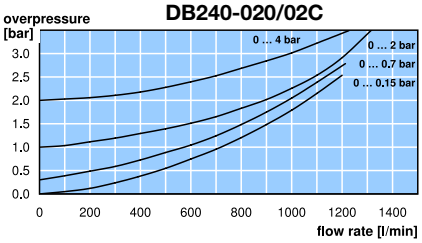
DB240

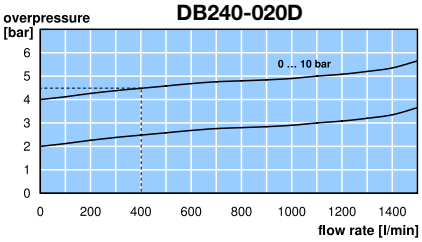


DB240-…T with tamper-proof cap



BW00-33





*1 at 5 bar overpressure and open outlet
*2 **01** = 0…1 bar, **02** = 0…2.5 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar

* Product group

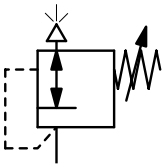
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: DB240-020

PRECISION LOW BACK PRESSURE REGULATOR DB110

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Recommendation	connection thread G½ for pressure range 0...35 / 140 / 280 mbar
Overpressure	max. 10 bar
Accuracy	response sensitivity <2 mbar
Adjustment	by handwheel with locknut
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F , for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel and brass



G¼ up to G½, 700 l/min
0…35/800 mbar

Dimensions A mm	B mm	C mm	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustement range mbar	Order number	D*
Low back pressure regulator				overpressure max. 10 bar			**DB110**	
67	180	25	700	10	G¼	2… 35	**DB110-020**	
						2… 140	**DB110-02A**	
						2… 280	**DB110-02B**	
						2… 400	**DB110-02C**	
						2… 800	**DB110-02D**	
67	180	25	700	10	G½	2… 35	**DB110-040**	
						2… 140	**DB110-04A**	
						2… 280	**DB110-04B**	
						2… 400	**DB110-04C**	
						2… 800	**DB110-04D**	



DB110

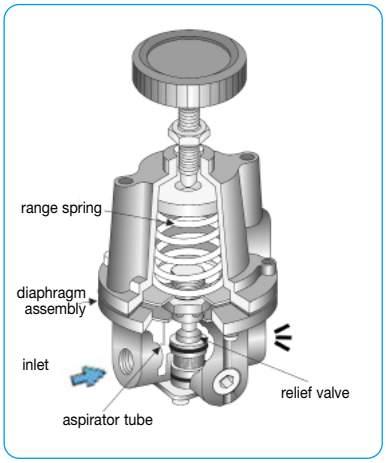
Special options, add the appropriate letter

G⅜	connection thread	DB110-0.. **3**
NPT	connection thread	DB110-0.. **N**
FKM elastomer		DB110-0.. **V**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 183 mm	DB110-0.. **T**

Accessories, enclosed

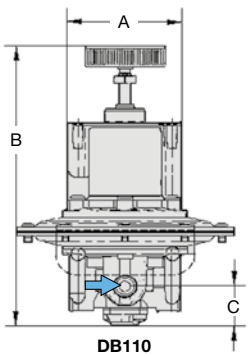
B*

pressure gauge	Ø 63 mm, 0…*2 mbar, G¼, capsule type	**MA6302-..*2**
	Ø 63 mm, 0… 1 bar, G¼, Bourdon tube	**MA6302-01**
connecting parts gauge	at NPT connection thread, adapter ¼″ NPT - G¼i	**VP-0202N**
mounting bracket	made of steel	**BW00-58**

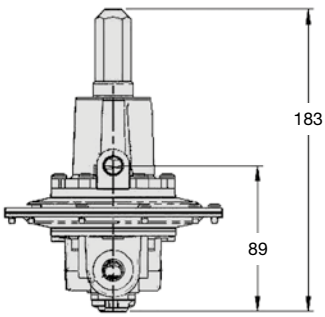


functional principle

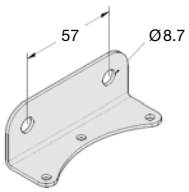
Back pressure 8



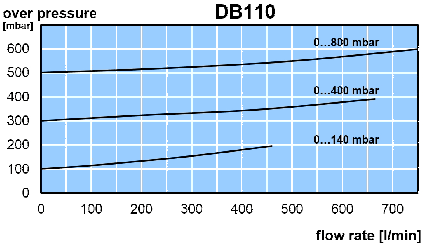
DB110



with tamper-proof cap



BW00-58



*1 at 200 mbar overpressure and open outlet
*2 **B6** = 0…60 mbar, **C2** = 0…160 mbar, **C3** = 0…250 mbar, **C4** = 0…400 mbar

* Product group

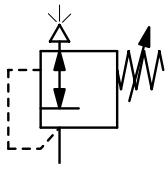
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DB110-020

PRECISION BACK PRESSURE REGULATOR, SMALL AND LIGHTWEIGHT DB300

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Overpressure	max. 10 bar
Accuracy	response sensitivity <2 mbar
Adjustment	by handwheel with locknut
Gauge port	G⅛ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F , for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: brass



G¼ and G⅜, 1100 l/min
0...0.14/7 bar

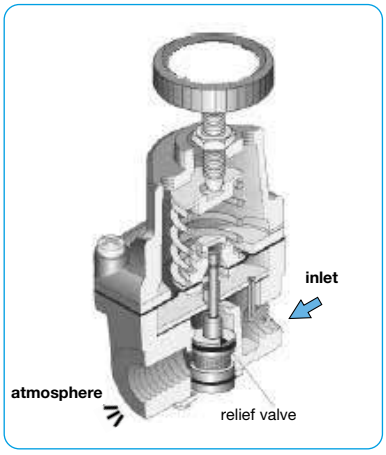
Dimensions A mm	B mm	C mm	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustement range mbar	Order number D*
Precision back pressure regulator				overpressure max. 10 bar			**DB300**
57	126	19	1100	10	G¼	0.001... 0.14	**DB300-020**
						0.01 ... 0.7	**DB300-021**
						0.03 ... 2.0	**DB300-02A**
						0.07 ... 4.0	**DB300-02B**
						0.14 ... 7.0	**DB300-02C**
57	126	19	1100	10	G⅜	0.001... 0.14	**DB300-030**
						0.01 ... 0.7	**DB300-031**
						0.03 ... 2.0	**DB300-03A**
						0.07 ... 4.0	**DB300-03B**
						0.14 ... 7.0	**DB300-03C**



DB300

Special options, add the appropriate letter

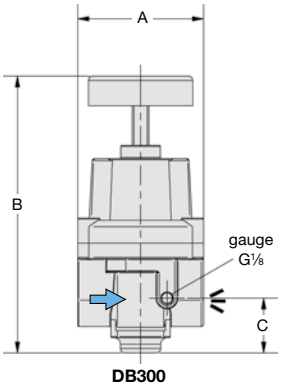
NPT	connection thread	DB300-0 . . **N**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 141 mm	DB300-0 . . **T**
FKM elastomer		DB300-0 . . **V**



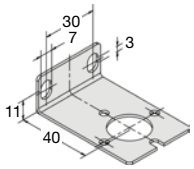
cross-section

Accessories, enclosed B*

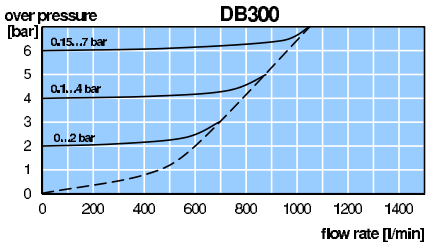
pressure gauge	Ø 63 mm, 0... 160 mbar, G¼ - connecting parts required	**MA6302-C2**
	Ø 50 mm, 0...*2 bar, G⅛	**MA5001-..*2**
connecting parts gauge	for MA6302-C2	**AM-04**
mounting bracket	made of steel	**BW00-46**

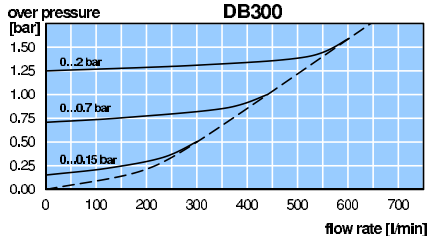


DB300



BW00-46





*1 at 7 bar overpressure and open outlet
*2 **01** = 0...1 bar, **02** = 0...2.5 bar, **04** = 0...4 bar, **10** = 0...10 bar

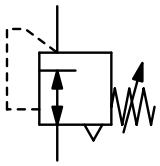
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DB300-020

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Overpressure	max. 17 bar
Adjustment	by handwheel with locknut
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F , for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel, brass, aluminium and cadmium-plated steel



G⅜ up to G¾, 4200 l/min
0.03 … 0.7/10 bar

Dimensions A mm	B mm	C mm	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustement range mbar	Order number	D*
Precision back pressure regulator				overpressure max. 17 bar			**DB400**	
89	206	39	3800	17	G⅜	0.03 … 0.7	**DB400-031**	
						0.03 … 2.0	**DB400-03A**	
						0.07 … 4.0	**DB400-03B**	
						0.15 … 10	**DB400-03C**	
89	206	39	4000	17	G½	0.03 … 0.7	**DB400-041**	
						0.03 … 2.0	**DB400-04A**	
						0.07 … 4.0	**DB400-04B**	
						0.15 … 10	**DB400-04C**	
89	206	39	4200	17	G¾	0.03 … 0.7	**DB400-061**	
						0.03 … 2.0	**DB400-06A**	
						0.07 … 4.0	**DB400-06B**	
						0.15 … 10	**DB400-06C**	



DB400

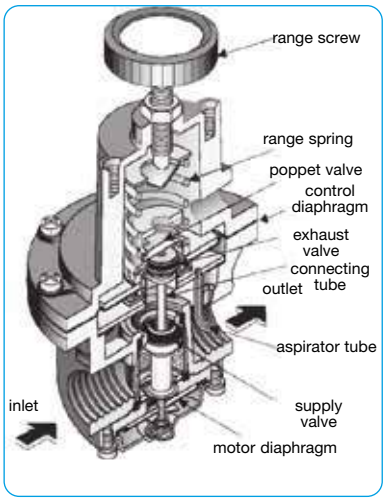
Special options, add the appropriate letter

NPT	connection thread	DB400-0..**N**
tamper-proof cap	aluminium, adjustment by screwdriver, total height 295 mm	DB400-0..**T**
FKM elastomer		DB400-0..**V**

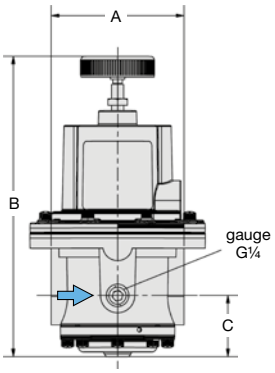
Accessories, enclosed

B*

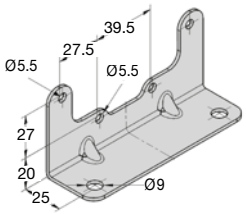
pressure gauge	Ø 63 mm, 0…*2 bar, G¼	**MA6302-..*2**
mouting bracket	made of steel	**BW00-47**



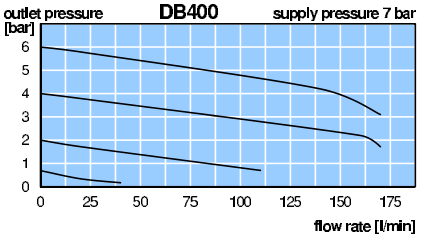
cross-section



DB400



BW00-47



*1 at 7 bar inlet pressure and 1.4 bar outlet pressure
*2 **01** = 0…1 bar, **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar, **25** = 0…25 bar

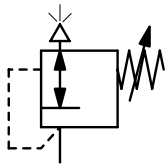
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DB400-031

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.
Media	compressed air or non-corrosive gases
Overpressure	max. 6 bar
Adjustment	by handwheel with locknut for DBC-04 by hexagonal spindle (spanner size 24 mm) with locknut for DBC-08/-16
Gauge port	G¼ for operation pressure, on both sides of the body, connection parts required
Mounting position	any
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F
Material	Body: aluminium Diaphragm: NBR/Buna-N with PTFE coating O-rings: NBR/Buna-N, optionally FKM or EPDM Inner valve: brass



G½ up to G2
5…45/3000 mbar

Dimensions A mm	B mm	C mm	Relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range mbar	Order number	D*
Aluminium back pressure regulator NBR/Buna-N with PTFE coating							**DBC**	
82	186	38	300	1	G½	5… 45	**DBC-04N**	
			500			20… 200	**DBC-04P**	
			1000			150… 700	**DBC-04Q**	
161	290	45	1300	6	G¾	50… 300	**DBC-06P**	
			2300			100… 700	**DBC-06Q**	
			5000			200…1200	**DBC-06R**	
161	290	45	1300	6	G1	50… 300	**DBC-08P**	
			2300			100… 700	**DBC-08Q**	
			5000			200…1200	**DBC-08R**	
265	290	45	1300	6	G1¼	50… 300	**DBC-10P**	
			2300			100… 700	**DBC-10Q**	
			5000			200…1200	**DBC-10R**	
265	290	45	1300	6	G1½	50… 300	**DBC-1AP**	
			2300			100… 700	**DBC-1AQ**	
			5000			200…1200	**DBC-1AR**	
192	444	128	2500	6	G1½	20… 50	**DBC-12N**	
			5000			50… 150	**DBC-12P**	
			7500			150… 300	**DBC-12Q**	
			10000			300…3000	**DBC-12R**	
192	444	128	2500	6	G2	20… 50	**DBC-16N**	
			5000			50… 150	**DBC-16P**	
			7500			150… 300	**DBC-16Q**	
			10000			300…3000	**DBC-16R**	



DBC-04



DBC-06/-08



DBC-12/-16

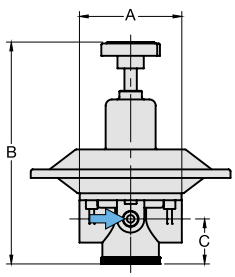
Special options, add the appropriate letter

NPT	connection thread	DBC-...**N**
FKM o-ring	PTFE-diaphragm	DBC-...**V**
EPDM o-ring	PTFE-diaphragm	DBC-...**E**
flange connection	see chapter for stainless steel devices / flanges	DBC-...**F.**

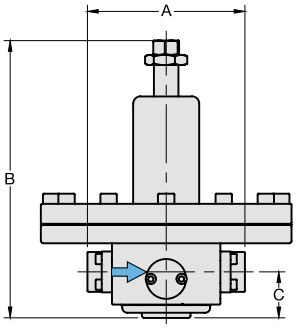
Accessories, enclosed

B*

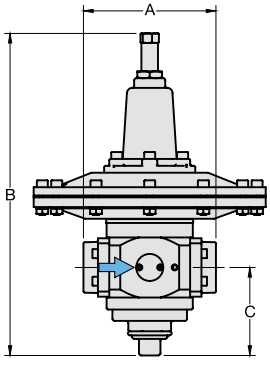
pressure gauge	Ø 63 mm, 0…*2 mbar, G¼, capsule type,	up to 400 mbar	**MA6302-..*2**
	Ø 63 mm, 0…*2 bar, G¼, Bourdon tube,	up 1 bar	**MA6302-..*2**
connection parts	required for pressure gauge		**AM-01**
mouting bracket	made of stainless steel	for G½	**BW00-26S**



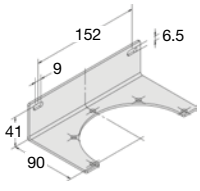
DBC-04



DBC-06/-08/-10/-1A



DBC-12/-16



BW00-26S

*1 at 6 bar overpressure and open outlet
*2 **B6** = 0…60 mbar, **C2** = 0…160 mbar, **C4** = 0…400 mbar, **C01** = 0...1 bar, **04** = 0...4 bar, **06** = 0…6 bar

* Product group

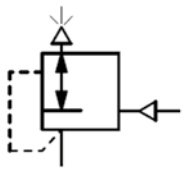
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DBC-04N

PRECISION BACK PRESSURE REGULATOR, PILOT-OPERATED DB208

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.		
Media	compressed air or non-corrosive gases		
Overpressure	max. 17 bar	**Pilot pressure**	0 ... 10 bar
Accurcay	1% at 7 bar pilot pressure	**Response sensitivity**	1 mbar
Adjustment	depending on the level of signal pressure the response value will change accordingly		
Gauge port	G¼ on both sides of the body , screw plugs supplied	**Mounting position**	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F , for appropriately conditioned compressed air down to -40 °C / -40 °F		
Material	Body: aluminium die casting O-rings: NBR/Buna-N, optionally FKM	Elastomer: Inner valve:	NBR/Buna-N brass and zinc-plated steel



G¼ up to G½, 1700 l/min
0…10 bar

Dimensions A mm	B mm	C mm	Relief capacity l/min*1	Over-pressure max. bar	Adjustment range bar	Connection thread G	Order number	D*

Back pressure regulator, pilot-operated

pilot pressure 0...10 bar
overpressure max. 17 bar

DB208

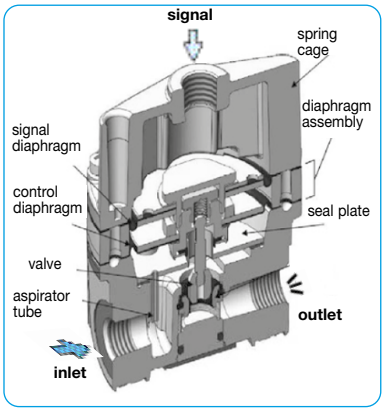
76	98	24	1700	17	0…10	G¼	**DB208-02**	
						G⅜	**DB208-03**	
						G½	**DB208-04**	



DB208

Special options, add the appropriate letter

NPT	connection thread	DB208-0.**N**
FKM elastomer		DB208-0.**V**

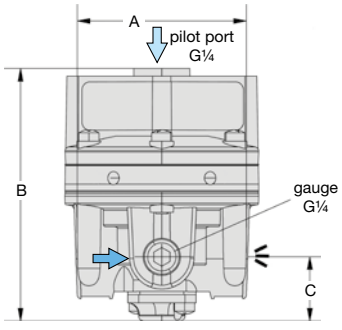


cross-section

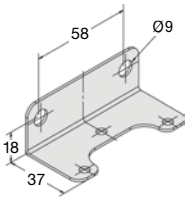
Accessories, enclosed

B*

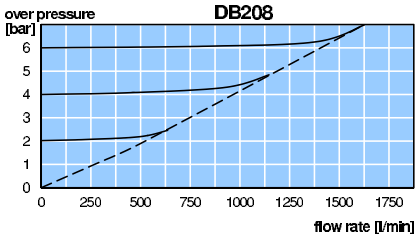
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MA5002-…***2
mounting bracket	made of steel	**BW00-34**



DB208



BW00-34



*1 at 7 bar inlet pressure and open outlet
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar

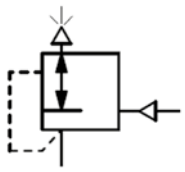
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DB208-02

Description	Diaphragm back pressure regulators protect pneumatic devices against overpressure. If the pressure exceeds the setpoint, the pressure valve exhausts to the atmosphere until the pressure level is below the setpoint. It is advisable to select the pressure range as near as possible to the maximum setpoint.		
Media	compressed air or non-corrosive gases		
Overpressure	max. 17 bar	**Pilot pressure**	0 ... 10 bar
Accurcay	3% at 7 bar pilot pressure	**Response sensitivity**	2.5 mbar
Adjustment	depending on the level of signal pressure the response value will change accordingly		
Gauge port	G¼ on both sides of the body , screw plugs supplied	**Mounting position**	any
Temperature range	0 °C to 90 °C / 32 °F to 194 °F , for appropriately conditioned compressed air down to -40 °C / -40 °F		
Material	Body: aluminium die casting O-rings: NBR/Buna-N, optionally FKM	Elastomer: NBR/Buna-N Inner valve: brass and aluminium	



G⅜ up to G¾, 3500 l/min
0…10 bar

Dimensions A mm	B mm	C mm	Relief capacity l/min*1	Over-pressure max. bar	Adjustment range bar	Connection thread G	Order number	D*

Back pressure regulator, pilot-operated

pilot pressure 0...10 bar
overpressure max. 17 bar

DB450

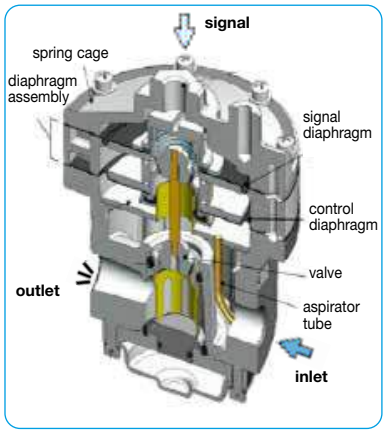
87	129	40	3500	17	0…10	G⅜	**DB450-03**
						G½	**DB450-04**
						G¾	**DB450-06**



DB450

Special options, add the appropriate letter

NPT	connection thread	DB450-0 . **N**
FKM elastomer		DB450-0 . **V**

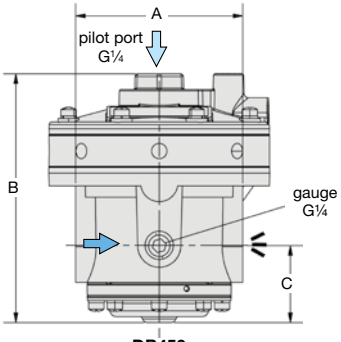


cross-section

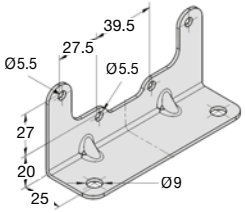
Accessories, enclosed

B*

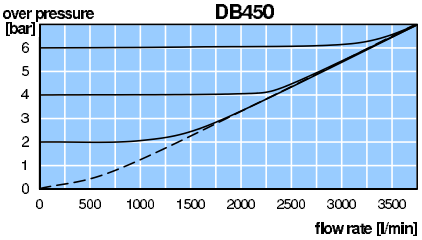
pressure gauge	Ø 63 mm, 0…*2 bar, G¼	**MA6302-..*2**
mounting bracket	made of steel	**BW00-47**



DB450



BW00-47



*1 at 6 bar inlet pressure and open outlet

*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar

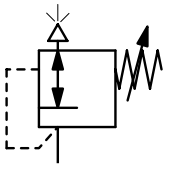
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
DB450-03

Description	Pressure relief valve for protecting compressed air devices from overpressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.	
Model 59	Low-cost piston-operated valve of small size and high relief capacity.	
Model 130 / 134	Small, sensitive diaphragm-type valve made to screw in. Relief flow is proportional to overpressure. Model 134 features a tapped exhaust.	
Media	compressed air or non-corrosive gases,	model 134 also for liquids
Overpressure	max. 21 bar	
Adjustment	by knurled screw at model 59 by plastic knob with snap-lock at model 130 and 134	
Gauge port	model 134: for inlet pressure G⅛ on both sides of the body model 59/130: not available	
Temperature range	0 °C to 50 °C / 32 °F to 132 °F	**Mounting position** any
Material	Body: aluminium at model 59 and 130,	brass at model 134
	Elastomer: NBR/Buna-N at model 130 and 134	Seal: silicone at model 59
	Spring cage: plastic at type 130 and 134	Inner valve: brass



G¼

Dimensions A mm	B mm	C mm	relief capacity l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number	D*
Back pressure regulator overpressure max. 21 bar, with male thread							**Model 59**	
20	50	-	1500	21	G¼ m	1.7 ... 2.4	**59-02A- 35**	
						2.8 ... 3.5	**59-02A- 50**	
						3.8 ... 14	**59-02A-200**	
Back pressure regulator overpressure max. 21 bar, with male thread							**Model 130**	
43	88	-	540	21	G¼ m	0 ... 3.5	**130-02- 50**	
						0 ... 7.0	**130-02-100**	
Back pressure regulator overpressure max. 21 bar with tapped exhaust and gauge port							**Model 134**	
40	76	10	540	21	G¼	0 ... 1.0	**134-02- 15**	
						0 ... 1.8	**134-02- 25**	
						0 ... 3.5	**134-02- 50**	
						0 ... 7.0	**134-02-100**	

Special options, add the appropriate letter

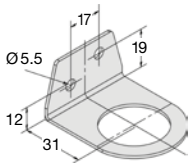
free of grease and oil specially cleaned, suitable for oxygen		for 130 and 134	13.-02-... **L**

Accessories, enclosed

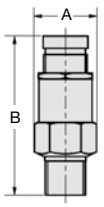
pressure gauge	Ø 40 mm, 0...*2 bar, G⅛	for 134	**MA4001-..*2**
mounting bracket	made of steel	for 130 and 134	**BW30-02**
mounting nut	made of plastic	for 130 and 134	**M30x1,5K**
	made of aluminium	for 130 and 134	**M30x1,5A**

Model 59	relief	
range	set pressure	capacity
bar	Druck	l / min
3.8 ... 14	1.8 bar	500
	3.6 bar	900
	5.4 bar	1 100
	7.0 bar	1 500
	8.6 bar	1 700
	10.0 bar	2 000

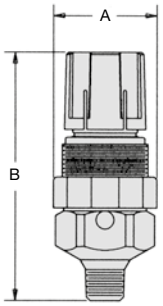
Model 130	relief	
range	set pressure	capacity
bar	Druck	l / min
0 ... 3.5	0.7 bar	50
	1.8 bar	190
	3.6 bar	310
0 ... 7	3.6 bar	280
	5.2 bar	385
	7.0 bar	540



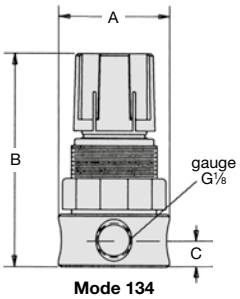
BW30-02



Model 59



Model 130



Mode 134

*1 at 7 bar overpressure and open outlet
*2 **01** = 0...1 bar, **02** = 0...2.5 bar, **04** = 0...4 bar, **10** = 0...10 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



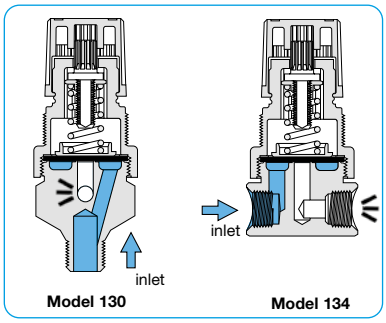
Model 59



Model 130



Model 134



cross-section

* Product group

Order example:
59-02A-35

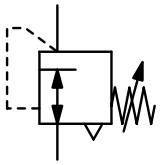
WATER PRESSURE REGULATORS

	DESCRIPTION	SUPPLY PRESSURE	PRESSURE RANGE	CONNECTION	SERIES	PAGE
		max. bar	bar	thread		
MINIATURE	made of plastic	11	0 ... 1.0 / 9	G⅛ and G¼	R25	**9.02**
	made of plastic	11	0 ... 1.8 / 9	G¼ and G⅜	R45	**9.02**
	preset, for drinking water	15	1 / 2 / 3... 8	G¼	239K	**9.03**
STANDARD	female thread	60	0.2 ... 2 / 45	G¼ - G2	RWI	**9.04**
	male thread	25	0.2 ... 2 / 20	R½˝ - R2½˝	RWA	**9.06**
	flange	40	0.2 ... 2 / 20	DN 8-DN125	RWF	**9.08**
	stainless steel, flange	40	0.2 ... 2 / 20	DN15-DN50	RAF	**9.10**
	stainless steel, female thread	40	0.2 ... 2 / 20	G½ - G2	RAI	**9.12**
STEAM PRESSURE REGULATOR	spheroidal graphite iron	19	0.14 ... 1.7 / 9	G½ - G2, flange	RU	**9.14**
	red brass	17	0.14 ... 1.7 / 9	G½ - G2, flange	RU-R	**9.14**
	stainless steel	19	0.14 ... 1.7 / 9	G½ - G2, flange	RU-S	**9.14**



PLASTIC PRESSURE REGULATOR FOR COMPRESSED AIR AND WATER R25 / R45

Description	Miniature pressure regulator with diaphragm, designed for compressed air and water applications. All internal wetted sections are corrosion-resistant, lead free and without any brass components. Material approved by the NSF and FDA. Regulator for modular application with many integrated fixing holes.
Media	compressed air, non-corrosive gases or water
Supply pressure	max. 11 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving for air, non-relieving for water
Gauge port	G⅛ on both sides of R25, G¼ on both sides of R45, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: glass fibre-reinforced acetal Elastomer: NBR/Buna-N Inner valve: glass fibre-reinforced acetal



G⅛ to G⅜, FDA compressed air or water

Dimensions A mm	B mm	C mm	Flow rate water l/min*1	air l/min*1	Connection thread G	Pressure range bar	Order no. for water non-relieving	Order no. for compressed air C* relieving
Pressure regulator						supply pressure max. 11 bar		**R25**
40	78	12	3	150	G⅛	0…1.0	**R25-010K**	**R25-010**
						0…1.8	**R25-01AK**	**R25-01A**
						0…4.0	**R25-01BK**	**R25-01B**
						0…9.0	**R25-01CK**	**R25-01C**
40	78	12	3	150	G¼	0…1.0	**R25-020K**	**R25-020**
						0…1.8	**R25-02AK**	**R25-02A**
						0…4.0	**R25-02BK**	**R25-02B**
						0…9.0	**R25-02CK**	**R25-02C**
Pressure regulator for high flow						supply pressure max. 11 bar		**R45**
52	87	14	10	680	G¼	0…1.8	**R45-02AK**	**R45-02A**
						0…4.0	**R45-02BK**	**R45-02B**
						0…9.0	**R45-02CK**	**R45-02C**
52	87	14	13	960	G⅜	0…1.8	**R45-03AK**	**R45-03A**
						0…4.0	**R45-03BK**	**R45-03B**
						0…9.0	**R45-03CK**	**R45-03C**



R25



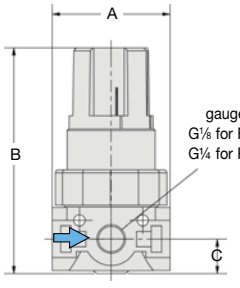
R45

Special options, add the appropriate letter

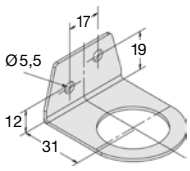
adjustment lock	socket wrench adjustment, height 64 mm	R25 only R25- 0 . . **T**
EPDM-Elastomerc		R . 5-0 . . **E**

Accessories, enclosed B*

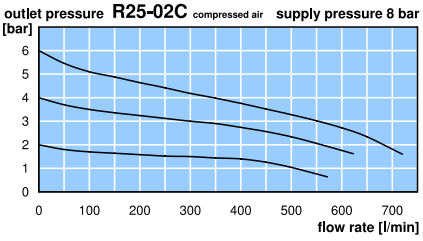
pressure gauge	Ø 40 mm, 0…*2 bar, G⅛	for R25 **MA4001-..*2**
	Ø 50 mm, 0…*2 bar, G¼	for R45 **MA5002-..*2**
mounting bracket	made of steel	**BW30-02**
mounting nut	made of plastic	**R05X51**
	made of aluminium	**M30x1,5A**

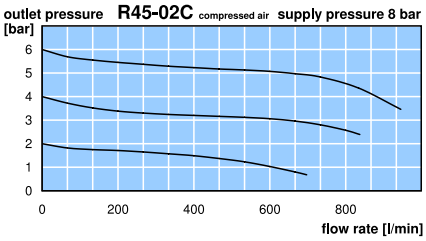


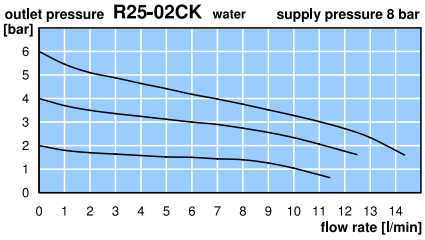
R25 / R45

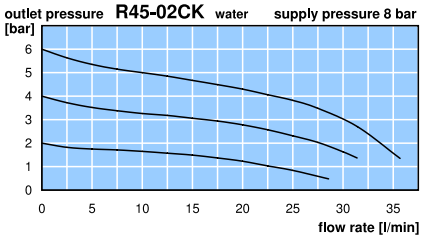


BW30-02









*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop, for water supply pressure 2 bar above outlet pressure
*2 **01** = 0…1 bar, **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar

* Product group

Gauges: see chapter for measuring devices

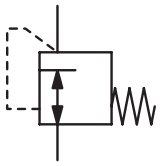
PDF CAD
www.aircom.net

Order example: R25-010K

Special 9

IN-LINE REGULATOR WITH FACTORY-SET OUTLET PRESSURE FOR DRINKING WATER 239K

General	In-Line pressure regulator with factory-set outlet pressure, reducing from e.g. 10 bar to 5 bar. The outlet pressure cannot be subsequently adjusted. This safeguards against tampering.
Description	regulator for **drinking water** conforms to the FDA, EU and DIN 50930-6, TÜV drinking water directives
Application	applications areas such as drinking water, food and medical industry
Supply pressure	max. 15 bar
Accuracy	± 0.3 bar, for compressed air P_1: 6 bar and 10 l/min
Temperature range	4 °C to 60 °C / 39.2 °F to 140 °F
Material	Body: Grivory® GV-5 FWA Inner parts: Stainless steel DIN 1.4404 / AISI 316L Diaphragm: EPDM



G¼
for drinking water / FDA

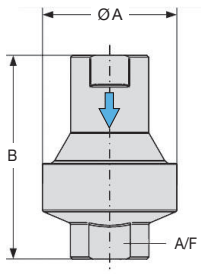
Dimensions ØA mm	B mm	A/F mm	Flow rate water l/min*1	Supply pressure max. bar	Connection thread G	Outlet pressure bar*2	Order number A*
Regulator for drinking water				Grivory, accuracy *2	P1: max. 15 bar,		**239K**
34	52	17	10	15	G¼	1	**239K0210**
			10			2	**239K0220**
			10			3	**239K0230**
			10			4	**239K0240**
			10			5	**239K0250**
			10			6	**239K0260**
			10			7	**239K0270**
			10			8	**239K0280**



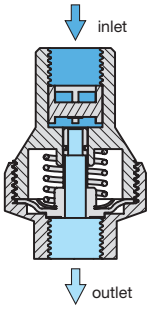
239K

Special options, add the appropriate letter

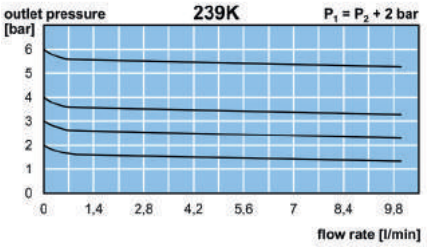
NPT	connection thread	239K**1** . . .
deviant pressure range	indicate on order	239K . . **XX**



239K



cross-section



*1 P_1 = 10 bar; Δp = 0.8 bar

*2 Tolerance: < 4 bar ± 0.3 bar (air, P_e = 6 bar, 10 Nl/min)
≥ 4 bar ± 10% (air, P_e = 10 bar, 10 Nl/min)

* Product group

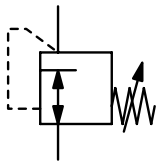
PDF CAD
www.aircom.net

Order example:
239K0210

PRESSURE REGULATOR FOR WATER, WITH FEMALE THREAD — RWI

Description	Regulator independent of inlet pressure, made of gunmetal, with strainer of stainless steel. Regulators up to 10 bar outlet pressure equipped with diaphragm, all others are piston-operated.
Drinking water	particulary all regulators RWI-..C with outlet range 1.5 ...6 bar
Media	preferably water or drinking water, but also compressed air, neutral liquids and non-corrosive gases. Especially suitable for compressed air are regulators RWI-..D. It has to be considered that these regulators are non-relieving.
Pressure difference	1 bar, between inlet and outlet pressure
Mounting position	any, preferably vertical
Reduction ratio	between supply and outlet pressure should not be greater than: 20:1 for RWI-..A, 10:1 for RWI-..D, 6:1 for RWI-..G/H, 3:1 for RWI-..I
Gauge port	G¼ on both sides of the body for outlet pressure, ports are closed with screw plugs.
ATEX	according to ATEX2014/34/EU, EN1127, EN13463 for zone 1, 2, 21 and 22
PED	according to EU directives DGRL/PED for liquids and gases of group 2
Temperature range	0 °C to 80 °C / 32 °F to 176 °F
Screw standard	according to DIN ISO 228
Material	see opposite page

drinking water



G¼ up to G2
0.2…2/45 bar



RWI-02…-03A RWI-04…-10A



RWI-02...-08D RWI-02...-08H/I

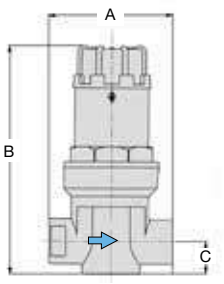


RWI-02...-10B/C/E/F/G

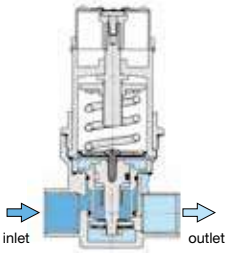
Regulator with female thread

gunmetal, NBR/Buna-N
drinking water: RWI-..C

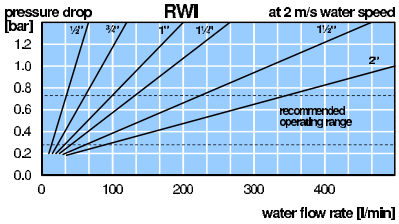
Dimensions A mm	B mm	C mm	Flow rate recommended (m³/h)*1	K_{VS} value (m³/h)*2	Nominal size DN	Connection thread G	Pressure inlet max. bar	outlet bar	Order number RWI
70	186	46	0.2	0.5	DN8	G¼	25	0.2 ... 2	RWI-02A
	167	47					25	1.5 ... 8	RWI-02D
	188	47					40	2.0 ... 20	RWI-02H
	191	48					60	20 ... 45	RWI-02I
70	186	46	0.2	0.6	DN10	G⅜	25	0.2 ... 2	RWI-03A
	167	47					25	1.5 ... 8	RWI-03D
	188	47					40	2.0 ... 20	RWI-03H
	191	48					60	20 ... 45	RWI-03I
85	154	27	1.3	2.9	DN15	G½	16	0.2 ... 2	RWI-04A
	168	27	1.3	2.9			25	0.5 ... 4	RWI-04B
	168	27	1.3	2.9			25	1.5 ... 6	RWI-04C
	189	47	0.5	1.2			25	1.5 ... 8	RWI-04D
	163	27	1.3	2.9			25	1.5 ... 10	RWI-04E
	182	27	1.3	2.9			25	1.5 ... 12	RWI-04F
	233	27	1.3	2.9			25	2.0 ... 20	RWI-04G
	229	47	0.5	1.2			40	2.0 ... 20	RWI-04H
	218	47	0.5	1.2			60	20 ... 45	RWI-04I
95	157	27	2.3	3.9	DN20	G¾	16	0.2 ... 2	RWI-06A
	169	27	2.3	3.8			25	0.5 ... 4	RWI-06B
	169	27	2.3	3.9			25	1.5 ... 6	RWI-06C
	190	47	0.6	1.3			25	1.5 ... 8	RWI-06D
	164	27	2.3	3.9			25	1.5 ... 10	RWI-06E
	182	27	2.3	3.9			25	1.5 ... 12	RWI-06F
	234	27	2.3	3.9			25	2.0 ... 20	RWI-06G
	229	47	0.6	1.3			40	2.0 ... 20	RWI-06H
85	224	48	0.6	1.3			60	20 ... 45	RWI-06I
105	156	29	3.6	5.4	DN25	G1	16	0.2 ... 2	RWI-08A
105	170	29	3.6	5.2			25	0.5 ... 4	RWI-08B
105	170	29	3.6	5.4			25	1.5 ... 6	RWI-08C
95	242	56	0.7	1.6			25	1.5 ... 8	RWI-08D
105	164	29	3.6	5.4			25	1.5 ... 10	RWI-08E
105	184	29	3.6	5.4			25	1.5 ... 12	RWI-08F
105	235	29	3.6	5.4			25	2.0 ... 20	RWI-08G
95	256	55	0.7	1.6			40	2.0 ... 20	RWI-08H

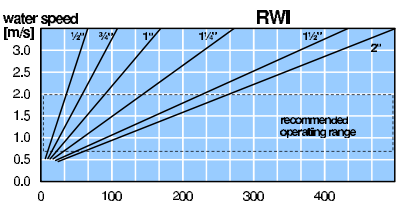


RWI



cross-section





*1 at 2 m/s water speed *2 for compressed air the flow is 70 times greater

* Product group

PDF CAD
www.aircom.net

Order example:
RWI-02A

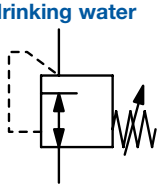
Special
9

Material

Regulator	RW	RWI-..A		RWI.-..B	RWI.-..C	RWI.-..D	RWI.-..E	RWI.-..F	RWI.-..G	RWI.-..H	RWI.-..I
Nominal size	DN	DN8-10	DN15-80	DN15-50	DN15-50	DN8-50	DN15-50	DN15-50	DN15-50	DN8-50	DN8-20
Body	all	gunmetal CnSn5ZN5Pb2-C-GS / CC499K (Rg5)									
Spring cage	< DN32	Ms (< DN25)	PA	Ms	PA	Ms (< DN25)	Ms		Ms (< DN25)		
	> DN40	-	Rg	GG		GG (> DN32)	GG		GG (> DN32)		
Seals	all	NBR/Buna N				NBR/Buna N	NBR/Buna-N				
Diaphragm	< DN25	CR	NBR/Buna N			CR	NBR/Buna-N		piston / NBR/Buna-N		
	> DN32	NBR/Buna N				CR	NBR/Buna-N		piston / NBR/Buna-N		
Spring cage	< DN32	Ms	Ms, SS, Ho			Ms	Ms, SS, Ho (< DN25 Ms)			Ms	Ms
	> DN40	-	Ms, SS			Ms, Rg, SS	Ms, SS			Ms, Rg, SS	-
Reg. assembly	< DN32	cartridge				valve seat	cartridge		valve seat		
removable	> DN40	valve seat									

Legend: *Ms: brass* *SS: stainless steel* *Rg: gunmetal* *GG: grey cast iron* *Ho: Hostaform C*

drinking water



G¼ up to G2
0.2…2/45 bar

Dimensions A mm	B mm	C mm	Flow rate recommended (m^3/h)*1	K_{VS} value (m^3/h)*2	Nominal size DN	Connection thread G	Pressure inlet max. bar	outlet bar	Order number
									B*

Regulator with female thread

gunmetal, NBR/Buna-N
drinking water: RWI-..C

120	174	47	5.8	6.1	DN32	G1¼	16	0.2 ... 2	**RWI-10A**
120	187	47	5.8	6.0			25	0.5 ... 4	**RWI-10B**
120	186	47	5.8	6.1			25	1.5 ... 6	**RWI-10C**
104	323	61	3.0	4.2			25	1.5 ... 8	**RWI-10D**
120	182	47	5.8	6.1			25	1.5 ... 10	**RWI-10E**
120	200	47	5.8	6.1			25	1.5 ... 12	**RWI-10F**
120	252	47	5.8	6.1			25	2.0 ... 20	**RWI-10G**
104	385	61	3.0	4.2			40	1.5 ... 20	**RWI-10H**
150	371	60	9.0	9.0	DN40	G1½	16	0.2 ... 2	**RWI-12A**
150	301	60	9.0	9.0			25	0.5 ... 4	**RWI-12B**
150	293	52	9.0	9.0			25	1.5 ... 6	**RWI-12C**
108	323	61	3.2	4.5			25	1.5 ... 8	**RWI-12D**
150	365	52	9.0	9.0			25	1.5 ... 10	**RWI-12E**
150	361	60	9.0	9.0			25	1.5 ... 12	**RWI-12F**
150	386	60	9.0	9.0			25	2.0 ... 20	**RWI-12G**
108	392	61	3.2	4.5			40	1.5 ... 20	**RWI-12H**
160	371	60	14	13	DN50	G2	16	0.2 ... 2	**RWI-16A**
160	301	60	14	13			25	0.5 ... 4	**RWI-16B**
160	293	52	14	13			25	1.5 ... 6	**RWI-16C**
147	378	72	6.9	7.2			25	1.5 ... 8	**RWI-16D**
160	365	52	14	13			25	1.5 ... 10	**RWI-16E**
160	361	60	14	13			25	1.5 ... 12	**RWI-16F**
160	386	60	14	13			25	2.0 ... 20	**RWI-16G**
147	421	72	6.9	7.2			40	1.5 ... 20	**RWI-16H**

RWI



DN32-50

RWI-10...-16D RWI-10...-16H



DN40-50

RWI-12...-16A RWI-12...-16B/C/E



DN40-50

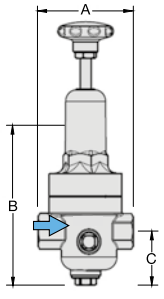
RWI-12...-16F/G

Special options, add the appropriate letter

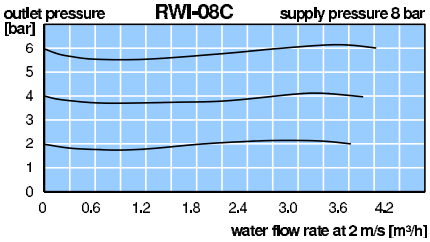
NPT	connection thread		RWI-. . **.N**
Elastomer	CR: **C**	FKM: **V**	RWI-. . **.V**
for different media	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.		RWI-. . **.X**

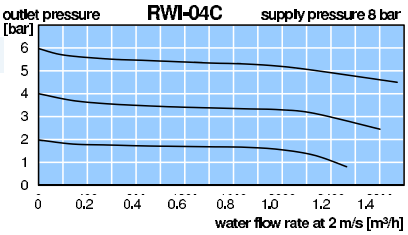
Accessories, enclosed

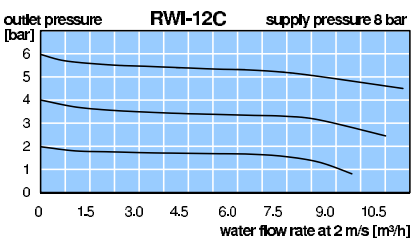
pressure gauge	Ø 50 mm, 0...*3 bar, G¼		up to G½	**MA5002-..***3
	Ø 63 mm, 0...*3 bar, G¼		from G¾	**MA6302-..***3
	Ø 50/Ø 63 mm, 0…25 bar, G¼	für G¼	up to G2	**MA..02-25**
	Ø 50/Ø 63 mm, 0…60 bar, G¼	für G¼	up to G¾	**MA..02-60**



RWI







*1 at 2 m/s water speed *2 for compressed air the flow is 70 times greater
*3 **02** = 0...2 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar, **25** = 0...25 bar, **60** = 0...60 bar

* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

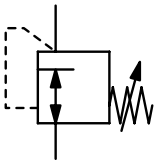
Order example:
RWI-10A

Special 9

PRESSURE REGULATOR FOR WATER, WITH MALE THREAD — RWA

Description	Regulator independent of inlet pressure, made of gunmetal, with strainer of stainless steel. Regulators up to 10 bar outlet pressure equipped with diaphragm, all others are piston-operated.
Drinking water	particulary all regulators RWA-..C with pressure range 1.5 ...6 bar. Regulators with DN15 up to DN25 have the same constructions dimensions as D06F from Honeywell, according to DVGW up to DN32.
Media	preferably water or drinking water, but also compressed air, neutral liquids and non-corrosive gases. It has to be considered that these regulators are non-relieving.
Pressure difference	1 bar, between inlet and outlet pressure
Gauge port	G¼ on both sides of the body for outlet pressure, ports are closed with screw plugs.
Mounting position	any, preferably vertical
ATEX	according to ATEX2014/34/EU, EN1127, EN13463 for zone 1, 2, 21 and 22
PED	according to EU directives DGRL/PED for liquids and gases of group 2
Temperature range	0 °C to 80 °C / 32 °F to 176 °F
Material	see opposite page

drinking water



R½″ up to R2½″
0.2…2 / 20 bar

Dimensions A mm	B mm	C mm	Flow rate recommended (m³/h)*1	K_{VS} value (m³/h)*2	Nominal size DN	Connection thread R	Pressure inlet max. bar	outlet bar	Order number B*
Regulator with male thread							gunmetal, NBR/Buna-N drinking water: RWA-..C		**RWA**
137	154	27	1,3	2.9	DN15	½″	16	0.2 ... 2	**RWA-04A**
	163						25	0.5 ... 4	**RWA-04B**
	168						25	1.5 ... 6	**RWA-04C**
	163						25	1.5 ... 10	**RWA-04E**
	182						25	1.5 ... 12	**RWA-04F**
	233						25	2.0 ... 20	**RWA-04G**
141	156	27	2,3	3.9	DN20	¾″	16	0.2 ... 2	**RWA-06A**
	163						25	0.5 ... 4	**RWA-06B**
	168						25	1.5 ... 6	**RWA-06C**
	163						25	1.5 ... 10	**RWA-06E**
	182						25	1.5 ... 12	**RWA-06F**
	233						25	2.0 ... 20	**RWA-06G**
161	155	29	3,6	5.4	DN25	1″	16	0.2 ... 2	**RWA-08A**
	164						25	0.5 ... 4	**RWA-08B**
	168						25	1.5 ... 6	**RWA-08C**
	164						25	1.5 ... 10	**RWA-08E**
	182						25	1.5 ... 12	**RWA-08F**
	233						25	2.0 ... 20	**RWA-08G**
177	156	47	5,8	6.1	DN32	1¼″	16	0.2 ... 2	**RWA-10A**
	219						25	0.5 ... 4	**RWA-10B**
	222						25	1.5 ... 6	**RWA-10C**
	219						25	1.5 ... 10	**RWA-10E**
	234						25	1.5 ... 12	**RWA-10F**
	252						25	2.0 ... 20	**RWA-10G**



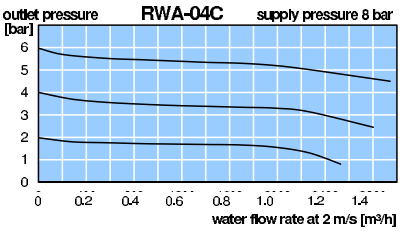
RWA-04B/C/E

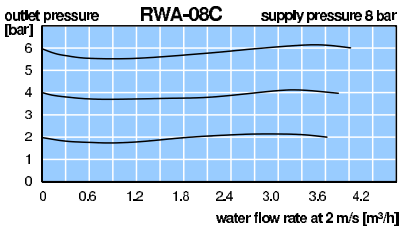


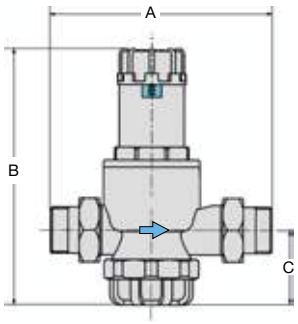
RWA-04A



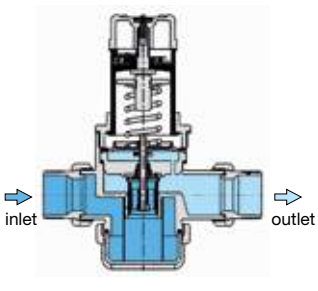
RWA-04F/G







RWA



cross-section

*1 at 2 m/s water speed

*2 for compressed air the flow is 70 times greater

* Product group

PDF CAD
www.aircom.net

Order example:
RWA-03A

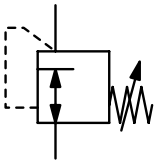
Special
9

Material

Regulator	RW	RWA-**..A**	RWA-**..B**	RWA.-**..C**	RWA.-**...E**	RWA.-**...F**	RWA.-**..G**
Nominal size	DN	DN10-65	DN15-65	DN10-65	DN15-65	DN15-100	DN10-65
Body	all	gunmetal CnSn5ZN5Pb2-C-GS / CC499K (Rg5)					
Spring cage	< DN32	PA	Ms	PA	Ms		Ms (< DN25)
	> DN40	Rg	GG		GG		GG (> DN32)
Seals	all	NBR/Buna N			NBR/Buna-N		
Diaphragm	< DN25	NBR/Buna N			NBR/Buna-N	piston / NBR/Buna-N	
	> DN32	NBR/Buna N			NBR/Buna-N	piston / NBR/Buna-N	
Inner valve	< DN32	Ms, SS, Ho			Ms, SS, Ho (< DN25 Ms)		
	> DN40	Ms, SS			Ms, SS		
Reg. assembly *removable*	< DN32	cartridge				valve seat	
	> DN40	valve seat					

Legend: ***Ms:*** *brass* ***SS:*** *stainless steel* ***Rg:*** gunmetal ***GG:*** *grey cast iron* ***Ho:*** *Hostaform C* *NBR/Buna-N: nitrile rubber*

drinking water



R⅜″ up to R2½″
0.2…2 / 20 bar

Dimensions A mm	B mm	C mm	Flow rate recommended (m^3/h)*1	K_{VS} value (m^3/h)*2	Nominal size DN	Connection thread R	Pressure inlet max. bar	outlet bar	Order number
Regulator with male thread							gunmetal, NBR/Buna-N drinking water: RWA-..C		**RWA**
210	370	59	9,0	9.0	DN40	1½″	16	0.2 ... 2	**RWA-12A**
	301	51					25	0.5 ... 4	**RWA-12B**
	293	51					25	1.5 ... 6	**RWA-12C**
	361	51					25	1.5 ... 10	**RWA-12E**
	361	51					25	1.5 ... 12	**RWA-12F**
	386	51					25	2.0 ... 20	**RWA-12G**
210	372	61	14	13	DN50	2″	16	0.2 ... 2	**RWA-16A**
	372	61					25	0.5 ... 4	**RWA-16B**
	294	53					25	1.5 ... 6	**RWA-16C**
	363	53					25	1.5 ... 10	**RWA-16E**
	364	53					25	1.5 ... 12	**RWA-16F**
	388	53					25	2.0 ... 20	**RWA-16G**
273	394	68	24	20	DN65	2½″	16	0.2 ... 2	**RWA-20A**
	324						25	0.5 ... 4	**RWA-20B**
	324						25	1.5 ... 6	**RWA-20C**
	392						25	1.5 ... 10	**RWA-20E**
	384						25	1.5 ... 12	**RWA-20F**
	408						25	2.0 ... 20	**RWA-20G**



RWA-12B/C/E



RWA-12F



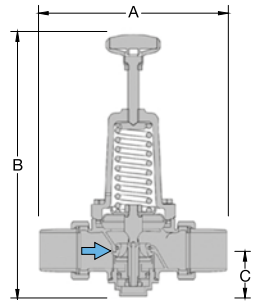
RWA-12A

Special options, add the appropriate letter

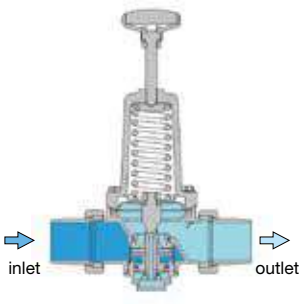
NPT	connection thread		RWA-. . .**N**
Elastomer	CR: **C**	FKM: **V**	RWA-. . .**V**
for different media	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.		RWA-. . .**X**

Accessories, enclosed

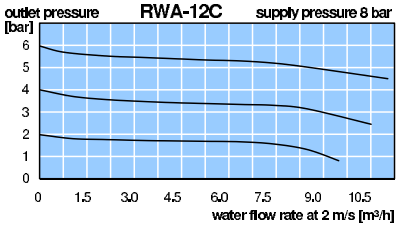
pressure gauge	Ø 50 mm, 0…*3 bar, G¼	up to G½	**MA5002-..***3
	Ø 63 mm, 0…*3 bar, G¼	up to G¾	**MA6302-..***3

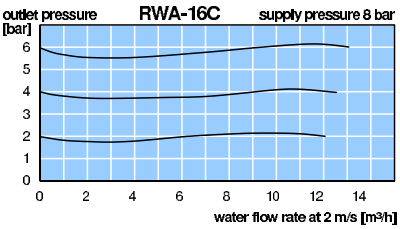


RWA



cross-section





*1 at 2 m/s water speed *2 for compressed air the flow is 70 times greater
*3 **02** = 0...2 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar, **25** = 0...25 bar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

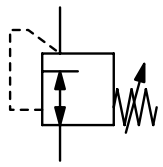
* Product group

Order example: RWA-12A

Special 9

Description	Regulator independent of inlet pressure, made of gunmetal, with strainer of stainless steel. Regulators up to 10 bar outlet pressure equipped with diaphragm, all others are piston-operated.
Drinking water	particulary all regulators RWF-..C with pressure range 1.5 ...6 bar.
Media	preferably water or drinking water, but also compressed air, neutral liquids and non-corrosive gases. It has to be considered that these regulators are non-relieving.
Pressure difference	1 bar, between inlet and outlet pressure
Gauge port	G¼ on both sides of the body for outlet pressure, ports are closed with screw plugs.
Mounting position	any, preferably vertical
ATEX	according to ATEX2014/34/EU, EN1127, EN13463 for zone 1, 2, 21 and 22
PED	according to EU directives DGRL/PED for liquids and gases of group 2
Flanges	according to DIN 1092. length according to DIN558-1
Temperature range	0 °C to 80 °C / 32 °F to 176 °F
Material	see opposite page

drinking water



DN8 up to DN125
0.2…2/20 bar

Pressure regulator with flange

gunmetal, NBR/Buna N, w/o gauge
drinking water: RWF-..C

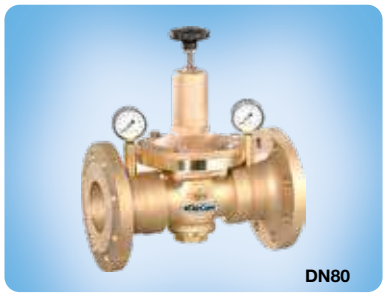
Dimensions A mm	B mm	C mm	D mm	Flow rate recommended (m³/h)*¹	K_{VS} value (m³/h)	Nominal size DN	Pressure inlet max. bar	Pressure outlet bar	Order number RWF	B*
130	178	48	80	0.2	0.5	DN8	25	0.8 ... 8	RWF-02D	
							40	1.5 ... 20	RWF-02G	
				0.2	0.5	DN10	25	0.8 ... 8	RWF-03D	
							40	1.5 ... 20	RWF-03G	
130	175	48	95	1.3	2.9	DN15	16	0.2 ... 2	RWF-04A	
	187						25	0.5 ... 4	RWF-04B	
	189							1.5 ... 6	RWF-04C	
	174							1.5 ... 10	RWF-04E	
	178							1.5 ... 12	RWF-04F	
	254							2.0 ... 20	RWF-04G	
150	183	53	105	2.3	3.9	DN20	16	0.2 ... 2	RWF-06A	
	193						25	0.5 ... 4	RWF-06B	
	195							1.5 ... 6	RWF-06C	
	190							1.5 ... 10	RWF-06E	
	203							1.5 ... 12	RWF-06F	
	263							2.0 ... 20	RWF-06G	
160	185	58	115	3.6	5.4	DN25	16	0.2 ... 2	RWF-08A	
	197						25	0.5 ... 4	RWF-08B	
	199							1.5 ... 6	RWF-08C	
	194							1.5 ... 10	RWF-08E	
	213							1.5 ... 12	RWF-08F	
	264							2.0 ... 20	RWF-08G	
180	197	70	140	5.8	6.1	DN32	16	0.2 ... 2	RWF-10A	
	210						25	0.5 ... 4	RWF-10B	
	210							1.5 ... 6	RWF-10C	
	205							1.5 ... 10	RWF-10E	
	223							1.5 ... 12	RWF-10F	
	275							2.0 ... 20	RWF-10G	
200	386	75	150	9.0	9.0	DN40	16	0.2 ... 2	RWF-12A	
	316						25	0.5 ... 4	RWF-12B	
	316							1.5 ... 6	RWF-12C	
	388							1.5 ... 10	RWF-12E	
	377							1.5 ... 12	RWF-12F	
	401							2.0 ... 20	RWF-12G	



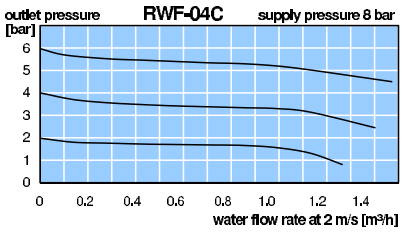
RWF-02...-08D/G

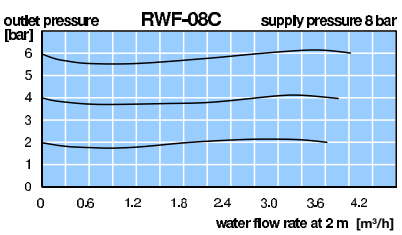


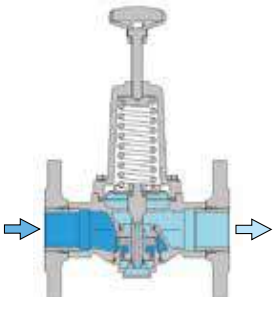
RWF-10...-16G



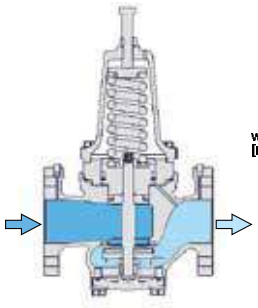
RWF-24A
accessories: pressure gauge



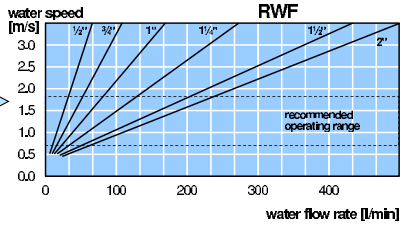




diaphragm-operated regulator



piston-operated regulator



*¹ at 2 m/s water speed

* for compressed air the flow is 70 times greater

* Product group

PDF CAD
www.aircom.net

Order example:
RWF-02D

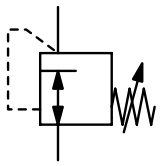
Special
9

Material

Regulator	RW	RWF-..A		RWF.-..B	RWF.-..C	RWF.-..E	RWF.-..F	RWF.-..G
Nominal size	DN	DN8-10	DN15-80	DN15-125	DN15-125	DN15-125	DN15-100	DN8-80
Body	all	gunmetal CnSn5ZN5Pb2-C-GS / CC499K (Rg5)						
Spring cage	< DN32	Ms (< DN25)	PA	Ms	PA	Ms		Ms (< DN25)
	> DN40	-	Rg	GG				GG (> DN32)
Seals	all	NBR/Buna-N						
Diaphragm	< DN25	CR	NBR/Buna-N				piston / NBR/Buna-N	
	> DN32	NBR/Buna-N					piston / NBR/Buna-N	
Inner valve	< DN32	Ms	Ms, SS, Ho			Ms, SS, Ho (< DN25 Ms)		
	> DN40	-	Ms, SS			Ms, SS		
Reg. assembly *removable*	< DN32	cartrigde					valve seat	
	> DN40	valve seat						

Legend: ***Ms:*** *brass* ***SS:*** *stainless steel* ***Rg:*** *gunmetal* ***GG:*** *grey cast iron* ***Ho:*** *Hostaform C* ***CR:*** *chloroprene rubber,* ***NBR/Buna-N:*** *nitrile rubber*

drinking water



DN15 up to DN125
0.2…2/20 bar

Dimensions A mm	B mm	C mm	D mm	Flow rate recommended (m^3/h)*1	K_{VS}- value (m^3/h)	Nominal size DN	Pressure inlet max. bar	Pressure outlet bar	Order number	B*
Pressure regulator with flange					gunmetal, NBR/Buna N, w/o gauge drinking water: RWF-..C				**RWF**	
230	394	83	165	14	13	DN50	16	0.2 ... 2	**RWF-16A**	
324							25	0.5 ... 4	**RWF-16B**	
324								1.5 ... 6	**RWF-16C**	
396								1.5 ... 10	**RWF-16E**	
384								1.5 ... 12	**RWF-16F**	
411								2.0 ... 20	**RWF-16G**	
290	420	93	185	24	20	DN65	16	0.2 ... 2	**RWF-20A**	
349							25	0.5 ... 4	**RWF-20B**	
349								1.5 ... 6	**RWF-20C**	
418								1.5 ... 10	**RWF-20E**	
411								1.5 ... 12	**RWF-20F**	
429								2.0 ... 20	**RWF-20G**	
310	427	100	200	26	24	DN80	16	0.2 ... 2	**RWF-24A**	
	518	136		60	60			0.5 ... 4	**RWF-24B**	
	356	100		26	24			1.5 ... 6	**RWF-24C**	
	518	136		60	60			1.5 ... 6	**RWF-25C**	
	521			60	60			3.0 ... 10	**RWF-24E**	
	545			60	60		25	4.0 ... 12	**RWF-24F**	
	436			24	24		25	2.0 ... 20	**RWF-24G**	
350	540	140	200	80	80	DN100	16	0.5 ... 4	**RWF-32B**	
	540							1.5 ... 6	**RWF-32C**	
	542							3.0 ... 10	**RWF-32E**	
	600	135						4.0 ... 12	**RWF-32F**	
400	730	165	270	130	130	DN125	16	0.5 ... 4	**RWF-40B**	
	540							1.5 ... 6	**RWF-40C**	
	542							3.0 ... 10	**RWF-40E**	



RWF-24B/C/E
accessories: pressure gauge



RWF-12…-16F/G
accessories: pressure gauge



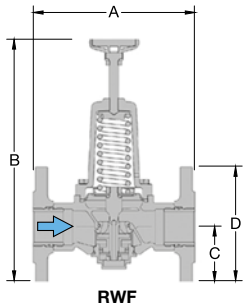
RWF-24F
accessories: pressure gauge

Special options, add the appropriate letter

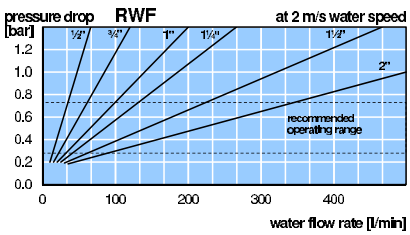
Elastomer	EPDM: **E**	CR: **C**	FKM: **V**	RWF-. . .**V**
flange connection	ANSI			RWF-. . .**F2**
for different media	warm-, hot-, and see water, acids, bases, oil, petrol glue, food, foam, gases etc.			RWF-. . .**X**

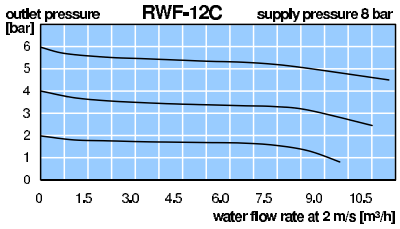
Accessories, enclosed

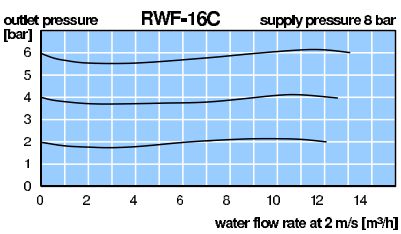
pressure gauge	Ø 63 mm, vertical 0…*2 bar, G¼	**MT6302-..*2**



RWF







*1 at 2 m/s water speed * for compressed air the flow is 70 times greater
*2 **02** = 0...2 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar, **25** = 0...25 bar

* Product group

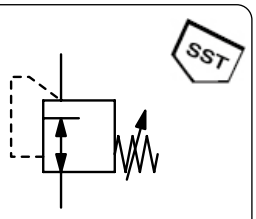
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
RWF-16A

FLANGE PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT RAF

Description	Pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent. Inner parts are replaceable. With stainless-steel dirt-trap / strainer
Medium	aggressive liquids, compressed air or non-corrosive gases. Not suitable for steam!
Supply pressure	see chart, max. 40 bar
Minimum press. difference	$P_1 : P_2 = 1$ bar
Adjustment	with hexagon socket, with locknut
Relieving function	non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any, preferably vertical
Flange	according DIN 1092, overall length according DIN 558-1
Temperature range	0 °C to 190 °C / 32 °F to 374 °F media and ambient temperature
Material	Body, spring cage, inner valve: stainless steel 1.4408 / V4A / 316 L Elastomer and seals: FKM / FPM



DN 15 up to DN 50
liquids or gases

Regulator with flange

for liquids, supply pressure max. 25/40 bar
non-relieving, 1.4408 / V4A / 316L, FKM

RAF

Dimensions A mm	B mm	C mm	K_V-value (m^3/h)*1	Flow rate water l/min*2	Supply pressure max. bar	Mounting flange DN	Pressure range bar	Order number C*
130	137	95	2.9	50	25	DN15	0.2 ... 2	**RAF-04A**
	118				25		0.5 ... 4	**RAF-04B**
	118				25		1.5 ... 6	**RAF-04C**
	118				25		1.5 ... 10	**RAF-04D**
	136				40		2.0 ... 20	**RAF-04F**
150	137	105	3.9	65	25	DN20	0.2 ... 2	**RAF-06A**
	118				25		0.5 ... 4	**RAF-06B**
	118				25		1.5 ... 6	**RAF-06C**
	118				25		1.5 ... 10	**RAF-06D**
	137				40		2.0 ... 20	**RAF-06F**
160	150	115	5.4	90	25	DN25	0.2 ... 2	**RAF-08A**
	118				25		0.5 ... 4	**RAF-08B**
	118				25		1.5 ... 6	**RAF-08C**
	118				25		1.5 ... 10	**RAF-08D**
	137				40		2.0 ... 20	**RAF-08F**
180	150	140	6.1	102	25	DN32	0.2 ... 2	**RAF-10A**
	118				25		0.5 ... 4	**RAF-10B**
	118				25		1.5 ... 6	**RAF-10C**
	118				25		1.5 ... 10	**RAF-10D**
	137				40		2.0 ... 20	**RAF-10F**
200	269	150	9.0	150	25	DN40	0.2 ... 2	**RAF-12A**
	219				25		0.5 ... 4	**RAF-12B**
	219				25		1.5 ... 6	**RAF-12C**
	219				25		1.5 ... 10	**RAF-12D**
	247				40		2.0 ... 20	**RAF-12F**
230	269	165	13	216	25	DN50	0.2 ... 2	**RAF-16A**
	219				25		0.5 ... 4	**RAF-16B**
	219				25		1.5 ... 6	**RAF-16C**
	219				25		1.5 ... 10	**RAF-16D**
	247				40		2.0 ... 20	**RAF-16F**



RAF-04...-10A RAF-04...-10B/C/D



RAF-04...-10F RAF-12/-16A



RAF-12/-16B/C/D RAF-12/-16F

Accessories, enclosed

B*

SST pressure gauge	Ø 50 mm, 0...*3 bar, G¼, for DN 15	**MS5002-..*3**
	Ø 63 mm, 0...*3 bar, G¼, and all the rest of them	**MS6302-..*3**

Spezial

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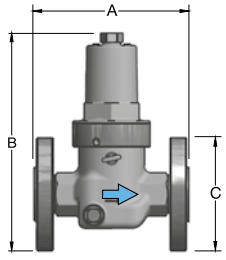
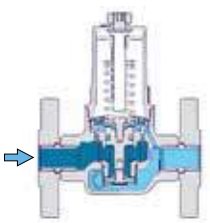


RAF



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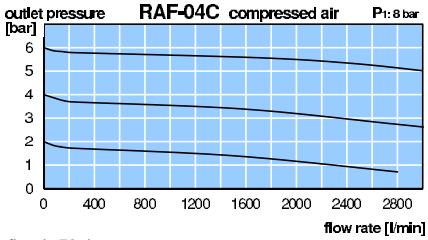
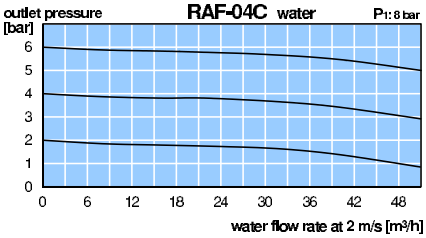




*1 at 2 m/s water speed
*2 for compressed air the flow is 70 times greater
*3 **02** = 0...2 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar, **25** = 0...25 bar

* Product group

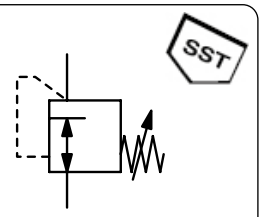
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
RAF-04A

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT RAI

Description	Pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent. Inner parts are replaceable. With stainless-steel dirt-trap / strainer
Medium	aggressive liquids, compressed air or non-corrosive gases. Not suitable for steam!
Supply pressure	see chart, max. 40 bar
Minimum press. difference	$P_1 : P_2$ = 1 bar
Adjustment	with hexagon socket, with locknut
Relieving function	non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any, preferably vertical
Temperature range	0 °C to 190 °C / 32 °F to 374 °F medium and ambient temperature
Material	Body, spring cage, inner valve: stainless steel 1.4408 / V4A / 316 L Elastomer and seals: FKM/FPM



G½ up to G2
liquids or gases

Regulator with female thread

for liquids, supply pressure max. 25/40 bar non-relieving, 1.4408 / V4A / 316L, FKM

RAI

Dimensions A mm	B mm	C mm	K_V-value (m^3/h)*1	Flow rate water l/min	Supply pressure max. bar	Nominal size DN	Connection thread G	Pressure-range bar	Order number	C*
95	166	29	2,9	50	25	DN15	G½	0.2 ... 2	**RAI-04A**	
95	147	29			25			0.5 ... 4	**RAI-04B**	
95	147	29			25			1.5 ... 6	**RAI-04C**	
95	147	29			25			1.5 ... 10	**RAI-04D**	
95	165	29			40			2.0 ... 20	**RAI-04F**	
95	166	29	3,9	65	25	DN20	G¾	0.2 ... 2	**RAI-06A**	
95	147	29			25			0.5 ... 4	**RAI-06B**	
95	147	29			25			1.5 ... 6	**RAI-06C**	
95	147	29			25			1.5 ... 10	**RAI-06D**	
95	165	29			40			2.0 ... 20	**RAI-06F**	
110	189	39	5,4	90	25	DN25	G1	0.2 ... 2	**RAI-08A**	
110	157	39			25			0.5 ... 4	**RAI-08B**	
110	157	39			25			1.5 ... 6	**RAI-08C**	
110	157	39			25			1.5 ... 10	**RAI-08D**	
110	176	39			40			2.0 ... 20	**RAI-08F**	
120	189	39	6,1	102	25	DN32	G1¼	0.2 ... 2	**RAI-10A**	
120	157	39			25			0.5 ... 4	**RAI-10B**	
120	157	39			25			1.5 ... 6	**RAI-10C**	
120	157	39			25			1.5 ... 10	**RAI-10D**	
120	176	39			40			2.0 ... 20	**RAI-10F**	
150	306	37	9,0	150	25	DN40	G1½	0.2 ... 2	**RAI-12A**	
150	256	37			25			0.5 ... 4	**RAI-12B**	
150	256	37			25			1.5 ... 6	**RAI-12C**	
150	256	37			25			1.5 ... 10	**RAI-12D**	
150	284	37			40			2.0 ... 20	**RAI-12F**	
160	306	37	13,0	150	25	DN50	G2	0.2 ... 2	**RAI-16A**	
160	256	37			25			0.5 ... 4	**RAI-16B**	
160	256	37			25			1.5 ... 6	**RAI-16C**	
160	256	37			25			1.5 ... 10	**RAI-16D**	
160	284	37			40			2.0 ... 20	**RAI-16F**	



RAI-04...-10A RAI-04...10B/C/D

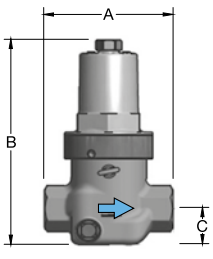


RAI-04...-10D RAI-12/-16A

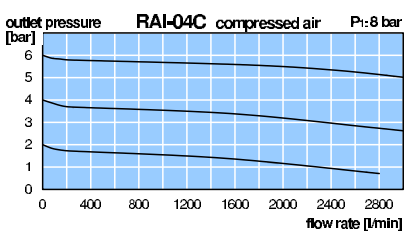


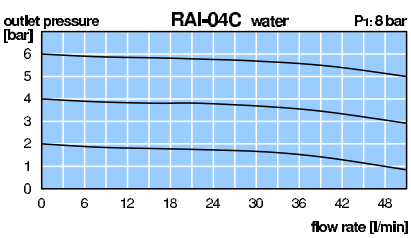
RAI-12/-16B/C/D RAI-12/-16F

Accessories, see opposite side



RAI





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 for compressed air the flow is 65 times greater

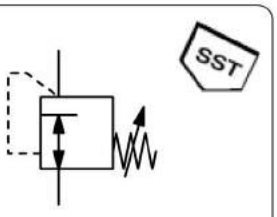
* Product group

PDF CAD
www.aircom.net

Order example:
RAI-04A

Special
9

Description	Directly acting pressure regulator with stainless steel inner parts suitable for steam and compressed air.
Media	compressed air, non-corrosive gases or steam with dryness of at least 98%
Supply pressure	RUG: max. 19 bar at 210 °C / 410 °F, max. 17 bar for red brass version RUH: max. 10 bar at 184 °C / 363 °F
Air consumption	without constant bleed
Adjustment	by plastic knob — **Relieving function** non-relieving
Gauge port	not available — **Mounting position** any
Temperature range	RUG: max. 210 °C / 410 °F, RUH: max. 184 °C / 363 °F
Material	Body: spheroidal cast iron EN-GJS-400-18-LT (GGG40.3), optionally red brass Rg5 or stainless steel 1.4404 at RUG Spring cage: epoxy-coated aluminium, nickel-plated aluminium at RUG Inner valve / bellows: stainless steel 1.4404 and 1.4571 O-ring / seal: EPDM and PTFE



G½ up to G2, max. 210 °C cast iron, red brass, SST

Pressure regulator for steam

supply pressure max. 10 / 19 bar, non-relieving, spheroidal cast iron

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	P_1 max. bar	Connection thread G	Pressure range bar	Order number RU	D*
83	182	55	15	1.5	19	G½	0.14 ... 1.7	**RUG-04A**	
							1.4 ... 4.0	**RUG-04B**	
							3.5 ... 8.6	**RUG-04C**	
96	182	55	20	2.5	19	G¾	0.14 ... 1.7	**RUG-06A**	
							1.4 ... 4.0	**RUG-06B**	
							3.5 ... 8.6	**RUG-06C**	
108	182	55	25	3.0	19	G1	0.14 ... 1.7	**RUG-08A**	
							1.4 ... 4.0	**RUG-08B**	
							3.5 ... 8.6	**RUG-08C**	
134	220	67	25	6.8	10	G1	0.14 ... 1.7	**RUH-08A**	
							1.4 ... 4.0	**RUH-08B**	
							3.5 ... 9.0	**RUH-08C**	
134	220	67	40	11.5	10	G1½	0.14 ... 1.7	**RUH-12A**	
							1.4 ... 4.0	**RUH-12B**	
							3.5 ... 9.0	**RUH-12C**	
134	220	67	50	15.0	10	G2	0.14 ... 1.7	**RUH-16A**	
							1.4 ... 4.0	**RUH-16B**	
							3.5 ... 9.0	**RUH-16C**	



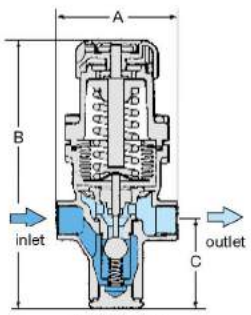
RUG-04A



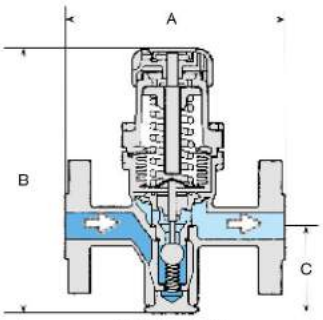
RUG-04BSF
made of stainless steel, with flange

Special options, add the appropriate letter

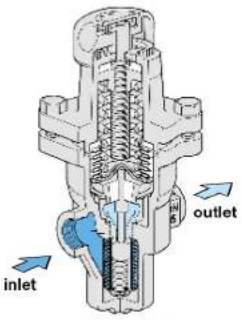
stainless steel 1.4404	body with connection thread	for RUG	RUG-0 . . **S**
	body with flange	for RUG	RUG-0 . . **SF**
red brass Rg5	body of red brass Rg5, P_1 max. 17 bar	for RUG	RUG-0 . . **R**
flange of spheroidal cast iron	GGG40.3	for RUG	RUG-0 . . **F**



RUG / RUH



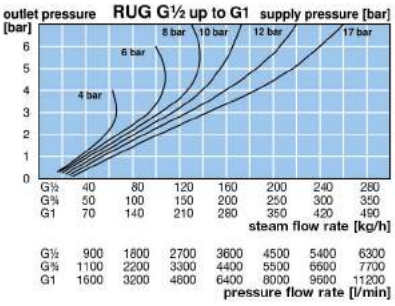
RUG- . . F/SF

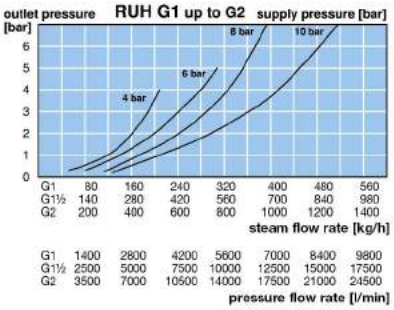


cross-section

Model	A	B	C
RUG-04 **R/S**	83	192	62
RUG-06 **R/S**	96	192	62
RUG-08 **R/S**	108	192	62

Model	A	B	C
RUG-04 **F/SF**	150	182/192	55/62
RUG-06 **F/SF**	150	192/192	55/62
RUG-08 **F/SF**	160	192/192	55/62





* Product group

PDF CAD
www.aircom.net

Order example: RUG-04A

Special
9

PROPORTIONAL PRESSURE REGULATORS

PRINCIPLE	DESCRIPTION	ACCURACY max.	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
CONTROL VALVE high accuracy	on PCB	± 0.2 %	0 … 0.005/ 10	G⅛	PM	**10.02**
	falling characteristic	± 0.2 %	0 … 0.005/ 35	G⅛	PQ1	**10.04**
	with double loop	± 0.2 %	0 … 0.005/ 35	G⅛	PQ2	**10.05**
	up to 2000 l/min	± 0.25 %	0 … 0.1 / 35	¼″NPT - ¾″NPT	PQ3…PQ6	**10.07**
PROPORT. MAGNET very robust	proven, many options	± 0.5 %	0 … 0.5 / 1	G⅛ - G1	PR	**10.09**
	for flow applications	± 0.5 %	0 … 6 / 50	G⅜	PF	**10.11**
	digital control, also SST	± 0.5 %	0 … 0.1 / 50	G⅛ - G1	PP	**10.13**
	programmable	± 0.5 %	0 … 1 / 12	G⅛ - G⅜	PD	**10.15**
FLAPPER/NOZZLE highly sensitive	integrated booster, Atex	± 0.5 %	0,2 … 1 / 8	¼″NPT	PT6	**10.18**
PIEZO-OPERATED very fast	high accurate, Atex	± 0.25 %	0,2 … 1 / 8	¼″NPT	PT7	**10.19**
	minimal power consumption	± 0.2 %	0 … 0.1 / 16	G⅛ and G¼	PRE	**10.21**
MOTORISED REGUL.	failfreeze	± 1 %	0,14 … 1.8 / 8	¼″NPT	P180	www*
HIGH PRESSURE	proportional magnet	± 0.5 %	0 … 30 / 50	G¼	PP0	**10.13**
	control valves	± 0.5 %	0 … 40 / 70	G⅛	PQH	**10.17**
ATEX	control valves	± 1 %	0 … 2 / 6	G⅛	PCEX	**10.16**
	flapper nozzle	± 0.5 %	0,2 … 1 / 8	¼″NPT	PT6	**10.18**
	piezo-operated	± 0.25 %	0,2 … 1 / 8	¼″NPT	PT7	**10.19**
VACUUM	on PCB	± 0.2 %	-1 … 0 / + 1	G⅛	PM	**10.02**
	control valves	± 0.2 %	-1 … 0 / + 1	G⅛	PQ1	**10.04**
	with double loop	± 0.2 %	-1 … 0 / + 1	G⅛	PQ2	**10.05**
	proportional magnet	± 0.5 %	-1 … 0 / + 1	G⅛ - G1	PR	**10.09**
	digital control	± 0.5 %	-1 … 0	G⅛ - G1	PP	**10.13**
	piezo-operated	± 0.2 %	-1 … 1 / +10	G⅛ and G¼	PRE	**10.21**
IO-LINK SETPOINT	digital control	± 1,5 %	0 … 3 / 10	G¼ - G½	PIO	**10.22**
	with 10-speed-potentiometer				PPB	**10.23**

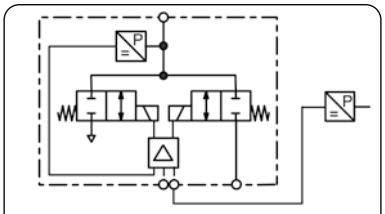


10

* visit our webshop: www.aircom.net

PROPORTIONAL PRESSURE REGULATOR ON PCB, ACCURATE TO 0.2% PM

Description	Proportional control valve with closed loop control technology for better control of pressurised gases. The instrument can be built as single closed loop or dual closed loop control valve.		
Media	dry, lubricated or unlubricated and 5 µm filtered compressed air or non-corrosive gases		
Fail freeze	constant outlet pressure at voltage drop		
Second loop	0…10 V, impedance 4.7 kΩ,	ratio of internal to external relationship is 10% to 90%	
Supply voltage	15…24 V DC, residual ripple < 10%, with reverse voltage protection		
Impedance	0…10 V / 4.7 kΩ, 4…20 mA / 100 Ω,	jumper selectable command	
Monitor signal	0…10 V at max. 10 mA		
Electrical connection	terminal strip for 2.5 mm²		
Power consumption	3.6 W regulating, 0.5 W non-regulating	**Air consumption**	without constant bleed
Linearity / Hysteresis	< 0.15% FS	**Repeatability**	< 0.02 FS
Temperature influence	< 1% FS at 0 °C to 50 °C / 32 °F to 122 °F	**Adjustment**	zero point and span
Temperature range	0 °C to 70 °C / 32 °F to 158 °F	**Mounting position**	any, vibration-resistant
Material	Ports: brass	Elastomer:	FKM
	Transducer: aluminium and silicon	Valves:	nickel-plated brass



with single or double loop

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. mbar/bar	Accuracy %	Connection thread G	Pressure range mbar/bar	Order number	E*
Proportional press. regulator 0-10 V input and monitor signal, supply voltage 24 V DC, fail freeze, single loop for DIN rail								**PM**	
56	78	54	35	10 mbar	0.2	G⅛	0… 5 mbar	**PM1DE-A5**	
				20 mbar			0… 10 mbar	**PM1DE-B1**	
				200 mbar			0…100 mbar	**PM1DE-C1**	
				1000 mbar			0…600 mbar	**PM1DE-C6**	
56	78	54	35	2 bar	0.2	G⅛	0… 1 bar	**PM1DE-01**	
				3 bar			0… 2 bar	**PM1DE-02**	
				9 bar			0… 4 bar	**PM1DE-04**	
				9 bar			0… 6 bar	**PM1DE-06**	
				15 bar			0… 10 bar	**PM1DE-10**	
56	78	54	35	2 bar	0.2	G⅛	0… -1 bar	**PM1DE-V0**	
				2 bar			-1… +1 bar	**PM1DE-V1**	



PM . D
DIN rail mounting



PM . P
panel mounting



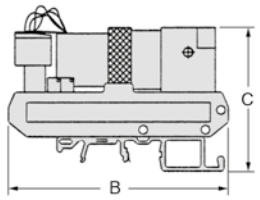
PM . M
mounting on manifold block

Special options, add the appropriate letter

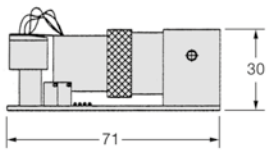
double loop	second loop feedback 0 ...10 V	PM**2** . . - . .
4-20 mA	supply signal, jumper selectable command	PM . . **I** - . .
flow 100 l/min	increased flow rate	PM . . . - . . **HF**
panel mounting	on plane level	PM . **P** . - . .
mounting for manifolds	connections downwards	PM . **M** . - . .

Accessories, enclosed

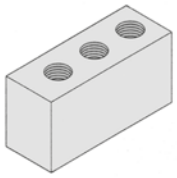
manifold block	for 2 to 7 valves	number of valves added to order number	**SBM- .**



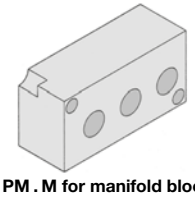
PM . D for DIN rail



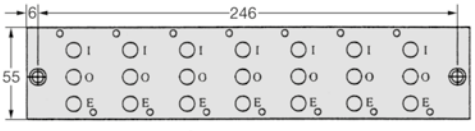
PM . P for panel mounting

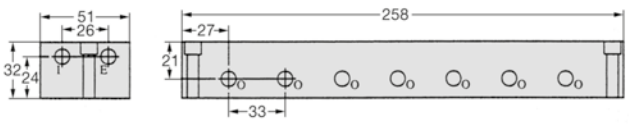


PM . D for DIN rail

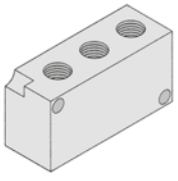


PM . M for manifold block

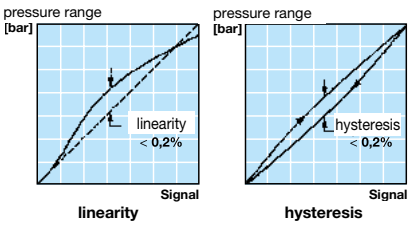




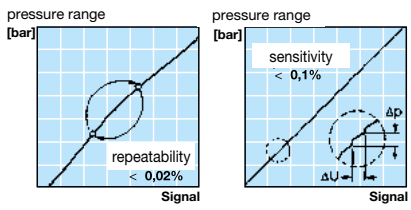
manifold block for 2 to 7 valves



PM . P for panel mounting



linearity **hysteresis**



repeatability **sensitivity**

*1 at 7 bar supply pressure and open outlet, at regulated flow rate of 3 l/min
*2 higher supply pressures on request

* Product group

For further details about double loop see PQ2

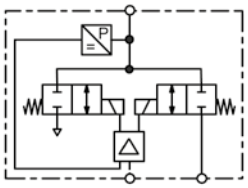
PDF CAD
www.aircom.net

Order example: PM1DE-A5

Proport. pressure
10

Technical features

• **Pressure range**	0…10 mbar up to 0…35 bar	• **Linearity**	± 0.15% FS
• **Input signal**	0…10 V and 4…20 mA	• **Hysteresis**	± 0.15% FS
• **Security**	constant outlet pressure at voltage drop	• **Response sensitivity**	< 0.1% FS
• **Response time**	10 to 15 ms	• **Repeatability**	± 0.02% FS
• **Adjustment**	zero point and span	• **Protection class**	IP 65
• **Sensitivity**	immune to shock and vibration up to 25 g	• **Air consumption**	without constant bleed



accurate to 0.2%

General technical features

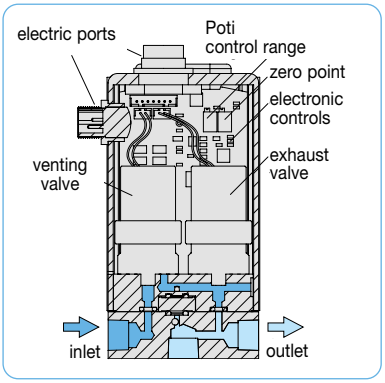
Description Two solenoid valves control the system pressure. One valve is for inlet control, the other for outlet control. A strain gauge pressure transducer measures system pressure and provides a feedback signal to the electronic controls. Any difference between command and feedback signals causes one of the solenoid valves to open, causing system pressure to increase or decrease.

Mounting position any, immune to shock and vibration up to 25 g

Protection class IP 65 housing

Temperature range -5 °C to 70 °C / 23 °F to 158 °F

Material Body: aluminium Elastomer: FKM
Transducer: aluminium and silicon Valves: nickel-plated brass



cross-section PQ

Pneumatic features

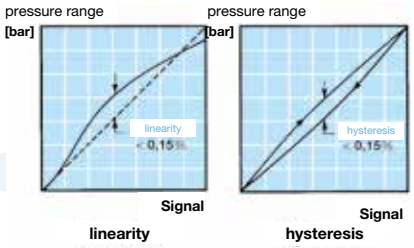
Media dry, unlubricated and 5 µm filtered compressed air or non-corrosive gases

Supply pressure see chart, minimum 10% above outlet pressure

Flow rate 35 l/min at 7 bar supply pressure and open outlet, optionally 100 l/min
3 l/min at controlled outlet pressure

Exhaust same nominal size as on inlet valve, thus same relief capacity

Air consumption without constant bleed



linearity **hysteresis**

Electrical features

Supply voltage 15 … 24 V DC, reverse voltage protection existing

Power consumption 3.6 W for regulation, 0.5 W non-regulating

Signal range 0 … 10 V, optionally 4 … 20 mA

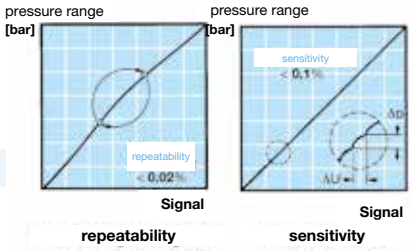
Impedance 4.7 kΩ at voltage signal, 100 Ω at current signal
10 kΩ at voltage signal, 100 Ω at current signal, for external feedback

Monitor signal impedance > 4.7 kΩ at voltage signal, <100 Ω at current signal

Electrical connector plug M16x0.75, 7-pin, with coupling socket

Monitor signal 0 … 10 V, optionally 4 … 20 mA

Security constant outlet pressure at voltage drop



repeatability **sensitivity**

Accuracy

Linearity/Hysteresis ± 0.15% FS

Response sensitivity < 0.1% FS

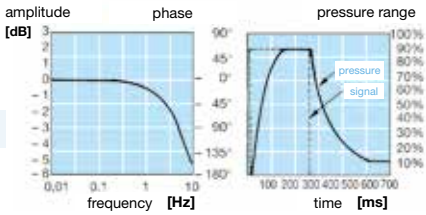
Response time 10 to 15 ms

Repeatability ± 0.02% FS

Temperature influence < 0.01% FS per °C/K at 0 °C to 50 °C / 32 °F to 122 °F
< 1.00% FS per °C/K at 50 °C to 70 °C / 122 °F to 158 °F

Accuracy over all ± 0.2 % FS

Regulating time < 2 s to fill 0.1 l volume to 90% of the initial pressure (or to exhaust)
< 40 s to fill 2 l volume to 90% of the initial pressure (< 80 s to exhaust)



dynamics **regulating time**

Adjustment

Zero point The zero point can be increased by up to 20% of full scale, e.g. from 0 bar to 1.2 bar at a 6 bar regulator. External adjustment via potentiometer Z "zero".

Span The maximum pressure value of the control range can be reduced by up to 20% depending on the selected pressure range, e.g. from 6 to 4.8 bar. External adjustment via potentiometer S "span".

*1 at 7 bar supply pressure and 3 bar outlet pressure

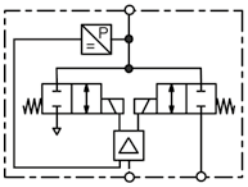
PDF CAD
www.aircom.net

Description The pneumatic proportional valve produces outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system consisting of valves, manifold, housing and electronic controls.

Single loop Pressure is controlled by two solenoid valves. One valve functions as inlet control, the other as exhaust. The pressure outlet is measured by an internal pressure transducer which provides a feedback signal to the electronic controls. This feedback signal is compared with the command input signal. Any difference between the two signals causes one of the two solenoid valves to open, allowing flow into or out of the system. Accurate pressure is maintained by these two valves.

Accuracy

Linearity / Hysteresis:	± 0.15% FS
Response sensitivity:	< 0.1% FS
Repeatability:	± 0.02% FS
Accuracy over all:	± 0.2% FS



G⅛
0 … 10 mbar/35 bar

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. mbar/bar*2	Accuracy %	Connection thread G	Pressure range mbar/bar	Order number	E*
Single loop regulator				0 … 10 V input and feedback signal, supply voltage 24 V DC, 35 l/min*1, with coupling socket				**PQ1**	
51	106	8	on request	10 mbar	0.2	G⅛	0 … 5 mbar	**PQ1EE-A5**	
				20 mbar			0 … 10 mbar	**PQ1EE-B1**	
				40 mbar			0 … 20 mbar	**PQ1EE-B2**	
				100 mbar			0 … 50 mbar	**PQ1EE-B5**	
				200 mbar			0 … 100 mbar	**PQ1EE-C1**	
				400 mbar			0 … 200 mbar	**PQ1EE-C2**	
				800 mbar			0 … 400 mbar	**PQ1EE-C4**	
				1000 mbar			0 … 600 mbar	**PQ1EE-C6**	
51	106	8	35	2 bar	0.2	G⅛	0 … 1 bar	**PQ1EE-01**	
				3 bar			0 … 2 bar	**PQ1EE-02**	
				9 bar			0 … 4 bar	**PQ1EE-04**	
				9 bar			0 … 6 bar	**PQ1EE-06**	
				9 bar			0 … 8 bar	**PQ1EE-08**	
				15 bar			0 … 10 bar	**PQ1EE-10**	
				15 bar			0 … 12 bar	**PQ1EE-12**	
				24 bar			0 … 16 bar	**PQ1EE-16**	
				24 bar			0 … 20 bar	**PQ1EE-20**	
				38 bar			0 … 25 bar	**PQ1EE-25**	
				38 bar			0 … 30 bar	**PQ1EE-30**	
				38 bar			0 … 35 bar	**PQ1EE-35**	
51	106	8	35	0 bar	0.2	G⅛	0 … -1 bar	**PQ1EE-V0**	
				2 bar			-1 … +1 bar	**PQ1EE-V1**	



PQ1

Special options, add the appropriate letter or number

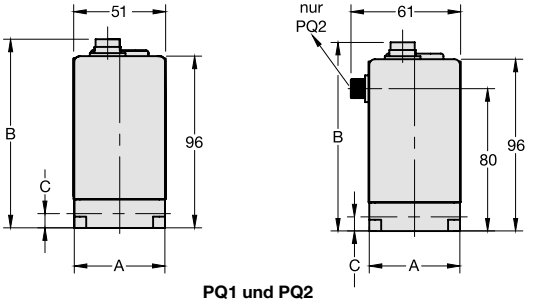
4-20 mA	input and monitor signal	PQ1 **IC**- . .
flow 100 l/min	increased flow rate, max. 10 bar, not combinable with Opt. ..X58	PQ1 . . - . .**HF**
continuous regulation	improved characteristic curve through proportional inlet valve, max. 10 bar	PQ1 . . - . .**X58**
declining curve	inverted outlet	PQ1 . . - . .**X59**

Accessories, enclosed

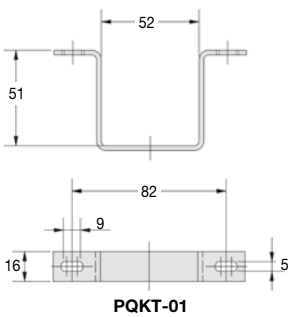
coupling socket	M16 x 0,75, 7-pin with 2 m cable	straight	**PRK-A2L**
		angular	**PRK-C2L**
mounting bracket	made of steel		**PQKT-01**



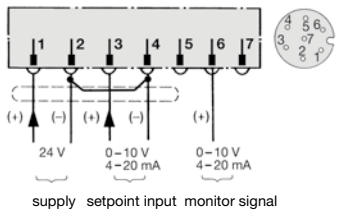
PRK-A **PRK-C**



PQ1 und PQ2



PQKT-01



connection diagram for supply and signal

*1 at 7 bar supply pressure and open outlet, at regulated flow rate of 3 l/min
*2 higher supply pressure on request
*3 air consumption

* Product group

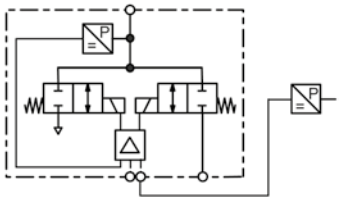
Technical details: see previous page

PDF CAD
www.aircom.net

Order example: PQ1EE-A5

PROPORTIONAL PRESSURE REGULATOR WITH DOUBLE LOOP, ACCURATE TO 0.2% PQ2

Description	The pneumatic proportional valve produces outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system consisting of valves, manifold, housing and electronic controls.
Double loop	The servo valve expands in single loop operation by combining an additional feedback from an external sensing device with the internal transducer. The external sensor provides information on the control status. The PQ2 then compares the command signal with the second loop feedback signal. Should there be a difference in the signal comparisons, the servo valve will make adjustments to the internal loop to bring the system into balance. This provides accurate final outlet. The acceptance of electrical feedback from an external sensor enables precise control of conditions such as pressure, force, torque, position or flow.
External pressure transducer	Any pressure transducer for 0-10 V and 4-20 mA output signal and suitable for 15-24V DC supply voltage can be applied. An appropriate coupling socket plus cable is required.



G⅛
0…10 mbar/35 bar

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. mbar/bar*2	Accuracy %	Connection thread G	Pressure range mbar/bar	Order number
Double loop regulator				0 … 10 V input / feedback / second loop signal, supply voltage 24 V DC, 35 l/min*1, with both coupling sockets				**PQ2**
51	106	8	on request	10 mbar	0.2	G⅛	0… 5 mbar	**PQ2EE-A5**
				20 mbar			0… 10 mbar	**PQ2EE-B1**
				40 mbar			0… 20 mbar	**PQ2EE-B2**
				100 mbar			0… 50 mbar	**PQ2EE-B5**
				200 mbar			0…100 mbar	**PQ2EE-C1**
				400 mbar			0…200 mbar	**PQ2EE-C2**
				800 mbar			0…400 mbar	**PQ2EE-C4**
				1000 mbar			0…600 mbar	**PQ2EE-C6**
51	106	8	35	2 bar	0.2	G⅛	0… 1 bar	**PQ2EE-01**
				3 bar			0… 2 bar	**PQ2EE-02**
				9 bar			0… 4 bar	**PQ2EE-04**
				9 bar			0… 6 bar	**PQ2EE-06**
				9 bar			0… 8 bar	**PQ2EE-08**
				15 bar			0… 10 bar	**PQ2EE-10**
				15 bar			0… 12 bar	**PQ2EE-12**
				24 bar			0… 16 bar	**PQ2EE-16**
				24 bar			0… 20 bar	**PQ2EE-20**
				38 bar			0… 25 bar	**PQ2EE-25**
				38 bar			0… 30 bar	**PQ2EE-30**
				38 bar			0… 35 bar	**PQ2EE-35**
51	106	8	35	0 bar	0.2	G⅛	0… -1 bar	**PQ2EE-V0**
				2 bar			-1… +1 bar	**PQ2EE-V1**



PQ2



combination example:
booster with proportional valve and second loop via pressure transducer

Special options, add the appropriate letter or number

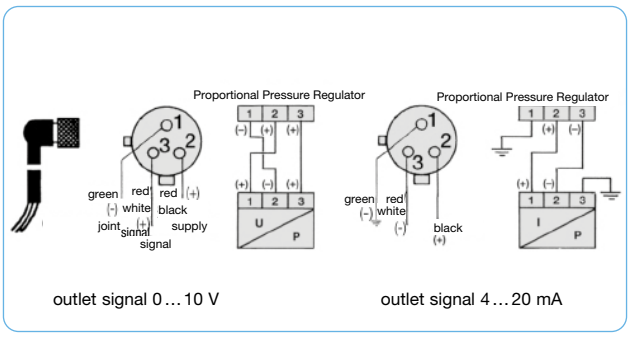
4-20 mA	input / feedback / second loop signal	PQ2 **IC**- . .
flow 100 l/min	increased flow rate, max. 10 bar	PQ2 . . - . . **HF**
continuous regulation	improved characteristic curve through proportional inlet valve, max. 10 bar	PQ2 . . - . . **X58**
declining curve	inverted outlet	PQ2 . . - . . **X59**

Accessories, enclosed

coupling socket	M16 x 0.75,	7-pin with 2.0 m cable,	supply and signal,	straight	**PRK-A2L**
				angular	**PRK-C2L**
coupling socket	½″ UNF,	3-pin with 0.9 m cable,	for second loop,	straight	**PQH-L1**
				angular	**PQH-L2**
mounting bracket	made of steel				**PQKT-01**

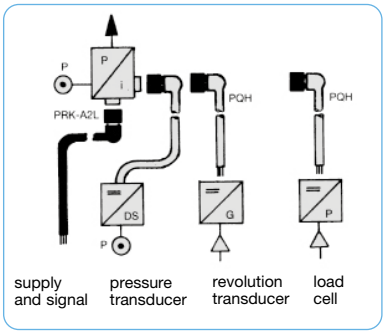


PRK-A **PRK-C**



outlet signal 0…10 V outlet signal 4…20 mA

connection diagram for second electrical loop



PQ2 with second loop

*1 at 7 bar supply pressure and open outlet, at regulated flow rate of 3 l/min
*2 higher supply pressures on request

* Product group

Technical details: see previous page

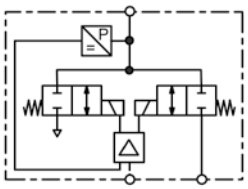
PDF CAD
www.aircom.net

Order example: PQ2EE-A5

PROPORTIONAL PRESSURE REGULATOR WITH HIGH ACCURACY AND HIGH FLOW PQ3…PQ6

Technical features

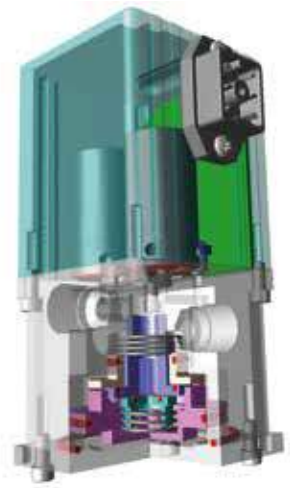
• **Pressure range**	-1... 35 bar	• **Accuracy**	± 0.4 %
• **Input signal**	0-10 V; 4-20 mA	• **Mounting position**	any
• **Protection class**	IP65	• **Adjustment**	zero point, span, hysteresis
• **Response time**	15 ... 20 ms	• **Air consumption**	without air consumption
• **Power consumption**	6 W		



accurate 0.4 %

General technical features

Description	Two solenoid valves control the system pressure. One valve is for inlet control, the other for outlet control. In order to achieve high volume flow the regulator is pilot-controlled, i.e. the valves control an integral volume booster. Extraordinary accuracy is reached by measuring the outlet pressure of the booster and feeding back the according signal.
Mounting position	any, preferably upright
Protection class	IP65
Temperature range	0 °C to 70 °C / 32 °F to 158 °F
Material	Booster body: nickel-plated aluminium; Elastomer: FKM, NBR/Buna-N Transducer: aluminium and silicon; Valves: nickel-plated brass

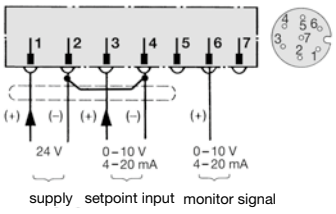


Pneumatic features

Media	dry, unlubricated and 40 µm filtered compressed air or non-corrosive gases
Supply pressure	see chart, minimum 10% above outlet pressure
Flow rate	**PQ3**: 700 l/min at 8 bar supply pressure and 6 bar outlet pressure **PQ4 / PQ6**: 2000 l/min at 8 bar supply pressure and 6 bar outlet pressure
Exhaust	nearly same relief capacity as ventilation capacity
Air consumption	without constant bleed

Electrical features

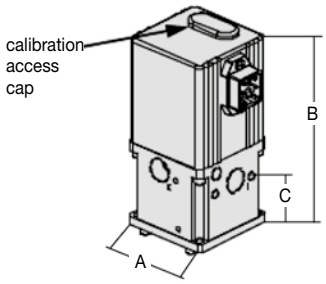
Supply voltage	15-24 V DC
Power consumption	max. 6 W
Command signal	0-10 V, optionally 4-20 mA
Command signal impedance	10 kΩ at voltage signal, 100 Ω at current signal
Electrical connector	plug M16x0.75, 7-pin, with coupling socket, optionally plug M12
Monitor signal	0-10 V, optionally 4-20 mA
Security	constant outlet pressure at voltage drop



connection diagram for supply and signal

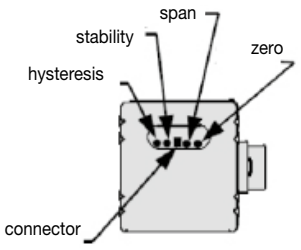
Accuracy

Linearity / Hysteresis	± 0.3% FS > 7 bar outlet pressure ± 0,5% FS
Response sensitivity	< 0.1% FS
Response time	10…15 ms
Repeatability	± 0.2% FS
Accuracy	± 0.4% FS



Adjustment

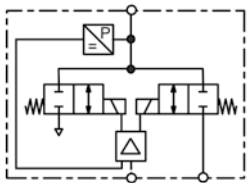
Adjustment	Adjustment by calibration access cap on the top of the valve.
Zero point	The zero point can be changed by up to 10% of full scale, e.g. from 0 bar to 0.6 bar at a 6 bar regulator. External adjustment via potentiometer Z "zero".
Span	The maximum pressure value of the control range can be reduced by up to 10%, e.g. from 6 bar to 5.4 bar. External adjustment via potentiometer S "span".
Hysteresis	Response sensitivity can be adjusted via potentiometer H “hysteresis”.



PROPORTIONAL PRESSURE REGULATOR WITH HIGH ACCURACY AND HIGH FLOW PQ3…PQ6

Description Closed loop electronic pressure regulator consisting of two solenoid valves, an internal pressure transducer, and an electronic control circuit mounted to an integral volume booster. The pressure is controlled by activating the solenoid valves, which apply pressure to the pilot side of the volume booster.

Single loop Pressure is controlled by two solenoid valves. One valve functions as inlet control, the other as exhaust. The pressure outlet is measured by an internal pressure transducer which provides a feedback signal to the electronic controls. This feedback signal is compared with the command input signal. Any difference between the two signals causes one of the two solenoid valves to open, allowing flow into or out of the system. Accurate pressure is maintained by these two valves.



0...0.1 bar/35 bar

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. bar	Accuracy %	Connection thread G/NPT	Pressure range bar	Order number	E*
Single loop regulator				0 ... 10 V input and feedback signal supply voltage 24 V DC, with coupling socket				**PQ3/PQ4/PQ6**	
51	123	34	700	1	0,25	¼″ NPT	0…0,1	**PQ3EE-C1**	
				1			0…0,5	**PQ3EE-C5**	
				2			0…1,0	**PQ3EE-01**	
				3			0…2,0	**PQ3EE-02**	
				7			0…4,0	**PQ3EE-04**	
				7			0…6,0	**PQ3EE-06**	
				9			0…8,0	**PQ3EE-08**	
				15			0… 10	**PQ3EE-10**	
				15		⅜″ NPT	0… 12	**PQ3EE-12**	
				24			0… 16	**PQ3EE-16**	
				24			0… 20	**PQ3EE-20**	
				38			0… 25	**PQ3EE-25**	
				38			0… 30	**PQ3EE-30**	
				38			0… 35	**PQ3EE-35**	
77	175	65	2000	1	0,4	½″ NPT	0…0,1	**PQ4EE-C1**	
				1			0…0,5	**PQ4EE-C5**	
				2			0…1,0	**PQ4EE-01**	
				3			0…2,0	**PQ4EE-02**	
				7			0…4,0	**PQ4EE-04**	
				7			0…6,0	**PQ4EE-06**	
				9			0…8,0	**PQ4EE-08**	
				15			0… 10	**PQ4EE-10**	
77	175	65	2000	1	0,4	¾″ NPT	0…0,1	**PQ6EE-C1**	
				1			0…0,5	**PQ6EE-C5**	
				2			0…1,0	**PQ6EE-01**	
				3			0…2,0	**PQ6EE-02**	
				7			0…4,0	**PQ6EE-04**	
				7			0…6,0	**PQ6EE-06**	
				9			0…8,0	**PQ6EE-08**	
				15			0… 10	**PQ6EE-10**	



PQ3EE-10



PQ4EE-10

Special options, add the appropriate letter

4-20 mA	input and monitor signal	PQ . I**C**- . .

Accessories, enclosed

coupling socket	M16x0.75, 7-pin with 2 m cable	straight	**PRK-A2L**
		angular	**PRK-C2L**
mounting bracket	made of steel	for PQ3	**PQKT-01**
mounting bracket	made of steel	for PQ4/PQ6	**PQKT-02**



PRK-A **PRK-C**

Proport. pressure
10

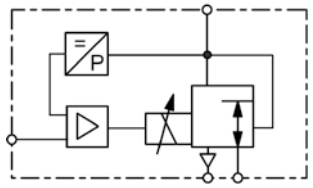
* Product group

Technical details: see previous page

PDF CAD
www.aircom.net

Order example: PQ3EE-C1

Description	The pneumatic proportional valve controls the outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system in a compact monoblock assembly with proportional solenoid valve, electronic regulator and internal pressure transducer. In the process, the outlet pressure is transformed into a proportional electrical signal and compared with the input signal. If the outlet pressure exceeds the preset setpoint, the valve exhausts down to the pressure desired. The valve has no constant bleed. At absence of input signal or supply voltage the valve exhausts. The power supply of the setpoint potentiometer is provided by the proportional valve via connector pin number 5.
Pressure transducer	Open transducers: 100 mbar, 500 mbar, 1 bar and vacuum
Application examples	Proportional pressure regulators are being used for blowing machines, ultrasonic equipments, testing machines, painting systems, contouring systems, laser welding machines, textile machines, cheese presses, pneumatic brakes, clamping devices and medical engineering.



G⅛ up to G1

General technical features

Description	3-port/2-way valve with proportional magnet, integrated hybrid PCB and closed loop with pressure transducer in compact monoblock assembly.
Mounting position	any, preferably upright
Protection class	IP 54 with standard connector, IP 65 with special connector
Shock resistance	3G
Temperature range	0 °C up to 50 °C / 32 °F to 122 °F, high temperature version on request
Material	Body: brass (G⅛) and aluminium (G¼, G½ u. G1) Inner valve: brass and SST Seals: NBR/Buna-N, on request EPDM or FKM FKM for 50 bar version

Pneumatic features

Media	dry, lubricated, unlubricated and 50 µm filtered compressed air or non-corrosive gases
Supply pressure	see chart, min. 10% above outlet pressure
Flow rate	see chart, at 7 bar inlet pressure and open outlet
Exhaust	same nominal size as on inlet valve, thus same relief capacity
Air consumption	without air consumption

Electrical features

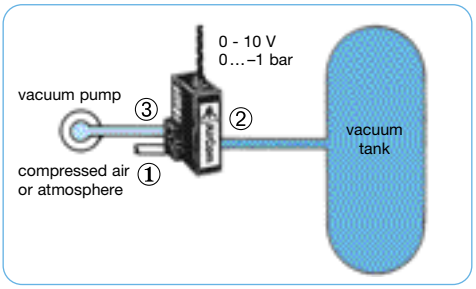
Supply voltage	24 V DC + 15% - 10%, residual ripple max. 10%
Power consumption	12 W at G⅛, 22 W at G¼, 30 W at G½, 44 W at G1
Current consumption	0.5A at G⅛, 1.0A at G¼, 1.25A at G½, 1.7A at G1
Command signal	0 … 10 V, 0 … 20 mA, 4 … 20 mA, digital or Profibus DB rising curve as standard, optionally declining curve
Impedance	100 kΩ at voltage signal (0.1 mA current consumption) 500 Ω at current signal
Electrical connector	circular plug according to DIN 43651, 7-pin plug for analogue signal 16-pin plug for digital signal

Accuracy

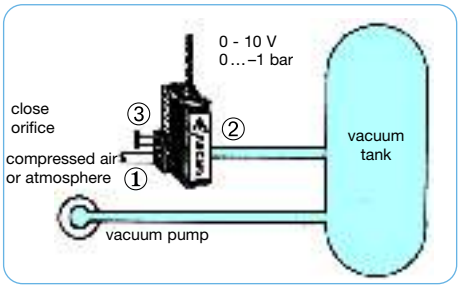
Linearity / Hysteresis	< 1% FS
Response sensitivity	< 0.1% FS
Repeatability	< 0.1% FS
Over all accuracy	± 0.5%
Regulating time	< 1 s over the range, 70 ms at 10 to 90% or 90 to 10% of the range

Adjustment

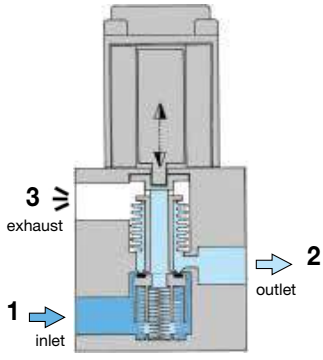
Zero point	calibration ± 10% FS via potentiometer P2
Range	calibration + 5% FS or -10% FS via potentiometer P1
Amplification	calibration 1:1 up to 1:10 via potentiometer P7



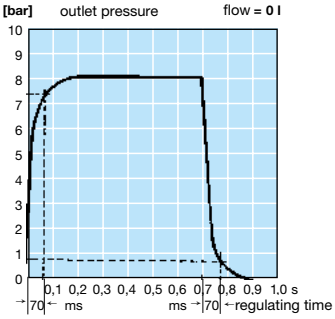
Downstream regulation (V1)
The vacuum pump saves energy and it is easy to fill the tank either with vacuum or pressure. A filter is recommended at orifice ①.



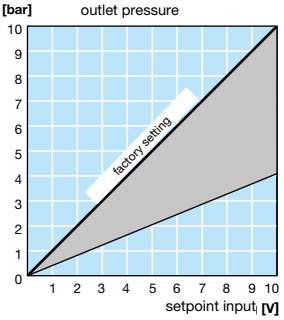
Upstream regulation (V2)
Upstream installation is preferred if rapid evacuation of a tank or system is required. A filter is recommended at orifice ①.



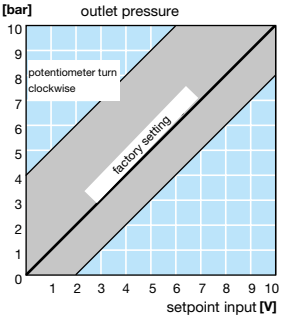
cross-section



regulating time, step function



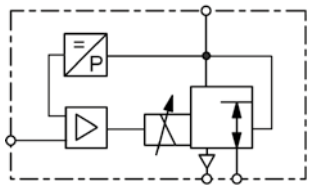
slope, range adjustment



zero point, adjustment

Technical features

• **Pressure range**	0…-1.0 bar to 0…1.0 bar	• **Linearity / Hysteresis**	< 1% FS
• **Command signal**	0…10 V, 0…20 mA, 4…20 mA, digital	• **Response sensitivity**	± 0,5% FS
• **Feedback signal**	0…10 V, 0…20 mA, 4…20 mA	• **Repeatability**	± 0,5% FS
• **Adjustment**	zero point, range and amplification	• **Regulating time**	< 1 s
• **Pressure sensors**	100 / 500 mbar, 1 bar	• **Power consumption**	12 / 22 / 30 / 44 W
• **Flow rate**	250 / 820 / 1700 / 6500 l/min	• **Exhaust**	full nominal size



G⅛ up to G1
0…100 mbar/50 bar

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate l/min*1	Supply max. bar	Connection thread G	Pressure range bar	Order number	E*
Proportional pressure valve						0-10 V input signal, supply voltage 24 V DC, with coupling socket			**PR**	
35	80	63	3	0.18	210	-1	G⅛	0…-1.0	**PRA00-00V1**	
						-1		0…-0.5	**PRA00-00V1A5**	
						-1		0…-0.1	**PRA00-00V1A1**	
						3		-1.0… 1.0	**PRA00-01V1**	
						1		0… 0.1	**PRA00-A100**	
						2		0… 0.5	**PRA00-A500**	
						2		0… 1.0	**PRA00-0100**	
52	105	74	6	0.6	700	-1	G¼	0…-1.0	**PR000-00V1**	
						-1		0…-0.5	**PR000-00V1A5**	
						-1		0…-0.1	**PR000-00V1A1**	
						3		-1.0… 1.0	**PR000-01V1**	
						1		0… 0.1	**PR000-A100**	
						2		0… 0.5	**PR000-A500**	
						2		0… 1.0	**PR000-0100**	
70	150	101	12	1.2	1400	-1	G½	0…-1.0	**PR100-00V1**	
						2		0… 1.0	**PR100-0100**	
96	190	115	20	4.8	5600	-1	G1	0…-1.0	**PR200-00V1**	
						2		0… 1.0	**PR200-0100**	



PRA



PR0



example: combination PR with booster

Special options, add the appropriate letter or number

input signal	0-20 mA		PR . . **1**- . . . .
	4-20 mA		PR . . **2**- . . . .
	8 bit digital with hold function		PR . . **3**- . . . .
	Profibus DP	from G¼ on	PR . . **8**- . . . .
feedback signal	0-10 V		PR . **1** . - . . . .
	0-20 mA		PR . **2** . - . . . .
	4-20 mA		PR . **3** . - . . . .
external feedback signal	0-10 V		PR . **4** . - . . . .
	0-20 mA		PR . **5** . - . . . .
	4-20 mA		PR . **6** . - . . . .
deviant pressure range	indicate on order		PR . . . -**XX**. .
for vacuum	Bypass version	G⅛ and G¼	PR . . . - . . **V2**
		G½	PR1. . - . . **V2**
		G1	PR2. . - . . **V2**
for absolute pressure			PR . . . - . . **0A**
protection class IP65	special cable box, PRK-IP65		PR . . . - . . **06**
body made of stainless steel	valve body and inner parts , 1.4304, EPDM seals, G¼ and G½		PR . . . - . . **SS**
body made of aluminium	nly valve body, max. 20 bar	G¼ only	PR . . . - . . **19**
for oxygen	specially cleaned, FKM elastomer		PR . . . - . . **15**

Accessories, enclosed

coupling socket	7-pin with 2 m cable	straight	**PRK-A2L**
	7-pin with 5 m cable	straight	**PRK-A5L**
	7-pin with 2 m cable, IP65	straight	**PRK-I 2L**
	7-pin with 2 m cable	angular	**PRK-C2L**
	7-pin with 5 m cable	angular	**PRK-C5L**
other cable length	e.g. 10 m available		



PRK-A **PRK-C**

*1 at 6 bar supply pressure and 5 bar outlet pressure

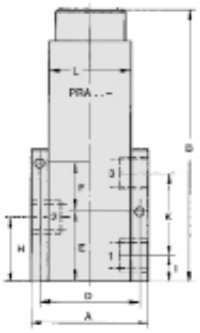
* Product group

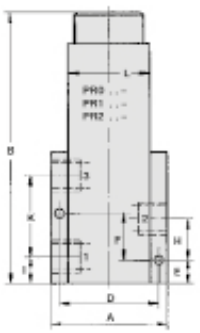
Technical details: see previous page

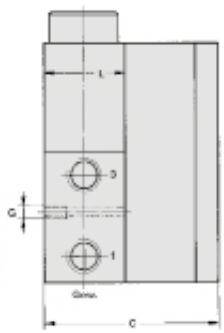
PDF CAD
www.aircom.net

Order example:
PRA00-00V1

DIMENSIONS AND CONNECTION DIAGRAM "AIRTRONIC"®







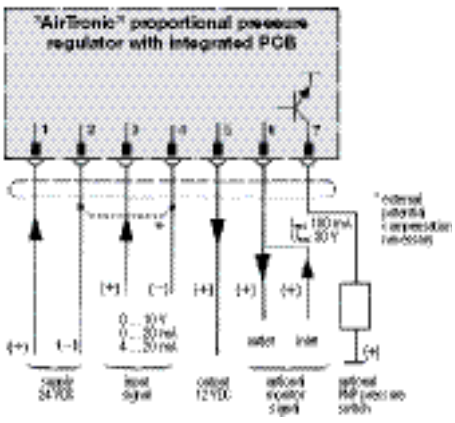
1: inlet
2: outlet
3: exhaust

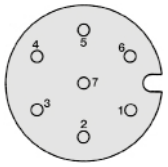
Proport. regulator	thread	A	B	C	D	E
PRA . . –	G ⅛	35	80	63	29	18
PR0 . . –	G ¼	52	105	74	43	10
PR1 . . –	G ½	70	150	101	57.5	12
PR2 . . –	G 1	96	190	115	79	15

Proport. regulator	F	G	H	I	K	L
PRA . . –	7	M 4	15	10	16.6	25
PR0 . . –	20	M 4	16	11*	34	36
PR1 . . –	28	M 6	23	15	48.5	45
PR2 . . –	33	M 8	30	20	60	60

* 14 mm from 30 bar pressure range on

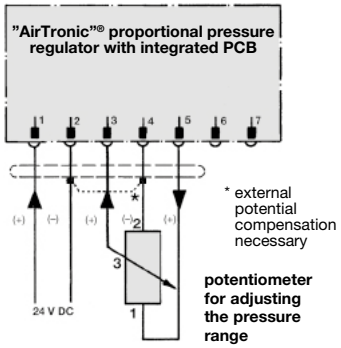
"AIRTRONIC"® PROPORTIONAL PRESSURE REGULATOR WITH INTEGRATED PCB





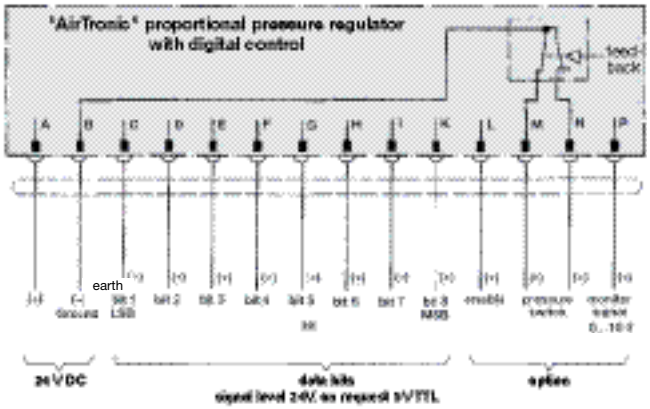
colour of wire		
pin	4-wire	7-wire
1	white	grey
2	brown	blue
3	yellow	yellow
4	green	green
5	–	brown
6	–	white
7	–	pink

pin numbers seen from solder pin side

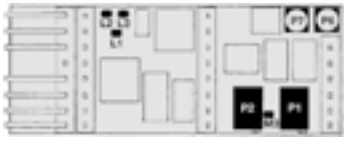


"AIRTRONIC"® CONNECTION DIAGRAM

CONNECTION DIAGRAM WITH POTENTIOMETER

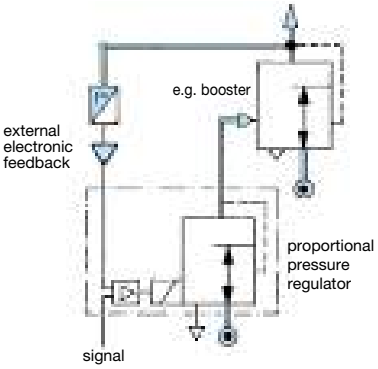


CONNECTION DIAGRAM FOR DIGITALLY CONTROLLED PROPORTIONAL PRESSURE REGULATOR

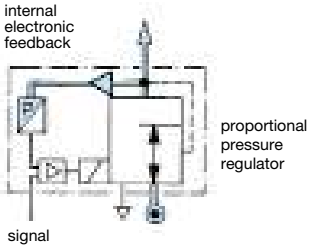


P1	range:	–10%…+5%
P2	zero point:	± 10%
P6	option pressure switch:	5…15%
P7	proportional amplification:	1…11
M3	measuring point offset zero	
L1	earth (GND)	
L2	solenoid	+24 V
L3	solenoid (pulse width modulation)	PWM

ADJUSTMENT OF THE PROPORTIONAL REGULATOR

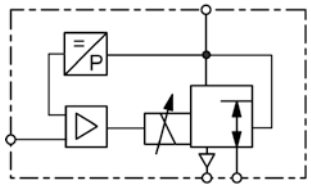


EXTERNAL ELECTRONIC FEEDBACK
0…10 V or 0/4…20 mA



INTERNAL ELECTRONIC FEEDBACK
as standard

Description	The pneumatic proportional valve controls the outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system in a compact mono block assembly with proportional solenoid valve, electronic regulator and internal pressure transducer. The valve works as a slide valve and is designed for flow applications such as thermal cutting. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software. Data record can be saved and used for further valves. The valve has a constant bleed. At absence of input signal or supply voltage the valve exhausts.		
Software	Display: signal, outlet pressure, PID parameters, pressure switch signal etc.		
Scope function	view setpoint, outlet pressure, internal signals from PID control		
Media	dry, lubricated, unlubricated and 50 µm filtered compressed air or non-corrosive gases		
Supply voltage	24 V DC ± 10 V, residual ripple < 10%	**Power consumption**	14 W (810mA current consumption)
Signal range	0-10 V, 100 kΩ impedance 0/4-20 mA, 250 Ω impedance		
Electr. connection	plug M12x1, 5-pin (protection class IP65)	**Mounting position**	any, preferably solenoid on top
Accuracy	hysteresis: 0.5% FS	**Linearity/repeatability**	< ± 0.5% FS
Temp. range	fluid / ambient: 0 °C to 60 °C / 32 °F to 140 °F	**Material**	Body: aluminium Elastomer: NBR/Buna-N



G⅜
0...6 bar/50 bar

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate l/min*1	Supply max. bar	Connection thread G	Pressure range bar	Order number	E*
Proportional pressure regulator 0-10 V command signal, supply voltage 24 V DC, without M12 coupling socket									**PF**	
60	160	78	8	1,45	1700	12	G⅜	0 ... 6	**PF000-0600**	
						18		0 ... 10	**PF000-1000**	
						18		0 ... 16	**PF000-1600**	
						22		0 ... 20	**PF000-2000**	
						40		0 ... 30	**PF000-3000**	
						50		0 ... 40	**PF000-4000**	
						60		0 ... 50	**PF000-5000**	

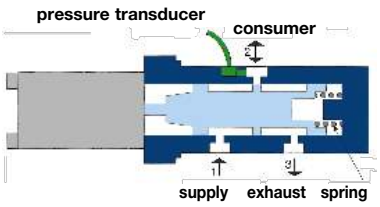


PF

Special options, add the appropriate letter or number

commmand signal	0-20 mA	PF . . **1** - . . . .
	4-20 mA	PF . . **2** - . . . .
monitor signal	0-10 V	PF . **1** . - . . . .
	4-20 mA	PF . **3** . - . . . .
deviant pressure range	indicate on order	PF . . . - **XX** . .
for oxygen	specially cleaned, FKM elastomers	PF . . . - . . **15**

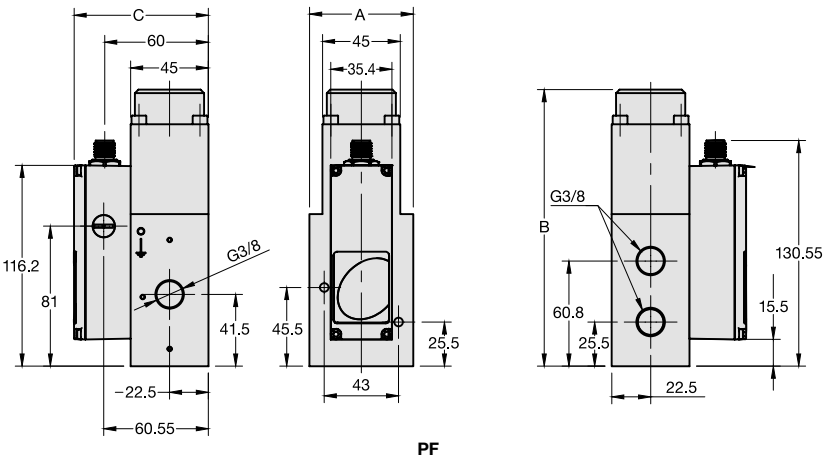




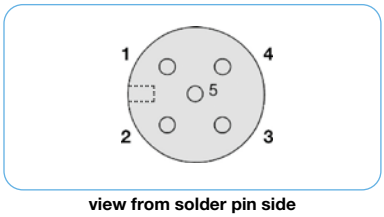
The position of the slide is continuously shifting according to command signal and pressure change at the outlet. Thereby a constant outlet pressure is achieved.

Accessories, enclosed

RS232 module	with 9-pin D-sub plug and 2 m cable		**PDRS232**
	with USB plug and 2 m cable		**PDUSB**
software	basic version "light"		**PDSOFT1**
coupling socket	M12x1, 5-pin, with 2 m cable, 5 x 0.25	angular	**KM12-C5-2**
	M12x1, 5-pin, with 5 m cable, 6 x 0.25	angular	**KM12-C5-5**



PF



view from solder pin side

pin	description	5-wire cable (2m)
1	24 V supply voltage	brown
2	analog input signal	white
3	supply ground	blue
	analog ground	
4	analog outlet signal	black
5	digital pressure switch signal	grey
housing	EMC shield	shield

connection diagram

*1 at 6 bar supply pressure and 5 bar outlet pressure

* Product group

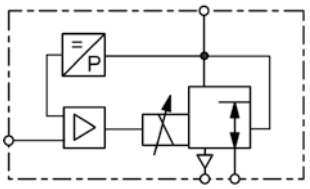
PDF CAD
www.aircom.net

Order example:
PF000-0600

Description The pneumatic proportional valve controls the outlet pressure in proportion to an electrical command input signal. It comprises a complete closed loop servo system in a compact mono block assembly with proportional solenoid valve, electronic regulatior and internal pressure transducer. The valve works as a 3-port/2-way valve with proportional magnet. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software. Data record can be saved and used for further valves. The valve has no constant bleed. At absence of input signal or supply voltage the valve exhausts.

Software

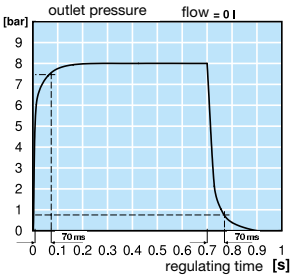
Display:	signal, outlet pressure, parameter, pressure switch signal etc.
Scope function:	view setpoint, outlet pressure, internal signals from PID control
Parameters:	command signal, zero point, overload threshold, ramp
Valve diagnosis:	parameters factory set or customised, optimization of the valve



G⅛ up to G1

General technical features

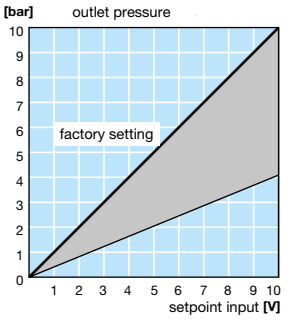
Description	3-port/2-way valve with proportional magnet and digital control
Mounting position	any, preferably vertical
Protection class	IP65 with mounted coupling socket
Shock resistance	3G
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, fluid / ambient temperature
Material	Body: brass (for G⅛ and G¼) or aluminium (for G½ and G1) Inner valve: brass and stainless steel Seals: NBR/Buna-N, EPDM or FKM on request, FKM for 50 bar version



regulating time, step function

Pneumatic features

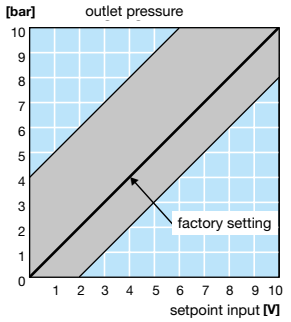
Media	dry, lubricated, unlubricated and 5 µm filtered compressed air or non-corrosive gases
Supply pressure	see chart
Flow rate	see chart, at 7 bar supply pressure and open outlet
Exhaust	same nominal size as on inlet valve, thus same relief capacity
Air consumption	without air consumption



slope, range adjustment

Electrical features

Supply voltage	24 V DC ±10%
Electrical connection	M12, 5-pin coupling socket
Power consumption	12 W at G⅛, 24 W at G¼, 34 W at G½, 44 W at G1
Current consumption	500 mA at G⅛, 1000 mA at G¼, 1400 mA at G½, 1800 mA at G1
Command signal	0-10 V, 0-20 mA, 4-20 mA
Impedance	100 kΩ at voltage signal (0.1 mA current consumption) 250 Ω at current signal
Setpoint input	0-10 V, 0-20 mA, 4-20 mA



zero point, adjustment

Accuracy

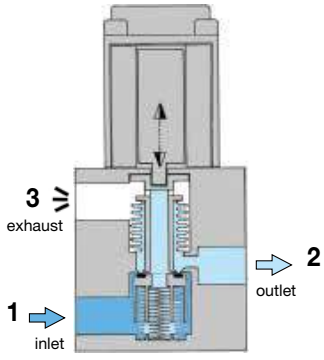
Linearity/Hysteresis	< ± 0.5% FS
Repeatability	± 0.5% FS
Response sensitivity	± 0.5% FS
Over all accuracy	± 0.5% FS

Adjustment and parameter settings

Zero point / range	Zero point and range can be calibrated percentagewise.
Control mode / Amplification	Through the software different control modes may be chosen. All parameters of P/PI/PID controllers can be tuned.
Diagnosis	A diagnostic tool including data recording is available within the software.
Characteristic curve	Increasing or decreasing curve can be set (increasing by standard).

Downstream regulation for vacuum/positive pressure regulators (V1)
Recommended when tank shall be evacuated or filled with positive pressure. At inlet port (1) either compressed air or atmosphere has to be applied. The use of a filter is advisable.

Downstream regulation for vacuum regulators (V3)
Recommended when tank shall be evacuated. Exhaust port (3) will be closed. Inlet port (1) must be connected with vacuum pump. Outlet port (2) has to be connected with consumer or tank.

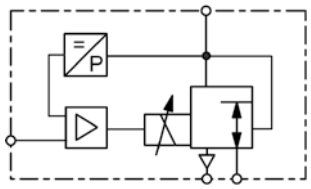


cross section

Proport. pressure
10

Technical features

• **Pressure range**	0…0.1 bar bis 0…50 bar	• **Linearity / Hysteresis**	± 0.5% FS
• **Command signal**	0-10 V, 0-20 mA, 4-20 mA	• **Response sensitivity**	± 0.5% FS
• **Output signal**	0-10 V, 0-20 mA, 4-20 mA	• **Repeatability**	± 0.5% FS
• **Regulating time**	< 1 s	• **Rated input**	12 / 22 / 30 / 44 W
• **Pressure sensor**	100 / 500 mbar, 1 / 5 / 10 / 16 / 20 / 30 / 50 bar	• **Relief capacity**	full nominal size
• **Flow rate**	250 / 820 / 1700 / 6500 l/min		



G⅛ up to G1
0…100 mbar/50 bar

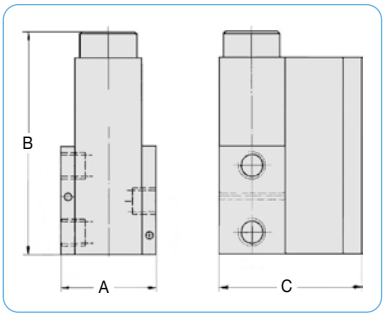
Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate l/min*1	Supply max. bar	Connection thread G	Pressure range bar	Order number	E*
Proportional pressure regulator 0-10 V command signal, supply voltage 24 V DC, with coupling socket									**PP**	
35	83	57	3	0.18	210	-1	G⅛	0…-1.0	**PPA00-00V3**	
						2		0… 0.1	**PPA00-A100**	
						2		0… 0.5	**PPA00-A500**	
						2		0… 1.0	**PPA00-0100**	
						8		0… 3.0	**PPA00-0300**	
						12		0… 6.0	**PPA00-0600**	
						12		0… 10	**PPA00-1000**	
						18		0… 16	**PPA00-1600**	
						22		0… 20	**PPA00-2000**	
						30		0… 25	**PPA00-2500**	
52	105	68	6	0.6	700	-1	G¼	0…-1.0	**PP000-00V3**	
						2		0… 0.1	**PP000-A100**	
						2		0… 0.5	**PP000-A500**	
						2		0… 1.0	**PP000-0100**	
						8		0… 3.0	**PP000-0300**	
						12		0… 6.0	**PP000-0600**	
						12		0… 10	**PP000-1000**	
						18		0… 16	**PP000-1600**	
						22		0… 20	**PP000-2000**	
						40		0… 30	**PP000-3000**	
						60		0… 50	**PP000-5000**	
70	136	85	12	1.2	1400	-1	G½	0…-1.0	**PP100-00V3**	
						2		0… 1.0	**PP100-0100**	
						8		0… 3.0	**PP100-0300**	
						12		0… 6.0	**PP100-0600**	
						12		0… 10	**PP100-1000**	
						14		0… 12	**PP100-1200**	
96	190	101	20	4.8	5600	-1	G1	0…-1.0	**PP200-00V3**	
						2		0… 1.0	**PP200-0100**	
						8		0… 3.0	**PP200-0300**	
						12		0… 6.0	**PP200-0600**	
						12		0… 10	**PP200-1000**	
						14		0… 12	**PP200-1200**	



PPA



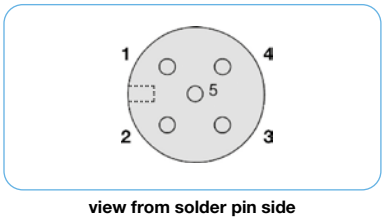
PP0



dimensions

Special options, add the appropriate letter or number

setpoint input	0-20 mA	**1**			4-20 mA	PP . . **2**- . . . .
feedback output	0-10 V	**1**	0-20 mA	**2**	4-20 mA	PP . **3** . - . . . .
deviant pressure range	indicate on order					PP . . . -**XX**. .
for absolute pressure						PP . . . - . . **0A**
body made of stainless steel	P_2 = max. 20 bar, body / inner parts, 1.4304, EPDM, G¼ and G½					PP . . . - . . **SS**
body made of aluminium	valve body only, max. 20 bar				G¼ only	PP 0 . . - . . **19**
for oxygen	specially cleaned, FKM elastomer					PP . . . - . . **15**
cascade regulation	w/o monitor signal 2. sensor, electr. feedback 0-10 V					PP . . . - . . . **KU**
	w/o monitor signal 2. sensor, electr. feedback 4-20 mA					PP . . . - . . . **KI**



view from solder pin side

Accessories, enclosed

S232 module	with D-sub plug and	2 m cable		**PDRS232**
	with USB plug and	2 m cable		**PDUSB**
software	basic version "light"			**PDSOFT1**
coupling socket	M12x1, 5-pin with	2 m cable, 5 x 0.25	angular	**KM12-C5-2**
		5 m cable, 5 x 0.25	angular	**KM12-C5-5**
adapter cable	M12x1, 5-pin with	0.2 m cable		**PRK-PR-PP**

pin	description		5-wire cable (2m)
1	24 V supply voltage		brown
2	analog input signal		white
3	supply earth		blue
	analog earth		
4	analog outlet signal		black
5	digital pressure switch signal		grey
housing	EMC shield		shield

connection diagram

*1 at 6 bar supply pressure and 5 bar outlet pressure

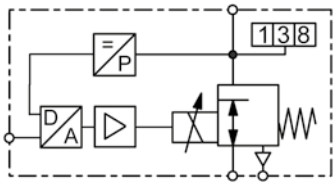
* Product group

Technical details: see previous page

PDF CAD
www.aircom.net

Order example:
PPA00-00V3

Description	The proportional pressure regulator is digitally controlled and works as a 3/2 valve with proportional magnet and closed loop. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software.
Software	Display: signal, outlet pressure, PID parameters, pressure switch signal etc. Scope function: view setpoint, outlet pressure, internal signals from PID control
Parameters	command signal, zero point, overload threshold, ramp Valve diagnosis: parameters factory-set or customised, optimization of the valve.



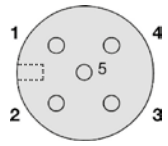
G⅛ to G⅜ or flange programmable

General technical features

Description	3-port/2-way valve with proportional magnet and digital control
Mounting position	any, preferably upright
Protection class	IP65 with mounted coupling socket
Temperature range	0 °C to 50 °C / 32 °F to 122 °F ambient
Material	Body: aluminium Inner valve: POM (Polyacetal) Elastomer: NBR/Buna N and FPM

Pneumatic features

Media	dry, lubricated or unlubricated and 50 µm filtered compressed air or non-corrosive gases
Supply pressure	see chart
Flow rate	see chart, at 7 bar supply pressure and open outlet
Exhaust	same nominal size as on inlet valve, thus same relief capacity
Air consumption	without air consumption



view from solder pin side

Electrical features

Supply voltage	24 V DC ± 10%
Electrical connection	M12x1, 5-pin plug, with coupling socket
Power consumption	12 W at nominal size 4, 40 W at nominal size 8
Current consumption	850 mA at nominal size 4, 1640 mA at nominal size 8
Command signal	0-10 V, 0-20 mA, 4-20 mA
Impedance	100 kΩ at voltage signal (0.1 mA current consumption) 500 Ω at current signal
Feedback output	0-10 V = 3 bar only, 6 bar and 10 bar pressure range possible

pin	description	5-wire cable (2m)
1	24 V supply voltage	brown
2	analog input signal	white
3	supply ground	blue
	analog ground	
4	analog outlet signal	black
5	digital pressure switch signal	grey
housing	EMC shield	shield

Accuracy

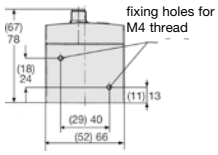
Linearity / Hysteresis	< 1,0% FS	**Response sensitivity**	< 0,5% FS
Repeatability	< 0,5% FS	**Minimum setpoint**	100 mV (0.2 mA / 4.2 mA)
Minimum outlet pressure	1% FS	**Over all accuracy**	± 0,5% FS



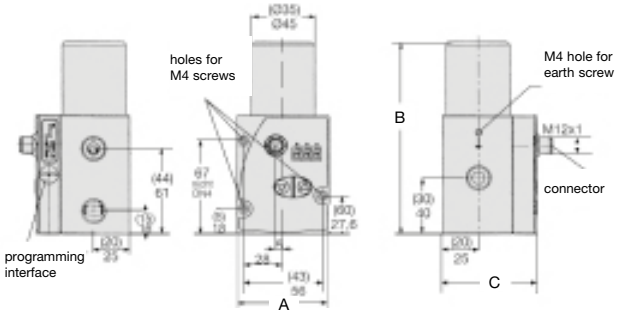
Adjustment and parameter settings

Zero point / range	Zero point and range can be calibrated percentagewise.
Control mode / Amplification	Through the software different control modes may be chosen. All parameters of P/PI/PID controllers can be tuned.
Diagnosis	A diagnostic tool including data recording is available within the software.
Characteristic curve	Increasing or decreasing curve can be set (increasing by standard).

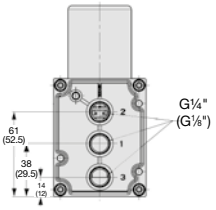
value = DN8
in ( ) = DN4



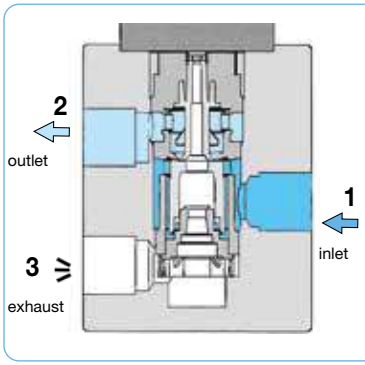
bottom view



PDA / PDB



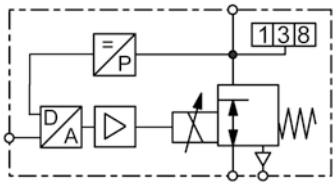
version with flange



cross-section

PDF CAD
www.aircom.net

Description	The proportional pressure regulator is digitally controlled and works as a 3/2 valve with proportional magnet and closed loop. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software.		
Media	dry, lubricated, unlubricated and 50 µm filtered compressed air or non-corrosive gases		
Supply voltage	24 V DC ± 10 V, residual ripple < 10%		
Signal range	0-10 V, 100 kΩ impedance, 0/4-20 mA, 250 Ω impedance		
Electrical connection	plug M12x1, 5-pin, with coupling socket	**Pressure switch**	PNP, adjustable ± 5% from setpoint
Power consumption	21 W at DN4, 40 W at DN8		
Linearity/Hysteresis	< 0.5% FS / < 1% FS	**Repeatability**	< 0.5% FS
Mounting position	any	**Protection class**	IP65
Temperature range	fluid: 0 °C to 60 °C / 32 °F to 140 °F	ambient:	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: aluminium Elastomer: NBR/Buna-N	Inner valve:	POM



G⅛ to G⅜ or flange programmable

Dimensions A mm	B mm	C mm	Nominal size DN	Flow rate l/min*1	Supply max. bar	Connection thread G	Pressure range bar	Order number	E*
Proportional pressure regulator									
52	112	67	4	0.43	470	6	G⅛	0 … 1	**PDA41-010**
						6		0 … 3	**PDA41-030**
						9		0 … 5	**PDA41-050**
						9		0 … 6	**PDA41-060**
						13		0 … 8	**PDA41-080**
						13		0 … 10	**PDA41-100**
						13		0 … 12	**PDA41-120**
						6	G¼	0 … 1	**PDA42-010**
						6		0 … 3	**PDA42-030**
						9		0 … 5	**PDA42-050**
						9		0 … 6	**PDA42-060**
						13		0 … 8	**PDA42-080**
						13		0 … 10	**PDA42-100**
						13		0 … 12	**PDA42-120**
66	138	78	8	1.2	1300	6	G¼	0 … 1	**PDA82-010**
						6		0 … 3	**PDA82-030**
						9		0 … 5	**PDA82-050**
						9		0 … 6	**PDA82-060**
						13		0 … 8	**PDA82-080**
						13		0 … 10	**PDA82-100**
						13		0 … 12	**PDA82-120**
						6	G⅜	0 … 1	**PDA83-010**
						6		0 … 3	**PDA83-030**
						9		0 … 5	**PDA83-050**
						9		0 … 6	**PDA83-060**
						13		0 … 8	**PDA83-080**
						13		0 … 10	**PDA83-100**
						13		0 … 12	**PDA83-120**

0-10 V input and outlet signal, supply 24 V DC, without display, with coupling socket — **PD**



PDA
without display



PDB
with display



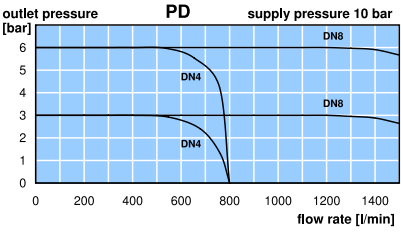
programming via PC

Special options, add the appropriate letter or number

display	3-digit, red		PD**B**. .-. . .
NPT	connection thread		PD . . . -. . . **N**
0-20 mA	setpoint input and monitor signal		PD . . . -. . **1**
4-20 mA	setpoint input and monitor signal		PD . . . -. . **2**
flange version		for PDA41/82	PD . . **F**-. . .
cascade regulation	w/o monitor signal 2. sensor, electr. feedback 0-10 V		PD . . . - . . . **KU**
	w/o monitor signal 2. sensor, electr. feedback 4-20 mA		PD . . . - . . . **KI**

Accessories, enclosed

RS232 module	with D-sub plug and	2 m cable		**PDRS232**
	with USB plug and	2 m cable		**PDUSB**
software	basic version "light"			**PDSOFT1**
coupling socket	M12x1, 5-pin, with	2 m cable, 5 x 0.25	angular	**KM12-C5-2**
		5 m cable, 5 x 0.25	angular	**KM12-C5-5**



*1 at 6 bar supply pressure and 5 bar outlet pressure

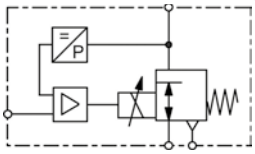
* Product group

Technical details: see previous page

PDF CAD
www.aircom.net

Order example: PDA41-010

Description	Piezo-operated proportional pressure valve with closed loop in a two-wire system. Outlet pressure is proportional to an electrical input signal. The valve can be mounted in any position and is immune to shock or vibration. It is pilot-controlled to reach a higher flow rate.
Media	lubricated or unlubricated and 50 µm filtered compressed air or non-corrosive gases
Supply voltage	not necessary due to two-wire system (supply through 4...20 mA command signal)
Electrical connector	coupling socket, 4-pin according to DIN 43651, size 15 x 15 mm connector turnable in 90° steps
ATEX classification	Compliance with directive 2014/34/EU for use in potentially explosive atmosphere of group IIC, temperature classification T4. Ignition protection type: II1G Ex ia IIC T4; II1D Ex D20 T135°C
Power consumption	< 200 mW
Failsafe feature	exhaust at power breakdown
Linearity/Hysteresis	< 1% FS
Repeatability	< 0.5% FS
Mounting position	any
Protection class	IP 65
Air consumption	The pilot valve has an air consumption of 1.6 l/min
Temperature range	Media: 0 °C to 60 °C / 32 °F to 140 °F Ambient: 0 °C to 60 °C / 32 °F to 140 °F
Material	Body: aluminium and plastic Elastomer: NBR/Buna-N and FKM Inner valve: stainless steel and plastic

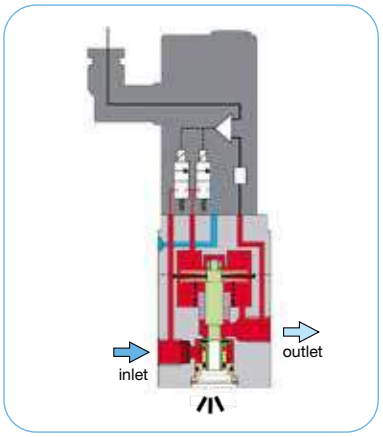


G⅛, accurate to 1% with constant bleed

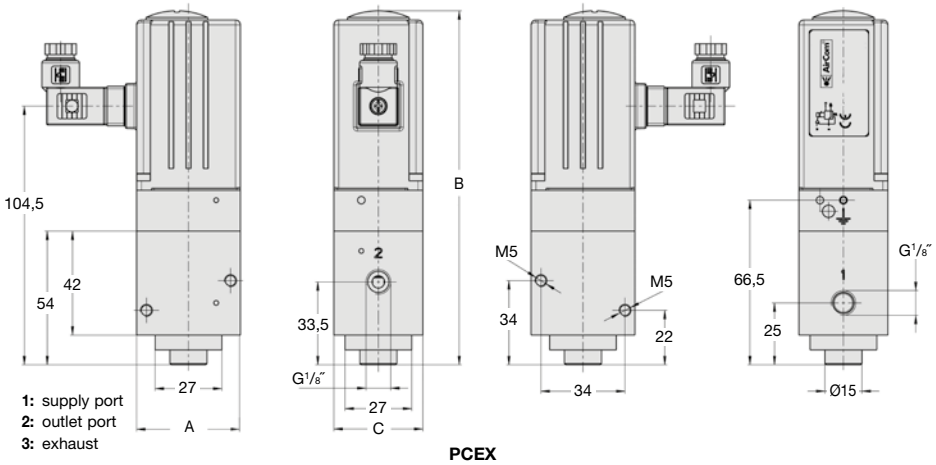
Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate l/min*1	Supply min./max. bar	Connection thread G	Pressure range bar	Order number	E*
Proportional pressure regulator 4-20 mA input signal, ATEX with coupling socket, with constant bleed									**PCEX**	
42	143	36	4	0.5	550	2.5 / 3.0	G⅛	0...2	**PCEX-02**	
						3.5 / 5.0		0...3	**PCEX-03**	
						4.5 / 6.0		0...4	**PCEX-04**	
						5.5 / 8.0		0...5	**PCEX-05**	
						6.5 / 8.0		0...6	**PCEX-06**	



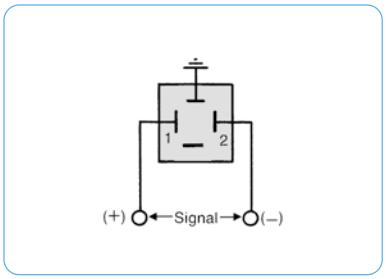
PCEX



cross-section



PCEX



connection diagram

*1 at 6 bar supply pressure, 5 bar outlet pressure, equal exhaust forward flow

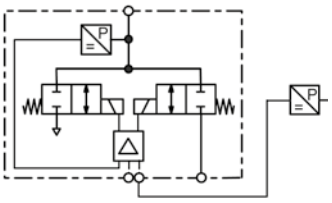
* Product group

PDF CAD
www.aircom.net

Order example: PCEX-02

PROPORTIONAL REGULATOR FOR PRESSURE UP TO 70 BAR PQH

Description	Proportional control valve with closed loop control technology for better control of pressurised gases. The instrument can be built as single closed loop or dual closed loop control valve.		
Media	dry, lubricated or unlubricated and 20 µm filtered compressed air or non-corrosive gases		
Fail freeze	constant outlet pressure at voltage drop		
Second loop	0-10 V, impedance 4.7 kΩ, ratio of internal to external relationship is 10% to 90%		
Supply voltage	15-24 V DC, residual ripple < 10%, with reverse voltage protection		
Impedance	0-10 V / 10 kΩ, 4-20 mA / 100 Ω		
Protection class	IP65		
Electrical connector	M12, 6-pin		
Power consumption	24 W (985mA) regulating, 2.4W (100mA) non-regulating		
Linearity/Hysteresis	< 0.5% FS	**Repeatability**	< 0.5% FS
Adjustment	zero, span, hysteresis		
Temperature range	0 °C to 70 °C / 32 °F to 158 °F	**Mounting position**	any, vibration-resistant
Material	Ports: brass	Elastomer:	FKM
	Transducer: silicon	Valves:	stainless steel



single or double loop

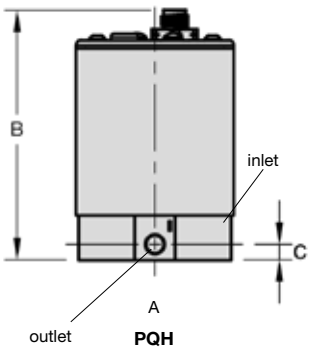
Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate l/min*1	Supply pressure max. bar	Accuracy %	Connection thread G	Pressure range bar	Order number	E*
Proportional pressure valve 0-10 V input and monitor signal, w. coupling socket supply voltage 24 V DC, single loop									**PQH1**	
76	122	15	0.016	280	75	0.5	G⅛	0…40	**PQH1EE-40**	
								0…50	**PQH1EE-50**	
								0…60	**PQH1EE-60**	
								0…70	**PQH1EE-70**	
Proportional pressure valve 0-10 V input, monitor- and feedback signal, with coupling socket, supply volt. 24 V DC, double loop									**PQH2**	
76	122	15	0.016	280	75	0.5	G⅛	0…40	**PQH2EE-40**	
								0…50	**PQH2EE-50**	
								0…60	**PQH2EE-60**	
								0…70	**PQH2EE-70**	



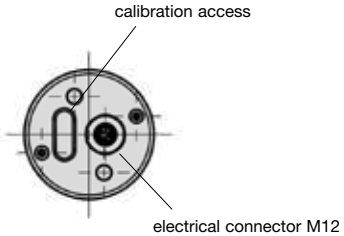
PQH1

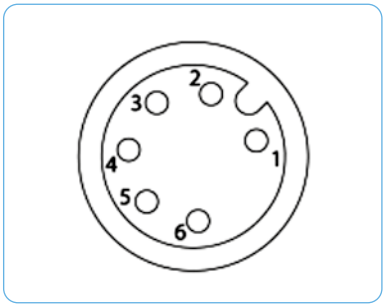
Special options, add the appropriate letter or number

4-20 mA	input and feedback signal	PQH . **IC**- . .
for oxygen		PQH . . . - . .**15**
stainless steel manifold		PQH . . . - . .**SS**



PQH





view from solder pin side

Pin	Description
1	TTL output
2	set point +
3	set point grounde
4	supply 24V DC
5	supply earth
6	analogue output signal

connection plan

*1 at 70 bar supply pressure and open outlet

* Product group

For further details about double loop see end of the chapter

PDF CAD
www.aircom.net

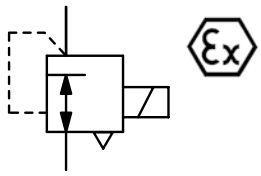
Order example: PQH1EE-40

Proport. pressure

10

PROPORTIONAL PRESSURE REGULATOR WITH FLAPPER-NOZZLE CONTROL PT6

Description	The proportional pressure transducer translates a direct current or voltage input signal into a proportional pneumatic outlet signal. The valve uses proven moving coil and flapper nozzle technology with a built-in pneumatic relay with slight amplification and positive bias. Additional supply voltage is not necessary. The device has to be protected against vibration.		
Media	5 µm filtered compressed air or non-corrosive gases		
Supply voltage	not required		
Electrical connector	plug according to DIN 43650A, contact gap 18 mm, 3-pin, with coupling socket 30 x 30 mm		
Command signal	0 … 10 V / 1.1 kΩ at PT6..-B, otherwise 900 Ω	4 … 20 mA / 200 Ω at PT6..-B, otherwise 260 Ω	
Failsafe	exhaust at power breakdown	**Response sensitivity**	< 0.2% FS
Linearity	< 0.5 % FS at 0.2…2 bar, otherwise < 1% FS	**Repeatability**	< 0.1% FS
Hysteresis	< 0.25% FS at 0.2…2 bar, otherwise < 1% FS	**Vibration sensitivity**	< 2% FS, for 10 g and 15 … 500 Hz
Adjustment	Zero point: by 0.3 bar Range: 40% FS	**Mounting position**	upright ± 15°
Temperature range	-30 °C to 65 °C / -22 °F to 149 °F	**Protection class**	IP 65
Material	Body: chromated aluminium	Elastomer: NBR/Buna-N	
	Nozzle: sapphire in nickel-plated brass plate	Inner valve: stainless steel, brass, zinc-plated steel	



accurate 0.5% or 1%

Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. bar	Command signal V/mA	Pressure range bar	Order number	E*
Proportional pressure regulator 0-10 V			¼" NPT, depending on pressure range air consumption 2…8 l/min				**PT600**	
57	93	13	250	8	0-10 V	0.2 … 1	**PT600-B100**	
						0.2 … 2	**PT600-B200**	
57	132	13	300	10	0-10 V	0 … 2	**PT600-0200**	
						0 … 4	**PT600-0400**	
						0 … 8	**PT600-0800**	
Proportional press. regulator 4-20 mA			¼" NPT, depending on pressure range air consumption 2…8 l/min				**PT602**	
57	93	13	250	8	4-20 mA	0.2 … 1	**PT602-B100**	
						0.2 … 2	**PT602-B200**	
57	132	13	300	10	4-20 mA	0 … 2	**PT602-0200**	
						0 … 4	**PT602-0400**	
						0 … 8	**PT602-0800**	



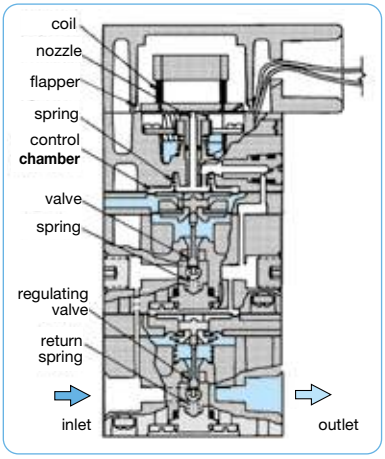
PT60.-0.

Special options, change the appropriate number

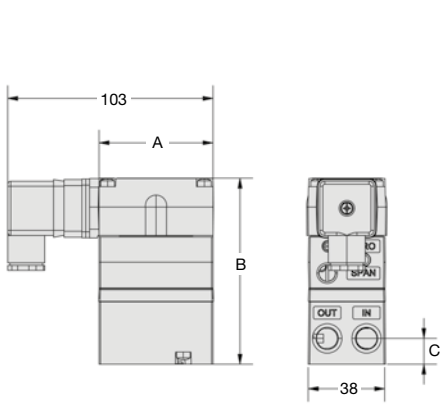
Ex-i-Atex	Atex II 1G Ex ia IIC T4	4-20 mA only	PT602-..**01**

Accessories, enclosed

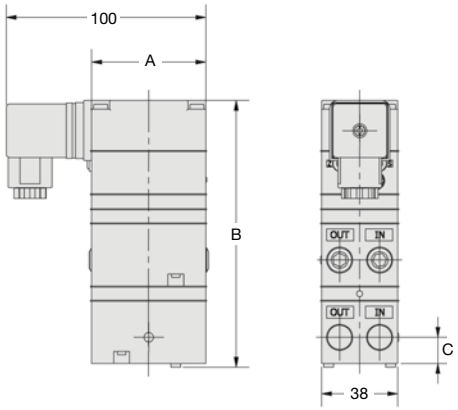
mounting bracket	made of steel, for standard version	**SA-PT1**
	made of steel, for Din rail	**SA-PT2**
isolate transmitter	Ex ia II C, E/A: 0-20 mA, 24 V DC, EX 1-32	**KFD2-CD**



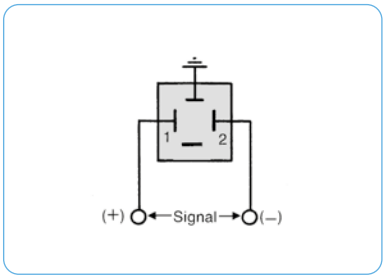
cross-section



PT60.-B.



PT60.-0.



connection diagram

*1 at 7 bar supply pressure and 1.4 bar outlet pressure

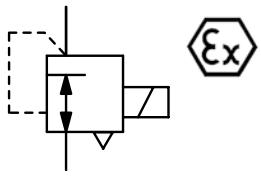
* Product group

PDF CAD
www.aircom.net

Order example: PT600-B100

PROPORTIONAL PRESSURE REGULATOR WITH PIEZO ELEMENT AND ELECTRICAL FEEDBACK PT7

Description	The proportional valve translates a direct current or voltage signal into a linear proportional pneumatic outlet signal. With rapid response controls using low-powered piezo microelectronics, flapper nozzle and solid state control circuit. The proportional valve has internal electronic with an electrical feedback sensor and is housed in NEMA4X (IP65) enclosure with six outlet ranges, jumper selectable. Input and outlet ports on both ends of the body simplify pneumatic piping.		
Media	5 µm filtered compressed air or non-corrosive gases		
Supply voltage	7…30 V DC, 90 mW, required for 0…10 V setpoint input only, with reverse voltage protection		
Electrical connector	plug according to DIN 43650A, contact gap 18 mm, 3-pin, with coupling socket 30 x 30 mm		
Command signal	0…10 V / 10 kΩ, 3-pin, 24 V DC supply voltage,	4…20 mA / 330 Ω, two-wire, min. 7 V DC on input	
Failsafe	exhaust at power breakdown	**Response sensitivity**	< 0.2% FS
Linearity	< 0.25% FS	**Repeatability**	< 0.1% FS
Hysteresis	< 0.1% FS at 0.2…0.5 bar, otherwise < 0.25% FS	**Vibration sensitivity**	< 1% FS, for 10 g and 15…500 Hz
Adjustment	Zero point: by 0.3 bar Range: 40% FS	**Mounting position**	any
Temperature range	-40 °C to 70 °C / -40 °F to 158 °F	**Protection class**	IP 65
Material	Body: chromated aluminium	Elastomer:	NBR/Buna-N
	Nozzle: sapphire in nickel-plated brass plate	Inner valve:	stainless steel, brass, zinc-plated steel



accurate to 0.25% piezo-controlled

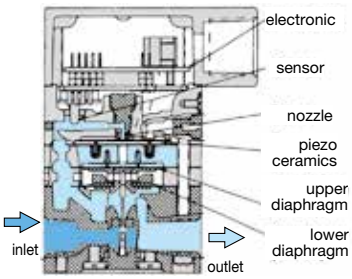
Dimensions A mm	B mm	C mm	Flow rate l/min*1	Supply pressure max. bar	Command signal V/mA	Pressure range bar	Order number	E*
Proportional pressure regulator 0-10 V			¼″ NPT, air consumption 2…8 l/min subject to pressure range				**PT780**	
57	95	13	250	8	0-10 V	0.2…1	**PT780-B100**	
						0.2…2	**PT780-B200**	
57	133	13	300	10	0-10 V	0…2	**PT780-0200**	
						0…4	**PT780-0400**	
						0…8	**PT780-0800**	
Proportional press. regulator 4-20 mA			¼″ NPT, air consumption 2…8 l/min subject to pressure range				**PT782**	
57	95	13	250	8	4-20 mA	0.2…1	**PT782-B100**	
						0.2…2	**PT782-B200**	
57	133	13	300	10	4-20 mA	0…2	**PT782-0200**	
						0…4	**PT782-0400**	
						0…8	**PT782-0800**	



PT78.-0.

Special options, change the appropriate number

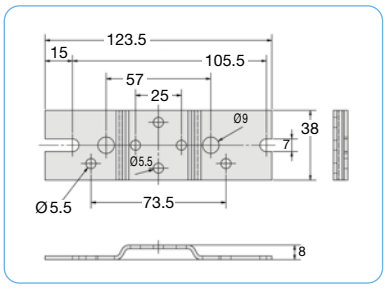
-i-Atex	Atex II 1G Ex ia IIB T4		4-20 mA only	PT782-..**01**
-d-Atex	Atex ds IIC T6	max. 2 bar	4-20 mA only	PT782-..**0E**



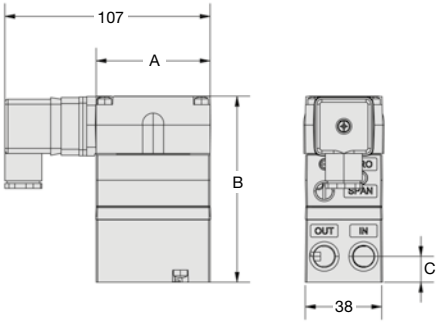
cross-section

Accessories, enclosed

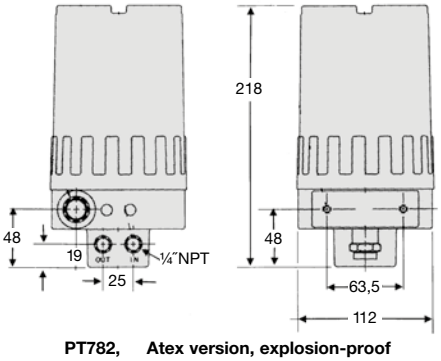
mounting bracket	made of steel, for standard version	**SA-PT1**
	made of steel, for DIN rail	**SA-PT2**
mounting clip	made of steel, Atex version, explosion-proof	**SA-PT3**
isolate transmitter	Ex ia II C E/A: 0…20 mA, 24 V DC, EX 1-32	**KFD2-CD**



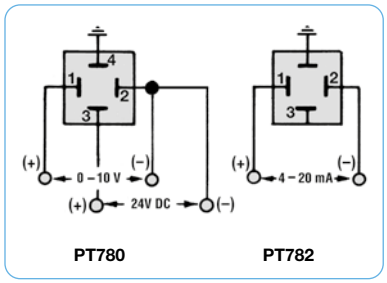
SA-PT1



PT78.-B.



PT782, Atex version, explosion-proof



connecting diagram

*1 at 7 bar supply pressure and 1.4 bar outlet pressure

* Product group

PDF CAD
www.aircom.net

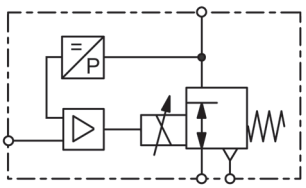
Order example: PT780-B100

Proport. pressure
10

Description

Piezo-operated proportional pressure valve based on the principle of a piezo element which bends when voltage is applied. At the end of the piezo element is a flapper valve, which operates against a precision nozzle to create back pressure on the control diaphragm of a booster relay. A pressure transducer provides feedback of the outlet pressure compared with the setpoint value with correction by the electronic control system if necessary.

Minimal power consumption	• no self-heating, even none at pressure absence • safe battery operation over a long period	
Piezo element	• almost no power consumption necessary for regulation • extremely quick regulating operations • low-noise regulation especially for medical and laboratory technology	
Small and light design	• particularly suitable for portable devices in conjunction with battery operation • ideal for limited space conditions	
PRE1	DN 2.5, 350 l/min, coupling socket M8x1, 3-pin, monitor signal optionally 0…P_{2max} ≙ 0…10 V,	monitor signal, 4-pin max. 1 mA, R_a > 1kΩ
PRE2	DN 6, 1600 l/min, coupling socket M12x1.5, 5-pin monitor signal standard 0…P_{2max} ≙ 0…10 V,	max. 1 mA, R_a > 1kΩ



0 - 200 mbar / 16 bar
10 ms, 800 mW, 2100 l/min

General features

Description	Piezo-operated 3-port/2-way proportional pressure regulator with internal pressure sensor and closed loop.
Protection class	IP 30 for PRE1 according to DIN EN 60529 IP 65 for PRE2 according to DIN EN 60529 with coupling socket and tapped exhaust
Mounting position	any
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: plastic, PRE1 IXEF1022 PRE2 Grivory GVX-65H Elastomer: NBR/Buna-N Inner valve: brass and spring steel

Pneumatic features

Media	dry, unlubricated and 5 µm filtered compressed air or non-corrosive gases
Supply pressure	min. 1.5 bar (at P_2 ≤ 8 bar) or 2 bar (at P_2 ≥ 8 bar) and additional P_1 min. 1 bar greater than P_2 max. 2.5 bar up to 17 bar, depending on pressure range according to chart
Flow rate	PRE1: max. 350 l/min at P_1 = 10 bar, P_2 = 6 bar and open outlet DN 2.5 PRE2: max. 1600 l/min at P_1 = 10 bar, P_2 = 6 bar and open outlet DN 6
Exhaust	PRE1: 180 l/min at P_2 = 6 bar, 20 l/min at P_2 = 200 mbar PRE2: 1000 l/min at P_2 = 6 bar, 400 l/min at P_2 = 2 bar
Air consumption	PRE1: < 1.0 l/min independent of pressure range PRE2: < 1.0 l/min independent of pressure range

Electrical features

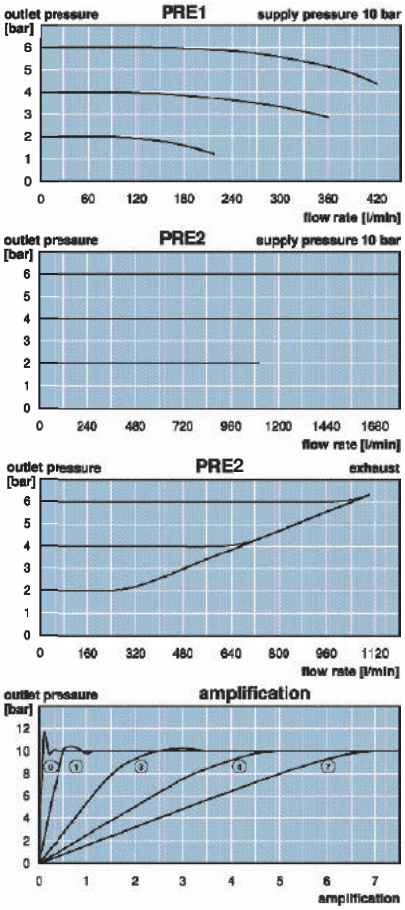
Supply voltage	PRE1: 24 V DC ± 10%, 0.4 W, current consumption max. 15 mA PRE2: 24 V DC ± 10%, 0.8 W, current consumption max. 30 mA
Command signal	4 … 20 mA or 0 … 10 V
Impedance	PRE1: ≥ 66 kΩ at voltage signal, ≤ 500 Ω at current signal PRE2: ≥ 55 kΩ at voltage signal, ≤ 500 Ω at current signal
Electrical connector	PRE1: coupling socket M8x1, 3-pin PRE1-R: coupling socket M8x1, 4-pin PRE2: coupling socket M12x1.5, 5-pin
Monitor signal	PRE1-R: as option 0…P_{2max} / 0…10 V, max. 1 mA, R_a > 1kΩ PRE2: standard 0…P_{2max} / 0…10 V, max. 1 mA
Electronic switch	PRE2 only, PNP, ”on” when setpoint and actual value match in the tolerance range 0 V DC = off, U_N -0,7 V DC = on, output current < 200 mA, tolerance P_2: ± 2%
Failsafe	If signal or electrical supply fails, outlet pressure falls to zero and the regulator exhausts.
Note	For long connection lines shielding is to be used. Pay attention to voltage drops. As the case may be, current signal is preferable.

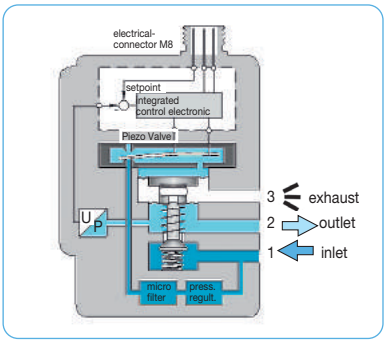
Accuracy

Linearity	< 0.5% FS,	at 0.2 bar range	< 1 % FS	
Hysteresis	< 0.2% FS,	at 0.2 bar range	< 0.5% FS	
Response sensitivity	< 0.1% FS,	at 0.2 bar range	< 0.5% FS at PRE1	< 0.2% FS at PRE2
Repeatability	< 0.2% FS,	at 0.2 bar range	< 0.5% FS	
Response time	10 ms			
Over all accuracy	± 0.2% FS (Monitor signal ± 1,5 % FS)			

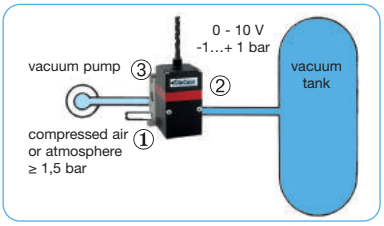
Adjustment

Zero point	calibration only by factory
Range	calibration only by factory





cross-section PRE1



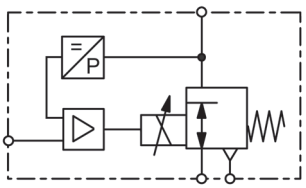
PRE2-V1 for vacuum

PDF CAD
www.aircom.net

PIEZO PROPORTIONAL PRESSURE REGULATOR, VERY FAST, 400 MW — PRE

Technical features

• **Highly dynamic**	10 ms, critical frequency 43 Hz	• **Linearity**	< 0.5% or 1% FS
• **Low power consumption**	400 mW / 800 mW nominal power	• **Hysteresis**	< 0.2% or 0.5% FS
• **No self-heating**	due to low power consumption	• **Response sensitivity**	< 0.1% or 0.5% FS
• **Battery operation**	due to low power consumption	• **Repeatability**	< 0.2% or 0.5% FS
• **For portable devices**	up to 3 bar pressure range	• **Failsafe**	exhaust at power breakdown
• **No over-oscillation**	adjustable closed loop amplification	• **Protection class**	IP 30 or IP 65
• **No resonance oscillation**	adjustable closed loop amplification	• **Two-wire system**	for signal 4 … 20 mA



0 … 200 mbar / 16 bar
10 ms, 800 mW, 2400 l/min

Dimensions A mm	B mm	C mm	Supply pressure max. bar	Flow rate l/min*1	Connection thread G	Pressure range bar	Order number for inlet signal 4-20 mA	0-10 V	E*
Proportional valve				supply voltage 24 V DC, constant bleed, with straight coupling socket and 5 m cable			**PRE**	**PRE**	
36	61	54	2.5	100	G⅛	0 … 0.2	**PRE1-IA2**	**PRE1-UA2**	
			6.0	200		0 … 2	**PRE1-I02**	**PRE1-U02**	
			10	250		0 … 5	**PRE1-I05**	**PRE1-U05**	
				280		0 … 6	**PRE1-I06**	**PRE1-U06**	
				350		0 … 8	**PRE1-I08**	**PRE1-U08**	
46	84	68	2.5	800	G¼	-1 … 1	**PRE2-IV1**	**PRE2-UV1**	
			10	1 500		-1 … 4	**PRE2-I04V1**	**PRE2-U04V1**	
				1 500		-1 … 6	**PRE2-I06V1**	**PRE2-U06V1**	
			12	1 700		-1 … 10	**PRE2-I10V1**	**PRE2-U10V1**	
			2.5	500		0 … 0.5	**PRE2-IA5**	**PRE2-UA5**	
				900		0 … 1	**PRE2-I01**	**PRE2-U01**	
			7.0	1 100		0 … 2	**PRE2-I02**	**PRE2-U02**	
				1 100		0 … 3	**PRE2-I03**	**PRE2-U03**	
			10	1 500		0 … 4	**PRE2-I04**	**PRE2-U04**	
				1 500		0 … 5	**PRE2-I05**	**PRE2-U05**	
				1 500		0 … 6	**PRE2-I06**	**PRE2-U06**	
			12	1 700		0 … 10	**PRE2-I10**	**PRE2-U10**	
			17	2 400		0 … 16	**PRE2-I16**	**PRE2-U16**	



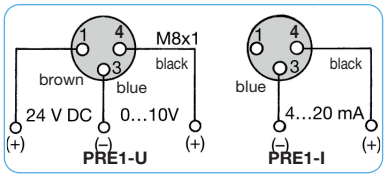
PRE1



PRE2

Special options, add the appropriate letter

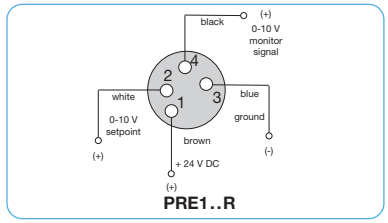
monitor signal	0-10 V, standard at PRE2	for PRE1	PRE1-. . .**R**
flange connection	without manifold		PRE.-. . .**F**
w/o coupling socket	and without cable		PRE.-. . .**H**
mounting clips	for DIN rail		PRE.-. . .**C**
deviant pressure ranges			PRE.-.**XX**



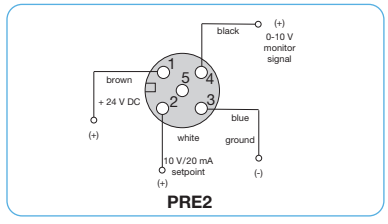
connection diagram

Accessories, enclosed

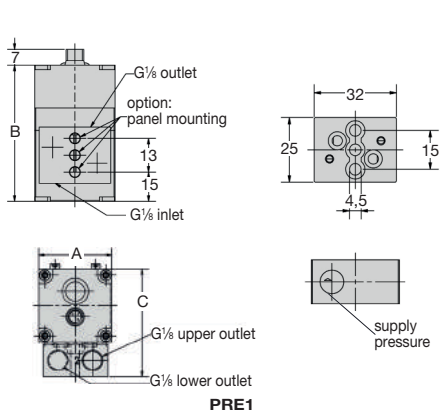
coupling socket	with 5 m cable, angular	M8x1,	3-pin	for PRE1 **KM08-C3-5**
		M8x1,	4-pin	for PRE1-R **KM08-C4-5**
		M12x1.5,	5-pin	for PRE2 **KM12-C5-5**



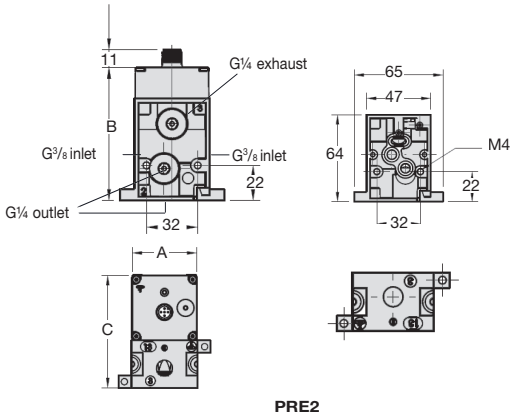
connection diagram



connection diagram



PRE1



PRE2

*1 at open outlet

* Product group

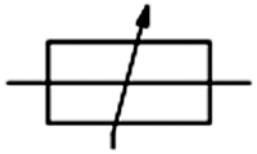
Technical details: see previous page

PDF CAD
www.aircom.net

Order example: PRE1-IA1

Description	The series line of potentiometers are designed for use as a command signal for control valves. A 10 volt reference is used to provide excitation to the potentiometer. An op-amp measures the output on the wiper of the potentiometer and provides buffering to eliminate external components from affecting the linearity of the potentiometer. A three wire cord is provided and is attached to the pc board to make necessary power signal and common connections
Field of application	0-10 V version PPB-U is compatible with all proportional pressure regulators. 4-20 mA version PPB-I is compatible with all valves of Series PQ and PM. For all other valves, e.g Series PP, PR, PRE, a setpoint of 4.1 ... 18.5 mA is generated.

Measuring range	0 ... 999	**Supply voltage**	15 - 24 V DC
Current consumption	max. 30 mA	**Linearity/Hysteresis**	± 0.25% FS
Mounting position	any	**Temperature range**	0 °C to 70 °C / 32 °F to 158 °F



with 10-turn-potentiometer

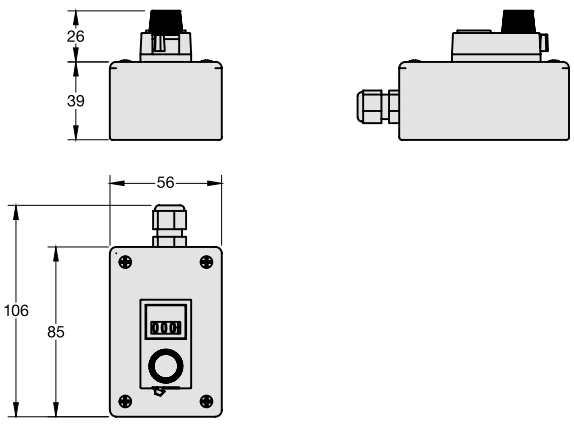
Dimensions F mm	H mm	G mm	Output signal V / mA	Order number	
Setpoint Potentiometer			supply voltage 15 - 24 V DC	**PPB**	
85	55	40	0-10 V	**PPB-U**	
85	55	40	4-20 mA	**PPB-I**	



PPB-U



PPB-I



PPB

Pin	Description	3-pin cable
1	voltage supply 24V DC	black
2	analogue setpoint	white
3	supply earth	green

connecting plan

* Product group

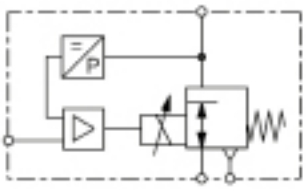
PDF CAD
www.aircom.net

Order example: PPB-U

VOLUMENSTROMBOOSTER-PROPORTIONALVENTIL-KOMBINATIONEN

What are volume booster / proportional valve combinations used for?
Combinations of volume boosters and proportional valves lend themselves for electronically regulating high volume flows. On the one hand common proportional valves are not available with connection sizes big enough, on the other hand combinations are in most cases more economic. There are two ways of regulating: Single loop systems are suitable for standard applications without high requirements for accuracy and without consideration of pressure drop at high flow. Double loop regulations on the contrary are much more accurate and also qualified for dynamic processes.

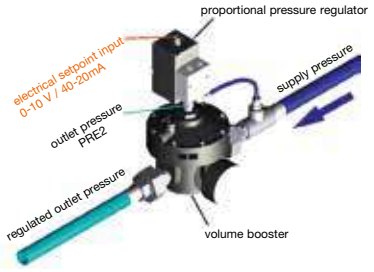
General operational description:
The volume booster and proportional valve are fed by the supply pressure. When no command signal is applied the outlet pressure behind the booster is zero. When the command signal is increased the outlet pressure rises in proportion to it. Since the transmission ratio is not exactly 1:1, a slight pressure difference occurs between the outlet pressure of the proportional valve and the booster's outlet on single loop systems. This can be balanced by a feedback signal (double loop), though.



G¼ up to G3
compressed air or liquids

Single loop

At single loop combinations the pressure difference between command signal and outlet pressure is being ignored because the proportional valve only refers to its own outlet pressure within the pilot chamber. The outlet pressure performance is dependent of the volume booster's accuracy.



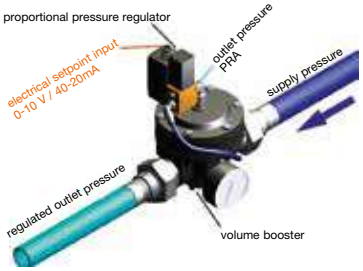
PRE2, R450 with single loop

Double loop

Combinations with a second feedback have the possibility to balance pressure differences. For this a pressure transducer is installed in the outlet line of the booster. The electrical signal of the transducer is applied as a feedback signal onto the proportional valve. The valve detects any pressure differences and compensates them automatically. In high flow applications a pressure drop at the outlet of the pilot regulator is thus minimised.

General features

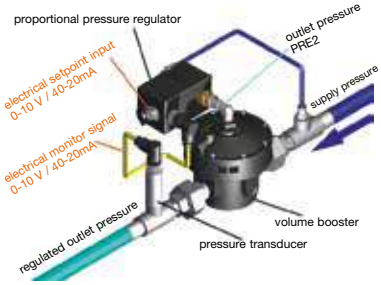
Construction type	The volume booster / proportional valve combinations are delivered completely assembled and calibrated.
Mounting position	preferred horizontal (see figure)
Protection class	IP 54 with ordinary coupling socket as standard, optionally IP 65 for some devices (see according product information sheets)
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for all proportional valves, for booster ranges refer to according product sheets



PRA, R119 with single loop

Pneumatic features

Command signal	The proportional valves may only be fed with dry and 5 µm filtered compressed air. The pneumatic command signal must always be air!
Media	Preferred dry, 5 µm filtered compressed air for supply of the proportional valves. The volume boosters can operate with air or non-corrosive gases, model R120 even with liquids. The respective air consumption and the relieving function strongly have to be regarded.
Inlet pressure	dependent of the according combination (see according product information sheets)
Pressure supply	The proportional valve has to be separately supplied with compressed air with regard to the valve's maximum inlet pressure.
Exhaust	The proportional valve exhausts only the booster's pilot chamber. The booster, if in relieving version, exhausts the volume of the supply pressure line. The relief capacity is subject to the differential pressure.
Volume flow	see specifications of the according volume booster



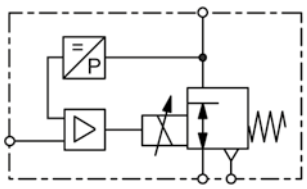
PQ2, R450 with double loop

Electrical features

Supply voltage	All valves have to be supplied with 24 V DC.
Power consumption	see according product information sheets
Setpoint input	0-10 V as standard, optionally 4-20 mA for all valves
Monitor signal	A feedback signal is not reasonable for the single loop version because here only the pressure of the booster's pilot chamber is monitored. That value does not give any information about the outlet pressure behind the booster.

General operational description:
The volume booster and proportional valve are fed by the supply pressure. When no command signal is applied the outlet pressure behind the booster is zero. When the command signal is increased the outlet pressure rises in proportion to it. Since the transmission ratio is not exactly 1:1, a slight pressure difference occurs between the outlet pressure of the proportional valve and the booster's outlet on single loop systems. This can be balanced by a feedback signal (double loop), though.

At single loop combinations the pressure difference between command signal and outlet pressure is being ignored because the proportional valve only refers to its own outlet pressure within the pilot chamber. The outlet pressure performance is dependent of the volume booster's accuracy.



G¼ up to G3
compressed air or liquids

Single loop combination examples

Flow rate l/min	Connection thread G	Outlet pressure bar	Part number Booster	Prop.valve	Order number of combination	E*
R750 with PRE1, for compressed air or non-corrosive gases					setpoint 0-10 V, P_1 max. 17 bar	
1 000	G¼	0... 8	R750-02I	PRE1-U08	**BP1U750-02**	
R450 with PRE1, for compressed air or non-corrosive gases					setpoint 0-10 V, P_1 max. 17 bar	
4 000	G½	0... 8	R450-04I	PRE1-U08	**BP1U450-04**	
R119 with PPA, for compressed air or non-corrosive gases					setpoint 0-10 V, P_1 max. 21 bar	
5 600	G½	0... 10	R119-04J	PPA00-1000	**BP1U119-04**	
9 000	G¾	0... 10	R119-06J	PPA00-1000	**BP1U119-06**	
10 000	G1	0... 10	R119-08J	PPA00-1000	**BP1U119-08**	
12 000	G1½	0... 10	R119-12J	PPA00-1000	**BP1U119-12**	
42 000	G2	0... 10	R119-16J	PPA00-1000	**BP1U119-16**	
44 000	G2½	0... 10	R119-20J	PPA00-1000	**BP1U119-20**	
110 000	G3	0... 10	R119-24J	PPA00-1000	**BP1U119-24**	
RGB4 with PRE1-.A2, for compressed air or gases					setpoint 0-10 V, P_1 max. 4 bar	
700	G½	0...0,2	RGB4-04J	PRE1-UA2	**BP1UGB4-04**	
2 800	G1	0...0,2	RGB4-08J	PRE1-UA2	**BP1UGB4-08**	
5 600	G1½	0...0,2	RGB4-12J	PRE1-UA2	**BP1UGB4-12**	
RZ1 with PRE1-.01/02, for compressed air or gases					setpoint 0-10 V, P_1 max. 16 bar	
2 900	G1	0... 1	RZ3-08J	PRE1-U02	**BP1UZ-08**	
5 700	G1½	0... 1	RZ3-12J	PRE1-U02	**BP1UZ-12**	
21 000	G2	0... 1	RZ2-16J	PRE1-U02	**BP1UZ-16**	
R120 with PPA, for compressed air, gases or liquids					setpoint 0-10 V, P_1 max. 50 bar	
1 200	G½	0... 15	R120-04J2	PPA00-1600	**BP1U120-04**	
4 200	G¾	0... 15	R120-06J2	PPA00-1600	**BP1U120-06**	
5 000	G1	0... 15	R120-08J2	PPA00-1600	**BP1U120-08**	
1 200	G½	0... 50	R120-04J5	PP000-5000	**BP1U120-04J5**	
4 200	G¾	0... 50	R120-06J5	PP000-5000	**BP1U120-06J5**	
5 000	G1	0... 50	R120-08J5	PP000-5000	**BP1U120-08J5**	
14 000	G1½	0... 50	R120-12J5	PP000-5000	**BP1U120-12J5**	
15 000	G2	0... 50	R120-16J5	PP000-5000	**BP1U120-16J5**	

Special options, add the appropriate letter

4-20 mA	input signal	BP1**I** . . . - . . . .



BP1U750-02



BP1U119-16



BP1UZ-08



BP1U120-08J5

* Product group

Gauges: see chapter for measuring devices
Further details: see chapter for single devices

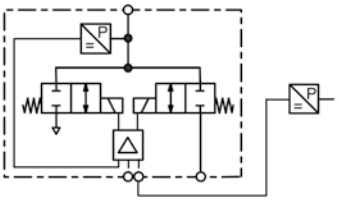
PDF CAD
www.aircom.net

Order example:
BP1U750-02

Proport. pressure
10

General operational description:
The volume booster and proportional valve are fed by the supply pressure. When no command signal is applied the outlet pressure behind the booster is zero. When the command signal is increased the outlet pressure rises in proportion to it. Since the transmission ratio is not exactly 1:1, a slight pressure difference occurs between the outlet pressure of the proportional valve and the booster's outlet on single loop systems. This can be balanced by a feedback signal (double loop), though.

Combinations with a second feedback have the possibility to balance pressure differences. For this a pressure transducer is installed in the outlet line of the booster. The electrical signal of the transducer is applied as a feedback signal onto the proportional valve. The valve detects any pressure differences and compensates them automatically. In high flow applications a pressure drop at the outlet of the pilot regulator is thus minimised.



G½ up to G2
compressed air or non-corrosive gases

Double loop combination example

Flow rate l/min	Connection thread G	Outlet pressure bar	Sensor	Part number Booster	Prop.valve	Order number of combination	E*

R450 with PQ2, for compressed air or non-corrosive gases

setpoint 0-10 V, P_1 max. 17 bar

4000	G½	0... 1	DAV-01H	R450-04I	PQ2EE-01	**BP2U450-0401**
		0... 6	DAV-06H	R450-04I	PQ2EE-06	**BP2U450-0406**
		0...10	DAV-10H	R450-04I	PQ2EE-10	**BP2U450-0410**



BP2U450-0406

R200 with PQ2, for compressed air or non-corrosive gases

setpoint 0-10 V, P_1 max. 17 bar

28000	G1	0... 1	DAV-01H	R200-08I	PQ2EE-01	**BP2U200-0801**
		0... 6	DAV-06H	R200-08I	PQ2EE-06	**BP2U200-0806**
		0...10	DAV-10H	R200-08I	PQ2EE-10	**BP2U200-0810**



BP2U200-0806

RGB4 with PQ2, for compressed air or gases

setpoint 0-10 V, P_1 max. 4 bar

700	G½	0...0.35	DAV-C4H	RGB4-04J	PQ2EE-C4	**BP2UGB4-04**
2800	G1	0...0.35	DAV-C4H	RGB4-08J	PQ2EE-C4	**BP2UGB4-08**
5600	G1½	0...0.35	DAV-C4H	RGB4-12J	PQ2EE-C4	**BP2UGB4-12**



BP2UGB4-12

RZ1 with PQ2, for compressed air or gases

setpoint 0-10 V, P_1 max. 16 bar

2900	G1	0...1	DAV-01H	RZ3-08J	PQ2EE-01	**BP2UZ-08**
5700	G1½	0...1	DAV-01H	RZ3-12J	PQ2EE-01	**BP2UZ-12**
21000	G2	0...1	DAV-01H	RZ2-16J	PQ2EE-01	**BP2UZ-16**

Special options, add the appropriate letter

4-20 mA	input signal	BP2**I** . . . - . . . .



BP2UZ-08

* Product group

Proport. pressure
10

Gauges: see chapter for measuring devices
Further details: see chapter for single devices

PDF CAD
www.aircom.net

Order example:
BP2U450-0401

PROPORTIONAL FLOW VALVES AND MEASUREMENT DEVICE

	DESCRIPTION	DN / Ø	FLOW RATE l/min	CONNECTION thread	DEVICE	PAGE
MEASURING DEVICE	portable		0.02 ... 0.1/ 450	G¼ and G½	VGM	**11.02**
	portable, hand-operated		0.02 ... 0.1/ 450	G¼ and G½	VGR	**11.03**
	for many gases		0.05 ... 0.1/ 6000	G¼ - G1	PVM	**11.06**
	with proportional regulator		0.05 ... 0.1/ 2000	G¼ - G½	PVR	**11.07**
	differential pressure principle		0.03 ... 0.3/ 7000	G¼ - G¾	VPF	www*
PROP. FLOW VALVES	w/o power consumption	0.2 /.../ 1.5	0 ... 3 / 24	M5	PVK	**11.08**
	for air and water	0.1 /.../ 20	0 ..... 0.3 / 1185	G⅛ - G1	PV21...PV40	**11.10**
	extremely small, 7 mW	0.3 / 0.4	0 ... 6 / 7	flange	PV630, PV631	www*
	pulse-width-modulated, mini	0.2 /.../ 0.8	0 ... 1 / 20	flange	PV202	**11.12**
	pulse-width-modulated	1.2 /.../ 7.1	0 ... 70 / 420	G⅛ - G⅜	PV202	**11.13**
	stainless steel	1.2 / 7.1	0 ... 70 / 420	G⅛ - G⅜	PV202-S	**11.13**
	for water	12.5	0 ... 35 / 37	G⅜ u. G½	PV203	**11.13**
	motorised, for liquids	15 / 20	0 ... 1000 / 3500	G½ - G1	P8	**11.14**
	flow valve, Y-type	15 /.../ 65	0 ... 14 / 1233	G½ - G2½	PVE	**11.15**
NEEDLE VALVES	compact	Ø 1.0 - 6.5	0 ..... 0.3 / 425	G¼ and G½	VR6	**11.04**
PINCH VALVES	POM or Aluminium			G⅜ - G3, DN150	Q	**11.16**

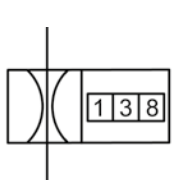


11

* visit our webshop: www.aircom.net

PORTABLE MASS FLOW METER, W/O MANUAL CONTROL VALVE VGM

Description	Thermal mass flow meter based on high precision MEMS technology (CMOS sensor). Pressure and temperature-insensitive according to the CTA constant temperature principle. Also insensitive to pressure surges.		
Media	compressed air or non-corrosive gases	**Operating pressure**	max. 10 bar
Supply voltage	Standard AA battery or Micro-USB power supply (DIN62684), optionally external power +12 ...+30 V DC (max. 200 mA)		
Display	Touch-display 128 x 64 px, blacklighted only with external power supply (Micro-USB or 24 V DC)		
Electrical connector	optionally length 2.0 m, with free ends at 24 V DC	**Function**	totalisator included, physical units can be changed
Alarm functions	3 configurable alarms, programmable as : low alarm, high alarm, window alarm and totalizer alarm. The alarms can be configured with different parameters: delay and alarm duration. Relais: switching current up to 1A, switching voltage 30 V DC		
Accuracy	± 2% FS, from 200 l/min ± 3% FS	**Response time**	500 ms at 99% accuracy
Turndown ratio	1:50 (Eco) or 1:1000 (Special)	**Protection class**	IP 50
Flow regulation	manual fine adjustment by 15 turns	**Mounting position**	any, horizontal from 5 bar on
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	**Warm-up time**	< 1 sec. for full accuracy
Material	Body: aluminium, optionally electropolished stainless steel 316	Elastomer:	FKM, optionally EPDM



2...100 ml/min/450 l/min compressed air or gases accurate to 2%

Dimensions A mm	B mm	C mm	Operating pressure max. bar	Accuracy %	Connection thread G	Flow rate ml/min / l/min	Order number	X*
Mass flow meter						w/o manual control valve, LCD-Display, battery mode, portable, aluminium, FKM	**VGM*1**	
114	44	12.5	10	2	G¼	2 ... 100 ml/min	**VGM-A1**	
				2		4 ... 200 ml/min	**VGM-A2**	
				2		10 ... 500 ml/min	**VGM-A5**	
				2		0.02 ... 1 l/min	**VGM-B1**	
				2		0.04 ... 2 l/min	**VGM-B2**	
				2		0.1 ... 5 l/min	**VGM-B5**	
				2		0.2 ... 10 l/min	**VGM-C1**	
				2		0.4 ... 20 l/min	**VGM-C2**	
				2		1 ... 50 l/min	**VGM-C5**	
160	54	17.5	10	2	G½	2 ... 100 l/min	**VGM-D1**	
				2		4 ... 200 l/min	**VGM-D2**	
				3		4 ... 300 l/min	**VGM-D3**	
				3		9 ... 450 l/min	**VGM-D4**	



VGM-G¼ mass flow meter

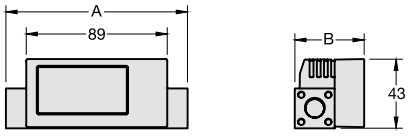


VGM-G½ mass flow meter

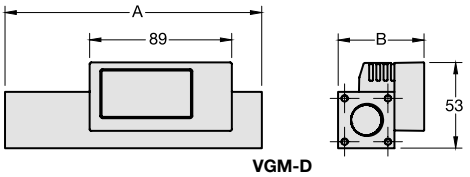
Special options, add the appropriate letter oder number

deviant volume flow	indicate on order		VGM-**XX**
limit switch	min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply		VGM- . .**G**2
stainless steel body	electropolished throughout		VGM- . .**S**
EPDM elastomer		for VGM-A1 to -C5	VGM- . .**E**
24 V DC supply	cable attached on the device, length 2 m, with free ends		VGM- . .**2**
panel mounting	cut-out 48 x 96 mm, protection class IP50 in the front		VGM- . .**T**
0.1% accuracy			VGM- . .**H**
carbon dioxide	CO_2		VGM- . .**03**
argon	Ar		VGM- . .**05**
nitrogen	N_2		VGM- . .**07**
helium	He		VGM- . .**09**
hydrogen	H_2		VGM- . .**11**
methane	CH_4		VGM- . .**13**
oxygen	O_2		VGM- . .**15**
propane	C_3H_8		VGM- . .**16**
nitrous oxide	N_2O		VGM- . .**17**
gases	see above	for G½	VGM-**D** . . .

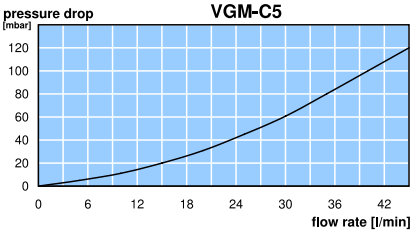
Specific gas calibration			
gas species			max. l/min
nitrogen	07	N_2	450
oxygen	15	O_2	450
argon	05	Ar	300
helium	09	He	450
hydrogen	11	H_2	300
carbon dioxide	03	CO_2	150
propane	16	C_3H_8	80
methane	13	CH_4	100



VGM-A/-B/-C



VGM-D



* Product group

Calibration or test chart: see chapter for technical informations
***1 Note: indicate media, supply and outlet pressure on order**

PDF CAD
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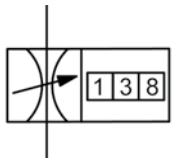
Order example: VGM-A1

PORTABLE MASS FLOW METER, WITH AND WITHOUT MANUAL CONTROL VALVE VGR

Description	Thermal mass flow meter based on high precision MEMS technology (CMOS sensor). Pressure and temperature-insensitive according to the CTA constant temperature principle. Also insensitive to pressure surges.		
Media	compressed air or non-corrosive gases	**Operating pressure**	max. 10 bar
Supply voltage	Standard AA battery or Micro-USB power supply (DIN62684), optionally external power +12 ...+30 V DC (max. 200 mA)		
Display	Touch-display 128 x 64 px, blacklighted only with external power supply (Micro-USB or 24 V DC)		
Electrical connector	optionally length 2.0 m, with free ends at 24 V DC	**Function**	totalisator included, physical units can be changed
Alarm functions	3 configurable alarms, programmable as : low alarm, high alarm, window alarm and totalizer alarm. The alarms can be configured with different parameters: delay and alarm duration. Relais: switching current up to 1A, switching voltage 30 V DC		
Accuracy	± 2% FS, from 200 l/min ± 3% FS	**Response time**	500 ms at 99% accuracy
Turndown ratio	1:50 (Eco) or 1:1000 (Special)	**Protection class**	IP 50
Flow regulation	manual fine adjustment by 15 turns	**Mounting position**	any, horizontal from 5 bar on
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	**Warm-up time**	< 1 sec. for full accuracy
Material	Body: aluminium, optionally electropolished stainless steel 316	Elastomer:	FKM, optionally EPDM



2...100 ml/min/450 l/min compressed air or gases accurate to 2%

Dimensions A mm	B mm	C mm	Operating pressure max. bar	Accuracy %	Connection thread G	Flow rate ml/min / l/min	Order number	X*
Mass flow meter				with manual control valve, LCD-Display, needle valve battery mode, portable, aluminium, FKM			**VGR*1**	
114	44	12.5	10	2	G¼	2 ... 100 ml/min	**VGR-A1**	
				2		4 ... 200 ml/min	**VGR-A2**	
				2		10 ... 500 ml/min	**VGR-A5**	
				2		0.02 ... 1 l/min	**VGR-B1**	
				2		0.04 ... 2 l/min	**VGR-B2**	
				2		0.1 ... 5 l/min	**VGR-B5**	
				2		0.2 ... 10 l/min	**VGR-C1**	
				2		0.4 ... 20 l/min	**VGR-C2**	
				2		1 ... 50 l/min	**VGR-C5**	
160	54	17.5	10	2	G½	2 ... 100 l/min	**VGR-D1**	
				2		4 ... 200 l/min	**VGR-D2**	
				3		4 ... 300 l/min	**VGR-D3**	
				3		9 ... 450 l/min	**VGR-D4**	



VGR-G¼
mass flow meter
with manual control valve

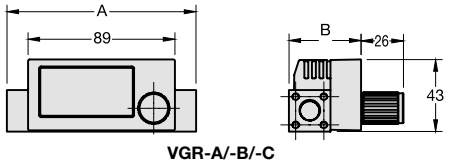


VGR-G½
mass flow meter

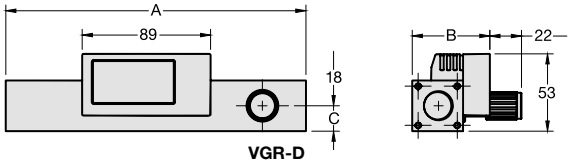
Special options, add the appropriate letter oder number

deviant volume flow	indicate on order		VGR-**XX**
limit switch	min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply		VGR- . .**G**2
stainless steel body	electropolished throughout		VGR- . .**S**
EPDM elastomer		for VGR-A1 to -C5	VGR- . .**E**
24 V DC supply	cable attached on the device, length 2 m, with free ends		VGR- . .**2**
panel mounting	cut-out 48 x 96 mm, protection class IP50 in the front		VGR- . .**T**
0.1% accuracy			VGR- . .**H**
carbon dioxide	CO_2		VGR- . .**03**
argon	Ar		VGR- . .**05**
nitrogen	N_2		VGR- . .**07**
helium	He		VGR- . .**09**
hydrogen	H_2		VGR- . .**11**
methane	CH_4		VGR- . .**13**
oxygen	O_2		VGR- . .**15**
propane	C_3H_8		VGR- . .**16**
nitrous oxide	N_2O		VGR- . .**17**
gases	see above	for G½	VGR-**D** . . .

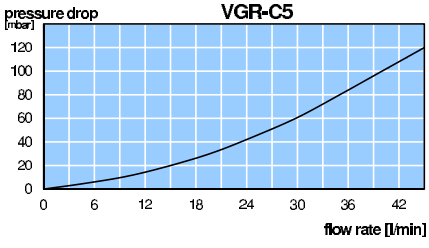
Specific gas calibration			
gas species			max. l/min
nitrogen	07	N_2	450
oxygen	15	O_2	450
argon	05	Ar	300
helium	09	He	450
hydrogen	11	H_2	300
carbon dioxide	03	CO_2	150
propane	16	C_3H_8	80
methane	13	CH_4	100



VGR-A/-B/-C



VGR-D



* Product group

Calibration or test chart: see chapter for technical informations
***1 Note: indicate media, supply and outlet pressure on order**

PDF CAD
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Order example:
VGR-A1

PRECISION NEEDLE VALVE VR6

Description	The modular, compact micro needle valve is for fine-flow adjustment of gases and liquids. It consists of an inner valve and body with straight or angle connector. The valve is free from oil and grease.
Media	5 µm filtered compressed air, non-corrosive gases or liquids
Operating pressure	vacuum up to positive pressure of max. 20 bar
Adjustment	The micro valve has a 15-turn spindle to fully open from a closed condition. It operates with virtually no hysteresis and closes clockwise or optionally counterclockwise. The valve needle is non-rotating and thus provides a stable adjustment.
Panel mounting	borehole 15 mm, mounting through two screws M4x10
Temperature range	-20 °C to 150 °C / - 4 °F to 302 °F for FKM, -40 °C to 150 °C / -40 °F to 302 °F for EPDM
Material	Body: anodized aluminium, optionally stainless steel Elastomer: FKM, optionally EPDM Inner valve: nickel-plated brass, optionally stainless steel Knob: plastic



Ø 0…1/6.5 mm compressed air or liquids

Dimensions A mm	B mm	C mm	Needle size mm	K_v-value (m^3/h)	Flow rate water l/min*2	air l/min*1	Connection thread G	Order number	D*
Precision needle valve with straight pass, right-hand closing, with knob, aluminium/brass/FKM, supply: max. 20 bar								**VR**	
54	64	10	1.0	0.0007	0… 0.01	0… 0.3	G¼	**VR6-02A**	
			1.5	0.005	0… 0.10	0… 2.5		**VR6-02B**	
			2.0	0.01	0… 0.15	0… 7.0		**VR6-02C**	
			2.5	0.04	0… 0.60	0… 17		**VR6-02D**	
			3.0	0.10	0… 2.30	0… 60		**VR6-02E**	
62	80	17.5	4.0	0.58	0… 8.00	0…250	G½	**VR6-04A**	
			6.5	1.00	0… 16	0…425		**VR6-04B**	

Special options, add the appropriate letter

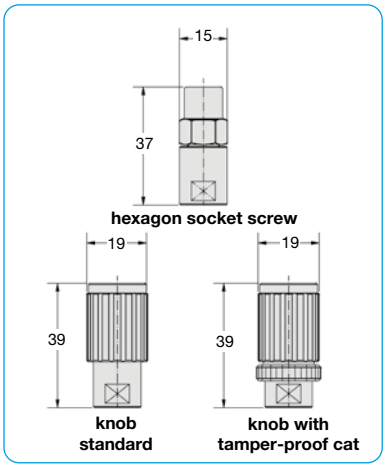
stainless steel body	body and valve made of stainless steel 316	for G¼	VR6-02.**S**
EPDM elastomer	-40 °C to 90 °C / -40 °F to 194 °F, SST body only	for G¼	VR6-02.S**E**
amper-proof cap	on valve with knob, standard		VR6-02.**T**
hexagon socket screw	and locknut		VR6-02.**I**



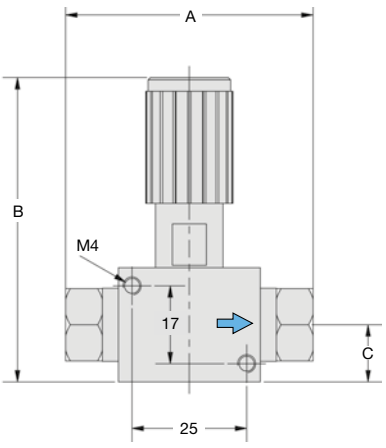
VR6
straight-way valve



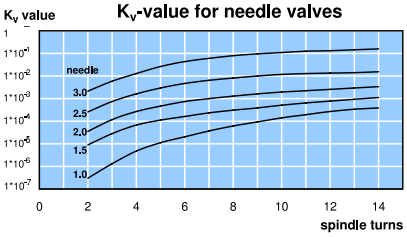
VR6



Options



VR6



*1 at 1 bar operating pressure and open outlet
*2 at 1 bar pressure difference

* Product group

PDF CAD
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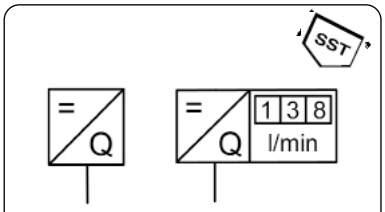
Order example: VR6-02A

Technical features

Benefits:

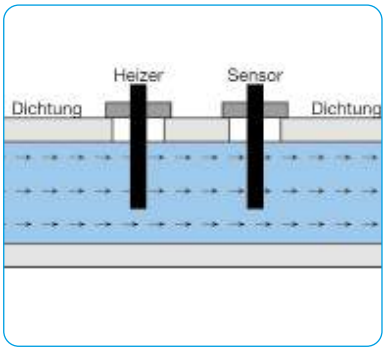
- suitable for nearly all gases and gas mixtures
- no moving parts
- short response time
- unaffected of mounting position
- optionally with unit counter and / or flow meter
- maintenance-free
- low pressure drop



5 ... 100 ml/min / 1000 l/min compressed air or gases

General technical features

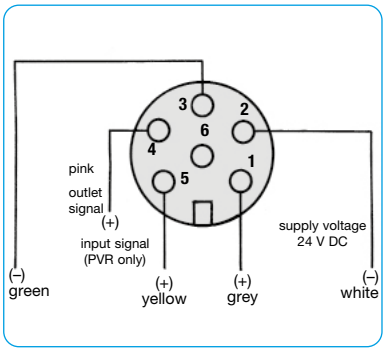
Mounting position	any
Protection class	IP 40
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: aluminium, optionally stainless steel 316L Elastomer: FKM, optionally EPDM or Kalrez Sensor: stainless steel 316L Filter/strainer: stainless steel



functional principle

Pneumatic features

Media	compressed air as well as virtually all gases and mixtures of gases
Operating pressure	max. 10 bar
Differential pressure	max. 5 bar
Mass flow rate	0 ... 100 ml/min / 2000 l/min, for PVR 0 ... 100 ml/min / 6000 l/min, for PVM



PVM and PVR connecting plan

Electrical features

Supply voltage	24 V DC + 10%
Current consumption	max. 75 mA for PVM 11, all other devices max. 250 mA
Signal ranges	4-20 mA, optionally 0 ... 5 V DC
Impedance	> 10 kΩ at voltage signal, < 375 Ω at current signal
Connection	round connector M16x1, 6-pin
EMC	according to CE
Note	at < 100 mbar inlet path is required (PVM only)

Accuracy

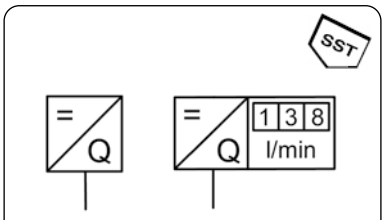
Linearity / Hysteresis	> ± 3 % FS
Repeatability	> ± 0.5% FS
Pressure sensitivity	> ± 0.3% FS / bar typ. (air)
Temperature sensitivity	< ± 0.3% / °C (air)
Mounting sensitivity	< 0.3% FS at 90°
Operating time	25 s at 100% of the range
Tightness	< 2 x 10^{-8} mbar l/s He

model / gas	PVM23 - PVM27	PVM11
air	1.00	1.00
argon	2.01	1.40
CO_2	1.20	0.74
helium	/	1.41
hydrogen	/	1.01
NH_3	0.80	0.77
N_2O_2	1.00	1.00
C_2H_2	0.75	0.61
C_3H_6	/	0.34
C_3H_8	0.63	0.34
CH_4	0.67	0.76
CO	1.04	1.00
C_2H_4	0.89	0.60
NO	1.02	0.97
HCL	1.58	0.99

conversion factors for max. flow rate for other gases

MASS FLOW METER, BASED ON CTA PRINCIPLE — PVM

Description	Mass flow meter directly measuring flow according to constant temperature anemometer principle. PVM 11 measures via a bypass, the other types measure the flow directly.
Features	Low pressure drop and immunity against dirt and humidity. Measurement unaffected by pressure and temperature changes. No moving parts, installation in virtually any position.
Principle	Two stainless steel probes - a heater and temperature probe - protrude inside the bore. A constant difference in temperature is created. The energy required is proportional to flow.
Media	compressed air, air as well as virtually all gases and gas mixtures
Compensation	Neither temperature nor pressure have to be compensated. There are no moving parts within the flow meter, therefore it is virtually wear-free.
Pressure drop	Low pressure drop because solely two stainless steel probes protrude inside the smooth, round measurement cell. The use of screw connections with a nominal size as big as possible is suggested.
Temperature range	0 °C to 50 °C / 32 °F to 122 °F **Operating press.** max. 10 bar **Differential press.** max. 5 bar
Material	Body: aluminium, optionally SST 316L Elastomer: FKM, optionally EPDM or Kalrez Sensor: stainless steel 316L Filter/strainer: stainless steel



5 … 100 ml/min / 6000 l/min compressed air or gases

Mass flow meter

4-20 mA output signal, supply voltage 24 V DC, w/o display, with coupling socket, for compressed air

Dimensions A mm	B mm	C mm	Operating pressure max. bar	Connection thread G	Flow rate ml/min*1 / l/min*1	Order number PVM*2
95	94.5	15	10	G¼	5 … 100 ml/min	**PVM11-12**
					10 … 200 ml/min	**PVM11-22**
					25 … 500 ml/min	**PVM11-52**
					50 … 1 000 ml/min	**PVM11-13**
95	94.5	15	10	G¼	0.10 … 2 l/min	**PVM11-23**
					0.25 … 5 l/min	**PVM11-53**
					0.50 … 10 l/min	**PVM11-14**
95	94.5	15	10	G¼	1 … 20 l/min	**PVM23-24**
					2 … 50 l/min	**PVM23-54**
					5 … 100 l/min	**PVM23-15**
95	98.5	15	10	G½	5 … 100 l/min	**PVM25-15**
					10 … 200 l/min	**PVM25-25**
					20 … 400 l/min	**PVM25-45**
116	123	25	10	G½	20 … 400 l/min	**PVM27-45**
					50 … 1 000 l/min	**PVM27-16**
					100 … 2 000 l/min	**PVM27-26**
130	143	35	10	G1	150 … 2 000 l/min	**PVM28-26**
					200 … 4 000 l/min	**PVM28-46**
					250 … 5 000 l/min	**PVM28-56**



PVM23



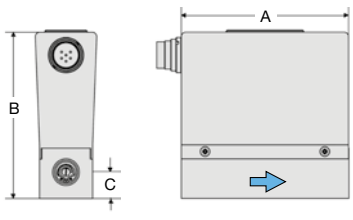
PVM27

Special options, add the appropriate letter oder number

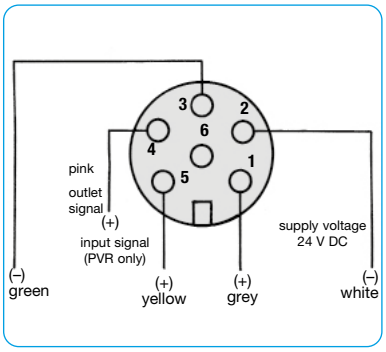
special calibration	range or gas to be indicated on order						PVM . . - . . **Y**
monitor signal	0-5 V, load resistance > 10 kΩ						PVM . . - . . **U**
stainless steel body	316L				for PVM11 to PVM28		PVM . . - . . **S**
					PVM29		PVM . . - . . **S**
EPDM elastomer							PVM . . - . . **E**
Kalrez elastomer							PVM . . - . . **K**
free of oil and grease	for oxygen and different gases						PVM . . - . . **L**
carbon dioxide	CO_2:	**03**	**argon**	Ar:	**05**	**nitrogen** N_2:	PVM . . - . . . **07**
helium	He:	**09**	**hydrogen**	H_2:	**11**	**methane** CH_4:	PVM . . - . . . **13**
oxygen	O_2:	**15**	**propane**	C_3H_8:	**16**	**nitrous oxide** N_2O:	PVM . . - . . . **17**

Accessories, enclosed

coupling socket	M16x1, 6-pin with 3 m Kabel	straight	**KM16-A6-3**
other cable length	5 m or 10 m available		



PVM



connecting plan

*1 valid for compressed air at Δp= 5 bar and open outlet. For other gases please apply conversion factor

*2 **Note: indicate media, supply and outlet pressure, temperature on order**

PDF CAD
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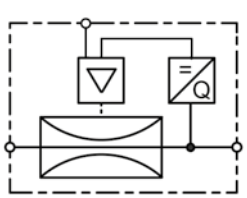
* Product group

Order example: PVM11-12

PROPORTIONAL MASS FLOW CONTROLLER, BASED ON CTA PRINCIPLE PVR

Description	Mass flow meter directly measuring flow according to constant temperature anemometer principle. The measured setpoint is compared with the nominal value. The valve will be readjusted accordingly.
Mechanical Construction	PVR11/12/23: mass flow meter and meter in the same housing PVR 25: mass flow meter and meter together at the measuring bob PVR27: mass flow meter and meter as single components are bolted together
Media	compressed air, air as well as virtually all gases and gas mixtures
Compensation	Neither temperature nor pressure have to be compensated. There are no moving parts within the flow meter, therefore it is virtually wear-free.
Pressure drop	Low pressure drop because solely two stainless steel probes protrude inside the smooth, round measurement cell. The use of screw connections with a nominal size as big as possible is suggested.
Temperature range	0 °C to 50 °C / 32 °F to 122 °F **Operating press.** max. 10 bar **Differential press.** max. 5 bar
Material	Body: aluminium, optionally SST 316L Elastomer: FKM, optionally EPDM or Kalrez Sensor: stainless steel 316L Filter/strainer: stainless steel



5 … 100 ml/min / 6000 l/min compressed air or gases

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Operating pressure max. bar	Connection thread G	Mass flow ml/min*1 / l/min*1	Order number	E*
Mass flow regulator				4-20 mA input and output signal, supply voltage 24 V DC, w/o display, with coupling socket, for compressed air			**PVR*3**	
95	94.5	15	0.066	10	G¼	5 … 100 ml/min	**PVR11-12**	
						10 … 200 ml/min	**PVR11-22**	
						25 … 500 ml/min	**PVR11-52**	
						50 … 1000 ml/min	**PVR11-13**	
95	94.5	15	0.066	10	G¼	0.10 … 2 l/min	**PVR11-23**	
						0.25 … 5 l/min	**PVR11-53**	
						0.50 … 10 l/min	**PVR11-14**	
95	97	15	0.066	10	G¼*2	0.50 … 10 l/min	**PVR12-14**	
						1.00 … 20 l/min	**PVR12-24**	
						2.50 … 50 l/min	**PVR12-54**	
95	94.5	15	0.066	10	G¼	1 … 20 l/min	**PVR23-24**	
						2 … 50 l/min	**PVR23-54**	
					G½	5 … 100 l/min	**PVR23-15**	
145	132	16	0.30	10	G½	5 … 100 l/min	**PVR25-15**	
						10 … 200 l/min	**PVR25-25**	
						20 … 400 l/min	**PVR25-45**	
257	163	25	1.0	10	G½	25 … 400 l/min	**PVR27-45**	
						50 … 1000 l/min	**PVR27-16**	
						100 … 2000 l/min	**PVR27-26**	



PVR23



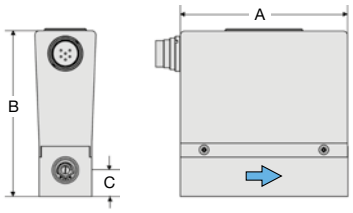
PVR25

Special options, add the appropriate letter oder number

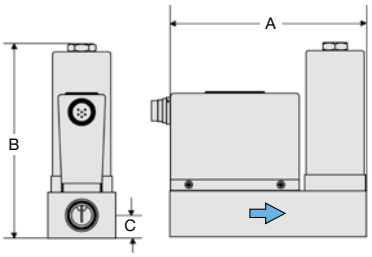
special calibration	range or gas to be indicated on order									PVR . . - . . **Y**
setpoint /monitor signal	0-5 V, load resistance > 10 kΩ									PVR . . - . . **U**
stainless steel body	316L									PVR . . - . . **S**
EPDM elastomer										PVR . . - . . **E**
Kalrez elastomer										PVR . . - . . **K**
free of oil and grease	for oxygen and different gases									PVR . . - . . **L**
potentiometer in cover	for flow regulation, height +40 mm									PVR . . - . . **X67**
carbon dioxide	CO_2:	**03**	**argon**	Ar:	**05**	**nitrogen**	N_2:	PVR . . - . . . **07**		
helium	He:	**09**	**hydrogen**	H_2:	**11**	**methane**	CH_4:	PVR . . - . . . **13**		
oxygen	O_2:	**15**	**propane**	C_3H_8:	**16**	**nitrous oxide**	N_2O:	PVR . . - . . . **17**		

Accessories, enclosed

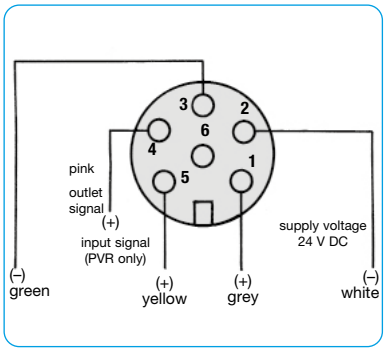
coupling socket	M16x1, 6-pin with 3 m Kabel	straight	**KM16-A6-3**
other cable length	5 m or 10 m available		



PVR11 … PVR23



PVR25 / PVR27



connecting plan

*1 valid for compressed air at Δp= 5 bar and open outlet. For other gases please apply conversion factor.
*2 connection thread G½ on the input side

* Product group

*3 **Note: indicate media, supply and outlet pressure, temperature on order**

PDF CAD
www.aircom.net

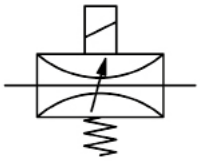
Order example: PVR11-12

MINIATURE PROPORTIONAL VOLUME FLOW REGULATOR PVK

Description	Small proportional flow valve for regulating both air and non-corrosive gases. Voltage signal 10 V as standard or optionally 5 V or 20 V DC.
Media	50 µm filtered compressed air or non-corrosive gases
Operating pressure	see chart, max. 7 bar

Electrical specification	**command signal**	**max. voltage**	**resistance**	**current consumption**	**power consumption**
	0 - 5 V DC	0 - 6.2 V DC	13 Ω	0 - 370 mA	1.9 W
	0 - 10 V DC	0 - 12.4 V DC	54 Ω	0 - 185 mA	1.9 W
	0 - 20 V DC	0 - 24.8 V DC	218 Ω	0 - 92 mA	1.9 W

Electrical connection	solder lug or terminal lug, 2.5 x 0.5 mm		
Mounting position	any		
Hysteresis	± 10% FS	**Repeatability**	± 3% FS
Temperature range	0 °C to 60 °C / 32 °F to 140 °F		
Material	Body: nickel-plated brass Inner valve: stainless steel and brass	Elastomer:	NBR/Buna-N, optionally FKM or EPDM



DN 0.2 up to DN 1.5
0 - 5 / 10 / 20 V DC

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate l/min*1	Operating pressure max. bar	Connection thread M5	Order number
Volume flow regulator M5								**PVK**
20	40	5	0.2	0.03	0…3	1.7	M5	**PVK-092**
						3.5		**PVK-093**
						7.0		**PVK-097**
20	40	5	0.3	0.07	0…7	1.7	M5	**PVK-132**
						3.5		**PVK-133**
						7.0		**PVK-137**
20	40	5	0.6	0.24	0…24	1.7	M5	**PVK-252**
						3.5		**PVK-253**
						7.0		**PVK-257**
20	40	5	1.0	0.18	0…19	1.7	M5	**PVK-402**
						3.5		**PVK-403**
20	40	5	1.5	0.14	0…14	1.7	M5	**PVK-602**



PVK-257
with M5 connection



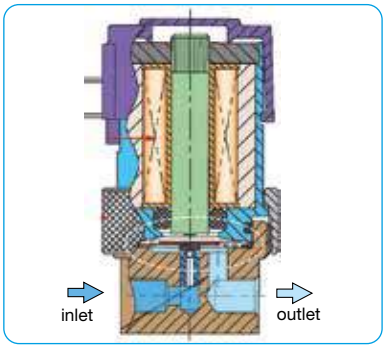
PVK-092AF
with flange connection

Special options, add the appropriate letter

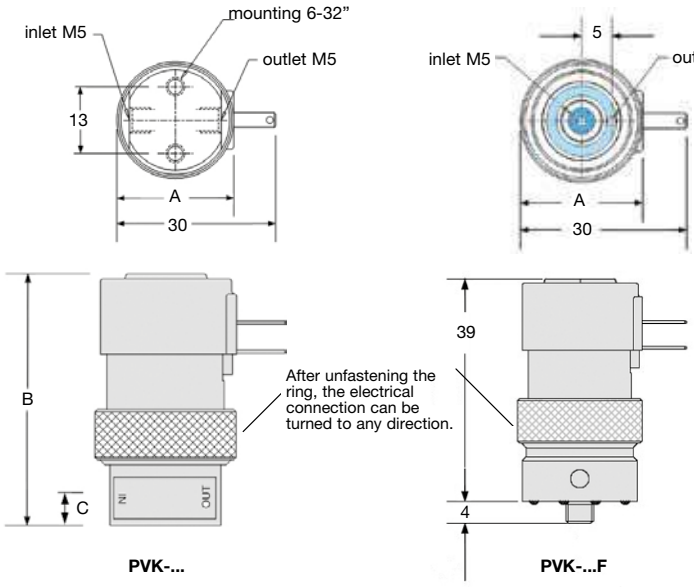
0 - 5 V	input signal max. 6,2 V, 0 - 370 mA, 13 Ω	PVK-. . .**A**
0 - 20 V	input signal max. 25 V, 0 - 92 mA, 218 Ω	PVK-. . .**C**
flange connection	for panel mounting	PVK-. . .**F**
FKM elastomer		PVK-. . .**V**
EPDM elastomer		PVK-. . .**E**

Accessories, enclosed

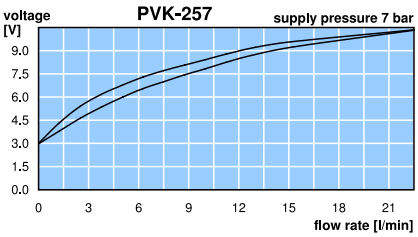
manifold block for valve with flange connection, for 2, 4 ... 12 valves



cross section



PVK-... **PVK-...F**



*1 at max. current consumption and max. operating pressure

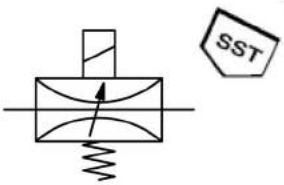
* Product group

More miniature valves: see catalogue MV, also in ATEX version

PDF CAD
www.aircom.net

Order example:
PVK-092

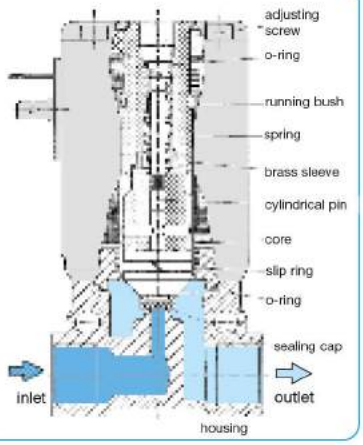
Description	2-way proportional flow valve controls the volume flow of maximum 1185 l/min for air in proportion to the input signal of 0 to 10 V or 0/4 to 20 mA. The proportional valve and the electronic control unit are ordered separately.
Product selection	To achieve the best linear flow characteristics, it is advisable not to reduce the flow too much and to have enough pressure drop at the valve for good control. Reference value: at the valve > 30% of the total pressure drop.
Installation hint	The nominal width of the orifice following the proportional valve should not be smaller than the nominal width of the valve. A constriction of the cross-section after the valve should be categorically avoided!



G⅛ up to G1
compressed air or liquids

General technical features

Design	2-way proportional flow valve, normally closed during absence of current, with additional control module in cable plug or in housing for DIN rail mounting.			
Mounting position	any, preferably upright			
Protection class	IP 65 with coupling socket, IP 40 for DIN rail version			
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F for mediua -10 °C to 55 °C / 14 °F to 131 °F for electronics			
Material	Body: brass	Inner valve:	brass and stainless steel	
	Elastomer:	FKM	Control housing:	plastic



cross section

Pneumatic features

Media	compressed air, non-corrosive gases or liquids, max. viscosity 21 mm²/s, PV40 **for liquids only**
Operating pressure	see chart, max. 16 bar
Flow rate	0...2 / 1185 l/min for air, 0...0.03 / 83 l/min for liquids in detail see chart, at max. supply pressure and Δp = 1 bar

Electrical features

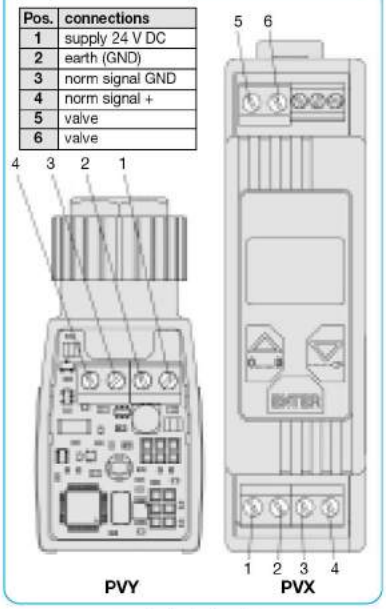
Supply voltage	24 V DC ± 10%, residual ripple max. 5%, with reverse voltage protection

Power consumption

electronic	PV21	PV21	PV22	PV34	PV40-04	PV40-06	PV40-08
1 W	2 W to DN 0.6	5 W from DN 0.8 on	9 W	16 W	8 W	10 W	15 W

Command signal	0-5 V, 0-10 V, 0-20 mA or 4-20 mA selectable
Impedance	> 20 kΩ at voltage signal < 200 Ω at current signal
Electrical connector	PV21: square connector according to DIN 43650 form B PV22...PV40: square connector according to DIN 43650 form A

Pos.	connections
1	supply 24 V DC
2	earth (GND)
3	norm signal GND
4	norm signal +
5	valve
6	valve



control electronics

Accuracy

Linearity	< 10 % FS
Hysteresis	< 5 % FS
Response sensitivity	< 0.1% FS at DN < 0,8 mm, < 0.25% FS at DN ≥ 0,8 mm, < 1% FS at PV40
Repeatability	< 0.25% FS at PV22 < 0.5% FS
Regulating time	PV21: < 15 ms, PV22: < 20 ms, PV34: < 50 ms, PV40: < 200 ms each for 90% of the range

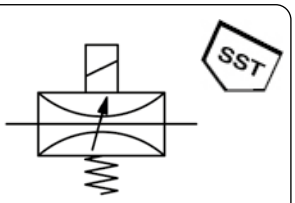
Adjustment

Zero point	The zero point can be decreased or increased.
Range	The range can be decreased or increased.
Ramp	The ramping potentiometer adjusts the time delay with a range of 0 to 10 s in order to dampen sudden changes of the setpoint. Increasing and decreasing ramps have the same delay.
Zero point switch	Using a DIP switch, the zero point switch can be activated or deactivated. It is not necessary to have another switch-off valve.

* Product group

Technical features

• **Media**	compressed air, non-corrosive gases or liquids, except for PV40	• **Linearity**	< 10% FS
• **Signal range**	0-5 V, 0-10 V, 0-20 mA, 4-20 mA	• **Hysteresis**	< 5% FS
• **Pressure range**	vacuum ... 2 / 16 bar	• **Response sensitivity**	< 0.1% FS at DN < 0.8 mm < 0.25% FS at DN ≥ 0.8 mm < 1% FS at PV40
• **Orifice**	DN 0.1 ... DN 20	• **Repeatability**	< 0.25% FS, < 0.5% FS at PV22
• **Flow rate**	max. 1185 l/min for air, max. 90 l/min for water	• **Regulating time**	depending on type: < 15 ms, < 20 ms, < 50 ms or < 200 ms
• **Adjustment**	zero point, range and ramp	• **Protection class**	IP65 with plug
• **Zero switch-off**	ensures reliable closure of the valve	• **Impedance**	> 20 kΩ at V, < 200 Ω at mA



G⅛ up to G1
compressed air or liquids

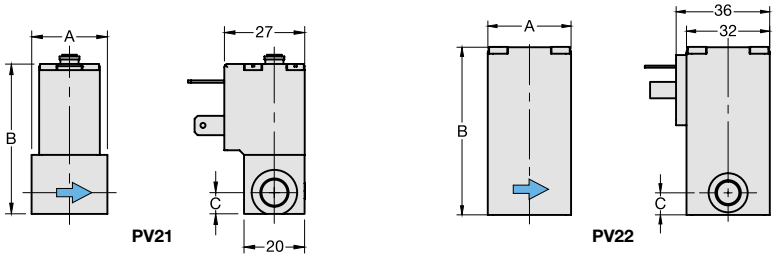
Dimensions A	B	C	Nominal size	K_v-value	Flow rate water	air	Operating pressure	Differ.-press.	Connection thread	Order number	E*
mm	mm	mm	DN	(m^3/h)	l/min*1	l/min*2	max. bar	max. bar	G		
Proportional flow valve							without electronics, brass, FKM, for compressed air, vacuum or liquids*2			**PV**	
25	50	7	0.1	0.00025	0... 0.004	0... 0.27	10	10	G⅛	**PV21-01**	
25	50	7	0.2	0.001	0... 0.017	0... 1.0	10	10	G⅛	**PV21-02**	
25	50	7	0.3	0.002	0... 0.033	0... 2.2	10	10	G⅛	**PV21-03**	
25	50	7	0.4	0.004	0... 0.067	0... 4.0	8	8	G⅛	**PV21-04**	
25	50	7	0.6	0.010	0... 0.167	0... 11	6	6	G⅛	**PV21-06**	
25	50	7	0.8	0.018	0... 0.3	0... 19	12	6	G⅛	**PV21-08**	
25	50	7	0.8	0.018	0... 0.3	0... 19	12	12	G⅛	**PV21-08B**	
25	50	7	1.0	0.027	0... 0.3	0... 19	10	5	G⅛	**PV21-10**	
25	50	7	1.0	0.027	0... 0.3	0... 19	10	10	G⅛	**PV21-10B**	
25	50	7	1.2	0.038	0... 0.633	0... 41	8	4	G⅛	**PV21-12**	
25	50	7	1.2	0.038	0... 0.633	0... 41	8	8	G⅛	**PV21-12B**	
25	50	7	1.6	0.055	0... 0.917	0... 59	6	3	G⅛	**PV21-16**	
25	50	7	1.6	0.055	0... 0.917	0... 59	6	6	G⅛	**PV21-16B**	
25	50	7	2.0	0.090	0... 1.5	0... 97	3	1.5	G⅛	**PV21-20**	
25	50	7	2.0	0.090	0... 1.5	0... 97	3	3	G⅛	**PV21-20B**	
32	66	8.5	0.8	0.018	0... 0.3	0... 19	16	8	G⅛	**PV22-08**	
32	66	8.5	0.8	0.018	0... 0.3	0... 19	16	16	G⅛	**PV22-08B**	
32	66	8.5	1.0	0.027	0... 1.0	0... 65	14	7	G⅛	**PV22-10**	
32	66	8.5	1.0	0.027	0... 1.0	0... 65	14	14	G⅛	**PV22-10B**	
32	66	8.5	1.2	0.040	0... 0.67	0... 43	12	6	G⅛	**PV22-12**	
32	66	8.5	1.2	0.040	0... 0.67	0... 43	12	12	G⅛	**PV22-12B**	
32	66	8.5	1.5	0.060	0... 1.0	0... 65	10	5	G⅛	**PV22-15**	
32	66	8.5	1.5	0.060	0... 1.0	0... 65	10	10	G⅛	**PV22-15B**	
46	72	8.5	2.0	0.10	0... 1.66	0...108	8	4	G¼	**PV22-20**	
46	72	8.5	2.0	0.10	0... 1.66	0...108	8	8	G¼	**PV22-20B**	
46	72	8.5	2.5	0.15	0... 2.5	0...162	5	2.5	G¼	**PV22-25**	
46	72	8.5	2.5	0.15	0... 2.5	0...162	5	5	G¼	**PV22-25B**	
46	72	8.5	3.0	0.22	0... 3.67	0...237	3.5	1.8	G¼	**PV22-30**	
46	72	8.5	3.0	0.22	0... 3.67	0...237	3.5	3.5	G¼	**PV22-30B**	
46	72	8.5	4.0	0.32	0... 5.33	0...345	2	1	G¼	**PV22-40**	
46	72	8.5	4.0	0.32	0... 5.33	0...345	2	2	G¼	**PV22-40B**	



PV21



PV22



*1 at max. operating pressure and Δp = 1 bar *2 at pressure drop from 6 bar down to 5 bar

* Product group

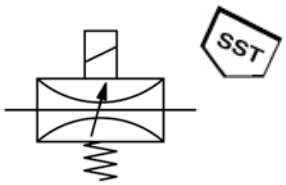
Technische Daten: siehe vorherige Seite

PDF CAD
www.aircom.net

Order example:
PV21-01

Technical features

• **Media**	compressed air, non-corrosive gases or liquids, except for PV40	• **Linearity**	< 10% FS
• **Signal range**	0-5 V, 0-10 V, 0-20 mA, 4-20 mA	• **Hysteresis**	< 5% FS
• **Pressure range**	vacuum ... 2 / 16 bar	• **Response sensitivity**	< 0.1% FS at DN < 0.8 mm < 0.25% FS at DN ≥ 0.8 mm < 1% FS at PV40
• **Orifice**	DN 0.1 ... DN 20	• **Repeatability**	< 0.25% FS, < 0.5% FS at PV22
• **Flow rate**	max. 1185 l/min for air, max. 90 l/min for water	• **Regulating time**	depending on type: < 15 ms, < 20 ms, < 50 ms or < 200 ms
• **Adjustment**	zero point, range and ramp	• **Protection class**	IP65 with plug
• **Zero switch-off**	ensures reliable closure of the valve	• **Impedance**	> 20 kΩ at V, < 200 Ω at mA



G⅛ up to G1
compressed air or liquids

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate water l/min*1	air l/min*2	Operating pressure max. bar	Differ.-press. max. bar	Connection thread G	Order number	E*
Proportional flow valve without electronics, brass, FKM, for compressed air, vacuum or liquids*2										**PV**	
55	105	11	4.0	0.45	0 ... 7.5	0 ... 485	8	4	G⅜	**PV34-40**	
55	105	11	4.0	0.45	0 ... 7.5	0 ... 485	8	8	G⅜	**PV34-40B**	
55	105	11	6.0	0.80	0 ... 13.3	0 ... 860	4	2	G½	**PV34-60**	
55	105	11	6.0	0.80	0 ... 13.3	0 ... 860	4	4	G½	**PV34-60B**	
55	105	11	8.0	1.10	0 ... 18.3	0 ... 1185	2	1	G½	**PV34-80**	
55	105	11	8.0	1.10	0 ... 18.3	0 ... 1185	2	2	G½	**PV34-80B**	
50	89	12	10	1.4	0 ... 25.0*3	-	10		G½	**PV40-04**	
58	110	14	13	2.5	0 ... 45.0*3	-	10		G¾	**PV40-06**	
80	155	16	20	5.0	0 ... 90.0*3	-	10		G1	**PV40-08**	



PV34



PV40

Special options, add the appropriate letter

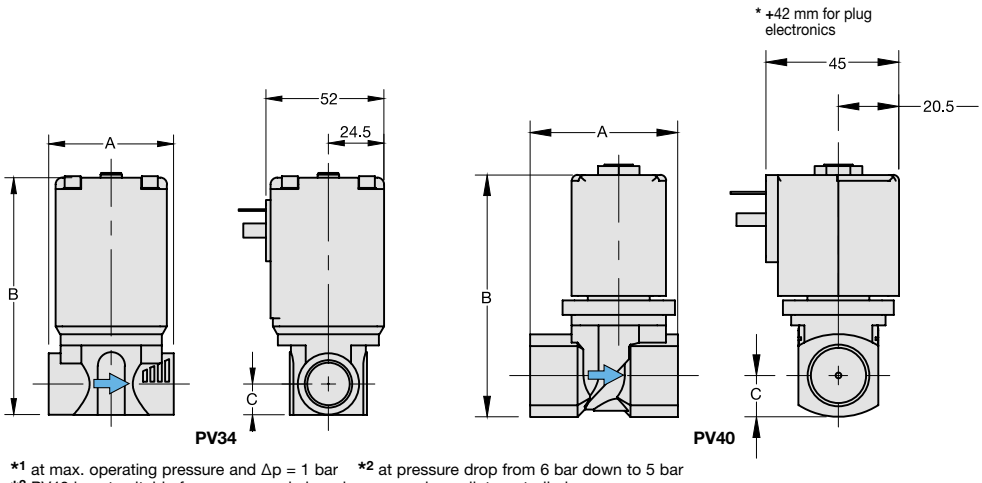
stainless steel body	SST 316, W.-No. 1.4401	for PV21 to PV34	PV . . - . . **S**

Accessories, enclosed

plug electronics	24 V DC, 0-5 V, 0-10 V, 0/4 mA-20 mA	for PV22 to PV40	**PVY-06**
clip-on electronics	24 V DC, 0-5 V, 0-10 V, 0/4 mA-20 mA	for PV21	**PVX-01**
		for PV22 to PV40	**PVX-02**
coupling socket	according to DIN 43650 form B	for PV21	**2285-0**
	according to DIN 43650 form A	for PV22 to PV40	**2286-0**



PVY **PVX**



*1 at max. operating pressure and Δp = 1 bar *2 at pressure drop from 6 bar down to 5 bar
*3 PV40 is not suitable for compressed air and vacuum, since pilot-controlled

* Product group

Technical informations: see previous page

PDF CAD
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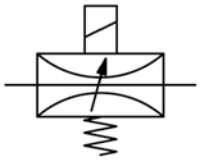
Order example: PV34-40

Description	The miniature flow valve is highly reliable and combines precise control of flow rate with compact design and only 80 g weight. It can be used for vacuum or pressure up to 12 bar. Plug amplifier required.		
Media	50 µm filtered compressed air, vacuum or non-corrosive gases		
Plug amplifier	Conversion of the analogue signal into a pulse-wide modulated current. Supply voltage: 24 V DC, max. 1.1 A Switchable signal: 0…10 V, 0…20 mA, 4…20 mA Close function: < 2% of max. signal	Adjustment: zero point and range Time ramp: 0.1 to 3 s selectable Frequency: 1000 Hz	
Electrical connector	plug, contact gap 9.4 mm, 3-pin, with coupling socket (Pg 7P)		
Operating pressure	see chart, max. 10 bar	**Life cycle**	> 100 million cycles
Repeatability	< 3% FS	**Linearity**	< 8% FS
Response sensitivity	< 2% FS	**Hysteresis**	< 5% FS
Polarity	any for valve	**Protection class**	IP 65 with coupling socket
Mounting position	any	**Temperature range**	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: brass Inner valve: stainless steel and brass	Elastomer: FPM Manifold: brass (M5), zinc die-cast (G⅛), polyamide (Ø4)	



DN 0.8 to DN 2.0
compressed air or gases

Description	Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate l/min*1	Operating pressure max. bar	Nominal size DN	Order number	E*
Proportional flow valve flangeable, w/o manifold block, with coupling socket, for compressed air, 24 V DC, direct control, w/o amplifier								**PV202**	
NC	15	48	53	0.0012	0… 1	10	0.2	**PV202-002**	
				0.0048	0… 5	10	0.4	**PV202-004**	
				0.0096	0… 11	10	0.6	**PV202-006**	
				0.0180	0… 20	10	0.8	**PV202-008**	



PV202

Special options, add the appropriate letter

12 V DC	voltage signal	PV202-0. .**V**



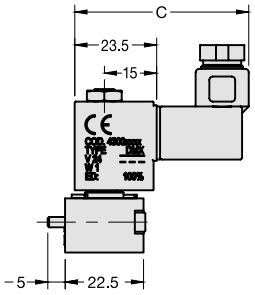
PV202
accessory: manifold block M5

Accessories, enclosed

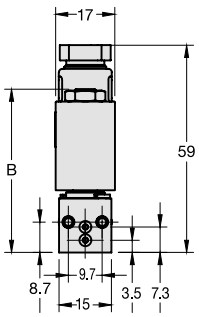
plug amplifier	24 V DC, switchable 0-10 V, 0-20 mA, 4-20 mA	**PVY-05**
manifold block	**M5**	**AP-01**
	G⅛	**AP-02**
	Ø4	**AP-03**
in-line manifold	**Ø4**	**AP-04**
	G⅛	**AP-05**

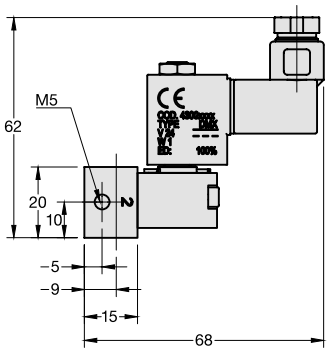


PVY-05

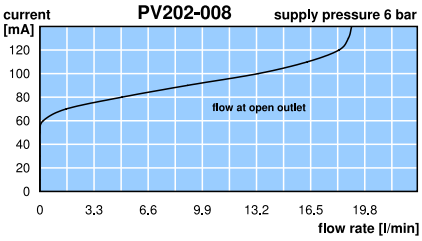


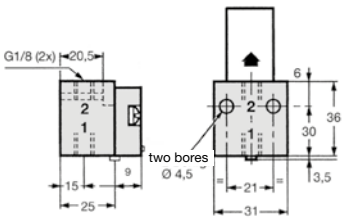
PV202



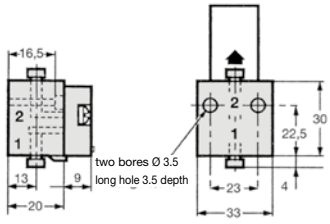


AP-01

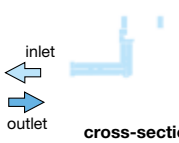




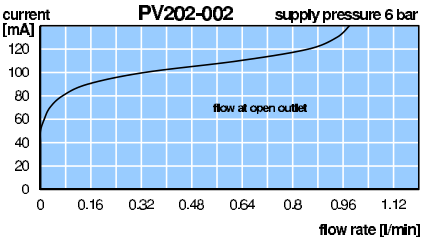
AP-02



AP-03



cross-section



*1 operating pressure 6 bar and Δp = 1 bar

* Product group

More miniature valves: see catalogue MV, also in Ex ATEX version

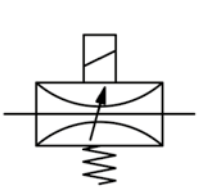
PDF CAD
www.aircom.net

Order example:
PV202-002

PROPORTIONAL FLOW VALVE PV202 / PV203

Description	The proportional flow valve can be controlled either by 24 V DC or optionally by a plug amplifier with switchable signals.		
Media	50 µm filtered compressed air, vacuum, non-corrosive gases or liquids		
Plug amplifier	Conversion of the analogue signal into a pulse-wide modulated current.		
	Supply voltage: 24 V DC, max. 1.1 A	Adjustment:	zero point and range
	Switchable signal: 0…10 V, 0…20 mA, 4…20 mA	Time ramp:	0.1 to 3 s selectable
	Close function: < 2% of max. signal	Hum frequency:	40 to 700 Hz selectable
Electrical connector	plug, 3-pin, with coupling socket (Pg 9P or PG 11P)	**Operating pressure**	see chart, max. 12 bar
Protection class	IP 65 with coupling socket	**Mounting position**	any
Temperature range	-10 °C to 90 °C / 14 °F to 194 °F at **G⅛: 0 °C to 50°C / 32 °F to 122 °F**		

	PV202, G⅛	PV202, G¼ / G⅜	PV203, G⅜ / G½
Viscosity max.	-	21 mm²/s	40 mm²/s
Power consumption	100…450 mA, 8.6 W	100…500 mA, 11 W	100…500 mA, 11 W
Hysteresis / Sensitivity	< 5% FS / < 1% FS	< 5% FS / < 2% FS	< 7.5% FS / < 2% FS
Repeatability	< 1% FS	< 3% FS	< 3% FS
Body / Inner valve	brass/SST, PTFE, FKM	brass/SST, PTFE, FKM	brass/SST, PTFE, NBR/Buna-N



DN 1.2 up to DN 12.5
compressed air or liquids

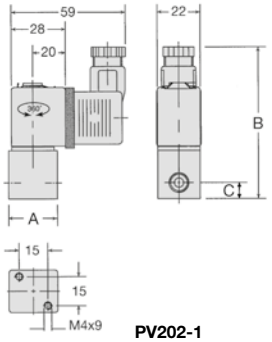
Dimensions A mm	B mm	C mm	Media A: air W: water	Nominal size DN	K_v-value (m^3/h)	Flow rate l/min*1	Supply max. bar	Connection thread G	Order number	E*
Proportional flow valve			24 V DC, direct control, without amplifier, with coupling socket, made of brass						**PV202 / PV203**	
25	78	8	A	1.2	0.05	0… 70	8.0	G⅛	**PV202-1-12**	
				1.6	0.07	0…110	6.0		**PV202-1-16**	
				2.4	0.13	0… 70	4.0		**PV202-1-24**	
				3.2	0.18	0…105	2.5		**PV202-1-32**	
40	95	20	A/W*3	1.2	0.05	0… 60	16	G¼	**PV202-2-12**	
				2.4	0.12	0…110	8.0		**PV202-2-24**	
				3.2	0.24	0…170	4.0		**PV202-2-32**	
				4.0	0.42	0…280	2.5		**PV202-2-40**	
				5.6	0.72	0…310	1.4		**PV202-2-56**	
				7.1	0.90	0…390	1.0		**PV202-2-71**	
48	97	14	A/W*3	3.2	0.24	0…190	4.0	G⅜	**PV202-3-32**	
				4.0	0.42	0…300	2.5		**PV202-3-40**	
				5.6	0.72	0…330	1.4		**PV202-3-56**	
				7.1	0.90	0…420	1.0		**PV202-3-71**	
52	105	14	W	12.5	2.10	0… 35*2	10	G⅜	**PV203-3-125W**	
				12.5	2.10	0… 37*2	10	G½	**PV203-4-125W**	

Special options, add the appropriate letter

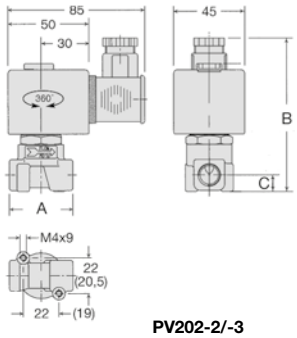
for water or oil		for PV202, G¼ and G⅜	PV202-.-..**W**
stainless steel body	NPT connection thread, FKM elastomere	for PV202	PV202-.-..**S**
12 V DC	voltage signal		PV20.-.-..**12V**

Accessories, enclosed

plug amplifier	24 V DC, switchable 0-10 V, 0-20 mA, 4-20 mA	for PV202, G⅛	**PVY-03**
		for all others	**PVY-04**
plug amplifier	12 V DC, switchable 0-10 V, 0-20 mA, 4-20 mA	für PV202, G⅛	**PVY-08**
		for all others	**PVY-09**



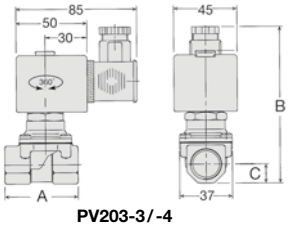
PV202-1



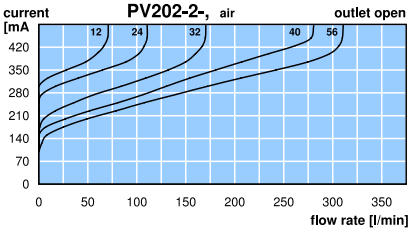
PV202-2/-3

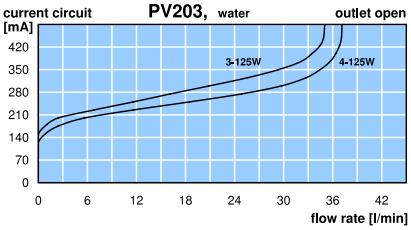


cross-section



PV203-3/-4





*1 for compressed air at operating pressure 6 bar and Δp = 1 bar
*2 flow rate for water since valve is pilot-controlled
*3 for liquids add **W** to order number of type PV202-2/-3


PV202-1


PV202-2


PV203-4


PVY-03

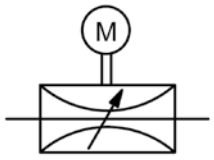
* Product group

Weitere Miniaturventile: siehe Katalog MV, auch in Ex

PDF CAD
www.aircom.net

Order example:
PV202-1-12

Description	Motorised proportional flow valve with low power consumption and resistance to contamination. Throttle setting by wear-resistant control drives made of oxide ceramic. Throttling occurs with drip-tight zero shut-off but no gas tightness.
Media	compressed air, vacuum or liquids up to viscosity of 40 mm²/s Hysteresis ± 4%
Operation	DC, synchronous or stepping motor with standard voltage of 24 V DC or AC 10% residual ripple. All motors fulfil standards EN50.081-1, EN50.082-2 and 89/336/EEC.
DC motor (15 / 24)	Motor with feedback potentiometer for servo-amplifier. Resistor 1kΩ ± 20 %, control e.g. by servo-amplifier. Only part of potentiometer range is used. Voltage for potentiometer: 12 V, max. 10 mA.
DC motor (50 / 51)	With integrated position controller. Setpoint input using jumpers: 0...10 V, 0/4...20 mA. Input resistance: 200 kΩ at voltage signal, 500 Ω at current signal.
Stepper motor (38)	Bipolar, by means of SAA1042A (Motorola) with drop resistance of 44 Ω per phase at a driver (full-step) operating voltage of 24 V ± 5%. 2028 steps for 90° control disc turn, 200 Hz nominal step frequency.
Temperature range	10 °C to 90 °C / 14 °F to 194 °F **Protection class** IP 54
Material	Body: brass Control discs: oxide ceramic Elastomer: NBR/Buna-N, optionally FKM or EPDM



G½ up to G1
compressed air or liquids

Dimensions A mm	B mm	C mm	Nominal size DN	K_v-value (m^3/h)	Flow rate water l/min*1	air l/min*1	Supply max. bar	Connection thread G	Order number	E*
Proportional flow valve					DC motor type 15, with potentiometer, 120 Ncm, 24 V DC, switching time 5 s*2				**P8**	
55	147	13	15	1.1	0...20	0...1000	16	G½	**P822-15**	
55	147	13	20	3.4	0...60	0...3000	6	G½	**P82A-15**	
95	164	24	20	4.4	0...70	0...3500	6*3	G¾	**P823-15**	
95	164	24	20	4.4	0...70	0...3500	6*3	G1	**P824-15**	

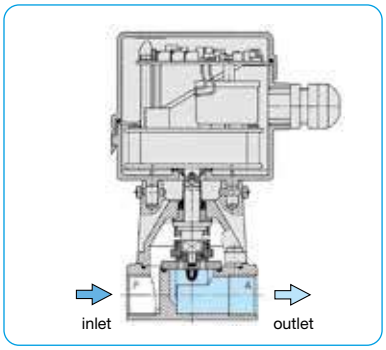


P8

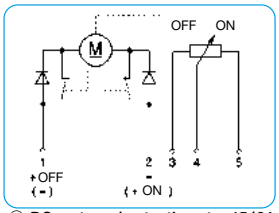
Special options, add the appropriate letter

cartridge installation instead of thread for DN 15 P825-. .

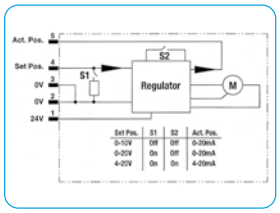
Description	Figure-No.	Watt	Δp max./Torque	Switching time*2	
DC motor w/ potentiometer, 120 Ncm	①	1,5 W	10 bar/120 Ncm f. G½	10-14 s	P82.-**15**
DC motor w/ potentiometer, 120 Ncm	①	1,5 W	6 bar/120 Ncm f. G¾, G1	10-14 s	P82.-**15**
DC motor w/ controllerr	②	3,8 W	.. bar/ ... Ncm f. G½	.. s	P82.-**51**
AC motor 50 Hz	③	3,0 W	6 bar/120 Ncm f. G¾, G1	10 s	P82.-**36**
stepper motor	④	5,0 W	6 bar/120 Ncm f. G¾, G1	10 s	P82.-**38**
FKM elastomer					P82.-. .**V**
EPDM elastomer					P82.-. .**E**
free of grease and oil	specially cleaned, suitable for oxygen				P82.-. .**L**
body nickel-plated					P82.-. .**X25**



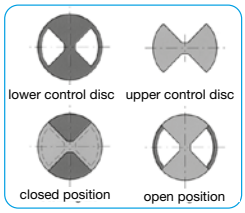
cross-section



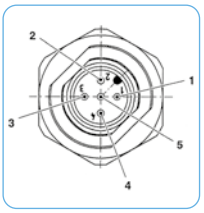
① **DC motor w/ potentiometer 15/24**



② **with position controller 51**



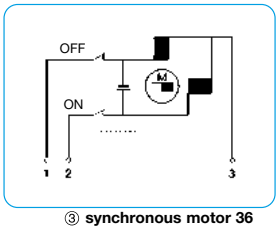
control disc



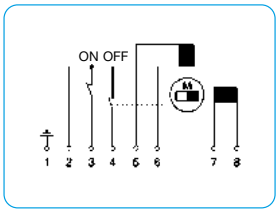
pin configuration 50

PIN	Description
Pin 1	supply voltage 24 Volt
Pin 2	supply voltage 0 Volt
Pin 3	ground potential for set value input and feedback outlet
Pin 4	set value input 0 - 10 V / 0 (4) - 20 mA
Pin 5	feedback outlet 0 (4) - 20 mA

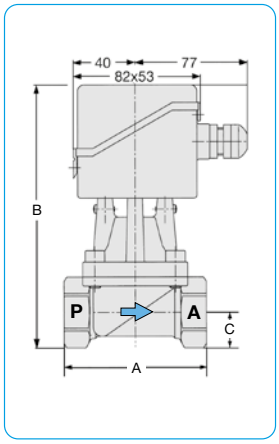
connection diagram



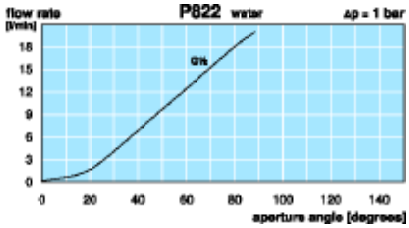
③ **synchronous motor 36**

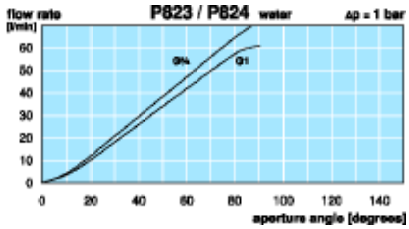


④ **stepper motor 38**



P8





*1 at 6 bar supply pressure and Δp = 1 bar

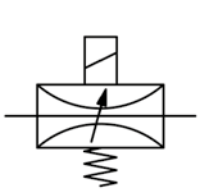
*2 subject to supply pressure

* Product group

PDF CAD
www.aircom.net

Order example:
P822-50

Description	Compact positioner with analogue control. Compressed air for remote control necessary. The stroke is made proportional to the flow through the parabolic contour of the piston. The valve shuts tight and is of anti-water hammer design.
Media	compressed air, vacuum up to 10^{-2} mbar or liquids up to viscosity of max. 600 cST (mm^2/s)
Control	pneumatic: lubricated, unlubricated and 50 µm filtered compressed air, 4…8 bar, port G⅛ electrical: 0-10 V, optionally 4-20 mA, supply 24 V DC ± 10%, power consumption 150 mA/3.6 W analog position feedback signal 0-10 V / 4-20 mA (after automatic balance)
Control element	2-port/2-way valve, NC (normally closed) as standard, as option 3-port/2-way valve for mixing different media, with standard piston
Electrical connection	cable gland, optionally M12
Mounting position	any
Protection Class	IP 66
Linearity / Hysteresis	< 2% FS
Repeatability	< 1.0% FS
Failsafe	valve closes (NC) in the event of voltage failure, optionally outlet fail freeze feature
Temperature range	Ambient: 0 °C to 50 °C / 32 °F to 122 °F Medium: -10 °C to 180 °C / 14 °F to 356 °F
Material	Control valve body: bronze, optionally SST 316L Cone seal: PTFE Proportional valve body: aluminium, PA and FV



0…77 / 1233 l/min compressed air or liquids

Dimensions A mm	B mm	Ø*1 mm	Nominal size DN	K_v-value (m^3/h)	Supply max. bar	Flow rate water l/min	air l/min	Connection thread G	Order number	E*
65	155	63	15	4.6	10	0… 14	5 000	G½	**PVE1-04B**	
75	185	63	20	7.1	16	0… 118	7 700	G¾	**PVE1-06C**	
90	209	90	25	15	16	0… 250	16 250	G1	**PVE1-08D**	
110	246	90	32	21	12	0… 350	22 750	G1¼	**PVE1-10D**	
110	298	125	32	22	16	0… 367	23 800	G1¼	**PVE1-10E**	
120	245	63	40	29	4	0… 483	31 400	G1½	**PVE1-12C**	
120	262	90	40	29	8	0… 483	31 400	G1½	**PVE1-12D**	
120	314	125	40	44	16	0… 733	47 600	G1½	**PVE1-12E**	
150	259	63	50	40	2	0… 667	43 300	G2	**PVE1-16C**	
150	276	90	50	40	6	0… 667	43 300	G2	**PVE1-16D**	
150	328	125	50	66	10	0…1 100	71 500	G2	**PVE1-16E**	
190	300	90	65	68	2	0…1 133	73 600	G2½	**PVE1-20D**	
190	352	125	65	74	6	0…1 233	80 000	G2½	**PVE1-20E**	

Volumenstromregler

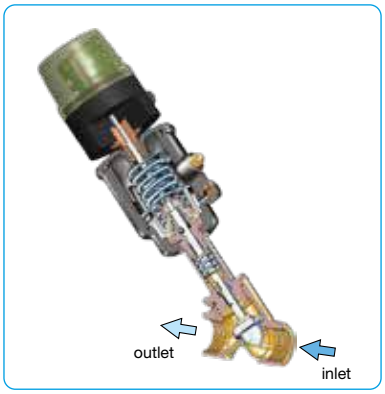
2/2-Wege, NC, Bronze, Steuerdruck 4…8 bar, für Luft oder Wasser, 0-10 V, 24 V DC, failsafe — **PVE**



PVE1 with 2-port/2-way valve

Special options, add the appropriate letter

3-port/2-way valve	for mixing different media, bronze version only	PVE**3**-. . .
fail freeze	if supply voltage fails, outlet pressure will be frozen	PVE.-. . .**3**
SST body	stainless steel 316L, material no. 1.4401	PVE.-. . .**S**
4-20 mA	input signal	PVE.-. . .**I**
for oxygen *2	specially cleaned, with oxygen grease, for G½ to G2	PVE.-. . .**15**
cascade control	double loop, 0-10 V	PVE.-. . .**KU**
	double loop, 4-20 mA	PVE.-. . .**KI**
	double loop, frequency input	PVE.-. . .**KF**
electr. connection M12	with coupling socket	PVE.-. . .**M12**



cross section

PVE with regulator control	
1	24 V DC supply voltage
2	GND (earth) supply
3	+ setpoint (0-10 V / 4-20 mA)
4	GND (earth) setpoint
5	
6	position feedback
7	+24 V DC ON/OFF output signal

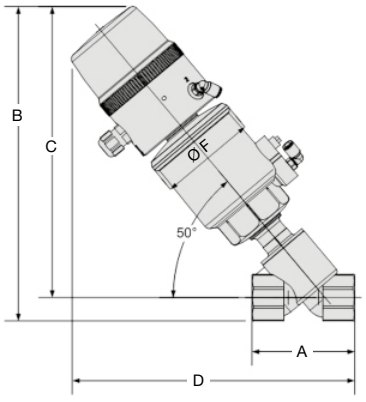
PVE with cascade control	
1	24 V DC supply voltage
2	GND (earth) supply
3	+ setpoint (0-10 V / 4-20 mA)
4	GND (earth) setpoint
5	external signal input
6	
7	+24 V DC ON/OFF output signal

connecting plan

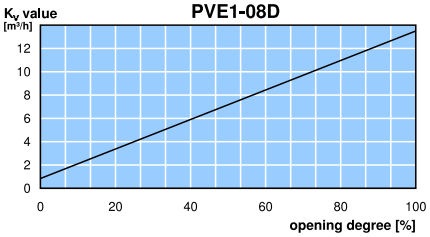


parabolic piston enables stroke-proportional K_v value change

Øhead*1	thread.	C	D	ØF
63 mm	½	169	170	85
	¾	170	175	85
	1	172	179	85
	1 ¼	204	217	85
	1 ½	215	224	85
	2	224	249	85
90 mm	1	189	197	118
	1 ¼	221	236	118
	1 ½	232	243	118
	2	241	267	118
	2 ½	257	299	118
125 mm	1 ¼	273	284	156
	1 ½	283,5	291	156
	2	293	315	156
	2 ½	308	347	156



PVE1



*1 Ø of pilot head
*2 max. 15 bar operating pressure and 60 °C / 140 °F media temperature

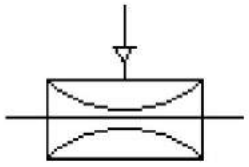
* Product group

PDF CAD
www.aircom.net

Order example: PVE1-04B

Prop.-V. 11

Description	The flow control valve functions as a pinch valve in a new design of housing with full flow cross-section. Since the straight valve passage has neither constrictions nor back-points, there is no danger of clogging or blockage. Frictional loss is at a minimum.
Media	Compressed air, non-corrosive gases, liquids or other paste-like or powdery media. Solids are enclosed by the flexible sleeve at shut-off.
Sleeve	Highly flexible with double-woven reinforcement in eight different grades. Sleeve simple to change.
Pressures	Operating pressure: max. 4.0 bar Pilot pressure: max. 6.5 Differential pressure: max. 2.5 bar Closing pressure: P_1 + 2.5 bar to DN32, P_1 + 2 bar from DN40 on
Vacuum	If vacuum is greater than -100 mbar, vacuum compensation should be provided on the control side.
Accuracy	In the flow range of 0 to 70% the accuracy of the linearity of pilot pressure to flow is approx. 10%.
Mounting position	any
Temperature range	0 °C to max. 100 °C / 32 °F to max. 212 °F, subject to sleeve material
Material	Body: POM at model QP or aluminium die-cast at model QS Sleeve: depending on selected version



DN10 up to DN150

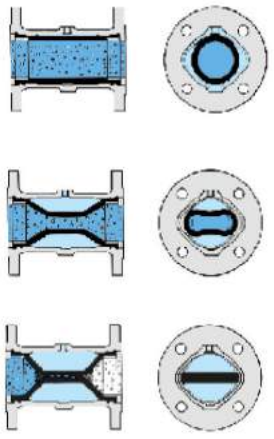
Flow control valve

operating pressure max. 4 bar, pilot pressure max. 2.5 bar above operating pressure — **Q**

Dimensions A mm	Dimensions Ø mm	Nominal size DN	Volume of control chamber l	Pilot port G	Operating pressure max. bar	Connection thread G / flange	Order number X*
80	44	10	0.03	G¼	4	G⅜	**QP10 -03NR**
95	50	15	0.04	G¼	4	G½	**QP15 -04NR**
110	58	20	0.05	G¼	4	G¾	**QP20 -06NR**
125	65	25	0.07	G¼	4	G1	**QP25 -08NR**
140	83	32	0.10	G¼	4	G1¼	**QP32 -10NR**
150	95	40	0.13	G¼	4	G1½	**QP40 -12NR**
200	100	50	0.23	G¼	4	G2	**QS50 -16NR**
240	134	65	0.49	G¼	4	G2½	**QS65 -20NR**
290	154	80	0.95	G¼	4	G3	**QS80 -24NR**
280	220	100	1.80	G⅜	4	flange	**QS100-FLNR**
350	250	125	3.30	G⅜	4	flange	**QS125-FLNR**
420	285	150	6.40	G⅜	4	flange	**QS150-FLNR**

Special options, add the appropriate letter

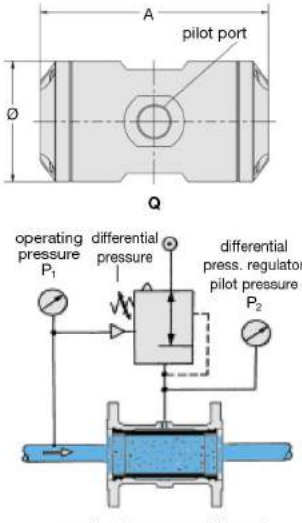
flange connection	according to DIN 2532, PN10	from G1¼ on	Q . . . **-FL** . .
sleeve NR	natural rubber, black	80 °C / 176 °F	Q . . . - . . **NR**
sleeve NRL	rubber, suitable for food, black	70 °C / 158 °F	Q . . . - . . **NL**
sleeve NRLH	rubber, suitable for food, light	70 °C / 158 °F	Q . . . - . . **NH**
sleeve NBR	nitrile rubber / Buna-N, suitable for food	80 °C / 176 °F	Q . . . - . . **NB**
sleeve EPDM	ethylene-prophylene rubber, suitable for food, black	100 °C / 212 °F	Q . . . - . . **EP**
sleeve FKM	fluorine rubber, black	100 °C / 212 °F	Q . . . - . . **FK**
sleeve CR	chloroprene rubber / neoprene, black	80 °C / 176 °F	Q . . . - . . **CR**
sleeve CSM	natural rubber, chlorosulphonylpolyethylene	80 °C / 176 °F	Q . . . - . . **CS**



closing sequence



solenoid valve control



constant cross section at changing pressure



QP made of POM, DN10 - DN25



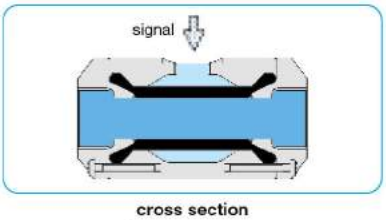
QP made of POM, DN32 - DN40



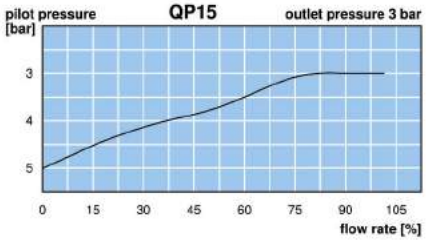
QS50 made of aluminium with POM thread



QS100 made of aluminium die-cast



cross section



* Product group

Stainless steel pinch valves: see chapter for stainless steel devices

PDF CAD
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Order example: QP10-03NR

PRESSURE SWITCHES

	DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
PRESSURE	miniature, low cost	0.2 … 2 / 200	G⅛ and G¼	DS08 … DS46	**12.02**
	many variations	0.1 … 1 / 200	G⅛m and G¼m	DS16 … DS18	**12.03**
	low pressure, handwheel	0.005 … 0.02 / 12	G⅛m and G¼m	DSP	**12.05**
	low pressure, plastic	0.003 … 0.03 / 7	⅛″NPT m	F4200	**12.06**
	small hysteresis	0.014 … 0.14 / 7	⅛″NPT m	F4300	**12.07**
	high accuracy	0.004 … 0.012 / 0.15	nipple	F4000	www*
	for PCB	0.014 … 0.14 / 7	nipple	F4400	www*
VACUUM	many options	-0.2 … -1	G⅛	DS15	**12.03**
	with handwheel	-0.005… -0.02 / -0.7	G⅛m and G¼m	DSP-V	**12.05**
	plastic	-0.001… -0.01 / -1	⅛″NPTm	F4200-X	**12.06**
	also flangable	-0.007… -0.17 / -1	⅛″NPTm	F4300-X	**12.07**
	with adjustable hysteresis	-0.007… -0.38 / -0.5	nipple	F4000-X	www*
	with small hysteresis	-0.007… -0.17 / -1	nipple	F4400-X	www*
DIFFERENTIAL PRESS.	with handwheel	5 … 20 / 50 mbar	nipple	DSP-W	**12.05**
ATEX	dust, EXII 3D IP65 T90	0.3 … 1.5 / 150	G¼male	DS34	**12.04**
	gas, EXII 2G ExdII C T6	1 … 6 / 400	G¼female	DS35	**12.04**
	gas, EXII 2G Ex ia T4	0.005 … 0.02 / 12	G⅛m and G¼m	DSP	**12.05**
PNEUMAT. SIGNAL	pressure	0.07 … 0.35 / 7	⅛″NPTm	PP700/PP701	**12.08**
	vacuum	-0.03 … 0.17 / -0.85	⅛″NPTm	VP700/VP701	**12.08**
ELECTRICAL SIGNAL	with pressure indicator	-1 … 1 / 10	G⅛m	DSB/DSC	**12.10**
STAINLESS STEEL	many options	0.3 … 1.5 / 200	G¼m	DS18	**12.03**
	low pressure, handwheel	0.005 … 0.02 / 12	G⅛m and G¼m	DSP	**12.05**



12

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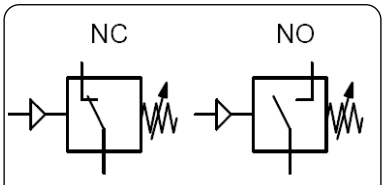
Description	The small-sized pressure switch closes or opens an electrical contact when the desired pressure is reached. If it falls below, the contact will be reset.
Media	DS10: compressed air DS13: compressed air and water All others: compressed air, water hydraulic oil
Burst pressure	min. 20 bar, DS13: max. 15 bar, DS40C/D: max. 250 bar
Contact	silver-coated, max. 2A Ohm resistive load , max. 100 VA
Hysteresis	< 10% FS, DS10 and D40: 10 ... 15% FS
Mounting position	any
Life span	10^6 operating cycle for max. 200 switches / min
Protection class	IP 00, with protective cap IP 65 **Voltage** 42 V
Tolerance	± 0.2 bar at 0.2 ... 2 bar, ± 0.5 bar at 1 ... 10 bar ± 3 bar at 10 ... 70 bar, ± 5 bar at 50 ... 200 bar
Electrical connection	contact pin 2 x 6.3 x 0,8 except for DS10 and DS40: screwed connection M2
Temperatur range	-25 °C to 85 °C / -13 °F to 185 °F DS13: -20 °C bis 75 °C / -4 °F to 167 °F
Material	Body: brass for DS08, DS14, DS46 steel for DS25, DS40 plastic for DS13 Elastomer: NBR/Buna-N, optionally EPDM, FKM and Kalrez



0.2 ... 2/200 bar miniature

Dimensions A/F mm	B mm	C mm	Body made of	Electr. connection	Connection thread G	Pressure transmission by	Measurement range bar	Order number contact NO	contact NC	D*

Mini-Pressure switch, 42 V

NBR/Buna-N **DS**

17	13	22	brass	flat plug	G¼	diaphragm	0.3 ... 2	**DS08-21A**	**DS08-20A**
							1.0 ... 10	**DS08-21B**	**DS08-20B**
19	16	25	brass	screw connection	G⅛	diaphragm	1.0 ... 10	**DS10-11B**	
14	23	37	plastic	flat plug	G⅛	diaphragm	0.2 ... 2	**DS13-11A**	**DS13-10A**
							1.0 ... 8	**DS13-11B**	**DS13-10B**
19	21	34	brass	flat plug	G⅛	diaphragm	0.3 ... 2	**DS14-11A**	**DS14-10A**
							1.0 ... 10	**DS14-11B**	**DS14-10B**
24	20	34	steel	flat plug	G⅛	diaphragm	0.2 ... 2	**DS25-11A**	**DS25-10A**
							1.0 ... 10	**DS25-11B**	**DS25-10B**
24	22	31	steel	screw connection	G⅛	diaphragm	0.3 ... 2	**DS40-11A**	**DS40-10A**
						diaphragm	1.0 ... 10	**DS40-11B**	**DS40-10B**
		37				piston	10 ... 70	**DS40-11C**	**DS40-10C**
						piston	50 ... 200	**DS40-11D**	**DS40-10D**
27	29	35	brass	flat plug	G¼	diaphragm	0.2 ... 2	**DS46-21A**	**DS46-20A**
							0.5 ... 10	**DS46-21B**	**DS46-20B**



DS08 **DS10**



DS13 **DS14** **DS25**



DS40 **DS46**

Special options, add the appropriate letter

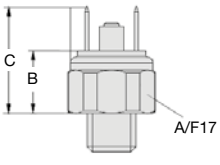
G¼ male	conection thread	only for	DS10 to DS40	DS. . -**2**. .
FKM elastomer	for diaphragm	not for	DS13	DS. . -. . .**V**
	for piston	only for	DS40 (C/D)	DS. . -. . .**V**
EPDM elastomer		only for	DS10 and DS40	DS. . -. . .**E**
Kalrez elastomer		only for	DS10 and DS40	DS. . -. . .**K**
gold contact		not for	DS08	DS. . -. . .**G**



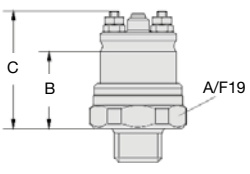
K210 **K214** **K250** **K400**

Accessories, enclosed

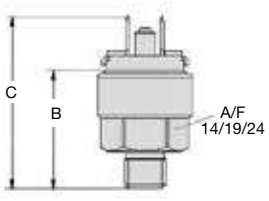
protection cap	for DS10	**K210**	for DS08, DS13 and DS14	**K214**
	for DS25	**K250**	for DS40 and DS46	**K400**



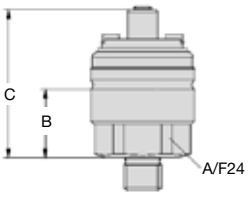
DS08



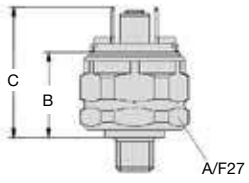
DS10



DS13 / DS14 / DS25



DS40



DS46

* Product group

PDF CAD
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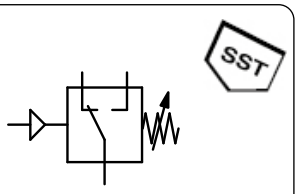
Order example: DS08-21A

Description	The pressure switch closes or opens an electrical contact when the desired pressure is reached. If it falls below, the contact will be reset.
Media	compressed air, non-corrosive gases or liquids
Overpressure	see chart for max. static pressure, dynamic pressures are 50% lower
Switch contact	DS15/16: NO contact, optionally NC contact DS17/18: SPDT switch
Contact load	DS15/16: 2 A at 42 V DC, DS17: 4 A at 42 V DC, DS18: 4 A at 250 V AC
Electrical connector	DS15/16: screw terminal, DS17/18: spade terminal 6.3 x 0.8 mm, optionally also for DS15/16
Hysteresis	DS15/16: 5…20%, DS17/18: adjustable to 10…30% by factory
Life cycle	10^6 switching cycles at < 50 bar **Switching frequency** max. 200 cycles/min
Vibration resistance	10 g at 5…200 Hz **Shock resistance** 30 g
Certifications	CSA-certified and UL-listed **Mounting position** any
Protection class	IP 00, with coupling socket IP 65
Temperature range	-30 °C to 100 °C / -22 °F to 212 °F for NBR/Buna-N, -30 °C to 120 °C / -22 °F to 248 °F for EPDM, -5 °C to 120 °C / 23 °F to 248 °F for FKM
Material	Body: steel, brass at DS15, optionally stainless steel at DS18 Elastomer: NBR/Buna-N, optionally EPDM or FKM



0,1…1/200 bar
-0.2…-1 bar

Pressure transmission by	Overpressure protection < bar	Measuring tolerance ± bar	Measurement range bar	Order number	D*
Pressure switch G¼m, NO 42V			steel, NBR/Buna-N, without protective cap	**DS16**	
diaphragm	300	0.2	0.1 … 1.0	**DS16-A**	
		0.5	1.0 … 10	**DS16-B**	
		1.0	10 … 20	**DS16-C**	
		2.0	20 … 50	**DS16-D**	
piston	600	5.0	50 …150	**DS16-E**	
Pressure switch G¼m, SPDT 42V			steel, NBR/Buna-N, with coupling socket	**DS17**	
diaphragm	100	0.2	0.3 … 1.5	**DS17-A**	
	100	0.5	1.0 … 10	**DS17-B**	
	300	1.0	1.0 … 10	**DS17-C**	
	300	3.0	10 … 50	**DS17-D**	
	300	5.0	10 …100	**DS17-E**	
piston	600	5.0	50 …200	**DS17-H**	
Pressure switch G¼m, SPDT 250V			steel, NBR/Buna-N, with coupling socket	**DS18**	
diaphragm	100	0.2	0.3 … 1.5	**DS18-A**	
	300	1.0	1.0 … 10	**DS18-C**	
	300	3.0	10 … 50	**DS18-D**	
	300	5.0	10 …100	**DS18-E**	
piston	600	5.0	50 …200	**DS18-H**	
Vacuum switch G⅛f, NO 42V			brass, FKM, without protective cap	**DS15**	
diaphragm	20	0.1	-0.2 … -1	**DS15-03**	



DS16



DS17



DS18 **DS15**

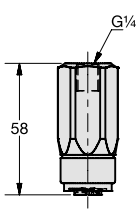
Special options, add the appropriate letter

EPDM elastomer		not for DS15	DS1 . - . **E**
FKM elastomer		not for DS15	DS1 . - . **V**
free of oil and grease	suitable for oxygen, max. 10 bar		DS1 . - . **L**
NC contact	instead of normally open contact	for DS15 and DS16	DS1 . - . **1**
spade terminal	6.3 x 0.8 mm, galvanised	for DS15 and DS16	DS1 . - . **T**
600 bar overpressure	maximum	for DS16	DS16- . **U**
gold contact	max. 24 V AC/DC, 50 mA	for DS17	DS17- . **G**
250 V	max. voltage	for DS17	DS17- . **W**
stainless steel body	0.5…5/200 bar	for DS18	DS18- . **S**
factory-set pressure	pressure indication falling pressure **VF** . .	rising pressure	DS1 . - . **VS** . .

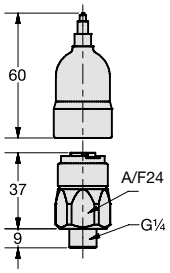
Accessories, enclosed

protection cap	straight, IP65	for DS15 and DS16	**DS16-KAP**

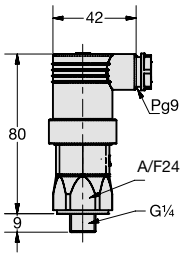
DS16-KAP



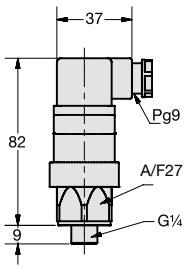
DS15



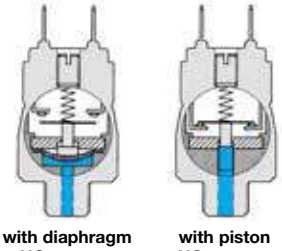
DS16



DS17



DS18



with diaphragm NO contact **with piston NC contact**

* Product group

PDF CAD
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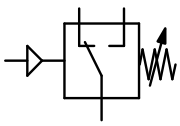
Order example: DS16-A

EXPLOSION-PROOF PRESSURE SWITCH DS34 / DS35

Description	The pressure switch closes or opens an electrical contact when the desired pressure is reached. When the pressure falls below the adjusted setpoint, the contact will be reset.		
Media	compressed air or non-corrosive gases	**Switch contact**	SPDT switch
Overpressure	see chart for max. static pressure,		dynamic pressures are 50% lower
Contact load	DS34: 1 A at 230 V AC,		DS35: 2 A at 230 V AC
ATEX version	DS34: Ex II 3D IP 65 T90°C		DS35: Ex II 2G Ex d II C T6/T5
Electrical connector	3-wire connection cable, length 2 m, cross-sectional area 0.75 mm² at DS34 or 0.5 mm² at DS35		
Hysteresis	< 25% FS, ca. 10% FS in the lower range		
Life cycle	10^6 switching cycles at < 50 bar	**Switching frequency**	200 cycles/min
Vibration resistance	10 g at 5…200 Hz	**Shock resistance**	30 g
Mounting position	any	**Protection class**	IP 65
Temperature range	-20 °C to 80 °C / 23 °F to 176 °F for NBR/Buna-N and EPDM -5 °C to 80 °C / 23 °F to 176 °F for FKM		
Material	Body: zinc-plated steel at DS34, aluminium at DS35 Elastomer: NBR/Buna-N, optionally EPDM or FKM		



0.3…1.5 / 400 bar
dust- and gas-proof

Pressure transmission by	Overpressure protection < bar	Measurement tolerance ± bar	Measurement range bar	Order number	D*
Pressure switch G¼ male SPDT switch 230 V AC, 1A **dust-proof** Ex II 3D IP 65 T90°C				**DS34**	
diaphragm	300	0.2	0.3 … 1.5	**DS34-A**	
		0.5 - 1.0	1.0 … 10	**DS34-B**	
		1.0	10 … 20	**DS34-C**	
		2.0	20 … 50	**DS34-D**	
piston	600	5.0	50 …150	**DS34-E**	
Pressure switch G¼ female SPDT switch 230 V AC, 1A **gas-proof** Ex II 2G Ex d II C T6/T5				**DS35**	
diaphragm	200	0.5	1 … 6	**DS35-B**	
		3.0	5 … 50	**DS35-D**	
piston	600	3 - 5	20 …100	**DS35-E**	
		5 - 9	100 …400	**DS35-K**	



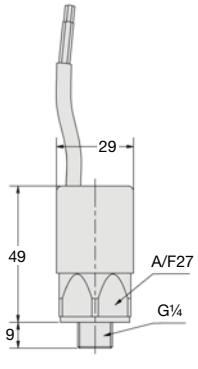
DS34
dust protection



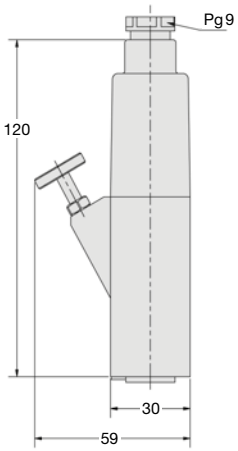
DS35
gas protection

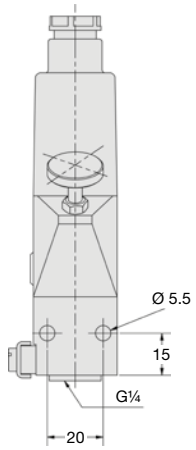
Special options, add the appropriate letter

EPDM elastomer	-20 °C to 80 °C / -4 °F to 176 °F	DS3 . - . **E**
FKM elastomer	- 5 °C to 80 °C / 23 °F to 176 °F	DS3 . - . **V**
free of oil and grease	suitable for oxygen, max. 10 bar, diaphragm version only	DS3 . - . **L**
adjusted switchpoint	± 5%, indicate on order	DS3 . - . **X**

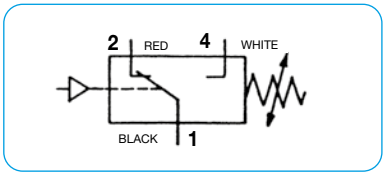


DS34

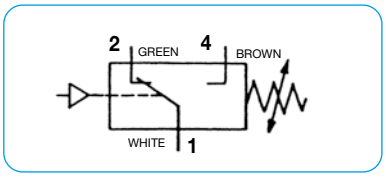




DS35



pin configuration DS34



pin configuration DS35

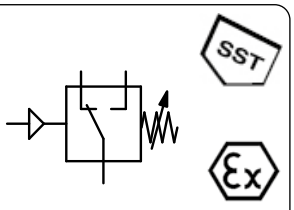
* Product group

PDF CAD
www.aircom.net

Order example:
DS34-A

PRESSURE SWITCH FOR LOW PRESSURE, ADJUSTABLE DSP / DSQ

Description	Adjustable pressure switch for monitoring pressure, vacuum and differential pressure. From the 6 bar device on two turns of the adjusting knob are necessary for the whole adjustment range, so the scale on the knob is inappropriate.		
Media	compressed air, non-corrosive gases or liquids	**Overpressure**	see chart
Switch contact	SPDT switch with silver contact, optionally gold contact		
Contact load	2 A at 24 V DC, 6 A at 250 V AC		
Electrical connector	AMP spade terminal, 6.3 x 8 mm, according to DIN 46244	**Hysteresis**	see chart
Life cycle	10^6 switching cycles	**Vibration resistance**	20 g
Certifications	VDE, TÜV design test, optionally Atex	**Switching time**	30 ms
Mounting position	any, but indication needed for switch point < 100 mbar	**Protection class**	IP 65 w/ coupling socket
Temperature range	-20 °C to 85 °C / -4 °F to 185 °F for NBR/Buna-N, EPDM and polyamide, up to 130 °C / 266 °F for FKM		
Material	Body: Zytel, a high-quality polyamide Elastomer: NBR/Buna-N, optionally EPDM, FKM or special FKM (saturated steam-resistant) Pressure connection: brass, at DSP-W polyamide, optionally stainless steel or PVDF		



5…20 mbar / 12 bar
-5…-20 / -700 mbar

Dimensions B mm	Dimensions Ø mm	Overpressure protection < bar	hysteresis max. mbar / bar	Measurement range mbar / bar	Order number	D*
Pressure switch G¼ male, for low pressure			wetted sections: brass and NBR/Buna-N, scale toleranz 10%		**DSP-D**	
68	45	0.5	3 mbar	5 … 20 mbar	**DSP-DB2**	
		0.5	5 mbar	10 … 50 mbar	**DSP-DB5**	
		0.5	10 mbar	25 … 100 mbar	**DSP-DC1**	
		1.0	20 mbar	50 … 250 mbar	**DSP-DC2**	
		1.0	50 mbar	100 … 500 mbar	**DSP-DC5**	
		10	150 mbar	0.25 … 1.0 bar	**DSP-D01**	
		10	250 mbar	0.5 … 1.5 bar	**DSP-D02**	
		10	500 mbar	1 … 3.0 bar	**DSP-D03**	
		25	0.5 / 2 bar*	1 … 6.0 bar	**DSP-D06**	
		25	0.5 / 2 bar*	4 … 9.0 bar	**DSP-D09**	
		25	0.5 / 2 bar*	7 … 12 bar	**DSP-D12**	
Pressure switch G¼ male			wetted sections: brass and NBR/Buna-N, scale toleranz 10%		**DSP-V**	
68	45	0.5	3 mbar	-5 … - 20 mbar	**DSP-V02**	
		0.5	5 mbar	-10 … - 50 mbar	**DSP-V05**	
		0.5	10 mbar	-25 … -100 mbar	**DSP-V10**	
		0.5	20 mbar	-50 … -125 mbar	**DSP-V12**	
		1.0	25 mbar	-75 … -200 mbar	**DSP-V20**	
		1.0	30 mbar	-100 … -300 mbar	**DSP-V30**	
		1.0	75 mbar	-200 … -500 mbar	**DSP-V50**	
		1.0	75 mbar	-300 … -700 mbar	**DSP-V70**	
Differential press. switch, nipple Ø 6.5			wetted sections: polyamide and NBR/Buna-N, scale toleranz 10%		**DSP-W**	
77	45	0.1	3 mbar	5 … 20 mbar	**DSP-W20**	
		0.1	5 mbar	10 … 50 mbar	**DSP-W50**	



DSP-D09



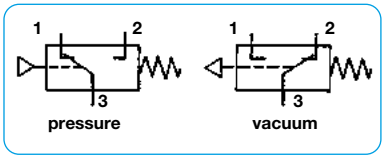
DSP-W

Special options, add the appropriate letter

factory-set pressure			DSQ- . . .
G⅛ male	pressure port thread,	(not for DSP-W)	DSP- . . .**1**
stainless steel port	pressure port thread, 1.4401,	(not for DSP-W)	DSP- . . .**S**
FKM elastomer	max. 130 °C / 266 °F		DSP- . . .**V**
EPDM elastomer			DSP- . . .**E**
increased overpressure	max. 4 bar for pressure measurement range < 1 bar		DSP- . . .**U**
gold contact	max. 24 V AC, 100 mA		DSP- . . .**G**
Ex-i-Atex	Ex II 1/2G Ex ia IIB T4 and	Ex II 1/2G Ex ia IIC T4	DSP- . . .**EX**
Ex-i-Atex	II 1/2G Ex ia IIB T4 and	II 1/2G Ex ia IIC T4	DSP- . .**SEX**



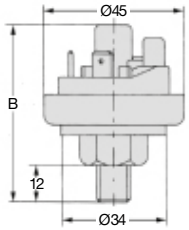
DS-KAP5 **DS-KAP4**



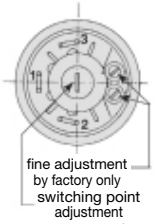
pin configuration

Accessories, enclosed

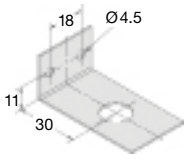
mounting bracket	made of steel, including nut	for G¼	**BW14-01**
protection cap	angular, cable feedthrough Ø 5 mm	IP44	**DS-KAP4**
	angular, high-strength cable gland Pg 9	IP54	**DS-KAP5**
		IP65	**DS-KAP6**



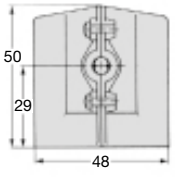
DSP/ DSQ



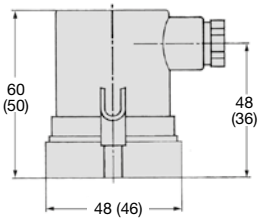
top view DS.



BW14-01



DS-KAP4



DS-KAP5 (-KAP6)

* 0.5 bar at the beginning, 2 bar at the end of the pressure range

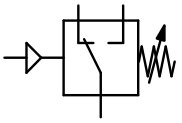
* Product group

PDF CAD
www.aircom.net

Order example
DSP-DB2

MINIATURE PRESSURE AND VACUUM SWITCH, TYPE "AIRTROL®" F4200

Description	High-precision pressure and vacuum switch with electrical outlet signal. The microswitch satisfies UL and CSA regulations. Polysulphone of the body approved by National Sanitation Foundation. The switch also complies with FDA regulations and is suitable for water and food products.
Media	compressed air, non-corrosive gases or liquids
Switch contact	micro SPDT switch, covered by plastic cap
Contact load	3 A at 230 V AC or 1.2 A at 125 V DC 10 A at 230 V AC or 0.5 A at 125 V DC
Electrical connector	0.187″ (4.75 mm) quick connector for Molex connector
Repeatability	± 2% FS
Certifications	CSA-certified and UL-listed
Switching time	25 ms
Mounting position	any
Temperature range	4 °C to 66 °C / 40 °F to 150 °F
Material	Body: polysulphone; Spring: stainless steel Diaphragm: polyurethane; Media non-contact parts: nylon, carbon fibre nylon, acetal

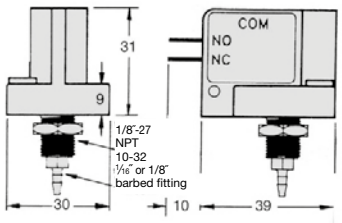


3…30 mbar/7 bar
-1…-10 mbar/-1 bar

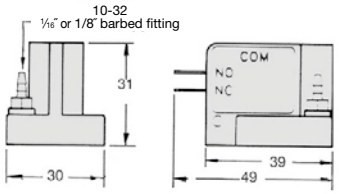
Description	Contact load max. A	Hysteresis typical mbar	Hysteresis max. mbar	Over-pressure max. bar	Measurement range bar	Order number	D*
Pressure and Vacuum Switch					pressure port 1/8″ NPT male, with covering cap, SPDT switch	**F4200**	
pressure switch	3	3	10	1	0.003 …0.03	**F4200- 0,5PT**	
	10	7	20	2	0.014 …0.14	**F4200- 2PT**	
	10	30	50	2	0.035 …0.35	**F4200- 5PT**	
	10	70	110	3	0.035 …1.0	**F4200- 15PT**	
	10	120	160	4	0.035 …2.1	**F4200- 30PT**	
	10	240	350	8	0.035 …4.2	**F4200- 60PT**	
	10	400	500	8	0.070 …7.0	**F4200-100PT**	
vacuum switch	3	1	3	-0.3	-0.001 …-0.01	**F4200-X 4PT**	
	10	17	27	-1	-0.007 …-0.17	**F4200-X 5PT**	
	10	34	50	-1	-0.015 …-0.34	**F4200-X10PT**	
	10	68	100	-1	-0.050 …-1.00	**F4200-X30PT**	

Special options, add or change the appropriate letter

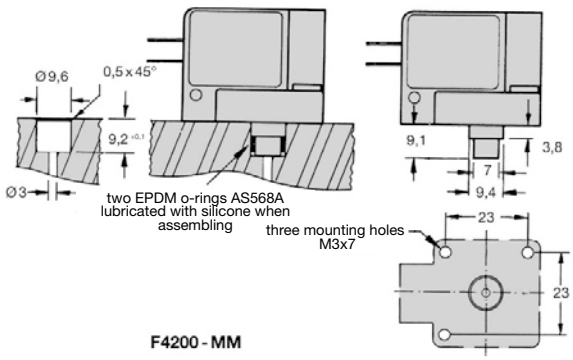
flush mounting	barbed fitting made of nylon, Ø 1/16″, Ø 2 mm	F4200- . . .**FM**B80
panel mounting	barbed fitting made of nylon, Ø 1/16″, Ø 2 mm	F4200- . . .**PM**B80
manifold mounting		F4200- . . .**MM**
barbed fittings	for FM and PM, made of nylon, Ø 1/16″, Ø 2 mm	F4200- **B80**
	nylon, Ø 1/8″, Ø 4 mm	F4200- **B85**
	polysulphone, Ø 1/16″, Ø 2 mm	F4200- **P80**
	polysulphone, Ø 1/8″, Ø 4 mm	F4200- **P85**
gold contact	0.1 A at 125 V AC	F4200- **1B**
factory-set switchpoint	± 5%, indicate on order	F4200- . . . . .**X**
free of oil and grease	specially cleaned, suitable for oxygen	F4200- . . . . .**L**



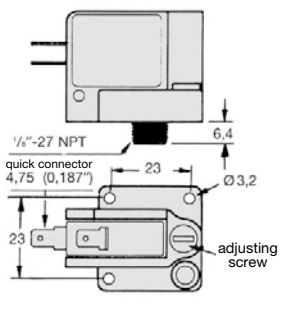
F4200 - PM



F4200 - FM



F4200 - MM



F4200 - PT



F4200-…PT



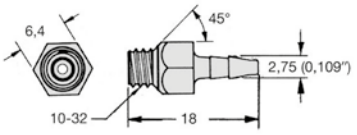
F4200-…FM



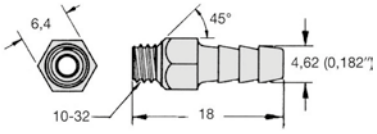
F4200-…PM



F4200-…MM



B80 / P80



B85 / P85

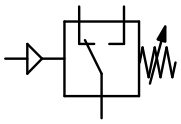
* Product group

PDF CAD
www.aircom.net

Order example:
F4200-0,5PT

PRESSURE AND VACUUM SWITCH WITH LOW HYSTERESIS, TYPE "AIRTROL®" F4300

Description	Pressure and vacuum switch with electrical outlet signal and low hysteresis. The microswitch satisfies UL and CSA regulations. Polysulphone of the body approved by National Sanitation Foundation. The switch also complies with FDA regulations and is suitable for water and food products.
Media	compressed air, non-corrosive gases or liquids
Switch contact	micro SPDT switch, covered by plastic cap
Contact load	3 A or 4 A at 230 V AC, see chart
Electrical connector	0.110″ (2.8 mm) quick connector for Molex/ETC connector
Repeatability	± 2% FS
Certifications	CSA-certified and UL-listed
Switching time	25 ms
Mounting position	any
Temperature range	4 °C to 66 °C / 40 °F to 150 °F
Material	Body: polysulphone; Spring: stainless steel; Diaphragm: polyurethane; Media non-contact parts: nylon, carbon fibre nylon, acetal



14…140 mbar/7 bar
-7…-170 mbar/-1 bar

Description	Contact load max. A	Hysteresis typical mbar	Hysteresis max. mbar	Over-pressure max. bar	Measurement range bar	Order number	D*
pressure switch	3	7	14	2	0.014… 0.14	**F4300- 2PT**	
	4	14	24	2	0.035… 0.35	**F4300- 5PT**	
	4	30	41	3	0.035… 1.0	**F4300- 15PT**	
	4	40	70	4	0.035… 2.1	**F4300- 30PT**	
	4	100	170	8	0.035… 4.2	**F4300- 60PT**	
	4	140	240	8	0.070… 7.0	**F4300-100PT**	
vacuum switch	4	10	20	-1	-0.007…-0.17	**F4300-X 5PT**	
	4	20	34	-1	-0.015…-0.34	**F4300-X10PT**	
	4	34	50	-1	-0.050…-1.00	**F4300-X30PT**	

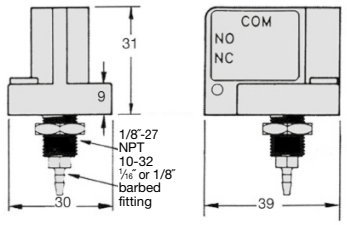
Pressure / vacuum switch, low hysteresis

pressure port 1/8″ NPT male, w. covering cap, SPDT switch **F4300**

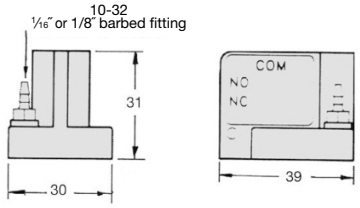
Special options,

add or change the appropriate letter

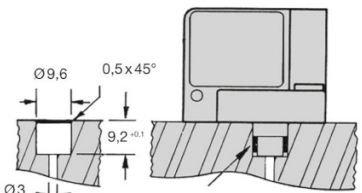
flush mounting	barbed fitting made of nylon, Ø 1/16″, Ø 2 mm	F4300-. . .**FM**B80
panel mounting	barbed fitting made of nylon, Ø 1/16″, Ø 2 mm	F4300-. . .**PM**B80
manifold mounting		F4300-. . .**MM**
barbed fittings	for FM and PM, made of nylon, Ø 1/16″, Ø 2 mm	F4300-. **B80**
	nylon, Ø 1/8″, Ø 4 mm	F4300-. **B85**
	polysulphone, Ø 1/16″, Ø 2 mm	F4300-. **P80**
	polysulphone, Ø 1/8″, Ø 4 mm	F4300-. **P85**
gold contact	0.1 A at 125 V AC	F4300-. **1B**
factory-set switchpoint	± 5%, indicate on order	F4300-. . . . .**X**
free of oil and grease	specially cleaned, suitable for oxygen	F4300-. . . . .**L**

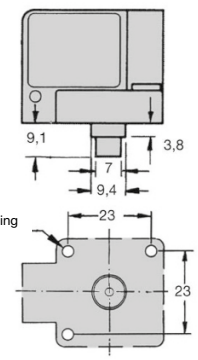


F4300-…PM

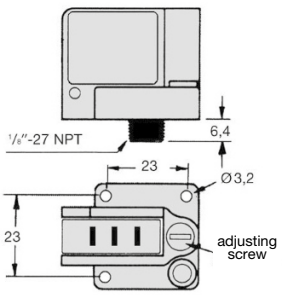


F4300-…FM





F4300-…MM



F4300-…PT



F4300-…PT



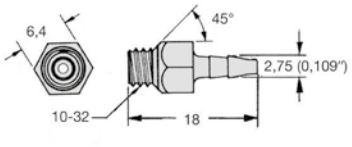
F4300-…FM



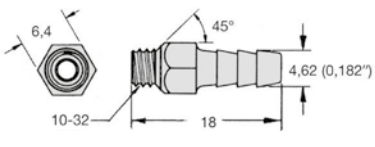
F4300-…PT



F4300-…MM



B80 / P80



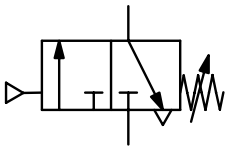
B85 / P85

* Product group

PDF CAD
www.aircom.net

Order example:
F4300-2PT

Description	Pilot-actuated pressure valve with precisely adjustable pilot setpoint. Perfect for applications which require intrinsic safety, pneumatic sequencing or pressure relief. Valves are normally opened or closed. The switch complies with FDA regulations and is suitable for water and food products.		
Media	5 µm filtered compressed air		
Pressure valve	3-port/2-way air-assisted servo valve with exhaust to atmosphere, NO or NC, made of nylon		
	Supply pressure:	1.4…8 bar, untapped exhaust	
	Air consumption:	max. 0.3 l/min at 2 bar supply pressure or max. 0.7 l/min at 7 bar	
	Pneumatic connection:	quick connector for hose external diameter of 4 mm (5/32")	
	Flow rate:	70 l/min at 7 bar, nominal size DN 0.2, K_v = 0.05	
	Switching time:	64 ms at 6 bar supply pressure	
Accuracy	Pressure switch:	at supply pressure variation of 0.7 bar: < 7 mbar pressure deviation	
	Vacuum switch:	at supply pressure variation of 0.3 bar: < 3 mbar pressure deviation	
	Repeatability:	± 2% FS	
Temperature range	4 °C to 60 °C / 40 °F to 140 °F	**Mounting position**	any
Material	Body: polysulphone	Spring:	stainless steel
	Diaphragm: polyurethane	Media non-contact parts:	nylon, carbon fibre nylon, acetal



70…350 mbar / 7 bar
-30…-170 / -850 mbar

Description	Supply pressure of switching valve	Hysteresis typical mbar	Hysteresis max. mbar	Over-pressure max. bar	Measurement range bar	Order number	D*

Switch with pneumatic output, NO

⅛" NPT male, supply pressure 1.4…8 bar — **PP / VP700**

pressure switch	1.4…8 bar	15	30	2	0.07… 0.35	**PP700- 5PT**
		20	40	4	0.07… 1.0	**PP700- 15PT**
*1 NO		20	70	4	0.07… 2.1	**PP700- 30PT**
		35	140	8	0.20… 4.2	**PP700- 60PT**
		50	240	8	0.35… 7.0	**PP700-100PT**
vacuum switch	1.4…8 bar	15	35	-1	-0.03…-0.17	**VP700- 5PT**
		20	40	-1	-0.03…-0.34	**VP700- 10PT**
*1 NO		35	70	-1	-0.07…-0.85	**VP700- 30PT**



PP/VP700-...PT

Switch with pneumatic output, NC

⅛" NPT male, supply pressure 1.4…8 bar — **PP / VP701**

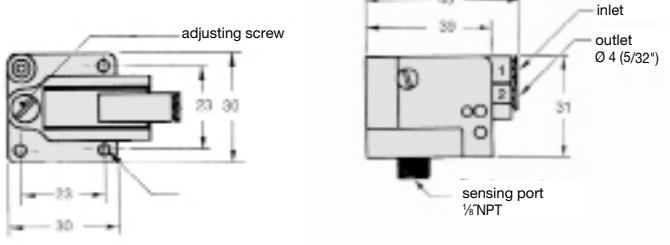
pressure switch	1.4…8 bar	15	30	2	0.07… 0.35	**PP701- 5PT**
		20	40	4	0.07… 1.0	**PP701- 15PT**
*2 NC		20	70	4	0.07… 2.1	**PP701- 30PT**
		35	140	8	0.20… 4.2	**PP701- 60PT**
		50	240	8	0.35… 7.0	**PP701-100PT**
vacuum switch	1.4…8 bar	15	35	-1	-0.03…-0.17	**VP701- 5PT**
		20	40	-1	-0.03…-0.34	**VP701- 10PT**
*2 NC		35	70	-1	-0.07…-0.85	**VP701- 30PT**



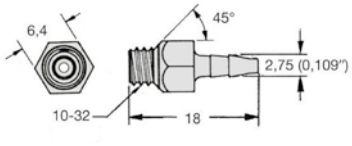
PP/VP701-...FM

Special options, add or change the appropriate letter

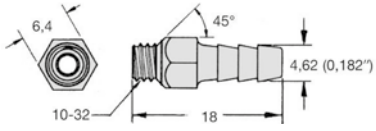
flush mounting	barbed fitting made of nylon,		Ø 1/16", Ø 2 mm	.P70.-...**FM**B80
panel mounting	barbed fitting made of nylon,		Ø 1/16", Ø 2 mm	.P70.-...**PM**B80
manifold mounting				.P70.-...**MM**
barbed fitting	for FM and PM,	nylon,	Ø 1/16", Ø 2 mm	.P70.-.....**B80**
		nylon,	Ø ⅛", Ø 4 mm	.P70.-.....**B85**
		polysulphone,	Ø 1/16", Ø 2 mm	.P70.-.....**P80**
		polysulphone,	Ø ⅛", Ø 4 mm	.P70.-.....**P85**
free of grease and oil	specially cleaned, suitable for oxygen			.P70.-.....**L**



PP / VP70



B80 / P80



B85 / P85

*1 only output signal in the absence of input signal (positive pressure, vacuum)
*2 no output signal in the absence of input signal (positive pressure, vacuum)

* Product group

PDF CAD
www.aircom.net

Order example:
PP700-5PT

PRESSURE TRANSDUCER

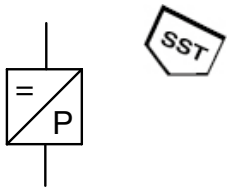
DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
for gases and liquids, also vacuum	0 … 50 mbar / 1000 bar	G⅛a - G½a	D2	**13.02**
for high temperature, accurate to 0.1%	0 … 50 mbar / 1000 bar	G¼m and G½m	DA	**13.04**
for differential pressure, also vacuum	0 … 1 mbar / 10 bar	G⅛	D5	**13.05**
elekt. signal with pressure indicator	-1 … 1 mbar / 10 bar	G⅛a	DSB/DSC	**13.06**



13

MINIATURE PRESSURE TRANSDUCER, Ø 24 MM D2

Description	The operating pressure is converted into a proportional, electrical signal by a ceramics stainless steel pressure transducer. After amplification the signal is monitored as an analogue voltage or current signal.
Media	compressed air, natural gases or liquids
Supply voltage	12-33 V DC residual ripple 5%, with reverse voltage protection, max. current consumption 4 mA
Electrical connector	plug M12x1, 4-pin, with coupling socket **Protection class** IP67 according to DIN EN60529
Output signal	4-20 mA: max. power consumption 260 mW 0-10 V: max. power consumption 50 mW
Repeatability	< 0,3% v.E **Long-term stability** < 0,3% v.E
Temperature sensitivity	< 0,2% v.E **Vibration resistance** 20 g at 15-2000 Hz
Ambient temperature	from - 30 °C to 85 °C
Media temperature	from - 40 °C to 125 °C
Shock resistance	100 g (11 ms)
Material	Body: Stainless steel 316L, mat. no. 1.4404 O-Ring: FKM, optionally EPDM Coupling socket: Polyarylamid 50% GF UL 94 V-0 Measuring cell: Stainless steel (bar areas) ceramics AL_2O_3 (mbar/absolute pressure areas)



accurate to 0.2%
compressed air or liquids

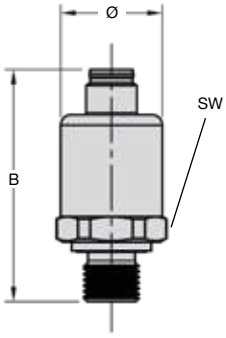
Dimensions B mm	Ø mm	SW mm	Over-pressure max. bar	Under-pressure max. bar	Measurement range bar	Oder number (4-20 mA)
Miniature			G¼ male stainless steel, for compressed air, natural gases or liquids, with angular coupling socket			**D2**
55	24	24	-1	3,0	-1 ... 0 bar	**D2A-V00**
				3,0	-1 ... 1 bar	**D2A-V01**
				4,8	-1 ... 1,5 bar	**D2A-V02**
				7,5	-1 ... 2,5 bar	**D2A-V03**
				18	-1 ... 5 bar	**D2A-V05**
				30	-1 ... 9 bar	**D2A-V09**
				48	-1 ... 15 bar	**D2A-V15**
				75	-1 ... 24 bar	**D2A-V24**
				3,0	0 ... 1 bar	**D2A-01**
				4,8	0 ... 1,6 bar	**D2A-02**
				7,5	0 ... 2,5 bar	**D2A-03**
				12	0 ... 4 bar	**D2A-04**
				18	0 ... 6 bar	**D2A-06**
				30	0 ... 10 bar	**D2A-10**
				48	0 ... 16 bar	**D2A-16**
				75	0 ... 25 bar	**D2A-25**
				120	0 ... 40 bar	**D2A-40**
				180	0 ... 60 bar	**D2A-60**
				300	0 ... 100 bar	**D2A-D1**
				480	0 ... 160 bar	**D2A-D2**
				750	0 ... 250 bar	**D2A-D3**
				1200	0 ... 400 bar	**D2A-D4**
				1500	0 ... 600 bar	**D2A-D6**
				1500	0 ... 1000 bar	**D2A-E1**



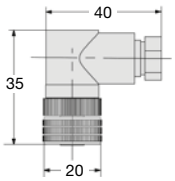
D2



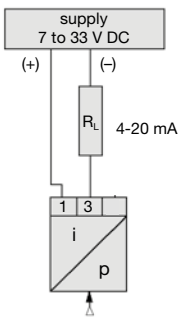
KM-A4-0



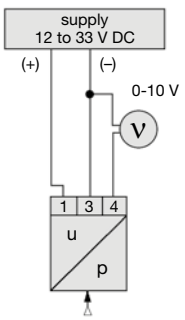
D2V-03



KM12-C4-0



D2A



D2V

* Product group

PDF CAD
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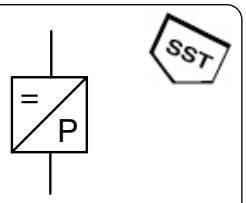
Description	The operating pressure is converted into a proportional, electrical signal by a ceramics stainless steel pressure transducer. After amplification the signal is monitored as an analogue voltage or current signal.
Media	compressed air, natural gases or liquids
Supply voltage	12-33 V DC residual ripple 5%, with reverse voltage protection, max. current consumption 4 mA
Electrical connector	plug M12x1, 4-pin, with coupling socket **Protection class** IP67 according to DIN EN60529
Output signal	4-20 mA: max. power consumption 260 mW 0-10 V: max. power consumption 50 mW
Repeatability	< 0,3% v.E **Long-term stability** < 0,3% v.E
Temperature sensitivity	< 0,2% v.E **Vibration resistance** 20 g at 15-2000 Hz
Ambient temperature	from - 30 °C to 85 °C
Media temperature	from - 40 °C to 125 °C
Shock resistance	100 g (11 ms)
Material	Body: Stainless steel 316L, mat. no. 1.4404 O-Ring: FKM, optionally EPDM Coupling socket: Polyarylamid 50% GF UL 94 V-0 Measuring cell: Stainless steel (bar areas) ceramics AL_2O_3 (mbar/absolute pressure areas)



accurate to 0.2%
compressed air or liquids

Dimensions B mm	Ø mm	SW mm	Over-pressure max. bar	Under-pressure max. bar	Measurement range bar	Oder number (4-20 mA)
Miniature			G¼ male stainless steel, for compressed air, natural gases or liquids, with angular coupling socket			**D2**
55	24	24	-0,3	2,0	-50 ... 50 mbar	**D2A-B5V**
					-100 ... 100 mbar	**D2A-C1V**
					-200 ... 200 mbar	**D2A-C2V**
					-300 ... 300 mbar	**D2A-C3V**
					-100 ... 0 mbar	**D2A-VC1**
					0 ... 50 mbar	**D2A-B5**
					0 ... 100 mbar	**D2A-C1**
					0 ... 200 mbar	**D2A-C2**
					0 ... 300 mbar	**D2A-C3**
					0 ... 400 mbar	**D2A-C4**
					0 ... 600 mbar	**D2A-C6**



D2



KM-A4-0

Special options, add the appropriate letter or number

0-10 V output signal			D2**V** - . .
deviant measurement range	to be indicated on order		D2 . - **XX**
absolute pressure range	measurement range from 0 ... 16 bar (Ceramic measuring cell)		D2 . - . . **A**
flush-mounted diaphragm	fully welded		D2 . - . . **F**
G⅛ male	connection thread		D2 . - . . **01**
G½ male	connection thread		D2 . - . . **04**
NPT	connection thread		D2 . - . . **N**
EPDM elastomers			D2 . - . . **E**
for oxygen	specially cleaned	from measurement range 1 bar	D2 . - . . **15**

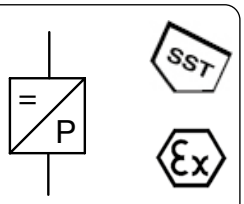
Accessories, enclosed

coupling socket 4-pin	M12x1,	straight	**KM12-A4-0**	angular	**KM12-C4-0**
socket with cable	2 m,	straight	**KM12-A4-2**	angular	**KM12-C4-2**
	5 m,	straight	**KM12-A4-5**	angular	**KM12-C4-5**

* Product group

PRESSURE TRANSDUCER, 0.1% ACCURATE, FOR HIGH TEMPERATURES, ATEX DA

Description	Pressure transducer in compact and robust stainless steel housing with piezo-resistive measuring element. Factory-made calibration of zero point and range is possible.
Media	compressed air, non-corrosive gases or liquids
Overpressure	max. 3x full scale, min. 3 bar, for DAA-D6 and DAA-E1 max. 1500 bar
Supply voltage	9…33 V DC at current signal, 15…30 V DC at voltage signal, residual ripple 5%, reverse voltage protection, short-circuit-proof
ATEX version	only current signal 10…30 V DC, max. 1 W, as per EN 50.014 / EN 50.020: 1974 A1…A5, Atex 2640-1
Electrical connector	plug according to DIN 43650, with coupling socket
Output signal	4…20 mA: max. power consumption 260 mW, 0…10 V: max. power consumption 50 mW
Linearity/Hysteresis	< 0.1% FS **Repeatability** < 0.1% FS **Long-term stability** < 0.1% FS, < 0.5% FS at version up to 500 mbar
Temperature sensitivity	< 0.02% FS per °C / K, < 0.06% FS at version up to 2 bar per °C / K, < 0.1 % FS at version up to 500 mbar per °C / K, at range of 0 °C to 70 °C / 32 °F to 158 °F
Response time	1 ms for 10…90% of pressure range **Shock resistance** 50 g
Vibration resistance	10 g at 5…500 Hz **Protection class** IP 65
Mounting position	any **Temperature range** 0 °C to 70 °C / 32 °F to 158 °F
Material	Body/Diaphragm: stainless steel 316L, material no. 1.4435 O-rings: FKM, optionally EPDM



-1...1000 bar, accurate to 0.1 % compressed air or gases

Dimensions B mm	Ø mm	A/F mm	Accuracy %	Measurement range mbar/bar	Order number 4-20 mA	Measurement range mbar/bar	Order number 4-20 mA
73	24	27	0.1	0… 50 mbar	**DAA-B5H**		
				0…100 mbar	**DAA-C1H**		
				0…160 mbar	**DAA-C2H**	0… 10 bar	**DAA-10H**
				0…250 mbar	**DAA-C3H**	0… 16 bar	**DAA-16H**
				0…400 mbar	**DAA-C4H**	0… 25 bar	**DAA-25H**
				0…600 mbar	**DAA-C6H**	0… 40 bar	**DAA-40H**
				0… 1.0 bar	**DAA-01H**	0… 60 bar	**DAA-60H**
				0… 1.6 bar	**DAA-02H**	0… 100 bar	**DAA-D1H**
				0… 2.5 bar	**DAA-03H**	0… 160 bar	**DAA-D2H**
				0… 4.0 bar	**DAA-04H**	0… 250 bar	**DAA-D3H**
				0… 6.0 bar	**DAA-06H**	0… 400 bar	**DAA-D4H**
						0… 600 bar	**DAA-D6H**
73	24	27	0.5			0…1000 bar	**DAA-E1**

E*

Pressure transducer

G¼ male, SST, overpressure with angular coupling socket, 4-20 mA — **DA**



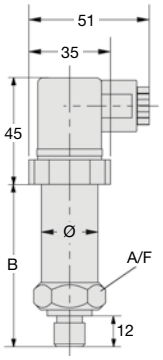
DAA-C1H



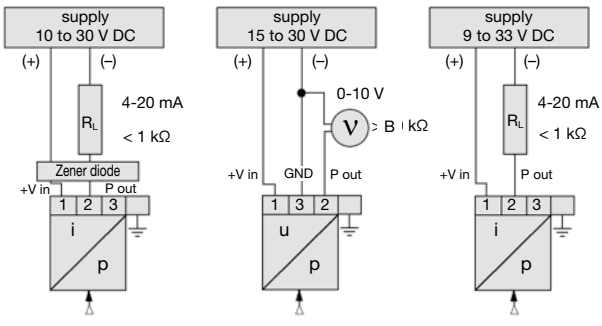
DA.-..T

Special options, add the appropriate letter or number

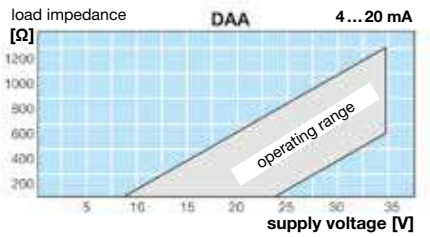
0-10 V output signal	not for Ex ATEX version		DA**V**-. .
deviant measurement range	to be indicated on order		DA . -**XX**
absolute pressure range	from 50 mbar on		DA . - . . **A**
vacuum	0…-1 bar		DA . - . . **V**
Ex **-Atex version**	Ex II 1G Ex ia IIC T6	4...20 mA only	DAA- . . **EX**
0.25 % linearity	for 100 mbar up to 600 bar		DA . - . . **G**
	for 1000 bar		DA . - E1**G**
-25 to +100 °C/-13 to 212 °F	media temperature compensated up to 85 °C / 185 °F / T4		DA . - . . **S**
-25 to +150 °C/-13 to 302 °F	media temperature compensated up to 85 °C / 185 °F / T3		DA . - . . **T**
flush-mounted diaphragm	connection thread G½, also for vacuum, up to 600 bar		DA . - . . **F**
G½ male	connection thread		DA . - . . **04**
EPDM elastomer			DA . - . . **E**
silicone-free oil-refill			DA . - . . **X32**

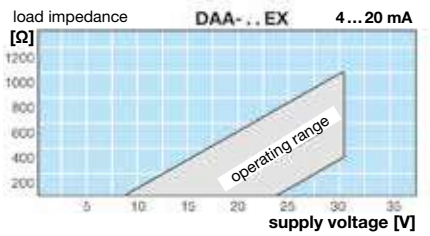


version	B (mm)
standard	73
standard 150 °C	100
Ex	122
Ex, T3	149



DAA-. . EX **DAV** **DAA**





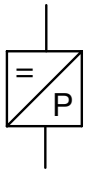
* Product group

Test chart: see chapter "Technical information"

PDF CAD
www.aircom.net

Order example: DAA-B5H

Description	The differential pressure between port H and L is converted into a proportional, electrical signal by a silicon pressure transducer, amplified and then monitored as an analogue voltage or current signal.		
Media	compressed air or non-corrosive gases		
Supply voltage	12…32 V DC, residual ripple 5%,		with voltage protection
Electrical connector	plug M12x1, 4-pin, optionally 4-wire connection cable		
Output signal	4…20 mA: max. power consumption 260 mW		1…6 V: max. power consumption 60 mW
Linearity/Hysteresis	< 0.1 % FS typ.		< 0.25% FS
Repeatability	< 0.1 % FS typ.		< 0.5 % FS
Long-term stability	< 0.2 % FS typ.		< 0.5 % FS
Temperature sensitivity	< 0.02% FS typ. per °C at 0 to 50 °C / 32 to 122 °F		< 0.16% FS typ. per °C at 0 to 50 °C
Response time	1 ms for 10…90% of pressure range	**Shock resistance**	50 g
Vibration resistance	10 g at 5…500 Hz	**Protection class**	IP 67 with plug mounted
Mounting position	upright	**Temperature range**	-25 °C to 85 °C / -13 °F to 185 °F
Material	Body: aluminium		



-1…1 mbar / 10 bar compressed air or gases

Dimensions B mm	Ø mm	Differential pressure max. bar	Overpressure both ports max. bar	Measurement range mbar/bar	Order number	E*
Differential pressure transducer 4-20 mA				G⅛, 2-wire, with angular coupling socket	**D5**	
86	40	0.25	0.5	0… 1 mbar	**D5A-A1*1**	
				-1… 1 mbar	**D5A-A1V**	
				0… 2 mbar	**D5A-A2*1**	
				-2… 2 mbar	**D5A-A2V**	
86	40	0.35	0.75	0… 5 mbar	**D5A-A5*1**	
				-5… 5 mbar	**D5A-A5V**	
				0… 10 mbar	**D5A-B1*1**	
				-10… 10 mbar	**D5A-B1V**	
86	40	0.35	3.5	0… 25 mbar	**D5A-B2**	
				-25… 25 mbar	**D5A-B2V*1**	
86	40	1.4	12	0… 70 mbar	**D5A-B7**	
				-70… 70 mbar	**D5A-B7V**	
				0…350 mbar	**D5A-C3**	
				-350…350 mbar	**D5A-C3V*1**	
86	40	2	12	0… 1 bar	**D5A-01**	
				-1… 1 bar	**D5A-V1**	
86	40	4	12	0… 2 bar	**D5A-02*1**	
		10	12	0… 5 bar	**D5A-05*1**	
		12	20	0… 10 bar	**D5A-10*1**	



D5 **D5-L1**

Special options, add the appropriate letter or number

1-6 V	output signal, from measurement range 2 mbar > 10 mbar*1	D5**V**- . .
1 m connection cable	fixed at the device	D5 . - . . **L*1**

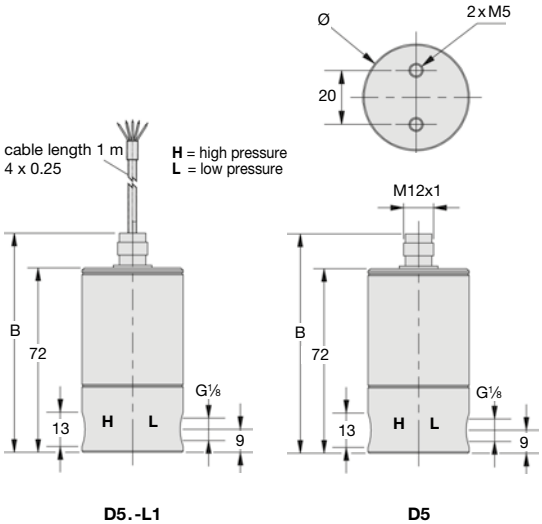


example: filter control

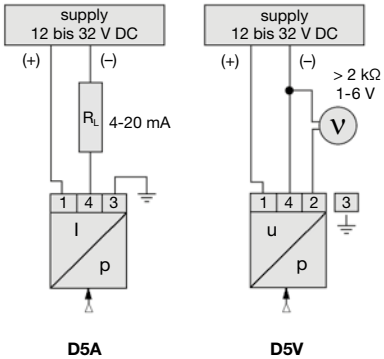
Accessories, enclosed

coupling socket 4-pin socket with cable	M12x1,	straight	**KM12-A4-0**	angular	**KM12-C4-0**
	2 m,	straight	**KM12-A4-2**	angular	**KM12-C4-2**
	5 m,	straight	**KM12-A4-5**	angular	**KM12-C4-5**

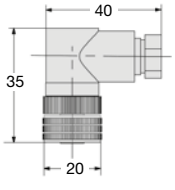
coupling socket / cable			
pin	colour	4-20 mA	1-6 V
1	brown	(+) supply	
2	white	·/·	output
3	blue	housing	
4	black	(-) supply	
	blank	housing	



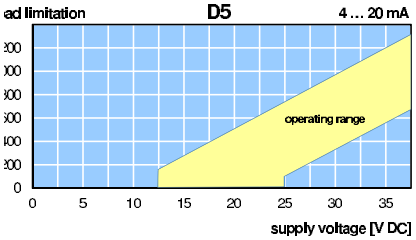
D5.-L1 D5



D5A D5V



KM12-C4-0



*1 Minimum order quantity 5 pieces

* Product group

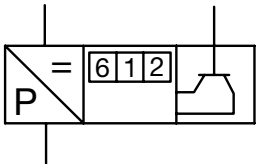
Test chart: see chapter "Technical information"

PDF CAD
www.aircom.net

Order example: D5A-A1

PROGRAMMABLE VACUUM AND PRESSURE SWITCH TRANSDUCER WITH DISPLAY DSB / DSC

Description		Pressure to the unit is continuously monitored by a piezo-resistive sensor and converted into a proportional voltage signal. The signal is then amplified and delivered as a PNP signal.
Media		dry, lubricated or unlubricated compressed air or non-corrosive gases
Supply voltage		12…30 V DC, reverse voltage protection, current consumption max. 30 mA, output current max. 250 mA
Adjustment	**DSB**	Mode: hysteresis or window, switching point and hysteresis, NO or NC, closing or opening time, bar, psi, MPa, kg/cm² etc. Display: current pressure, highest pressure, measurement errors
Switching output	**DSB**	2x PNP freely programmable as NO or NC, max. contact load 250 mA, short-circuit-proof
Switching output	**DSC**	1x PNP as at DSB and 1x analogue output signal 1…5 V, output impedance < 500 Ω
Hysteresis		adjustable from 0% to 100% of set switching point
Repeatability		< 0.2% FS
LED display		3-digit, red 7-segment display on DSB, no display on DSC
Error display		via 7-segment display on DSB, via multicolour LED on DSC
Certifications		CSA-compliant, UL-listed
Temperature range		-1 °C to 50 °C / 30 °F to 122 °F
Material		Body: ABS-PC plastic, shockproof
Linearity		< 1% FS
Switching frequency		200 Hz
Mounting position		any
Shock resistance		10 g
Protection class		IP 65
		Connection thread: nickel-plated brass



-1…0/10 bar
output PNP/1-5V

Dimensions B mm	Dimensions Ø mm	Digital display with / w/o	Over-pressure max. bar	Output signal type	Output signal current max. mA	Measurement range bar	Order number	E*
Sensor pressure switch				connection thread G⅛ male, without coupling socket, M8x1, 4-pin			**DS**	
57	16	**with**	2	2x PNP	250	0… -1	**DSB-V1**	
						-1…+1	**DSB-V2**	
			15			0…10	**DSB-10**	
						-1…10	**DSB-V10**	
						0…12	**DSB-12**	
44	16	**without**	2	1x PNP/1x analog	250	0… -1	**DSC-V1**	
						-1…+1	**DSC-V2**	
			15			-1…10	**DSC-V10**	



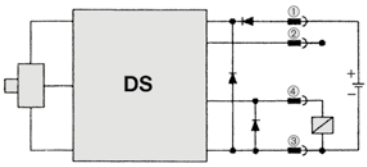
DSB with digital display



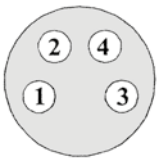
DSC

Accessories, enclosed

coupling socket	M8x1, 4-pin with 5 m cable	straight	**KM8-A4-5**
		angular	**KM8-C4-5**

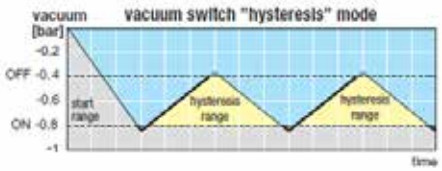


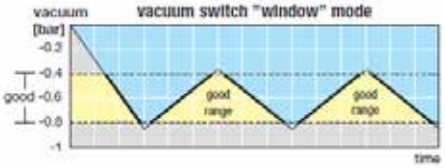
connection diagram

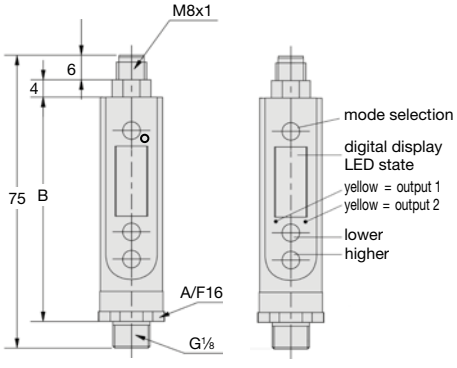


PIN configuration DIN EN 50044		
pin	**colour**	**configuration**
1	**brown**	24 V DC (+)
2	**white**	outlet 2 / analog
3	**blue**	24 V DC (-)
4	**black**	outlet 1 / digital

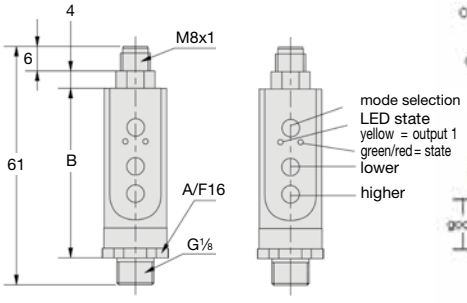
PIN configuration according to DIN EN 50044



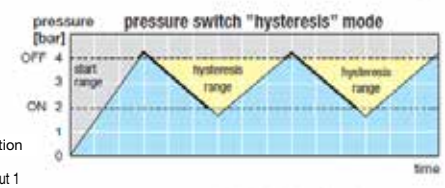


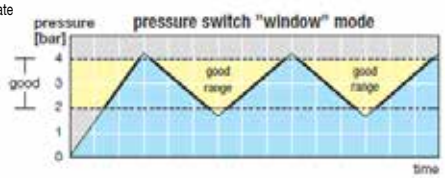


DSB



DSC





* Product group

PDF CAD
www.aircom.net

Order example:
DSB-V1

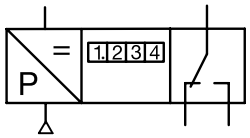
MEASURING DEVICES

	DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
DIGITAL DISPLAY	mounting, auch ext. Sensor	0 … 1 mbar / 10 bar	4 mm tube	MKA	**14.02**
	portable, hand-operated press. gauge	0 … 1 mbar / 10 bar	4 mm tube	MHA	**14.03**
ANALOGUE DISPLAY	mounting, front ring	-1… 0 / 16 bar	G⅛ and G¼	ME	**14.04**
	mounting, triangular bezel	-1… 0 / 25 bar	G⅛ and G¼	MF	**14.04**
	male thread, Ø 23 mm	0 … 4 / 16 bar	M5 and G⅛	MA	**14.05**
	male thread, Ø 40 mm	0 … 1 / 16 bar	G⅛	MA	**14.05**
	male thread Ø 50 mm	0 … 1 / 60 bar	G⅛ and G¼	MA	**14.05**
	male thread, Ø 63 mm	0 … 60 mbar / 100 bar	G¼	MA	**14.05**
STAINLESS STEEL	male thread, Ø 40 mm	0 … 2.5 / 16 bar	G⅛ and G¼	MS	**14.06**
	male thread, Ø 50 mm	0 … 2.5 / 60 bar	G¼	MS	**14.06**
	male thread, Ø 63 mm	0 … 25 mbar / 60 bar	G¼	MS	**14.06**



14

Description	Suitable for measurement of positive pressure, vacuum or differential pressure.		
Media	compressed air or non-corrosive gases	**Overpressure**	see chart
Supply voltage	15…30 V DC standard, optionally 230 V AC ± 10%		
Electrical connector	plug with 7-pin screw terminal for cable cross-sectional area 0.14…1.5 mm²		
Pneumatic connection	**P+:** pos. pressure **P-:** vacuum **P+/P-:** differential pressure, the higher pressure is to be connected at P+ plug nipple up to 1 bar, sleeve with union nut from 2 bar on, each for hose internal diameter of Ø 4 mm		
Display	3½-digit LCD display, max. ± 1999, 14 mm tall, black numbers red LED lights up at overpressure, then measurement is faulty		
Output signal	0…10 V, impedance > 10 kΩ, optionally 4…20 mA, impedance < 500 Ω		
Linearity	see chart, optionally 0.2% FS	**Hysteresis**	< 0.1% FS
Long-term stability	< 0.1% FS per year at > 25 mbar, < 1% FS per year at > 5 mbar,	< 2% FS per year at < 5 mbar range	
Temperature sensitivity	see chart, at 0 °C to 50 °C / 32 °F to 122 °F	**Repeatability**	see chart
Response time	100 ms	**Resolution**	1 digit
Temperature range	-20 °C to 50 °C / -4 °F to 122 °F	**Protection class**	IP 54
Material	Housing: aluminium		



0…1 mbar / 1000 bar

pressure, vacuum, differential pressure

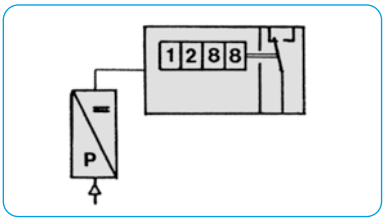
Repeatability	Temperature error	Linearity error	Over-pressure	Measurement range	Order number	E*
% FS	% FS	% FS	max. bar	mbar/bar		
Digital gauge	for compressed air, measurement of positive pressure, vacuum and differential pressure, 24 V DC, outlet signal 0…10 V, 3½-digit display				**MKA**	
1.0	4.0	1.0	0.25	0… 1 mbar	**MKA-A1**	
0.3	2.5	0.8	0.25	0… 2.5 mbar	**MKA-A2**	
0.3	1.2	0.8	0.25	0… 5 mbar	**MKA-A5**	
0.2	1.0	0.8	0.25	0… 10 mbar	**MKA-B1**	
0.1	1.0	0.7	0.35	0… 25 mbar	**MKA-B2**	
0.1	1.0	0.7	0.35	0… 50 mbar	**MKA-B5**	
0.1	1.0	0.5	0.35	0…100 mbar	**MKA-C1**	
0.1	1.0	0.5	0.75	0…250 mbar	**MKA-C2**	
0.1	1.0	0.5	1.5	0…500 mbar	**MKA-C5**	
0.1	1.0	0.5	3.0	-1… 1 bar	**MKA-V1**	
0.1	1.0	0.5	3.0	0… 1 bar	**MKA-01**	
0.1	1.0	0.5	4.0	0… 2 bar	**MKA-02**	
0.1	2.0	0.5	10	0… 8 bar	**MKA-08**	
0.1	2.0	0.5	12	0… 10 bar	**MKA-10**	
0.1	2.3 mbar	1 mbar	3.3	0.7… 1.1 bar_{abs}	**MKA-S1**	
Digital gauge for external sensor	0…10 V input signal, supply voltage 24 V DC, 3½-digit display				**MKA*2**	
96	48	137	e.g. for pressure transducer		**MKA-00**	



MKA, with integrated pressure transducer



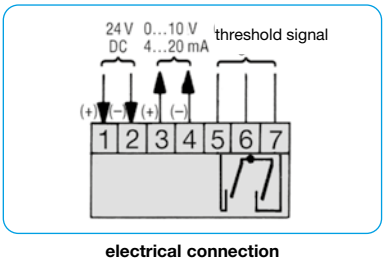
MKA-00, with external pressure transducer



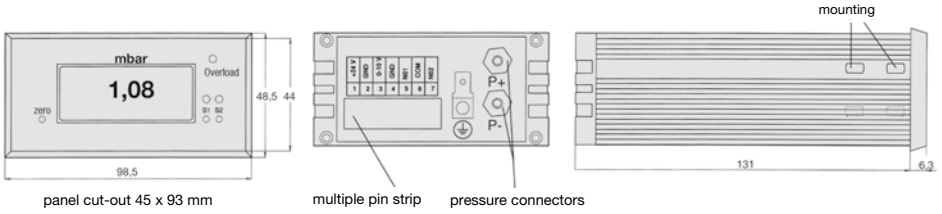
MKA-00, with external pressure transducer

Special options, add the appropriate letter

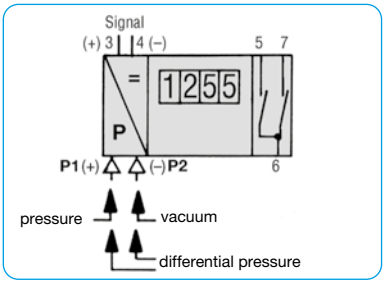
two limit switches	with LED display, 230 V AC, 1 A, hysteresis 2% FS	MKA- . . **S**
linearity < 0.2% FS	from 100 mbar	MKA- . . **B**
4…20 mA output signal	impedance < 500 Ω	MKA- . . **A**
4…20 mA input signal	internal resistance 100 Ω	MKA-00**A**
P_a indication	< 20 mbar: indication P_a > 20 mbar: indication kP_a	MKA- . . **P**
230 V AC	supply voltage	MKA- . . **V**
RS232*1	interface, 8 bit without parity	MKA- . . **R**
deviant measurement range	to be indicated on order	MKA-**XX**



electrical connection



front view **back view** **side view**



pneumatical connection

*1 Handshake on/off, Baudrate 9600

*2 indicate pressure range by order

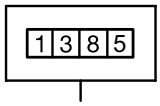
* Product group

Calibration or test chart: see chapter "Technical Information"
Pressure transducers: see chapter "Pressure Transducers"

PDF CAD
www.aircom.net

Order example: MKA-A1

Description	A piezo-resistive pressure sensor converts the input pressure into a digital electrical signal, which is displayed on the LCD. On-off switch is located at the side of the plastic housing.		
Media	compressed air or non-corrosive gases	**Overpressure**	see chart
Pneumatic connection	**P+:** pos. pressure **P-:** vacuum **P+/P-:** differential pressure, the higher pressure to be connected at P+ plug nipple up to 1 bar, sleeve with union nut from 2 bar on, each for hose internal diameter of Ø 4 mm		
Voltage supply	9 V battery, 2.5 mA, type 6F22, PP3 or similar		
Display	3½-digit LCD display, low battery display at low voltage,	max. ± 1999, 12 mm tall, black numbers, red LED lights up at overpressure, then measurement is faulty	
Output signal	optionally 0…1 V	Impedance: > 2 kΩ terminal for 2.5 mm 2-pin jack plug	
Zero point	All devices have a potentiometer for rough adjustment of zero point at the side of the housing.		
Linearity	see chart, optionally 0.2% FS	**Hysteresis**	< 0.1% FS
Long-term stability	< 0.1% FS per year at > 20 mbar,	< 2% FS per year at	< 20 mbar
Temperature sensitivity	see chart, at 0 to 50 °C / 32 to 122 °F	**Repeatability**	see chart
Temperature range	0 °C to 50 °C / 32 °F to 122 °F	**Resolution**	0.05% FS
Material	Housing: plastic	**Protection class**	IP 54



positive pressure, vacuum and differential pressure

Repeatability	Temperature error	Linearity error	Over-pressure	Measurement range	Order number	
% FS	% FS	% FS	max. bar	mbar/bar		E*

Hand-operated gauge for compressed air, measurement of positive pressure, vacuum and differential pressure, with battery, 3½-digit display — MHA

1.0	4.0	1.0	0.25	0… 1 mbar	**MHA-A1**
0.3	2.5	0.8	0.25	0… 2 mbar	**MHA-A2**
0.3	1.2	0.8	0.25	0… 5 mbar	**MHA-A5**
0.2	1.0	0.8	0.25	0… 10 mbar	**MHA-B1**
0.1	1.0	0.7	0.35	0… 25 mbar	**MHA-B2**
0.1	1.0	0.7	0.35	0… 50 mbar	**MHA-B5**
0.1	1.0	0.5	0.35	0…100 mbar	**MHA-C1**
0.1	1.0	0.5	0.75	0…250 mbar	**MHA-C2**
0.1	1.0	0.5	1.5	0…500 mbar	**MHA-C5**
0.1	1.0	0.5	3.0	-1… 1 bar	**MHA-V1**
0.1	1.0	0.5	3.0	0… 1 bar	**MHA-01**
0.1	1.0	0.5	4.0	0… 2 bar	**MHA-02**
0.1	2.0	0.5	10	0… 8 bar	**MHA-08**
0.1	2.0	0.5	12	0… 10 bar	**MHA-10**
0.1	2.3 mbar	1 mbar	3.3	0.7… 1.1 bar_{abs}	**MHA-S1**



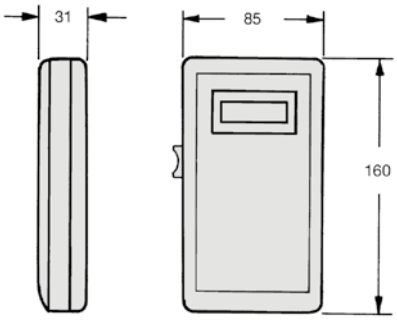
MHA

Special options, add the appropriate letter

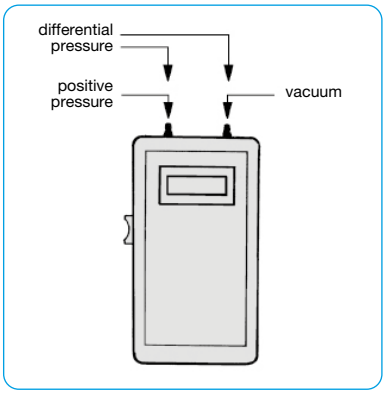
linearity < 0.2% FS	from 100 mbar on	MHA-. .**B**
0-1 V output signal	at electrical connector	MHA-. .**N**
P_a indication	< 20 mbar: indication P_a > 20 mbar: indication kP_a	MHA-. .**P**
zero point fine adjustment	in the front	MHA-. .**E**
deviant measurement range	to be indicated on order	MHA-**XX**

Accessories, enclosed

protective bag	for belt attachment	**MHT**



MHA



connection diagram

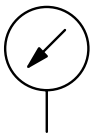
* Product group

Calibration or test chart: see chapter "Technical Information"

PDF CAD
www.aircom.net

Order example: MHA-A1

Description	Bourdon tube gauge, dust-protected, splash-proof, antirust, oil-resistant and silicone-free.
Media	all media compliant with brass, e.g. compressed air, non-corrosive gases or fluids
Scale	white background with black bar scale and red psi scale
Indicator accuracy	1.6% FS on gauge Ø 63 mm 2.5% FS on gauge Ø 40 mm and Ø 50 mm
Threaded connection	G⅛ or G¼, on central back
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F
Material	Housing: ABS plastic Connection/Inner parts: brass Lens: acrylic glass



for panel mounting
-1 ... 0 bar; 0 ... 1/25 bar

Dimensions A mm	B mm	C mm	D mm	Principle R: Bourdon tube K: capsule tube	Indicator accuracy % FS	Display range bar	Order number G⅛	Order number G¼	B*

Gauge with mounting flange

chrome-plated

A mm	B mm	C mm	D mm	Principle	Indicator accuracy % FS	Display range bar	ME40 Order number G⅛	ME50/63 Order number G¼
40	61	51	46	R	2.5	0 ... 2.5	ME4001-02	
						0 ... 4	ME4001-04	
						0 ... 6	ME4001-06	
						0 ... 10	ME4001-10	
50	71	61	52	R	2.5	0 ... 6		ME5002-06
						0 ... 10		ME5002-10
						0 ... 16		ME5002-16
63	85	75	53	R	1.6	-1 ... 0 vac.		ME6302-00
						0 ... 4		ME6302-04
						0 ... 6		ME6302-06
						0 ... 10		ME6302-10
						0 ... 16		ME6302-16



ME5002-10

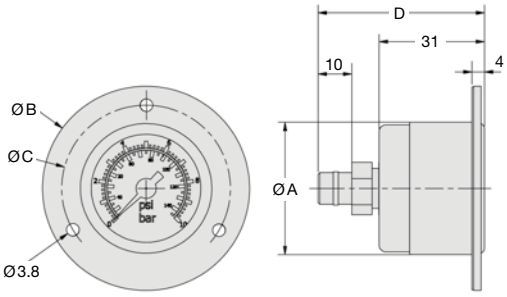
Gauge with triangular bezel

chrome-plated with nut

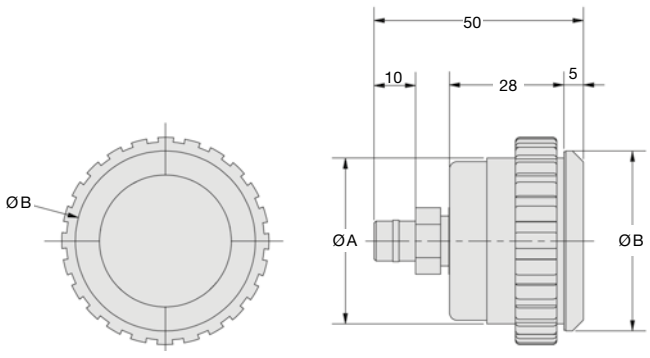
A mm	B mm	C mm	D mm	Principle	Indicator accuracy % FS	Display range bar	MF40 Order number G⅛	MF50/63 Order number G¼
40	43	-	-	R	2.5	0 ... 2.5	MF4001-02	
						0 ... 4	MF4001-04	
						0 ... 6	MF4001-06	
						0 ... 10	MF4001-10	
50	55	-	-	R	2.5	-1 ... 0 vac.		MF5002-00
						0 ... 6		MF5002-06
						0 ... 10		MF5002-10
						0 ... 16		MF5002-16
63	68	-	-	R	1.6	-1 ... 0 vac.		MF6302-00
				K		0 ... 0.25		MF6302-C2
				R		0 ... 4		MF6302-04
						0 ... 6		MF6302-06
						0 ... 10		MF6302-10
						0 ... 16		MF6302-16
						0 ... 25		MF6302-25



MF6302-10



ME
gauge with mounting flange



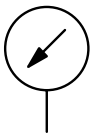
MF
gauge with triangular bezel

* Product group

PDF CAD
www.aircom.net

Order example:
ME4001-02

Description	Pressure gauge with Bourdon tube or capsule, dust-protected, splash-proof, antirust, oil-resistant and silicone-free. The capsule type gauge features an integrated restrictor against pressure peaks.
Media	all media compliant with brass, e.g. compressed air, non-corrosive gases or fluids
Scale	Bourdon tube gauge: white background with black bar scale and red psi scale capsule type gauge: white background with black mbar scale
Indicator accuracy	1.6% FS on gauge Ø 63 mm 2.5% FS on gauge Ø 40 mm and Ø 50 mm, 4% FS on gauge Ø 23 mm
Connection thread	G⅛ or G¼, on central back, M5 at gauge Ø 23 mm
Temperature range	0 °C to 60 °C / 32 °F to 140 °F, for appropriately conditioned compressed air down to -20 °C / -4 °F
Material	Housing: ABS plastic at Ø 40, Ø 50, Ø 63 mm nickel-plated brass at Ø 23 mm stainless steel 1.4301 at capsule gauge Lens: acrylic glass Connection/Inner parts: brass Seal: NBR/Buna-N at capsule gauge



with male thread
-1…0 bar; 0…60 mbar/100 bar

Dimensions Ø A mm	Principle R: Bourdon tube K: capsule tube	Indicator accuracy % FS	Display range bar/mbar	Order number G⅛	Order number M5 / G¼	B*

Pressure gauge, round

male thread on central back

Ø A mm	Principle	Indicator accuracy % FS	Display range bar/mbar	Order number G⅛	Order number M5 / G¼
23	R	4	0 … 4	MA2301-04	MA23M5-04
			0 … 6	MA2301-06	MA23M5-06
			0 … 10	MA2301-10	MA23M5-10
			0 … 12	MA2301-12	MA23M5-12
			0 … 16	MA2301-16	MA23M5-16
40	R	2.5	0 … 1	MA4001-01	
			0 … 2.5	MA4001-02	
			0 … 4	MA4001-04	
			0 … 6	MA4001-06	
			0 … 10	MA4001-10	
			0 … 16	MA4001-16	
50	R	2.5	0 … 1	MA5001-01	MA5002- 01
			0 … 2.5	MA5001-02	MA5002- 02
			0 … 4	MA5001-04	MA5002- 04
			0 … 6	MA5001-06	MA5002- 06
			0 … 10	MA5001-10	MA5002- 10
			0 … 16	MA5001-16	MA5002- 16
			0 … 25		MA5002- 25
			0 … 60		MA5002- 60
63	K	1.6	0 … 60 mbar		MA6302- B6
			0 … 160 mbar		MA6302- C2
			0 … 250 mbar		MA6302- C3
			0 … 400 mbar		MA6302- C4
63	R	2.5	0 … 0,6 bar		MA6302- C6
63	R	1.6	-1 … 0 vac.		MA6302- 00
			0 … 1		MA6302- 01
			0 … 2,5		MA6302- 02
			0 … 4		MA6302- 04
			0 … 6		MA6302- 06
			0 … 10		MA6302- 10
			0 … 16		MA6302- 16
			0 … 25		MA6302- 25
			0 … 60		MA6302- 60
			0 … 100		MA6302-100



MA23M5-10



MA5001-16

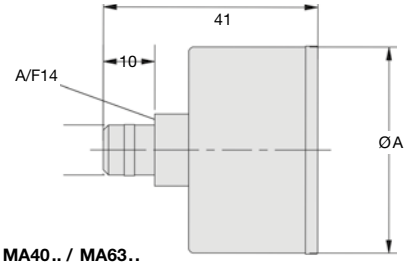


MA6302-10

Special options, add the appropriate number

for oxygen specially cleaned MA. . . . - . . **15**





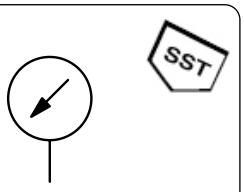
MA40.. / MA63..

* Product group

PDF CAD
www.aircom.net

Order example:
MA2301-04

Description	Pressure gauge with Bourdon tube or capsule, dust-protected and splash-proof. The capsule type gauge features an integrated restrictor against pressure peaks.
Media	all media compliant with stainless steel, e.g. compressed air, gases or fluids
Scale	Bourdon tube gauge: white background with black bar scale and red psi scale capsule type gauge: white background with black mbar scale
Indicator accuracy	1.6% FS
Connection thread	G⅛ or G¼, on central back
Temperature range	**medium** 0 °C to 100 °C / 32 °F to 212 °F for capsule type gauge 0 °C to 200 °C / 32 °F to 392 °F for Bourdon tube gauge for appropriately conditioned compressed air down to -40 °C / -40 °F **ambient** max. 60 °C / 140 °F
Material	Housing: stainless steel 1.4301 Inspection glass: laminated safety glass at MS63, single strength glass at MS40 and MS50 Connection: stainless steel 1.4571 Seal: FKM at capsule gauge



with male thread
0…25 mbar/60 bar

Dimensions Ø A mm	Principle R: Bourdon tube K: capsule tube	Indicator accuracy % FS	Display range bar/mbar	Order number G⅛	Order number G¼	C*

Pressure gauge — male thread on central back

Dimensions Ø A mm	Principle	Indicator accuracy % FS	Display range bar/mbar	MS40 G⅛	MS40/50/63 G¼
40	R	1.6	0 … 2.5	**MS4001-02**	**MS4002-02**
			0 … 4	**MS4001-04**	**MS4002-04**
			0 … 6	**MS4001-06**	**MS4002-06**
			0 … 10	**MS4001-10**	**MS4002-10**
			0 … 16	**MS4001-16**	**MS4002-16**
50	R	1.6	0 … 2.5		**MS5002-02**
			0 … 4		**MS5002-04**
			0 … 6		**MS5002-06**
			0 … 10		**MS5002-10**
			0 … 16		**MS5002-16**
			0 … 25		**MS5002-25**
			0 … 60		**MS5002-60**
63	K	1.6	0 … 25 mbar		**MS6302-B2**
			0 … 60 mbar		**MS6302-B6**
			0 … 100 mbar		**MS6302-C1**
			0 … 160 mbar		**MS6302-C2**
			0 … 250 mbar		**MS6302-C3**
			0 … 400 mbar		**MS6302-C4**
			0 … 600 mbar		**MS6302-C6**
63	R	1.6	0 … 1		**MS6302-01**
			0 … 2.5		**MS6302-02**
			0 … 4		**MS6302-04**
			0 … 6		**MS6302-06**
			0 … 10		**MS6302-10**
			0 … 16		**MS6302-16**
			0 … 25		**MS6302-25**
			0 … 60		**MS6302-60**



MS5002-04

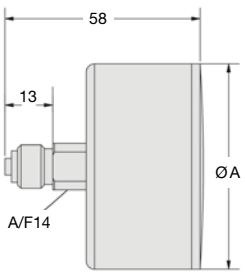


MS6302-04

Special options, add the appropriate number

for oxygen	specially cleaned	MS . . . . - . . **15**





MS

* Product group

PDF CAD
www.aircom.net

Order example:
MS4001-02

STAINLESS STEEL DEVICES

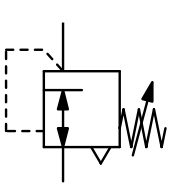
	DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	DEVICE	PAGE
PRESSURE REGULATOR	Midi-Series	0.2 ... 4.0 / 17	G½	R10-S	**15.02**
	Mini-Series	0.2 ... 1.8 / 9	G¼	R364-S	**15.03**
	for clean room enviroment, precise	0.05 ... 2 / 4	M5 and G⅛	RE1	**15.04**
	precise, also FDA	0.02 ... 1.5 / 10	G¼ and G½	R3150	**15.05**
	many variations, also FDA	0.1 ... 1.5 / 50	G⅛ - DN100	R3000	**15.06**
	with flange	0.2 ... 3 / 16	DN15 - DN50	REF	**15.10**
	also FDA	0.2 ... 3 / 16	G¼ - G2	REA	**15.11**
	Tri-Clamp	0.2 ... 1,5 / 8	ASME-BPE ½″ -1½″	RTC	**15.12**
	Tri-Clamp, low pressure	0.2 ... 1,5 / 8	ASME-BPE ½″ -1½″	RTCN	**15.13**
	low pressure	0.005 ... 0.045 / 3	G½ - G2	R3100	**15.14**
VOLUME BOOSTER	for many gases	1 ... 15 / 60	G¼ - G2	R3000-J	**15.18**
	precise	0 ... 10	¾″NPT u. 1″NPT	R601	**15.20**
	with ratio	3 ... 42 / 104	½″NPT and ¾″NPT	RH3-JS1	6.14
	pressure reducer	0.1 ... 24 / 99	G1	RLE	6.16
BACK PRESSURE REG.	for many gases	0.1 ... 1.5 / 50	G¼ - G2	D3000	**15.22**
	low pressure	0.005 ... 0.045 / 3	G½ - G2	D3100	**15.26**
HIGH PRESSURE REG.	for many gases	1 ... 8 / 200	G¼ - G1¼	RH3000	**15.16**
	regulator P1: 241 bar	0 ... 2 / 7	⅛″NPT and ¼″NPT	RH0-S	4.15
	regulator P1: 690 bar	0.3 ... 35 / 414	¼″NPT	HP300-S	4.17
	regulator P1: 414 bar	0.7 ...104 / 172	¼″NPT	HP400-S	4.17
	regulator P1: 300 bar	0.1 ... 1.7 / 35	¼″NPT	HP500-S	4.18
	regulator P1: 260 bar	0.7 ... 21 / 104	½″NPT and ¾″NPT	RH3-S	4.19
	differential pressure regulator	0 ... 1 / 24	½″NPT and ¾″NPT	RH44-S	**15.21**
FOR PHARMACY	and food	0.25 ... 0.46 / 53	G¼ - G2½	R70	www
	low pressure	0.005 ... 0.007 / 0.45	G¼ - G2½	R74	www
FRL SERVICE UNITS	FR, for many gases, also FDA	0.8 ... 1.5 / 15	G⅛ - G2	B3000	**15.28**
	filter, also FDA	max. 50	G⅛ - G2	F3000	**15.32**
	filter	max. 220	G¼ - G1	FH3	**15.34**
	lubricator	max. 50	G⅛ - G2	L3000	**15.35**
	FRL	0.5 ... 8 / 15	G⅛ - G2	C3002, C3003	**15.36**
	FR, Mini- and Midi-Series	0.2 ... 1.8 / 17	G¼ and G½	B548-S, B11-S	www
	FRL, Mini- and Midi-Series	max. 21	G¼ and G½	C/F/L10-S	www
PINCH VALVES	2/2-solenoid valve	max. 4	G¼ - G2	QE	**15.38**
MOUNTING FLANGES	single or mounted	up to PN100 / ANSI	G½ - G3	F / VS	**15.39**



15

STAINLESS STEEL PRESSURE REGULATOR R10-S

Description	diaphragm-operated pressure regulator in small design
Media	compressed air, gases or liquids
Supply pressure	max. 21 bar
Adjustment	by plastic knob with snap-lock
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 65 °C / 32 °F to 149 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F 0 °C to 80 °C / 32 °F to 176 °F for spring cage made of fiberglass or stainless steel
Material	Body: stainless steel 316 Spring cage: glass fibre-reinforced plastic Elastomer: FKM Inner valve: stainless steel 316



G½
gases or liquids

Dimensions A mm	B mm	C mm	Description value	K_V-rate (m^3/h)	Flow thread m^3/h*1	l/min*1	Connection range G	Pressure number bar	Order
Stainless steel pressure regulator supply pressure max. 21 bar									**R10-S**
60	124	35	relieving for compressed air	2.6	144	2400	G½	0.2…4.0	**R10-04BS**
								0.3…9.0	**R10-04CS**
								0.5… 17	**R10-04DS**
60	124	35	non-relieving for liquids	2.6	2.6	43	G½	0.2…4.0	**R10-04BSK**
								0.3…9.0	**R10-04CSK**
								0.5… 17	**R10-04DSK**

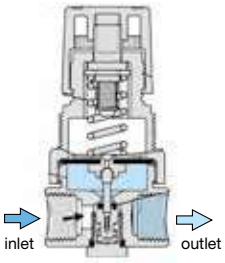


R10-S

SST
SST
15

Special options, add the appropriate letter

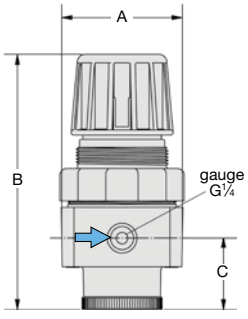
NPT	connection thread	R1. -0. . . **N**
spring cage made of SST	incl. SST-adjusting screw, total height= 154 mm	R**11**-04 . .



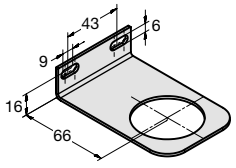
cross-section

Accessories, enclosed

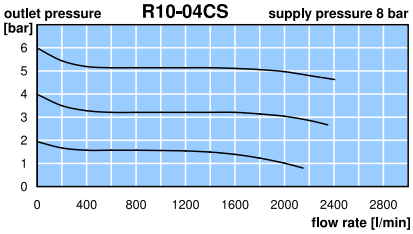
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MS5002-..**.*2
mounting bracket		**BW45-03S**
mounting nut		**M45X1,5S**



R10-S



BW45-03S



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0…16 bar, **25** = 0…25 bar

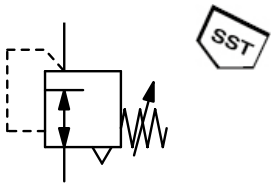
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example
R10-04BS

STAINLESS STEEL PRESSURE REGULATOR R364-S

Description	diaphragm-operated pressure regulator in small design
Media	compressed air, gases or liquids
Supply pressure	max. 21 bar
Adjustment	by plastic knob with snap-lock, by hexagonal spindle at R354
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 65 °C / 32 °F to 149 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F 0 °C to 80 °C / 32 °F to 176 °F for spring cage made of fiberglass or stainless steel
Material	Body: stainless steel 316 Spring cage: glass fibre-reinforced plastic at R364, stainless steel 316 at R354, optionally fibreglass at R364 Elastomer: FKM Inner valve: stainless steel 316



G¼
gases or liquids

Dimensions A mm	B mm	C mm	Description	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pressure range bar	Order number
Stainless steel pressure regulator supply pressure max. 21 bar									**R364-S**
35	75	13	relieving	0.4	27	450	G¼	0.2…1.8	**R364-02AS**
			for compressed air					0.2…4.0	**R364-02BS**
								0.3…9.0	**R364-02CS**
35	75	13	non-relieving	0.4	0,4	6	G¼	0.2…1.8	**R364-02ASK**
			for liquids					0.2…4.0	**R364-02BSK**
								0.3…9.0	**R364-02CSK**

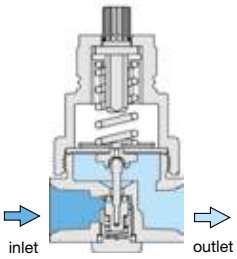


R364-S

SST
15

Special options, add the appropriate letter

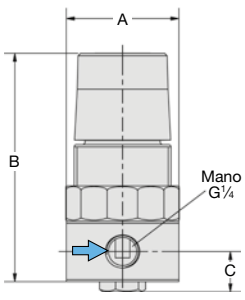
NPT	connection thread	R.. -0...**N**
free of oil and grease	specially cleaned	R3.4-0...**L**
spring cage made of SST	incl. SST-adjusting screw, total height = 60 mm	R354-02..



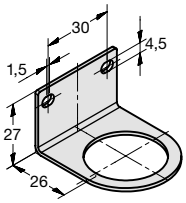
cross-section

Accessories, enclosed

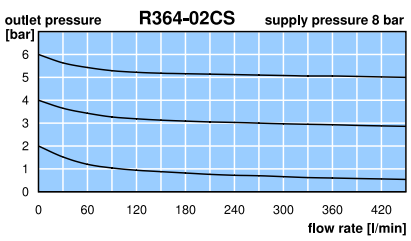
pressure gauge	Ø 40 mm, 0…*2 bar, G¼	**MS4002-..*2**
mounting bracket		**BW30-03S**
mounting nut	made of stainless steel	**M30x1,5S**
	made of plastic	**M30x1,5K**



R364-S



BW30-03S



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0…16 bar, **25** = 0…25 bar

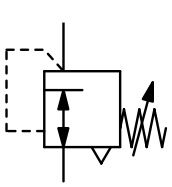
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R364-02AS

SST PRECISION PRESSURE REGULATOR, FOR CLEAN ROOM ENVIRONMENT RE1

Description	Diaphragm pressure regulator made of stainless steel suitable for cleanroom environment and panel mounting.		
Media	compressed air or gases	**Supply pressure**	max. 10 bar
Accuracy	setting accuracy: < 0.3% FS	**Repeatability:**	< 1% FS
Air consumption	max. 0.5 l/min, subject to outlet pressure The compressed air can be directly transmitted into the cleanroom without any piping.		
Adjustment	by plastic knob with snap-lock		
Relieving function	relieving	**Mounting position**	any
Gauge port	M5 or G⅛ on both sides of the body, depending on connection thread, screw plugs supplied		
Clean room condition	Cleaned, assembled, inspected and sealed in a class 10,000 environment. All parts without oil use. HFC1416 ultrasonic cleaning of all fluid-contact parts.		
Temperature range	0 °C to 60 °C / 32 °F to 140 °F		
Material	Body: stainless steel 316, material no. 1.4436	Elastomer:	FKM
	Spring cage: PPS plastic	Valve seat:	PTFE



M5 and G⅛
0.05 … 2 / 4 bar

Dimensions A mm	B mm	C mm	K_v-value (m³/h)	Flow rate m³/h*1	l/min*1	Connection thread M5/G	Pressure range bar	Order number
Precision pressure regulator				supply max. 10 bar, relieving, with internal air consumption				**RE1**
30	75	14	0,20	3.6	60	M5	0.05 … 2	**RE1-M5B**
							0.10 … 4	**RE1-M5C**
40	75	15	0,25	6	100	G⅛	0.05 … 2	**RE1-01B**
							0.10 … 4	**RE1-01C**



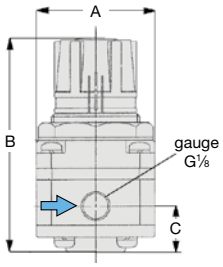
RE1-M5,
incl. mounting nut



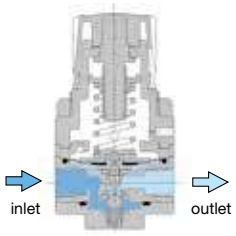
RE1-01,
incl. mounting nut

Accessories, enclosed

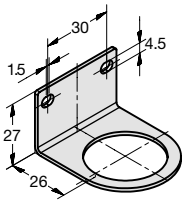
mounting bracket	mounting nut at the device	**BW30-03S**



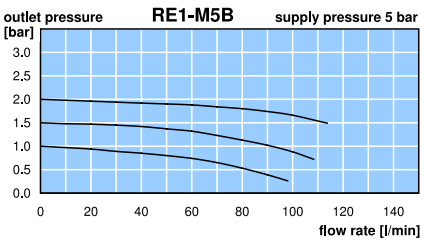
RE1

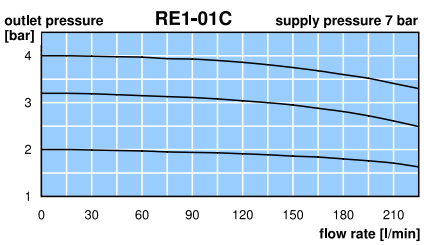


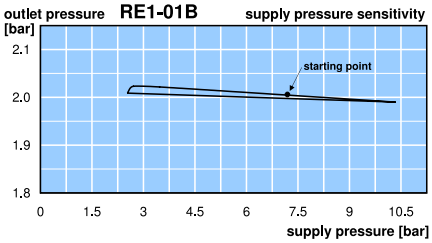
cross-section



BW30-03S







*1 at 7 bar supply pressure and 4 bar outlet pressure

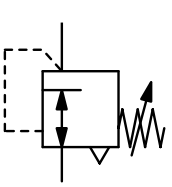
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
RE1-M5B

STAINLESS STEEL PRECISION PRESSURE REGULATOR R3150

Description	Diaphragm pressure regulator made of stainless steel in robust design. Pre-pressure compensated and independent of supply pressure fluctuation.
Media	compressed air, gases or liquids
Supply pressure	max. 20 bar
Accuracy	setting accuracy: < 0.5% FS; **Repeatability:** < 1.5% FS
Air Consumption	without air consumption
Adjustment	by adjusting screw, with lock nut
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F ,for appropriately conditioned compressed air down to -20 °C / -4 °F
Material	Body: stainless steel 316L, W.-Nr. 1.4436 O-ring: FKM Diaphragm: NBR/Buna-N with PTFE coating Internal parts: stainless steel 302



G¼ to G½, FDA gases or liquids

Dimensions A mm	B mm	C mm	Flow rate m³/h*1	l/min*1	K_v-value (m³/h)	Connection thread G	Pressure range bar	Order number
Precison pressure regulator			**supply pressure max. 20 bar, relieving**					**R3150**
109	160	39	144	2400	1.4	G¼	0.02…1.5	**R3150-02A**
							0.10…3.0	**R3150-02B**
							0.10…8.0	**R3150-02C**
109	160	39	144	2400	1.4	G⅜	0.02…1.5	**R3150-03A**
							0.10…3.0	**R3150-03B**
							0.10…8.0	**R3150-03C**
109	160	39	144	2400	1.4	G½	0.02…1.5	**R3150-04A**
							0.03…3.0	**R3150-04B**
							0.05… 10	**R3150-04C**



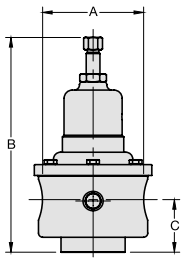
R3150

Special options, add the appropriate letter or number

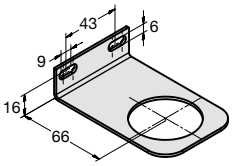
pilot operated	G⅛, max. 30 bar, 0…8 bar	R3150-0. **J**
NPT	connection thread	R3150-0. .**N**
non-relieving	for liquids	R3150-0. .**K**
EPDM o-ring		R3150-0. .**E**
EPDM o-ring	FDA approval	R3150-0. .**TD**
SST diaphragm	FKM o-ring	R3150-0. . .**S**
	EPDM o-ring	R3150-0. . .**SE**
ammoni	NH_3	R3150-0. . .K**02**
carbon dioxide	CO_2	R3150-0. . .K**03**
argon	Ar	R3150-0. . .K**05**
nitrogen	N_2	R3150-0. . .K**07**
helium	He	R3150-0. . .K**09**
hydrogen	H_2	R3150-0. . .K**11**
methane	CH_4	R3150-0. . .K**13**
natural gas *3		R3150-0. . .K**14**
oxygen	O_2	R3150-0. . .K**15**
propane	C_3H_8	R3150-0. . .K**16**
nitrous oxide	N_2O	R3150-0. . .K**17**
water	H_2O	R3150-0. . .K**W**

Accessories, enclosed

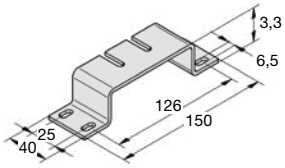
pressure gauge	Ø 50 mm, 0…*2 bar, G¼	**MS5002-..*2**
mounting bracket		**BW45-03S**
mounting nut		**M45x1,5S**
mounting bracket		**BW00-59S**



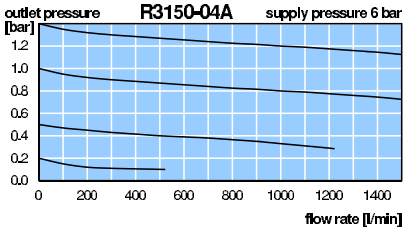
R3150

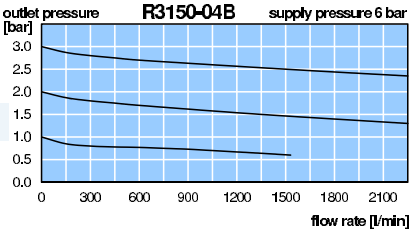


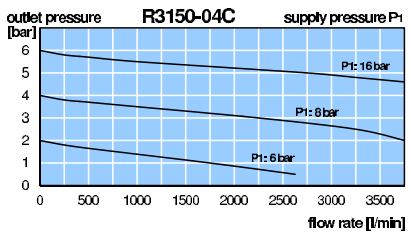
BW45-03S



BW00-59S







*1 see diagramm

*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar

*3 without DVGW-approval

Gauges: see chapter for measuring devices

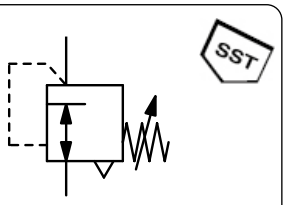
PDF CAD
www.aircom.net

Order example: R3150-02A

SST
SST
15

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGOUT, UP TO 60 BAR R3000

Description	Pressure regulator made of stainless steel, diaphragm- or piston-operated, up to P_1 = 60 bar.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 60 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	by adjusting screw at R3000-01 to -A8, and -24 to -32 by T-handle at R3000-08 to -16C, with pilot-regulator by adjusting screw at -16D
Relieving function	non-relieving, optionally relieving **Mounting position** any
Gauge port	G⅛ at R3000-01 and -A2, all others G¼ on both sides of the body, one screw plug supplied
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel O-rings: FKM, optionally EPDM Internal parts: stainless steel 316L, material no. 1.4404



G⅛ up to G2 / DN100 gases or liquids

Dimensions A mm	B mm	C mm	Regul. system D: Diaphragm P: Piston	K_v value (m^3/h)	Flow rate m^3/h*1	l/min*1	P_1 max. bar	Connection thread G	Pressure range bar	Order number	C*
SST Pressure regulator				supply pressure max. 30/50 bar, non-relieving, PTFE diaphragm and FKM o-ring						**R3000**	
40	88	18	M	0,35	20	330	30	G⅛	0,1 ... 1,5	**R3000-01AT**	
									0,2 ... 3,0	**R3000-01BT**	
									0,5 ... 8,0	**R3000-01DT**	
									1,0 ... 15	**R3000-01ET**	
40	88	18	M	0,35	20	330	30	G¼	0,1 ... 1,5	**R3000-A2AT**	
									0,2 ... 3,0	**R3000-A2BT**	
									0,5 ... 8,0	**R3000-A2DT**	
									1,0 ... 15	**R3000-A2ET**	
64	160	38	M	1,4	78	1300	30	G¼	0,1 ... 1,5	**R3000-02AT**	
									0,2 ... 3,0	**R3000-02BT**	
									0,5 ... 8,0	**R3000-02CT**	
							50		1,0 ... 15	**R3000-02DT**	
64	175	38	K	1,4	78	1300	50		2,0 ... 30	**R3000-02ET**	
									3,0 ... 50	**R3000-02FT**	
109	160	39	M	3,0	168	2800	50	G⅜	0,1 ... 1,5	**R3000-03AT**	
									0,2 ... 3,0	**R3000-03BT**	
									0,5 ... 8,0	**R3000-03CT**	
									1,0 ... 15	**R3000-03FT**	
109	178	39	K	3,0	168	2800	50		2,0 ... 30	**R3000-03GT**	
									3,0 ... 50	**R3000-03LT**	
109	160	39	M	3,0	168	2800	50	G½	0,1 ... 1,5	**R3000-04AT**	
									0,2 ... 3,0	**R3000-04BT**	
									0,5 ... 8,0	**R3000-04CT**	
									1,0 ... 15	**R3000-04FT**	
109	178	39	K	3,0	168	2800	50		2,0 ... 30	**R3000-04GT**	
									3,0 ... 50	**R3000-04LT**	



R3000-01/-A2

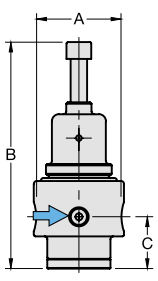


R3000-02/-03

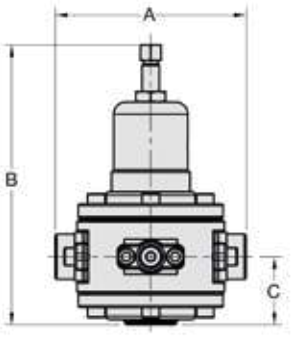


R3000-04

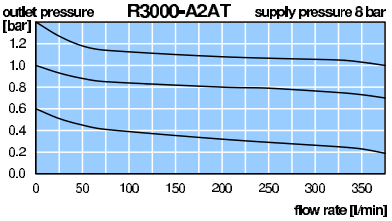
Accessories, see following pages

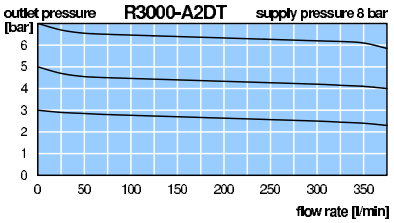


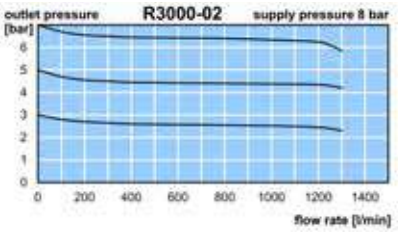
R3000-02/-03



R3000-03/-04







*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

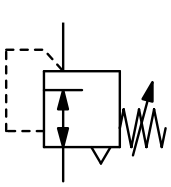
* Product group

PDF CAD
www.aircom.net

Order example: R3000-01AT

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGOUT, UP TO 60 BAR R3000

Description	Pressure regulator made of stainless steel, diaphragm- or piston-operated, up to P_1 = 60 bar.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 60 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	by adjusting screw at R3000-01 to -A8, and -24 to -32 by T-handle at R3000-08 to -16C, with pilot-regulator by adjusting screw at -16D
Relieving function	non-relieving, optionally relieving **Mounting position** any
Gauge port	G⅛ at R3000-01 and -A2, all others G¼ on both sides of the body, one screw plug supplied
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel O-rings: FKM, optionally EPDM Internal parts: stainless steel 316L, material no. 1.4404



G⅛ up to G2 / DN100
gases or liquids

Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	K_v value (m^3/h)	Flow rate m^3/h*1	l/min*1	P_1 max. bar	Connection thread G	Pressure range bar	Order number	C*
SST Pressure regulator					supply pressure max. 30/50/60 bar, non-relieving, PTFE diaphragm and FKM o-ring					**R3000**	
137	187	51	P	8.4	228	3800	50	G¾	0.1 ... 1.5	**R3000-06AT**	
									0.2 ... 3.0	**R3000-06BT**	
									0.5 ... 8.0	**R3000-06CT**	
									1.0 ... 15	**R3000-06FT**	
									2.0 ... 30	**R3000-06GT**	
									3.0 ... 50	**R3000-06LT**	
137	187	51	P	8.4	228	3800	50	G1	0.1 ... 1.5	**R3000-A8AT**	
									0.2 ... 3.0	**R3000-A8BT**	
									0.5 ... 8.0	**R3000-A8CT**	
									1.0 ... 15	**R3000-A8FT**	
									2.0 ... 30	**R3000-A8GT**	
									3.0 ... 50	**R3000-A8LT**	
165	287	60	D	9.7	480	8000	60	G1	0.1 ... 1.5	**R3000-08AT**	
									0.2 ... 3.0	**R3000-08BT**	
									0.5 ... 8.0	**R3000-08CT**	
									1.0 ... 15	**R3000-08FT**	
165	302	60	P	9.7	480	8000	60		2.0 ... 30	**R3000-08GT**	
165	311	60							3.0 ... 50	**R3000-08LT**	
269	287	60	D	6.0	480	8000	60	G1¼	0.1 ... 1.5	**R3000-10AT**	
									0.2 ... 3.0	**R3000-10BT**	
									0.5 ... 8.0	**R3000-10CT**	
									1.0 ... 15	**R3000-10FT**	
269	302	60	P	9.7	480	8000	60		2.0 ... 30	**R3000-10GT**	
269	311	60							3.0 ... 50	**R3000-10LT**	
269	287	60	D	9.7	480	8000	60	G1½	0.1 ... 1.5	**R3000-1AAT**	
									0.2 ... 3.0	**R3000-1ABT**	
									0.5 ... 8.0	**R3000-1ACT**	
									1.0 ... 15	**R3000-1AFT**	
269	302	60	P	9.7	480	8000	60		2.0 ... 30	**R3000-1AGT**	
269	311	60							3.0 ... 50	**R3000-1ALT**	



R3000-06/-A8

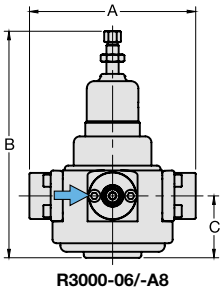


R3000-08/-10/-1A

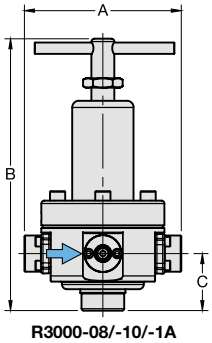


R3000-06/A8.TF.

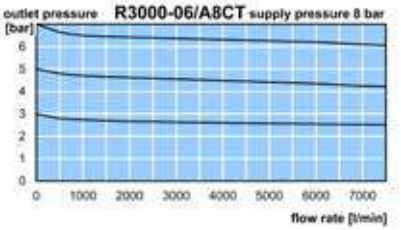
Accessories, see following pages

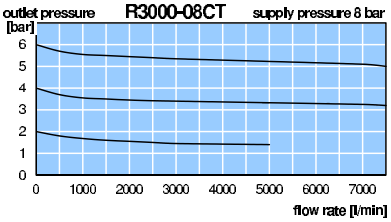


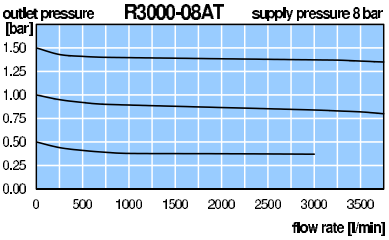
R3000-06/-A8



R3000-08/-10/-1A







*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

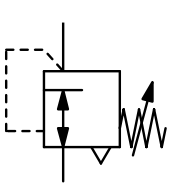
* Product group

PDF CAD
www.aircom.net

Order example:
R3000-06AT

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGOUT, UP TO 60 BAR R3000

Description	Pressure regulator made of stainless steel, diaphragm- or piston-operated, up to P_1 = 60 bar.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 60 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	by adjusting screw at R3000-01 to -A8, and -24 to -32 by T-handle at R3000-08 to -16C, with pilot-regulator by adjusting screw at -16D
Relieving function	non-relieving, optionally relieving **Mounting position** any
Gauge port	G⅛ at R3000-01 and -A2, all others G¼ on both sides of the body, one screw plug supplied
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel O-rings: FKM, optionally EPDM Internal parts: stainless steel 316L, material no. 1.4404



G⅛ up to G2 / DN100
gases or liquids



R3000-12/-B6, accessory: gauge

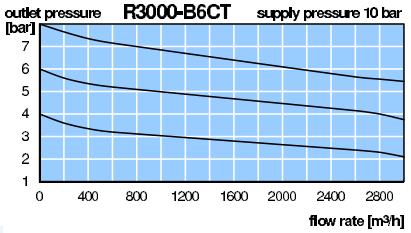


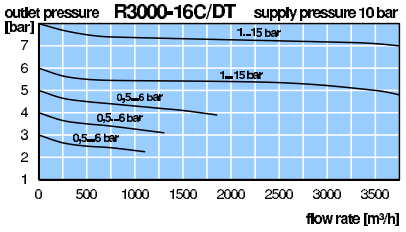
R3000-16, accessory: gauge

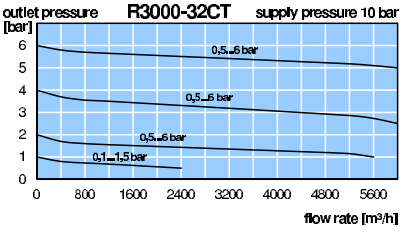
SST Pressure regulator

supply pressure max. 30/50 bar, non-relieving, PTFE diaphragm and FKM o-ring

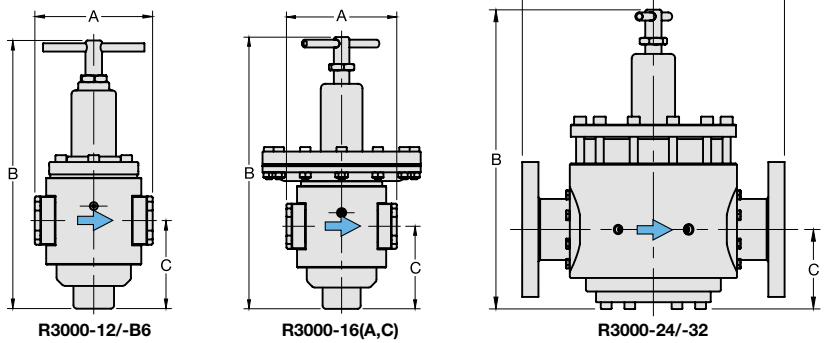
Dimensions A mm	B mm	C mm	Regul. system D: diaphragm P: piston	K_v value (m^3/h)	Flow rate m^3/h*1	l/min*1	P_1 max. bar	Connection thread G	Pressure range bar	Order number
171	390	128	P	25	900	15000	30	G1½	0.1 ... 1.5	**R3000-12AT**
									0.2 ... 3.0	**R3000-12BT**
									0.5 ... 8.0	**R3000-12CT**
							50		1.0 ... 15	**R3000-12ET**
171	400	128	P	25	900	15000	50		2.0 ... 30	**R3000-12GT**
									3.0 ... 50	**R3000-12LT**
171	390	128	P	25	900	15000	30	G2	0.1 ... 1.5	**R3000-B6AT**
									0.2 ... 3.0	**R3000-B6BT**
									0.5 ... 8.0	**R3000-B6CT**
							50		1.0 ... 15	**R3000-B6ET**
171	400	128	P	25	900	15000	50		2.0 ... 30	**R3000-B6GT**
									3.0 ... 50	**R3000-B6LT**
171	421	128	D	25	1800	30000	30	G2	0.1 ... 1.5	**R3000-16AT**
									0.2 ... 3.0	**R3000-16BT**
									0.5 ... 6.0	**R3000-16CT**
171	417	128	D	25	1800	30000	30		1.0 ... 15	**R3000-16DT**
405	446	118	D	65	4500	75000	30	DN80	0.1 ... 1.5	**R3000-24AT**
									0.2 ... 3.0	**R3000-24BT**
									0.5 ... 6.0	**R3000-24CT**
405	427	118							1.0 ... 15	**R3000-24DT**
405	446	118	D	65	5500	90000	30	DN100	0.1 ... 1.5	**R3000-32AT**
									0.2 ... 3.0	**R3000-32BT**
									0.5 ... 6.0	**R3000-32CT**
405	427	118							1.0 ... 15	**R3000-32DT**







Accessories, see following pages



R3000-12/-B6 R3000-16(A,C) R3000-24/-32

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

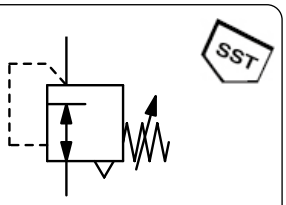
* Product group

PDF CAD
www.aircom.net

Order example:
R3000-12AT

PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGOUT, UP TO 60 BAR R3000

Description	Pressure regulator made of stainless steel, diaphragm- or piston-operated, up to P_1 = 60 bar.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 60 bar, for liquids $\Delta p_{max.}$ = 25 bar
Adjustment	by adjusting screw at R3000-01 to -A8, and -24 to -32 by T-handle at R3000-08 to -16C, with pilot-regulator by adjusting screw at -16D
Relieving function	non-relieving, optionally relieving **Mounting position** any
Gauge port	G⅛ at R3000-01 and -A2, all others G¼ on both sides of the body, one screw plug supplied
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel O-rings: FKM, optionally EPDM Internal parts: stainless steel 316L, material no. 1.4404

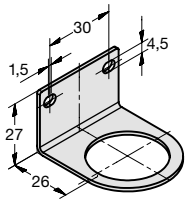


G⅛ up to G2 / DN100
gases or liquids

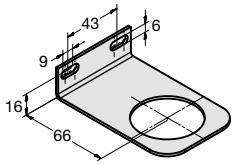
Dimensions A	B	C	Regul. system D: diaphragm P: piston	K_v value (m^3/h)	Flow rate m^3/h*1	l/min*1	P_1 max. bar	Connection thread G	Pressure range bar	Order number	C*
mm	mm	mm									

Special options, add the appropriate letter or number

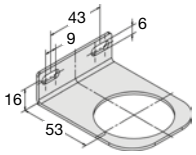
NPT	connection thread	for G⅛ and G¼ (A2)	R3000- . . . .**N**
NPT	connection thread	for G¼ (02) to G2	R3000- . . . .**N**
with T-handle	instead of hexagonal screw	for G¼ (02) to G1 (A8)	R3000- . . . .**P**
diaphragm, relieving		to G1½ (1A)	R3000- . . . .**R**
piston, relieving			R3000- . . . .**R**
tapped exhaust		for R3000-01/A2	R3000- **X12**
down to -40 °C	low temperature version	from G¼ (02) on	R3000- **X51**
up to 130 °C	high temperature version	from G¼ (02) on	R3000- **X54**
spring cowling m. of POM	for G⅛ and G¼ (A2)		R3000- **X57**
FKM o-ring	for piston or PTFE diaphragm		R3000- . . . **T**
EPDM o-ring			R3000- . . . **TE**
EPDM o-ring	FDA-approval		R3000- . . . **TD**
SST diaphragm	FKM o-ring	for G¼ (02) to G1 (A8)	R3000- . . . **S**
	EPDM o-ring	for G¼ (02) to G1 (A8)	R3000- . . . **SE**
ammonia	NH_3	P_1 max. 15 bar	R3000- **02**
carbon dioxide	CO_2		R3000- **03**
argon	Ar		R3000- **05**
nitrogen	N_2		R3000- **07**
helium	He		R3000- **09**
hydrogen	H_2		R3000- **11**
methane	CH_4		R3000- **13**
natural gas *3			R3000- **14**
oxygen	O_2		R3000- **15**
propane	C_3H_8		R3000- **16**
nitrous oxide	N_2O		R3000- **17**
water	H_2O		R3000- . . . .**W**
flange connection	see end of the chapter / flanges		R3000- . . . .**F.**



BW30-03S



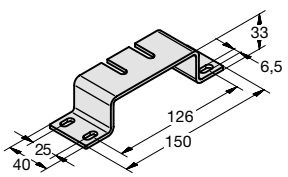
BW45-03S



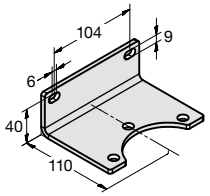
BW50-01S

Accessories, enclosed

pressure gauge	Ø 40 mm, 0…*2 bar, G⅛	for G⅛ and G¼ (A2)	**MS4001-..*2**
	Ø 50 mm, 0…*2 bar, G¼	for G¼ (02) to G½	**MS5002-..*2**
	Ø 63 mm, 0…*2 bar, G¼	for G¾ (06) to G2	**MS6302-..*2**
mounting bracket		for G⅛ and G¼ (A2)	**BW30-03S**
mounting nut		for G⅛ and G¼ (A2)	**M30x1,5SS**
mounting bracket		for G¼ (02), to G1 (A8)	**BW45-03S**
mounting nut		for G¼ (02), to G1 (A8)	**M45x1,5S**
mounting bracket		for G½	**BW50-01S**
mounting nut		for G½	**M50x1,5S**
mounting bracket		for G1 (08) + G1½ (1A)	**BW00-59S**
		for G1½ (12) + G2 (B6)	**BW00-62S**



BW00-59S



BW00-62S

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar, **60** = 0…60 bar

*3 without DVGW-approval

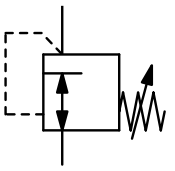
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
MS4001-02

Description	Diaphragm-operated pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent.
Media	compressed air, neutral gases or liquids
Supply pressure	see chart, max. 25 bar
Adjustment	by T-handle, with locknut
Relieving function	non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 120 °C / 32 °F to 248 °F for FKM, for appropriately conditioned compr. air down to -30 °C / -22 °F 0 °C to 130 °C / 32 °F to 266 °F for EPDM, for appropriately conditioned compr. air down to -30 °C / -22 °F 0 °C to 150 °C / 32 °F to 302 °F for PTFE, for appropriately conditioned compr. air down to -30 °C / -22 °F
Material	Body: stainless steel 316L, mat. no. 1.4408 Diaphragm: FKM, optionally EPDM or PTFE



DN 15 up to DN 50, FDA liquids or gases

Dimensions A	B	C	K_v-value	Flow rate air	water	Supply pressure	Connection flange	Pressure range	Order number
mm	mm	mm	(m^3/h)	l/min*1	l/min*1	max. bar	DN	bar	

Pressure regulator with flange

for liquids, P_1: max. 8/25 bar, non-relieving, FKM, PN 40 — **REF**

210	255	95	4.0	4200	66	8	DN 15	0.2 … 3.0	**REF-04B**
						25		2.0 … 10	**REF-04D**
						25		6.0 … 16	**REF-04E**
220	260	105	4.0	4200	66	8	DN 20	0.2 … 3.0	**REF-06B**
						25		2.0 … 10	**REF-06D**
						25		6.0 … 16	**REF-06E**
220	265	115	4.0	4200	66	8	DN 25	0.2 … 3.0	**REF-08B**
						25		2.0 … 10	**REF-08D**
						25		6.0 … 16	**REF-08E**
220	273	115	7.5	8000	125	8	DN 25	0.2 … 3.0	**REF-A8B**
						25		2.0 … 10	**REF-A8D**
						25		6.0 … 16	**REF-A8E**
280	290	150	7.5	8000	125	8	DN 40	0.2 … 3.0	**REF-12B**
						25		2.0 … 10	**REF-12D**
						25		6.0 … 16	**REF-12E**
320	298	165	7.5	8000	125	8	DN 50	0.2 … 3.0	**REF-16B**
						25		2.0 … 10	**REF-16D**
						25		6.0 … 16	**REF-16E**



REF-04D



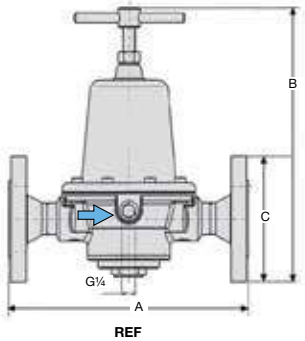
REF-08D

Special Options, add the appropriate letter

gaseous media	non-relieving, height +43 mm	RE . - . . . **U**
EPDM diaphragm	FDA approved	RE . - . . . **E**
PTFE diaphragm	FKM with PTFE coating and FKM o-ring	RE . - . . . **I**
free of oil and grease	suitable for oxygen	RE . - . . . **L**
flange connection*3	DIN 3239 / DIN 11850-2 / ISO 4200, DN 8 to DN 25, instead of connection thread	RE . - . . . **A**
milk pipe connection		RE . - . . . **M**

Accessories, enclosed

pressure gauge	Ø 50 mm, 0…*2 bar, G¼	for DN 8 to DN 15 (04)	**MS5002-..*2**
	Ø 63 mm, 0…*2 bar, G¼	for DN 15 (A4) to DN 50	**MS6302-..*2**



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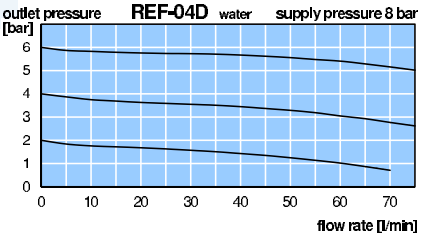

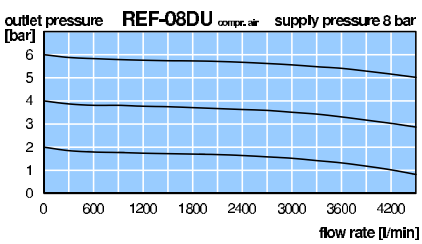

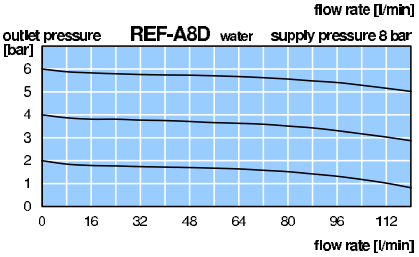

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0…16 bar
*3 version has to be indicate in clear words

Gauges: see chapter for measuring devices

PDF CAD
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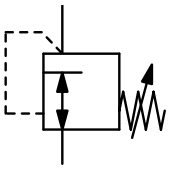
Order example: REF-04B

SST
15

Description	Diaphragm-operated pressure regulator made of stainless steel throughout. Even when spindle is unscrewed the indicated minimum outlet pressure is existent.
Media	compressed air, gases or liquids
Supply pressure	see chart, max. 25 bar
Adjustment	by T-handle, with locknut
Relieving function	non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C to 120 °C / 32 °F to 248 °F for FKM, for appropriately conditioned compr. air down to -30 °C / -22 °F 0 °C to 130 °C / 32 °F to 302 °F for EPDM, for appropriately conditioned compr. air down to -30 °C / -22 °F 0 °C to 150 °C / 32 °F to 302 °F for PTFE, for appropriately conditioned compr. air down to -30 °C / -22 °F
Material	Body: stainless steel 316L, mat. no. 1.4408 Diaphragm: FKM, optionally EPDM or PTFE



G¼ up to G2, FDA liquids or gases

Regulator made of Special Steel Casting

for liquids, P_1: max. 8/25 bar, non-relieving, FKM — **REA**

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate air l/min*1	water l/min*1	Supply pressure max. bar	Nom. size DN	Connection thread G	Pressure range bar	Order number
92	190	42	1.0	1100	17	8	DN 8	G¼	0.2 ... 3.0	**REA-02B**
						25			2.0 ... 10	**REA-02D**
						25			6.0 ... 16	**REA-02E**
						8	DN 10	G⅜	0.2 ... 3.0	**REA-03B**
						25			2.0 ... 10	**REA-03D**
						25			6.0 ... 16	**REA-03E**
						8	DN 15	G½	0.2 ... 3.0	**REA-04B**
						25			2.0 ... 10	**REA-04D**
						25			6.0 ... 16	**REA-04E**
122	240	49	4.0	4200	66	8	DN 15	G½	0.2 ... 3.0	**REA-A4B**
						25			2.0 ... 10	**REA-A4D**
						25			6.0 ... 16	**REA-A4E**
						8	DN 20	G¾	0.2 ... 3.0	**REA-06B**
						25			2.0 ... 10	**REA-06D**
						25			6.0 ... 16	**REA-06E**
						8	DN 25	G1	0.2 ... 3.0	**REA-08B**
						25			2.0 ... 10	**REA-08D**
						25			6.0 ... 16	**REA-08E**
150	250	53	7.5	8000	125	8	DN 25	G1	0.2 ... 3.0	**REA-A8B**
						25			2.0 ... 10	**REA-A8D**
						25			6.0 ... 16	**REA-A8E**
222	250	53	7.5	8000	125	8	DN 32	G1¼	0.2 ... 3.0	**REA-10B**
						25			2.0 ... 10	**REA-10D**
						25			6.0 ... 16	**REA-10E**
222	250	53	7.5	8000	125	8	DN 40	G1½	0.2 ... 3.0	**REA-12B**
						25			2.0 ... 10	**REA-12D**
						25			6.0 ... 16	**REA-12E**
235	250	53	7.5	8000	125	8	DN 50	G2	0.2 ... 3.0	**REA-16B**
						25			2.0 ... 10	**REA-16D**
						25			6.0 ... 16	**REA-16E**

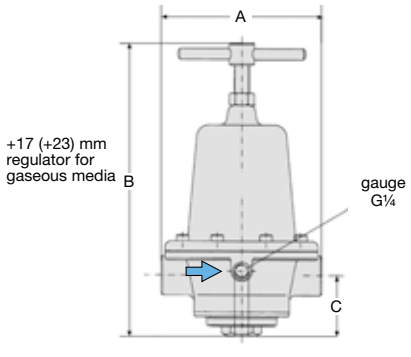


REA-04

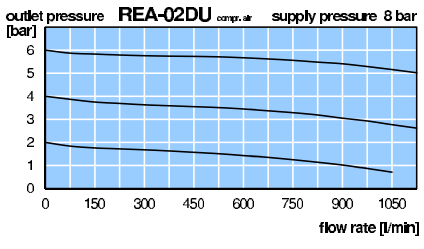


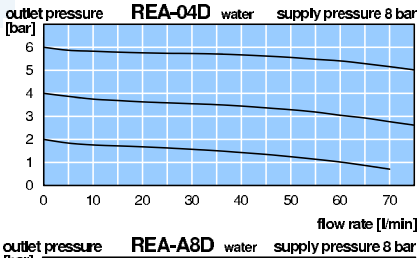
REA-A4, accessory: gauge

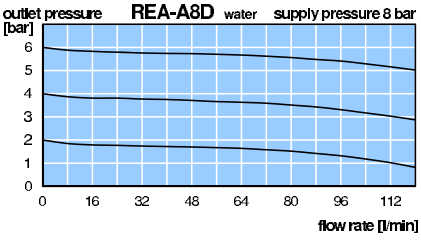
Special options and Accessories, see page 15.10. REF



REA







*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

PDF CAD
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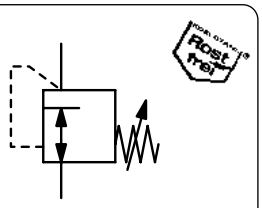
Order example: REA-02B

Description	Pressure regulator with flange, piston operated, made of stainless steel
Media	compressed air, gases or liquids
Supply pressure	max. 25 bar
Surface	Electropolished body with roughness Ra <4 µm on inside wetted surfaces. All metallic parts are machined from the solid bar. No threaded connections exposed to the fluid. The regulator is virtually pocket and sterilizable with steam.
Adjustment	by adjusting screw RTC-04 and -06, by T-handle RTC-08 and -12
Relieving function	non-relieving
Gauge port	no pressure gauge connection, optionally G¼
Temperature range	-40°C to 175°C / -40°F to 347°F
Material	Body, bonnet, piston and inner parts: AISI 316L, gasket: EPDM or FKM corresponding to FDA Main valve spring: AISI 302, Adjusting spring: C85, nickel plated NiP/Fe 15 µm All springs are not in contact with fluid.



½" up to 1½" compressed air, gases or liquids

Dimensions A mm	B mm	C mm	ØD mm	K_V-value m^3/h*1	Flow rate l/min*1	Connection ASME-BPE	Pressure range bar	Order number
Tri Clamp Pressure Regulator supply pressure max. 25 bar, EPDM for compressed air, gases, liquids and steam								**RTC**
140	183	57	25	1,4	2200	½"	0,2 … 1,5	**RTC-04A**
							0,3 … 3,0	**RTC-04B**
							0,8 … 8,0	**RTC-04D**
140	183	57	25	1,4	2200	¾"	0,2 … 1,5	**RTC-06A**
							0,3 … 3,0	**RTC-06B**
							0,8 … 8,0	**RTC-06D**
180	327	77	50,5	8,4	22000	1"	0,2 … 1,5	**RTC-08A**
							0,3 … 3,0	**RTC-08B**
							0,8 … 8,0	**RTC-08D**
180	327	75	50,5	8,4	22000	1½"	0,2 … 1,5	**RTC-12A**
							0,3 … 3,0	**RTC-12B**
							0,8 … 8,0	**RTC-12D**



RTC-04.M/-06.M



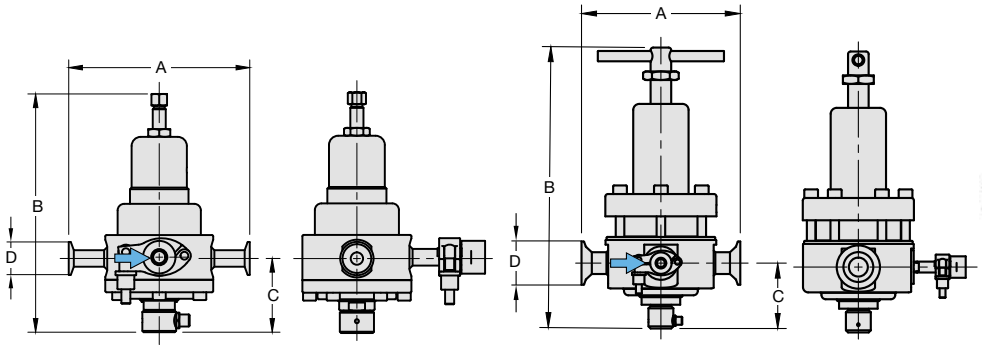
RTC-08/-12

Special Options, add the appropriate letter

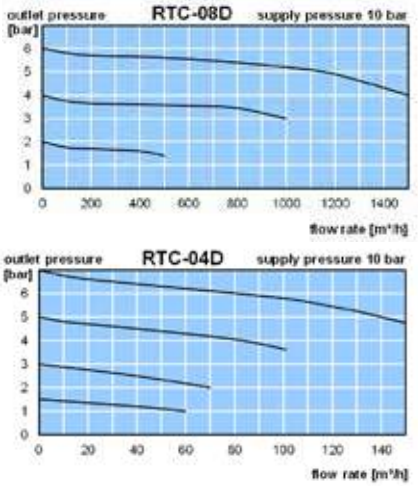
FKM o-ring		RTC-… **T**
EPDM o-ring	FDA approval	RTC-…**TD**
to 200 °C	high temperature version	RTC-… **X68**
ammonia	NH_3	RTC-…**02**
nitrogen	N_2	RTC-…**07**
oxygen	O_2	RTC-…**15**
water	H_2O	RTC-…**W**
neutral gas	CO_2, Ar, He, H_2, CH_4, C_3H_8, N_2O	RTC-…**XX**
pressure gauge	G¼	RTC-…**M**

Accessories, enclosed

pressure gauge	Ø 50 mm,	0…*2 bar	G¼	for ½" a. ¾"	**MS5002-..*2**
	Ø 63 mm,	0…*2 bar	G¼	for 1" a. 1½"	**MS6302-..*2**
mounting bracket				for ½" a. ¾"	**BW45-03S**
mounting nut				for ½" a. ¾	**M45x1,5S**
mounting bracket				for 1" a. 1½"	**BW00-27S**



RTC-04/-06 **RTC-08/-12**



*1 at 10 bar supply pressure , 7 bar outlet pressure and 2 bar pressure drop
*2 **02** = 0…2,5 bar, **04** = 0…4 bar, **10** = 0…10 bar

Gauges: see chapter for measuring devices

PDF CAD
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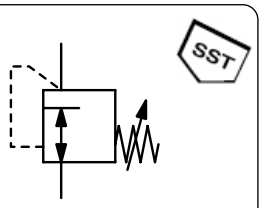
Order example: RTC-04A

TRI CLAMP LOW PRESSURE REGULATOR RTCN

Description	Precision low pressure regulator with flange and big spring cage, made of stainless steel. Preferably in pharmaceutical, bio, solar, brewery and food industry, if highest purity, maximum of hygiene and optimal protection against pollution and crosswise contamination is important
Media	Compressed air or natural gases. **Supply pressure:** max. 7 bar, min. 1 bar
Surface inside	Electropolished body with roughness Ra <4 µm on inside wetted surfaces. All metallic parts are machined from the solid bar. No threaded connections exposed to the fluid. The regulator is virtually pocket and sterilizable with steam.
Adjustment	by adjusting screw
Relieving function	non-relieving **Mounting position:** any
Tightness	Class VI; (IEC 60534-4) **Gauge port:** no pressure gauge connection, optionally G¼
Temperature Range	-20°C to 80°C
Material	Body, spring cage and internal parts: SST 316L Gasket: EPDM, FKM Mai valve spring: SST 302 Adjusting spring: C85, nickel plated NiP, Diaphragm: NBR/Buna-N with PTFE coating not in contact with fluid.



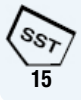
½" to 1½" compr. air or natural gases

Dimensions A mm	B mm	C mm	K_V-Value m^3/h^{*1}	Supply pressure max. bar	Flow rate m^3/h^{*1}	l/min^{*1}	Connection ASME-BPE	Pressure Range mbar	Order Number
Tri Clamp low pressure regulator Supply pressure max. 7 bar, SST, EPDM for compr. air, natural gases, not relieving									**RTCN**
140	179	42	0,75	7	60	1 000	½"	5 … 45	**RTCN-04A**
					78	1 300		20 … 200	**RTCN-04C**
					78	1 300		150 … 700	**RTCN-04D**
140	179	42	0,75	7	60	1 000	¾"	5 … 45	**RTCN-06A**
					78	1300		20 … 200	**RTCN-06C**
					78	1300		150 … 700	**RTCN-06D**
170	237	66	1,4	7	84	1 400	1"	5 … 45	**RTCN-08A**
					105	1 750		10 … 120	**RTCN-08B**
					105	1 750		10 … 400	**RTCN-08C**
					138	2 300		15 … 700	**RTCN-08D**
					180	3 000		200 … 1 200	**RTCN-08E**
170	237	66	1,4	7	84	1 400	1½"	5 … 45	**RTCN-12A**
					105	1 750		10 … 120	**RTCN-12B**
					105	1 750		10 … 400	**RTCN-12C**
					138	2 300		15 … 700	**RTCN-12D**
					180	3 000		200 … 1 200	**RTCN-12E**



RTCN-04/-06

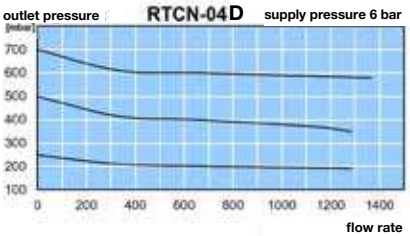
SST



15

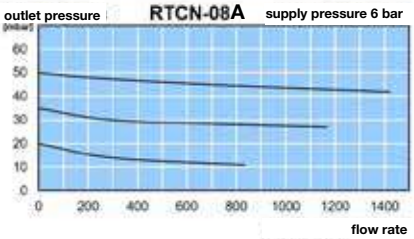
Special options, add the appropriate letter

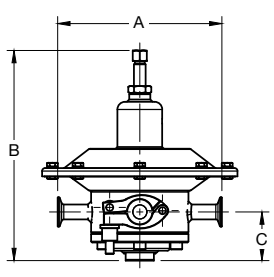
FKM o-ring		RTCN-…**T**
EPDM o-ring	FDA-approval	RTCN-…**TD**
up to 200 °C	high temperature version	RTCN-…**X68**
ammonia	NH_3	RTCN-…**02**
carbon dioxide	CO_2	RTCN-…**03**
nitrogen	N_2	RTCN-…**07**
oxygen	O_2	RTCN-…**15**
nitrous oxide	N_2O	RTCN-…**17**
natural gas	Ar, He, Hz, CH_4, C_3H_6	RTCN-…**XX**
pressure gauge connection		RTCN-… **M**



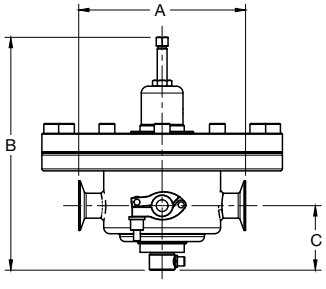
Accessories, enclosed

Pressure gauge	Ø 63 mm,	0…*2 mbar	capsule spring, ¼" bis 600 mbar	**MS6302-..*2**
	Ø 63 mm,	0…*2 bar	bourdon tube, ¼" ab 1 bar	**MS6302-..*2**





RTCN-04/06



RTCN-08/12

*1 at 7 bar supply pressure and max. outlet pressure
*2 **B6** = 0…60 mbar, **C3** = 0…250 mbar, **C4** = 0…400 mbar, **C6** = 0…600 mbar, **01** = 0 … 1 bar, **02** = 0 … 2,5 bar

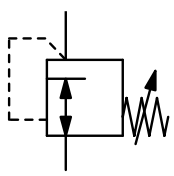
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: RTCN-04A

LOW PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT R3100

Description	Precision low pressure regulator with large diaphragm, completely made of stainless steel.
Media	compressed air or gases
Supply pressure	see table, max. 7 bar, min. 1 bar
Air consumption	without constant bleed
Adjustment	by adjusting screw at R3100-04, -06 to -1A (A,B,C), - 12 and -16 by T-handle at R3100-06 to --1A (D,E), with locknut
Relieving function	non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C bis 80 °C / 32 °C to 176 °F, FKM or EPDM 0 °C bis 130 °C / 32 °C to 266 °F, high temperature version, for appropriately conditioned compr. air down to -20 °C / - 4 °F, or low temperature down to -40 °C/-40°F
Material	Body: stainless steel 316L, material no. 1.4404 O-rings: FKM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel 316L / 1.4404



G½ up to G2
5…45/3000 mbar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Supply pressure max. bar	Connection-thread G	Pressure range mbar	Order number
Low pressure regulator made of SST, supply pressure max. 6/7 bar, non-relieving diaphragm NBR/Buna-N with PTFE coating, FKM o-ring									**R3100**
80	177	37	0,75	60	1000	6	G½*2	5… 45	R3100-04A
								20… 200	R3100-04C
								150… 700	R3100-04D
161	234	69	1,4	96	1600	7	G¾	5… 45	R3100-06A
								10… 120	R3100-06B
								10… 400	R3100-06C
161	296	53	8,4	576	9600			15… 700	R3100-06D
								200…1200	R3100-06E
161	234	69	1,4	96	1600	7	G1	5… 45	R3100-08A
								10… 120	R3100-08B
								10… 400	R3100-08C
161	296	53	8,4	576	9600			15… 700	R3100-08D
								200…1200	R3100-08E
265	234	69	1,4	96	1600	7	G1¼	5… 45	R3100-10A
								10… 120	R3100-10B
								10… 400	R3100-10C
265	296	53	8,4	576	9600			15… 700	R3100-10D
								200…1200	R3100-10E
265	234	69	1,4	96	3000	7	G1½	5… 45	R3100-1AA
								10… 120	R3100-1AB
								10… 400	R3100-1AC
265	296	53	8,4	576	9600			15… 700	R3100-1AD
								200…1200	R3100-1AE
171	431	97	6,2	420	7000	6	G1½	20… 50	R3100-12A
								50… 150	R3100-12B
171	467	97						150… 300	R3100-12D
171	430	97	25	1680	28000			100…1000	R3100-12E
171	431	97	6,2	420	7000	6	G2	20… 50	R3100-16A
171	467	97						50… 150	R3100-16B
171	430	97	25	1680	28000			150… 300	R3100-16D
								100…1000	R3100-16E



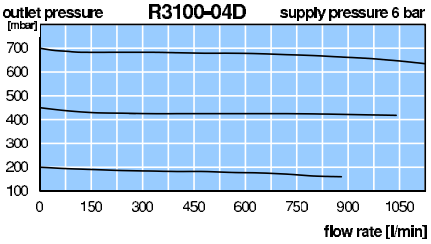
R3100-04

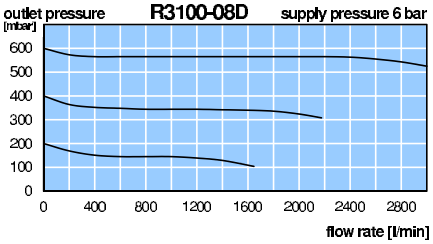


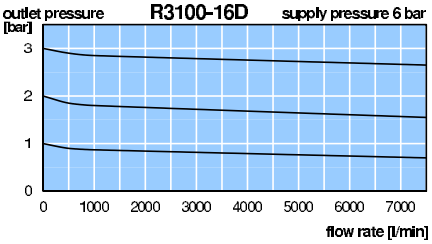
R3100-06/-08/-10/-1A
accessory: gauge



R3100-12/-16







*1 at 6 bar supply pressure and 1 bar /. 0.7 bar (-04) outlet pressure

*2 G¾ thread at outlet

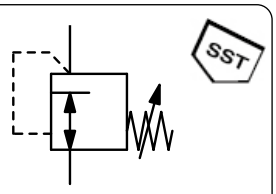
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
R3100-04A

LOW PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT R3100

Description	Precision low pressure regulator with large diaphragm, completely made of stainless steel.
Media	compressed air or gases
Supply pressure	max. 7 bar, min. 1 bar
Air consumption	without constant bleed
Adjustment	by adjusting screw at R3100-04, -06 to -1A (A,B,C), - 12 and -16 by T-handle at R3100-06 to --1A (D,E), with locknut
Relieving function	non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Mounting position	any
Temperature range	0 °C bis 80 °C / 32 °C to 176 °F, FKM or EPDM 0 °C bis 130 °C / 32 °C to 266 °F, high temperature version, for appropriately conditioned compr. air down to -20 °C / - 4 °F, or low temperature down to -40 °C/-40°F
Material	Body: stainless steel 316L, material no. 1.4404 O-rings: FKM Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel 316L / 1.4404



G½ up to G2
5…45/3000 mbar

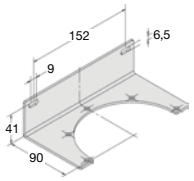
Dimensions A	B	C	K_v-value	Flow rate		Supply pressure	Connection-thread	Pressure range	Order number
mm	mm	mm	(m^3/h)	m^3/h*1	l/min*1	max. bar	G	mbar	

Special options, add the appropriate letter

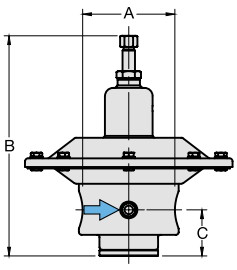
NPT	connection thread	R3100- . . . **N**
EPDM o-ring		R3100- . . . **E**
EPDM o-ring	FDA-approval	R3100- . . . .**TD**
down to -40 °C/-40 °F	low temperature version	R3100- **X51**
up to 130 °C/266 °F	high temperature version	R3100- **X54**
ammonia	NH_3	R3100- **02**
carbon dioxide	CO_2	R3100- **03**
argon	Ar	R3100- **05**
nitrogen	N_2	R3100- **07**
helium	He	R3100- **09**
hydrogen	H_2	R3100- **11**
methane	CH_4	R3100- **13**
natural gas *2		R3100- **14**
oxygen	O_2	R3100- **15**
propane	C_3H_8	R3100- **16**
nitrous oxide	N_2O	R3100- **17**
flance connection	see end of the chapter / flanges	R3100- . . . .**F.**

Accessories, enclosed

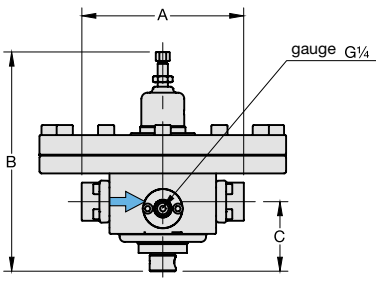
pressure gauge	Ø 63 mm, 0…*3 mbar, G¼, capsule type	up to 600 mbar	**MS6302-. .** *3
	Ø 63 mm, 0…*4 bar, G¼, Bourdon tube	from 1 bar on	**MS6302-. .** *4
connect. parts gauge		for G½	**AM-03S**
mounting bracket		for G½	**BW00-26S**



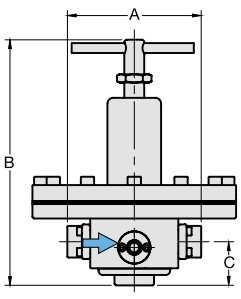
BW00-26S



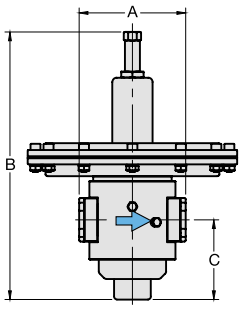
R3100-04



R3100-06-/-08/-10/-1A(A,B,C)



R3100-06-/-08/-10/-1A(D,E)



R3100-12-/-16

*1 at 6 bar supply pressure and 1 bar /. 0.7 bar (-04) outlet pressure
*2 without DVGW-approval
*3 **B6** = 0…60 mbar, **C3** = 0…250 mbar, **C4** = 0…400 mbar, **C6** = 0…600 mbar
*4 **02** = 0…2 bar, **04** = 0...4 bar, **06** = 0...6 bar

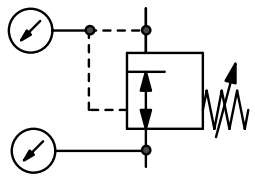
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
MS6302-B6

STAINLESS STEEL HIGH PRESSURE REGULATOR, P1: UP TO 200 BAR RH3000

Description	Hand-operated, spring-loaded high pressure regulator for maximum supply pressure of 220 bar and maximum outlet pressure of 200 bar. For outlet pressures up to 15 bar the regulator has a diaphragm, for higher outlets a piston. A sintered bronze filter at the inlet port protects against contamination.
Media	compressed air or non-corrosive gases
Supply pressure	max. 220 bar
Adjustment	by hexagon head screw at RH3000-02 to -A3; T-handle at RH3000-06 to -10, with locknut
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Relief valve	prevents from overpressure, see chart
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F
Mounting position	any
Material	Body: stainless steel 316; Diaphragm: stainless steel 316; O-ring: FKM / PTFE; Filter: stainless steel 316; Valve seat: FKM; Piston: stainless steel 316



G¼ up to G1¼
1…8/200 bar



RH3000-02

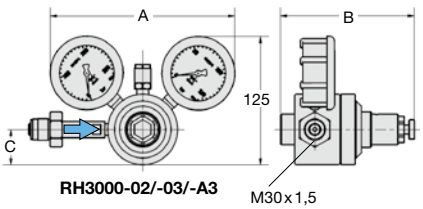


RH3000-03

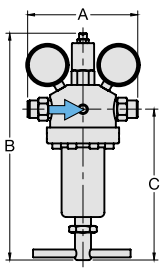
High pressure regulator 220 bar

non-relieving, for compressed air with supply and outlet pressure gauges — **RH3000**

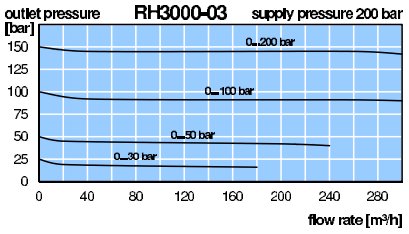
Dimensions A mm	B mm	C mm	Relief valve S: with valve	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread inlet/outlet	Pressure range bar	Order number
170	159	32	S	0.05	30	500	DIN 477/ G¼f	1… 8	**RH3000-02A**
			S		45	750		1… 15	**RH3000-02B**
170	172	32	S		60	1000		3… 30	**RH3000-02C**
			S		60	1000		5… 50	**RH3000-02D**
			S		60	1000		10…100	**RH3000-02E**
			-		60	1000		20…200	**RH3000-02F**
186	172	40	S	0.15	70	1150	DIN 477/ G⅜f	1… 8	**RH3000-03A**
			S		155	2580		1,5… 15	**RH3000-03B**
			S		210	3500		3… 30	**RH3000-03C**
186	175	46	S		250	4100		5… 50	**RH3000-03D**
					350	5800		10…100	**RH3000-03E**
186	196	40	-		390	6500		20…200	**RH3000-03F**
178	241	40	S	0.25	370	6170	G¾f / G⅜f	1… 15	**RH3000-A3B**
178	244	40	S		460	7700		3… 30	**RH3000-A3C**
			S		650	10830		5… 50	**RH3000-A3D**
					680	11300		10…100	**RH3000-A3E**
178	196	40	-		700	11670		20…200	**RH3000-A3F**
178	241	40	S	0,25	370	6170	G¾i / G½i	1… 15	**RH3000-04B**
178	244	40	S		460	7700		3… 30	**RH3000-04C**
			S		650	10830		5… 50	**RH3000-04D**
			-		680	11300		10…100	**RH3000-04E**
178	196	40	-		700	11670		20…200	**RH3000-04F**
166	345	232	S	1.5	600	10000	G¾m/G¾m	1… 8	**RH3000-06A**
			S		720	12000		1… 15	**RH3000-06B**
166	358	245	S		850	14170		3… 30	**RH3000-06C**
			S		1000	16670		5… 50	**RH3000-06D**
			-		1050	17500		10…100	**RH3000-06E**

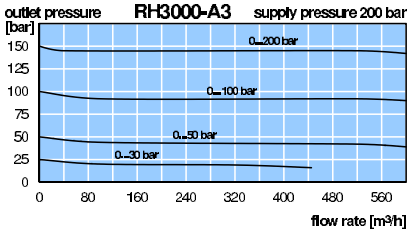


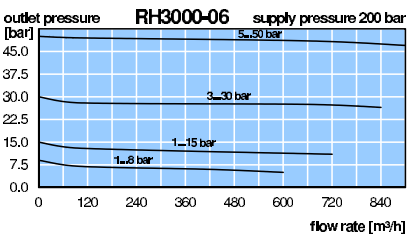
RH3000-02/-03/-A3



RH3000-06







*1 at 200 bar supply pressure and max. outlet pressure

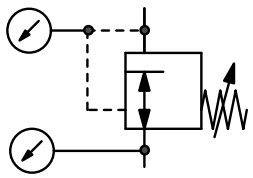
PDF CAD
www.aircom.net

Order example:
RH3000-02A

SST
15

STAINLESS STEEL HIGH PRESSURE REGULATOR, P1: UP TO 200 BAR RH3000

Description	Hand-operated, spring-loaded high pressure regulator for maximum supply pressure of 220 bar and maximum outlet pressure of 200 bar. For outlet pressures up to 15 bar the regulator has a diaphragm, for higher outlets a piston. A sintered bronze filter at the inlet port protects against contamination.
Media	compressed air or non-corrosive gases
Supply pressure	max. 220 bar
Adjustment	by hexagon head screw at RH3000-02 to -A3; T-handle at RH3000-06 to -10, with locknut
Gauge port	All regulators are equipped with both one supply pressure gauge and one outlet pressure gauge.
Relief valve	prevents from overpressure, see chart
Compensation	All regulators are equipped with supply pressure variation compensation, so that a change in supply pressure has no effect on the outlet pressure's stability.
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F
Mounting position	any
Material	Body: stainless steel 316; Diaphragm: stainless steel 316; O-ring: FKM / PTFE; Filter: stainless steel 316; Valve seat: FKM; Piston: stainless steel 316



G¼ up to G1¼
1…8/200 bar

Dimensions A mm	B mm	C mm	Relief valve	K_v-value (m³/h)	Flow rate m³/h*1	l/min*1	Connection thread	Pressure range bar	Order number
High pressure regulator 220 bar non-relieving, for compressed air with supply and outlet pressure gauges									**RH3000**
253	365	242	S	1,8	1100	18330	G1a / G1a	1… 8	**RH3000-08A**
			S		1300	21670		1… 15	**RH3000-08B**
253	406	278	S		1500	25000		3… 30	**RH3000-08C**
			S		1650	27500		5… 50	**RH3000-08D**
			-		1850	30830		20…200	**RH3000-08F**
248	370	270	S	3,1	3850	65830	G1a / G1¼ i	1… 8	**RH3000-10A**
								1… 15	**RH3000-10B**
								3… 30	**RH3000-10C**
								5… 50	**RH3000-10D**



RH3000-08



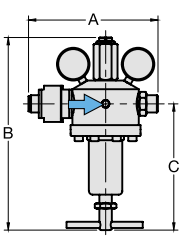
RH3000-10

Special options, add the appropriate letter

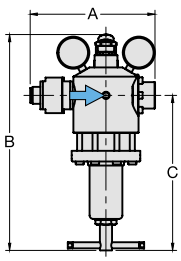
diaphragm relieving		RH3000-. . . **R**
piston relieving		RH3000-. . . **R**
EPDM elastomer		RH3000-. . . **E**
for panel mounting carbon	for RH3000-02 to -A3	RH3000-. . . **P**
dioxide*2	CO_2	RH3000-. . . **03**
argon	Ar	RH3000-. . . **05**
nitrogen	N_2	RH3000-. . . **07**
helium	He	RH3000-. . . **09**
hydrogen	H_2	RH3000-. . . **11**
methane	CH_4	RH3000-. . . **13**
natural gas *3		RH3000-. . . **14**
propane	C_3H_8	RH3000-. . . **16**
nitrous oxide	N_2O	RH3000-. . . **17**
without cylinder connection		RH3000-. . . **X40**

Accessories, enclosed

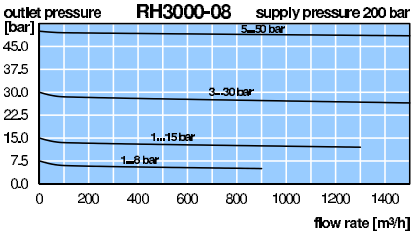
mounting bracket	for RH3000-02	**BW45-03S**
mounting nut	for RH3000-02	**M45x1,5S**
mounting bracket	for RH3000-03 and -A3	**BW50-01S**
mounting nut	for RH3000-03 and -A3	**M50x1,5S**
mounting bracket	for RH3000-06	**BW00-31S**
	for RH3000-08	**BW00-35S**



RH3000-08



RH3000-10



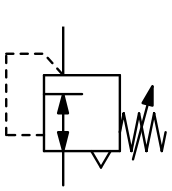
*1 at 200 bar supply pressure and max. outlet pressure *2 max. 80 bar *3 without DVGW-approval

PDF CAD
www.aircom.net

Order example:
RH3000-08A

VOLUME BOOSTER MADE OF STAINLESS STEEL THROUGHOUT, UP TO 50 BAR R3000-J

Description	Volume booster made of stainless steel throughout, without constant bleed, transmission ratio 1:1.
Media	compressed air, gases or liquids
Supply pressure	max. 60 bar for R3000-06J/-1A, max. 30 bar for -16J, all others 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Pilot pressure	max. 15 bar for R3000-..J2, max. 50 bar for R3000-..J5, pilot port G¼
Relieving function	non-relieving, optionally relieving
Exhaust	DN 2, optionally DN 4
Gauge port	G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally SST Inner valve: SST 316L, W.-Nr. 1.4404



G¼ to G2, FDA gases or liquids

Dimensions A mm	B mm	C mm	Regulating System D: Diaphragm P: Piston	K_v-value (m^3/h)	Flow rate m^3/h*1	l/min*1	Connection thread G	Pilot pressure max. bar	Pressure range bar	Order number
Stainless steel booster							supply pressure max. 60 bar, non-relieving, ratio 1:1, PTFE-diaphragm and FKM-o-ring			**R3000-J**
64	79	38	M	1.4	78	1300	G¼	15	1...15	**R3000-02J2T**
64	92	38	K					50	1...50	**R3000-02J5T**
109	90	39	M	3.0	168	2800	G½	15	1...15	**R3000-04J2T**
109	108	39	K					50	1...50	**R3000-04J5T**
165	137	60	M	9.7	540	9000	G¾	15	1...15	**R3000-06J2T**
165	172	60	K					50	1...50	**R3000-06J5T**
165	137	60	M	9.7	540	9000	G1	15	1...15	**R3000-08J2T**
165	172	60	K					50	1...50	**R3000-08J5T**
269	137	60	M	9.7	540	9000	G1¼	15	1...15	**R3000-10J2T**
269	172	60	K					50	1...50	**R3000-10J5T**
269	137	60	M	9.7	540	9000	G1½	15	1...15	**R3000-1AJ2T**
269	172	60	K					50	1...50	**R3000-1AJ5T**
171	237	128	K	25.0	1440	24000	G1½	50	1...50	**R3000-12J5T**
171	237	128	K	25.0	1440	24000	G2	50	1...15	**R3000-B6J2T**
171	237	128	K					50	1...50	**R3000-B6J5T**
171	268	128	K	25.0	1440	24000	G2	15	1...15	**R3000-16J2T**



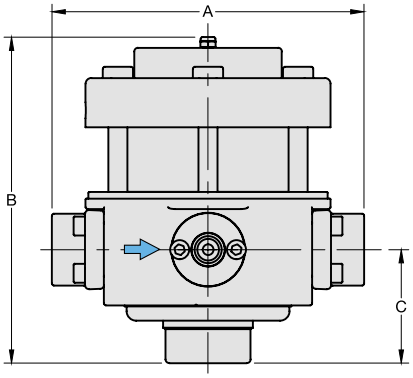
R3000-02J2T
accessory: gauge



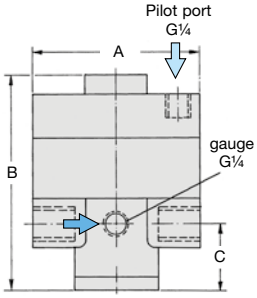
R3000-04J



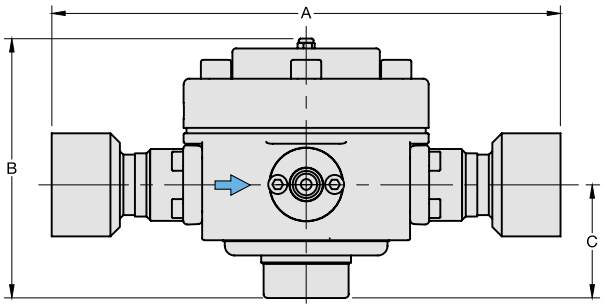
R3000-06J/-08J/-10J/-1AJ2T



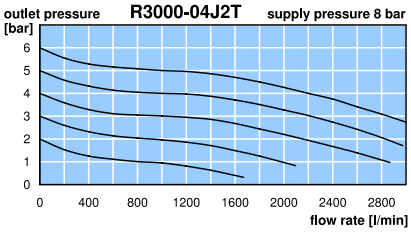
R3000-06J/-08J/-10J/-1AJ5T

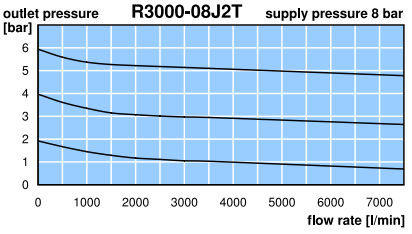


R3000-02J.T



R3000-06J/-08J/-10J/-1AJ2T





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar, **60** = 0...60 bar

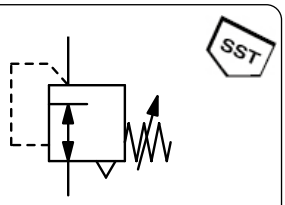
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: R3000-02J2T

VOLUME BOOSTER MADE OF STAINLESS STEEL THROUGHOUT, UP TO 50 BAR R3000-J

Description	Volume booster made of stainless steel throughout, without constant bleed, transmission ratio 1:1.
Media	compressed air, gases or liquids
Supply pressure	max. 60 bar for R3000-06J/-1A, max. 30 bar for -16J, all others 50 bar, for liquids $\Delta p_{max.}$ = 25 bar
Pilot pressure	max. 15 bar for R3000-..J2, max. 50 bar for R3000-..J5, pilot port G¼
Relieving function	non-relieving, optionally relieving
Exhaust	DN 2, optionally DN 4
Gauge port	G¼ on both sides of the body, one screw plug supplied **Mounting position** any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally SST Inner valve: SST 316L, W.-Nr. 1.4404



G¼ to G2, FDA gases or liquids

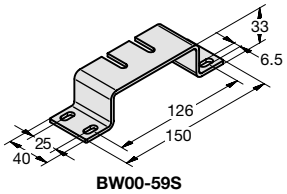
Dimensions A	B	C	Regulating System D: Diaphragm P: Piston	K_v-value	Flow rate	Connection thread	Pilot pressure	Pressure range	Order number
mm	mm	mm		(m^3/h)	m^3/h*1 l/min*1	G	max. bar	bar	

Special options, add the appropriate letter

diaphragm relieving		for R3000-02J2 to 1A8J2	R3000-..J2.**R**
piston relieving		for R3000-..J5	R3000-..J..**R**
down to -40 °C/ -40°F	low temperature version		R3000-..J..**X51**
up to 130 °C/266 °F	high temperature version		R3000-..J..**X54**
FKM -o-ring	for piston regulator or PTFE diaphragm		R3000-..J.**T**
EPDM-o-ring			R3000-..J.**TE**
EPDM-o-ring	FDA-approval		R3000-..J.**TD**
SST diaphragm	FKM -o-ring		R3000-..J.**S**
	EPDM-o-ring		R3000-..J.**SE**
tapped exhaust			R3000-..J..**X12**
ammonia	NH_3		R3000-..J..**02**
carobon dioxide	CO_2		R3000-..J..**03**
argon	Ar		R3000-..J..**05**
nitrogen	N_2		R3000-..J..**07**
helium	He		R3000-..J..**09**
hydrogen	H_2		R3000-..J..**11**
methane	CH_4		R3000-..J..**13**
natural gas *3			R3000-..J..**14**
oxygen	O_2		R3000-..J..**15**
propane	C_3H_8		R3000-..J..**16**
nitrous oxide	N_2O		R3000-..J..**17**
water	H_2O		R3000-..J..**W**
flange connection	see end of the chapter / flanges		R3000-..J..**F.**

Accessories, enclosed

pressure gauge	Ø 50 mm, 0…*2 bar, G¼	for G¼ and G½	**MS5002-..***2
	Ø 63 mm, 0…*2 bar, G¼	for G¾ to G2	**MS6302-..***2
mounting bracket		for G¾ and G1	**BW00-59S**



BW00-59S

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop *3 without DVGW-approval
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **06** = 0…6 bar, **10** = 0…10 bar, **16** = 0…16 bar, **60** = 0…60 bar

Gauges: see chapter for measuring devices

PDF CAD
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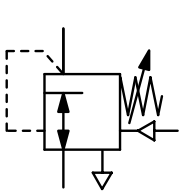
Order example: MS5002-02

DIFFERENTIAL PRESSURE REGULATOR P1: MAX. 414 BAR, P2: 0-103 BAR RH44-S

Description	The dome loaded, spring biased regulator is designed for pressure tracking applications to maintain a constant differential pressure. Venting allows for pressure tracking increases and decreases.		
Media	compressed air or gases (depending on selected materials)		
Supply pressure	max. 414 bar	**Outlet pressure**	max. 103 bar
Exhaust	tapped exhaust ¼″ NPT	**Control port**	⅛″ NPT
Adjustment	hexagonal screw for spring tension	**Leakage**	bubble-tight
Gauge port	not available	**Mounting position**	any
Temperature range	-26 °C to 74 °C / -14 °F to 165 °F		
Material	Body: stainless steel 302 Valve seat and gasket: CTFE, Vespel O-Rings: NBR/Buna-N		

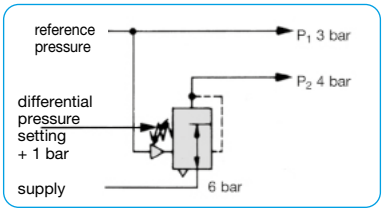


differential pressure 0-1/24 bar
reference pressure 0- 103 bar

Dimensions A mm	B mm	C mm	K_v-value (m^3/h)	Flow rate l/min*1	Connection thread NPT	Differential pressure range bar	Order number
Differential pressure regulator P1 max: 414 bar, PA max: 103 bar, SST 302 relieving, Psi: 0 ... 103 bar, Viton / CTFE							**RH44**
76	212	46	0.7	10000	½″ NPT	0... 1	**RH44-04AS**
						0... 7	**RH44-04BS**
						0...14	**RH44-04CS**
						0...24	**RH44-04DS**
76	212	46	2.0	21000	¾″ NPT	0... 1	**RH44-06AS**
						0... 7	**RH44-06BS**
						0...14	**RH44-06CS**
						0...24	**RH44-06DS**



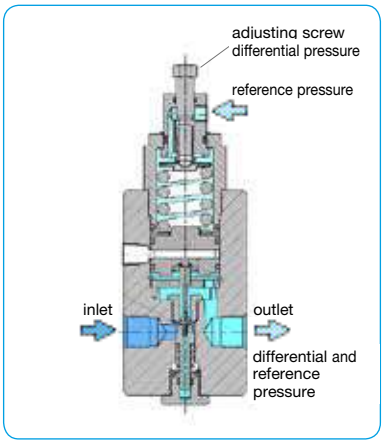
RH44-S



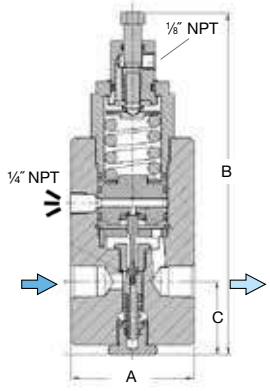
Example: differential pressure constant 1 bar

Special options, add the appropriate letter

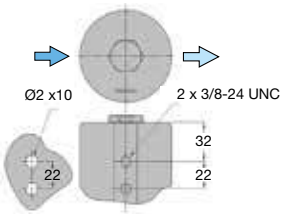
brass body	(s. page 4.22)	RH44-0. .



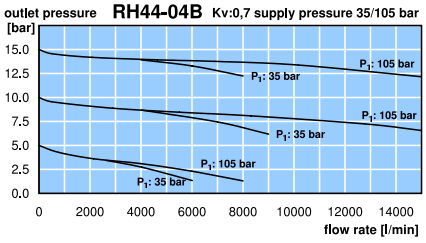
cross-section



RH44-S



panel mounting

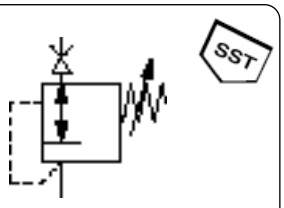


*1 at P_1 = 105 bar, P_2 = 15 bar and Δp = 1 bar

PDF CAD
www.aircom.net

Order example:
RH44-04AS

Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.
Media	compressed air, gases or liquids
System pressure	see chart, max. 65 bar
Adjustment	by adjusting screw at D3000-02 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G⅛ on both sides, all others G¼, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally NBR/Buna-N or EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404

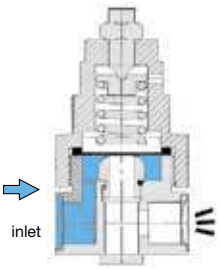


G⅛ to G2, FDA
0.1 ... 1.5 / 50 bar

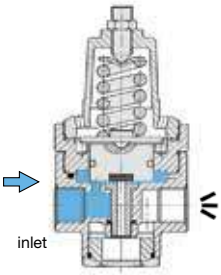
Dimensions A mm	B mm	C mm	Regul. system D: Diaphragm P: Piston	Exhaust rate l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number
Back pressure regulator				overpressure max. 30 / 65 bar, PTFE diaphragm and FKM o-ring				**D3000**
40	83	13	M	400	30	G⅛	0,1 ... 1,5	**D3000-01AT**
							0,2 ... 3,0	**D3000-01BT**
							0,5 ... 8,0	**D3000-01DT**
							1,0 ... 15	**D3000-01ET**
40	83	13	M	400	30	G¼	0,1 ... 1,5	**D3000-A2AT**
							0,2 ... 3,0	**D3000-A2BT**
							0,5 ... 8,0	**D3000-A2DT**
							1,0 ... 15	**D3000-A2ET**
109	140	17	M	2300	30	G¼	0,1 ... 1,5	**D3000-02AT**
							0,2 ... 3,0	**D3000-02BT**
							0,5 ... 8,0	**D3000-02DT**
							1,0 ... 15	**D3000-02ET**
109	153	17	K	2300	65		2,0 ... 30	**D3000-02FT**
							3,0 ... 50	**D3000-02GT**
109	140	17	M	2300	30	G⅜	0,1 ... 1,5	**D3000-03AT**
							0,2 ... 3,0	**D3000-03BT**
							0,5 ... 8,0	**D3000-03DT**
							1,0 ... 15	**D3000-03ET**
109	153	17	K	2300	65		2,0 ... 30	**D3000-03FT**
							3,0 ... 50	**D3000-03GT**
109	140	17	M	2300	30	G½	0,1 ... 1,5	**D3000-04AT**
							0,2 ... 3,0	**D3000-04BT**
							0,5 ... 8,0	**D3000-04DT**
							1,0 ... 15	**D3000-04ET**
109	153	17	K	2300	65		2,0 ... 30	**D3000-04FT**
							3,0 ... 50	**D3000-04GT**



D3000-02/-03/-04



with diaphragm

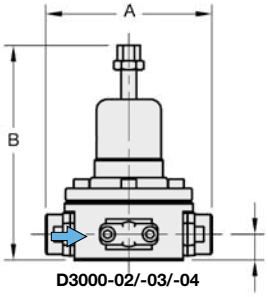


with piston

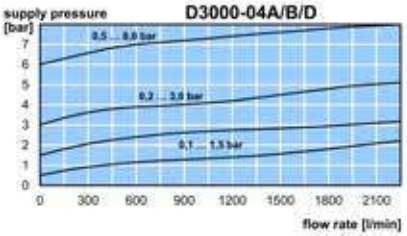
Accessories, see next pages



D3000-01/-A2



D3000-02/-03/-04



*1 at 7 bar overpressure and open outlet

Gauges: see chapter for measuring devices

PDF CAD
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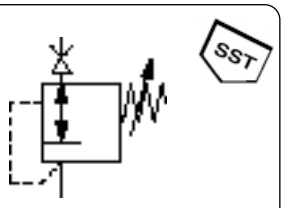
Order example: D3000-02AT

Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.
Media	compressed air, gases or liquids
System pressure	see chart, max. 70 bar
Adjustment	by adjusting screw at D3000-01 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G⅛ on both sides, all others G¼, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally NBR/Buna-N or EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404

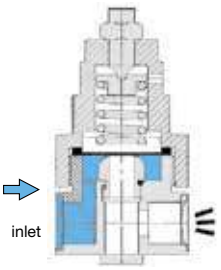


G⅛ to G2, FDA
0.1 ... 1.5 / 50 bar

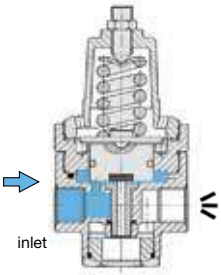
Dimensions A mm	B mm	C mm	Regul. system D: Diaphragm P: Piston	Exhaust rate l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number
Back pressure regulator				overpressure max. 30 / 65 bar, PTFE diaphragm and FKM o-ring				**D3000**
40	83	13	M	400	30	G⅛	0,1 ... 1,5	**D3000-01AT**
							0,2 ... 3,0	**D3000-01BT**
							0,5 ... 8,0	**D3000-01DT**
							1,0 ... 15	**D3000-01ET**
40	83	13	M	400	30	G¼	0,1 ... 1,5	**D3000-A2AT**
							0,2 ... 3,0	**D3000-A2BT**
							0,5 ... 8,0	**D3000-A2DT**
							1,0 ... 15	**D3000-A2ET**
109	140	17	M	2300	22,5	G¼	0,1 ... 1,5	**D3000-02AT**
							0,2 ... 3,0	**D3000-02BT**
							0,5 ... 8,0	**D3000-02DT**
							1,0 ... 15	**D3000-02ET**
109	153	17	K	2300	70		2,0 ... 30	**D3000-02FT**
							3,0 ... 50	**D3000-02GT**
109	140	17	M	2300	22,5	G⅜	0,1 ... 1,5	**D3000-03AT**
							0,2 ... 3,0	**D3000-03BT**
							0,5 ... 8,0	**D3000-03DT**
							1,0 ... 15	**D3000-03ET**
109	153	17	K	2300	70		2,0 ... 30	**D3000-03FT**
							3,0 ... 50	**D3000-03GT**
109	140	17	M	2300	22,5	G½	0,1 ... 1,5	**D3000-04AT**
							0,2 ... 3,0	**D3000-04BT**
							0,5 ... 8,0	**D3000-04DT**
							1,0 ... 15	**D3000-04ET**
109	153	17	K	2300	70		2,0 ... 30	**D3000-04FT**
							3,0 ... 50	**D3000-04GT**



D3000-02/-03/-04



with diaphragm

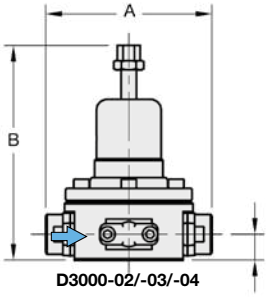


with piston

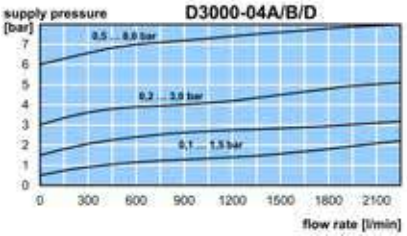
Accessories, see next pages



D3000-01/-A2



D3000-02/-03/-04



*1 at 7 bar overpressure and open outlet

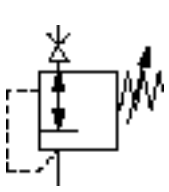
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example: D3000-02AT

BACK PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT D3000

Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.
Media	compressed air, gases or liquids
System pressure	see chart, max. 70 bar
Adjustment	by adjusting screw at D3000-01 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G¼ on both sides, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404

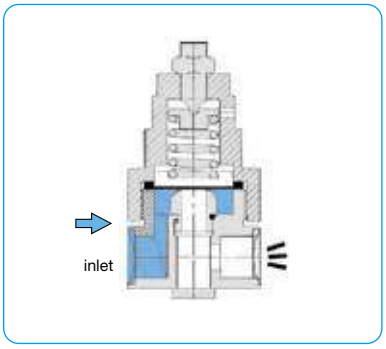


G⅛ to G2, FDA
0.1 ... 1.5 / 50 bar

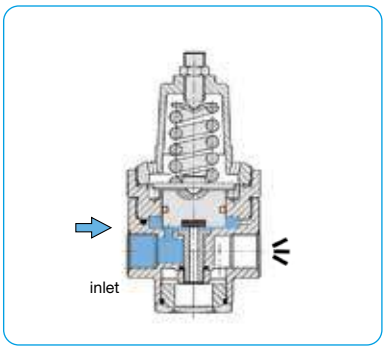
Dimensions A mm	B mm	C mm	Regul. system D: Diaphragm P: Piston	Exhaust rate l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number
Back pressure regulator					overpressure max. 30 / 65 bar, PTFE diaphragm and FKM o-ring			**D3000**
165	246	21	M	8000	30	G¾	0,1 ... 1,5	**D3000-06AT**
							0,2 ... 3,0	**D3000-06BT**
							0,5 ... 8,0	**D3000-06DT**
							1,0 ... 15	**D3000-06ET**
165	270	21	K	8000	65		2,0 ... 30	**D3000-06FT**
							3,0 ... 50	**D3000-06GT**
165	246	21	M	8000	30	G1	0,1 ... 1,5	**D3000-08AT**
							0,2 ... 3,0	**D3000-08BT**
							0,5 ... 8,0	**D3000-08DT**
							1,0 ... 15	**D3000-08ET**
165	270	21	K	8000	65		2,0 ... 30	**D3000-08FT**
							3,0 ... 50	**D3000-08GT**
269	246	21	M	8000	30	G1¼	0,1 ... 1,5	**D3000-10AT**
							0,2 ... 3,0	**D3000-10BT**
							0,5 ... 8,0	**D3000-10DT**
							1,0 ... 15	**D3000-10ET**
269	270	21	K	8000	65		2,0 ... 30	**D3000-10FT**
							3,0 ... 50	**D3000-10GT**
269	246	21	M	8000	30	G1½	0,1 ... 1,5	**D3000-1AAT**
							0,2 ... 3,0	**D3000-1ABT**
							0,5 ... 8,0	**D3000-1ADT**
							1,0 ... 15	**D3000-1AET**
269	270	21	K	8000	65		2,0 ... 30	**D3000-1AFT**
							3,0 ... 50	**D3000-1AGT**



D3000-06/-08/-10/-1A

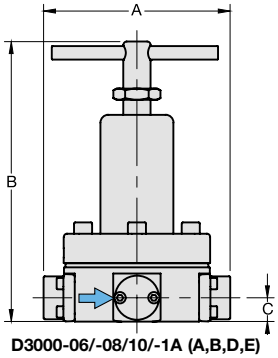


with diaphragm

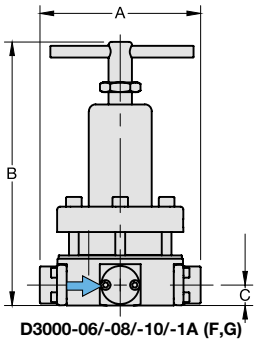


with piston

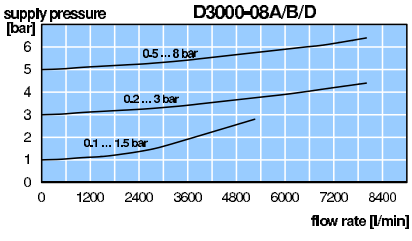
Accessories, see next pages



D3000-06/-08/10/-1A (A,B,D,E)



D3000-06/-08/-10/-1A (F,G)



*1 at 7 bar overpressure and open outlet

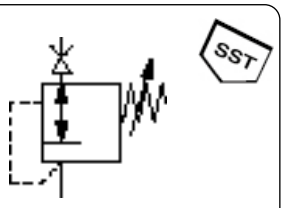
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
D3000-06AT

BACK PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT D3000

Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.
Media	compressed air, gases or liquids
System pressure	see chart, max. 70 bar
Adjustment	by adjusting screw at D3000-01 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G¼ on both sides, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404

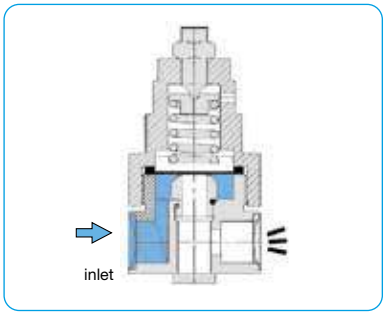


G⅛ to G2, FDA
0.1 ... 1.5 / 50 bar

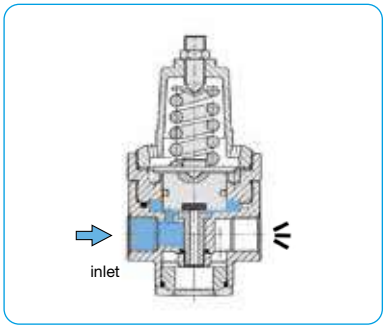
Dimensions A mm	B mm	C mm	Regul. system D: Diaphragm P: Piston	Exhaust rate l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number
Back pressure regulator				overpressure max. 30 / 65 bar, PTFE diaphragm and FKM o-ring				**D3000**
171	376	128	M	25000	30	G1½	0.1 ... 1.5	**D3000-12AT**
							0.2 ... 3.0	**D3000-12BT**
							0.5 ... 8.0	**D3000-12DT**
							1.0 ... 15	**D3000-12ET**
171	387	128	P	25000	65		2.0 ... 30	**D3000-12FT**
							3.0 ... 50	**D3000-12GT**
171	376	128	M	25000	30	G2	0.1 ... 1.5	**D3000-16AT**
							0.2 ... 3.0	**D3000-16BT**
							0.5 ... 8.0	**D3000-16DT**
							1.0 ... 15	**D3000-16ET**
171	387	128	P	25000	65		2.0 ... 30	**D3000-16FT**
							3.0 ... 50	**D3000-16GT**



D3000-12/-16

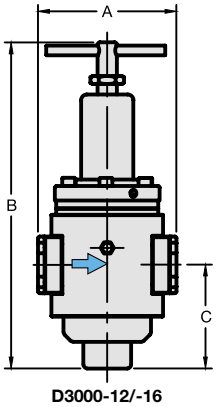


with diaphragm

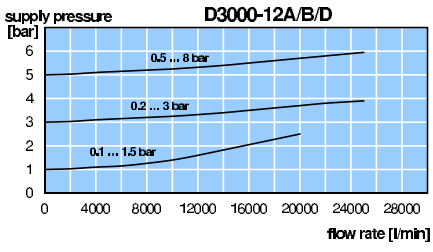


with piston

Accessories, see next page



D3000-12/-16



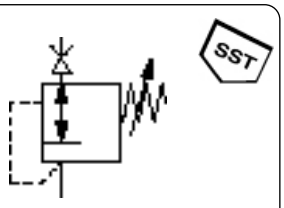
*1 at 7 bar overpressure and open outlet

PDF CAD
www.aircom.net

Order example:
D3000-12AT

BACK PRESSURE REGULATOR MADE OF STAINLESS STEEL THROUGHOUT D3000

Description	The back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.
Media	compressed air, gases or liquids
System pressure	see chart, max. 70 bar
Adjustment	by adjusting screw at D3000-01 to -A6, with locknut by T-handle at D3000-06 to -16, with locknut
Gauge port	for inlet pressure, G¼ on both sides, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °C to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °C to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE coating, optionally stainless steel Inner valve: stainless steel 316L, material no 1.4404

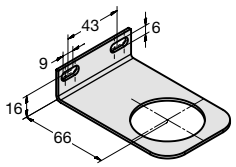


G⅛ to G2, FDA
0.1 ... 1.5 / 50 bar

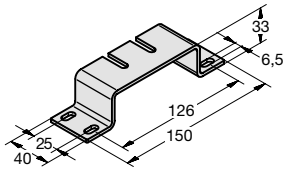
Dimensions A mm	B mm	C mm	Regul. system **D:** Diaphragm **P:** Piston	Exhaust rate l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range bar	Order number

Special options, add the appropriate letter

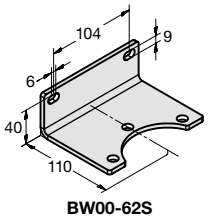
pilot operated			D3000- . . . .**J**
NPT	connection thread		D3000- . . . .**N**
down to -40 °C/ -40°F	low temperature version	from G¼ on	D3000- **X51**
up to 130 °C/266 °F	high temperature version	from G¼ on	D3000- **X54**
FKM -o-ring	for piston regulator or PTFE diaphragm		D3000- . . .**T**
EPDM-o-ring			D3000- . . .**TE**
EPDM-o-ring	FDA-approval		D3000- . . .**TD**
SST diaphragm	FKM -o-ring		D3000- . . .**S**
	NBR -o-ring		D3000- . . .**SB**
	EPDM-o-ring		D3000- . . .**SE**
	EPDM-o-ring, FDA-approval		D3000- . . .**SD**
ammonia	NH_3	P_1 max. 15 bar	D3000- . . .**02**
carbon dioxide	CO_2		D3000- . . .**03**
argon	Ar		D3000- . . .**05**
nitrogen	N_2		D3000- . . .**07**
helium	He		D3000- . . .**09**
hydrogen	H_2		D3000- . . .**11**
methane	CH_4		D3000- . . .**13**
natural gas *3			D3000- . . .**14**
oxygen	O_2		D3000- . . .**15**
propane	C_3H_8		D3000- . . .**16**
nitrous oxide	N_2O		D3000- . . .**17**
water	H_2O		D3000- . . . .**W**
flange connection	see end of the chaper / flanges		D3000- . . . .**F.**



BW45-03S



BW00-59S



BW00-62S

Accessories, enclosed

pressure gauge	Ø 50 mm, 0...*2 bar, G¼	for G¼ to G½	**MS5002-..*2**
	Ø 63 mm, 0...*2 bar, G¼	for G¾ to G2	**MS6302-..*2**
mounting bracket		for G¼ and G½	**BW45-03S**
mounting nut			**M45x1,5S**
mounting bracket		for G¾ to G1½ (1A)	**BW00-59S**
		for G1½ (12) and G2	**BW00-62S**

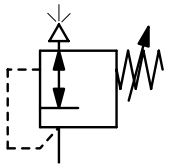
*1 at 7 bar overpressure and open outlet
*2 **02** = 0...2.5 bar, **04** = 0...4 bar, **06** = 0...6 bar, **10** = 0...10 bar, **16** = 0...16 bar, **60** = 0...60 bar
*3 without DVGW-approval

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
MS5002-02

Description	The diaphragm back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.
Media	compressed air, gases
System pressure	max. 6 bar
Adjustment	by adjusting screw for D3100-04 to - 1A, with locknut by T-handle for D3100-12 and -16, with locknut
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F, FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F, high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel 316L, material no. 1.4404
	O-rings: FKM, optionally EPDM



G½ and G2
5…45/3000 mbar

Dimensions A mm	B mm	C mm	Exhaust rate l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range mbar	Order number
Back pressure regulator			overpressure max. 6 bar, PTFE-diaphragm and FKM-o-ring				**D3100**
80	174	37	300	1	G½	5… 45	**D3100-04AT**
			500			20… 200	**D3100-04BT**
			1000			150… 700	**D3100-04CT**
161	290	45	1500	6	G¾	0… 300	**D3100-06BT**
			2300			0… 700	**D3100-06CT**
			3000			0…1200	**D3100-06DT**
161	290	45	1500	6	G1	0… 300	**D3100-08BT**
			2300			0… 700	**D3100-08CT**
			3000			0…1200	**D3100-08DT**
265	290	45	2000	6	G1¼	0… 300	**D3100-10BT**
			4100			0… 700	**D3100-10CT**
			5000			0…1200	**D3100-10DT**
265	290	45	2000	6	G1½	0… 300	**D3100-1ABT**
			4100			0… 700	**D3100-1ACT**
			5000			0…1200	**D3100-1ADT**
171	460	128	2500	6	G1½	20… 50	**D3100-12AT**
			5000			50… 150	**D3100-12BT**
			7500			150… 300	**D3100-12CT**
171	420	128	10000			300…3000	**D3100-12DT**
171	460	128	2500	6	G2	20… 50	**D3100-16AT**
			5000			50… 150	**D3100-16BT**
			7500			150… 300	**D3100-16CT**
171	420	128	10000			300…3000	**D3100-16DT**



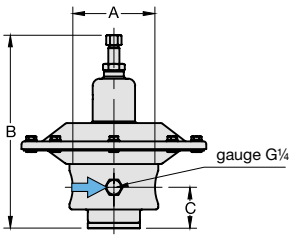
D3100-04



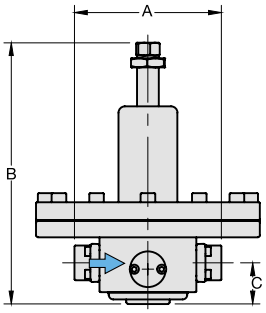
D3100-06/-08/-10/-1A



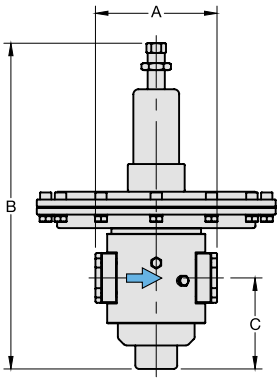
D3100-12/-16



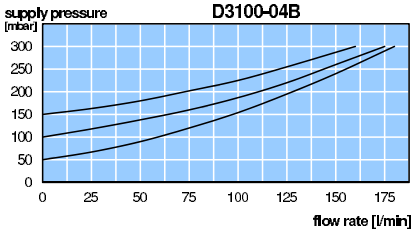
D3100-04



D3100-06/-08/-10/-1A



D3100-12/-16



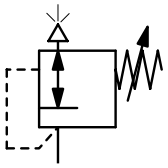
*1 at 6 bar overpressure and open outlet
*2 **B6** = 0…60 mbar, **C3** = 0…250 mbar

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
D3100-04AT

Description	The diaphragm back pressure regulator protects compressed air devices from excessive pressure. If the pressure setpoint is exceeded, overpressure is vented into the atmosphere until the setpoint is reached again. It is recommended to choose a pressure range as low as possible.
Media	compressed air, gases
System pressure	max. 6 bar
Adjustment	by adjusting screw for D3100-04 to - 1A, with locknut by T-handle for D3100-12 and -16, with locknut
Gauge port	G¼ on both sides of the body, screw plugs supplied
Mounting position	any
Temperature range	0 °C to 80 °C / 32 °F to 176 °F, FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F, high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Diaphragm: NBR/Buna-N with PTFE coating Inner valve: stainless steel 316L, material no. 1.4404
	O-rings: FKM, optionally EPDM



G½ and G2
5…45/3000 mbar

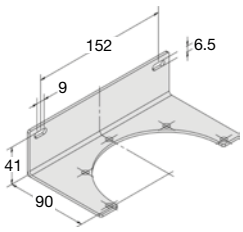
Dimensions A mm	B mm	C mm	Exhaust rate l/min*1	Over-pressure max. bar	Connection thread G	Adjustment range mbar	Order number

Special options, add the appropriate letter

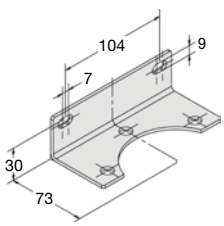
NPT	connection thread		D3100-. . . .**N**
FKM -o-ring			D3100-. . .**T**
EPDM-o-ring			D3100-. . .**TE**
EPDM-o-ring	FDA-approval		D3100-. . .**TD**
down to -40 °C/ -40°F	low temperature version	from G¼ (02) on	D3100-. . . .**X51**
up to 130 °C/266 °F	high temperature version	from G¼ (02) on	D3100-. . . .**X54**
ammonia	NH_3		D3100-. . . .**02**
carbon dioxide	CO_2		D3100-. . . .**03**
argon	Ar		D3100-. . . .**05**
nitrogen	N_2		D3100-. . . .**07**
helium	He		D3100-. . . .**09**
hydrogen	H_2		D3100-. . . .**11**
methane	CH_4		D3100-. . . .**13**
natural gas *3			D3100-. . . .**14**
Sauerstoff	O_2		D3100-. . . .**15**
propane	C_3H_8		D3100-. . . .**16**
nitrous oxide	N_2O		D3100-. . . .**17**
flange connection	see end of the chapter / flanges		D3100-. . . .**F.**

Accessories, enclosed

pressure gauge	Ø 63 mm, 0…*2 mbar, G¼, capsule type	up to 600 mbar	**MS6302-..***2
	Ø 63 mm, 0…*2 bar, G¼, Bourdon tube	from 1 bar on	**MS6302-01**
gauge connection parts		for G½	**AM-03S**
mounting bracket		for G½	**BW00-26S**
		for G1	**BW00-27S**



BW00-26S



BW00-27S

*1 at 6 bar overpressure and open outlet
*2 **B6** = 0…60 mbar, **C3** = 0…250 mbar, **C4** = 0...400 mbar, **C6** = 0...600 mbar, **01** = 0...1 bar, **02** = 0...2 bar, **04** = 0...4 bar
*3 without DVGW-approval

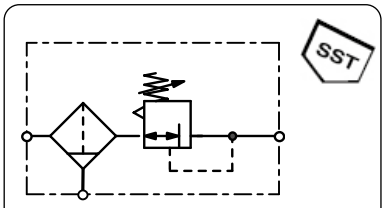
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
MS6302-B6

FILTER REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, P1: MAX. 80 BAR B3000

Description	Filter pressure regulator with bowl without sight glass, completely made of stainless steel. Diaphragm-operated, from size G¾ on piston-operated.
Media	compressed air, gases or liquids
Supply pressure	max. 16 bar, 50 bar or 80 bar (with drain plug only)
Adjustment	by adjusting screw, from B3000-12 on with T-handle, max. 50 bar for B3000-02 to -16, optionally 80 bar
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, G⅛ for B3000-01/-A2, one screw plug supplied
Filter element	50 µm and 5 µm, made of stainless steel **Bowl** stainless steel version without sight glass
Drain	manual drain (max. 30 bar), screw plug for 50 bar and 80 bar version automatic drain (max. 16 bar) for G¼ (02) up to G1
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for NBR/Buna-N, EPDM or FKM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version or low temperature version down to -40 °C / -40 °F
Werkstoffe	Body / Bowl / Inner valve : stainless steel 316L, material-no. 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE-coating



G⅛ up to G2, FDA
max. 80 bar, up to 130 °C/ 266 °F

Dimensions A mm	B mm	C mm	Bowl capacity l	Flow rate l/min*1	Filter element µm	Connection thread G	Pressure range bar	Order number
Filter pressure regulator				with screw plug, relieving, w/o gauge, supply pressure max. 30 / 50 bar				**B3000**
40	147	83	0,03	200	5	G⅛	0.8… 8	**B3000-01GH**
							1.5… 15	**B3000-01GDH**
				280	50		0.8… 8	**B3000-01H**
							1.5… 15	**B3000-01DH**
40	147	83	0,03	200	5	G¼	0.8… 8	**B3000-A2GH**
							1.5… 15	**B3000-A2GDH**
				280	50		0.8… 8	**B3000-A2H**
							1.5… 15	**B3000-A2DH**
64	249	128	0,14	600	5	G¼	0.8… 8	**B3000-02G**
							1.5… 15	**B3000-02GD**
				800	50		0.8… 8	**B3000-02**
							1.5… 15	**B3000-02D**
109	246	125	0,2	2200	5	G⅜	0.8… 8	**B3000-03G**
							1.5… 15	**B3000-03GD**
							2.0… 30	**B3000-03GE**
							3.0… 50	**B3000-03GF**
				3000	50		0.8… 8	**B3000-03**
							1.5… 15	**B3000-03D**
							2.0… 30	**B3000-03E**
							3.0… 50	**B3000-03F**
109	246	125	0,2	2200	5	G½	0.8… 8	**B3000-04G**
							1.5… 15	**B3000-04GD**
							2.0… 30	**B3000-04GE**
				3000	50		0.8… 8	**B3000-04**
							1.5… 15	**B3000-04D**
							2.0… 30	**B3000-04E**
							3.0… 50	**B3000-04F**



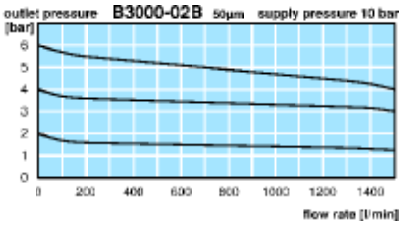
B3000-01/-A2

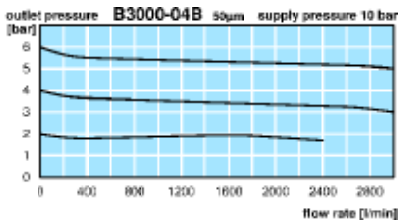


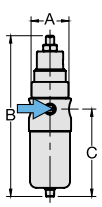
B3000-02



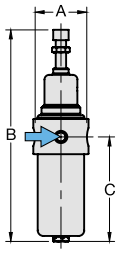
B3000-03 /-04



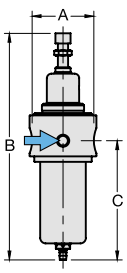




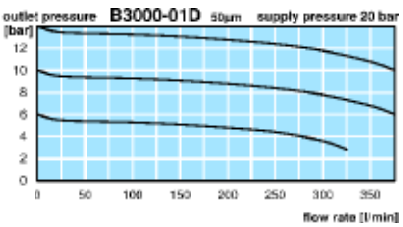
B3000-01/-A2



B3000-02



B3000-03 /-04



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure

PDF CAD
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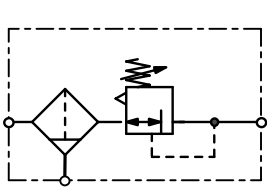
Order example:
B3000-01GH

SST
SST
15

FILTER REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, P1: MAX. 80 BAR B3000

Description	Filter pressure regulator with bowl without sight glass, completely made of stainless steel. Diaphragm-operated, from size G¾ on piston-operated.
Media	compressed air, gases or liquids
Supply pressure	max. 16 bar, 50 bar or 80 bar (with drain plug only)
Adjustment	by adjusting screw, from B3000-12 on with T-handle, max. 50 bar for B3000-02 to -16, optionally 80 bar
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, G⅛ for B3000-01/-A2, one screw plug supplied
Filter element	50 µm and 5 µm, made of stainless steel **Bowl** stainless steel version without sight glass
Drain	manual drain (max. 30 bar), screw plug for 50 bar and 80 bar version automatic drain (max. 16 bar) for G¼ (02) up to G1
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for NBR/Buna-N, EPDM or FKM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version or low temperature version down to -40 °C / -40 °F
Werkstoffe	Body / Bowl / Inner valve : stainless steel 316L, material-no. 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE-coating



G⅛ up to G2, FDA
max. 80 bar, up to 130 °C/ 266 °F

Filter pressure regulator

with screw plug, relieving, w/o gauge, supply pressure max. 30 / 50 bar

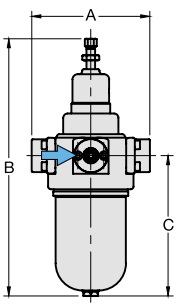
Dimensions A mm	B mm	C mm	Bowl capacity l	Flow rate l/min*1	Filter element µm	Connection thread G	Pressure range bar	Order number B3000
137	304	168	0,5	4500	5	G¾	0.8 ... 8	B3000-06G
							1.5 ... 15	B3000-06GD
							3.0 ... 30	B3000-06GE
							5.0 ... 50	B3000-06GF
				6000	50		0.8 ... 8	B3000-06
							1.5 ... 15	B3000-06D
							3.0 ... 30	B3000-06E
							5.0 ... 50	B3000-06F
137	304	168	0,5	4500	5	G1	0.8 ... 8	B3000-08G
							1.5 ... 15	B3000-08GD
							3.0 ... 30	B3000-08GE
							5.0 ... 50	B3000-08GF
				6000	50		0.8 ... 8	B3000-08
							1.5 ... 15	B3000-08D
							3.0 ... 30	B3000-08E
							5.0 ... 50	B3000-08F
137	304	168	0,5	4500	5	G1¼	0.8 ... 8	B3000-10G
							1.5 ... 15	B3000-10GD
							3.0 ... 30	B3000-10GE
							5.0 ... 50	B3000-10GF
				6000	50		0.8 ... 8	B3000-10
							1.5 ... 15	B3000-10D
							3.0 ... 30	B3000-10E
							5.0 ... 50	B3000-10F
248	304	168	0,5	4500	5	G1½	0.8 ... 8	B3000-1AG
							1.5 ... 15	B3000-1AGD
							3.0 ... 30	B3000-1AGE
							5.0 ... 50	B3000-1AGF
				6000	50		0.8 ... 8	B3000-1A
							1.5 ... 15	B3000-1AD
							3.0 ... 30	B3000-1AE
							5.0 ... 50	B3000-1AF



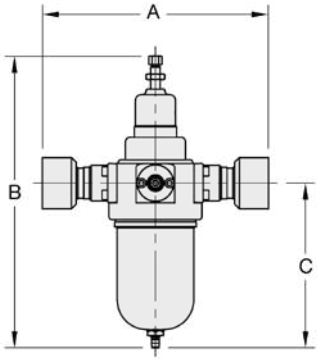
B3000-06/-08



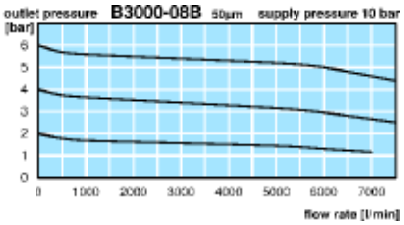
B3000-10/-1A



B3000-06/-08/-10/-1A



B3000-10/-1A



*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure

PDF CAD
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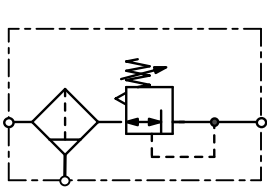
Order example:
B3000-01GH

SST
SST
15

FILTER REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, P1: MAX. 80 BAR B3000

Description	Filter pressure regulator with bowl without sight glass, completely made of stainless steel. Diaphragm-operated, from size G¾ on piston-operated.
Media	compressed air, gases or liquids
Supply pressure	max. 16 bar, 50 bar or 80 bar (with drain plug only)
Adjustment	by adjusting screw, from B3000-12 on with T-handle, max. 50 bar for B3000-02 to -16, optionally 80 bar
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, G⅛ for B3000-01/-A2, one screw plug supplied
Filter element	50 µm and 5 µm, made of stainless steel **Bowl** stainless steel version without sight glass
Drain	manual drain (max. 30 bar), screw plug for 50 bar and 80 bar version automatic drain (max. 16 bar) for G¼ (02) up to G1
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for NBR/Buna-N, EPDM or FKM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version or low temperature version down to -40 °C / -40 °F
Werkstoffe	Body / Bowl / Inner valve : stainless steel 316L, material-no. 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE-coating



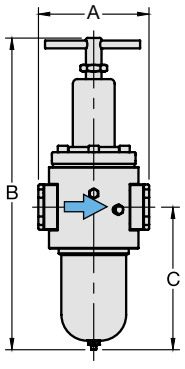
G⅛ up to G2, FDA
max. 80 bar, up to 130 °C/ 266 °F

Dimensions A mm	B mm	C mm	Bowl capacity l	Flow rate l/min*1	Filter element µm	Connection thread G	Pressure range bar	Order number
Filter pressure regulator					with screw plug, relieving, w/o gauge, supply pressure max. 30 / 50 bar			**B3000**
171	476	219	1,0	15500	5	G1½	0.8 ... 8	**B3000-12G**
							1.5 ... 15	**B3000-12GD**
							3.0 ... 30	**B3000-12GE**
							5.0 ... 50	**B3000-12GF**
				20000	50		0.8 ... 8	**B3000-12**
							1.5 ... 15	**B3000-12D**
							3.0 ... 30	**B3000-12E**
							5.0 ... 50	**B3000-12F**
171	476	219	1,0	15500	5	G2	0.8 ... 8	**B3000-16G**
							1.5 ... 15	**B3000-16GD**
							3.0 ... 30	**B3000-16GE**
							5.0 ... 50	**B3000-16GF**
				20000	50		0.8 ... 8	**B3000-16**
							1.5 ... 15	**B3000-16D**
							3.0 ... 30	**B3000-16E**
							5.0 ... 50	**B3000-16F**

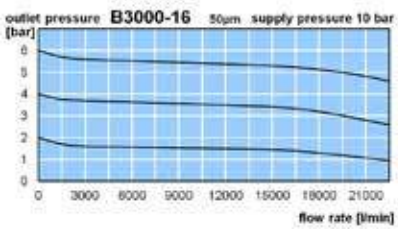


B3000-12/-16

Accessories, see next page



B3000-12/-16

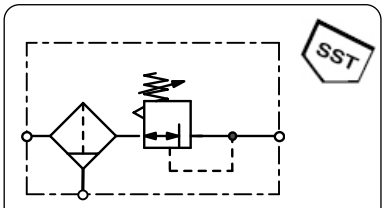


PDF CAD
www.aircom.net

Order example:
B3000-12G

FILTER REGULATOR MADE OF STAINLESS STEEL THROUGHOUT, P1: MAX. 80 BAR B3000

Description	Filter pressure regulator with bowl without sight glass, completely made of stainless steel. Diaphragm-operated, from size G¾ on piston-operated.
Media	compressed air, gases or liquids
Supply pressure	max. 30 bar, 50 bar or 80 bar (with drain plug only)
Adjustment	by adjusting screw, from B3000-12 on with T-handle, max. 50 bar for B3000-02 to -16, optionally 80 bar
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, G⅛ for B3000-01/-A2, one screw plug supplied
Filter element	50 µm and 5 µm, made of stainless steel **Bowl** stainless steel version without sight glass
Drain	manual drain (max. 30 bar), screw plug for 50 bar and 80 bar version automatic drain (max. 16 bar) for G¼ (02) up to G1
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for NBR/Buna-N, EPDM or FKM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version or low temperature version down to -40 °C / -40 °F
Werkstoffe	Body / Bowl / Inner valve : stainless steel 316L, material-no. 1.4404 O-rings: FKM, optionally EPDM Diaphragm: NBR/Buna-N with PTFE-coating



G⅛ up to G2, FDA
max. 80 bar, up to 130 °C/ 266 °F

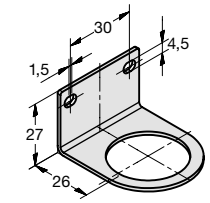
Dimensions A mm	B mm	C mm	Bowl capacity l	Flow rate l/min*1	Filter element µm	Connection thread G	Pressure range bar	Order number

Special options, add the appropriate letter

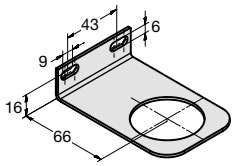
NPT	connection thread	for G¼ (02) to G2	B3000-. . . . **N**
0,1 ... 1,5 bar regulating range			B3000-. . . . **A**
0,2 ... 3 bar regulating range			B3000-. . . . **B**
manual drain max. 30 bar		for G¼ (02) to G2	B3000-. . . . **H**
automatic drain	max. 30 bar	for G¼ (02) to G2	B3000-. . . . **R**
non-relieving	without relieving function		B3000-. . . . **K**
P_1: max. 80 bar		for G¼ (02) to G1½ (1A)	B3000-. . . . **X48**
down to -40 °C/ -40°F	low temperature version		B3000-. . . . **X51**
up to 130 °C/ 266 °F	high temperature version		B3000-. . . . **X54**
spring cage made of POM		für G⅛ und G¼ (A2)	R3000-. . . . **X57**
EPDM-o-ring			B3000-. . . . **E**
EPDM-o-ring	FDA-Zulassung		B3000-. . . . **TD**
SST diaphragm	not suitable for water	for G¼ (02) to G½	B3000-. . . . **S**
ammonia *3 NH_3			B3000-. . . . **02**
carbon dioxide CO_2			B3000-. . . . **03**
argon Ar			B3000-. . . . **05**
nitrogen N_2			B3000-. . . . **07**
helium He			B3000-. . . . **09**
hydrogen H_2			B3000-. . . . **11**
Methan CH_4			B3000-. . . . **13**
natural gas*3			B3000-. . . . **14**
oxygen O_2			B3000-. . . . **15**
propane C_3H_8			B3000-. . . . **16**
nitrous oxide N_2O			B3000-. . . . **17**
flange connection	see end of the chapter / flanges		B3000-. . . . **F.**

Accessories, enclosed

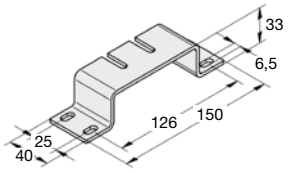
pressure gauge	Ø 40 mm, 0…*2 bar, G⅛	for G⅛ and G¼ (A2)	**MS4001-..*2**
	Ø 50 mm, 0…*2 bar, G¼	for G¼ to G½	**MS5002-..*2**
	Ø 63 mm, 0…*2 bar, G¼	for G¾ to G2	**MS6302-..*2**
mounting bracket		for G⅛ and G¼ (A2)	**BW30-03S**
mounting nut			**M30x1,5S**
mounting bracket		for G¼ (02), G⅜ u. G¾ to G1½ (1A)	**BW45-03S**
mounting nut			**M45x1,5S**
mounting bracket		für G⅜ bis G1½ (1A)	**BW00-59S**
mounting bracket		for G1½ (12) and G2	**BW00-62S**



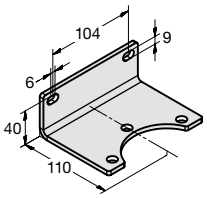
BW30-03S



BW45-03S



BW00-59S



BW00-62S

SST
15

*2 **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0...16 bar *3 without DVGW-approval

PDF CAD
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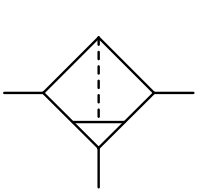
Order example:
MS4001-04

Description	Filter with bowl without sight glass completely made of stainless steel, extremely robust, suitable for compressed air, gases or liquids. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.
Filter element	50 µm, optionally 5 µm, made of stainless steel, coalescing filer 0.1 µm at 99,99%
Bowl	stainless steel version without sight glass
Drainage	screw plug as standard, optionally for compressed air only: manual drain (max. 30 bar), automatic drain (max. 16 bar)
Operating pressure	max. 50 bar (without drain), optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Bowl: stainless steel 316L, material no. 1.4404 Elastomer: FKM, optionally EPDM Inner valve: stainless steel 316L, material no. 1.4404



G⅛ up to G2, max. 80 bar
-40 °C to 130 °C, FDA

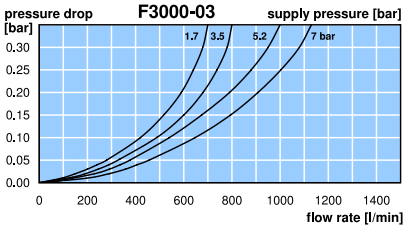
Dimensions A mm	B mm	C mm	Bowl capacity l	Flow rate m³/h*1	l/min*1	P_1 max. bar	Filter element µm	Connection thread G	Order number
Stainless steel filter, up to 50 bar with screw plug									**F3000**
40	92	81	0,03	45	750	50	50	G⅛	**F3000-01**
							5		**F3000-01G**
40	92	81	0,03	45	750	50	50	G¼	**F3000-A2**
							5		**F3000-A2G**
64	140	125	0,14	54	900	50	50	G¼	**F3000-02**
							5		**F3000-02G**
							0,01		**F3000-02I**
109	140	123	0,2	150	2500	50	50	G⅜	**F3000-03**
							5		**F3000-03G**
							0,01		**F3000-03I**
109	140	123	0,2	150	2500	50	50	G½	**F3000-04**
							5		**F3000-04G**
							0,01		**F3000-04I**
137	194	167	0,50	432	7200	50	50	G¾	**F3000-06**
							5		**F3000-06G**
							0,01		**F3000-06I**
137	194	167	0,50	432	7200	50	50	G1	**F3000-08**
							5		**F3000-08G**
							0,01		**F3000-08I**
241	194	167	0,50	432	7200	50	50	G1¼	**F3000-10**
							5		**F3000-10G**
							0,01		**F3000-10I**
241	194	167	0,50	432	7200	50	50	G1½	**F3000-1A**
							5		**F3000-1AG**
							0,01		**F3000-1AI**
171	254	218	1,00	900	15000	50	50	G1½	**F3000-12**
							5		**F3000-12G**
171	254	218	1,00	960	16000	50	50	G2	**F3000-16**
							5		**F3000-16G**

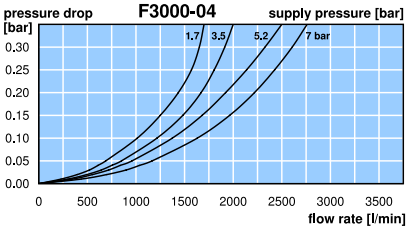


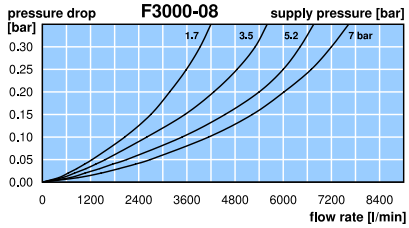
F3000-02

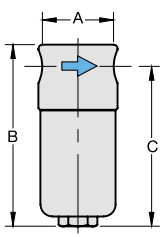


F3000-04

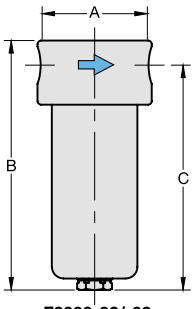




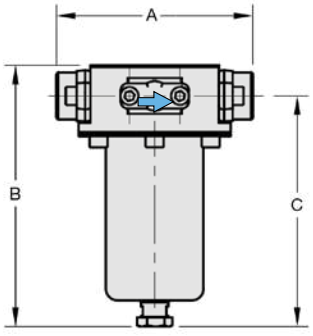




F3000-01/-A2



F3000-02/-03



F3000-04

*1 at 7 bar operating pressure and 0.33 bar pressure drop

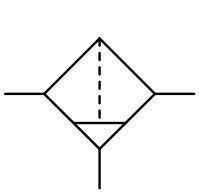
Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
F3000-01

STAINLESS STEEL COMPRESSED AIR FILTER, UP TO 80 BAR F3000

Description	Filter with bowl without sight glass completely made of stainless steel, extremely robust, suitable for compressed air, gases or liquids. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.
Filter element	50 µm, optionally 5 µm, made of stainless steel, coalescing filer 0.1 µm at 99,99%
Bowl	stainless steel version without sight glass
Drainage	screw plug as standard, optionally for compressed air only: manual drain (max. 30 bar), automatic drain (max. 16 bar)
Operating pressure	max. 50 bar (without drain), optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM or EPDM 0 °C to 130 °C / 32 °F to 266 °F for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F, or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Bowl: stainless steel 316L, material no. 1.4404 Elastomer: FKM, optionally EPDM Inner valve: stainless steel 316L, material no. 1.4404

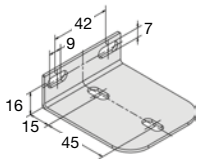


G⅛ up to G2, max. 80 bar
-40 °C to 130 °C, FDA

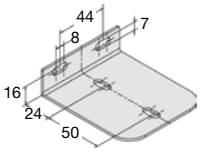
Dimensions A	B	C	Bowl capacity	Flow rate		P_1 max.	Filter element	Connection thread	Order number
mm	mm	mm	l	m³/h*1	l/min*1	bar	µm	G	

Special options, add the appropriate letter

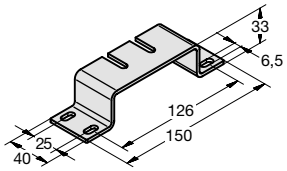
NPT	connection thread		F3000-..**N**
P_1: max. 80 bar		for G¼ (02) to G2	F3000-..**X48**
down to -40 °C /-40 °F	low temperature version		F3000-..**X51**
up to 130 °C / 266 °F	high temperature version		F3000-..**X54**
manual drain	max. 30 bar		F3000-..**H**
automatic drain	max. 16 bar	for G¼ (02) to G2	F3000-..**R**
EPDM-elastomer			F3000-..**E**
EPDM-elastomer	FDA-approval		F3000-..**TD**
ammonia	NH_3		F3000-...**02**
carbon dioxide	CO_2		F3000-...**03**
argon	Ar		F3000-...**05**
nitrogen	N_2		F3000-...**07**
helium	He		F3000-...**09**
hydrogen	H_2		F3000-...**11**
methane	CH_4		F3000-...**13**
natural gas *2			F3000-...**14**
oxygen	O_2		F3000-...**15**
propane	C_3H_8		F3000-...**16**
nitrous oxide	N_2O		F3000-...**17**
flange connection	see end of the chapter / flanges		F3000-...**F.**



BW00-17S



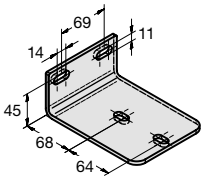
BW00-18S



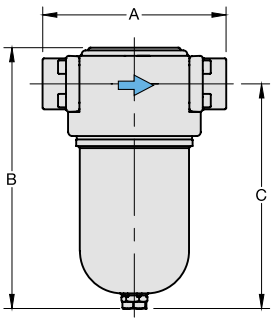
BW00-59S

Accessories, enclosed

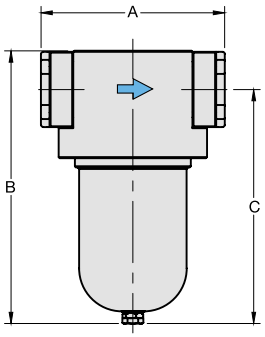
mounting bracket	for G¼ (02)	**BW00-17S**
	for G½ (only 04I)	**BW00-18S**
	for G⅜ to G1½ (1A)	**BW00-59S**
	for G1½ (12) and G2	**BW00-63S**



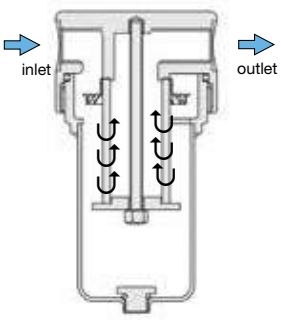
BW00-63S



F3000-06/-08/-10/1A



F3000-12/-16



cross-section

*1 at 7 bar operating pressure and 0.33 bar pressure drop

*2 without DVWG-approval

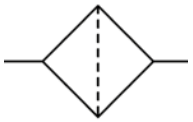
Extensions: **see chapter for FRL service units**
Spare parts: **see separate spare parts list**

PDF CAD
www.aircom.net

Order example:
BW00-17S

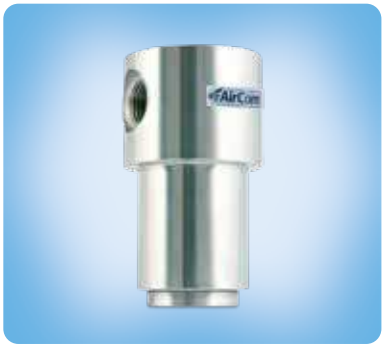
STAINLESS STEEL COMPRESSED AIR FILTER, UP TO 220 BAR FH3

Description	Stainless steel filter, without sight glass, very robust design, for compressed air, gases or liquids. Application areas: Chemical industry, petroleum processing, food industry and medical technology.
Filter element	50 µm, optionally 5 µm, made of SST or Coalescing 0.01 µm / 99,99 %
Bowl	made of stainless steel, without sight glass
Operating pressure	max. 220 bar
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F
Material	Body: SST 316L, material-no. 1.4404, optionally brass Bowl: SST 316L, material-no. 1.4404 Filter elements 5/50 µm: SST 316L Inner valve: SST 316L, material-no. 1.4404 Elastomer: FKM, optionally EPDM



G¼ up to 1
max. 220 bar

Dimensions A mm	B mm	C mm	Bowl capacity l	Flow rate m³/h*1	l/min*1	Filter element µm	Connection thread G	Order number
SST Filter, up to 220 bar				50 µm / 5 µm				**FH3**
70	123	99	0.04	120	2000	5	G¼	**FH3-02G**
				160	2670	50	G¼	**FH3-02**
				120	2000	5	G⅜	**FH3-03G**
				160	2670	50	G⅜	**FH3-03**
170	123	99	0.04	120	2000	5	G½	**FH3-04G**
				160	2670	50	G½	**FH3-04**
204	145	125	0.08	240	4000	5	G¾	**FH3-06G**
				320	5530	50	G¾	**FH3-06**
204	145	125	0.08	240	4000	5	G1	**FH3-08G**
				320	5530	50	G1	**FH3-08**



FH3-02/-03/-04



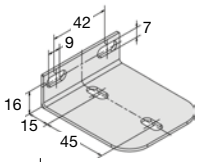
FH3-06/-08

Special options, add the appropriate letter

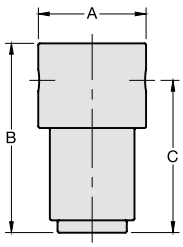
Coalescing filter	0.01 µm / 99.99 %, brass version	for G¼ to G½	FH3-..**IMS**
	0.01 µm / 99.99 %, SST version	for G¼ to G½	FH3-..**I**
	0.01 µm / 99.99 %, SST and brass version	for G¾ to G1	FH3-..**I**
NPT	connection thread		FH3-..**N**
EPDM-elastomer			FH3-..**E**
brass body			FH3-..**MS**
ammonia	NH_3		FH3-... **02**
carbon dioxide	CO_2		FH3-... **03**
argon	Ar		FH3-... **05**
nitrogen	N_2		FH3-... **07**
helium	He		FH3-... **09**
hydrogen	H_2		FH3-... **11**
methane	CH_4		FH3-... **13**
oxygen	O_2		FH3-... **15**
propane	C_3H_8		FH3-... **16**
nitrous oxide	N_2O		FH3-... **17**
water	H_2O		FH3-... **W**

Accessories, enclosed

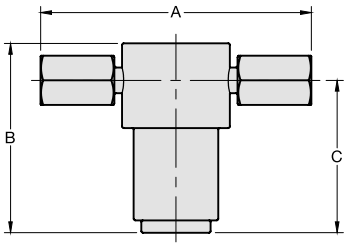
mouting bracket with screws **BW00-17S**



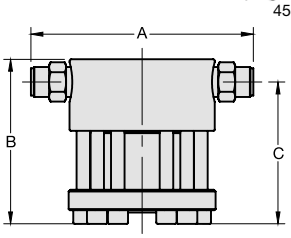
BW00-17S



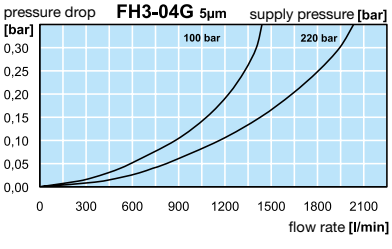
FH3-02/-03

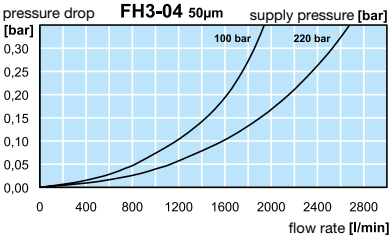


FH3-04



FH3-06/-08





*1 at max. operating pressure

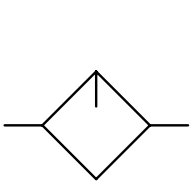
Extensions: see chapter for FRL service units
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
FH3-02G

LUBRICATOR MADE OF STAINLESS STEEL THROUGHOUT, UP TO 50 BAR L3000

Description	Lubricator for compressed air with bowl without sight glass, extremely robust, with manual adjustment of oil drip rate.
Bowl	stainless steel version without sight glass
Operating pressure	max. 50 bar
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for NBR/Buna-N, 0 °C to 130 °C / 32 °F to 266 °F for high temperature version for appropriately conditioned air down to -20 °C / -4 °F, or low temperature version down to -40°C / -40 °F
Material	Body: stainless steel 316L, material no. 1.4404 Bowl: stainless steel 316L, material no. 1.4404 Elastomer: FKM Inner valve: stainless steel 316L, material no. 1.4404



G¼ to G2, max. 50 bar
-40 °C / -40 °F to 130 °C / 266 °F

Dimensions A mm	B mm	C mm	Bowl capacity l	Flow rate m^3/h*1	l/min*1	Operating pressure max. bar	Connection thread G	Order number
Lubricator				operating pressure max. 50 bar				**L3000**
64	174	130	0.14	54	900	50	G¼	**L3000-02**
109	161	121	0,20	144	2400	50	G⅜	**L3000-03**
				144	2400		G½	**L3000-04**
137	201	168	0.50	480	8000	50	G¾	**L3000-06**
				480	8000		G1	**L3000-08**
241	201	168	0.50	480	8000	50	G1¼	**L3000-10**
				480	8000		G1½	**L3000-1A**
171	278	218	1.00	720	12000	50	G1½	**L3000-12**
				720	12000		G2	**L3000-16**



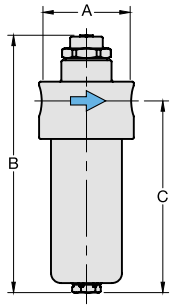
L3000-02



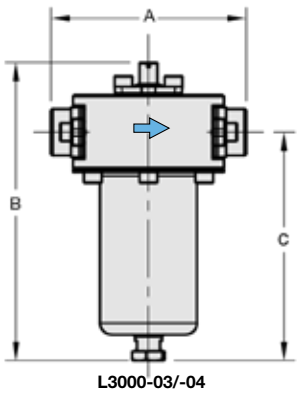
L3000-03/-04

Special options, add the appropriate letter

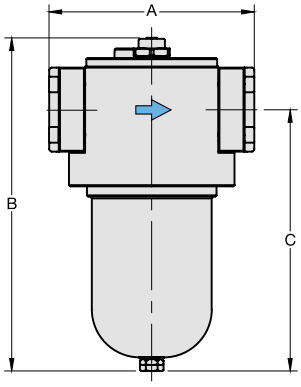
NPT	connection thread		L3000- . . **N**
down to -40 °C / -40 °F	low temperature version	from G¼ on	L3000- . . **X51**
up to 130 °C / 266 °F	high temperature version	from G¼ on	L3000- . . **X54**
flange connection	see end of the chapter / flanges		L3000- . . **F.**



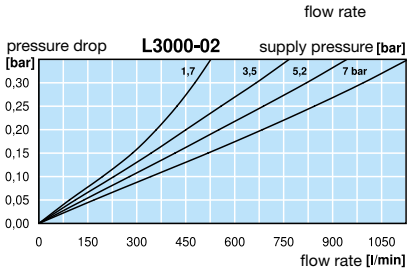
L3000-02

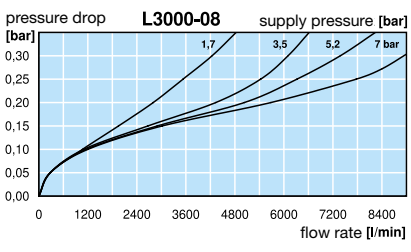


L3000-03/-04



L3000-06/.../-16





*1 at 7 bar operating pressure and 0.33 bar pressure drop

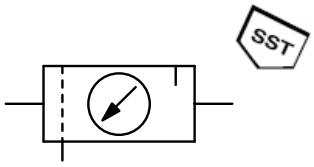
Extensions: **see chapter for FRL service units**

PDF CAD
www.aircom.net

Order example:
L3000-02

FRL SERVICE UNITS, 2-PART, COMPLETELY MADE OF STAINLESS STEEL, UP TO 50 BAR C3002

Description	FRL service unit completely made of stainless steel, very robust. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.
Media	compressed air, gases or liquids
Supply pressure	max. 50 bar (without drain), optionally max. 30 bar (manual drain), max. 30 bar for C3002-01H
Adjustment	by hexagon socket screw **Relieving function** relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, G⅛ at C3002-01, one screw plug supplied
Filter element	50 µm, optionally 5 µm, made of stainless steel **Bowl** stainless steel version without sight glass
Drainage	screw plug as standard, optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for FKM or EPDM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version, or low temperature version down to -40°C / -40 °F
Material	Body / Bowl: stainless steel 316L, material no. 1.4404 Inner valve: stainless steel 316L / 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally EPDM or FKM O-rings: FKM, optionally EPDM



G⅛ up to G2
max. 50 bar, up to 130 °C

Dimensions A mm	B mm	C mm	Combination existing of	Flow rate m³/h*1	l/min*1	Connection thread G	Order number
FRL unit, 2-part				P1: max. 50 bar, screw plug,	P2: 0.5...8 bar, relieving,	50 µm, with gauge	**C3002**
90	155	85	B+L3000	17	280	G⅛	**C3002-01H**
138	246	124		48	800	G¼	**C3002-02**
138	246	124		48	800	G⅜	**C3002-03**
168	255	128		180	3000	G½	**C3002-04**
289	304	168		360	6000	G¾	**C3002-06**
289	304	168		360	6000	G1	**C3002-08**
393	304	168		360	6000	G1¼	**C3002-10**
393	304	168		360	6000	G1½	**C3002-1A**
362	482	213		1200	20000	G1½	**C3002-12**
362	482	213		1200	20000	G2	**C3002-16**



C3002-02/-03



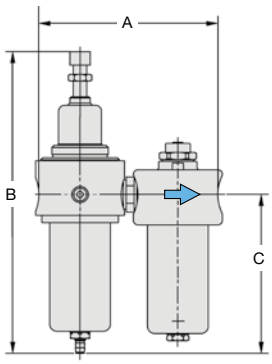
C3002-06/-08/-10/-1A

Special options, add the appropriate letter

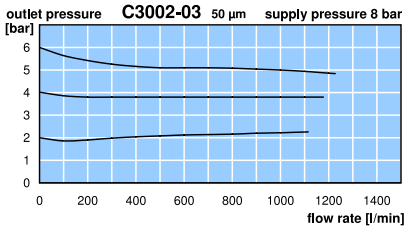
5 µm filter element			C3002-. .**G**
NPT	connection thread	for G¼ to G2	C3002-. .**N**
pressure range 0.2... 3 bar			C3002-. .**B**
pressure range 1 ...15 bar	P_1 max. 50 bar		C3002-. .**D**
manual drain	max. 30 bar		C3002-. .**H**
automatic drain	max. 16 bar	for G¼ to G1	C3002-. .**R**
down to -40 °C / -40 °F	low temperature version		C3002-. .**X51**
up to 130 °C / 266 °F	high temperature version		C3002-. .**X54**
EPDM-elastomer			C3002-. .**E**
flange connection	see end of the chapter / flanges		C3002-. .**F.**

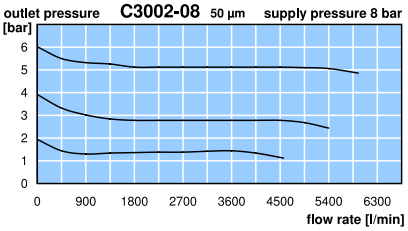
Accessories, enclosed

mounting bracket	for G⅛	**BW30-03S**
mounting nut		**M30x1,5S**
mounting bracket	for G¼, G⅜, G¾ to G1½ (1A)	**BW45-03S**
mounting nut		**M45x1,5S**
mounting bracket	for G½	**BW50-01S**
mounting nut		**M50x1,5S**
mounting bracket	for G1½ (12) and G2	**BW00-62S**



C3002





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

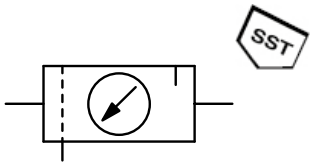
Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
C3002-01H

FRL SERVICE UNITS, 3-PART, COMPLETELY MADE OF STAINLESS STEEL, UP TO 50 BAR C3003

Description	FRL service unit completely made of stainless steel, very robust. Application examples are the chemistry, petroleum processing as well as food industry and medical technology.
Media	compressed air, gases or liquids
Supply pressure	max. 30 bar, optionally max. 50 bar (for pressure range up to 15 bar)
Adjustment	by hexagon socket screw **Relieving function** relieving, optionally non-relieving
Gauge port	G¼ on both sides of the body, one screw plug supplied
Filter element	50 µm, optionally 5 µm, made of stainless steel **Bowl** stainless steel version without sight glass
Drainage	screw plug as standard, optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F for FKM or EPDM -20 °C to 130 °C / -4 °F to 266 °F for high temperature version, or low temperature version down to -40°C / -40 °F
Material	Body / Bowl: stainless steel 316L, material no. 1.4404 Inner valve: stainless steel 316L / 1.4404 Diaphragm: NBR/Buna-N with PTFE coating, optionally EPDM or FKM O-rings: FKM, optionally EPDM



G¼ up to G2
max. 50 bar, up to 130 °C

Dimensions A mm	B mm	C mm	Combination existing of	Flow rate m³/h*1	l/min*1	Connection thread G	Order number
FRL unit, 3-part				**P1: max. 50 bar, screw plug,**	**P2: 0.5...8 bar, relieving,**	**50 µm, with gauge**	**C3003**
212	168	130	F+R+L3000	42	700	G¼	**C3003-02**
257	167	130		132	2200	G½	**C3003-04**
427	219	168		231	3850	G¾	**C3003-06**
455	286	226		432	7200	G1	**C3003-08**
531	286	226		432	7200	G1¼	**C3003-10**
531	286	226		432	7200	G1½	**C3003-1A**
553	390	262		720	12000	G1½	**C3003-12**
553	390	262		780	13000	G2	**C3003-16**



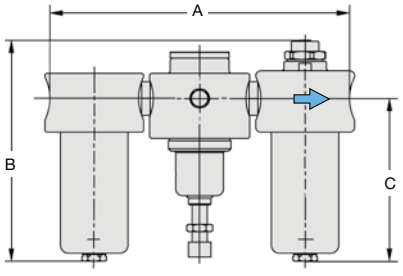
C3003-04

Special options, add the appropriate letter

5 µm filter element		for G¼ and G½	C3003- . .**G**
		for G¾ to G1½ (1A)	C3003- . .**G**
		for G1½ (12) and G2	C3003- . .**G**
NPT	connection thread	for G¼ to G2	C3003- . .**N**
pressure range 0.2... 3 bar			C3003- . .**B**
pressure range 1 ...15 bar	P_1 max. 50 bar		C3003- . .**D**
manual drain	max. 30 bar		C3003- . .**H**
automatic drain	max. 16 bar	for G¼ to G1	C3003- . .**R**
down to -40 °C / -40 °F	low temperature version		C3003- . .**X51**
up to 130 °C / 266 °F	high temperature version		C3003- . .**X54**
EPDM-elastomer			C3003- . .**E**
flange connection	see end of the chapter / flanges		C3003- . .**F.**

Accessories, enclosed

mounting bracket	for G¼	**BW45-03S**
mounting nut		**M45x1,5S**
mounting bracket	for G½	**BW50-01S**
mounting nut		**M50x1,5S**
mounting bracket	for G¾ to G1½ (1A)	**BW00-59S**
mounting bracket	for G1½ (12) and G2	**BW00-62S**



C3003

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

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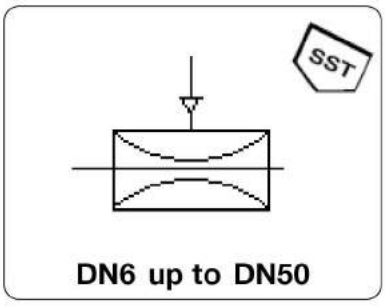
Order example:
C3003-02

Description	The flow control valve functions as a pinch valve in a new design of housing with full flow cross-section. Since the straight valve passage has neither constrictions nor back-points, there is no danger of clogging or blockage. Frictional loss is at a minimum.
Media	compressed air, gases, liquids or other paste-like or powdery media Solids are enclosed by the flexible sleeve at shut-off.
Sleeve	Highly flexible with double woven reinforcement in eight different grades. Sleeve simple to change.
Pressures	Operating pressure: max. 4.0 bar Pilot pressure: max. 6.5 Differential pressure: max. 2.5 bar Closing pressure: P_1 + 2.5 bar to DN32, P_1 + 2 bar from DN40 on
Vacuum	If vacuum is greater than -100 mbar, vacuum compensation should be provided on the control side.
Accuracy	In the flow range of 0 to 70% the linearity of pilot pressure to flow is about 10% accurate.
Mounting position	any, at horizontal mounting pilot port preferably at the top
Temperature range	0 °C to max. 100 °C / 32 °F to max. 212 °F, subject to sleeve material
Material	Body: stainless steel 316L, material no. 1.4435 Sleeve: depending on selected version



DN6 up to DN50

Dimensions A mm	Dimensions Ø mm	Nominal size DN	Chamber capacity l	Control port M5/G	Operating pressure max. bar	Connection thread G	Order number
Flow control valve				operating pressure max. 4 bar, pilot pressure max. 2.5 bar above operating pressure			**QE**
70	26	6	0.01	M5	4	G¼	**QE06-02NR**
80	38	10	0.03	M5	4	G⅜	**QE10-03NR**
95	44	15	0.04	G⅛	4	G½	**QE15-04NR**
110	55	20	0.05	G⅛	4	G¾	**QE20-06NR**
125	60	25	0.07	G⅛	4	G1	**QE25-08NR**
140	73	32	0.10	G⅛	4	G1¼	**QE32-10NR**
150	83	40	0.13	G⅛	4	G1½	**QE40-12NR**
185	99	50	0.28	G¼	4	G2	**QE50-16NR**



QE10



QE25

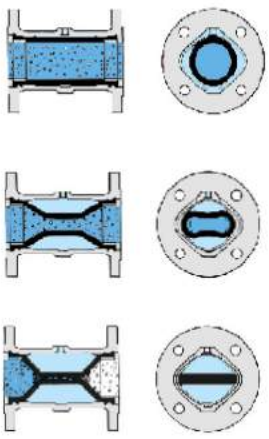


QE40

SST 15

Special options, add the appropriate letter

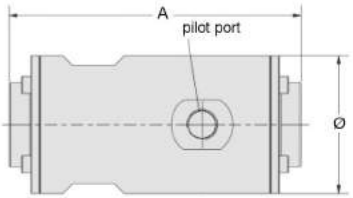
sleeve NR	natural rubber, black		80°C/176 °F	QE..-..**NR**
sleeve NRL	rubber, suitable for food, black		70°C/158 °F	QE..-..**NL**
sleeve NRLH	rubber, suitable for food, light		70°C/158 °F	QE..-..**NH**
sleeve NBR	nitrile rubber/Buna-N, suitable for food		80°C/176 °F	QE..-..**NB**
sleeve EPDM	ethylene-propylene rubber, suitable for food, black		100°C/212 °F	QE..-..**EP**
sleeve FKM	fluorine rubber, black	not QE06	100°C/212 °F	QE..-..**FK**
sleeve CR	chloroprene rubber/neoprene, black	not QE06	80°C/176 °F	QE..-..**CR**
sleeve CSM	natural rubber, chlorosulphonylpolyethylene	not QE06	80°C/176 °F	QE..-..**CS**



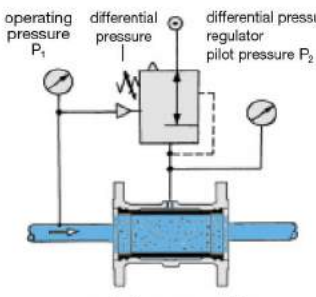
closing process



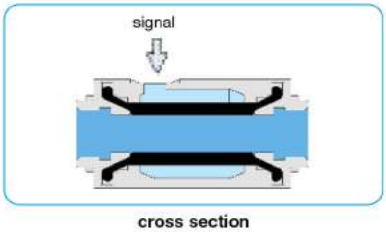
solenoid valve control



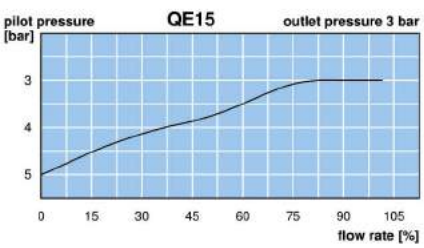
QE



constant cross section at changing operating pressure



cross section



For further pinch valves made of POM or aluminium see chapter for special devices

PDF CAD
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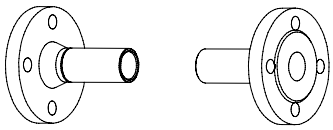
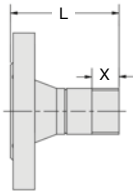
Order example:
QE06-02NR

Total device width	device width between inlet and outlet, see catalogue page, dimension A + 2x total length of flange fitting, dimension L - 2x screw-in depth of the device (on request) = total device width including flange
DIN-flange	according to DIN EN 1092-1 — according to DIN 2637 at PN100
ANSI flange	optionally according to ASME B16.5 (150 lbs), — according to ASME B16.5 (300 lbs) on request
Material	stainless steel, material-no. 1.4571

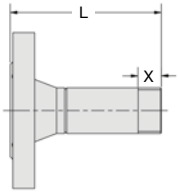


mounted flange kit DN15 up to DN80

Nominal pressure max.	for Devices		Nominal size DN	Screw-In thread G	Order number affic
Flange kit, DIN, completely assembled					**F**
PN40	BD + BM/40	F602	R119	15	G½	**F1**
	CM/40	F3000/40	R3000	20	G¾	**F1**
	C3000/40	L606	R3100/L	25	G1	**F1**
	D3100/L	LM/40	RZ/L	32	G1¼	**F1**
	DBC/L	L3000/40	R160/L	40	G1½	**F1**
	R120/40	FM/40		50	G2	**F1**
				65	G2½	**F1**
				80	G3	**F1**
PN100	BM/100	FM	LM/100	15	G½	**F6**
	CM/100	F3000/100	L3000/100	20	G¾	**F6**
	C3000/100	R120/100	R3000/100	25	G1	**F6**
				32	G1¼	**F6**
				40	G1½	**F6**
				50	G2	**F6**
				65	G2½	**F6**
Special options					
ANSI-flange					150 lbs	**F2**
					300 lbs	**F3**
					600 lbs	**F4**

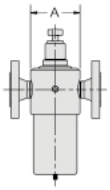


flange with normal fitting N

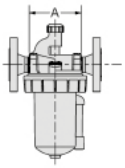


flange with long fitting L

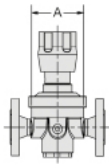
thread	fitting N		fitting L		thread
	PN40	PN100	PN40	PN100	
	L mm		L mm		X mm
G½	75	82	90	97	15
G¾	82	94	112	124	17
G1	82	100	112	130	20
G1¼	94	112	114	132	22
G1½	97	114	117	134	22
G2	100	120	120	140	26
G2½	114	138	124	148	32



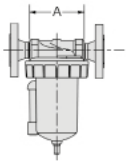
Filter regulator	PN	fitting*
BD	40	N
BM	40/100	N



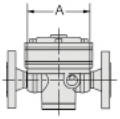
Lubricator	PN	fitting*
L606	40	N
LM	40/100	N
L3000	40/100	N



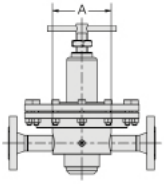
Regulator	PN	fitting*
R119	40	N
R120	40/100	N
R3000	40/100	N



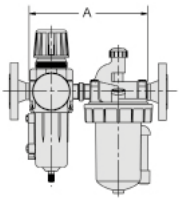
Filter	PN	fitting*
F602	40	N
FM	40/100	N
F3000	40/100	N



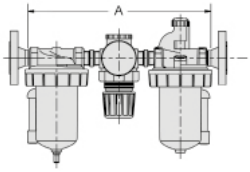
Booster	PN	fitting*
R119-J	40	N
R120-J	40/100	N
R3000-J	40/100	N



low pressure regulator	PN	fitting*
R3100	40	L
D3100	40	L
RZ	40	L
R160	40	L
DBC	40	L



FRL service unit	PN	fitting*
CM2	40/100	N
C3002	40/100	N



FRL service unit	PN	fitting*
C630	40	N
CM3	40/100	N
C3003	40/100	N

***** **N** = normal fitting **L** = long fitting

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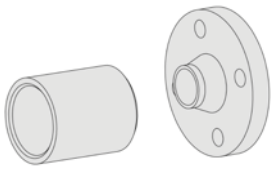
Order example: F602-16WJF1

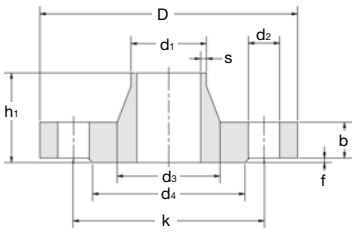
Threaded flange	according to DIN EN 1092-1 ANSI / ASME B16.5 (150 lbs), ASME B16.5 (300 lbs), ASME B16.5 (600 lbs)
Material	1.4571 (316TI)
Weld-on fitting	with conical Withworth-thread, according to DIN EN 10241
Material	1.4571



flanges and fittings DN8 up to DN65

Welding neck flange, as per DIN EN 1092-1 (PN40) — VSV

d1/s	D	h_1	b	d_4	f	k	d_2	d_3	Screws	Connection thread Rp	Nominal size DN	Order number
21.3 x 2.0	95	36	16	45	2	65	14	32	4 x M12	–	15	**VSV-1540**
26.9 x 2.3	105	40	18	58	2	75	14	40	4 x M12	–	20	**VSV-2040**
33.7 x 2.6	115	40	18	68	2	85	14	46	4 x M12	–	25	**VSV-2540**
42.4 x 2.6	140	42	18	78	2	100	18	56	4 x M16	–	32	**VSV-3240**
48.3 x 2.6	150	45	18	88	3	110	18	64	4 x M16	–	40	**VSV-4040**
60.3 x 2.9	165	48	20	102	3	125	18	75	4 x M16	–	50	**VSV-5040**
76.1 x 2.9	185	52	22	122	3	145	18	90	4 x M16	–	65	**VSV-6540**
88.9 x 3.2	200	58	24	138	3	160	18	105	8 x M16	-	80	**VSV-8040**



VSV welding neck flange

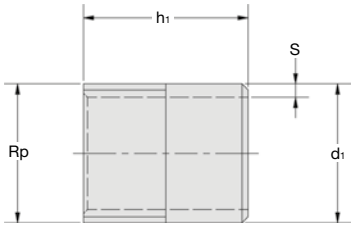
SST

Special options, add the appropriate letter or number

PN100	according to DIN 2637	**100**	VSV-. . . .**100**
ANSI/ASME-flange	B16.5 150 lbs	**150 lbs**	VSV-. . . .**150 lbs**
ANSI/ASME-flange	B16.5 300 lbs	**300 lbs**	VSV-. . . .**300 lbs**
ANSI/ASME-flange	B16.5 600 lbs up to DN25	**600 lbs**	VSV-. . . .**600 lbs**

Weld-on fitting — as per DIN 2999 with conical Whitworth thread (BSPT) — VSA

13.5 x 2.35	30	PN50	¼″	8	**VSA-02**
21.3 x 2.65	35	PN50	½″	15	**VSA-04**
26.9 x 2.65	40	PN50	¾″	20	**VSA-06**
33.7 x 3.25	40	PN50	1″	25	**VSA-08**
42.4 x 3.25	50	PN40	1¼″	32	**VSA-10**
48.3 x 3.25	50	PN40	1½″	40	**VSA-12**
60.3 x 3.65	50	PN40	2″	50	**VSA-16**
76.1 x 3.65	60	PN25	2½″	65	**VSA-20**



VSA weld-on fitting

PDF CAD
www.aircom.net

Order example: VSV-1540

COMPRESSED AIR FILTERS

DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
bronze In-Line-Filter	21	G¼ - G½	137	**16.02**
In-Line-Filter 0,3 µm	9	nipple Ø 4. 6 mm	F400	**16.02**
„Miniature“-Series	21	G⅛ and G¼	F504	**16.03**
made of plastic	16	G⅛ - G1	F035 … F095	**16.04**
made of plastic, with FDA-approval	10	G⅛ - G¾	FH	**16.06**
„Maxi“-Series, robust, block design	17	G¼ - G1	F20	**16.07**
made of brass, many variations	50	G⅛ - G2	FM	**16.08**
„Standard“-Series, robust	21	G¼ - G2	F602	**16.10**
Series „D“, made of aluminium	30	G⅛ - G2	FD	**16.12**
3 µm pre-filter	16	G¼ - G3	FG.V	**16.14**
1 µm fine filter	16	G¼ - G3	FG.Z	**16.14**
0.01 µm fine filter	16	G¼ - G3	FG.X	**16.15**
activated carbon filter	16	G¼ - G3	FG.A	**16.15**
high pressure filter, also for oxygen	60	G⅜ - G2	F445, F465	**16.16**
filter silencer	16	G¼ - G2	SFE	**16.17**
condensate / tank drain	18	G½	D11, D608	**16.18**



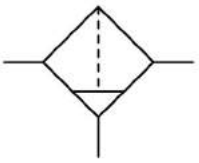
16

Micro in-line filter F400

Description	Micro in-line filters are widely used in medical and process technology for cleaning compressed air for use in instruments and pneumatic logic systems. The micro in-line filter removes particles, oil and mist from compressed air. Also suitable for vacuum.
Filter element	The borosilicate micro-filter is manufactured in a special vacuum process which reduces the adhesive properties of the borosilicate fibres down to a minimum in order to achieve outstanding filtering capability. When saturated with oil, the filter turns red to indicate that replacement is required.
Filtration efficiency	99.999% based on 0.03 µm particle size **Operating pressure** max. 9 bar
Connection	Fitted with nipples able to take up hoses of 4.3 mm (11/16") or 6.3 mm (¼") internal diameter. Flow direction from INside to OUTside to be noted.

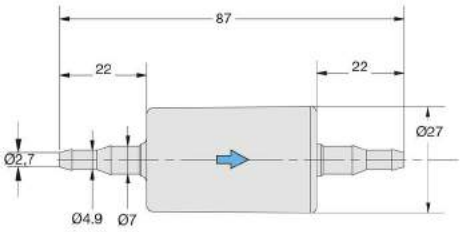
Bronze in-line filter 137

Description	Bronze in-line filter for compressed air with coarse impurities.
Filter element	90 µm, 20 µm or optionally 5 µm, made of sintered bronze
Operating pressure	max. 21 bar
Drainage	with or without manual drain

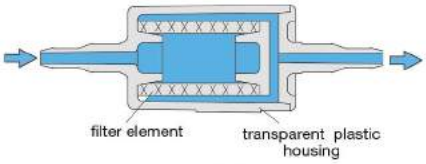


0.3 µm coalescing
5/20/90 µm

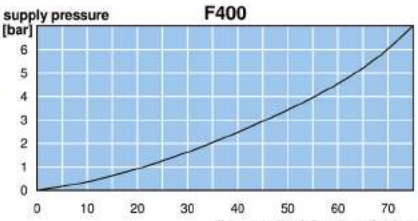
Dimensions A mm	B mm	C mm	Description	Flow rate m³/h*1	l/min*1	P_1 max. bar	Filter element µm	Connection thread nipple/G	Order number
Micro in-line filter			99.999% at 0.3 µm, discolouration at saturation, max. 9 bar						**F400**
87	43	Ø 27	borosilicate-micro filter	4.2	70	9	0.3	Ø 4 and Ø 6	**F400**
Bronze in-line filter			operating pressure max. 21 bar						**137**
67	63	32	**without manual drain**	39	650	21	90	G¼	**137-02**
				42	700			G⅜	**137-03**
				44	740			G½	**137-04**
				39	650	21	20	G¼	**137-02H**
				42	700			G⅜	**137-03H**
				44	740			G½	**137-04H**
				19	320	21	5	G¼	**137-02V**
				21	350			G⅜	**137-03V**
				22	370			G½	**137-04V**
67	79	48	**with manual drain**	39	650	21	90	G¼	**137-02A**
				42	700			G⅜	**137-03A**
				44	740			G½	**137-04A**
				39	650	21	20	G¼	**137-02AH**
				42	700			G⅜	**137-03AH**
				44	740			G½	**137-04AH**
				19	320	21	5	G¼	**137-02AV**
				21	350			G⅜	**137-03AV**
				22	370			G½	**137-04AV**



F400



cross section



F400



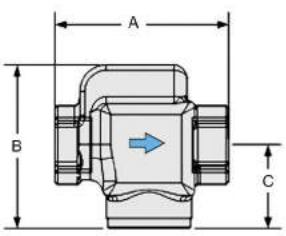
F400



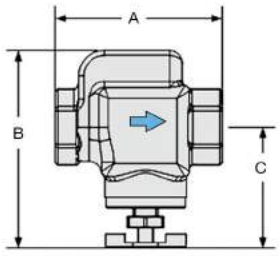
137-04



137-04A



137-...



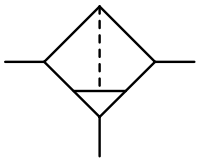
137-...A.

*1 at 7 bar operating pressure and 0.1 bar pressure drop

PDF CAD
www.aircom.net

Order example:
F400

Description	Miniature compressed air filter of small, compact design. Ideal for limited space conditions.
Filter element	20 µm, optionally 5 µm, made of propylene
Bowl	plastic or metal version
Drainage	manual drain as standard, for max. 21 bar optionally semiautomatic drain, for max. 12 bar
Operating pressure	max. 11 bar for plastic bowl max. 21 bar for metal bowl
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and semiautomatic drain version 0 °C to 80 °C / 32 °F to 176 °F for metal bowl for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: aluminium Bowl: polyurethane or zinc die-cast Elastomer: NBR/Buna-N



G⅛ and G¼

Dimensions A mm	B mm	C mm	Bowl Design made of	Capacity l	Flow rate m³/h*1	l/min*1	Supply max. bar	Filter element µm	Connection thread G	Order number
Miniature compressed air filter							**with manual drain**			**F504**
40	106	96	plastic	0.04	36	600	11	20	G⅛	**F504-01AH**
			metal				21			**F504-01DH**
			plastic		29	480	11	5		**F504-01AG**
			metal				21			**F504-01DG**
40	106	96	plastic	0.04	38	640	11	20	G¼	**F504-02AH**
			metal				21			**F504-02DH**
			plastic		31	510	11	5		**F504-02AG**
			metal				21			**F504-02DG**



F504-02AH



F504-02DH

Special options, add the appropriate letter

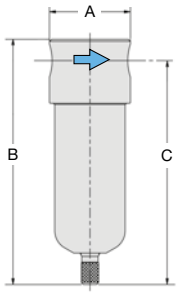
NPT	connection thread	F504-. . . . **N**
semiautomatic drain	RK500SY, max. 12 bar	F504-. . . . **M**
automatic drain	RK504SY, max. 12 bar	F504-. . . . **R**

Accessories, enclosed

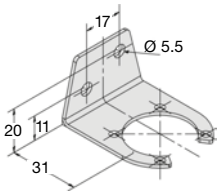
mounting bracket	made of steel	**BW00-01**



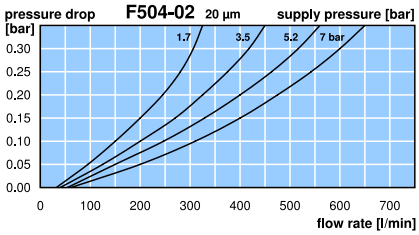
RK500SY



F504



BW00-01



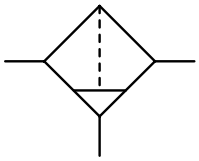
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: **see chapter for FRL service units**

PDF CAD
www.aircom.net

Order example:
F504-01AH

Description	Filter of modular design which can be interlocked with all other instruments of the same series without need for double nipples. The flow on standard filters is from outside to inside; on coalescing filters 0.1 µm from inside to outside.
Filter element	5 µm, 20 µm, 80 µm made of sintered polyethylene, 160 µm made of stainless steel, 0.01 µm coalescing filter made of borosilicate and activated carbon filter
Filtration efficiency	coalescing filter: 99.99% at 0.01 µm particle size, residual oil content < 5 mg/m³
Bowl	plastic version with bayonet catch, type 042 with connection thread
Drainage	manual drain in conjunction with semiautomatic drain, optionally automatic drain, no drain for water
Operating pressure	max. 7 bar at series 035, max. 16 bar at series 042, max. 12.5 bar at series 050 to 095
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: nylon, POM at types 035 and 042 Elastomer: NBR/Buna-N Bowl: polyamide Inner valve: brass



5 to 160 µm, coalescing
activated carbon filter, G⅛ - G1

Dimensions A mm	B mm	C mm	Design	Bowl Capacity l	Flow rate m³/h*1	l/min*1	P_1 max. bar	Filter element µm	Connection thread G	Order number
Compressed air filter				manual drain with semiautomatic drain, 99.99% at 0.01 µm						**F0**
38	79	67	plastic	0.008	45	750	7	20	G⅛	**F035-01H**
			plastic		40	670		5		**F035-01G**
			for water w/o drain		50	830		80		**F035-01J**
			coalescing		7	115		0.01		**F035-01C**
42	146	126	plastic	0.02	75	1250	16	20	G¼	**F042-02H**
			plastic		63	1050		5		**F042-02G**
			for water w/o drain		79	1320		80		**F042-02J**
			for water w/o drain		87	1450		160		**F042-02K**
			coalescing		11	180		0.01		**F042-02C**
			plastic		87	1450		activated carbon		**F042-02A**
52	174	148	bowl guard	0.04	150	2500	12.5	20	G⅜	**F050-03H**
					126	2100		5		**F050-03G**
					16	500		0.01		**F050-03C**
					150	2500		activated carbon		**F050-03A**



F035

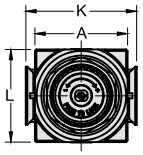


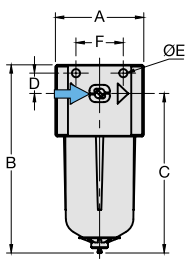
F042



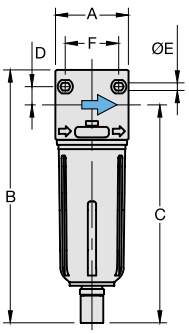
F050

Series	D	Ø E	F	K	L
F035	8.5	3.5	20	–	36
F042	10.5	4.5	31	–	42
F050	16.0	5.5	41	63	52

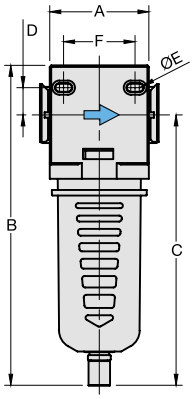




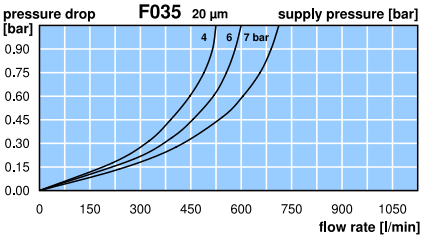
F035

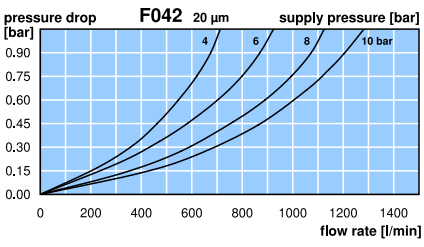


F042



F050 / F052 / F075





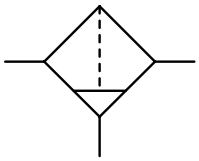
*1 at 10 bar operating pressure and 1 bar pressure drop, for F035 and filter element 00.1 µm only 7 bar operating pressure

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
F035-01H

Description	Filter of modular design which can be interlocked with all other instruments of the same series without need for double nipples. The flow on standard filters is from outside to inside; on coalescing filters 0.1 µm from inside to outside.
Filter element	5 µm, 20 µm, 80 µm made of sintered polyethylene, 160 µm made of stainless steel, 0.01 µm coalescing filter made of borosilicate and activated carbon filter
Filtration efficiency	coalescing filter: 99.99% at 0.01 µm particle size, residual oil content < 5 mg/m³
Bowl	plastic version with bayonet catch, type 042 with connection thread
Drainage	manual drain in conjunction with semiautomatic drain, optionally automatic drain, no drain for water
Operating pressure	max. 7 bar at series 035, max. 16 bar at series 042, max. 12.5 bar at series 050 to 095
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: nylon, POM at types 035 and 042 Elastomer: NBR/Buna-N Bowl: polyamide Inner valve: brass



5 to 160 µm, coalescing activated carbon filter, G⅛ - G1

Dimensions A mm	B mm	C mm	Design	Bowl Capacity l	Flow rate m³/h*1	l/min*1	P_1 max. bar	Filter element µm	Connection thread G	Order number
Compressed air filter				manual drain with semiautomatic drain, 99.99% at 0.01 µm						**F0**
52	174	148	bowl guard	0.04	156	2600	12.5	20	G½	**F052-04H**
					132	2200		5		**F052-04G**
					17	500		0.01		**F052-04C**
					156	2600		activated carbon		**F052-04A**
63	204	173	bowl guard	0.10	186	3100	12.5	20	G½	**F075-04H**
					165	2750		5		**F075-04G**
					18	800		0.01		**F075-04C**
					186	3100		activated carbon		**F075-04A**
137	204	173	bowl guard	0.10	192	3200	12.5	20	G¾	**F080-06H**
					168	2800		5		**F080-06G**
					18	800		0.01		**F080-06C**
95	284	237	bowl guard	0.20	828	13800	12.5	20	G1	**F095-08H**
					750	12500		5		**F095-08G**



F052



F080



F095

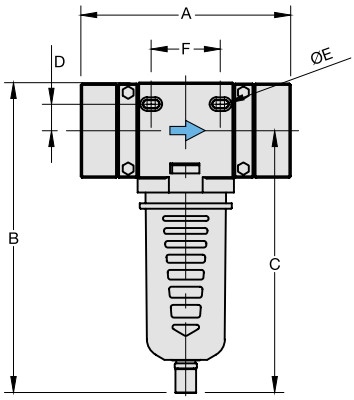
Special options, add the appropriate letter

automatic drain	C400200130	for F042 to F095	F0. .-0. . **R**

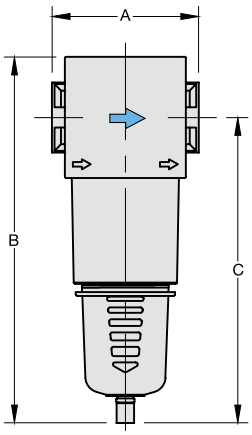
Accessories, enclosed

mounting bracket set	made of steel	for F095	**BW00-02**

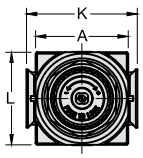
Series	D	Ø E	F	K	L
F052	16.0	5.5	41	63	52
F075	17.5	5.5	45	75	63
F080	17.5	5.5	45	–	63
F095	–	–	–	115	95

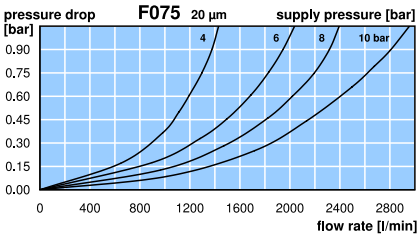


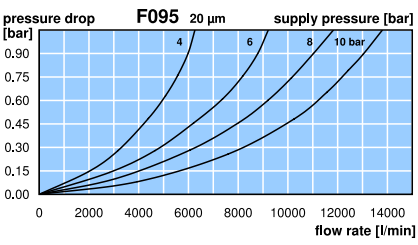
F080



F095







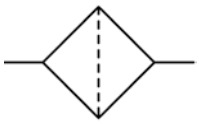
*1 at 10 bar operating pressure and 1 bar pressure drop, for F035 and filter element 00.1 µm only 7 bar operating pressure

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example: F052-04H

Description	Filter made of plastic for compressed air, vacuum, non-corrosive gases or liquids. The flow on the filter elements passes from outside to inside. They are largely corrosion-resistant and feature excellent chemical stability. Exposure of the filters to direct sunlight must be avoided. Optionally available with EPDM elastomers approved by the FDA.
Filter element	5 µm, 35 µm and 80 µm made of PE, 50 µm, 100 µm and 300 µm made of stainless steel
Bowl	made of transparent Grilamid TR55, three different sizes, screwable, without drain
Drainage	without drain, as no water separation occurs with compressed air
Operating pressure	max. 10 bar at 24 °C / 75 °F **Differential pressure** max. 0.7 bar
Temperature range	5 °C to 52 °C / 41 °F to 125 °F
Cleaning	with lukewarm water and standard rinsing agent
Material	Body: polypropylene GFV 20% Filter element: polyethylene, optionally stainless steel Bowl: Grilamid TR55, transparent Elastomer: NBR/Buna-N, optionally FKM or EPDM (FDA)



G⅛ to G¾, FDA for water, gases, vacuum

Dimensions A mm	B mm	C mm	Bowl Capacity l	Flow rate Water l/min*1	Air l/min*1	Filter element µm	Connection thread G	Order number
Plastic filter				operating pressure max. 10 bar differential pressure max. 0.7 bar			NBR/Buna-N o-ring polyamide, polypropylene	**FH**
58	93	83	0.06	6	140	5	G⅛	**FH1-01G**
					180	35		**FH1-01J**
					200	80		**FH1-01L**
74	95	85	0.06	8	180	5	G¼	**FH1-02G**
					230	35		**FH1-02J**
					300	80		**FH1-02L**
74	99	87	0.06	10	220	5	G⅜	**FH1-03G**
					280	35		**FH1-03J**
					300	80		**FH1-03L**
75	103	89	0.06	12	260	5	G½	**FH1-04G**
					330	35		**FH1-04J**
					350	80		**FH1-04L**
90	124	112	0.17	14	400	5	G⅜	**FH2-03G**
					500	35		**FH2-03J**
					520	80		**FH2-03L**
90	128	113	0.17	16	480	5	G½	**FH2-04G**
					600	35		**FH2-04J**
					620	80		**FH2-04L**
90	133	116	0.17	18	560	5	G¾	**FH2-06G**
					700	35		**FH2-06J**
					720	80		**FH2-06L**



FH1



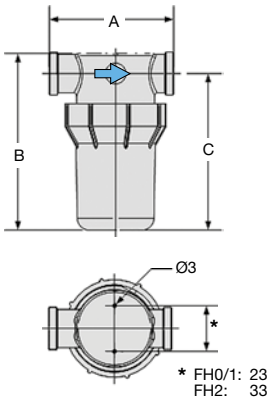
FH2

Special options, add the appropriate letter

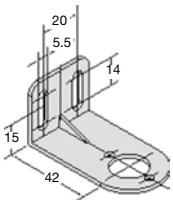
with short bowl *2	shorter filter element,		4 l/min water	FH1 only	FH**0**-. . .
SST filter element	metallic tissue	50 µm **S**;	100 µm **T**;	300 µm	FH0-. .**U**
					FH1-. .**U**
					FH2-. .**U**
EPDM elastomer	FDA approved				FH .-. . .**E**
FKM elastomer					FH .-. . .**V**

Accessories, enclosed

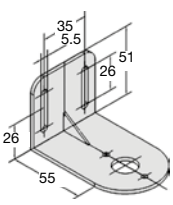
mounting bracket	made of plastc	for FH0 and FH1	**BW17-01**
		for FH2	**BW17-02**



FH



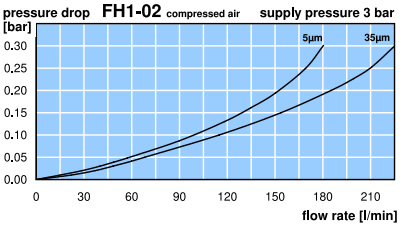
BW17-01

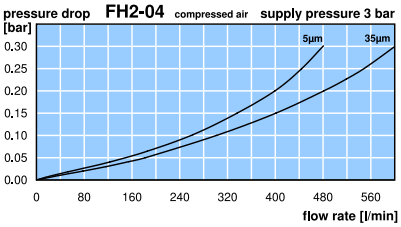


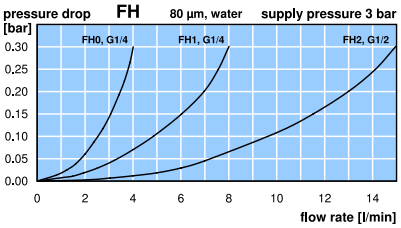
BW17-02



cross-section





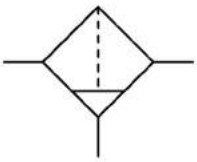


*1 at 3 bar operating pressure and 0.3 bar pressure drop
*2 flow reduced by 35%, height shortened by 35 mm, bowl capacity 0.014 l

PDF CAD
www.aircom.net

Order example: FH1-01G

Description	Compressed air filter of modular design with exchangeable inserts. Can be interlocked with regulator or lubricator without need for double nipples. Each "maxi" device may be taken from a fixed line in seconds by simply removing the mounting bolts.
Filter element	40 µm, optionally 5 µm, made of polypropylene
Bowl	metal version with sight glass
Drainage	manual drain as standard, optionally automatic or semiautomatic drain, for max. 12 bar
Operating pressure	max. 17 bar
Temperature range	0 °C to 70 °C / 32 °F to 158 °F 0 °C to 50 °C / 32 °F to 122 °F for automatic or semiautomatic drain version
Material	Body: zinc die-cast Sight glass: polyurethane Bowl: zinc die-cast Elastomer: NBR/Buna-N



G¼ up to G1

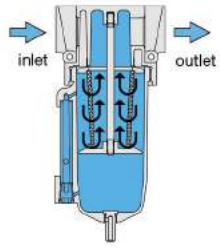


F20

"Maxi" compressed air filter

with manual drain
supply pressure max. 17 bar

Dimensions A mm	B mm	C mm	Bowl Design made of / with	Capacity l	Flow rate m³/h*1	l/min*1	Supply max. bar	Filter element µm	Connection thread G	Order number F20
89	191	171	metal/sight glass 0.3	132	2200		17	40	G¼	**F20-02WJ**
				90	1500			5		**F20-02WG**
				186	3100			40	G⅜	**F20-03WJ**
				138	2300			5		**F20-03WG**
				288	4800			40	G½	**F20-04WJ**
				216	3600			5		**F20-04WG**
111	191	171	metal/sight glass 0.3	408	6800		17	40	G¾	**F20-06WJ**
				294	4900			5		**F20-06WG**
				420	7000			40	G1	**F20-08WJ**
				300	5000			5		**F20-08WG**



cross-section

Special options, add the appropriate letter

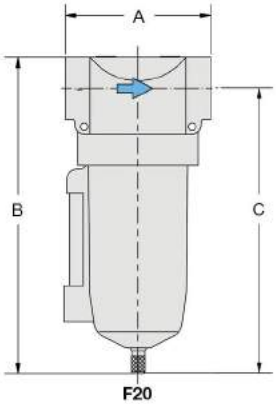
NPT	connection thread	F20-0 .W .**N**
semiautomatic drain	RK500SY, max. 12 bar	F20-0 .W .**M**
automatic drain	SA605MD, max. 12 bar	F20-0 .W .**R**

Accessories, enclosed

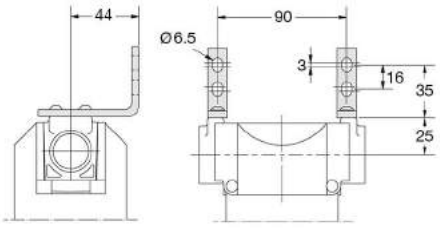
mounting bracket set	made of steel	**MK20-0100**



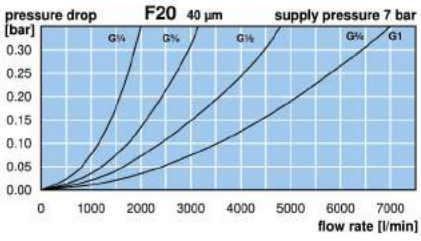
RK500SY **SA605MD**



F20



MK20-0100



*1 at 7 bar supply pressure and 0.33 bar pressure drop

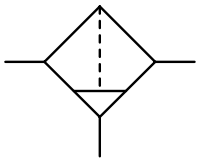
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
F20-02WJ

COMPRESSED AIR FILTER MADE OF BRASS, UP TO 50 BAR

Description	Filter with bowl without sight glass, extremely robust, for compressed air, non-corrosive gases or liquids.
Filter element	50 µm, optionally 5 µm, made of stainless steel **Bowl** stainless steel version without sight glass
Drainage	screw plug as standard optionally for compressed air only: manual drain (max. 30 bar), automatic drain (max. 16 bar)
Operating pressure	max. 50 bar (without drain), optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	0 °C to 80 °C / 32 °F to 140 °F, for FKM or EPDM, 0 °C to 130 °C / 32 °F to 266 °F, for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: brass Bowl: stainless steel 316L, material no 1.4404, brass at FM-01/-A2 Elastomer: FKM, optionally EPDM Inner valve: brass and plastic (not at high temperature version)



G⅛ to G2, max. 50 bar
-40 °C to 130 °C / -40 °F to 266 °F

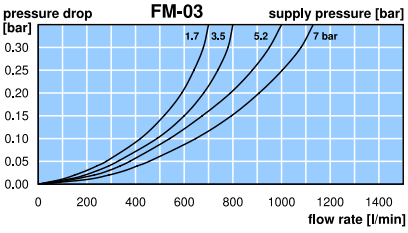
Dimensions A	B	C	Bowl Design	Capacity	Flow rate		Supply max.	Filter element	Connection thread	Order number
mm	mm	mm	made of	l	m³/h*1	l/min*1	bar	µm	G	
Brass filter				with screw plug,	operating pressure max. 50 bar,				50 µm	**FM**
40	92	81	brass	0.03	45	750	50	50	G⅛	**FM-01**
								5		**FM-01G**
40	92	81	brass	0.03	45	750	50	50	G¼	**FM-A2**
								5		**FM-A2G**
64	140	125	stainless steel	0.14	54	900	50	50	G¼	**FM-02**
								5		**FM-02G**
								0.01		**FM-02I**
64	140	125	stainless steel	0.14	60	1000	50	50	G⅜	**FM-03**
								5		**FM-03G**
								0.01		**FM-03I**
79	150	130	stainless steel	0.20	150	2500	50	50	G½	**FM-04**
								5		**FM-04G**
								0.01		**FM-04I**
136	194	167	stainless steel	0.50	432	7200	50	50	G¾	**FM-06**
								5		**FM-06G**
								0.01		**FM-06I**
136	194	167	stainless steel	0.50	432	7200	50	50	G1	**FM-08**
								5		**FM-08G**
								0.01		**FM-08I**
247	194	167	stainless steel	0.50	432	7200	50	50	G1¼	**FM-10**
								5		**FM-10G**
								0.01		**FM-10I**
247	194	167	stainless steel	0.50	432	7200	50	50	G1½	**FM-1A**
								5		**FM-1AG**
								0.01		**FM-1AI**
180	297	215	stainless steel	1.00	900	15000	50	50	G1½	**FM-12**
								5		**FM-12G**
180	297	215	stainless steel	1.00	960	16000	50	50	G2	**FM-16**
								5		**FM-16G**

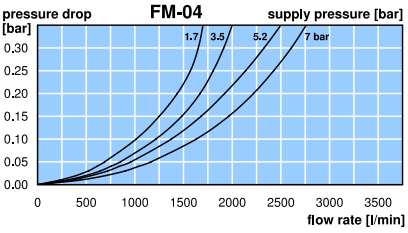


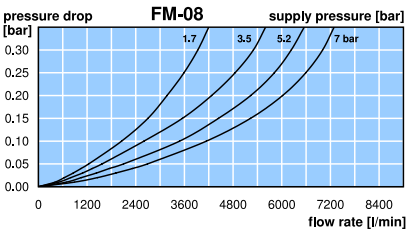
FM-04

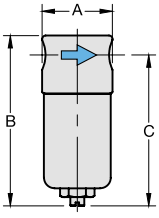


FM-06/-08

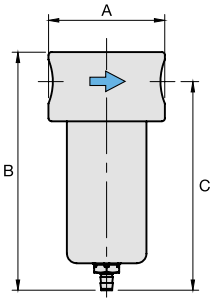








FM-01/-A2



FM-02/-03/-04

*1 at 7 bar operating pressure and 0.33 bar pressure drop

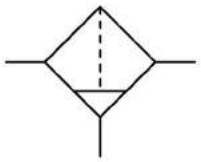
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
FM-01

COMPRESSED AIR FILTER MADE OF BRASS, UP TO 50 BAR — FM

Description	Filter with bowl without sight glass, extremely robust, for compressed air, non-corrosive gases or liquids.
Filter element	50 µm, optionally 5 µm, made of stainless steel **Bowl** stainless steel version without sight glass
Drainage	screw plug as standard optionally for compressed air only: manual drain (max. 30 bar), automatic drain (max. 16 bar)
Operating pressure	max. 50 bar (without drain), optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	0 °C to 80 °C / 32 °F to 140 °F, for FKM or EPDM, 0 °C to 130 °C / 32 °F to 266 °F, for high temperature version, for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C / -40 °F
Material	Body: brass Bowl: stainless steel 316L, material no 1.4404, brass at FM-01/-A2 Elastomer: FKM, optionally EPDM Inner valve: brass and plastic (not at high temperature version)



G⅛ to G2, max. 50 bar
-40 °C to 130 °C / -40 °F to 266 °F

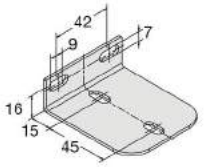
Dimensions A mm	B mm	C mm	Bowl Design made of	Capacity l	Flow rate m³/h*1	l/min*1	Supply max. bar	Filter element µm	Connection thread G	Order number

Special options, add the appropriate letter

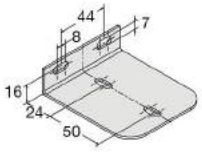
NPT	connection thread		FM-..**N**
P1: max. 80 bar		for G¼ (02)	FM-..**X48**
down to -40 °C	low temperature version		FM-..**X51**
u pto 130 °C	high temperature version		FM-..**X54**
manual drain	max. 30 bar		FM-..**H**
automatic drain	made of SST, max. 16 bar	for G¼ (02)	FM-..**R**
EPDM-elastomer			FM-..**E**
carbon dioxide	CO_2		FM-..**03**
argon	Ar		FM-..**05**
nitrogen	N_2		FM-..**07**
helium	He		FM-..**09**
hydrogen	H_2		FM-..**11**
methane	CH_4		FM-..**13**
oxygen	O_2		FM-..**15**
propane	C_3H_6		FM-..**16**
nitrous oxide	N_2O		FM-..**17**
for water	50 µm only	for G¼ (02) to G2	FM-..**W**
flange connection	see chapter for stainless steel devices / flanges		FM-..**F.**

Accessories, enclosed

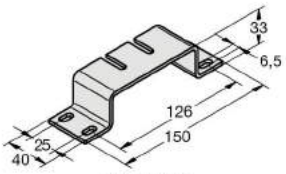
mounting bracket	made of stainless steel	for G¼ (02) and G⅜	**BW00-17S**
		for G½	**BW00-18S**
		for G¾ to G1½ (1A)	**BW00-19S**
set of brackets	made of steel	for G1½ (12) and G2	**BW00-61**



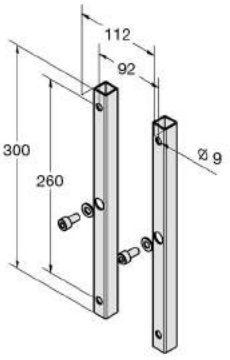
BW00-17S



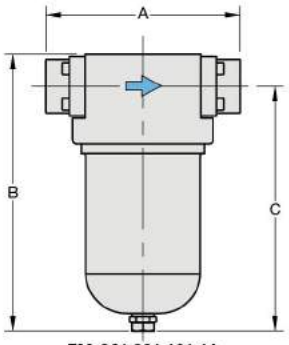
BW00-18S



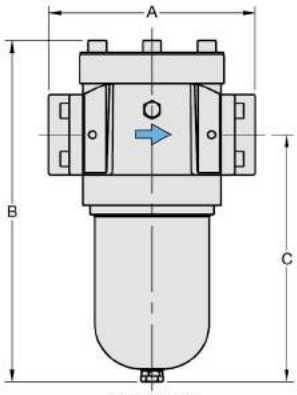
BW00-59S



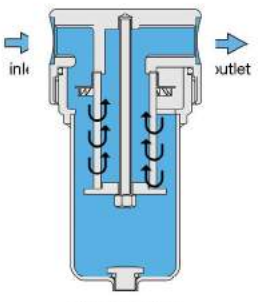
BW00-61



FM-06/-08/-10/-1A



FM-12/-16



cross-section

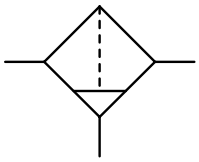
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
BW00-17S

Description	Compressed air filter with high flow. Made of solid design and small size. Proven in operation and suitable for many applications. Available in all standard sizes and in many versions.
Filter element	40 µm, optionally 5 µm, made of polypropylene
Bowl	plastic version with or without bowl guard up to size G½, metal version with or without bowl guard
Drainage	manual drain as standard, for max. 21 bar optionally internal automatic drain, for max. 12 / 16 bar or external automatic drain, for max. 18 bar
Operating pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and automatic drain version 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass 0 °C to 80 °C / 32 °F to 176 °F for metal bowl without sight glass for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Bowl: polyurethane, zinc die-cast or steel Elastomer: NBR/Buna-N



G¼ up to G2

Dimensions A	B	C	Bowl Design	Capacity	Flow rate		Supply max.	Filter element	Connection thread	Order number
mm	mm	mm	made of / with	l	m³/h*1	l/min*1	bar	µm	G	
Standard compressed air filter				**with manual drain**						**F602**
71	158	145	plastic / bowl guard	0.15	84	1400	11	40	G¼	**F602-02BJ**
			metal / sight glass				17			**F602-02WJ**
71	158	145	plastic / bowl guard	0.15	66	1100	11	5	G¼	**F602-02BG**
			metal / sight glass				17			**F602-02WG**
71	158	145	plastic / bowl guard	0.15	126	2100	11	40	G⅜	**F602-03BJ**
			metal / sight glass				17			**F602-03WJ**
71	158	145	plastic / bowl guard	0.15	102	1700	11	5	G¼	**F602-03BG**
			metal / sight glass				17			**F602-03WG**
71	158	145	plastic / bowl guard	0.15	144	2400	11	40	G½	**F602-04BJ**
			metal / sight glass				17			**F602-04WJ**
71	158	145	plastic / bowl guard	0.15	108	1800	11	5	G½	**F602-04BG**
			metal / sight glass				17			**F602-04WG**
116	223	200	metal / sight glass	0.50	426	7100	17	40	G¾	**F602-06WJ**
116	295	272	steel	1.00			21			**F602-06EJ**
116	223	200	metal / sight glass	0.50	318	5300	17	5	G¾	**F602-06WG**
116	295	272	steel	1.00			21			**F602-06EG**
116	223	200	metal / sight glass	0.50	588	9800	17	40	G1	**F602-08WJ**
116	295	272	steel	1.00			21			**F602-08EJ**
116	223	200	metal / sight glass	0.50	438	7300	17	5	G1	**F602-08WG**
116	295	272	steel	1.00			21			**F602-08EG**
132	242	210	metal / sight glass	0.5	660	11000	17	40	G1¼*2	**F602-10WJ**
132	315	283	steel	1.0			21			**F602-10EJ**
132	242	210	metal / sight glass	0.5	492	8200	17	5	G1¼*2	**F602-10WG**
132	315	283	steel	1.0			21			**F602-10EG**



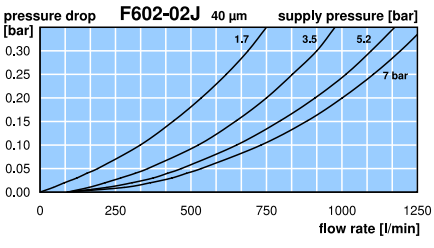
F602-02WJ/-03WJ/-04WJ
metal bowl with sight glass

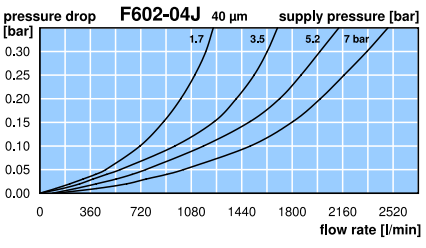


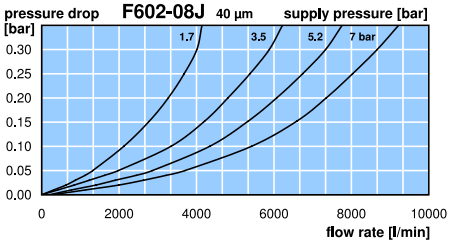
F602-06WJ/-08WJ
metal bowl with sight glass



F602-10WJ/-12WJ
metal bowl with sight glass







*1 at 7 bar operating pressure and 0.33 bar pressure drop

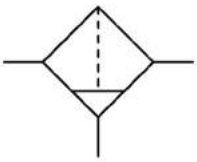
*2 reduced by the next larger filter

Extensions: **see chapter for FRL service units**

PDF CAD
www.aircom.net

Order example:
F602-02BJ

Description	Compressed air filter with high flow. Made of solid design and small size. Proven in operation and suitable for many applications. Available in all standard sizes and in many versions.
Filter element	40 µm, optionally 5 µm, made of polypropylene
Bowl	plastic version with or without bowl guard up to size G½, metal version with or without bowl guard
Drainage	manual drain as standard, for max. 21 bar optionally internal automatic drain, for max. 12 / 16 bar or external automatic drain, for max. 18 bar
Operating pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and automatic drain version 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass 0 °C to 80 °C / 32 °F to 176 °F for metal bowl without sight glass for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Bowl: polyurethane, zinc die-cast or steel Elastomer: NBR/Buna-N



G¼ up to G2

Dimensions A mm	B mm	C mm	Bowl Design made of / with	Capacity l	Flow rate m³/h*1	l/min*1	Supply max. bar	Filter element µm	Connection thread G	Order number
Standard compressed air filter with manual drain										**F602**
132	242	210	metal / sight glass	0.5	660	11000	17	40	G1½	**F602-12WJ**
132	315	283	steel	1.0			21			**F602-12EJ**
132	242	210	metal / sight glass	0.5	492	8200	17	5	G1½	**F602-12WG**
132	315	283	steel	1.0			21			**F602-12EG**
160	330	281	metal / sight glass	0.5	1740	29000	17	40	G2	**F602-16WJ**
160	407	358	steel	1.0			21			**F602-16EJ**
160	330	281	metal / sight glass	0,5	1800	30000	17	40	G2½	**F602-20WJ**
160	407	358	steel	1,0			21			**F602-20EJ**



F602-10EJ/-12EJ
with steel container



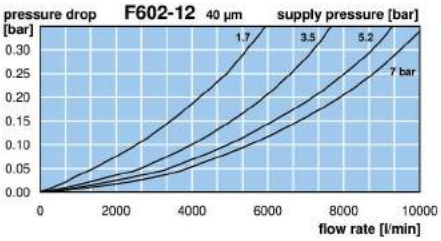
F602-16WJF
with connecting flange

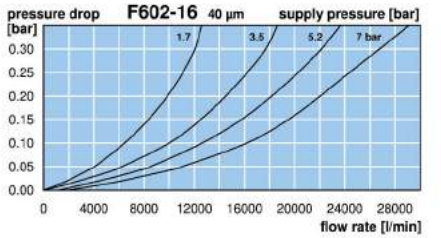
Special options, add the appropriate letter

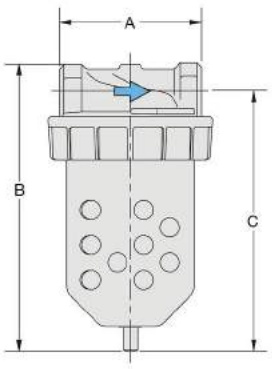
NPT	connection thread		for G¾ to G2½	F602-....**N**
automatic drain	SA605MD,	max. 12 bar	for G¾ to G2½	F602-....**R**
	SA602D, SA603D for steel bowl,	max. 18 bar	for G¾ to G2½	F602-....**Q**
	SA702MD,	max. 16 bar	for G¾ to G2½	F602-....**W**
flange connection	see chapter for stainless steel devices / flanges			F602-....**F.**



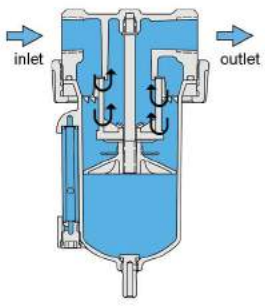
RK602SY SA605MD







F602



cross-section

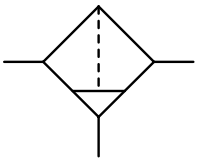
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
F602-12WJ

Description	Good value zinc die-cast regulator of solid design.
Filter element	0.01 µm coalescing filter (to -04), 5 µm and 50 µm
Filtration efficiency	coalescing filter: 99.99% based on 0.01 µm particle size
Bowl	metal version with and without sight glass
Drainage	semiautomatic drain as standard, for max. 16 bar optionally manual drain, for max. 30 bar or automatic drain, for max. 16 bar
Operating pressure	max. 16 bar for metal bowl with sight glass max. 30 bar for metal bowl without sight glass
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F for metal bowl with sight glass (-01 to -04 / -12 / -16) -20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass (-06 to -1A) -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Bowl: aluminium Elastomer: NBR / Buna-N



G⅛ up to G2
0.01/5/20/50 µm

Dimensions A	B	C	Bowl Design	Capacity	Flow rate		Supply max.	Filter element	Connection thread	Order number
mm	mm	mm	made of/with	l	m³/h*1	l/min*1	bar	µm	G	
Compressed air filter series "D"					with semiautomatic drain, 99.99 % at 0.01 µm					**FD**
40	145	127	metal/sight glass	0.05	21	350	16	50	G⅛	**FD-01MJ**
					16	270	16	5		**FD-01MG**
			metal/sight glass	0.05	4	70	16	0.01		**FD-01MI**
40	145	127	metal/sight glass	0.05	24	400	16	50	G¼	**FD-02MJ**
					18	300	16	5		**FD-02MG**
			metal/sight glass	0.05	4	70	16	0.01		**FD-02MI**
64	176	148	metal/sight glass	0.18	144	2400	16	50	G⅜	**FD-03MJ**
					108	1800	16	5		**FD-03MG**
			metal/sight glass	0.18	27	450	16	0.01		**FD-03MI**
64	176	148	metal/sight glass	0.18	156	2600	16	50	G½	**FD-04MJ**
					120	2000	16	5		**FD-04MG**
			metal/sight glass	0.18	30	500	16	0.01		**FD-04MI**
130	205	177	metal/sight glass	0.50	420	7000	16	50	G¾	**FD-06MJ**
					318	5300	16	5		**FD-06MG**
130	205	177	metal/sight glass	0.50	510	8500	16	50	G1	**FD-08MJ**
					384	6400	16	5		**FD-08MG**



FD-01/-02

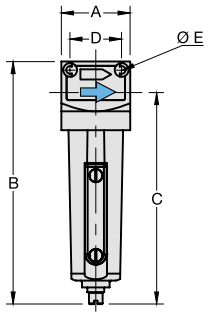


FD-03/-04

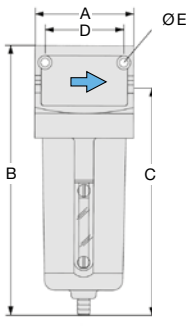


FD-06/-08

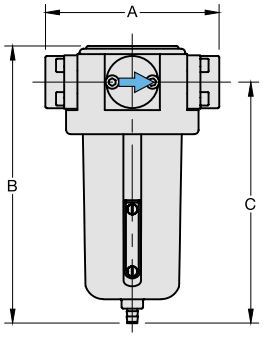
Type	D	Ø E
FD-01/02	30	4.5
FD-03/04	51	5.5



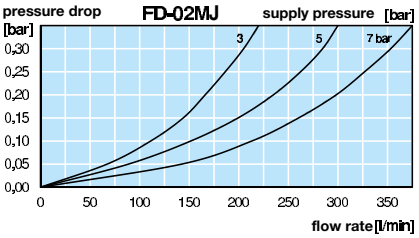
FD-01/-02

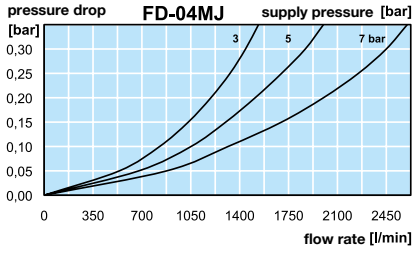


FD-03/-04



FD-06/-08





*1 at 7 bar operating pressure and 0.33 bar pressure drop

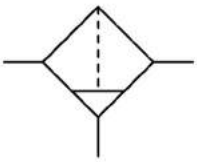
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
FD-01MH

COMPRESSED AIR FILTER SERIES "D", UP TO 30 BAR

Description	Good value zinc die-cast regulator of solid design.
Filter element	0.01 µm coalescing filter (to -04), 5 µm and 50 µm
Filtration efficiency	coalescing filter: 99.99% based on 0.01 µm particle size
Bowl	metal version with and without sight glass
Drainage	semiautomatic drain as standard, for max. 16 bar optionally manual drain, for max. 30 bar or automatic drain, for max. 16 bar
Operating pressure	max. 16 bar for metal bowl with sight glass max. 30 bar for metal bowl without sight glass
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F for metal bowl with sight glass (-01 to -04 / -12 / -16) -20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass (-06 to -1A) -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Bowl: aluminium Elastomer: NBR / Buna-N



G⅛ up to G2
0.01/5/20/50 µm

Dimensions A mm	B mm	C mm	Bowl Design made of/with	Capacity l	Flow rate m³/h*1	l/min*1	Supply max. bar	Filter element µm	Connection thread G	Order number
Compressed air filter series "D"			with semiautomatic drain, 99.99 % at 0.01 µm							**FD**
241	205	177	metal/sight glass	0.5	570	9500	16	50	G1¼	**FD-10MJ**
					432	7200	16	5		**FD-10MG**
241	205	177	metal/sight glass	0.5	600	10000	16	50	G1½	**FD-1AMJ**
					450	7500	16	5		**FD-1AMG**
215	265	223	metal/sight glass	1.2	1800	30000	16	50	G1½	**FD-12MJ**
				1.2	1380	23000	16	5		**FD-12MG**
215	265	223	metal/sight glass	1.2	1800	30000	16	50	G2	**FD-16MJ**
				1.2	1380	23000	16	5		**FD-16MG**



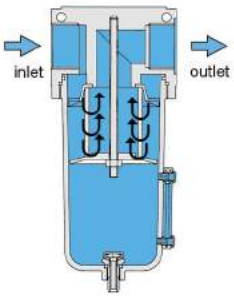
FD-10/-1A



FD-12/-16

Special options, add the appropriate letter

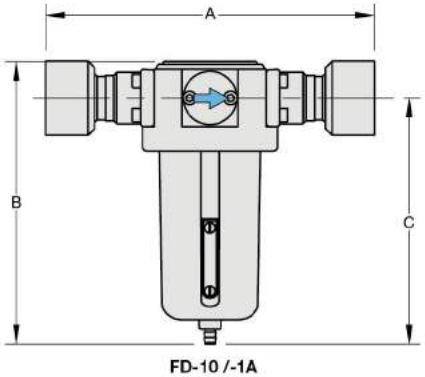
operating pressure 30 bar	metal bowl w/o sight glass, with manual drain		FD- . . **N. H**
manual drain	max. 16 bar		FD- . . . . **H**
automatic drain	draining through float valve, max. 16 bar	for G⅜ to G2	FD- . . . . **R**



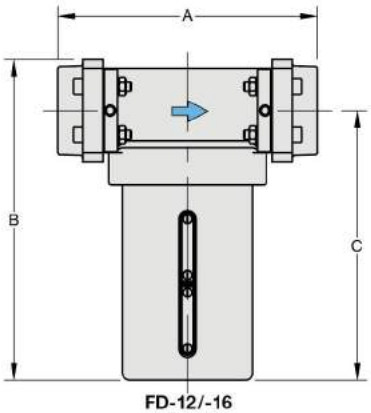
cross-section

Accessories, enclosed

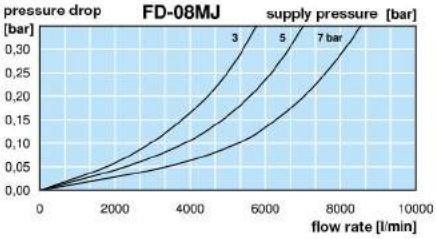
mounting bracket	made of stainless steel	for G¾ to G1½ (1A)	**BW00-59S**
	made of steel	for G1½ (12) and G2	**BW00-61**

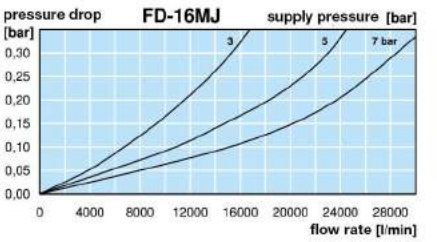


FD-10 /-1A



FD-12/-16





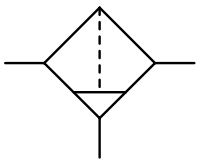
*1 at 7 bar operating pressure and 0.33 bar pressure drop

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
FD-10MJ

	pre-filter V	Fine filter Z
Description	Coarse filter for removing water and solid impurities.	Filters out oil, water and solid impurities. Resistant to mineral and synthetic oils.
Filter element	3 µm incoming flow from inside to outside.	1 µm incoming flow from inside to outside.
Filtration efficiency	99.99% based on 3 µm particle size	99.9999% at 1 µm particle size, residual oil content ≤ 0.5 mg/m³
Filter change	Cleaning required as from 0.35 bar differential pressure. Solid impurities removed by blowing from inside to outside. Oil to be cleaned in soap suds.	The filter must be changed as from 0.35 bar differential pressure or after one year at the latest.
Drainage	automatic drain as standard, optionally manual drain	
Temperature range	1 °C to 65 °C / 34 °F to 149 °F	
Operating pressure	max. 16 bar	
Material	Body/Bowl: chromated and powder-coated cast aluminium	



1 / 3 µm, up to G3
0.1 mg/m³ residual oil

Dimensions A mm	B mm	C mm	Bowl Design of / with	Capacity l	Flow rate m³/h*1	l/min*1	Filter element µm	Connection thread G	Order number
Micro pre-filter 3 µm									**FG. V**
69	194	173	aluminium /	0.2	30	500	3	G¼	**FG-02V**
89	293	269	automatic drain	0.8	60	1 000		G⅜	**FG-03V**
89	293	269		0.8	108	1 800		G½	**FG-04V**
89	293	269		0.8	132	2 200		G¾	**FG-A6V**
109	393	359		1.8	180	3 000		G¾	**FG-06V**
109	393	359		1.8	270	4 500		G1	**FG-08V**
109	540	506		2.7	372	6 200		G1¼	**FG-10V**
109	540	506		2.7	432	7 200		G1½	**FG-1AV**
150	576	535		4.9	732	12 200		G1½	**FG-12V**
150	954	913		8.0	1 050	17 500		G2	**FG-16V**
188	759	703		10.3	1 800	30 000		G2½	**FG-20V**
188	939	903		12.7	2 220	37 000		G3	**FG-24V**
Micro fine filter 1 µm									**FG. Z**
69	194	173	aluminium /	0.2	30	500	1	G¼	**FG-02Z**
89	293	269	automatic drain	0.8	60	1 000		G⅜	**FG-03Z**
89	293	269		0.8	108	1 800		G½	**FG-04Z**
89	293	269		0.8	132	2 200		G¾	**FG-A6Z**
109	393	359		1.8	180	3 000		G¾	**FG-06Z**
109	393	359		1.8	270	4 500		G1	**FG-08Z**
109	540	506		2.7	372	6 200		G1¼	**FG-10Z**
109	540	506		2.7	432	7 200		G1½	**FG-1AZ**
150	576	535		4.9	732	12 200		G1½	**FG-12Z**
150	954	913		8.0	1 050	17 500		G2	**FG-16Z**
188	759	703		10.3	1 800	30 000		G2½	**FG-20Z**
188	939	903		12.7	2 220	37 000		G3	**FG-24Z**

Micro pre-filter 3 µm — with automatic drain, 99,99% filtration efficiency, max. 16 bar — **FG. V**

Micro fine filter 1 µm — with automatic drain, 99,9999% filtration efficiency residual oil ≤ 0.1 mg/m³, max. 16 bar — **FG. Z**



FG-04V



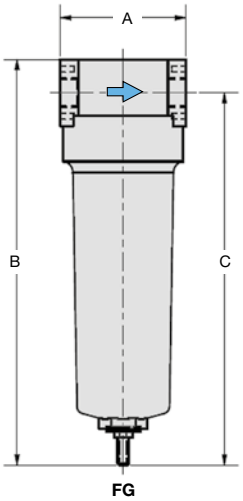
FG-04Z

Special options, add the appropriate letter

differential pressure gauge	FG-. . . **D**
replacement indicator	FG-. . . **E**
further sizes	

Accessories, enclosed

set of mounting brackets	made of steel	for G¼	**BW00-52**
		for G⅜ to G¾ (A6)	**BW00-53**
		for G¾ (06) to G1½	**BW00-54**
		for G1½ (12) and G2	**BW00-55**
		for G2½ and G3	**BW00-56**



FG

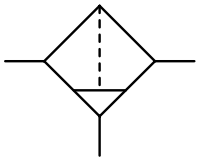
Flow rate conversion factor for other operating pressures																
operating pressure bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
factor	0.25	0.38	0.5	0.65	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

*1 at 7 bar operating pressure and open outlet. Pressure drop in new condition: **20 mbar** on pre-filter and **30 mbar** on universal filter. The maximum permissable flow rate is 10% higher than the indicated value.

PDF CAD
www.aircom.net

Order example:
FG-02V

	Super fine filter X	Activated Carbon Filter A
Description	The filter separates oil, water and solid impurities from compressed air or non-corrosive gases. It is resistant to mineral and synthetic oils.	Air filtered with this combination is virtually free from oil and odours.
Filter element	0.01 µm incoming flow from inside to outside	0.01 µm incoming flow from inside to outside
Filtration efficiency	99.99999% based on 0.01 µm particle size residual oil content ≤ 0.01 mg/m³ at 7 bar and 20 °C/68 °F	residual oil content ≤ 0.03 mg/m³ bei 7 bar and 20 °C/68 °F
Filter change	Cleaning required as from 0.35 bar differential pressure, at the latest after 3 months.	Cleaning required as from 0.35 bar differential pressure, at the latest after 3 months.
Drainage	automatic drain as standard, optionally manual drain	manual drain as standard
Temperature range	1 °C to 65 °C / 34 °F to 149 °F	1 °C to 30 °C / 34 °F to 86°F
Operating pressure	max. 16 bar	
Material	Body/Bowl: chromated and powder-coated cast aluminium	



0.01 µm, up to G3
0.003 mg/m³ residual oil

Dimensions A mm	B mm	C mm	Bowl Design of / with	Capacity l	Flow rate m³/h*1	l/min*1	Filter element µm	Connection thread G	Order number
Super fine filter 0.01 mg/m³ residual oil				with automatic drain, max. 16 bar 99,99999%, at 0.01 µm					**FG. X**
69	194	173	aluminium /	0.2	30	500	0.01	G¼	**FG-02X**
89	293	269	manual drain	0.8	60	1 000		G⅜	**FG-03X**
89	293	269		0.8	108	1 800		G½	**FG-04X**
89	293	269		0.8	132	2 200		G¾	**FG-A6X**
109	393	359		1.8	180	3 000		G¾	**FG-06X**
109	393	359		1.8	270	4 500		G1	**FG-08X**
109	540	506		2.7	372	6 200		G1¼	**FG-10X**
109	540	506		2.7	432	7 200		G1½	**FG-1AX**
150	576	535		4.9	732	12 200		G1½	**FG-12X**
150	954	913		8.0	1 050	17 500		G2	**FG-16X**
188	759	703		10.3	1 800	30 000		G2½	**FG-20X**
188	939	903		12.7	2 220	37 000		G3	**FG-24X**
Activated carbon filter 0.003 mg/m³ residual oil				with manual drain, max. 16 bar					**FG. A**
69	185	164	aluminium /	0.2	30	500	activated carbon	G¼	**FG-02A**
89	284	260	manual drain	0.8	60	1 000		G⅜	**FG-03A**
89	284	260		0.8	108	1 800		G½	**FG-04A**
89	284	260		0.8	132	2 200		G¾	**FG-A6A**
109	384	350		1.8	180	3 000		G¾	**FG-06A**
109	384	350		1.8	270	4 500		G1	**FG-08A**
109	531	497		2.7	372	6 200		G1¼	**FG-10A**
109	531	497		2.7	432	7 200		G1½	**FG-1AA**
150	567	526		4.9	732	12 200		G1½	**FG-12A**
150	945	904		8.0	1 050	17 500		G2	**FG-16A**
188	748	694		10.3	1 800	30 000		G2½	**FG-20A**
188	930	894		12.7	2 220	37 000		G3	**FG-24A**



FG-04X



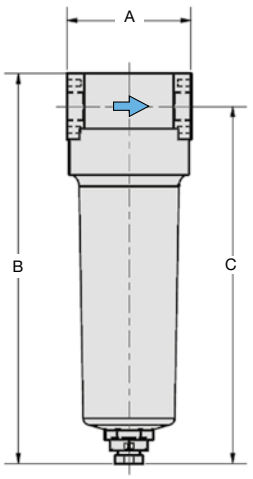
FG-04AD
with differential pressure gauge

Special options, add the appropriate letter

differential pressure gauge	FG-. . . **D**
replacement indicator	FG-. . . **E**
further sizes	

Accessories, enclosed

set of mounting brackets	made of steel	for G¼	**BW00-52**
		for G⅜ to G¾ (A6)	**BW00-53**
		for G¾ (06) to G1½	**BW00-54**
		for G1½ (12) and G2	**BW00-55**
		for G2½ and G3	**BW00-56**



FG

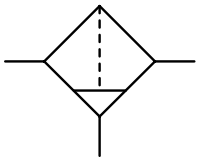
Flow rate conversion factor for other operating pressures																
operating pressure bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
factor	0.25	0.38	0.5	0.65	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

*1 at 7 bar operating pressure and open outlet. Pressure drop in new condition: **50 mbar** on fine filter and **90 mbar** on super fine filter. The maximum permissable flow rate is 10% higher than the indicated value.

PDF CAD
www.aircom.net

Order example:
FG-02X

Description	Compressed air filter for up to 60 bar operating pressure with various filter elements. Mounting in horizontal position, flow direction indicated by arrow.
Filter element	5 µm and 40 µm made of sintered bronze, 0.01 µm coalescing filter made of borosilicate fibres with stainless steel jacket and foam protection
Filtration efficiency	coalescing filter: 99.999% based on 0.01 µm particle size
Bowl	metal version without sight glass
Drainage	manual drain as standard
Supply pressure	max. 60 bar
Temperature range	0 °C to 90 °C / 32 °F to 194 °F, for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: black, anodized aluminium Bowl: brass at G⅜ to G1, aluminium at G1½ and G2 Elastomer: NBR/Buna-N



40/60 bar, up to G2
0.01/5/40 µm



F445-04, 40 bar



F465-08, 60 bar

Dimensions A mm	B mm	C mm	Bowl Design made of	Capacity l	Flow rate m³/h*1	l/min*1	Filter element µm	Connection thread G	Order number
High pressure filter up to 40 bar with manual drain, 99.999% at 0.01 µm									**F445**
72	200	168	metal	0.08	162	2700	40	G⅜*2	**F445-03EL**
65	200	168			168	2800		G½	**F445-04EL**
92	210	170	metal	0.10	198	3300		G¾*2	**F445-06EL**
80	210	170			210	3500		G1	**F445-08EL**
150	285	243	metal	0.30	1200	20000		G1½*2	**F445-12EL**
140	285	243			1320	22000		G2	**F445-16EL**
72	200	168	metal	0.08	126	2100	5	G⅜*2	**F445-03GL**
65	200	168			138	2300		G½	**F445-04GL**
92	210	170	metal	0.10	156	2600		G¾*2	**F445-06GL**
80	210	170			168	2800		G1	**F445-08GL**
150	285	243	metal	0.30	900	15000		G1½*2	**F445-12GL**
140	285	243			1080	18000		G2	**F445-16GL**
72	200	168	metal	0.08	150	2500	0.01	G⅜*2	**F445-03IL**
65	200	168			162	2700		G½	**F445-04IL**
92	210	170	metal	0.10	192	3200		G¾*2	**F445-06IL**
80	210	170			204	3400		G1	**F445-08IL**
150	285	243	metal	0.30	1140	19000		G1½*2	**F445-12IL**
140	285	243			1260	21000		G2	**F445-16IL**
High pressure filter up to 60 bar with manual drain, 99.999% at 0.01 µm									**F465**
72	185	160	metal	0.08	162	2700	40	G⅜*2	**F465-03EL**
65	185	160			168	2800		G½	**F465-04EL**
92	200	170	metal	0.10	198	3300		G¾*2	**F465-06EL**
80	185	160			210	3500		G1	**F465-08EL**
72	185	160	metal	0.08	126	2100	5	G⅜*2	**F465-03GL**
65	185	160			135	2300		G½	**F465-04GL**
92	200	170	metal	0.10	156	2600		G¾*2	**F465-06GL**
80	200	170			168	2800		G1	**F465-08GL**
72	185	160	metal	0.08	150	2500	0.01	G⅜*2	**F465-03IL**
65	185	160			162	2700		G½	**F465-04IL**
92	200	170	metal	0.10	192	3200		G¾*2	**F465-06IL**
80	200	170			204	3400		G1	**F465-08IL**

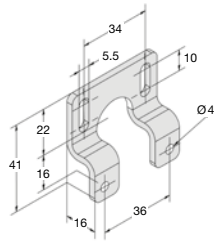
Special options, add the appropriate letter

for oxygen	specially cleaned	F4.5-...**15**

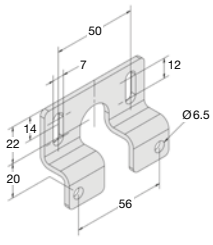
Accessories, enclosed

mounting bracket made of steel

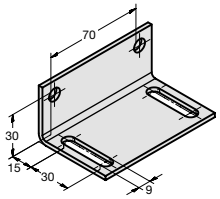
for G⅜ and G½	**BW00-15**
for G¾ and G1	**BW00-16**
for G1½ and G2	**BW00-60**



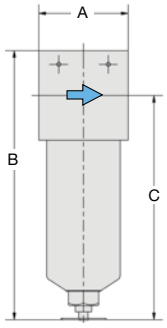
BW00-15



BW00-16



BW00-60



F445 / F465

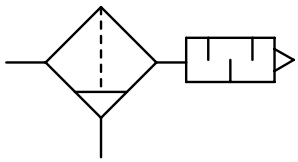
*1 at 7 bar operating pressure and 0.33 bar pressure drop

*2 reduced from the next bigger filter size

PDF CAD
www.aircom.net

Order example:
F445-03EL

Description	The exhaust filter/sound silencer treats all exhaust air issued by pneumatic devices: 1) Removing environmentally harmful oil particles from oily exhaust air 2) Silencing exhaust air noise
Filtration efficiency	> 99.99%, residual oil content < 0.01 mg/m³
Noise reduction	> 40 dB (A) at 1 m
Service life	approx. 2500 operating hours, depending on contamination
Drainage	The bowl is emptied by means of an overflow valve or by opening the manual drain.
Operating pressure	max. 16 bar
Temperature range	2 °C to 100 °C / 36 °F to 212 °F
Material	Housing: polypropylene at G¼ and G⅜, aluminium at G½ to G2 Filter: micro fibreglass and polyurethane



G¼ up to G2

Filter silencer

operating pressure max. 16 bar

Dimensions A mm	B mm	ØC mm	A/F mm	Flow rate m³/h*1	l/min*1	Connection thread G	Order number SFE
8	131	77	28	30	500	G¼	**SFE-02**
8	131	77	28	35	580	G⅜	**SFE-03**
12	181	90	36	75	1250	G½	**SFE-04**
12	181	90	36	100	1670	G¾	**SFE-06**
15	254	110	50	175	2920	G1	**SFE-08**
70	287	110	50	200	3330	G1¼	**SFE-10**
70	312	110	50	200	3330	G1½	**SFE-12**
70	312	110	50	200	3330	G2	**SFE-16**



SFE-04



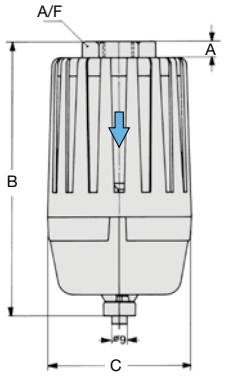
SFE-08

Accessories, enclosed

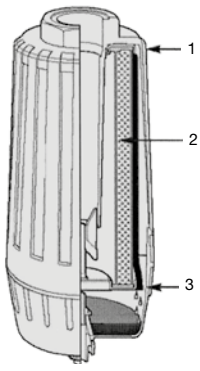
mounting bracket	made of steel	for G¼ to G¾	**BW00-20**
		for G1 to G2	**BW00-21**



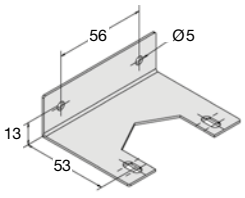
filter structure



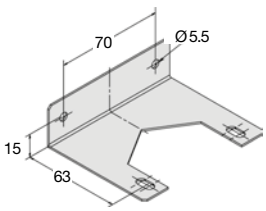
SFE



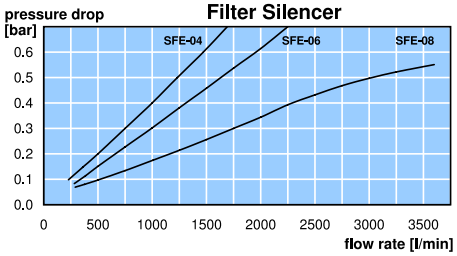
cross section



BW00-20



BW00-21

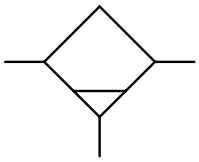


*1 at 6 bar operating pressure to atmosphere

PDF CAD
www.aircom.net

Order example: SFE-02

Description	The condensate drain collects any liquid which has accumulated in the compressed air circuit. It is to be installed at the lowest point in the compressed air plant.
Bowl	plastic version with bowl guard at D608 metal version with or without sight glass at D11, with sight glass at D608
Drain	D11: internal automatic drain as standard for max. 12 bar, optionally manual drain D608: external automatic drain as standard for max. 18 bar, optionally internal drain for max. 16 bar without manual drain
Operating pressure	max. 12 bar at plastic bowl max. 12 bar or 16 bar at metal bowl with internal automatic drain max. 18 bar at metal bowl with external automatic drain
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass 0 °C to 80 °C / 32 °F to 176 °F for metal bowl without sight glass
Material	Body: zinc die-cast Sight glass: polyurethane Bowl: polyurethane or zinc die-cast



G½

Dimensions A mm	Dimensions B mm	Bowl design of / with	Bowl capacity l	Automatic drain	Operating pressure max. bar	Connection thread G	Order number
Condensate / tank drain with automatic drain							**D11 / D608**
54	134	metal	0.12	SA605MD	12	G½	**D11-04**
		metal / sight glass					**D11-04W**
95	159	plastic / bowl guard	0.25	SA603D	12	G½	**D608-04D**
		metal / sight glass			18		**D608-04DW**



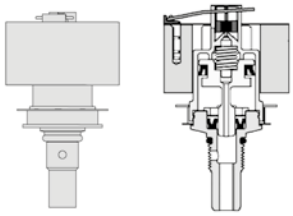
D11-04W D11-04

Special options, add the appropriate letter

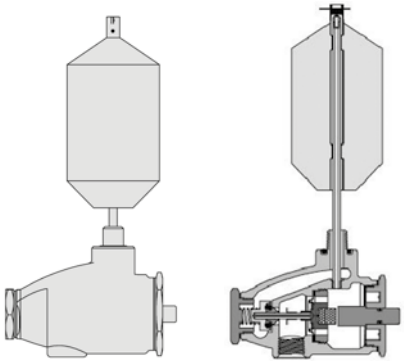
NPT	connection thread		D11 -04 . **N**
NPT	connection thread		D608-04 . **N**
manual drain	instead of automatic drain	for D11	D11 -04 . **H**
manual drain	instead of automatic drain	for D608	D608-04 . **H**
automatic drain	internal, SA702MD, max. 16 bar	for D608	D608-04 . **R**



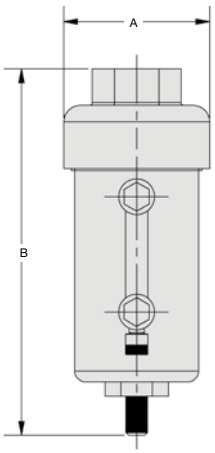
D608-04DW



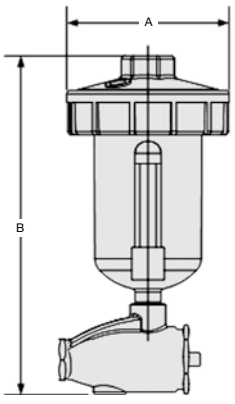
SA605MD internal drain



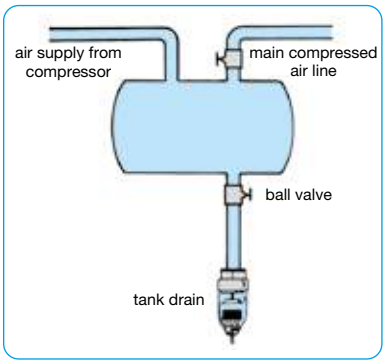
SA603D external drain

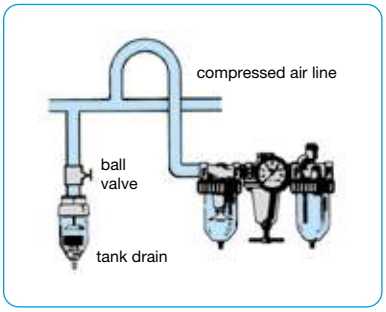


D11-04W



D608





examples of use

PDF CAD
www.aircom.net

Order example: D11-04

FILTER PRESSURE REGULATORS

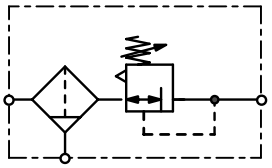
DESCRIPTION	PRESSURE RANGE bar	CONNECTION thread	SERIES	PAGE
„Miniature“-Series	0.2 …1,8 / 9	G⅛ and G¼	B548	**17.02**
brass	0.2 … 3 /15	G¼ and G½	BM	**17.03**
made of plastic	0 … 4 /12	G¼ - G1	B042 … B095	**17.04**
„Maxi“-Series, robust, modular	0.2 … 4 /17	G¼ - G1	B20, B21	**17.05**
Series „D“, made of aluminium	0.3 … 3 /15	G⅛ - G2	BD	**17.06**
down to -40 °C / -40 °F	0 …0.7 / 8	¼″ NPT	B300	**17.08**



17

MINIATURE FILTER PRESSURE REGULATOR B548

Description	Regulator of small and compact design, ideal for limited space conditions.
Media	compressed air or non-corrosive gases
Supply pressure	max. 11 bar for plastic bowl, max. 21 bar for metal bowl
Adjustment	by plastic knob with snap-lock
Relieving function	relieving
Gauge port	G⅛ on both sides of the body, screw plugs supplied
Filter element	20 µm, optionally 5 µm, made of polypropylene
Bowl	plastic or metal version
Drainage	manual drain as standard, for max. 21 bar semiautomatic drain as option, for max. 12 bar
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl and semiautomatic drain version 0 °C to 80 °C / 32 °F to 176 °F for metal bowl
Material	Body: aluminium Spring cage: glass fibre-reinforced plastic Bowl: polyurethane or zinc die-cast Elastomer: NBR/Buna-N Inner valve: brass



G⅛ and G¼

Dimensions A mm	B mm	C mm	Bowl design made of	capacity l	Flow rate m³/h*1	l/min*1	P1 max. bar	Connection thread G	Pressure range bar	Order number	B*
Miniature filter regulator				with manual drain, relieving, without gauge, filter element 20 µm						**B548**	
40	152	86	plastic	0.04	27	450	11	G⅛	0.2…1.8	**B548-01AHA**	
									0.2…4.0	**B548-01AHB**	
									0.3…9.0	**B548-01AHC**	
			metal				21		0.2…1.8	**B548-01DHA**	
									0.2…4.0	**B548-01DHB**	
									0.3…9.0	**B548-01DHC**	
40	152	86	plastic	0.04	27	450	11	G¼	0.2…1.8	**B548-02AHA**	
									0.2…4.0	**B548-02AHB**	
									0.3…9.0	**B548-02AHC**	
			metal				21		0.2…1.8	**B548-02DHA**	
									0.2…4.0	**B548-02DHB**	
									0.3…9.0	**B548-02DHC**	



B548-02AHC



B548-02DHC

Special options, add the appropriate letter

5 µm filter element		B548-0..**G**.
NPT	connection thread	B548-0....**N**
non-relieving	without relieving function	B548-0.... **K**
semiautomatic drain	RK500SY, max. 12 bar	B548-0....**M**

Filter regulator

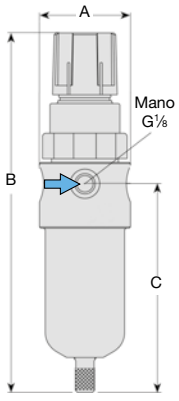
17

Accessories, enclosed

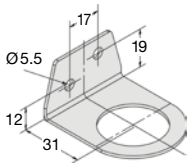
pressure gauge	Ø 40 mm, 0…*2 bar, G⅛	**MA4001-..*2**
mounting bracket	made of steel	**BW30-02**
mounting nut	made of plastic	**M30x1,5K**
	made of aluminium	**M30x1,5A**



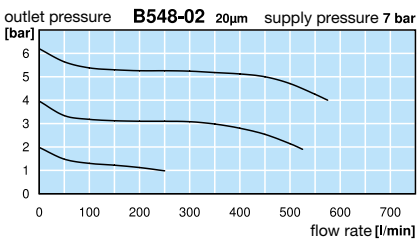
RK500SY



B548



BW30-02



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **02** = 0…2.5 bar, **04** = 0…4 bar, **10** = 0…10 bar

* Product group

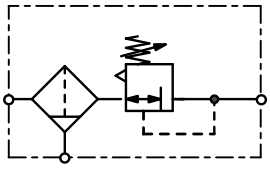
Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
B548-01AHA

FILTER REGULATOR MADE OF BRASS UP TO 50 BAR BM

Description	Filter pressure regulator made of solid brass, with bowl without sight glass. The control system is a membrane.		
Media	compressed air, non-corrosive gases or liquids		
Supply pressure	max. 50 bar (without drain)	**Relieving function**	relieving, optionally non-relieving
Adjustment	by black plastic knob at size G¼,		by T-handle with locknut at G½
Gauge port	G¼ on both sides of the body, one screw plug supplied		
Filter element	50 µm, optionally 5 µm, made of stainless steel		
Bowl	stainless steel version without sight glass		
Drainage	screw plug as standard, optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)		
Temperature range	0 °C to 80 °C / 32 °F to 176 °F for FKM 0 °C to 130 °C / 32 °F to 266 °F for high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F or low temperature version down to -40 °C/ -40 °F		
Material	Body: brass Diaphragm: NBR/Buna-N with PTFE coating Knob: plastic at sizes G¼, brass at G½	Bowl: O-rings: Inner valve:	stainless steel 316L / material no. 1.4404 FKM brass and plastic (not at option X54)



G¼ up to G½, max. 50 bar
-40 to 130 °C / -40 to 266 °F

Dimensions A	B	C	Bowl-Design	Capacity	Flow rate		Connection thread	Order number
mm	mm	mm	made of	l	m^3/h*1	l/min*1	G	
Brass filter regulator with screw plug, relieving, without gauge, 50 µm filter element supply pressure max. 50 bar, pressure range 0.5...8 bar								**BM**
64	220	123	stainless steel	0,17	84	1 400	G¼	**BM-02**
79	247	127	stainless steel	0,28	228	3 800	G½	**BM-04**



BM-02



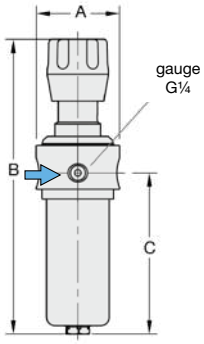
BM-04

Special options, add the appropriate letter

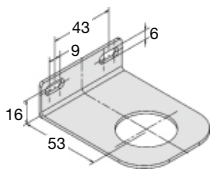
5 µm filter element								BM-. . **G**
0.2... 3 bar range								BM-. . **B**
1 ...15 bar range								BM-. . **D**
manual drain			max. 30 bar					BM-. . **H**
automatic drain			made of stainless steel, max. 16 bar			for G¼ (02) to G2		BM-. . **R**
non-relieving			without relieving function					BM-. . **K**
down to -40 °C / -40 °F			low temperature version					BM-. . **X51**
up to 130 °C / 266 °F			high temperature version					BM-. . **X54**
flange connection			see chapter for stainless steel devices / flanges					BM-. . **F.**
T-handle			instead of adjusting knob				for G¼	BM-. . **T**
nitrogen	N_2:	**07**	**carbon dioxide**	CO_2:	**03**	**argon**	Ar:	BM-. . **05**
helium	He:	**09**	**hydrogen**	H_2:	**11**	**methane**	CH_4:	BM-. . **13**
oxygen	O_2:	**15**	**propane**	C_3H_6:	**16**	**nitrous oxide**	N_2O:	BM-. . **17**

Accessories, enclosed

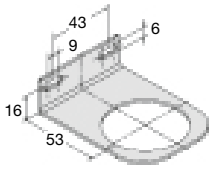
pressure gauge	Ø 50 mm, 0...*2 bar, G¼		**MA5002-. .** *2
gauge -40 °C/-40°F to 130 °C/266 °F	Ø . . mm, 0...*2 bar, G¼		**MS6302-. .** *2
mounting bracket	made of stainless steel	for G¼	**BW35-01S**
mounting nut			**M35x1,5S**
mounting bracket	made of stainless steel	for G½	**BW50-01S**
mounting nut			**M50x1,5S**



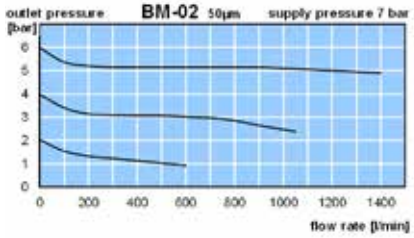
BM-0. .H

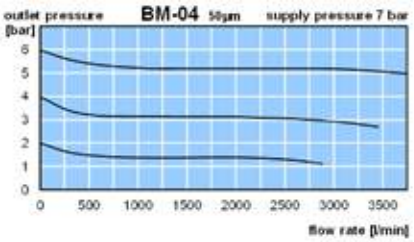


BW35-01S



BW50-01S





*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

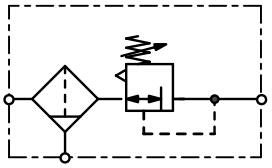
*2 **04** = 0...4 bar, **10** = 0...10 bar, **16** = 0...16 bar

Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
BM-02

Description	Modular pressure filter regulator which can be interlocked with all other instruments of the same series.
Media	compressed air or non-corrosive gases
Supply pressure	max. 12,5 bar, max. 16 bar for Series 042
Adjustment	by knob with snap-lock
Relieving function	relieving
Gauge port	G⅛ or G¼ at series 095, on both sides of the body, screw plugs supplied
Filter element	20 µm, optionally 5 µm, made of sintered polyethylene
Bowl	plastic version with bayonet catch, threaded connection at series 042
Drainage	manual drain with semiautomatic drain, optionally automatic drain
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: nylon, POM at series 042 — Inner valve: brass Bowl: polyamide — Thread insert: brass Elastomer: NBR/Buna-N



G¼ up to G1

Dimensions A mm	B mm	C mm	Bowl Design made of/with	Capacity l	Flow rate m³/h*1	l/min*1	Supply max. bar	Connection thread G	Order number	B*
Plastic filter regulator manual drain with semiautomatic drain, relieving, max. 12,5/16 bar w/o gauge, pressure range 0...8 bar, 20 µm filter element									**B0**	
42	207	126	plastic/	0.02	72	1200	16	G¼	**B042-02HC**	
52	239	148	bowl guard	0.04	120	2000	12.5	G⅜	**B050-03HC**	
52	239	148		0.04	126	2100	12.5	G½	**B052-04HC**	
63	276	173		0.10	168	2800	12.5	G½	**B075-04HC**	
137	276	173		0.10	174	2900	12.5	G¾	**B080-06HC**	
195	411	237		0.20	828	13800	12.5	G1	**B095-08HC**	



B042



B050



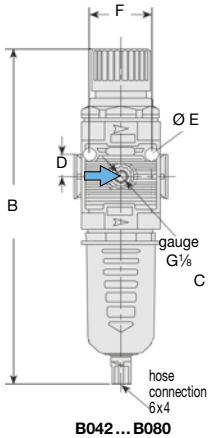
B095

Special options, add the appropriate letter

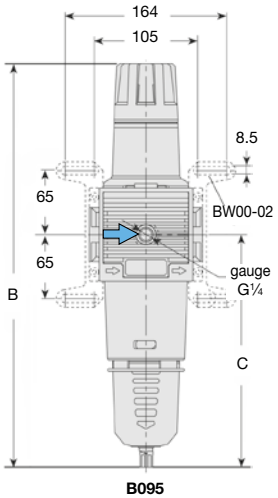
5 µm filter element		B0 . . -0 . **G** .
non-relieving	without relieving function	B0 . . -0 . . . **K**
		B095-0 . . **B**
		B095-0 . . **D**
automatic drain		B0 . . -0 . . . **R**

Accessories, enclosed

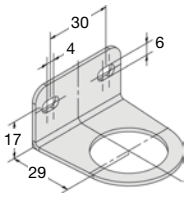
pressure gauge	Ø 40 mm, 0...*2 bar, G⅛	for B042	**MA4001- . .** *2
	Ø 50 mm, 0...*2 bar, G⅛	for B050 to B080	**MA5001- . .** *2
	Ø 63 mm, 0...*2 bar, G¼	for B095	**MA6302- . .** *2
mounting bracket	made of steel, mounting nut at the device	for B042	**BW30-01**
		for B050 to B080	**BW42-01**
		for B095	**BW00-02**



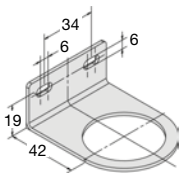
B042 ... B080



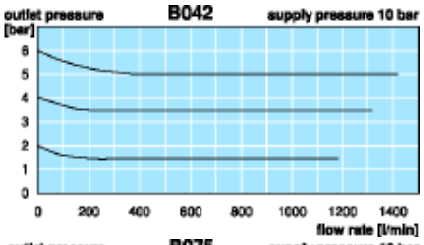
B095

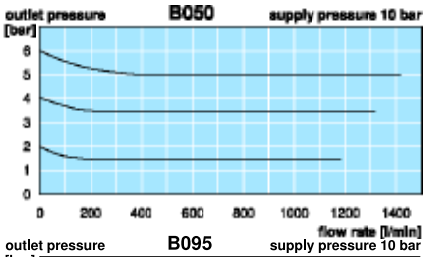


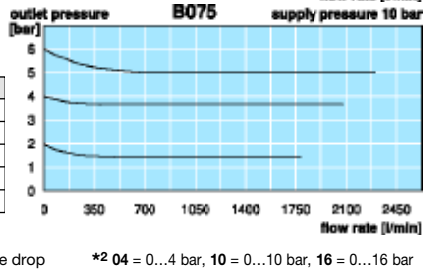
BW30-01

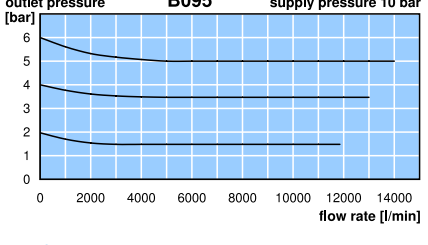


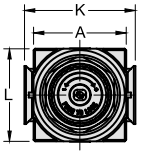
BW42-01











Series	D	Ø E	F	K	L
B042	10.5	4.5	31	–	42
B050/52	16	5.5	41	63	52
B075	17.5	5.5	45	75	63
B080	17.5	5.5	45	–	63
B095	–	–	–	115	95

*1 at 10 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 **04** = 0...4 bar, **10** = 0...10 bar, **16** = 0...16 bar

* Product group

Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
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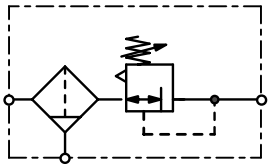
Order example:
B042-02HC

Description	High-capacity filter regulator of modular design with exchangeable inserts. Can be interlocked with lubricator without needs for double nipples. Each "maxi" device may be taken from a fixed line in seconds by simply removing the mounting bolts.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Adjustment	by plastic knob with snap-lock at B20, by T-handle with locknut at B21
Relieving function	relieving
Gauge port	G¼ on both sides of the body, screw plugs supplied
Bowl	metal version with sight glass
Filter element	40 µm, optionally 5 µm, made of polypropylene
Drainage	manual drain as standard, optionally semiautomatic or automatic drain for max. 12 bar
Temperature range	0 °C to 70 °C / 32 °F to 158 °F up to 50 °C / 122 °F for semiautomatic or automatic drain version
Material	Body: zinc die-cast; Knob (B20): glass fibre-reinforced plastic; Bowl: zinc die-cast; Elastomer: NBR/Buna-N; Spring cage: zinc die-cast; T-handle (B21): steel; Sight glass: polyurethane; Inner valve: brass and plastic



G¼ up to G1

Dimensions A mm	B mm	C mm	Bowl Design made of / with	Capacity l	Flow rate m³/h*1	l/min*1	Connection thread G	Pressure range bar	Order number	A*
"Maxi" filter regulator			with manual drain, relieving, without gauge, 40 µm filter element,					max. 17 bar	**B20**	
89	289	175	metal/sight glass	0.3	132	2200	G¼	0.2 ... 4.0	**B20-02WJB**	
								0.3 ... 9.0	**B20-02WJC**	
								0.5 ... 17	**B20-02WJD**	
					186	3100	G⅜	0.2 ... 4.0	**B20-03WJB**	
								0.3 ... 9.0	**B20-03WJC**	
								0.5 ... 17	**B20-03WJD**	
					288	4800	G½	0.2 ... 4.0	**B20-04WJB**	
								0.3 ... 9.0	**B20-04WJC**	
								0.5 ... 17	**B20-04WJD**	
111	289	175	metal/sight glass	0.3	408	6800	G¾	0.2 ... 4.0	**B20-06WJB**	
								0.3 ... 9.0	**B20-06WJC**	
								0.5 ... 17	**B20-06WJD**	
					420	7000	G1	0.2 ... 4.0	**B20-08WJB**	
								0.3 ... 9.0	**B20-08WJC**	
								0.5 ... 17	**B20-08WJD**	



B20
with adjusting knob



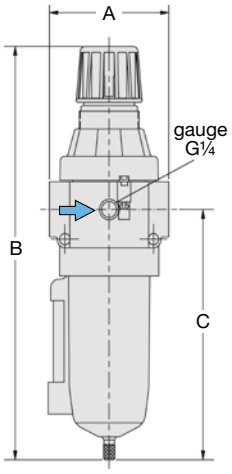
B21
with T-handle

Special options, add the appropriate letter

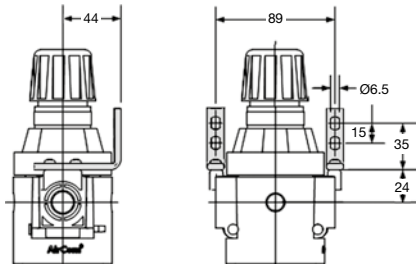
T-handle	including locknut, total height 329 mm	B**21**-0.W..
filter element 5 µm		B20-0.W**G**.
NPT	connection thread	B20-0.W..**N**
non-relieving	without relieving function	B20-0. . . .**K**
semiautomatic drain	RK500SY, max. 12 bar	B20-0.W..**M**
automatic drain	SA605MD, max. 12 bar	B20-0.W..**R**

Accessories, enclosed

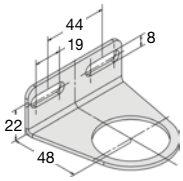
pressure gauge	Ø 63 mm, 0...*2 bar, G¼	**MA6302-..*2**	B*
mounting bracket	mounting at the spring cage	**BW45-02**	B*
mounting nut	made of plastic	**M45x1,5K**	B
	made of aluminium	**M45x1,5A**	B*
mounting bracket set	made of steel	**MK20-0100**	



B20



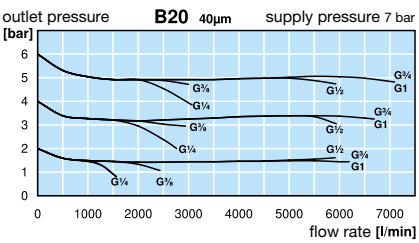
MK20-0100



BW45-02



RK500SY **SA605MD**



*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 **04** = 0...4 bar, **10** = 0...10 bar, **25** = 0...25 bar

* Product group

Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
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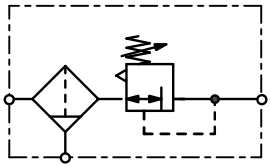
Order example:
B20-02WJB

Description	Low-cost aluminium regulator of solid design and diaphragm operating system up to G½. From G¾ on with piston operating system. Suitable for compressed air or non-corrosive gases.
Supply pressure	max. 16 bar for metal bowl with sight glass, max. 30 bar for metal bowl without sight glass
Adjustment	by knob with snap-lock up to G½, by hexagon head screw from G¾ up to G1½ (BD-1A.) by T-handle from G1½ (BD-12.) up to G2
Gauge port	G¼ on both sides of the body, G⅛ on both sides of the body at BD-01/02, one screw plug supplied
Filter element	50 µm, optionally 5 µm, made of propylene
Bowl	plastic version, standard or short, metal version with or without sight glass
Drainage	semiautomatic drain as standard for max. 16 bar, respectively manual drain max. 30 bar automaticdrain max. 16 bar as option
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Elastomer: NBR/Buna-N Bowl: zinc die-cast



G⅛ up to G2
5/50 µm, up to 30 bar

Dimensions A mm	B mm	C mm	Bowl Design made of/ with	Capacity l	Flow rate m³/h*1	l/min*1	P1 max. bar	Filter element µm	Connection thread G	Order number	A*
Filter pressure regulator			with semiautomatic drain, relieving, without pressure gauge, pressure range 0.5…8 bar							**BD**	
40	201	128	metal/sight glass	0.05	27	450	16	50	G⅛	**BD-01M**	
			metal	0.05			30			**BD-01NH**	
40	201	128	metal/sight glass	0.05	30	500	16	50	G¼	**BD-02M**	
			metal	0.05			30			**BD-02NH**	
64	251	149	metal/sight glass	0.18	108	1800	16	50	G⅜	**BD-03M**	
			metal	0.18			30			**BD-03NH**	
64	251	149	metal/sight glass	0.18			16		G½	**BD-04M**	
			metal	0.18			30			**BD-04NH**	
129	310	174	metal/sight glass	0.50	300	5000	16	50	G¾	**BD-06M**	
			metal	0.50			30			**BD-06NH**	
129	310	174	metal/sight glass	0.50			16		G1	**BD-08M**	
			metal	0.50			30			**BD-08NH**	
240	310	174	metal/sight glass	0.50	390	6500	16	50	G1¼	**BD-10M**	
			metal	0.50			30			**BD-10NH**	
240	310	174	metal/sight glass	0.50			16		G1½	**BD-1AM**	
			metal	0.50			30			**BD-1ANH**	



BD-01/-02M

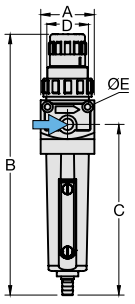


BD-03/-04M

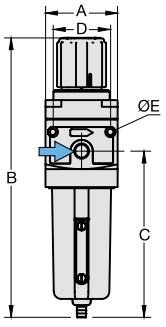


BD-10/-1ANH

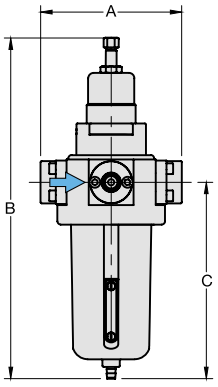
Type	M	D	Ø E
BD-01/02	M30x1,5	30	4.5
BD-03/04	M50x1,5	51	5.5



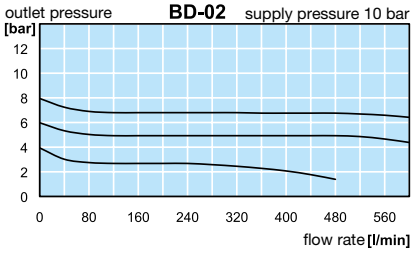
BD-01/-02

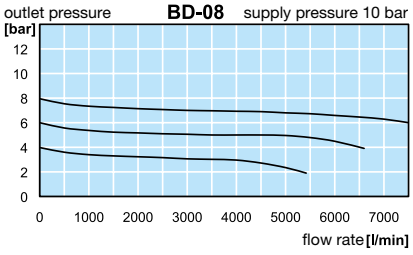


BD-03/-04



BD-06/-08/-10/-1A





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0…16 bar

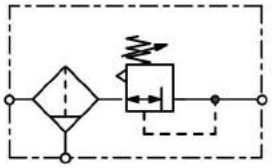
* Product group

Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
BD-01M

Description	Low-cost aluminium regulator of solid design and diaphragm operating system up to G½. From G¾ on with piston operating system. Suitable for compressed air or non-corrosive gases.
Supply pressure	max. 16 bar for metal bowl with sight glass, max. 30 bar for metal bowl without sight glass
Adjustment	by knob with snap-lock up to G½, by hexagon head screw from G¾ up to G1½ (BD-1A.) by T-handle from G1½ (BD-12.) up to G2
Gauge port	G¼ on both sides of the body, G⅛ on both sides of the body at BD-01/02, one screw plug supplied
Filter element	50 µm, optionally 5 µm, made of propylene
Bowl	plastic version, standard or short, metal version with or without sight glass
Drainage	semiautomatic drain as standard for max. 16 bar, respectively manual drain max. 30 bar automaticdrain max. 16 bar as option
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Elastomer: NBR/Buna-N Bowl: aluminium



G⅛ up to G2
5/50 µm, up to 30 bar

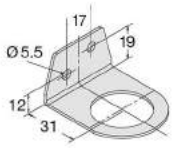
Dimensions A	B	C	Bowl Design	Capacity	Flow rate	P_1 max.	Filter element	Connection thread	Order number
mm	mm	mm	made of/ with	l	m³/h*1	l/min*1	bar	µm	G	
Filter pressure regulator			with semiautomatic drain, relieving, without pressure gauge, pressure range 0.5...8 bar						**BD**
192	481	220	metal/sight glass	1.20	960	16000	16	50	G1½	**BD-12M**
			metal	1.20			30			**BD-12NH**
192	481	220	metal/sight glass	1.20	1020	17000	16		G2	**BD-16M**
			metal	1.20			30			**BD-16NH**



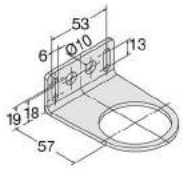
BD-12/-16M

Special options, add the appropriate letter

5 µm filter element		BD-...**G**
0.3 ... 3 bar regulating range		BD-...**B**
1 ...15 bar regulating range		BD-...**E**
manual drain	max. 16 bar for metal bowls with sight glass	BD-...**H**
automatic drain	max. 16 bar, drainage through float valve for G⅜ to G2	BD-...**R**
flange connection	see chapter for stainless steel devices / flanges	BD-...**F.**



BW30-02

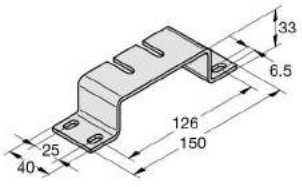


BW50-03

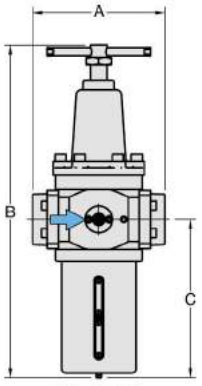
Accessories, enclosed

B*

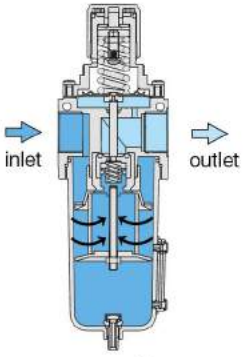
pressure gauge	Ø 40 mm, 0...*2 bar, G⅛	for G⅛ and G¼	**MA4001-..*2**
	Ø 50 mm, 0...*2 bar, G¼	for G⅜ and G½	**MA5002-..*2**
	Ø 63 mm, 0...*2 bar, G¼	for G¾ up to G2	**MA6302-..*2**
mouting bracket	made of steel	for G⅛ and G¼	**BW30-02**
mouting nut	made of plastic	for G⅛ and G¼	**M30x1,5K**
mouting bracket	made of steel	for G⅜ and G½	**BW50-03**
mouting nut	made of plastic	for G⅜ and G½	**M50x1,5K**
mouting bracket	made of stainless steel	for G¾ up to G1½ (1A)	**BW00-59S**
set of brackets	made of steel	for G1½ (12) and G2	**BW00-61**



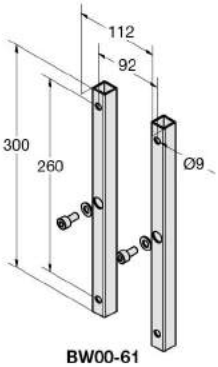
BW00-59S



BD-12/-16



cross-section



BW00-61

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

*2 **04** = 0...4 bar, **10** = 0...10 bar, **16** = 0...16 bar

* Product group

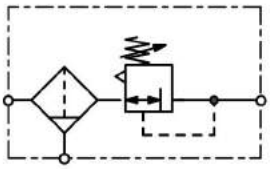
Extensions: see chapter for FRL service units
Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net

Order example:
BD-12M

FILTER PRESSURE REGULATOR DOWN TO -40 °C / - 40 °F B300

Description	Filter pressure regulator especially for low temperatures as well as supply of instruments.
Media	compressed air or non-corrosive gases
Supply pressure	max. 17 bar
Supply sensitivity	10 mbar outlet pressure deviation at supply pressure variation of 1 bar
Air consumption	**max 2 l/min subject to outlet pressure**
Adjustment	by square-headed spindle (spanner size 8 mm) with locknut
Relieving function	relieving, optionally non-relieving
Gauge port	¼˝ NPT on one side of the body, one screw plug supplied
Filter element	40 µm, optionally 5 µm, made of impregnated cellulose
Drainage	manual drain
Temperature range	0 °C to 50 °C / 32 °F to 122 °F, for appropriately conditioned compressed air down to -40 °C / -40 °F
Material	Body: aluminium die-cast Spring cage: aluminium die-cast Elastomer: nylon-reinforced NBR/Buna-N, optionally FKM Inner valve: brass, acetal, galvanised steel



¼˝ NPT

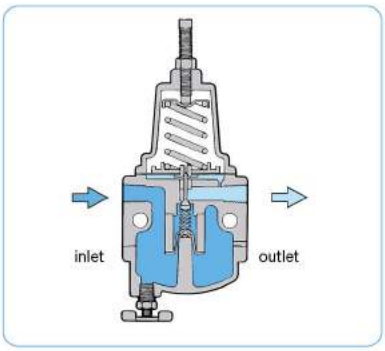
Dimensions A mm	B mm	C mm	Bowl Design made of	Capacity l	Flow rate m³/h*1	l/min*1	P_1 max. bar	Connection thread NPT	Pressure range bar	Order number	B*
Filter pressure regulator with manual drain, relieving, without gauge, 40 µm filter element										**B300**	
197	80	83	metal	0.1	33	550	17	¼˝ NPT	0…0.7	**B300-020**	
									0…2.0	**B300-02A**	
									0…4.0	**B300-02B**	
									0…8.0	**B300-02C**	



B300

Special options, add the appropriate letter

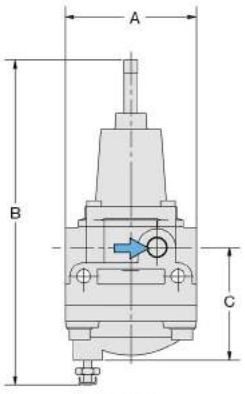
5 µm filter element		B300-02 . **G**
non-relieving	without relieving function	B300-02 . **K**
tapped exhaust	¼˝ NPT	B300-02 . **X12**
tamper-proof cap		B300-02 . **T**
FKM-elastomer		B300-02 . **V**



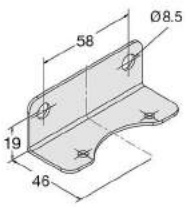
cross-section

Accessories, enclosed

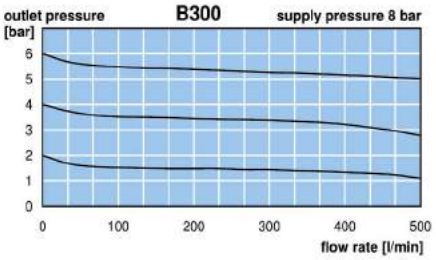
ounting bracket	mounting at spring cage, made of steel	**BW00-38**

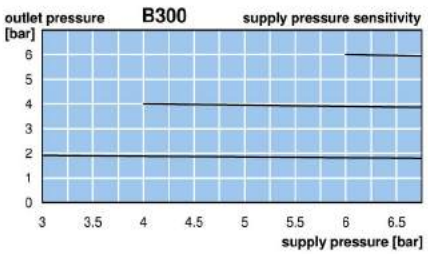


B300



BW00-38





*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group

PDF CAD
www.aircom.net

Order example: B300-020

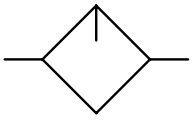
COMPRESSED AIR LUBRICATORS

DESCRIPTION	PRESSURE RANGE max. bar	CONNECTION thread	DEVICE	PAGE
made of plastic	16	G¼ - G1	L042 ... L095	**18.02**
„Maxi“-Series, robust, block design	17	G¼ - G1	L20	**18.03**
„Standard“-Series, robust	21	G¼ - G2	L606	**18.04**
Series „D“, made of aluminium	30	G⅛ - G2	LD	**18.06**



18

Description	Standard type mist lubricator which lubricates in proportion to flow rate. The modular lubricator can be interlocked with other instruments of the same series. Wall mounting through two drilled holes in the body, except for L095.
Bowl	plastic version with bowl guard
Operating pressure	max. 12,5 bar, max. 16 bar for Series 042 max. 7 bar for lubricator with oil level indicator
Oil refilling	with semiautomatic oil refilling the oil is drawn into the bowl by a vacuum at the push of a button without need to interrupt operation.
Oil level indicator	if the oil level falls below the limit value, a float will close a signal contact. Contact: NO Voltage: max. 115 V
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: nylon, POM at Series 042 Elastomer: NBR/Buna-N Bowl: polyamide Inner valve: brass



G¼ up to G1

Dimensions A mm	B mm	C mm	Bowl Design made of / with	Capacity l	Flow rate m³/h*1	l/min*1	Operating pressure max. bar	Connection thread G	Order number	B*
Lubricator, made of plastic							operating pressure max. 12.5 / 16 bar		**L0**	
42	157	105	plastic	0.04	120	2000	16.0	G¼	**L042-02**	
52	185	127	bowl guard	0.07	120	2000	12.5	G⅜	**L050-03**	
52	185	127		0.07	126	2100	12.5	G½	**L052-04**	
63	227	159		0.14	210	3500	12.5	G½	**L075-04**	
137	227	159		0.14	216	3600	12.5	G¾	**L080-06**	
95	300	220		0.44	900	15000	12.5	G1	**L095-08**	



L042 **L052**
semiautomatic oil refilling

Special options, add the appropriate letter

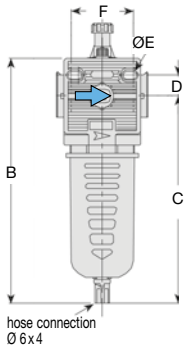
semiautomatic oil refilling	$P_{min.}$ 3 bar		for L042 to L080	L0 . . -0 . **X65**
oil level indicator	$P_{max.}$ 7 bar	115 V/NO	for L050 to L095	L0 . . -0 . **X66**

Accessories, enclosed

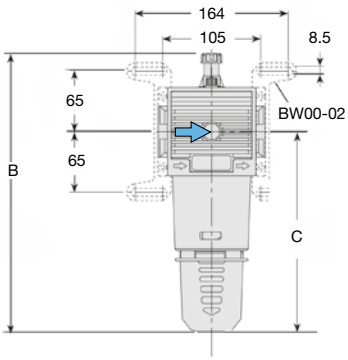
set of brackets	made of steel	for L095	**BW00-02**



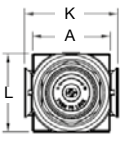
L075 **L080**



L042-... L080



L095

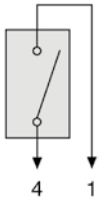


Series	D	Ø E	F	K	L
L042	10.5	4.5	31	–	42
L050/52	16	5.5	41	63	52
L075	17.5	5.5	45	75	63
L080	17.5	5.5	45	–	63
L095	–	–	–	115	95



semiautomatic oil refilling

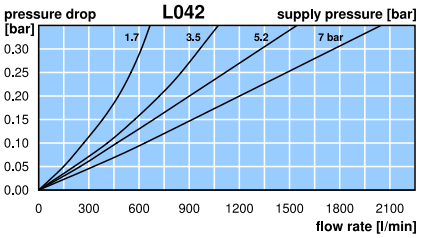


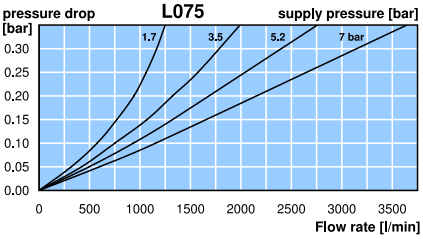


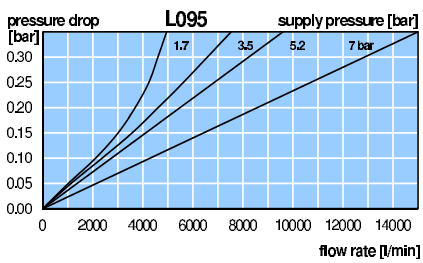
oil level indicator



oil level indicator







*1 at 10 bar operating pressure and 0.33 bar pressure drop

* Product group

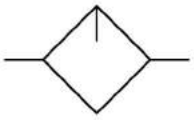
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example: L042-02

"MAXI" COMPRESSED AIR LUBRICATOR L20

Description	Standard type mist lubricator of modular design with exchangeable insert kits. Can be interlocked with a filter or regulator without need for double nipples. A bypass valve and venturi nozzle guarantee low pressure drop and uniform lubrication of the compressed air. All "maxi" instruments are easy to take out of fixed piping by simply removing the two fastening bolts on the insert kits.
Bowl	metal bowl with sight glass
Operating pressure	max. 17 bar
Oil refilling	oil refilling under pressure possible
Oil level indicator	red ball inside the sight glass indicates oil level
Temperature range	0 °C to 70 °C / 32 °F to 158 °F
Material	Body: zinc die-cast; Bowl: zinc die-cast; Sight glass: polyurethane; Elastomer: NBR/Buna-N



G¼ up to G1

Dimensions A mm	B mm	C mm	Bowl Design made of/with	Capacity l	Flow rate m³/h*1	l/min*1	Operating pressure max. bar	Connection thread G	Order number A*
"Maxi" lubricator							operating pressure max. 17 bar		**L20**
89	229	170	metal/sight glass	0.3	108	1800	17	G¼	**L20-02W**
					186	3100		G⅜	**L20-03W**
					336	5600		G½	**L20-04W**
111	229	170	metal/sight glass	0.3	420	7000	17	G¾	**L20-06W**
					438	7300		G1	**L20-08W**



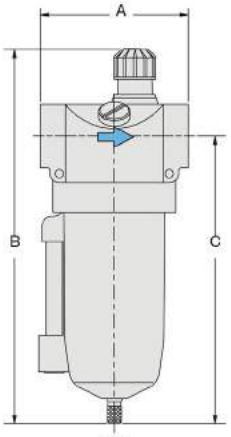
L20

Special options, add the appropriate letter

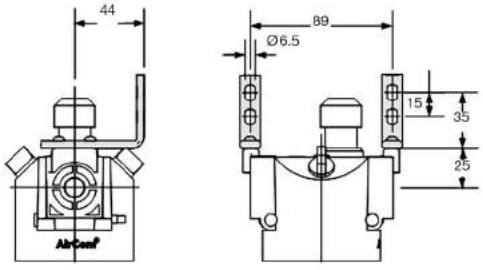
NPT	connection thread	L20-0.W**N**

Accessories, enclosed

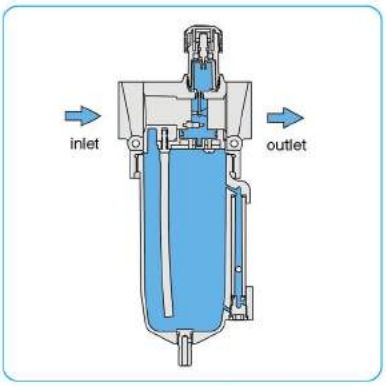
set of brackets	made of steel	**MK20-0100**



L20



MK20-0100



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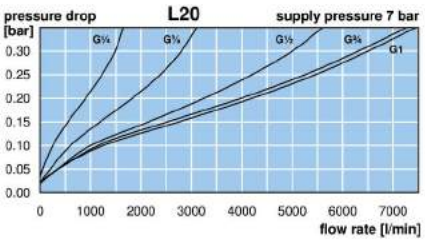


*1 at 7 bar operating pressure and 0.33 bar pressure dropall

* Product group

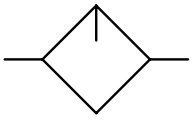
Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example:
L20-02W

„STANDARD“ COMPRESSED AIR LUBRICATOR L606

Description	Compressed air lubricator of solid design and small size. Proven in operation and suitable for many applications. Available in all standard sizes and in many versions.
Bowl	plastic version with bowl guard metal version with or without sight glass
Operating pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass, from G¾ on 0 °C to 80 °C / 32 °F to 176 °F for metal bowl with/without sight glass for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Bowl: polyurethane, zinc die-cast or steel Elastomer: NBR/Buna-N



G¼ up to G2

Dimensions A mm	B mm	C mm	Bowl design made of/ with	capacity l	Flow rate m³/h*1	l/min*1	Operating pressure max. bar	Connection thread G	Order number	A*
„Standard“ lubricator									**L606**	
71	202	145	plastic/bowl guard	0.08	66	1100	11	G¼	**L606-02B**	
71	202	145	metal/sight glass	0.08			17		**L606-02W**	
71	202	145	plastic/bowl guard	0.08	108	1800	11	G⅜	**L606-03B**	
71	202	145	metal/sight glass	0.08			17		**L606-03W**	
71	202	145	plastic/bowl guard	0.08	151	2500	11	G½	**L606-04B**	
71	202	145	metal/sight glass	0.08			17		**L606-04W**	
103	251	184	metal/sight glass	0.50	492	8200	17	G¾	**L606-06W**	
103	340	273	steel	1.00			21		**L606-06E**	
103	306	239	steel/sight glass	2.00			17		**L606-06G**	
103	251	184	metal/sight glass	0.50	540	9000	17	G1	**L606-08W**	
103	340	273	steel	1.00			21		**L606-08E**	
103	306	239	steel/sight glass	2.00			17		**L606-08G**	



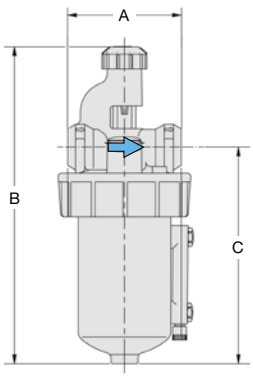
L606-02W **L606-08W**



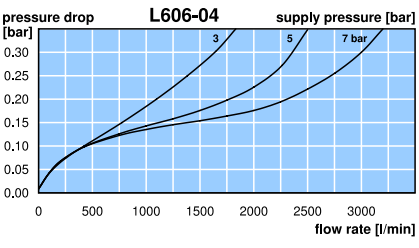
L606-08E 1 l-bowl **L606-08G** 2 l-bowl

Special options, add the appropriate letter

NPT	connection thread	L606- . . . **N**
flange connection	see chapter for stainless steel devices / flanges	L606- . . . **F.**



L606



*1 at 7 bar operating pressure and 0.33 bar pressure drop

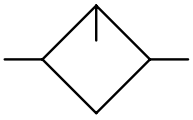
* Product group

Extensions: **see chapter for FRL service units**

PDF CAD
www.aircom.net

Order example: L606-02B

Description	Compressed air lubricator of solid design and small size. Proven in operation and suitable for many applications. Available in all standard sizes and in many versions.
Bowl	plastic version with bowl guard metal version with or without sight glass
Operating pressure	max. 11 bar for plastic bowl max. 17 bar for metal bowl with sight glass max. 21 bar for metal bowl without sight glass
Temperature range	0 °C to 50 °C / 32 °F to 122 °F for plastic bowl 0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass, from G¾ on 0 °C to 80 °C / 32 °F to 176 °F for metal bowl with/without sight glass for appropriately conditioned compressed air down to -30 °C / -22 °F
Material	Body: zinc die-cast Bowl: polyurethane, zinc die-cast or steel Elastomer: NBR/Buna-N



G¼ up to G2

Dimensions A mm	B mm	C mm	Bowl design made of/ with	capacity l	Flow rate m³/h*1	l/min*1	Operating pressure max. bar	Connection thread G	Order number	A*
„Standard“ lubricator									**L606**	
122	266	194	metal/sight glass	0.50	1020	17000	17	G1¼*2	**L606-10W**	
122	355	283	steel	1.00			21		**L606-10E**	
122	300	228	steel/sight glass	2.00			17		**L606-10G**	
122	266	194	metal/sight glass	0.50	1020	17000	17	G1½	**L606-12W**	
122	355	283	steel	1.00			21		**L606-12E**	
122	300	228	steel/sight glass	2.00			17		**L606-12G**	
133	385	265	steel/sight glass	1.00	1680	28000	17	G2	**L606-16F**	
134	490	370	steel/sight glass	3.00			17		**L606-16K3L**	



L606-16F



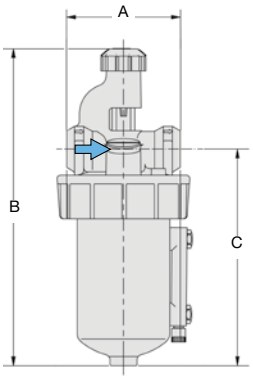
L606-..G
2l-bowl

Special options, add the appropriate letter

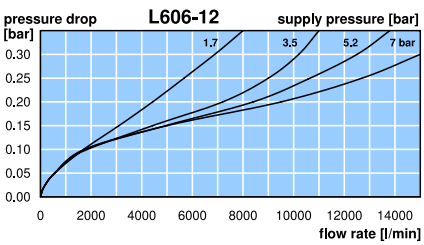
NPT	connection thread	L606- . . . **N**
flange connection	see chapter for stainless steel devices / flanges	L606- . . . **F.**



flange connection



L606



*1 at 7 bar operating pressure and 0.33 bar pressure drop
*2 reduced by the next larger oiler

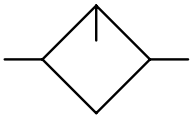
* Product group

Extensions: **see chapter for FRL service units**

PDF CAD
www.aircom.net

Order example:
L606-10W

Description	Good value zinc die-cast compressed air lubricator of solid design lubricating in proportion to flow rate. Wall mounting through two drilled holes in the body. Suitable for compressed air or non-corrosive gases.
Bowl	metal version with or without sight glass
Operating pressure	max. 16 bar for metal bowl with sight glass max. 30 bar for metal bowl without sight glass
Temperature range	-20 °C to 60 °C / -4 °F to 140 °F for metal bowl with sight glass -30 °C to 80 °C / -22 °F to 176 °F for metal bowl without sight glass
Material	Body: aluminium Bowl: aluminium or zinc die-cast Elastomer: NBR/Buna-N



G⅛ up to G2

Lubricator series "D"

Dimensions A mm	B mm	C mm	Bowl Design made of/with	Capacity l	Flow rate m³/h*1	l/min*1	Operating pressure max. bar	Connection thread G	Order number
40	161	115	metal/sight glass	0.05	36	600	16	G⅛	**LD-01M**
			metal	0.05			30		**LD-01N**
40	161	115	metal/sight glass	0.05	40	660	16	G¼	**LD-02M**
			metal	0.05			30		**LD-02N**
64	215	137	metal/sight glass	0.18	144	2400	16	G⅜	**LD-03M**
			metal				30		**LD-03N**
64	215	137	metal/sight glass	0.18	156	2600	16	G½	**LD-04M**
			metal				30		**LD-04N**
130	248	176	metal/sight glass	0.50	420	7000	16	G¾	**LD-06M**
			metal				30		**LD-06N**
130	248	176	metal/sight glass	0.50	480	8000	16	G1	**LD-08M**
			metal				30		**LD-08N**
241	248	176	metal/sight glass	0.50	540	9000	16	G1¼	**LD-10M**
			metal				30		**LD-10N**
241	248	176	metal/sight glass	0.50	600	10000	16	G1½	**LD-1AM**
			metal				30		**LD-1AN**
215	316	223	metal/sight glass	1.20	1620	27000	16	G1½	**LD-12M**
			metal				30		**LD-12N**
215	316	223	metal/sight glass	1.20	1680	28000	16	G2	**LD-16M**
			metal				30		**LD-16N**

Special options, add the appropriate letter

8	**liter bowl**	made of stainless steel, max. 30 bar	for G1½ (12) and G2	LD- 1.M**08**
24	**liter bowl**	made of stainless steel, max. 30 bar	for G1½ (12) and G2	LD- 1.M**24**



LD-01M/-02M



LD-03M/-04M

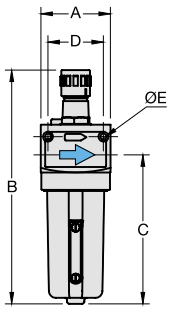


LD-06M/-08M

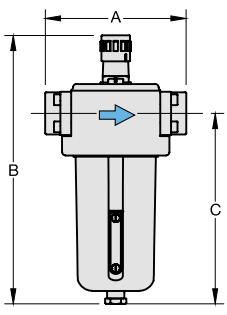


LD-12M/-16M

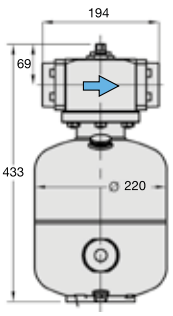
Type	D	Ø E
LD-01/02	30	4.5
LD-03/04	51	5.5



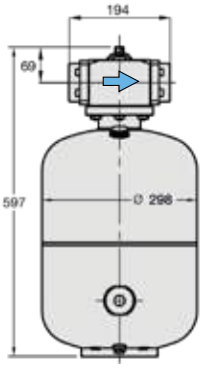
LD-01/.../-04



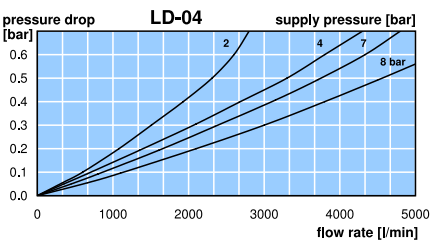
LD-06/.../-16



8 liter



24 liter



*1 at 7 bar operating pressure and 0.33 bar pressure drop

* Product group

Extensions: see chapter for FRL service units

PDF CAD
www.aircom.net

Order example: LD-01M

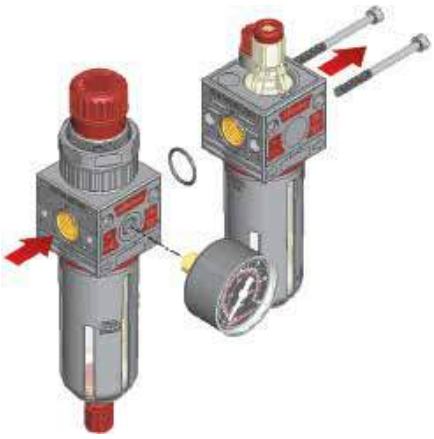
FRL SERVICE UNITS

DESCRIPTION		PRESSURE RANGE max. bar	CONNECTION thread	DEVICE	PAGE
made of plastic, 2- and 3-part	C2, C3	0 … 8 / 12	G¼ - G1	C2, C3	**19.03**
assembly diagrams	C2, C3			C35 … C95	**19.04**
switch-on and soft start valve	C2, C3		G¼ - G¾	A0, S0, V0	**19.05**
made of brass, 2- and 3-part		0.3 … 4 / 15	G¼ - G½	CM	**19.06**
„Maxi"-Series, made of metal, robust, 2- and 3-part		0.2 … 4 / 17	G¼ - G1	C20, C21	**19.07**
Series „D", made of alu, 2-part		0.3 … 3 / 15	G⅛ - G2	CD2	**19.08**
Series „D", made of alu, 3-part		0.3 … 3 / 15	G⅛ - G2	CD3	**19.09**
„Standard"-Series, robust		0.2 … 4 / 17	G¾ - G2	C630	**19.10**
drain valves		max. 21		SA, RK	**19.11**
hose rupture valves,	aluminium/stainless steel	max. 18	G¼ - G2	281	**19.12**



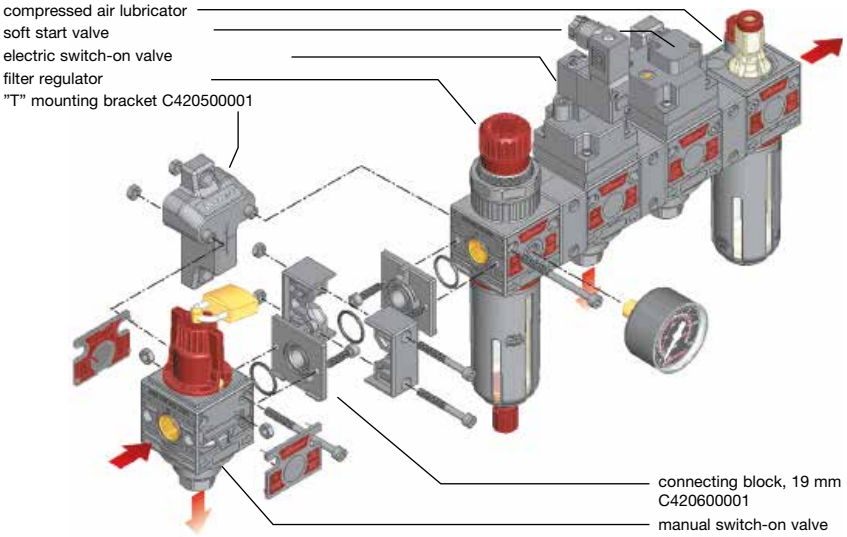
19

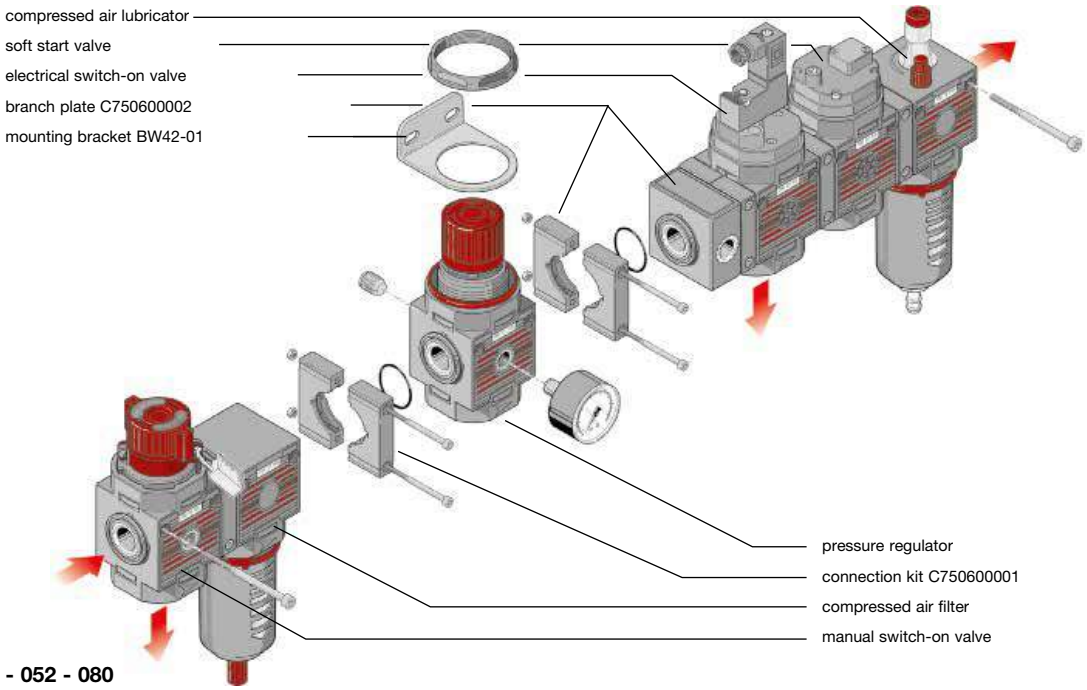
ASSEMBLY DIAGRAMS FOR PLASTIC FRL SERVICE UNITS C2/C3



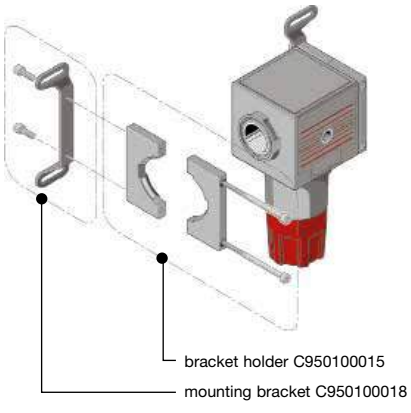
screw connection of standard FRL service unit with screws, nuts and o-ring
C400500001

Series 042

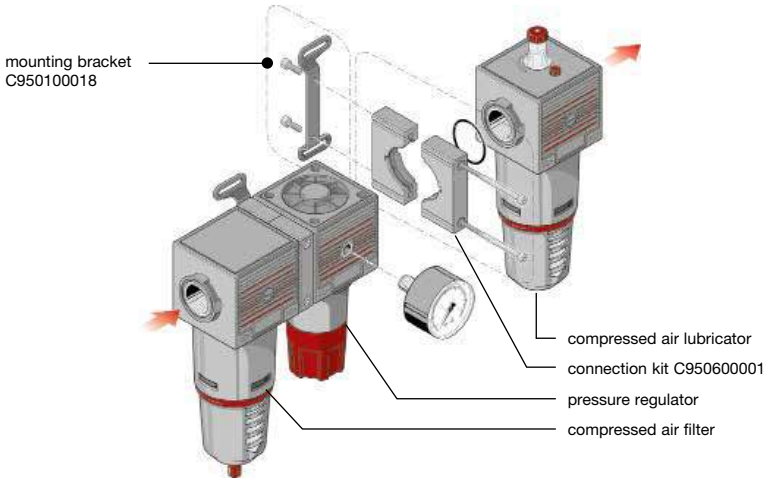




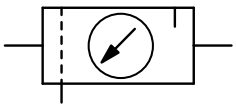
Series 075
similar to
Series 050 - 052 - 080



Series 095



Description	Made up of modular components which can be combined to form compact units. Switch-on and soft start valves available as additional modules.
Media	compressed air or non-corrosive gases
Supply pressure	max. 12.5 bar, max. 7 bar at lubricator with oil level indicator, max. 16 bar for Series 042
Gauge port	G⅛ or G¼ at series 095, on both sides of the body, one screw plug supplied
Filter element	20 µm, optionally 5 µm, made of sintered polyethylene
Bowl	plastic version with bayonet catch, series 042 with connection thread
Drain	manual drain with semiautomatic drain, optionally automatic drain
Oil refilling	optionally with semiautomatic oil refilling without need to interrupt operation
Oil level indicator	If the oil level falls below the limit value, a float will close a signal contact. Contact: NO Voltage: max. 115 V
Temperature range	0 °C to 50 °C / 32 °F to 122 °F
Material	Body: nylon, POM at series 042 Inner valve: brass Bowl: polyamide Thread insert: brass Elastomer: NBR/Buna-N



G¼ up to G1

Dimensions A mm	B mm	C mm	K mm	Combination consist of	Bowl design made of / with	Flow rate m³/h*1	Flow rate l/min*1	Connection thread G	Order number B*
FRL unit, 2-part					P1: max. 12.5 / 16 bar, P2: 0...8 bar, 20 µm, semiautomatic drain, with pressure gauge				**C2**
84	208	126	-	B+L042	plastic/	59	980	G¼	**C242-02HC**
115	239	148	126	B+L050	bowl guard	84	1 400	G⅜	**C250-03HC**
115	239	148	126	B+L052		90	1 500	G½	**C252-04HC**
139	276	173	151	B+L075		132	2 200	G½	**C275-04HC**
212	276	173	-	B+L080		138	2 300	G¾	**C280-06HC**
210	415	237	230	B+L095		480	8 000	G1	**C295-08HC**
FRL unit, 3-part					P1: max. 12.5 / 16 bar, P2: 0...8 bar, 20 µm, semiautomatic drain, with pressure gauge				**C3**
126	208	126	-	F+R+L042	plastic/	59	980	G¼	**C342-02HC**
178	239	148	189	F+R+L050	bowl guard	84	1 100	G⅜	**C350-03HC**
178	239	148	189	F+R+L052		90	1 500	G½	**C352-04HC**
215	276	173	227	F+R+L075		132	2 200	G½	**C375-04HC**
288	276	173	-	F+R+L080		138	2 300	G¾	**C380-06HC**
325	411	237	345	F+R+L095		480	8 000	G1	**C395-08HC**



C242



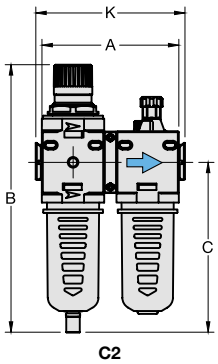
C375

Special options, add the appropriate letter

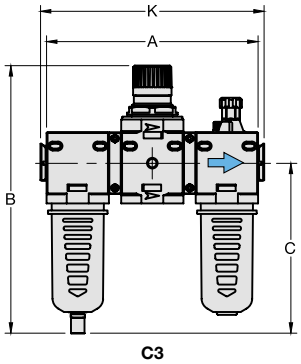
5 µm filter element				C . . . -0 . **G** .
0...12 bar regulating range				C . . . -0 . . **D**
automatic drain	C400200130			C . . . -0 . . . **R**
semiautomatic oil refilling	$P_{min.}$ 3 bar		for C.42 to C.80	C . . . -0 . . . **X65**
oil level indicator	$P_{max.}$ 7 bar	max. 115 V / NO	for C.50 to C.95	C . . . -0 . . . **X66**

Accessories, enclosed

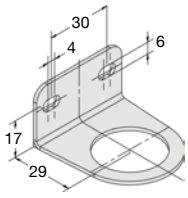
mounting bracket	made of steel, mounting nut at the device	for C.42	**BW30-01**
		for C.50 to C.80	**BW42-01**
set of brackets	made of steel, mounting nut at the device	for C.95	**BW00-02**



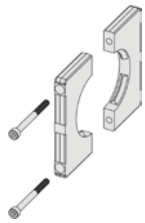
C2

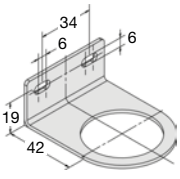


C3

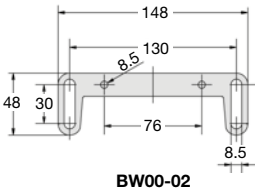


BW30-01





BW42-01



BW00-02

*1 at 10 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop
*2 **04** = 0…4 bar, **10** = 0…10 bar, **16** = 0…16 bar

* Product group

Further details: see chapter for single devices

PDF CAD
www.aircom.net

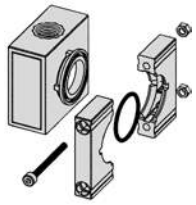
Order example:
C242-02HC

Connection kit With this interlocking kit, two compressed air instruments can be connected to one another without need for double nipples. This makes possible very compact layouts.

- C35 : • Mounting using rotary clip and two o-rings. These allow regulators to be connected to other regulators or filters.
- C40 : • Instruments are connected to each other using screws, nuts and o-ring; • alternatively, a segmented connecting block can be used for instrument connection.
- C50 : • Instrument connection by means of a two-part connecting block.

Branch plate

- C40 : • Branch plate with compressed air connection port G⅛ or G¼ or both outlet plates. • Supply plate for two pressure regulators through port G¼.
- C50 : • Branch plate with compressed air connection G¼. Port installation of the branch plate is only possible using connecting blocks.



assembly components

Description	Connection of instruments	for series	Order number
Connection kit	for connecting separate instruments		**C…**
rotary clips with two o-rings	R+F or R+R or F+F	35	**C350100018**
screws, nuts and o-ring	F+R+L or P+B+L	42	**C400500001**
	B+L	42	**C400600001**
	F+L or F+F	42	**C400700001**
connection kit	for any two instruments	42	**C420600001**
		50 / 52	**C500600001**
		75	**C750600001**
		80	**C800600004**
		95	**C950600001**
Branch plate	with compressed air connection port		**C…**
outlet G⅛		42	**C400500102**
outlet G¼		42	**C400500108**
outlet G⅛ and G¼		42	**C400500103**
outlet G⅛ and G¼	with connection kit	42	**C420500003**
supply G¼ for two regulators		42	**C400500111**
outlet G¼		50 / 52	**C500500003**
outlet G¼		75	**C750600002**
outlet G¼		80	**C800600005**
Mounting material			
mounting bracket		for G¼	**BW30-01**
mounting bracket		for G⅜ to G¾	**BW42-01**
wall mounting		for G¼	**C420500001**
wall mounting		for G1	**C950100018**
bracket holder	required in absence of C9506	for G1	**C950100015**



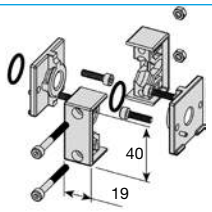
C350100018

Verbindungssatz



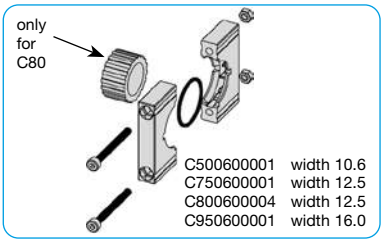
C400500001
C400600001
C400700001

connection kit



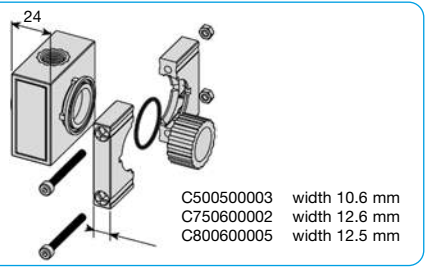
C420600001

connection kit



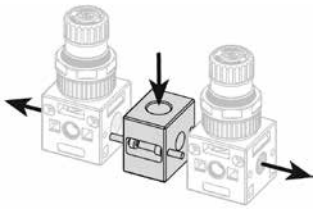
C500600001 width 10.6
C750600001 width 12.5
C800600004 width 12.5
C950600001 width 16.0

connection kit



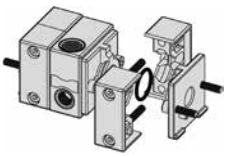
C500500003 width 10.6 mm
C750600002 width 12.6 mm
C800600005 width 12.5 mm

branch plate



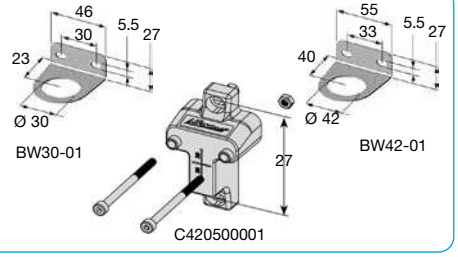
C400500111

supply



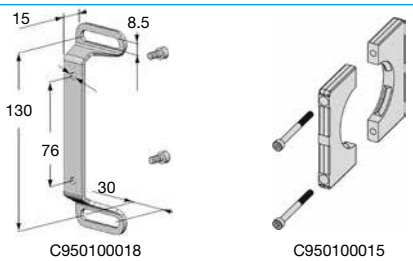
C420500003

branch plate



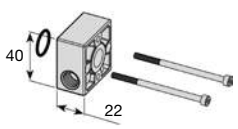
C420500001

mounting brackets



C950100018 C950100015

wall mounting



C400500102
C400500108
C400500103

branch plate

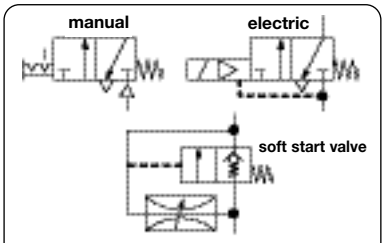
PDF CAD
www.aircom.net

Order example: C350100018

Manual switch-on — Manual switch-on/off valve which relieves at switch-off. Tapped exhaust with connection thread G⅛ or valve G¼. Valve can be protected from unauthorised tampering by provided padlock. Wall mounting is possible through two drilled holes in the body. Maximum supply pressure is 15 bar.

Electric switch-on valve — The electrically-operated 3-port/2-way valve switches the air flow on or off. As standard, it is supplied with a miniature valve or alternatively with a CNOMO valve and can be operated purely in a pneumatic way as option. Wall mounting is possible through two drilled holes in the body. Tapped exhaust with connection thread G⅛ or G¼. Maximum supply pressure is 3 to 10 bar.

Soft start valve — The soft start valve slowly pressurizes the system and switches over to full scale operation when 60% of the nominal pressure is reached. The pressure raising period can be set by an adjusting screw on top of the valve. Wall mounting is possible through two drilled holes in the body. Maximum supply pressure is 3 to 10 bar.

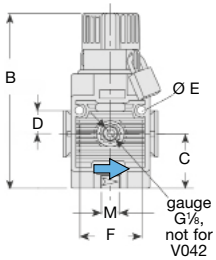


pressure valves

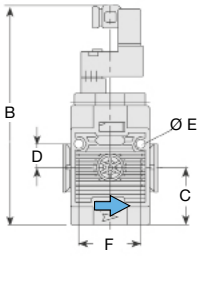
Dimensions A mm	B mm	C mm	Description	Exhaust port G	Flow rate m³/h*1	l/min*1	Connection thread G	Order number	B*
Manual 3-port/2-way valve				supply pressure max. 15 bar, including padlock				**V0**	
42	110	45	manual switch-on	G⅛	96	1600	G¼	**V042-02**	
63	121	36	and switch-off of the	G¼	156	2600	G⅜	**V050-03**	
63	121	36	compressed air circuit	G¼	162	2700	G½	**V052-04**	
75	138	42		G¼	186	3100	G½	**V075-04**	
137	138	42		G¼	192	3200	G¾	**V080-06**	
Electric 3-port/2-way valve				24 V DC, 2 W, supply pressure 3...10 bar				**S0**	
42	143	42	electric switch-on	G⅛	96	1600	G¼	**S042-02**	
63	145	52	and switch-off of the	G¼	156	2600	G⅜	**S050-03**	
63	145	52	compressed air circuit	G¼	162	2700	G½	**S052-04**	
75	154	63		G¼	186	3100	G½	**S075-04**	
137	154	63		G¼	192	3200	G¾	**S080-06**	
Soft start valve				supply pressure 3...10 bar				**A0**	
42	105	42	slow pressurizing of the		96	1600	G¼	**A042-02**	
63	108	52	pneumatic plant,		156	2600	G⅜	**A050-03**	
63	108	52	delay time adjustable		162	2700	G½	**A052-04**	
75	117	63			186	3100	G½	**A075-04**	
137	117	63			192	3200	G¾	**A080-06**	

Special options, add the appropriate letter

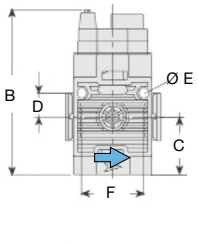
24 V AC, 2 W	input supply voltage	for S0	S0..-0.**X**
115 V AC, 1 W	input supply voltage	for S0	S0..-0.**Y**
230 V AC, 1 W	input supply voltage	for S0	S0..-0.**Z**
pneumatic control	C402600014, instead of electrical operation	for S0	S0..-0.**P**



V0
manual switch-on valve



S0
electric switch-on valve



A0
soft start valve



V052
manual switch-on valve



S052
electric switch-on valve



A052
soft start valve

Series	D	Ø E	F	K	L
042	10.5	4.5	31	–	42
050/052	16	5.5	41	63	52
075	17.5	5.5	45	75	63
080	–	–	–	–	137

*1 at 10 bar supply pressure and 1 bar pressure drop

* Product group

PDF CAD
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Order example:
V042-02

FRL SERVICE UNIT MADE OF BRASS UP TO 50 BAR CM

Description	Extremely robust FRL service unit made of brass.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 50 bar at CM2, max. 30 bar at CM3, optionally max. 50 bar (all without drain)
Adjustment	by black plastic knob at CM.-02, by T-handle with locknut at CM.-04
Gauge port	G¼ on both sides of the body, one screw plug supplied
Filter element	50 µm, optionally 5 µm, made of stainless steel **Relieving function** relieving, optionally non-relieving
Bowl	stainless steel version without sight glass
Drainage	screw plug as standard, optionally manual drain (max. 30 bar) or automatic drain (max. 16 bar)
Temperature range	0 °C to 80 °C / 32 °F to 176 °F FKM 0 °C to 130 °C / 32 °F to 212 °F high temperature version for appropriately conditioned compressed air down to -20 °C / -4 °F
Material	Body: brass Bowl: stainless steel 316L / 1.4404 at G⅛ to G1, brass at G1½ and G2 Elastomer: FKM optionally EPDM Knob: plastic at sizes G¼, brass at G½ Inner valve: brass and plastic (not at option X54)



G⅛ and G½, max. 50 bar
-20 to 130 °C / -40 to 266 °F

Dimensions A	B	C	Combination consisting	Bowl design	Flow rate		Connection thread	Order number
mm	mm	mm	of	made of	m³/h*1	l/min*1	G	
FRL unit, 2-part				P_1: max. 50 bar, screw plug,	P_2: 0.5...8 bar, relieving,	50 µm, with pressure gauge		**CM2**
138	220	123	BM+LM	stainless steel	51	850	G¼	**CM2-02**
168	247	127			138	2 300	G½	**CM2-04**



CM2-04

FRL unit, 3-part				P_1: max. 30 bar, screw plug,	P_2: 0.5...8 bar, relieving,	50 µm, with pressure gauge		**CM3**
212	173	129	FM+R120+LM	stainless steel	51	850	G¼	**CM3-02**
256	175	130			138	2300	G½	**CM3-04**



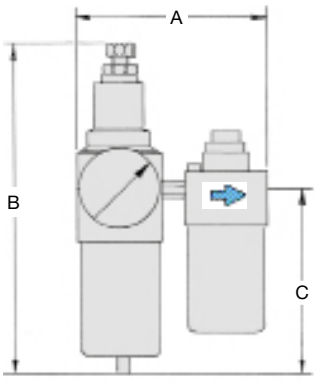
CM3-02

Special options, add the appropriate letter

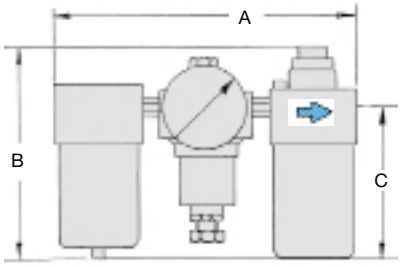
5 µm filter element		CM . - . . **G**
0.2... 3 bar pressure range		CM . - . . **B**
1 ...15 bar pressure range	P_1 max. 50 bar	CM . - . . **D**
manual drain	max. 30 bar	CM . - . . **H**
automatic drain	made of stainless steel, max. 16 bar	CM . - . . **R**
up to 130 °C / 266 °F	high temperature version	CM . - . . **X54**
flange connection	see chapter for stainless steel devices / flanges	CM . - . . **F.**

Accessories, enclosed

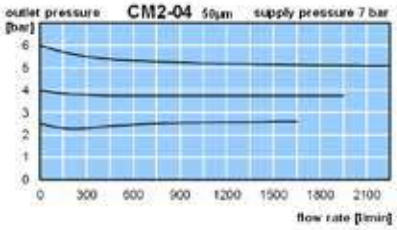
mounting bracket	made of stainless steel	for G¼	**BW35-01S**
mounting nut			**M35x1,5S**
mounting bracket	made of stainless steel	for G½	**BW50-01S**
mounting nut			**M50x1,5S**

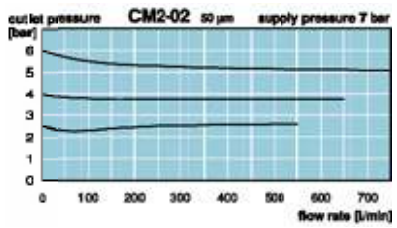


CM2-0. .H



CM3-0. .H





*1 at 7 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

Further details: see chapter for single devices
Spare parts: see separate spare parts list

PDF CAD
www.aircom.net

Order example:
CM2-02

Description	"Maxi" FRL service units with pressure gauge are of modular design with exchangeable insert kits and have a high flow rate. All "maxi" instruments are easy to take out of fixed piping by simply removing the two fastening bolts on the insert kits.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 17 bar		
Adjustment	by plastic knob with snap-lock at C20,	by T-handle with locknut at C21	
Relieving function	relieving, optionally non-relieving	**Filter element**	40 µm, optionally 5 µm, made of polypropylene
Gauge port	G¼ on both sides of the body	**Bowl**	metal version with sight glass
Drainage	manual drain as standard,	optionally automatic drain or semiautomatic drain for max. 12 bar	
Temperature range	0 °C to 70 °C / 32 °F to 158 °F 0 °C to 50 °C / 32 °F to 122 °F for automatic or semiautomatic drain version		
Material	Body: zinc die-cast Knob (C20): glass fibre-reinforced plastic Bowl: zinc die-cast Elastomer: NBR/Buna-N	Spring cage: zinc die-cast T-handle (C21): steel Sight glass: polyurethane Inner valve: brass and plastic	



G¼ up to G1

Dimensions A mm	B mm	C mm	Combination consisting of	Bowl design made of / with	Flow rate m³/h*1	l/min*1	Connection thread G	Order number	
FRL unit, 2-part				P_1: max. 17 bar, P_2: 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge				**C20**	
178	289	175	B+L20	metal / sight glass	102	1700	G¼	**C20-02BL-W**	
					174	2900	G⅜	**C20-03BL-W**	
					276	4600	G½	**C20-04BL-W**	
203	289	175	B+L20	metal / sight glass	390	6500	G¾	**C20-06BL-W**	
					402	6700	G1	**C20-08BL-W**	
FRL unit, 3-part				P_1: max. 17 bar, P_2: 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge				**C20**	
270	226	171	F+R+L20	metal / sight glass	102	1700	G¼	**C20-02FRL-W**	
					174	2900	G⅜	**C20-03FRL-W**	
					276	4600	G½	**C20-04FRL-W**	
292	226	171	F+R+L20	metal / sight glass	390	6500	G¾	**C20-06FRL-W**	
					402	6700	G1	**C20-08FRL-W**	



C20-06BL-W



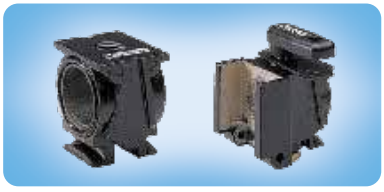
C20-06FRL-W

Special options, add the appropriate letter

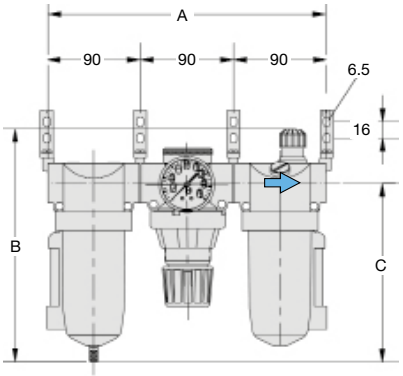
T-handle	including locknut	C**21**-0 . . . . -W
5 µm filter element		C20-0 . . . . -W**G**
NPT	connection thread	C20-0 . . . . -W**N**
0.2... 4 bar pressure range		C20-0 . . . . -W**B**
0.5...17 bar pressure range		C20-0 . . . . -W**D**
semiautomatic drain	RK500SY, max. 12 bar	C20-0 . . . . -W**M**
automatic drain	SA605MD, max. 12 bar	C20-0 . . . . -W**R**

Accessories, enclosed

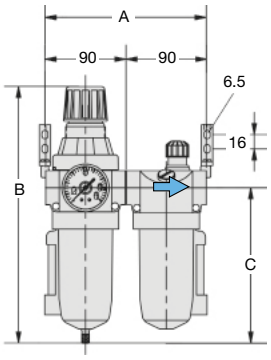
mounting bracket	mounting at the spring cage	**BW45-02**	B*
mounting nut	made of aluminium	**M45x1,5A**	B*
mounting bracket set	made of steel, consisting of two mounting brackets	**MK20-0100**	
porting block	tap G¼, for unlubricated compressed air	**IK20CP**	



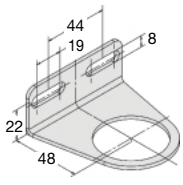
IK20CP **IK20V**



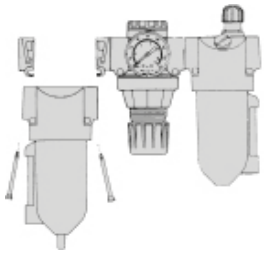
C20- . . FRL mit MK20-0100



C20- . . BL mit MK20-0100



BW45-02



dismantling from fixed piping

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

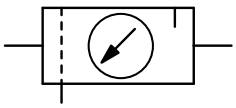
* Product group

Further details: see chapter for single devices

PDF CAD
www.aircom.net

Order example: C20-02BL-W

Description	Solid, low-cost FRL service unit made of aluminium equipped with pressure gauge.
Mediua	compressed air or non-corrosive gases
Supply pressure	max. 16 bar for metal bowl with sight glass, max. 30 bar for metal bowl without sight glass
Adjustment	by plastic knob with snap-lock up to G1½ by hexagon head screw from G¾ up to G1½ on (CD.-1A.) by T-handle from G1½ (CD.-12.) up to G2 on
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ or G⅛ at CD.-01/-02, on both sides of the body, one screw plug supplied
Filter element	20 µm or 50 µm, optionally 5 µm or 50 µm, made of propylene **Bowl** metal version with or without sight glass
Drainage	semiautomatic drain as standard, optionally automatic (max. 16 bar) or manual drain for max. 30 bar
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F metal bowl with sight glass, for G⅛ to G½ -20 °C to 60 °C / -4 °F to 140 °F metal bowl with sight glass, for G¾ to G2 -30 °C to 80 °C / -22 °F to 176 °F metal bowl without sight glass, for all sizes
Material	Body: aluminium Elastomer: NBR/Buna-N Bowl: aluminium



G⅛ up to G2

Dimensions A mm	B mm	C mm	Combination consisting of	Bowl design made of / with	Filter element	Flow rate m³/h*1	l/min*1	Connection thread G	Order number A*
FRL unit, 2-part				P_1: max. 16 bar, P_2: 0.8...8 bar, 20 / 50 µm, semiautomatic drain, relieving, with gauge					**CD2**
80	201	128	BD+LD	metal/sight glass	50	27	450	G⅛	**CD2-01**
								G¼	**CD2-02**
128	248	148		metal/sight glass	50	108	1800	G⅜	**CD2-03**
								G½	**CD2-04**
275	314	179		metal/sight glass	50	300	5000	G¾	**CD2-06**
								G1	**CD2-08**
386	314	179		metal/sight glass	50	300	5000	G1¼	**CD2-10**
								G1½	**CD2-1A**
355	483	223		metal/sight glass	50	960	16000	G1½	**CD2-12**
								G2	**CD2-16**



CD2-01/-02



CD2-03/-04



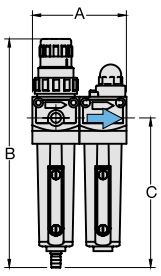
CD2-10/-1A

Special options, add the appropriate letter

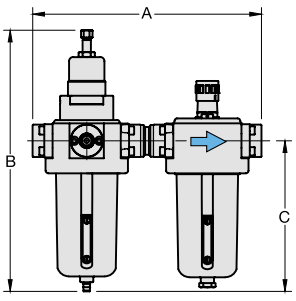
5 µm filter element		CD2-...**G**
0.3...3 bar regulation range		CD2-...**B**
1 ...15 bar		CD2-...**E**
operating press. 30 bar	only for metal bowl (without sight glass) with manual drain	CD2-..**NH**
manual drain	max. 16 bar	CD2-...**H**
automatic drain	drainage by float valve, max. 16 bar for G⅜ up to G2	CD2-...**R**

Accessories, enclosed B*

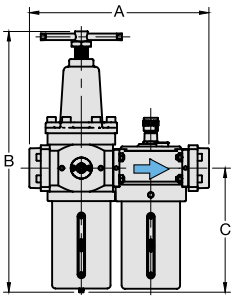
mounting bracket	made of steel	for G⅛ and G¼	**BW30-02**
mounting nut	made of plastic	for G⅛ and G¼	**M30x1,5K**
mounting bracket	made of steel	for G⅜ and G½	**BW50-03**
mounting nut	made of plastic	for G⅜ and G½	**M50x1,5K**
mounting bracket	made of stainless steel	for G¾ up to G1½ (1A)	**BW00-59S**
set of brackets	made of steel	for G1½ (12) and G2	**BW00-61**



CD2-01/.../-04



CD2-06/-08/-10/-1A



CD2-12/-16

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

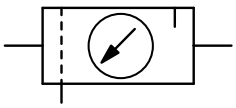
* Product group

Further details: see chapter for single devices

PDF CAD
www.aircom.net

Order example: CD2-01

Description	Solid, low-cost FRL service unit made of aluminium equipped with pressure gauge.
Mediua	compressed air or non-corrosive gases
Supply pressure	max. 16 bar for metal bowl with sight glass, max. 30 bar for metal bowl without sight glass
Adjustment	by plastic knob with snap-lock up to G½ by hexagon head screw from G¾ up to G1½ on (CD.-1A.) by T-handle from G1½ (CD.-12.) up to G2 on
Relieving function	relieving, optionally non-relieving
Gauge port	G¼ or G⅛ at CD.-01/-02, on both sides of the body, one screw plug supplied
Filter element	20 µm or 50 µm, optionally 5 µm or 50 µm, made of propylene **Bowl** metal version with or without sight glass
Drainage	semiautomatic drain as standard, optionally automatic (max. 16 bar) or manual drain for max. 30 bar
Temperature range	-10 °C to 50 °C / 14 °F to 122 °F metal bowl with sight glass, for G⅛ to G½ -20 °C to 60 °C / -4 °F to 140 °F metal bowl with sight glass, for G¾ to G2 -30 °C to 80 °C / -22 °F to 176 °F metal bowl without sight glass, for all sizes
Material	Body: aluminium Elastomer: NBR/Buna-N Bowl: aluminium



G⅛ up to G2

Dimensions A mm	B mm	C mm	Combination consisting of	Bowl design made of / with	Filter element	Flow rate m³/h*1	l/min*1	Connection thread G	Order number
FRL unit, 3-part				P_1: max. 16 bar, P_2: 0.8...8 bar, 20 / 50 µm, semiautomatic drain, relieving, with gauge					**CD3**
120	201	128	FD+RD+LD	metal/sight glass	50	24	400	G⅛	**CD3-01**
								G¼	**CD3-02**
192	251	148		metal/sight glass	50	108	1800	G⅜	**CD3-03**
								G½	**CD3-04**
427	312	179		metal/sight glass	50	228	3800	G¾	**CD3-06**
								G1	**CD3-08**
531	312	179		metal/sight glass	50	228	3800	G1¼	**CD3-10**
								G1½	**CD3-1A**
472	399	231		metal/sight glass	50	1320	22000	G1½	**CD3-12**
								G2	**CD3-16**



CD3-01/-02



CD3-03/-04



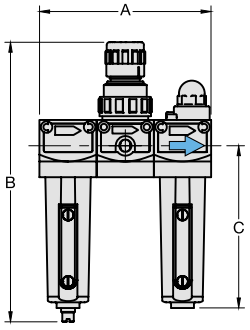
CD3-12/-16

Special options, add the appropriate letter

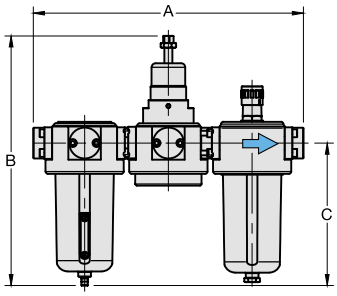
5 µm filter element		CD3-...**G**
0.3...3 bar regulation range		CD3-...**B**
1 ...15 bar		CD3-...**E**
operating press. 30 bar	only for metal bowl (without sight glass) with manual drain	CD3-.**NH**
manual drain	max. 16 bar	CD3-...**H**
automatic drain	drainage by float valve, max. 16 bar for G⅜ up to G2	CD3-...**R**

Accessories, enclosed

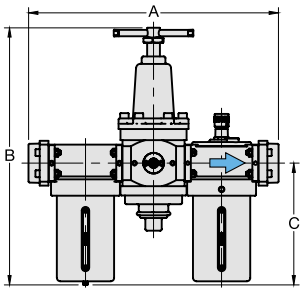
mounting bracket	made of steel	for G⅛ and G¼	**BW30-02**
mounting nut	made of plastic	for G⅛ and G¼	**M30x1,5K**
mounting bracket	made of steel	for G⅜ and G½	**BW50-03**
mounting nut	made of plastic	for G⅜ and G½	**M50x1,5K**
mounting bracket	made of stainless steel	for G¾ up to G1½ (1A)	**BW00-59S**
set of brackets	made of steel	for G1½ (12) and G2	**BW00-61**



CD3-01/-02



CD3-06/-08/-10/-1A



CD3-12/-16

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

* Product group

Further details: see chapter for single devices

PDF CAD
www.aircom.net

Order example: CD3-01

STANDARD FRL SERVICE UNIT C630

Description	FRL service unit of small size and with high flow. Solid design, proven in operation.
Media	compressed air, non-corrosive gases or liquids
Supply pressure	max. 17 bar for metal bowl with sight glass
Adjustment	by T-handle with locknut, by plastic knob with snap-lock on pilot regulator at size G2
Relieving function	relieving, optionally non-relieving **Air consumption** only for pilot pressure at size G2
Gauge port	G¼ on both sides of the body, one screw plug supplied
Filter element	40 µm, optionally 5 µm, made of polypropylene
Bowl	metal version with sight glass
Drainage	manual drain as standard for max. 21 bar optionally internal automatic drain for max. 12 / 16 bar or external automatic drain for max. 18 bar
Temperature range	0 °C to 70 °C / 32 °F to 158 °F for metal bowl with sight glass
Material	Body: zinc die-cast Elastomer: NBR/Buna-N Bowl: polyurethane, zinc die-cast or steel Inner valve: brass



G¼ up to G2

Dimensions A mm	B mm	C mm	Combination consisting of	Bowl design made of/with	Flow rate m³/h*1	l/min*1	Connection thread G	Order number
FRL unit, 3-part				P1: max. 17 bar, P2: 0.3...9 bar, 40 µm, manual drain, relieving, with pressure gauge				**C630**
400	267	197	F602 + R119, + L606	metal/sight glass	408	6800	G¾	**C630-06FRL-W**
					516	8600	G1	**C630-08FRL-W**
419	286	206		metal/sight glass	600	10000	G1¼	**C630-10FRL-W**
					630	10500	G1½	**C630-12FRL-W**
485	425	356		metal/sight glass	1590	26500	G2	**C630-16FRL-W**



C630-08FRL-W



C630-16FRL-W



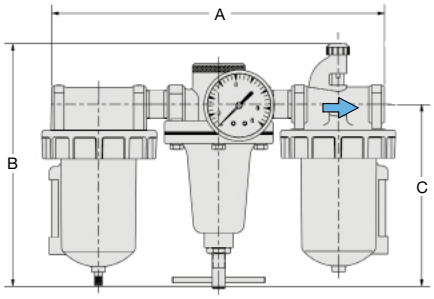
C630-16FRL-WF.
with mounting flange

Special options, add the appropriate letter

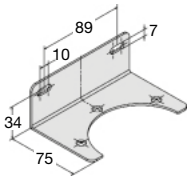
5 µm filter element		C630-0 . . . . - . **G**
NPT	connection thread	C630-0 . . . . - . **N**
0.2... 4 bar pressure range		C630-0 . . . . - . **B**
0.5...17 bar pressure range		C630-0 . . . . - . **D**
semiautomatic drain	RK500SY, max. 12 bar	C630-0 . . . . - . **M**
automatic drain	SA605MD, max. 12 bar	C630-0 . . . . - . **R**
flange connection	see chapter for stainless steel devices / flanges	C630-0 . . . . - . **F**

Accessories, enclosed

mounting bracket	made of steel	for G¾ to G1½	**BW00-24**



C630



BW00-24



RK500SY **SA605MD**

*1 at 8 bar supply pressure, 6 bar outlet pressure and 1 bar pressure drop

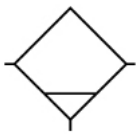
* Product group

Further details: see chapter for single devices

PDF CAD
www.aircom.net

Order example: C630-06FRL-A

Manual drain	The manual drain can be opened by screwing it into the bowl. Once the collected condensate reaches the drain hole, it is being relieved.
Semiautomatic drain	The semiautomatic drain semiautomatically separates condensates from compressed air or gas systems. After operating pressure switch-off the drain valve opens and the collected condensate is being relieved.
Automatic drain	The automatic drain fully automatically separates condensates from compressed air or gas systems. Once the float lifts from the valve seat caused by the condensate level, the condensate is being relieved. Operating pressure must be 2 bar minimum.
Temperature range	0 °C to 50 °C / 32 °F to 122 °F 0 °C to 80 °C / 32 °F to 176 °F for manual drain made of brass for appropriately conditioned compressed air down to -30 °C / -22 °F



Drain valves

Valve type	Description	For filter/ filter regulator	For bowl type	Operating pressure max. bar	Order number	B*

Drain valves

⅛"-27 NPSM thread of internal valve — SA/RK

manual drain	made of brass	F20/ F504/F602 / B11/B12/B20/B21/ B548	all	21	**SA600Y-71**
	made of plastic	F20/ F504/F602/ B11/B12/B20/B21/ B548	all	21	**AWF-10**
semiautomatic drain	piston drain	F504	all	12	**RK504SY**
		F602-02/-03	A/B/W	12	**RK602SY**
drainage after pressure switch-off		B11/B12	all	12	**4210**
		F20	all	12	**4212**
	spring-loaded	F20/	all	12	**RK504SY**
		F20/ F504/F602/ B11/B12/B20/B21/ B548	all	12	**RK500SY**
automatic drain effective from 2 bar on	internal mounting	F20/F602/B11/ B12/B20/B21/	all	12	**SA605MD**
		F20/F602/ B20/B21	all	16	**SA702MD**
	external mounting	F602-04 to -20	A/B/W	18	**SA602D**
		F602-04 to -20	E/F	18	**SA603D**



SA600Y-71 **AWF10**
manual drains



RK504SY **PKF35**
piston drains



RK500SY
semiautomatic drain



SA605MD **SAF105MD**
internal automatic drains

Drain valves made of SST

⅛"-27 NPSM valve thread — SA

automatic drain	internal mounting effective from 2 bar on	F10/F11/B11-S	all	12	**SA10MDSS**



SA602D
external automatic drain



SA603D
external automatic drain

* Product group

PDF CAD
www.aircom.net

Order example:
SA600Y-71

Description	Air supply is immediately shut off when volume flow exceeds a specific value. The maximum admissible flow is factory-set in such a way that a standard application of pneumatic equipment is ensured. Pressure drop amounts to 0.05 to 0.3 bar. In the case of failure, the hose rupture valve blows off through a small nozzle. After repairing the hose break, the hose rupture valve can be set to zero again.
EN ISO 4414-11.2010	According to EN ISO 4414-11.2010 the hose rupture valve protects individuals, systems and machines from injuries or damages caused by lashing hose lines in the event of hose breaks.
Function	The air passes the piston and continues through the seat. The air stream is slowed down by means of lengthwise grooves on the piston surface. When the volume flow is too high, the air cannot pass the piston quickly enough, thus the piston will be pressed against the spring. If the maximum admissible flow is exceeded, e.g. when the hose suddenly breaks, the air supply will automatically be shut off.
Supply pressure	max. 18 bar
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F at G¼ to G½, up to 120 °C / 248 °F at G¾ to G2
Material	Body: aluminium, optionally stainless steel; Elastomer: NBR/Buna-N; Inner valve: aluminium and plastic



max. 18 bar
G¼ up to G2

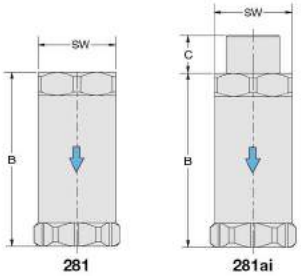
Dimensions B mm	C mm	A/F mm	max. flow rate at 8 bar *2 m³/h	l/min	Connection thread G	Order number	A*

Hose Rupture Valve "HoseGuard®" operating pressure max. 18 bar — 281

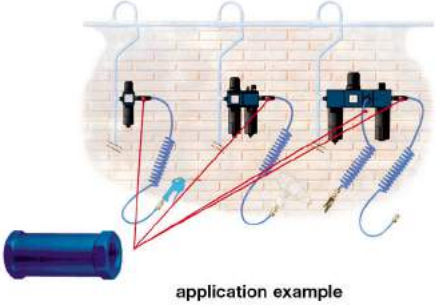
49	-	22	46	760 *1	G¼	**281A0211**
49	10	22	46	760 *1	G¼ mf	**281A0221**
49	-	22	3	52	G¼	**281ZL0211**
49	10	22	3	52	G¼ mf	**281ZL0221**
49	-	22	60	990	G¼	**281ZH0211**
49	10	22	60	990	G¼ mf	**281ZH0221**
58	-	27	65	1080 *1	G⅜	**281A0311**
58	12	27	65	1080 *1	G⅜ mf	**281A0321**
58	-	27	87	1450	G⅜	**281ZH0311**
58	12	27	87	1450	G⅜ mf	**281ZH0321**
65	-	30	181	3020 *1	G½	**281A0411**
64	15	30	181	3020 *1	G½ mf	**281A0421**
65	-	30	206	3440	G½	**281ZH0411**
64	15	30	206	3440	G½ mf	**281ZH0421**
76	-	30	244	4070 *1	G¾	**281A0511**
76	-	30	315	5250	G¾	**281ZH0511**
100	-	41	313	5220 *1	G1	**281A0611**
100	-	41	456	7600	G1	**281ZH0611**
130	-	70	775	12920 *1	G2	**281A0911**

Special options, add the appropriate letter

NPT	connection thread for standard version	281A**1** . . .
	connection thread for Low-Flow version	281ZL**1** . . .
	connection thread for High-Flow version	281ZH**1** . . .
stainless steel body		281**R** . . . .



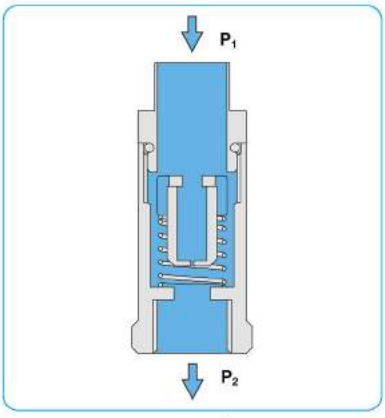
281 281ai



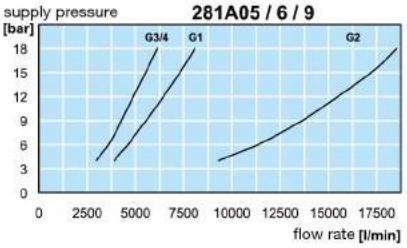
application example

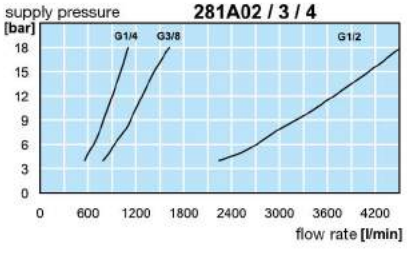


281



cross-section





*1 Standard version

*2 volume flow measurement according to DIN EN60534 (± 10% for closing)

* Product group

PDF CAD
www.aircom.net

Order example:
281A0211

MICRO-/ MINIATURE-DEVICES

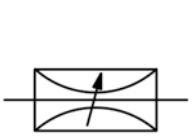
	DESCRIPTION	DN/Ø	FLOW RATE l/min	CONNECTION thread	SERIES	PAGE
NEEDLE VALVE	made of stainless steel, miniature	Ø 3.0 - 4.5	0 … 32	nipple	NV30	**20.02**
PRECISION RESTRICTOR	made of brass, micro	Ø 0.06 - 0.64		nipple, 10-32″	RF	**20.03**
	made of plastic	Ø 0.08 - 1.02		nipple	R-0	**20.04**
	with filter	Ø 0.10 - 0.76		nipple	F950	**20.04**
INLINE-FILTER	micro, up to 8.6 bar	5 … 73 µm		nipple, 10-32″	F9 . .	**20.05**
CHECK VALVE	micro, up to 5.2 bar	1,5 / 3,8		nipple	F2804	**20.06**
	restrictor check valve	0.1/ … / 1.02		10-32″	F2804	**20.06**



20

PRECISION NEELDE VALVE, Ø 0…0.65 MM NV30

Description	The precision needle valve is an manually adjustable flow control valve used in pneumatic and fluid systems. Unique laminar flow design ensures sensitive reproducible control. Ideal for precision gas metering and circuit speed or sequencing control.
Media	5 µm filtered compressed air, non-corrosive gases or liquids
Operating pressure	vacuum up to positive pressure of max. 12 bar
Adjustment	The flow control needle needs 8 screw turns for maximum flow, approximately equal to an 0.65 mm / 0.025″ orifice.
Panel mounting	borehole 8 mm / 0.312″, max. panel thickness 3.5 mm / 0.15″
Temperature range	-40 °C to 95 °C / -40 °F to 203 °F
Material	Body and needle: stainless steel 303 Elastomer: NBR/Buna-N



Ø 0…0.65 mm compressed air or liquids

Flow adjustment	Operating pressure	Volume flow at 3.5 bar and 6 turns	Nipple diameter		Order number	D*
mit	max. bar	l/min	Ø mm	inch		
Needle valve with knurled screw		operating pressure max. 12 bar, stainless steel, Ø 0…0.65 mm			**NV30-K**	
knurled-head	12	0…32	3.0	1/16″	**NV30-2K**	
			4.5	1/8″	**NV30-4K**	
Needle valve with slotted screw		operating pressure max. 12 bar, stainless steel, Ø 0…0.65 mm			**NV30-S**	
slotted screw	12	0…32	3.0	1/16″	**NV30-2S**	
			4.5	1/8″	**NV30-4S**	



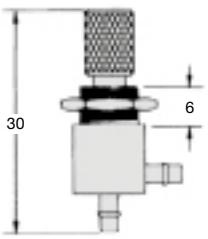
NV30-2K with knurled-head



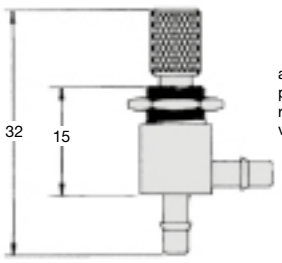
NV30-4S with slotted screw



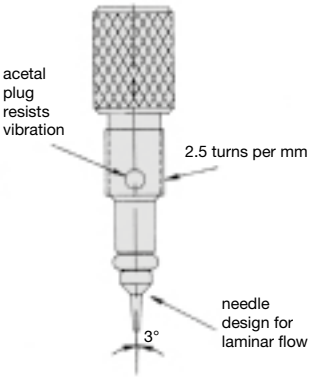
NV30-2K

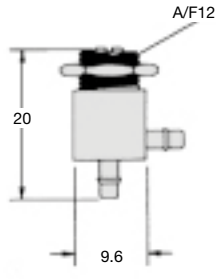


NV30-2K

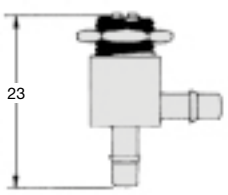


NV30-4K

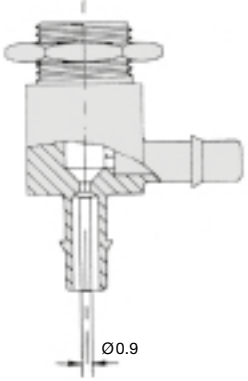


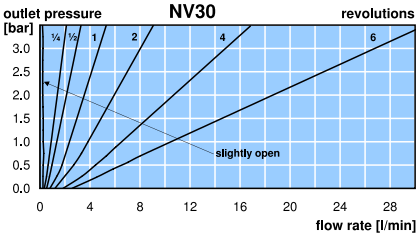


NV30-2S



NV30-4S



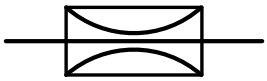


* Product group

PDF CAD
www.aircom.net

Order example: NV30-2K

Description	Precision sapphire restrictor for reducing the flow of air or gas. Fixed flow restrictors are used in back pressure and air jet sensing circuits.
Media	5 µm filtered compressed air, non-corrosive gases or liquids
Diameter tolerances	-3% to +10% of nominal diameter
Operating pressure	vacuum up to positive pressure of max. 12 bar
Temperature range	5 °C to 50 °C / 41 °F to 122 °F
Material	Body: brass Restrictor: sapphire



Ø 0.06 up to 0.64 mm compressed air or liquids

Nominal size Ø mm	Order number 10-32″ / nipple Ø 2 RF1	nipple Ø 2.2 RF2	10-32″ RF3	10-32″ / open orifice RF4	D*

Restrictor

operating pressure max. 12 bar **RF**



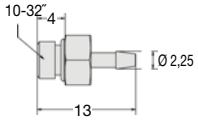
0.06	RF106	RF206	RF306	RF406
0.07	RF107	RF207	RF307	RF407
0.08	RF108	RF208	RF308	RF408
0.09	RF109	RF209	RF309	RF409
0.10	RF110	RF210	RF310	RF410
0.11	RF111	RF211	RF311	RF411
0.12	RF112	RF212	RF312	RF412
0.13	RF113	RF213	RF313	RF413
0.14	RF114	RF214	RF314	RF414
0.15	RF115	RF215	RF315	RF415
0.16	RF116	RF216	RF316	RF416
0.17	RF117	RF217	RF317	RF417
0.18	RF118	RF218	RF318	RF418
0.20	RF120	RF220	RF320	RF420
0.22	RF122	RF222	RF322	RF422
0.24	RF124	RF224	RF324	RF424
0.26	RF126	RF226	RF326	RF426
0.28	RF128	RF228	RF328	RF428
0.30	RF130	RF230	RF330	RF430
0.32	RF132	RF232	RF332	RF432
0.34	RF134	RF234	RF334	RF434
0.36	RF136	RF236	RF336	RF436
0.40	RF140	RF240	RF340	RF440
0.44	RF144	RF244	RF344	RF444
0.48	RF148	RF248	RF348	RF448
0.52	RF152	RF252	RF352	RF452
0.54	RF154	RF254	RF354	RF454
0.58	RF158	RF258	RF358	RF458
0.64	RF164	RF264	RF364	RF464



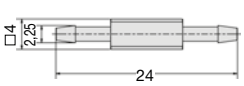
RF2 RF1
with nipple



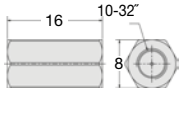
RF3 RF4
with connection thread



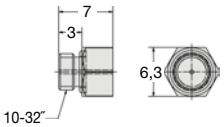
RF1



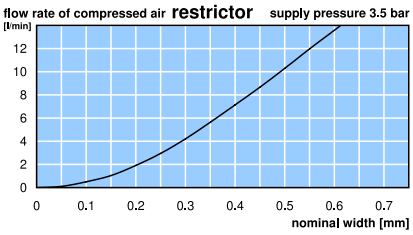
RF2



RF3



RF4



* Product group

PDF CAD
www.aircom.net

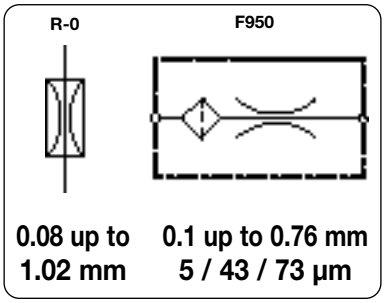
Order example: RF106

Precision Restrictor R-0

Description	Precision sapphire restrictor for reducing the flow
Medium	compressed air or non-corrosive gases **Ø-Tolerance** ± 0.005 mm respectively ± 3% of volume flow
Filter element	**5** µm for DN0.08 up to DN0.23, from DN0.25 on 100 µm
Operating pressure	vacuum up to max. 7 bar **Temperature range** 5 °C to 50 °C / 41 °F to 122 °F
Material	Body: polycarbonate, FDA-approved Restrictor: sapphire Filter element: stainless steel fabric

Restrictor with Filter F950

Description	Disposable in-line-filter with Dutch weave screen of 304 stainless steel. Flow direction and filter size in µm are clearly marked. The colour indicates the nominal size.
Diameter tolerance	-3% to +10% of nominal diameter
Filter element	5 µm at DN 0.10 to DN 0.15, 43 µm at DN 0.18 to DN 0.41, 73 µm at DN 0.51 to DN 0.76
Operating pressure	max. 7 bar **Temperature range** 5 °C to 50 °C / 41 °F to 122 °F
Material	Body: polysulphone Restrictor: sapphire Filter element: stainless steel fabric

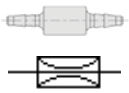


Dimensions A mm	Connection inlet / outlet	Nominal size colour / DN Ø mm	Order number	Nominal size colour / DN Ø mm	Order number

Restrictor, barbed fittings Ø 2.7

operating pressure max 7 bar **R-0..-6**

30 fittings Ø 2.7



gold	0.08	**R-003-6**	orange	0.36	**R-014-6**
purple	0.10	**R-004-6**	grey	0.41	**R-016-6**
white	0.13	**R-005-6**	brown	0.43	**R-017-6**
yellow	0.18	**R-007-6**	red	0.48	**R-019-6**
light green	0.20	**R-008-6**	dark blue	0.51	**R-020-6**
lavender	0.23	**R-009-6**	black	0.64	**R-025-6**
light blue	0.25	**R-010-6**	beige	0.76	**R-030-6**
green	0.30	**R-012-6**	dark grey	0.89	**R-035-6**
			cyan	1.02	**R-040-6**

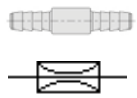


R-0...-1 **R-0...-6**
with nipple

Restrictor, barbed fittings Ø 4,7

operating pressure max 7 bar **R-0..-1**

34 fittings Ø 4.7



gold	0.08	**R-003-1**	orange	0.36	**R-014-1**
purple	0.10	**R-004-1**	grey	0.41	**R-016-1**
white	0.13	**R-005-1**	brown	0.43	**R-017-1**
yellow	0.18	**R-007-1**	red	0.48	**R-019-1**
light green	0.20	**R-008-1**	dark blue	0.51	**R-020-1**
lavender	0.23	**R-009-1**	black	0.64	**R-025-1**
light blue	0.25	**R-010-1**	beige	0.76	**R-030-1**
green	0.30	**R-012-1**	dark grey	0.89	**R-035-1**
			cyan	1.02	**R-040-1**

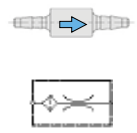


R-0...-0
with plain fittings

Restrictor with filter

operating pressure max. 7 bar
nipple Ø 2.7 mm, 5/43/73 µm **F950**

34 fittings Ø 2.7



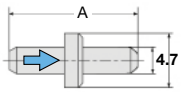
purple	0.10	5 µm	**F950- 5-041-B80**
light green	0.13	5 µm	**F950- 5-050-B80**
red	0.15	5 µm	**F950- 5-051-B80**
cyan	0.18	43 µm	**F950-43-071-B80**
yellow	0.25	43 µm	**F950-43-101-B80**
black	0.30	43 µm	**F950-43-121-B80**
grey	0.41	43 µm	**F950-43-161-B80**
blue	0.51	73 µm	**F950-73-201-B80**
brown	0.64	73 µm	**F950-73-251-B80**
beige	0.76	73 µm	**F950-73-301-B80**



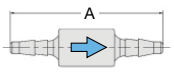
F950-...B85/ ...B80
with filter

Special options, add the appropriate letter

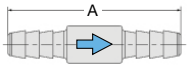
plain fittings Ø 2.3	A = 9,9 mm		for R-0	R-0..-**0**
nipple Ø 4.7	A = 34 mm		for F950	F950-..-...-**B85**



plain fittings
R-0..-0



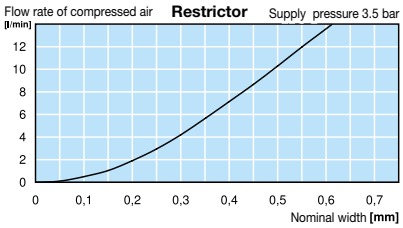
barbed fittings Ø 2.7
R-0..-6
F950-.-...B80

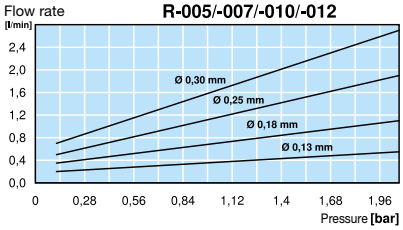


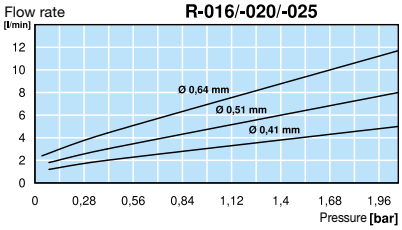
barbed fittings Ø 4.7
R-0..-1
F950-.-...B85

*1 nominal size see RF2

Supply pressure 3.5 ba





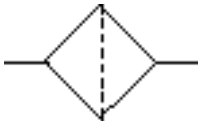


* Product group

PDF CAD
www.aircom.net

Order example:
R-003-6

Description	Compact in-line filter with fittings or threaded connection. Flow direction and filter size in µm are clearly marked.
Media	compressed air or non-corrosive gases
Diameter tolerances	-3% to +10% of nominal diameter
Filter element	5 µm, 25 µm, 43 µm or 73 µm
Operating pressure	max. 8.6 bar
Temperature range	5 °C to 50 °C / 41 °F to 122 °F
Material	Body: polysulphone Filter element: Dutch weave stainless steel



5 / 25 / 43 / 73 µm
compressed air or gases

Dimensions A mm	Operating pressure max. bar	Connection inlet / outlet	Filter element µm	Order number	D*

Micro pressure filter

operating pressure max. 8.6 bar — **F900**

26	8.6	fittings Ø 2.7 	5	**F950-05B80**
			25	**F950-25B80**
			43	**F950-43B80**
			73	**F950-73B80**
30	8.6	fittings Ø 4.7 	5	**F950-05B85**
			25	**F950-25B85**
			43	**F950-43B85**
			73	**F950-73B85**
24	8.6	10-32″ / fittings Ø 2.7 	5	**F960-05B80**
			25	**F960-25B80**
			43	**F960-43B80**
			73	**F960-73B80**
28	8.6	10-32″ / fittings Ø 4.7 	5	**F960-05B85**
			25	**F960-25B85**
			43	**F960-43B85**
			73	**F960-73B85**
15	8.6	10-32″ / 10-32″ 	5	**F970-05**
			25	**F970-25**
			43	**F970-43**
			73	**F970-73**



F950 with nipple



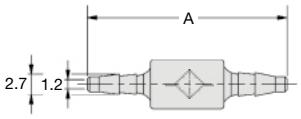
F960 with nipple and thread



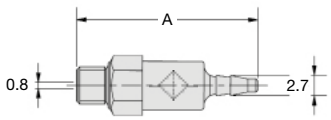
F970 with thread

Accessories, enclosed

connecting nipple	for F960 and F970	10-32″ / fitting Ø 2.7	**F3120-80**
		Ø 4.7	**F3120-85**
		Ø 5.6	**F3120-86**

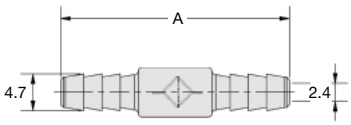


F950-..B80

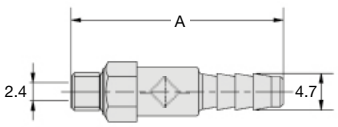


F960-..B80

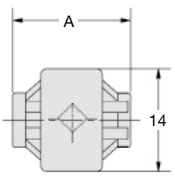
fitting		for tube	
B80	Ø2.7	1/16″	Ø1.6 mm
B85	Ø4.7	1/8″	Ø3.2 mm
B86	Ø5.6	0.17″	Ø4.3 mm



F950-..B85



F960-..B85



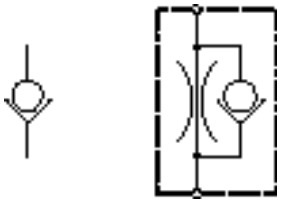
F970

* Product group

PDF CAD
www.aircom.net

Order example:
F950-05B80

Check valve	The check valve permits flow in one direction only. A small check disc within the housing ensures free flow in one direction and at the same time seals off on the other side.
Restrictor check valve	The restrictor check valve provides a constant flow in one direction, defined through the orifice size, and a flow of the full nominal size towards the other direction.
Media	5 µm filtered compressed air or non-corrosive gases
Diameter tolerance	-3% to +10% of nominal diameter
Operating pressure	max. 0.7 bar at F2804-400/1/2/3, max. 5.2 bar at F2804-404
Cracking pressure	< 20 mbar at F2804-400/1/2/3, < 25 mbar at F2804-404
Temperature range	5 °C to 50 °C / 41 °F to 122 °F
Material	Body: polysulphone at F2804-400/1/2/3, polypropylene at F2804-404 Check disc: Celcon® at F2804-401/2, silicone at F2804-400/3/4



3.4/57 l/min **Ø 0.1 up to 1.0 mm**

Dimensions A mm	Operating pressure max. bar	Check disk made of	Connection	Leakage rate < ml/min*2	Flow rate l/min*1	Nominal size colour / DN	Order number

Check valve

operating pressure max. 0.7 / 5.2 bar — **F2804**

12	0.7	silicone	plain fittings Ø 2.4	3	3.4	red	1.5	**F2804-400**
		Celcon®		51		orange	1.5	**F2804-401**
		Celcon®		17		green	1.5	**F2804-402**
		silicone		3		blue	1.5	**F2804-403**
26	0.7	Celcon®	fittings Ø 2.7	51	3.4	grey	1.5	**F2804-401-B80**
		Celcon®		17		grey	1.5	**F2804-402-B80**
		silicone		3		grey	1.5	**F2804-403-B80**
30	0.7	Celcon®	fittings Ø 4.7	51	3.4	grey	1.5	**F2804-401-B85**
		Celcon®		17		grey	1.5	**F2804-402-B85**
		silicone		3		grey	1.5	**F2804-403-B85**
15	5.2	silicone	10-32″	1	57	grey	3.8	**F2804-404**
		silicone	fittings Ø 2.7	1		grey	3.8	**F2804-404-B80**
		silicone	fittings Ø 4.7	1		grey	3.8	**F2804-404-B85**



F2804-400/1/2/3 check valve

Restrictor check valve

operating pressure max. 5.2 bar — **F2804**

15	5.2	silicone	10-32″	0.10	**F2804-404-041**
				0.13	**F2804-404-050**
				0.15	**F2804-404-051**
				0.18	**F2804-404-071**
				0.25	**F2804-404-101**
				0.30	**F2804-404-121**
				0.41	**F2804-404-161**
				0.51	**F2804-404-201**
				0.64	**F2804-404-251**
				0.76	**F2804-404-301**
				1.02	**F2804-404-401**



F2804-404-B85/...-B80 check valve



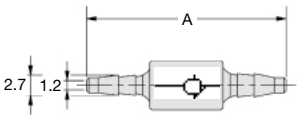
F2804-404-071/-301 restrictor check valve

Special options, add the appropriate number

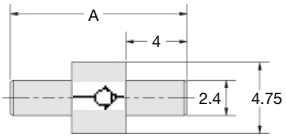
increased cracking pressure	for check valve, with spring	35 mbar	**F2804-404-05**

Accessories, enclosed

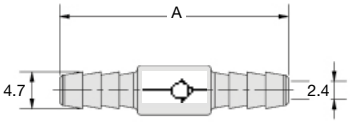
connecting nipple	for F2804-404	10-32″ / fitting Ø 2.7	**F3120-80**
		Ø 4.7	**F3120-85**
		Ø 5.6	**F3120-86**



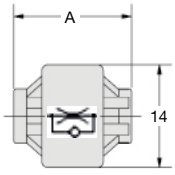
F2804-40.-B80



F2804-40.- with plain fittings



F2804-40.B85



F2804-404

fitting		for tube	
B80	Ø2.7	1/16″	Ø1.6 mm
B85	Ø4.7	1/8″	Ø3.2 mm
B86	Ø5.6	0.17″	Ø4.3 mm

*1 at max. operating pressure *2 at Δp or P_1 = 70 mbar, at type F2804-404: P_1 = 5.2 bar

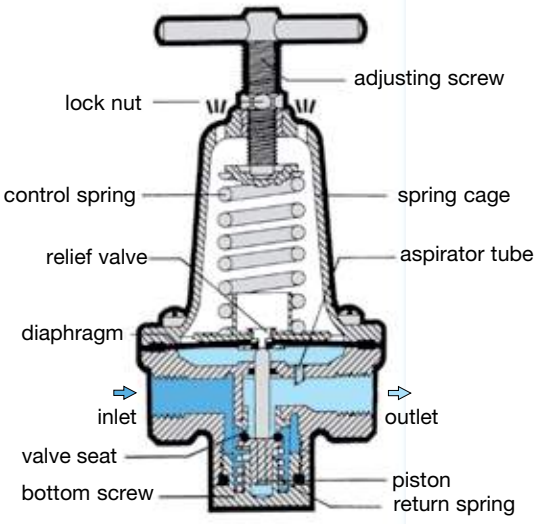
* Product group

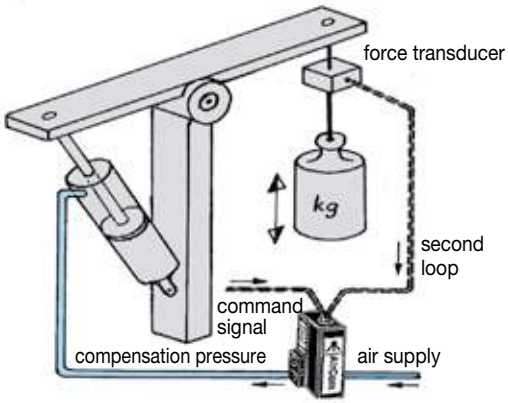
PDF CAD
www.aircom.net

Order example: F2804-400

TECHNICAL INFORMATION

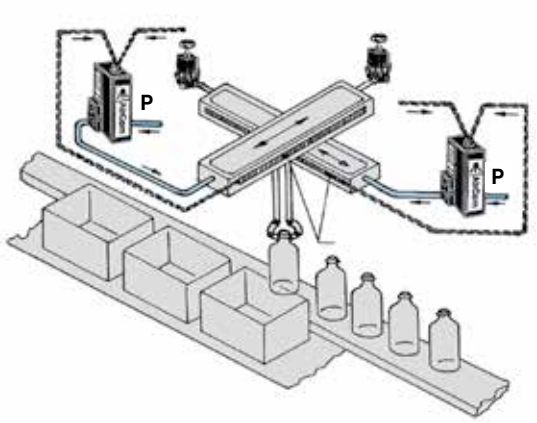
	DESCRIPTION	PAGE
APPLICATIONS	Proportional Pressure Regulators	**21.02**
FUNCTIONAL DESCRIPTION	Compressed Air Filters	**21.10**
	Pressure Regulators and Volume Booster	**21.11**
	Filter Regulators	**21.12**
	Compressed Air Lubricators	**21.13**
CALCULATIONS	Volume Flow Rate	**21.06**
	Air Amplifier	**21.07**
	Conversion Tables	**21.09**
TECHNICAL INFORMATION	Connections thread for Gas Cylinder	**21.08**
	Temperature range of Elastomer	**21.08**
	Influence of filter pore size on flow rate	**21.08**
	Influence of supply pressure variation on flow rate	**21.08**
SERVICES	Certificates	**21.14**
	Test Charts	**21.14**
	Hourly Wage Rates	**21.14**
PRODUCT QUICK FINDER	Pressure Regulators	**21.15**
SEARCH DIRECTORY	Order Number Index	**21.26**



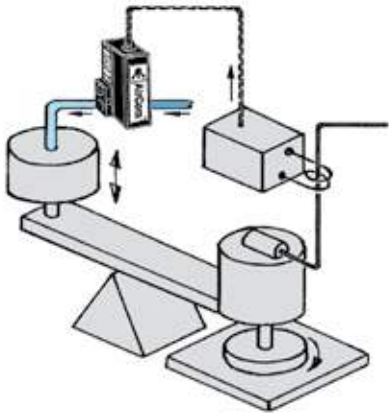


21

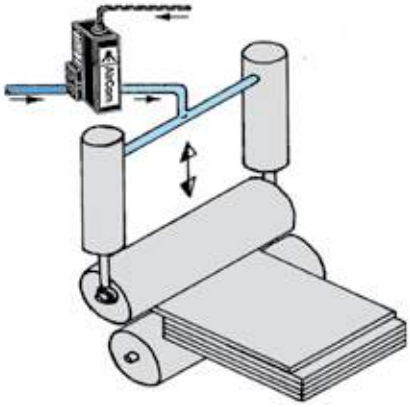
APPLICATIONS OF PROPORTIONAL PRESSURE REGULATORS



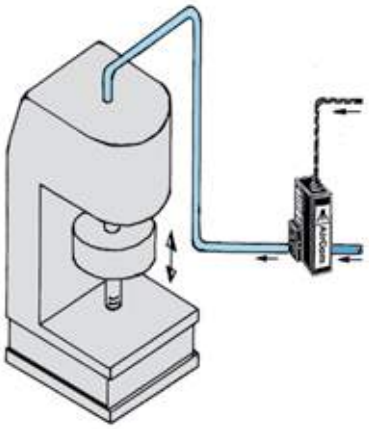
POSITIONING
AirCom proportional pressure regulators control rodless cylinders for operating robotic arms which load bottles into cases.



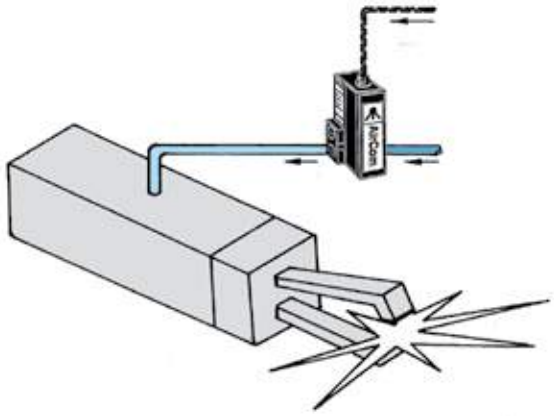
CONSTANT PUSH PRESSURE
AirCom proportional pressure regulators monitor the motor current and adjust the force applied to provide accurate control of the grinding force.



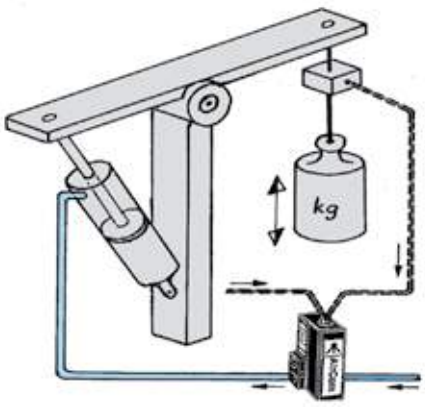
CONSTANT MATERIAL THICKNESS
The AirCom proportional pressure regulator controls the downward force of the calender roller in order to compensate sheet thickness variations on sheet feeding equipment.



CONTROLLED CONTACT PRESSURE
The AirCom proportional pressure regulator accurately controls the force that a cylinder exerts on its load. Thus, the workpiece's quality can be significantly improved.

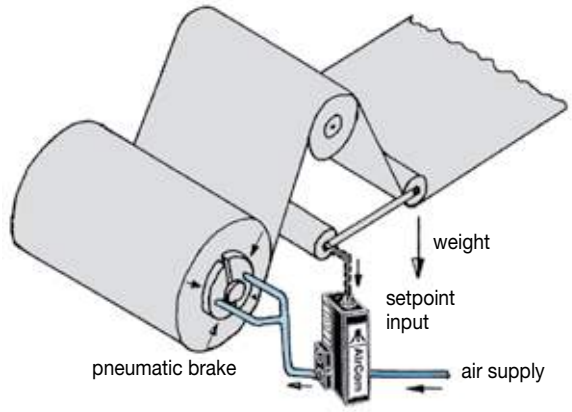


WELDING TONGS WITH CONSTANT CONTACT PRESSURE
The AirCom proportional pressure regulator quickly and accurately controls the nip pressure required in resistance welding.



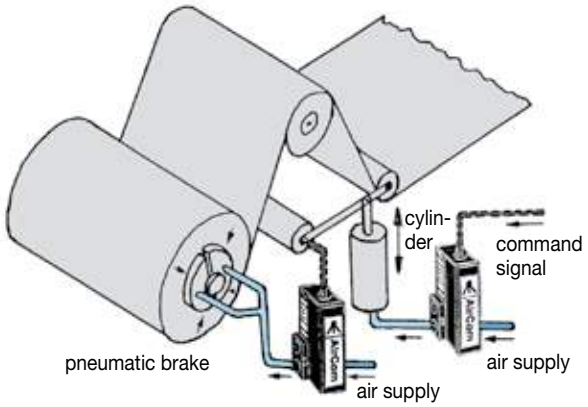
BALANCER FOR LOAD MOVING BY HAND
The AirCom proportional pressure regulator keeps the load in balance by cylinder force. Loads weighing tons are easy to raise and lower simply by hand.

APPLICATIONS OF PROPORTIONAL PRESSURE REGULATORS



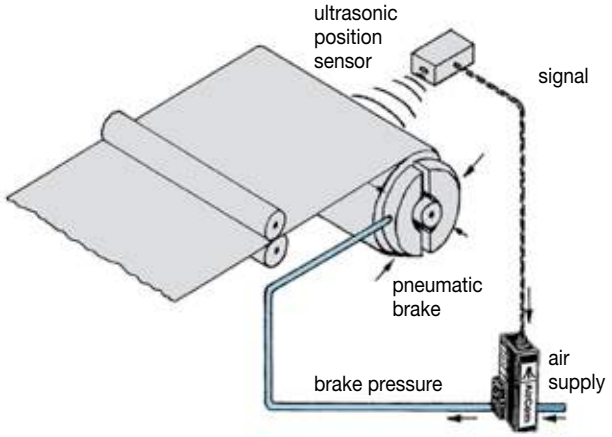
WINDER WITH CONSTANT WEB TENSION

The AirCom proportional pressure regulator accurately senses the position of a dancer arm of known weight and mass to ensure constant web tension by controlling a brake.



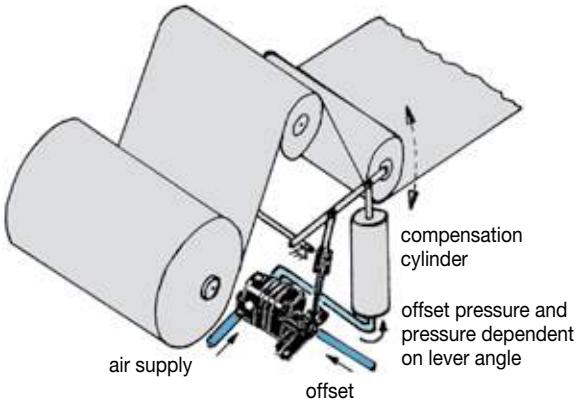
WINDER WITH ADJUSTABLE WEB TENSION

The AirCom proportional pressure regulator adjusts web tension in web tension control systems that employ cylinders instead of deadweights achieving constant material tension.



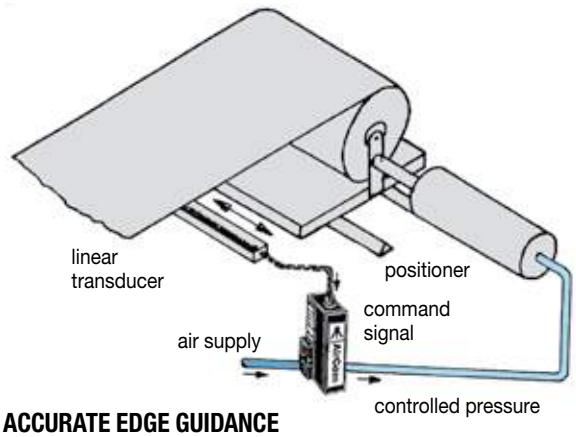
WINDER WITH CONSTANT WEB TENSION

A position sensor commands the AirCom proportional pressure regulator to adjust web tension as the roll size changes. The roll speed is reduced in proportion to the coil size.



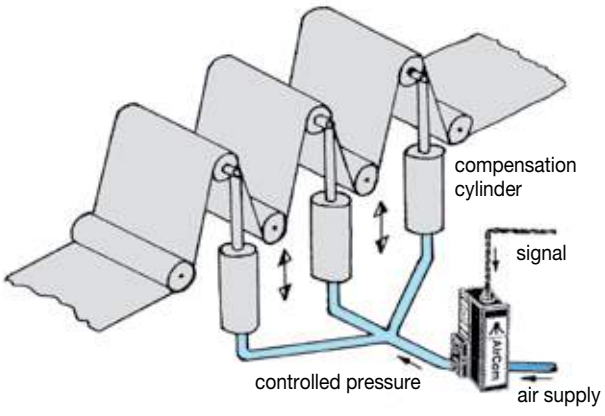
WINDER WITH WEIGHT-COMPENSATED DANCER ROLLER

The lever-operated proportional regulator compensates the changed weight of the winding roll and controls the web tension by cylinder force.



ACCURATE EDGE GUIDANCE

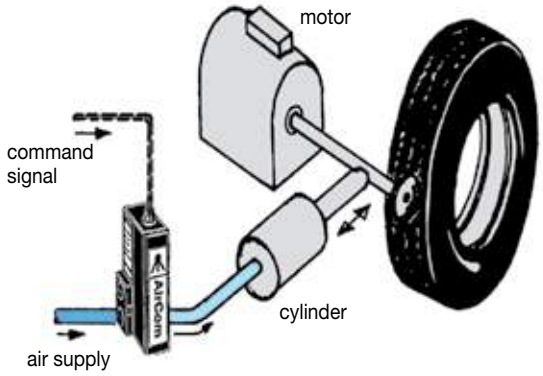
The addition of an AirCom proportional pressure regulator assures accurate edge guidance in web systems. A linear transducer checks the web position and pilots the regulator to readjust the positioner.



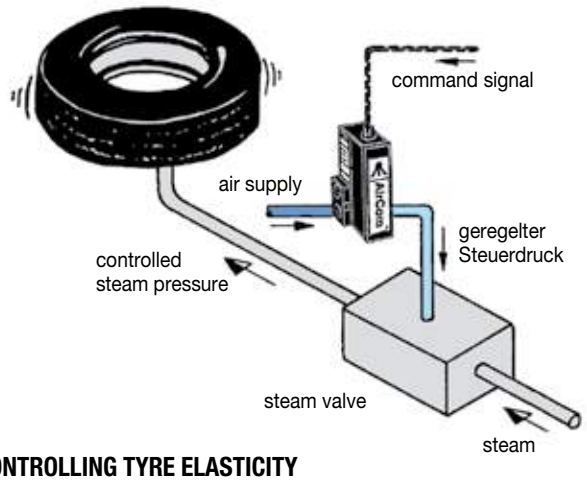
LENGTH COMPENSATION ON WINDING SYSTEMS

With the assistance of an AirCom proportional pressure regulator and the consequential control of compensation cylinders, webs can be easily ”festooned”. In addition, the cylinders provide for constant web tension.

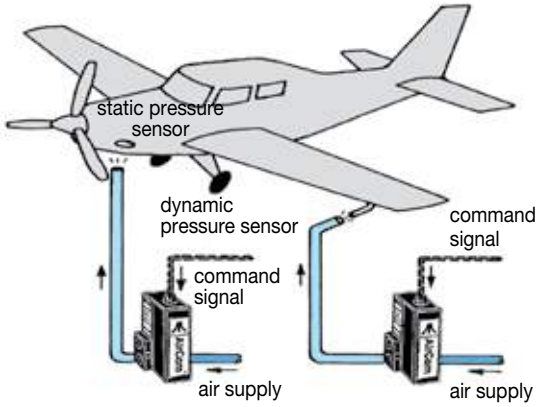
APPLICATIONS OF PROPORTIONAL PRESSURE REGULATORS



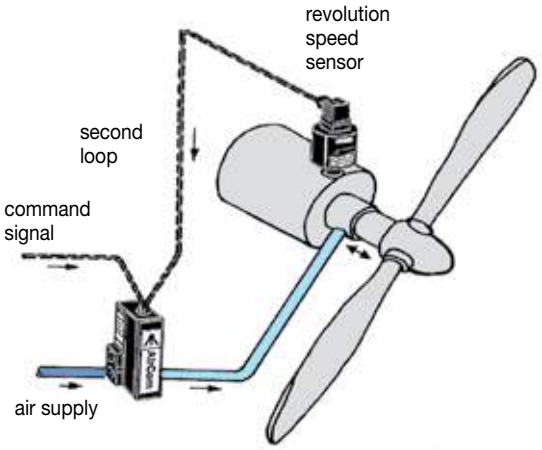
PRECISION TYRE TREATMENT
AirCom proportional pressure regulators control the forces required for maintaining a constant circumference in the balancing of rubber tyres when cutting tyre treads.



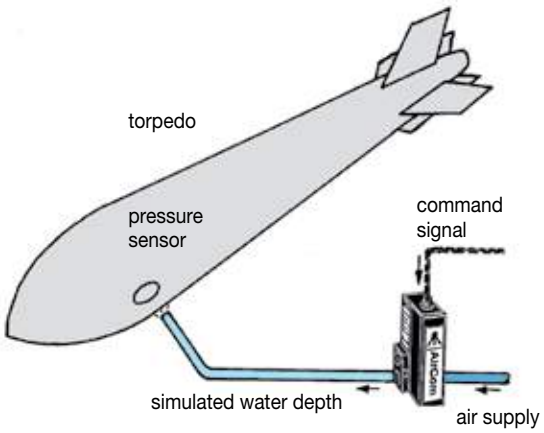
CONTROLLING TYRE ELASTICITY
Incorporated into the steam valve system, AirCom proportional pressure regulators control the elasticity of rubber tyres.



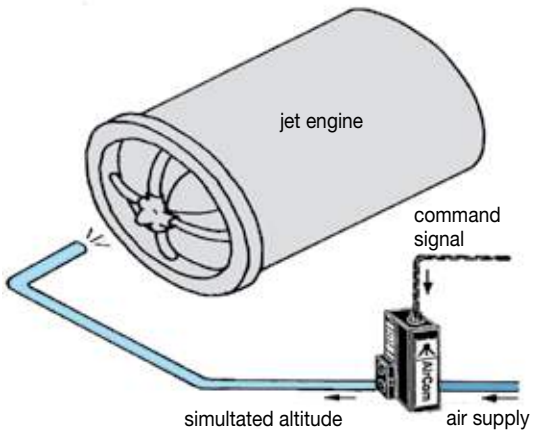
SIMULATION OF WATER DEPTHS
AirCom proportional pressure regulators accurately monitor static and dynamic pressure sensors in aircraft.



TURBINE PRESSURE REGULATION
AirCom proportional pressure regulators control and adjust the propeller blade angle to regulate the turning of wind turbine generators.

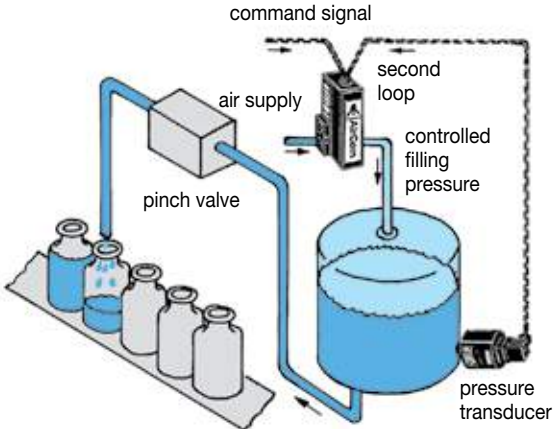


SIMULATION OF WATER DEPTHS
AirCom proportional pressure regulators simulate different water depths for torpedo sensor testing.

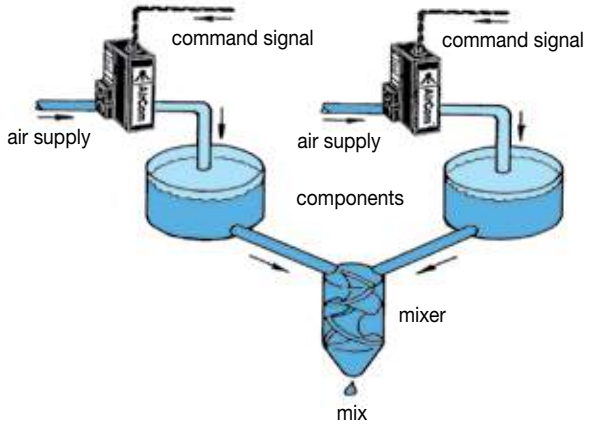


SIMULATION OF FLIGHT ALTITUDES
In jet engine testing, AirCom proportional pressure regulators accurately control the air pressure required for simulating various altitudes.

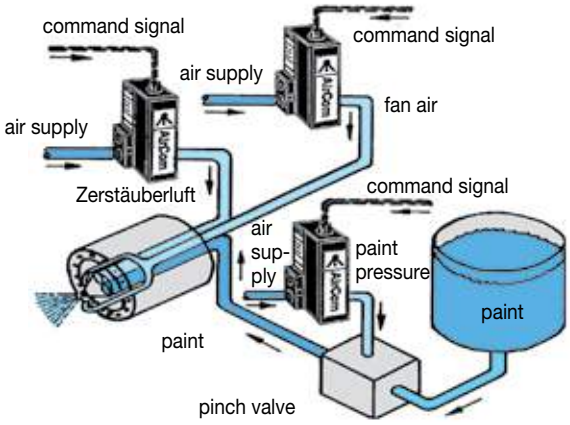
APPLICATIONS OF PROPORTIONAL PRESSURE REGULATORS



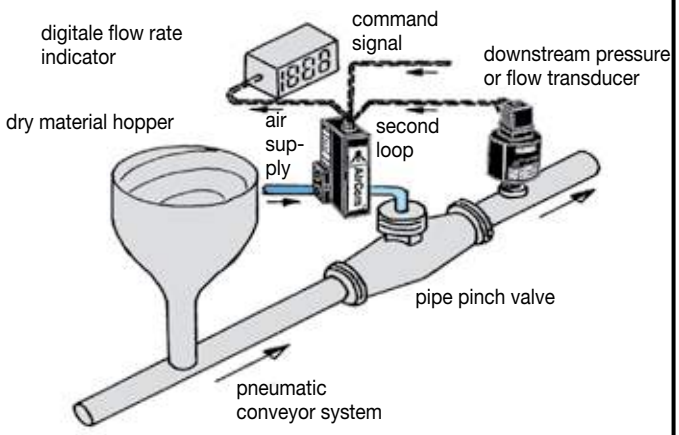
CONSTANT FILLING PRESSURE
AirCom proportional pressure regulators accurately control the liquid flow regardless of tank level for dispensing pharmaceuticals and food products.



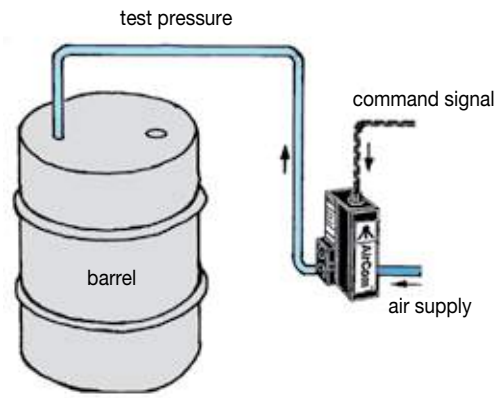
EXACT MIX
AirCom proportional pressure regulators accurately control the flow of ingredients for mixing for, e.g. the precise formulation of resin.



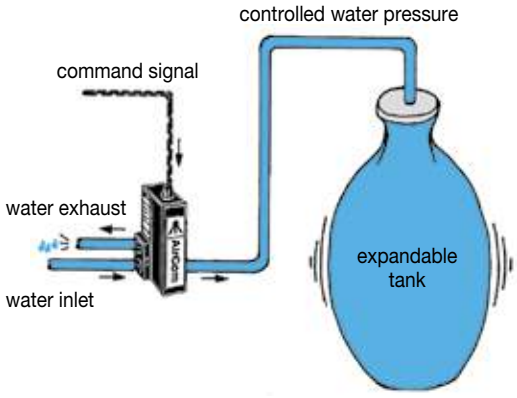
ECONOMIC SPRAY PAINTING
AirCom proportional pressure regulators economically control turbine speed, atomise and shape air and deliver the fluid for spray painting.



FLOW REGULATION
AirCom proportional pressure regulators regulate and monitor the flow of dry material in pneumatic conveying systems.



LEAK TESTING
AirCom proportional pressure regulators control the pressure required to test for leaks of containers of any size.



REGULATION OF CONSTANT WATER PRESSURE
AirCom proportional pressure regulators control and maintain the pressure of water flowing into expanding tanks, even during receding expansion.

VOLUME FLOW RATE CALCULATION

PHYSICAL PARAMETERS

	SHORT SYMBOL	DESCRIPTION	REMARKS	UNIT
A	Q	Flow rate		l/min
	K_v	Flow factor	at Δ P = 1 bar and γ = 1 or 1,25	m^3/h
	P	Relative pressure		bar
	P_{abs}	Absolute pressure	1 + P	bar abs
	P_1	Supply pressure		bar
	P_2	Outlet pressure		bar
	Δ P	Differential pressure	$P_1 - P_2$	bar
	T	Absolute Temperature	≙ 273 + °C, at 20 °C: 293	°K
	γ_L	Specific weight of air	air: 1,25 at 20 °C and 760 mm Hg	N/m^3
	γ_A	Specific weight of water	water: 1,0	N/dm^3
	υ_L	Flow velocity of air	for air max. 100 m / s, recommended 50 m / s (50%)	m/s
	υ_A	Flow velocity of water	for water max. 4.5 m / s, recommended 3 m / s (60%)	m/s
	F	Cross-sectional area	area of the open tube	cm^2

MEDIUM / GENERAL FORMULA	SIMPLIFIED FORMULA *	RECOMMEND.	DIMENSION

B

Subcritical Δ P < 0,5 · (1 + P_1)

P_1	bar	2	3	4	5	6	7	8	9	10	11	12	13	14
P_2 >	bar	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5

Supercritical Δ P > 0,5 · (1 + P_1)

P_1	bar	2	3	4	5	6	7	8	9	10	11	12	13	14
P_2 <	bar	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5

C

Compressed air, supercritical:
Δ P < 0,5 · (1 + P_1)

$$Q = K_v \cdot 514 \cdot 16{,}67 \cdot \sqrt{\frac{\Delta P \cdot P_{2\,abs}}{\gamma_L \cdot T}}$$

$Q = 448 \cdot K_v \cdot \sqrt{\Delta P \cdot (1 + P_2)}$ | **Q · 0,6** | **(l/min)**

Compressed air, supercritical:
Δ P > 0,5 · (1 + P_1)

$$Q = K_v \cdot 257 \cdot 16{,}67 \cdot \frac{P_{1\,abs}}{\sqrt{\gamma_L \cdot T}}$$

$Q = 224 \cdot K_v \cdot (1 + P_1)$ | **Q · 0,6** | **(l/min)**

Water:

$$Q = K_v \cdot 16{,}67 \cdot \sqrt{\frac{\Delta P}{\gamma_A}}$$

$Q = 16{,}67 \cdot K_v \cdot \sqrt{\Delta P}$ | **Q · 0,6** | **(l/min)**

D

Outlet tube for compressed air:
check of flow rate with respect to noise

$$Q = \upsilon_L \cdot F \cdot P_{2\,abs} \cdot 16{,}67 \cdot \frac{98{,}28}{T}$$

$Q = 560 \cdot F \cdot (1 + P_2)$ | **Q · 0,5** | **(l/min)**

Outlet tube for water:
check of flow rate with respect to noise

$$Q = \upsilon_A \cdot F \cdot 0{,}36 \cdot 16{,}67$$

$Q = 27 \cdot F$ | **Q · 0,6** | **(l/min)**

E

Cross section of orifices

G	⅛	¼	⅜	½	¾	1	1½	2	2½
F (cm^2)	0,08	0,31	0,71	1,27	2,85	5,06	11,4	20,2	31,5

EXAMPLE

Example ① Determine the compressed air flow of regulator R230-02B (K_v = 0,7 m^3/h)
supply pressure P_1 = 3 bar, outlet pressure P_2 = 2.5 bar
a) at P_1 = 3 bar and P_2 = 2.5 bar ⟶ subcritical pressure ratio
b) $Q = 448 \cdot K_v \cdot \sqrt{\Delta P\,(1 + P_2)}$ = $448 \cdot 0{,}7 \cdot \sqrt{0{,}5 \cdot (1 + 2{,}5)}$ = 415 l/min

Example ② As example ①, but supply pressure P_1 = 7 bar
a) at P_1 = 7 bar and P_2 = 2.5 bar ⟶ supercritical pressure ratio
b) $Q = 224 \cdot K_v \cdot (1 + P_1)$ = $224 \cdot 0{,}7 \cdot (1 + 7)$ = 1254 l/min

Example ③ Determine the water flow of regulator R25-02BK (K_v = 0,38 m^3/h)
supply pressure P_1 = 4 bar, outlet pressure P_2 = 2 bar, orifice G1/4 (0.31 cm^2)
a) $Q = 16{,}67 \cdot K_v \cdot \sqrt{\Delta P}$ = $16{,}67 \cdot 0{,}38 \cdot \sqrt{4 - 2}$ = 8,9 l/min
b) $Q = 27 \cdot F$ = $27 \cdot 0{,}31$ = 8,4 l/min
Calculation b) only for check. Recommended flow: 8.9 l / min · 0.6 = 5,3 l/min

* simplified formula at 20 °C / 68 °F, specific weight of water γ = 1 and compressed air = 1.25, at flow velocity of air of 100 m / s and of water 4.5 m / s

BOOSTER / AIR AMPLIFIER CALCULATION

PHYSICAL PARAMETERS

SHORT SYMBOL	DESCRIPTION	REMARKS	DIMENSION
P_1	Existing system pressure	minimum pressure	bar
P_2	required proof pressure	minimum pressure	bar
V_F	Volume of the device under test	including hose volume	l
t_z	Cycle time	period from one test to the next	s
t_F	Inflation time	period until required proof pressure is reached	s
i	Pressure transmission ratio, e.g. 1 : 4	system pressure: proof pressure	
Q_N	Required flow rate	for expanded compressed air (0 bar)	Nl/min
	Operation medium	e.g. compressed air or nitrogen	

CALCULATION FORMULAS

Flow rate of expanded compressed air: $Q_N = \frac{P_2 \cdot V_F}{t_F} \cdot 60$ (Nl/min)

Pressure transmission ratio: $i = \frac{P_2}{P_1}$

CALCULATION EXAMPLE

11 bar pressure is to be set up in a device under test of 0.2 l volume within 5 seconds. This procedure is repeated every 30 seconds. System pressure is 6 bar.

Specifications: $P_1 = 6$ bar $t_z = 20$ s $V_F = 0{,}2$ l
$P_2 = 11$ bar $t_F = 5$ s

1. Calculation of the required flow rate in Nl/min

$Q_N = \frac{P_2 \cdot V_F}{t_F} \cdot 60$ $Q_N = \frac{11 \cdot 0{,}2}{5} \cdot 60 = 26{,}4$ Nl/min

2. Calculation of the required pressure transmission ratio

$i = \frac{P_2}{P_1}$ $i = \frac{11 \text{ bar}}{6 \text{ bar}} = 1{,}8$ ⇨ 1 : 2 chosen from catalogue

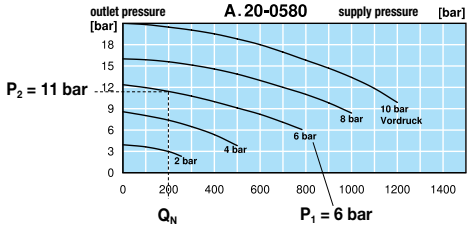
3. Examination of existing operation mode

Full load in continuous operation: max. 12 min/h ⇨ ratio 1 : 5

$\frac{t_F}{t_Z} = \frac{5 \text{ s}}{20 \text{ s}} = \frac{1}{4}$ ⇨ Full load in continuous operation, i.e. maximum 20% of the performance charts values may be realised.

$Q_N \cdot 5$ ⇨ 100% of indications of performance diagrams, 26,4 Nl/min · 5 = 132 Nl/min

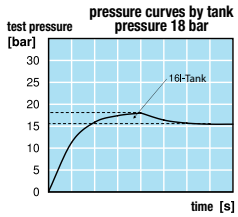
4. Booster selection on the basis of performance diagrams

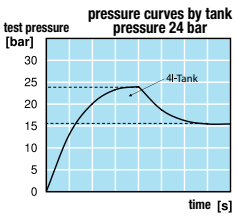


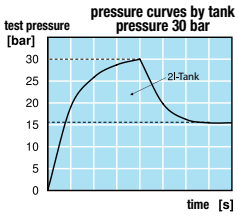
max. performance > required performance
200 Nl/min > 132 Nl/min

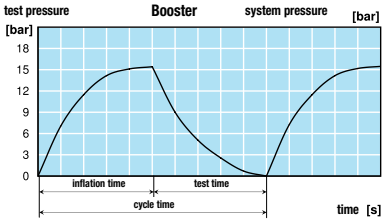
⇨ AM20-0580

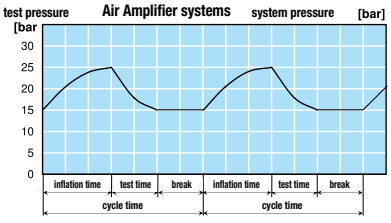
PRESSURE CURVES OF BOOSTERS / AIR AMPLIFIER SYSTEMS











RESULT:
The higher the tank pressure, the smaller the pressure tank may be and vice versa.

THE AIR AMPLIFIER SYSTEMS ARE INDIVIDUALLY ADAPTED TO YOUR DEMANDS BY AIRCOM.

VOLUME FLOW RATE CALCULATION

FLANGE CONNECTION ACCORDING TO DIN 477

Gas type	Inlet port		
flammable gases	W21.8x1/14	LH	union nut
carbon dioxide	1″	LH	union nut
nitrous oxide	G⅜		union nut
non-flammable gases	W21.8x1/14		union nut
testing gas	M19x1.5	LH	union nut
testing gas with CO	M19x1.5	LH	union nut
synthetic air	G¾		union nut
oxygen	G¾		union nut

Gas type	Inlet port		
ammonia	W21.8x1/14		union nut
testing gas with NH_3	M19x1.5	LH	union nut
hydrogen sulphide	1″	LH	union nut
hydrogen chloride	1″	LH	union nut
sulphur dioxide	G⅝		union nut
nitrogen	W24.32x1/14		union nut
compressed air	G⅝ male		

TEMPERATURE RANGES OF ELASTOMERS

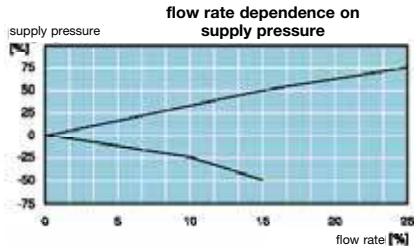
NBR/Buna N	Perbunan®,	nitrile,	-30 °C to 90 °C / - 22 °F to 194 °F	for air, water, hydraulic-machine-fuel oil, turpentine
FPM	FKM,	Viton®	-20 °C to 130 °C / - 4 °F to 266 °F	for gasoline, hydraulic fluids, HFA, HFB, HFD
EPDM			-40 °C to 120 °C / - 40 °F to 248 °F	for brake fluids, azetylene, ozone, hydrogen
PTFE	Teflon®		-200 °C to 200 °C / - 328 °F to 392 °F	
Silicone			-40 °C to 120 °C / - 40 °F to 248 °F	

INFLUENCE OF FILTER PORE SIZE ON FLOW RATE

Filter element	Flow rate
70 µm	110%
40 µm	100%
20 µm	90%

Filter element	Flow rate
5.0 µm	75%
0.3 µm	60%
0.01 µm	35%

INFLUENCE OF SUPPLY PRESSURE VARIATION ON FLOW RATE



THREADS / NOMINAL SIZE

Connection thread	Nominal size
G¼	DN10
G½	DN15
G¾	DN20
G1	DN25
G1¼	DN32
G1½	DN40
G2	DN50
G3	DN100

CONVERSION TABLES

Pa	bar	mbar	mWS	mmWS	Torr mmHg	at kp / cm²	atm	Inch H_2O	Inch Hg	PSI lpf / in²
1	10^{-5}	10^{-2}	$0{,}1020 \cdot 10^{-3}$	0,1020	$7{,}501 \cdot 10^{-3}$	$10{,}20 \cdot 10^{-6}$	$9{,}869 \cdot 10^{-6}$	$4{,}016 \cdot 10^{-3}$	$2{,}953 \cdot 10^{-4}$	$145{,}05 \cdot 10^{-6}$
10^5	**1**	10^3	10,20	$10{,}20 \cdot 10^3$	750,1	1,020	0,9869	401,6	29,53	14,505
100	10^{-3}	**1**	$10{,}20 \cdot 10^{-3}$	10,20	0,7501	$1{,}020 \cdot 10^{-3}$	$0{,}9869 \cdot 10^{-3}$	0,4016	$29{,}53 \cdot 10^{-3}$	$14{,}505 \cdot 10^{-3}$
9807	$98{,}07 \cdot 10^{-3}$	98,07	**1**	10^3	73,56	0,1	$96{,}78 \cdot 10^{-3}$	39,37	2,896	1,4224
9,807	$98{,}07 \cdot 10^{-6}$	$98{,}08 \cdot 10^{-3}$	10^{-3}	**1**	$73{,}56 \cdot 10^{-3}$	10^{-4}	$96{,}78 \cdot 10^{-6}$	0,03937	$2{,}896 \cdot 10^{-3}$	$1{,}4224 \cdot 10^{-3}$
133,32	$1{,}333 \cdot 10^{-3}$	1,333	$13{,}59 \cdot 10^{-3}$	13,59	**1**	$1{,}359 \cdot 10^{-3}$	$1{,}316 \cdot 10^{-3}$	0,5351	$3{,}937 \cdot 10^{-2}$	0,01934
$98{,}07 \cdot 10^3$	0,9807	980,7	10	10^4	735,6	**1**	0,9678	393,7	28,96	14,224
$1{,}013 \cdot 10^5$	1,013	1013	10,33	$10{,}33 \cdot 10^3$	760	1,033	**1**	406,7	29,92	14,68
249,1	$2{,}491 \cdot 10^{-3}$	2,491	$25{,}4 \cdot 10^{-3}$	25,4	1,8684	$2{,}54 \cdot 10^{-3}$	$2{,}458 \cdot 10^{-3}$	**1**	$7{,}355 \cdot 10^{-2}$	$36{,}126 \cdot 10^{-3}$
3386	$3{,}386 \cdot 10^{-2}$	33,86	0,3453	345,3	25,4	$3{,}453 \cdot 10^{-2}$	$3{,}342 \cdot 10^{-2}$	13,60	**1**	0,4912
6894,8	$6{,}8948 \cdot 10^{-2}$	68,948	0,7031	703,1	51,715	$70{,}31 \cdot 10^{-3}$	$68{,}04 \cdot 10^{-3}$	27,68	2,036	**1**

UMRECHNUNG AMERIKANISCHER UND ENGLISCHER MASSEINHEITEN IN SI-EINHEITEN

LENGHT

UNIT OF MEASUREMENT	US / UK-UNIT	SI-UNIT	CONVERSION FACTOR
1 inch = 40 lines	in	2,54 cm	0,393701
1 mil / thou	mil	25,4 µm	0,03937
1 line		0,635 mm	1,57480
1 foot = 12 in = 3 hands	ft	30,48 cm	0,0328084
1 yard = 3 feet = 4 spans	yd	0,9144 m	1,09361
1 furlong = 220 yd	fur	0,201168 km	4,97097
1 mile (Landmeile)	mi	1,60934 km	0,62137
1 nautical mile (internat.)	n mi, NM	1,852 km	0,539957
1 knot (Knoten)	kn	1,852 km / h	0,539957

AREA

1 square inch	sq in	6,4516 cm^2	0,155000
1 circular inch		5,0671 cm^2	0,197352
1 square foot = 144 sq in	sq ft	929,03 cm^2	$1{,}0764 \cdot 10^{-3}$
1 square yard = 9 sq ft	sq yd	0,83613 m^2	1,19599
1 square mile = 640 acres	sq mi	2,5900 km^2	0,38610

VOLUME

1 cubic inch	cu in	16,387 cm^3	0,061024
1 cubic foot = 1728 cu in	cu ft	28,317 dm^3	0,035315
1 cubic yard = 27 cu ft	cu yd	0,76455 m^3	1,30795
1 fluid ounce (GBr)	fl oz	0,028413 dm^3	35,1950
1 fluid once (USA)	fl oz	0,029574 dm^3	33,8138
1 pint = 4 gills (GBr)	(liq) pt	0,56826 dm^3	1,75975
1 pint = 4 gills (USA)	liq pt	0,47318 dm^3	2,11336
1 quart = 2 pints (GBr)	(liq) qt	0,13652 dm^3	0,87988
1 quart = 2 pints (USA)	liq qt	0,94636 dm^3	1,05668
1 quarter = 64 gal		290,950 dm^3	0,0034370
1 gallon = 2 pottles (GBr)	gal	4,54609 dm^3	0,219969
1 gallon (USA)	gal	3,78543 dm^3	0,264170
1 dry barrel		115,628 dm^3	0,0086484

FORCE

EINHEIT	EINHEITEN-ZEICHEN	SI-EINHEITEN	UMRECHNUNGS-FAKTOR
1 pound-weight	lb wt	4,448221 N	0,2248089
1 pound-force	LB lbf	4,448221 N	0,2248089
1 poundal	pdl	0,138255 N	7,23301
1 kilogramme-force	kgf, kgp	9,80665	0,1019716

PRESSURE (FORCE / AREA)

1 pound-weight	lb wt / sq in	6,8948 kN / m^2	0,145038
1 pound-weight	lb wt / sq ft	47,880 N / m^2	0,0208854
1 kilogramme-force / sq in	kgf / sq in	1,52003 N / m^2	0,657880
1 foot of water	ft H_2O	0,029891 bar	33,455
1 inch of Hg	in Hg	0,033864 bar	29,530

ENERGY AND POWER

1 foot pound-weight	ft lb wt	1,355821 J	0,737561
1 foot pound-force	ft Lb, ft lbf	1,355817 J	0,737563
1 foot-poundal	ft pdl	0,0421401 J	23,7304
1 horse-power hour	hph, H Phr	2,6845 MJ	0,37251
	h. p. hr.	0,74570 kWh	1,34102

WEIGHT

1 grain	gr	64,7989 mg	0,0154324
1 dram	dr	1,77185 g	0,564383
1 ounce = 16 drams	oz	28,3495 g	0,0352739
1 pound = 16 oz	lb	0,453592 kg	2,204622
1 quarter = 28 lb (lbs)		12,7006 kg	0,078737
1 hundredweight = 112 lb	cwt	50,8024 kg	0,0196841

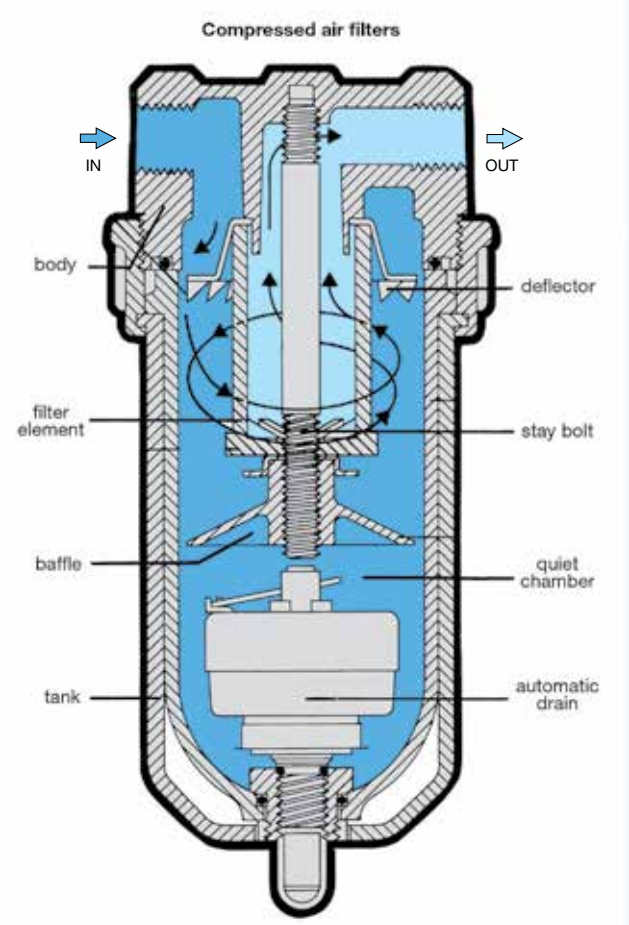
FUNCTION OF COMPRESSED AIR FILTERS

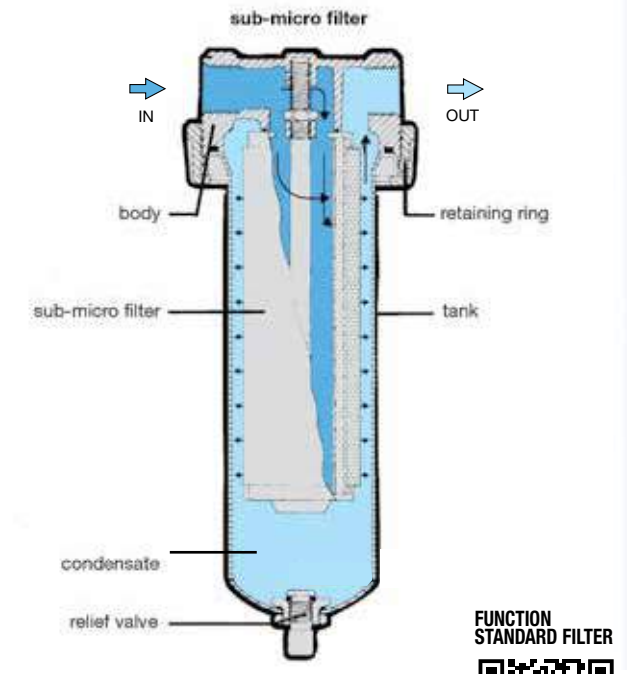
Filtration
The average 10 HP compressor handles four million cubic inches of air per hour. This air can contain billions of contaminating particles.
At high concentration and high speed, these particles can be extremely harmful. They block orifices, erode components, and clog clearances between moving parts. In addition, when ambient air is drawn into a compressor, it can, depending on weather conditions, have relative humidity of 100 percent. As air is compressed and cooled, some water vapour condenses out as free water, but even with a compressor aftercooler, some moisture is swept downstream into the air system. This may result in rusted pneumatic tools and components, contaminated lubricants and frozen air lines during low temperature periods. Other types of foreign matter in air lines include: impurities generated within the air line, such as wear particles, pipe scale and rust; construction and assembly debris; and contaminants introduced into the air system during maintenance or through leakage passages. All these contaminants, which are of a size to cause air system problems, should be removed by a filter.

Filter Construction
Most pneumatic filters consist of two basic elements: a die-cast body, into which the inlet and outlet piping is connected, and a sealed removable bowl which contains collected contaminants. The bowl is fitted with a drain mechanism to remove liquids before they rise to the baffle level. The drain system usually operates while the filter is under pressure, but the unit must be exhausted to remove the bowl for cleaning and element service. The piping need not be disturbed. Generally a transparent bowl is the most convenient because it provides easy visual inspection of the sump level. However, hostile environment, higher pressure, or higher temperature may require a metal bowl for safety. The most common plastic used for bowls is polycarbonate. This material performs satisfactorily for air pressures below 10 bar / 150 psig and temperatures between 4 °C / 40 °F and 50 °C / 120 °F, but polycarbonate can be attacked by several chemicals. AirCom offers both polyethylene and metal bowl guards for added safety. As the pressure or temperature requirement increases, you may have to specify a metal bowl with sight glass. For extreme conditions, it is recommended that the sight glass be eliminated. (Please refer to the individual model descriptions for specifications on bowls.) Thus, the environment determines the choice of bowl. Polycarbonates offer great strength and visibility, but can be attacked by certain chemicals. Metal bowls offer the highest pressure and temperature rating, and provide superior protection when installed in an environment containing chemicals that are incompatible with polycarbonate.

Filter Operation
Air filters:
When pressurized air enters a typical body, the curved inlet and deflector direct the incoming air in a downward whirling pattern. Centrifugal force hurls the larger solid and liquid water particles outward where they collect on the inner surface of the filter bowl. The particles spiral down past a baffle into a quiet chamber. The baffle prevents turbulent air in the upper bowl from reentraining liquid contaminants and carrying them downstream. Then the dry, cleaner air follows a convoluted path through the filter element, where finer solid particles are filtered out. Finally, filtered air passes up the centre of the element and out the discharge port.

Coalescing filters:
These high-efficiency filters operate on a somewhat different principle than air filters. The key difference is in the element, where a fibre network is narrowly spaced to trap smaller contaminants. The special fibres hold any liquid particle which contacts them. Prefiltered air enters the cylindrical element at the centre. As it flows through the element, particles are captured by three different mechanisms: direct interception as particles impinge on the fibres; inertial impactions as particles are thrown against fibres by the turbulent air stream; and diffusion as smaller particles vibrate with Brownian motion to collide with fibres and other particles. As a result, coalescing elements can capture particles smaller than the nominal size of the flow passages through the element. Collected liquid migrates to the crossing points of the fibres, where larger drops form or coalesce. Pressure differential through the element then forces these drops to the downstream surface of the element where they gravitate downward to the sump.The filtered air then exits through the outlet port.





FUNCTION STANDARD FILTER

Compressed air filters: see Chapter 16

FUNCTION OF PRESSURE REGULATORS AND VOLUME BOOSTERS

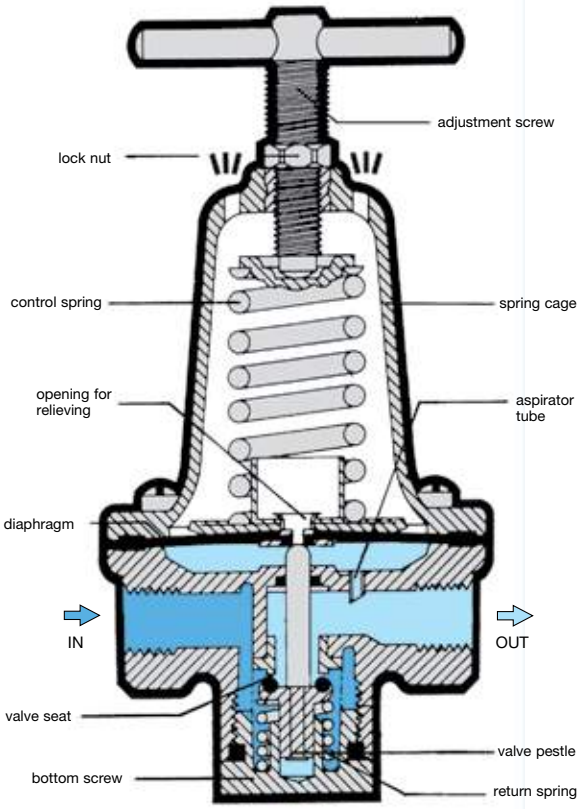
Regulator Operation
In a typical regulator, a poppet sets the size of an orifice which connects the inlet port to the outlet port. The sensing element, often a diaphragm or piston mechanically linked to the poppet, reacts to downstream pressure and a reference force to position the poppet. The reference can be a spring or an air pilot chamber. The valve is normally open. High pressure air enters and flows through the orifice towards the outlet. Downstream pressure is connected through an aspirator tube to the bottom of the diaphragm. As downstream pressure increases, the diaphragm is forced upwards, compressing the adjustment spring. When the diaphragm moves, the poppet spring pushes the poppet disc upwards to throttle the orifice. If downstream pressure exhausts, the mechanical sequence reverses and the poppet disc opens the orifice until the set pressure is reached again. Downstream-generated high pres sure, for example, from high temperatures or heavy vertical loads on cylinders, is reduced by a self-relieving feature built into the regulator. The poppet stem normally blocks a relieving orifice in the centre of the diaphragm: If excessive pressure lifts the diaphragm off the stem, air bleeds through the orifice and out of the bonnet vent until the system returns to the set pressure.

Regulation
An air regulator is a specialised control valve. It reduces the upstream supply pressure level to a specified constant downstream pressure, regardless of variations in the upstream pressure or changes in flow through the regulator.
Pneumatic equipment that is operated at higher-than- recommended pressure wastes the energy for generating that pressure. This creates a potential safety hazard and probably causes premature wear. Operating below specified pressure can cause the machine to fail to meet design performance specifi cations. Therefore, precise air pressure control is essential for efficient operation or air-powered equipment.

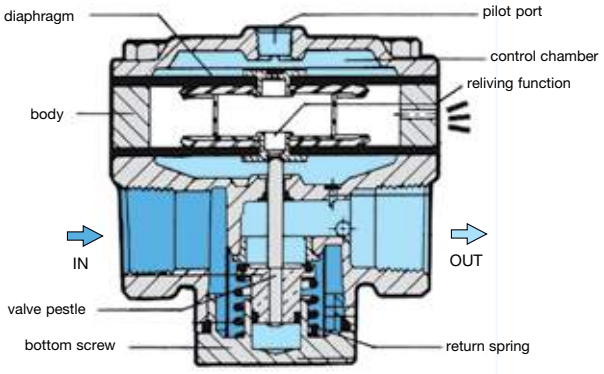
Regulator Construction
Regulators are generally constructed using a die-cast metal body. Other external parts, such as the spring cage and bottom plug, may be either metal or plastic. All-metal construction offers more durability in tough applications where abuse is likely to occur, while plastic constructions are lower in cost. For normal industrial applications, temperature ranges of 4 °C / 40 °F to 50 °F / 120 °F and supply pressure to 20 bar / 300 psi, either construction will serve well. Lightweight diaphragm sensors offer quick response and high sensitivity to air pressure changes. Piston sensors are somewhat slower but may be more durable. Where downstream pressure requirements change rapidly enough to cause regulator chatter, slower response may be an advan tage. If the self-relieving feature is not needed for an appli cation, simpler non-relieving regulators are available. For regulators with an adjustment spring, a T-handle, knob or plunger provides the external link to the spring on various models. Locking and tamper-proof arrangements are offered, as well as factory-set regulators with no external adjustment.

Volume Booster
Pilot-operated regulators substitute air pressure in the chamber above the sensor to provide the reference force. Remote adjustment through a separate pilot regulator is thus possible or the pilot signal can be fed back from a downstream location for precise control.
The balanced poppet design exposes both sides of the poppet to essentially the same pressure. This eliminates much of the effect that changes in inlet pressure might have on poppet position and orifice opening.
A small constant bleed passage through the diaphragm or piston prevents the poppet from sitting tightly and improves response.

Pressure regulator with manual adjustment



Remote-controlled pressure regulator, volume booster, pilot pressure minderer



Control of a remote-controlled controller with external feedback



FUNCTION VOLUME BOOSTER

pressure regulator: **see Chapter 1 to 5**
Volume booster: **see Chapter 6**

FUNCTION OF FILTER REGULATORS

What is a Filter Regulator?
Filter regulators offer economy of space, performance and price. These space-saving designs give you the same basic features as the individual filter and regulator models.

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In a typical regulator, a poppet sets the size of an orifice which connects the inlet port to the outlet port. The sensing element, often a diaphragm or piston mechanically linked to the poppet, reacts to downstream pressure and a reference force to position the poppet. The reference can be a spring or an air pilot chamber. The valve is normally open. High pressure air enters and flows through the orifice towards the outlet. Downstream pressure is connected through an aspirator tube to the bottom of the diaphragm. As downstream pressure increases, the diaphragm is forced upwards, compressing the adjustment spring. When the diaphragm moves, the poppet spring pushes the poppet disc upwards to throttle the orifice. If downstream pressure exhausts, the mechanical sequence reverses and the poppet disc opens the orifice until the set pressure is reached again. Downstream-generated high pressure, for example, from high temperatures or heavy vertical loads on cylinders, is reduced by a self-relieving feature built into the regulator. The poppet stem normally blocks a relieving orifice in the centre of the diaphragm: If excessive pressure lifts the diaphragm off the stem, air bleeds through the orifice and out of the bonnet vent until the system returns to the set pressure.

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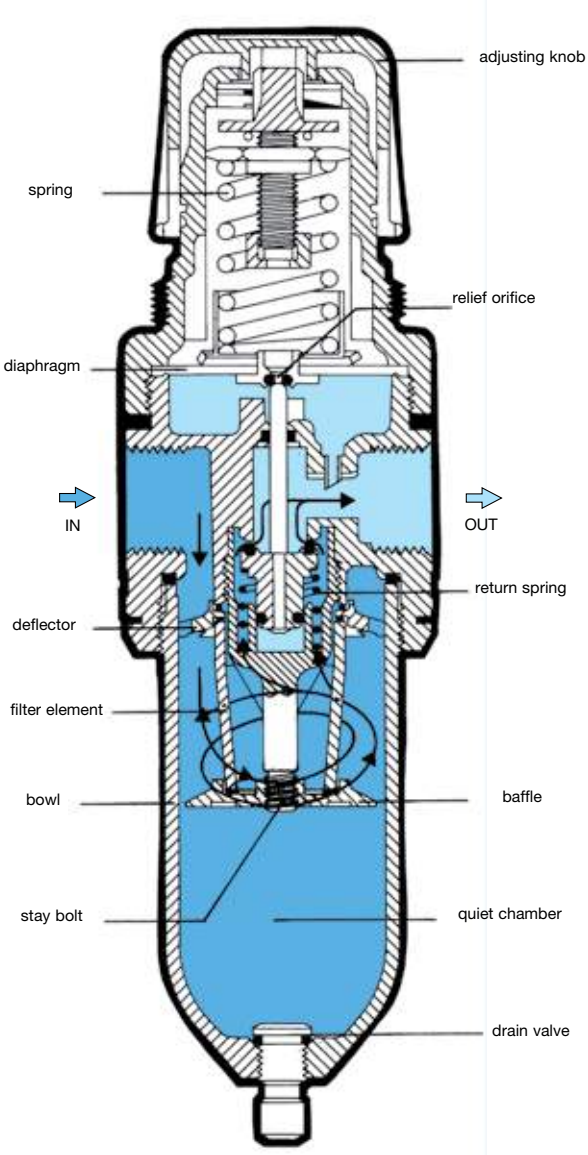


FUNCTION FILTER PRESSURE REGULATOR

Filter regulators: see chapter 17

FUNCTION OF COMPRESSED AIR LUBRICATORS

Lubrication
Many pneumatic system components and most pneumatic tools require oil lubrication for proper operation and long service life. This lubricant is typically carried by air stream. Too little oil can cause excessive wear and premature failure. Too much oil is wasteful and can become a contaminant, particularly when carried over with the air exhaust. Intermittent lubrication may be the worst situation because the oil film can dry out to form sludges and varnishes on internal surfaces.

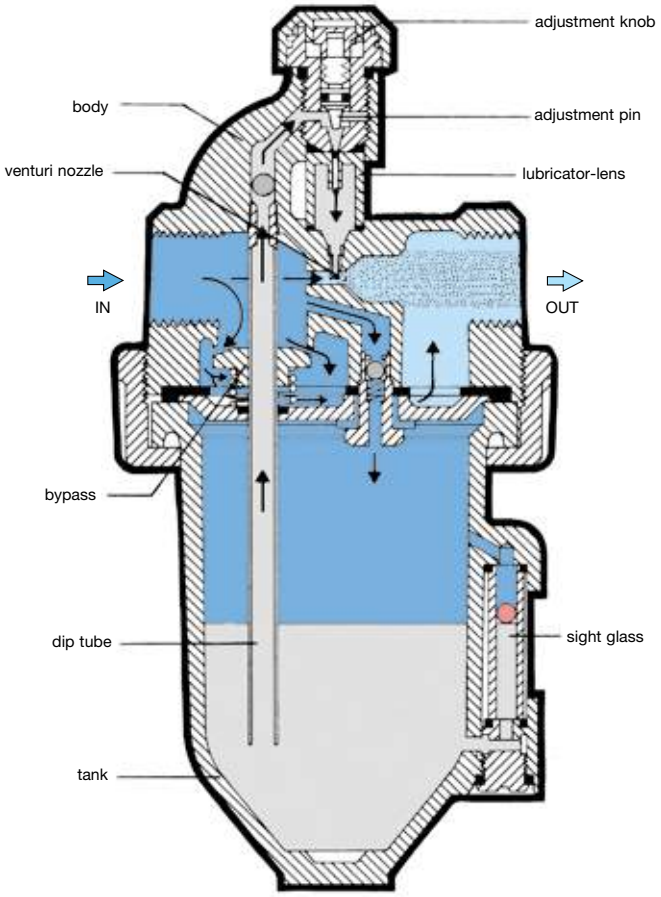
Air line lubricators meter oil from a reservoir into the moving air stream. In general terminology, the oil droplets are usually termed a fog. For best results, the lubricator should be located as close as possible to the point where lubrication is required.

Lubricator Construction
Bowls are available in polycarbonate and metal, subject to the same constraints discussed in the filter section. Transparent polycarbonate simplifies inspection of the oil level and checking for dirt and liquid condensate in the oil. Note that the system must be exhausted before removing the bowl. In some models, the system must also be exhausted before opening the fill plug to recharge the lubricator. Other designs automatically bypass the air during refilling.

Lubricator Operation
Most lubricator designs include a high-velocity venture section in the air flow path which creates a low-pressure area to draw oil from the reservoir through the capillary tube to the point of injection. There, the air stream breaks up the oil into droplets. In a typical lubricator (see figure), filtered and regulated air enters the lubricator housing and is channelled in either of two directions depending on the flow rate. At low flow rates, all the air passes through the venture where it mixes with metered oil
droplets. Under higher flow conditions, the spring-loaded bypass valve opens and the excess flow bypasses the venture, then blends with the lubricated air at a downstream point. A manual adjustment of the needle valve in the housing sets the oil drip-rate into the air stream; a sight glass allows that rate to be monitored. Fill plugs at the lubricator top provide access to refill the reservoir with oil. The bowl is removable for cleaning.

How to Select the Proper Lubricator
Use of the proper lubricator can greatly extend the life of expensive downstream pneumatic equipment. Lubricators often are selected according to pipe size. Other selection factors are type of bowl material, bowl size and refilling system capability. Bowls are available in both polycarbonate and metal. Polycarbonate offers the advantage of transparency, for simplified inspection of oil level and condition. However, caution must be exercised when using polycarbonate bowls in any area where certain chemicals are used.

In addition to choice of bowls, minimum and maximum flow rates and pressure requirements should also be considered. Be sure to check the pressure drop curves, to make certain the selected model will not create a higher pressure drop than the system design can tolerate.



VISIT US ON YOUTUBE

Lubricators: see chapter 18

CERTIFICATIONS | DOCUMENTATION | SERVICE FEATURES

CERTIFICATE ACCORDING TO EN10204

Certificate	2.1	25,00 €
Certificate	2.2	25,00 €
Certificate for Material	3.1	50,00 €
Certificate for Material	for RUG	130,00 €

SINGLE DEVICE TEST CERTIFICATE

Single device test certificate with document	on request

TEST CHART, CALIBRATION

Test chart	charged per measuring point	25,00 €
Calibration chart	charged per measuring point	30,00 €

DOCUMENTATION

Extra copy	10,00 €

SERVICE INCLUDING HOUR OF TRAVEL AND WAITING

Man hour	**service technician**	55,00 €
	engineer	90,00 €

PRESSURE REGULATOR – QUICK FINDER

1 MINIATURE PRESSURE REGULATORS
2 STANDARD PRESSURE REGULATORS
3 LOW PRESSURE REGULATORS
4 HIGH PRESSURE REGULATORS
5 DIFFERENTIAL PRESSURE REGULATORS
6 VACUUM PRESSURE REGULATORS
7 PRECISION PRESSURE REGULATORS
8 PRESSURE REGULATORS FOR WATER
9 BACK PRESSURE REGULATORS
10 VOLUME BOOSTER
11 WITH MECHANICALLY FEATURES
12 WITH PNEUMATICALLY FEATURES
13 WITH SPECIAL MATERIALS
14 FOR EXTREMELY TEMPERATURES
15 FOR SPECIAL MEDIA
16 FOR SPECIAL BRANCHES

PRESSURE REGULATORS	SPECIAL FEATURES	PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE
1	24 x 14, factory-set, Cartridge	2 to 6 bar	G¼	233	1.02
	17 x 25, factory-set, extremely small	2 to 10 bar	G¼	R13	1.03
	34 x 52, factory-set, extremely small	1 to 8 bar	G¼	231	1.05
	34 x 52, factory-set, extremely small	1 to 8 bar	G¼	239	1.04
	19 x 54, factory-set, extremely small, with exhaust	2 to 8 bar	G¼ - G¾	232	1.06
	22 x 77, adjustable, extremely small	1 to 3 bar	G¼	R33	www*
	18 x 61, FKM, EPDM	0.2 - 1.4 / 7 bar	10-32˝, M5, ⅛˝NPT	MAR	1.08
	19 x 40, adjustable, extremely small	0.2 - 2.0 / 8 bar	M5	RR-M5	1.07
	29 x 29, precision regulator, light-weight	0.03 - 0.2 / 6 bar	10-32˝, flange	R900	1.09
	29 x 40, precision regulator, light-weight	0.03 - 0.2 / 6 bar	⅛˝NPT	R800	1.09
	32 x 35, precision regulator, light-weight	0.01 - 0.7 / 7 bar	flange R6	R6	1.12
	32 x 35, interlocking	0.01 - 0.7 / 7 bar	M5, G⅛, G¼, SS	R7	1.13
	40 x 40, made of plastic, also for water	0 - 1.0 / 9 bar	G⅛ and G¼	R25	9.02
	52 x 52, made of plastic, also for water	0 - 1.8 / 9 bar	G¼ and G⅜	R45	9.02
	40 x 42, acetal, also for drinking water	0.1 - 3.5 /8.5 bar	G¼, ¼ ˝NPT	R91	www*
	40 x 40, precision regulator, pressure compensated	0.2 - 2.0 / 9 bar	flange	R342	1.14
	40 x 40, precision regulator, without constant bleed	0.2 - 2.0 / 9 bar	G⅛ and G¼	R344	1.14
	35 x 76, made of brass, also for water	0.1 - 1 /11 bar	G⅛ and G¼	R364	1.15
	35 x 76, made of aluminium	0.1 - 1 /11 bar	G⅛ and G¼	R374	1.15
	precision regulator, pressure compensated	0.1 - 3.0 / 6 bar	G⅛	R309	1.16
	P1:25 bar, pressure compensated	0.1 - 3.0 /16 bar	G⅛ and G¼	R310	1.16
	FDA, pressure compensated	0.1 - 1.0 /12 bar	G⅛ and G¼	R037	1.17
	with increased accuracy, pressure compensated	0.1 - 1.0 /12 bar	G⅛ and G¼	R039	1.11
	precision regulator, pressure compensated	0.1 - 1.0 /12 bar	G⅛ and G¼	R039-F	1.11
	precision regulator, also for O_2	0.2 - 2.5 / 8 bar	G⅛	R307	1.18
	precision regulator, also for O_2	0 - 0.25 /8 bar	flange	R308	1.19
	precision regulator, very accurate	0.05 - 2.0 / 8 bar	G⅛	RI	5.02
	precision regulator, very accurate	0 - 0.35 /7 bar	M5, flange	RT	1.10
	Cartridge, 260 l/min	1 - 8 bar	Cartridge	RC	1.20
2	for air or water	0 - 4.0 /12 bar	G⅛ - G1	R035 ... R095	2.03
	with FKM also	0.2 - 1.8 /17 bar	G¼ - G½	R10 / R11	2.05
	with external feedback	0.2 - 7 bar	G¼	R218	2.04
up to 30 bar	interlocking	0.2 - 1.8 /17 bar	G¼ - G1	R20 / R21	2.02
	very robust	0.2 - 1.8 /17 bar	G¼ - G3	R119	2.06
	zinc diecasting	0.2 - 1.5 /15 bar	G⅛ - G2	RD1 ... RD4	2.08
	adjustment dial pressure regulator, pre-controlled	0 - 3.0 /11 bar	G¼ - G2	R11 ... R41	2.12
	with joint supply	0.1 - 3.0 /16 bar	G⅛ - G½	RB / R035	2.10
	lockable	0,1 - 3,0 /16 bar	G⅛ - G1	RS	2.11
3	factory-set	50 mbar	G¼ - G½	R01	3.02
	miniature	25 - 50 /1400 mbar	G¼ - G⅜	R01-5/-6	3.03
	miniature	20 -150/ 500 mbar	G½ and G¾	R01-2/-4	3.03
	P1: 0.4 bar	2 - 16 / 100 mbar	G½ - G2	RGDJ	3.04
	P1: 4 bar	5 - 12 / 350 mbar	G½ - G1½	RGB4	3.05
from 2 mbar on	P1: 6 bar, for many gases	5 - 45 /3000 mbar	G½ - G2	R160	3.06
	P1: 20 bar	10 - 18 /4400 mbar	G1 - G1½, DN50	RZ	3.08
	precision pressure regulator, relieving	2 - 45 / 350 mbar	G⅜ - G¾	R4100	3.09
	precision pressure regulator, relieving	2 - 35 / 800 mbar	G¼ - G½	R110	5.15
	precision pressure regulator, for pure gases 5.0	5 - 50 /1500 mbar	G½	RR	3.10
	stainless steel	5 - 45 /7000 mbar	G½ - G2	R3100	15.12
	booster P1: max. 0,4 bar	2 - 55 / 160 mbar	G½ - G2	RGDJ-J	6.13
	booster P1: max. 4 bar	5 - 350 mbar	G½ - G1½	RGB4-J	6.13
	booster P1: max. 20 bar	10 -350/1000 mbar	G1 - G2	RZ-J	6.10

*** visit our webshop: www.aircom.net**

PRESSURE REGULATOR – QUICK FINDER

PRESSURE REGULATORS	SPECIAL FEATURES		PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE
4	for water and oxygen also	Kv: 0.3 - 25.6	40 / 0.2 - 3.0 / 35 bar	G¼ - G2	R280	4.02
	for many gases	Kv: 0.2 - 70	50 / 0.1 - 1.5 / 50 bar	G¼ - G2, DN100	R120	4.04
	for water and oxygen also	Kv: 1.3 - 3.2	60 / 0.5 - 12 / 50 bar	G¼ - G1	R286	4.08
	cylinder pressure regulator		100 / 0 - 10 / 60 bar	G¼ - G½	RH-147	4.14
	cylinder pressure regulator		200 / 0 - 10 / 60 bar	G¼ - G½	RH-247	4.14
	cylinder pressure regulator		200 / 0 - 1.5 / 40 bar	different	RH201/RH202	4.12
	great nominal size	Kv: 0.9	207 / 0.2 - 1.7 / 14 bar	⅜"NPT and ½"NPT	RH2	4.16
	for many gases	Kv: 0.05 - 3.5	200 / 0.1 - 1.5 / 200 bar	G¼ - G1¼	RH10	4.10
	made of stainless steel	Kv: 0.05 - 3.5	200 / 1 - 8.0 / 200 bar	G¼ - G1¼	RH3000	15.16
	for many gases	Kv: 0.02	207 / 0.1 - 3.5 / 12 bar	¼"NPT	RH83	4.09
	miniature	Kv: 0.05	241 / 0.2 - 2.0 / 7 bar	¼"NPT	RH0	4.15
	great nominal size	Kv: 1.7	260 / 0.7 - 21 / 104 bar	½"NPT u. ¾"NPT	RH3	4.19
	many pressure ranges	Kv: 0.05	300 / 0.1 - 1.7 / 35 bar	¼"NPT	HP500	4.18
	cylinder pressure regulator		300 / 0 - 1.5 / 40 bar	different	RH300	4.13
up to 690 bar	cylinder pressure regulator		300 / 0 - 10 / 60 bar	G¼ - G½	RH-347	4.14
	very robust	Kv: 0.13	380 / 0.3 - 2.0 / 35 bar	¼"NPT	RHB	www*
	made of stainless steel		380 / 0.3 - 2.0 / 15 bar	¼"NPT	RHB-S	www*
	miniature	Kv: 0.05	414 / 0.5 - 5 / 124 bar	¼"NPT	RH1	4.15
	many pressure ranges	Kv: 0.05	414 / 0.3 - 35 / 414 bar	¼"NPT	HP300	4.17
	Messing	Kv: 0,05	0,7 ...104 / 172 bar	¼ "NPT	HP306	4.21
	stainless steel also	Kv: 0.05	414 / 0.7 - 104 / 172 bar	¼"NPT	HP400	4.17
	made of brass	Kv: 0.03	414 / 0 - 14 / 28 bar	⅜ "NPT - ½"NPT	RH4	4.20
	stainless steel	Kv: 0.05	690 / 0.3 - 35 / 414 bar	¼"NPT	HP300-S	4.17
	booster		50 / 1 - 15 bar	G¼ - G1	R120-J2	6.17
	booster		50 / 1 - 50 bar	G¼ - G2	R120-J5	6.17
	booster, stainless steel,	Kv: 2.9	100 / 0.1 - 24 / 99 bar	G1	RLE	6.16
	booster, brass	Kv: 2.9	100 / 0.1 - 24 / 99 bar	G1	RLM	6.16
	booster, 1:2 - 1:19,	Kv: 1.7	260 / 3 - 42 / 104 bar	½"NPT	RH3-J	6.14
	booster	Kv: 0.3	414 / 0 - 41 bar	⅜"NPT and ½"NPT	RH4-J	4.20
	differential pressure regulator		414 / 0 - 1 / 24 bar	½"NPT and ¾"NPT	RH44	4.22
5	precision regulator, without constant bleed		0 - 1 / 10 bar	G¼ u. G⅜	R650	6.04
	with inlet pressure 0 - 1 bar		0.05 - 10 bar	G¼ - G½	R03-J1	6.07
	with inlet pressure 0 - 6 bar		0.05 - 10 bar	G¼ - G½	R03-J6	6.07
	high-, differential pressure regulator 0 - 1/24 bar		414/0 - 1/24 bar	½"NPT and ¾"NPT	RH44	4.22
6	22 l/min		0.15 - 1 bar_{abs}	⅛"NPT	V800	7.02
	22 l/min		0.15 - 1 bar_{abs}	10-32", flange	V900	7.02
	70 l/min		0 - 1.14 / 11 bar_{abs}	G¼	R250	7.03
	330 l/min		0.01 - 1 bar_{abs}	G¼ - G½	V170	7.04
	800 l/min		0 - 1.07 / 11 bar_{abs}	G½ and G¾	R251	7.05
	60 - 1100 l/min, vacuum adjustment valve		0.01 - 0,7 bar_{abs}	G⅛ - G1	V04	7.06
	260 - 700 l/min, vacuum adjustment valve		0.01 - 1 bar_{abs}	G¼ - G1	V05	7.06
7	pressure compensated, miniature		0.2 - 2.0 / 9 bar	G⅛ and G¼	R344	www*
	pressure compensated, miniature		0.2 - 2 / 9 bar	flange	R342	www*
	pressure compensated, miniature		0.2 - 2.5 / 8 bar	G⅛	R307	1.16
	pressure compensated, miniature		0.1 - 3 / 6 bar	G⅛	R309	1.14
without constant bleed	pressure compensated, miniature		0.2 - 2.5 / 8 bar	flange	R308	1.17
	pressure compensated, miniature		0.1 - 1.0 / 12 bar	G⅛ and G¼	R039-FK	1.13
	robust		0.01 - 0.6 / 3.5 bar	G¼ and G⅜	R216	5.05
	robust		0.01 - 1 / 16 bar	G¼	R217	5.12
	non-relieving		0.01 - 0.14/ 28 bar	G¼ - G½	102..-N	5.07
	non-relieving		0.01 - 0.14/ 10 bar	G¼ - G½	R230-K	5.06
	recommended for mbar-range		0.001 - 0.14/ 14 bar	G¼ - G⅜	R300-K	5.08
	also differential pressure regulator		0 - 1 / 10 bar	G¼ and G⅜	R650	6.04
	good flow		0.03 - 0.7 / 10 bar	G¼ - G⅜	R100	5.09
	good flow, high-precision		0.03 - 0.7 / 17 bar	G⅜ - G¾	R400	5.15
	low pressure regulator, very precise		0.005 - 0.05/ 1.5 bar	G½	RR	3.10
	low pressure regulator, high-precision		0.002 - 0.045/0.35 bar	G⅜ - G¾	R4100	3.09
with constant bleed	miniature, interlocking		0.01 - 0.7 / 7 bar	flange	R6	1.10
	many variations	mini	0.01 - 0.7 / 7 bar	M5, G⅛, G¼, SS	R7	1.11
	small and light-weight	mini	0.03 - 0.2 / 7 bar	10-32", flange	R900	1.09
	small and light-weight	mini	0.01 - 0.2 / 7 bar	⅛"NPT	R800	1.09
	high accuracy,	mini	0 - 0.35/ 7 bar	M5, flange	RT	www*
	high accuracy,	mini	0.05 - 2 / 8 bar	G⅛, flange	R90	5.03
	high accuracy,	mini	0.05 - 2 / 8 bar	G⅛	RI	www*
Precision Pressure	pressure compensated,	mini	0.1 - 1 / 12 bar	G⅛ and G¼	R039	1.13
	pressure compensated,	mini	0.1 - 1 / 12 bar	G⅛ and G¼	R039-F	1.13
with constant bleed	proven		0.020 - 0.5 / 10 bar	G¼	11-818	5.06
	high accuracy, wide control range		0.002 - 0.12/ 31 bar	¼" NPT	R40	www*
	high accuracy,	proven	0.140 - 1.7 / 8 bar	G¼, ¼NPT	53.10	5.04
	low-cost		0.010 - 0.14/ 10 bar	G¼ - G½	R230	5.09

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PRESSURE REGULATORS	SPECIAL FEATURES		PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE
Regulator (continuation)	2-stage		0,14 ... 2,7 / 8,2 bar	¼˝NPT - ¾˝NPT	R700	5.13
	guter Flow, hochgenau		0,03 - 1,15/ 14 bar	¼˝NPT - ¾˝NPT	R410	5.14
	good exhaust		0.010- 0.14/ 28 bar	G¼ - G½	102..	5.07
	preiswert		0,010- 0,14/ 10 bar	G¼ - G½	R230	5.06
	recommended for mbar-range		0.001- 0.14/ 7 bar	G¼ - G⅜	R300	5.08
	low pressure		0.35 /800 bar	G¼ - G½	R110	5.11
	robust		0.010- 3 / 10 bar	G¼ - G½	R03	5.10
8	high volume flow rate		0.001- 0.7 / 10 bar	G1 - G1½	R102	5.16
	factory-set,	also for water	1 / 2 / 3 /... 8 bar	G¼	239A	1.06
	factory-set,	also for drinking water	1 / 2 / 3 /... 8 bar	G¼	239K	9.03
miniature	extremely small		0 - 2 / 8 bar	M5	RR-K	1.08
	diameter	18 mm	0 - 1 / 7 bar	M5 / ⅛˝NPT	MAR	www*
	azetal,	40 x 40	0 - 1 / 9 bar	G⅛ and G¼	R25	9.02
	brass,	35 x 35	0 - 1 / 11 bar	G⅛ and G¼	R364	1.15
	POM,	40 x 40, also deionized water	0 - 1 / 12 bar	G⅛ and G¼	R037	1.12
	brass,	40 x 40, also for brake fluids	0 - 3 / 16 bar	G⅛ and G¼	R310	1.14
	plastic,	40 x 40, with increased accuracy	0 - 1 / 12 bar	G⅛ and G¼	R039	1.13
	plastic,	40 x 40, with high precision	0 - 1 / 12 bar	G⅛ and G¼	R039-F	1.13
	azetal,	40 x 42, for drinking/deionized water	0 - 3 / 8 bar	G¼	R91-K	www*
standard	plastic,	block design	0 - 4 / 12 bar	G⅛ - G1	R035...R095	2.03
	brass	P1 max. 40 bar	0 - 3 / 35 bar	G¼ - G2	R280	4.02
	brass	P1 max. 60 bar	0 - 12 / 50 bar	G¼ - G1	R286	4.08
	brass	P1 max. 50 bar, up to DN100	0 - 1 / 50 bar	G¼ - G2	R120	4.04
	brass	P1 max. 60 bar	0 - 2 / 45 bar	G¼ - G2	RWI	9.04
	brass	P1 max. 25 bar, with male thread	0 - 2 / 20 bar	R⅜˝ - R2½˝	RWA	9.06
	brass	P1 max. 40 bar, with flange	0 - 2 / 20 bar	DN8 - DN125	RWF	9.08
pilot-operated	brass	P1 max. 21 bar, miniature	0 - 1 / 11 bar	G⅛ - G¼	R364-J	www*
	brass	P1 max. 50 bar, diaphragm/piston	0 - 15 / 50 bar	G¼ - G2	R120-J	6.17
	brass	P1 max. 140 bar, piston	0 - 24 / 99 bar	G1	RLM	6.16
9	with male thread, very small		1 - 2 / 14 bar	G⅛	59	8.14
	with male thread, tapped exhaust		0 - 3 / 7 bar	G¼	130	8.14
miniature	brass,	tapped exhaust	0 - 1 / 7 bar	G¼	134	8.14
standard	aluminium	P1 max. 30 bar	0 - 1 /15 bar	G⅛ - G2	DBC	8.02
	brass		0 - 0.1 /50 bar	G⅛˝ - G2	DBM	8.04
precise	aluminium	P1 max. 35 bar	0 - 0.1 /28 bar	G¼ - G½	10BP	8.06
	aluminium	P1 max. 17 bar	0 - 0.1 /10 bar	G¼ - ½˝NPT	DB240	8.07
	aluminium	P1 max. 17 bar	0 - 0.1 /10 bar	G⅜ - G¾	DB400	8.09
	aluminium	P1 max. 10 bar	0 - 0.1 / 7 bar	G¼ and G⅜	DB300	8.10
low pressure	aluminium	P1 max. 10 bar	0 - 35 / 800 mbar	G¼ - G½	DB110	8.08
	aluminium	P1 max. 6 bar	0 - 45 / 3000 mbar	G½ - G2	DBC	8.11
pilot-operated	aluminium	P1 max. 17 bar, precise	0 - 10 bar	G¼ - G½	DB208	8.12
	aluminium	P1 max. 17 bar, precise	0 - 10 bar	G⅜ - G¾	DB450	8.13
10	miniature,	also for water	0 - 6 bar	G⅛ - G¼	R035-J	6.02
	miniature,	also for water	0 - 11 bar	G⅛	R364-J	6.02
	also for differential pressure		0 - 1 / 10 bar	G¼ and G⅜	R650	6.04
	also for differential pressure		0 - 10 bar	G¼ - G½	R03-J	6.07
	precise, with ratio	1:2 to 1:6	0 - 10 bar	G¼ and G⅜	R750	6.05
	precise, with ratio	1:2 to 1:6 / 2:1 to 5:1	0 - 10 bar	G¼ and G⅜	R208	6.06
	precise	high exhaust	0 - 10 bar	¾˝NPT u. 1˝NPT	R600	6.08
	precise	stainless steel	0 - 10 bar	¾˝NPT u. 1˝NPT	R601	15.20
	with ratio also	1:2 / 1:3 / 2:1 / 3:1	0 - 10 bar	G½ and G¾	R450	6.09
	precise		0 - 10 bar	G1 and G1½	R200	6.11
	precise,	high exhaust	0.2 - 18 bar	G¼ - G1¼	R116	6.10
	precise,	high exhaust	0 - 10 bar	G¾ and G1	R490	www*
	precise,	very high exhaust	0 - 10 bar	1½˝NPT	R201	6.11
	sehr robust		0.2 - 18 bar	G¼ - G3	R119-J	6.13
	low pressure		2 - 55 / 100 mbar	G½ - G2	RGDJ-J	6.15
	low pressure		5 - 350 mbar	G½ - G1½	RGB4-J	6.15
	low pressure		10 - 350/1000 mbar	G1 - G2	RZ-J	6.02
	very precise, wide pressure ranges		0.002 - 0.12/ 31 bar	¼˝NPT	R40A	www*
	high pressure,	brass	50 / 1 - 15 / 50 bar	G¼ - G2	R120-J	6.17
	high pressure,	stainless steel	50 / 1 - 15 / 50 bar	G¼ - G2	R3000-J	15.18
	high pressure,	stainless steel	100 / 0.1 - 24 / 99 bar	G1	RLE	6.16
	high pressure,	brass	100 / 0.1 - 24 / 99 bar	G1	RLM	6.16
	high pressure,	1:2 up to 1:19	260 / 3 - 42 /104 bar	½˝NPT and ¾˝NPT	RH3-J	6.14

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11	mini	0.01 - 0.7 / 7 bar	flange	R6	1.10
	mini	0 - 0.25 / 8 bar	flange	R308	1.17
flange bottom side	mini, precision pressure regulator	0.03 - 0.2 / 6 bar	flange	R900-M	1.09
	mini, precision pressure regulator	0 - 0,35 / 7 bar	flange	RT-F	www*
	mini, precision pressure regulator	0.05 - 2 / 8 bar	G⅛, flange	R90	5.02
	mini, precision pressure regulator	0.2 - 2 / 9 bar	flange	R342	www*
flange at the side	lockable	0.2 - 1.8 / 17 bar	DN15 - DN25	R20 - F	2.02
	P1: 40 bar	0.2 - 3 / 35 bar	DN15 - DN50	R280 - F	4.02
	very robust	0.2 - 1.8 / 17 bar	DN15 - DN80	R119 - F	2.04
	booster	0.2 - 1.8 / 17 bar	DN15 - DN80	R119 - JF	6.13
	P1: 50 bar	0.1 - 1.5 / 50 bar	DN15 - DN100	R120 - F	4.04
	low pressure regulator	2 - 16 / 100 mbar	DN15 - DN50	RGDJ - F	3.04
	low pressure regulator	5 - 12 / 350 mbar	DN15 - DN40	RGB4 - F	3.05
	low pressure regulator	10 - 18 / 4400 mbar	DN25 - DN50	RZ - F	3.08
	low pressure regulator	5 - 45 / 6000 mbar	DN25 - DN50	R160 - F	3.06
	stainless steel low pressure regulator	5 - 45 / 7000 mbar	DN15 - DN50	R3100- F	15.14
	stainless steel	0.1 - 1.5 / 50 bar	DN15 - DN50	R3000- F	15.06
	stainless steel variations	0.2 - 3 / 16 bar	DN15 - DN25	REA - F	15.11
	booster	1 - 15 / 50 bar	DN15 - DN50	R3000- JF	15.18
special flanges	stainless steel, milk pipe, many variations	0.2 - 3 / 16 bar	milk pipe	REA - M	15.11
	stainless steel, welding ends	0.2 - 3 / 16 bar	welding ends	REA - A	15.11
	stainless steel, Tri-Clamp	0,2 - 1,5 / 8 bar	ASME BPE ¼" - 1½"	RTC	15.12
	stainless steel, Tri-Clamp	5 - 45 / 1200 mbar	ASME BPE ½" - 1½"	RTCN	15.13
adjustment dial	pilot-operated	0 - 3 / 11 bar	G¼ - G2	R11 ... R41	2.10
press. regulator Cartridge	150 / 260 l/min	1 - 8 bar	Cartridge	RC	1.18
lockable	precision pressure regulator	0.02 - 0.5 / 10 bar	G¼	11-818-A	5.03
12	precise	0.01 - 0.14 / 28 bar	G¼ - G½	102..-E	5.07
	precise	0.01 - 0.14 / 10 bar	G¼ - G½	R230-X12	5.06
tapped exhaust	precise	0.03 - 0.7 / 17 bar	G⅜ - G¾	R400-X12	5.15
	precise	0.001 - 0.7 / 10 bar	G1 - G1½	R102	5.16
	precise	0 - 1 / 10 bar	G¼ and G⅜	R650-X12	6.04
	precise, with transmission ratio	0 - 10 bar	G¼ and G⅜	R750-X12	6.05
	precise, with transmission ratio	0 - 10 bar	G¼ and G⅜	R208-X12	6.06
	precise, with transmission ratio	0 - 10 bar	G½ and G¾	R450-X12	6.09
	low pressure	0 - 35/800 mbar	G¼ - G½	R110	5.11
	high exhaust	0 - 10 bar	G1 and G1½	R200-X12	6.11
	booster	1 - 15 / 50 bar	G¼ - G2	R120-JX12	6.17
joint supply	miniature	0 - 6 bar	G⅛	R035	2.08
	standard	0.1 - 3 / 16 bar	G¼ - G½	RB	2.08
quick exhaust	precision pressure regulator	0.01 - 0.14 / 10 bar	G¼ - G½	R230-X80	5.06
pressure compensated	precision pressure regulator, mini	0.1 - 3 / 16 bar	G⅛ and G¼	R310	1.14
	precision pressure regulator, mini	0.1 - 1 / 12 bar	G⅛ and G¼	R039	1.13
	precision pressure regulator, mini	0.2 - 2 / 9 bar	G⅛ and G¼	R344	www*
	precision pressure regulator, mini	0.2 - 2 / 9 bar	flange	R342	www*
	precision pressure regulator, mini	0.2 - 2.5 / 8 bar	G⅛	R307	1.16
external feedback	pre-pressure regulator for booster	0.2 - 7 bar	G¼	R218	6.03
	booster	0 - 10 bar	G½ and G¾	R450-X27	6.09
high flow rate	standard 110.000 l/min	0.2 - 1.8 / 17 bar	G¼ - G3	R119	2.06
	booster 110.000 l/min	0.2 - 1.8 / 17 bar	G¼ - G3	R119-J	6.15
	high pressure regulator 76.000 l/min	50 / 0.1 - 1.5 / 50 bar	G⅛ - G2, DN100	R120	4.04
	booster 76.000 l/min	50 / 1 - 15 / 50 bar	G¼ - G2	R120-J	6.17
	made of zinc	30 / 0.2 - 1.5 / 15 bar	G⅛ - G2	RD	2.06
	made of brass	40 / 0.2 - 3 / 35 bar	G¼ - G2	R280	4.02
	adjustment dial pressure regulator	0 - 3 / 11 bar	G¼ - G2	R11 ... R41	2.10
	low pressure regulator	2 - 16 / 160 mbar	G½ - G2	RGDJ	3.04
	booster	2 - 55 / 160 mbar	G½ - G2	RGDJ-J	6.15
	low pressure regulator	10 - 18 / 4400 mbar	G1 and G1½, DN50	RZ	3.08
	low pressure regulator	5 - 45 / 3000 mbar	G½ - G2	R160	3.06
	spheroidal cast iron, red brass, stainless steel	0.14 - 1.7 / 9 bar	G½ - G2, flange	RU	9.12
	stainless steel	50 / 0.1 - 1.5 / 50 bar	up to G2	R3000	15.06
	stainless steel booster	50 / 1 - 15 / 50 bar	up to G2	R3000-J	15.18
	stainless steel	5 - 45 / 7000 mbar	up to G2	R3100	15.14
*** visit our webshop: www.aircom.net**	pharmacy	5 - 7 / 450 mbar	up to G2½	R74	www*
	pharmacy	0.25 - 0.4 / 53 bar	up to G2½	R70	www*

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13 made of stainless steel	mini	0.2 - 1.8 / 9 bar	G¼	R364-S	15.03
	standard	0.2 - 4 / 17 bar	G½	R10-S	15.02
	standard	0.1 - 1.5 / 50 bar	G⅛ - G2	R3000	15.06
	many variations	0.2 - 3 / 16 bar	G¼ - G2	REA	15.11
	for pure gases	0.05 - 2 / 4 bar	M5 - G⅛	RE1	15.04
	low pressure regulator	5 - 45 / 7000 mbar	G½ - G2	R3100	15.14
	pharmacy	5 - 7 / 450 mbar	G¼ - G2½	R74	www*
	pharmacy	0.25 - 0.4 / 53 bar	G¼ - G2½	R70	www*
	high pressure regulator	200 / 1 - 8 / 200 bar	G¼ - G1¼	RH3000	15.16
	high pressure regulator	241 / 0.2 - 2 / 7 bar	¼˝NPT	RH0-S	4.15
	high pressure regulator	380 / 0.3 - 2 / 15 bar	¼˝NPT	RHB-S	www*
	high pressure regulator	410 / 0.7 -21 / 104 bar	½˝NPT	RH3 -S	4.19
	high pressure regulator	300 / 0.1 -1.7/ 35 bar	¼˝NPT	HP500-S	4.18
	high pressure regulator	690 / 0.3 -35 / 414 bar	¼˝NPT	HP300-S	4.17
	high pressure regulator	414 / 0.7-104/ 172 bar	¼˝NPT	HP400-S	4.17
	high pressure regulator, differential pressure: 0 - 1 / 24 bar	414 / 0 - 1 / 24 bar	½˝NPT and ¾˝NPT	RH44	4.22
	water, male thread, DN 8 - DN50	0.2 - 3 / 16 bar	G½ - G2	REA	15.11
	water, male thread, DN15 - DN50	0.2 - 2 / 20 bar	G½ - G2	RAI	9.11
	water, flange, DN15 - DN50	0.2 - 3 / 16 bar	flange	REF	15.10
	water, flange, DN15 - DN50	0.2 - 2 / 20 bar	flange	RAF	9.10
	booster, for many gases	50 / 1 - 15 / 50 bar	G¼ -G2	R3000-J	15.18
	booster, dome press. regulator	100/0.1 - 24 / 99 bar	G1	RLE	6.16
	booster, also with transmission ratio	310 / - 42 / 104 bar	½˝NPT and ¾˝NPT	RH3-JS1	6.14
	stainless steel, Tri-Clamp	0,2 - 1,5 / 8 bar	ASME BPE ¼" - 1½"	RTC	15.12
	stainless steel, Tri-Clamp	5 - 45 / 1200 mbar	ASME BPE ½" - 1½"	RTCN	15.13
made of plastic	precision pressure regulator, mini	0.03 - 0.2 / 6 bar	10-32˝, flange	R900	1.09
	precision pressure regulator, mini	0.03 - 0.2 / 6 bar	⅛˝NPT	R800	1.09
	interlockable, mini	0.01 - 0.7 / 7 bar	G⅛, flange	R6 / R7	1.10
made of spheroidal cast iron, red brass	for steam	0.14 - 1.7 / 9 bar	G½ - G2	RU	9.12
non-ferrous metal	precision pressure regulator	0.01 - 0.14 / 28 bar	G¼ - G½	102..-X63	5.07
	precision pressure regulator	0.001 - 0.7 / 10 bar	G1 - G1½	R102-X62	5.16
nickel-plated	onyl surface nickel-plated	0.2 - 1.4 / 7 bar	10-32˝, M5, ⅛˝NPT	MAR-X25	www*
	completely chemical nickel-plated	0.2 - 1.4 / 7 bar	10-32˝, M5, ⅛˝NPT	MAR-X13	www*
	high pressure regulator, nickel-plated surface	380/0.3 - 2 / 35 bar	¼˝NPT	RHB-X25	www*
chrome-plated	cylinder pressure regulator	100/0 - 10 / 60 bar	G¼ - G½	RH-147C	4.14
	cylinder pressure regulator	200/0 - 1.5 / 40 bar	diverse	RH200-C	4.12
	cylinder pressure regulator	300/0 - 1.5 / 40 bar	diverse	RH300-C	4.12
	cylinder pressure regulator	300/0 - 10 / 60 bar	G¼ - G½	RH347-C	4.14
with EPDM	miniature	0.2 - 1.4 / 7 bar	10-32˝, M5, ⅛˝NPT	MAR-E	www*
	precision pressure regulator, mini	0.1 - 3 / 16 bar	G⅛ and G¼	R310-E	1.14
	low pressure regulator	5 - 45 / 3000 mbar	G½ - G2	R160-E	3.06
	high pressure regulator	200/0.1 - 1.5 / 200 bar	G¼ - G1¼	RH10-E	4.10
	high pressure regulator	50/0.1 - 1.5 / 50 bar	G¼ - G2, DN100	R120-E	4.04
	booster	50/1 - 15 / 50 bar	G¼ - G2	R120-JE	6.17
	booster	100/0.1 - 24 / 99 bar	G1	RL.-E	6.16
	stainless steel, many variations	0.2 - 3 / 16 bar	G¼ - G1	REA-E	15.11
with PTFE	high pressure regulator	200/0.1 - 1.5 / 200 bar	G¼ - G1¼	RH10-T	4.10
with silicone	booster	0 - 10 bar	G¼ and G⅜	R208 -A	6.06
with stainless steel diaphragm	cylinder pressure regulator	100/0 - 10 / 60 bar	G¼ - G½	RH147-M	4.14
	cylinder pressure regulator	200/0 - 1.5 / 40 bar	diverse	RH200-M	4.12
	cylinder pressure regulator	300/0 - 1.5 / 40 bar	diverse	RH300-M	4.12
	cylinder pressure regulator	300/0 - 10 / 60 bar	G¼ - G½	RH347-M	4.14
	stainless steel pressure regulator	50/0.1-1.5 / 50 bar	G⅛ - G2	R3000-TE	15.06
	stainless steel volume booster	50/1 -15 / 50 bar	G¼ - G2	R3000-JE	15.18
14	high pressure regulator up to 106°C	380/0.3 - 2 / 35 bar	¼˝NPT	RHB	www*
	high pressure regulator up to 130°C	50/0.1 - 1.5 / 50 bar	G⅛ - G½	R120 - X54	4.04
	stainless steel press. regulator up to 130°C	50/0.1 - 1.5 / 50 bar	G¼ - G2	R3000- X54	15.06
	low pressure regulator up to 130°C	5 - 45 /7000 mbar	G½ - G2	R3100- X54	15.14
	high volume booster up to 130°C	50/1 - 15 / 50 bar	G¼ - G2	R120-04JX54	6.17
	high volume booster up to 130°C	50/1 - 15 / 50 bar	G¼ - G2	R3000-J-X54	15.18
	pharmacy up to 150°C	0.25 - 0.4 / 53 bar	G¼ - G2½	R70 - X55	www*
	pharmacy up to 140°C	5 - 7 / 450 mbar	G¼ - G2½	R74 - X55	www*
	pharmacy up to 200°C	0.25 - 0.4 / 53 bar	G¼ - G2½	R70 - X56	www*
	pharmacy up to 200°C	5 - 7 / 450 mbar	G¼ - G2½	R74 - X56	www*
	filter pressure regulator up to - 40°C	0 - 0.7 / 8 bar	¼˝NPT	B300	17.08



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PRESSURE REGULATOR – QUICK FINDER

PRESSURE REGULATORS	SPECIAL FEATURES		PRESSURE RANGE	CONNECTION THREAD	DEVICE	PAGE
15	low pressure regulator		5 - 45 / 3000 mbar	G½ - G2	R160	3.06
	high pressure regulator		50 / 0.1 - 1,5 / 50 bar	G¼ - G2, DN100	R120	4.04
nitrogen, oxygen, helium,	volume booster		50 / 1 - 15 / 50 bar	G¼ - G2	R120-J	6.17
carbon dioxide, hydrogen,	volume booster		100 / 0.1 - 24 / 99 bar	G1	RLM / RLE	6.16
nitrous oxide, argon,	cylinder pressure regulator		100 / 0 - 10 / 60 bar	G¼ - G½	RH-147	4.14
methane, propane	cylinder pressure regulator		200 / 0 - 1.5 / 40 bar	diverse	RH200	4.12
	cylinder pressure regulator		300 / 0 - 1.5 / 40 bar	diverse	RH300	4.12
	cylinder pressure regulator		300 / 0 - 10 / 60 bar	G¼ - G½	RH-347	4.14
	stainless steel pressure regulator		50 / 0.1 - 1,5 / 50 bar	G⅛ - G2	R3000	15.06
	stainless steel volume booster		50 / 1 - 1.5 / 50 bar	G¼ - G2	R3000-J	15.18
	stainless steel pressure regulator		5 - 45 / 7000 mbar	G½ - G2	R3100	15.14
for oxygen	factory-set,	mini	2 up to 10 bar	G¼	R13	1.04
	factory-set,	mini	1 up to 8 bar	G¼	239M	1.06
	made of brass,	mini	0.2 - 1.4 / 7 bar	10-32˝, M5, ⅛˝NPT	MAR - 15	www*
	precision press. regul.,	mini	0.2 - 2 / 9 bar	G⅛ and G¼	R344	www*
	precision press. regul.,	mini	0.2 - 2 / 9 bar	flange	R342	www*
	precision press. regul.,	mini	0.1 - 3 / 6 bar	G⅛	R309 - 15	1.14
	brass pressure regul.,	mini	0.1 - 3 / 16 bar	G⅛ and G¼	R310 - 15	1.14
	precision press. regul.,	mini	0.1 - 1 / 12 bar	G⅛ - G¼	R039 - 15	1.13
	precision press. regul.,	mini	0.2 - 2.5 / 8 bar	G⅛	R307 - 15	1.16
	precision press. regul.,	mini	0 - 0.25 / 8 bar	flange	R308 - 15	1.17
	precision press. regul.		0.01 - 0.6 / 3.5 bar	G¼ - G⅜	R216 - L	5.05
	precision press. regul.		0.01 - 1 / 16 bar	G¼	R217 - 15	5.12
	precision press. regul.		0.001 - 0.14 / 7 bar	G¼ - G⅜	R300 - 15	5.08
	precision press. regul.		0.01 - 0.14 / 28 bar	G¼ - G½	102.. - SC	5.07
	low pressure regulator		5 - 45 / 3000 mbar	G½ - G2	R160 - 15	3.06
	high pressure regulator		40 / 0.2 - 3 /35 bar	G¼ - G2	R280 - 15	4.02
	high pressure regulator		50 / 0.1 - 1.5 /50 bar	G¼ - G2, DN100	R120 - 15	4.04
	high pressure regulator		60 / 0.5 - 12 /50 bar	G¼ - G1	R286 - 15	4.08
	cylinder pressure regulator		100 / 0 - 10 /60 bar	G¼ - G½	RH-147-15	4.14
	cylinder pressure regulator		200 / 0 - 1.5 /40 bar	diverse	RH200- 15	4.12
	cylinder pressure regulator		300 / 0 - 1.5 /40 bar	diverse	RH300- 15	4.12
	cylinder pressure regulator		300 / 0 - 10 /60 bar	G¼ - G½	RH-347-15	4.14
	high pressure regulator		414 / 0.3 - 35 /414 bar	¼˝NPT	HP300- 15	4.17
	high pressure regulator		414 / 0.7 -104/175 bar	¼˝NPT	HP400- 15	4.17
	volume booster		50 / 1 - 15 /50 bar	G¼ - G2	R120-J- 15	6.15
	volume booster		100 / 0.1 - 24 /99 bar	G1	RL. - 15	6.16
free of oil and grease	mini		0.2 - 2 / 8 bar	M5	RR - L	1.08
	mini		0.1 - 1 / 11 bar	G⅛ and G¼	R364 - L	1.15
	precision pressure regulator		0.01 - 0.6/3.5 bar	G¼ - G⅜	R216 - L	5.05
	high pressure regulator		241/ 0.2 - 2 / 7 bar	¼˝NPT	RH0 - L	4.15
	high pressure regulator		300/ 0.1 - 1.7/ 35 bar	¼˝NPT	HP500 - L	4.17
	stainless steel,	mini	0.2 - 1.8/ 9 bar	G¼	R364S - L	15.02
	stainless steel		0.2 - 4 / 17 bar	G½	R10S - L	15.03
	stainless steel,	many variations	0.2 - 3 / 16 bar	G¼ - G1	REA - M	15.11
for ammonia	P1: 6 bar		5 - 45 / 3000 mbar	G½ - G2	R160-02	3.06
for natural gasoline,	P1: max. 0.4 bar		2 - 15 / 160 mbar	G½ - G2	RGDJ	3.04
w/o certificate	P1: max. 4 bar		5 - 12 / 350 mbar	G½ - G1½	RGB4	3.05
	P1: max. 20 bar		10 - 18 / 4400 mbar	G1 - G1½, DN50	RZ	3.08
for pure gases	Kl.10.000		0.05 - 2 / 4 bar	M5, G⅛	RE1	15.04
purity grade 5.0	cylinder pressure regulator		100 / 0 - 10 / 60 bar	G¼ - G½	RH-147- M	4.14
	cylinder pressure regulator		200 / 0 - 1.5 / 40 bar	diverse	RH200- M	4.12
	cylinder pressure regulator		300 / 0 - 1.5 / 40 bar	diverse	RH300- M	4.12
	cylinder pressure regulator		300 / 0 - 10 / 60 bar	G¼ - G½	RH-347- M	4.14
for steam	made of spheroidal cast iron, red brass		0.14 - 1.7 / 9 bar	G½ - G2	RU	9.12
16	stainless steel, Tri-Clamp		0,2 - 1,5 / 8 bar	ASME BPE ¼" - 1½"	RTC	15.12
	stainless steel, Tri-Clamp		5 - 45 / 1200 mbar	ASME BPE ½" - 1½"	RTCN	15.13
	mini				R037	1.12
	mini		0 - 1 / 9 bar	G⅛ u. G¼	R25	9.02
FDA approved	mini		0 - 1,8 / 9 bar	G¼ u. G⅜	R45	9.02
	mini		0,1 - 3 / 8 bar	G¼	R91	www*
for pharmacy and food	made of stainless steel,	many variations	0,25 - 0,4 / 53 bar	G¼ - G2½	R70	www*
	made of stainless steel,	low pressure regulator	5 - 7 /450 mbar	G¼ - G2½	R74	www*
CIP-capable	stainless steel,	pharmacy	0,25 - 0,4 / 53 bar	G¼ - G2½	R70	www*
	stainless steel,	pharmacy	5 - 7 /450 mbar	G¼ - G2½	R74	www*
PWIS-free	very robust		0,2 - 1,8 / 17 bar	G¼ - G3	R119-LA	2.04
	high pressure regulator		50/0,1 - 1,5 / 50 bar	G¼ - G2, DN100	R120-LA	4.04

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PERSONAL NOTES

PERSONAL NOTES

PERSONAL NOTES

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ORDER NUMBER	CATALOGUE PAGE	DESCRIPTION
AB	6.18	Pressure booster
AM/AP	6.16	Press. booster, Air amplifier station
AT1004	12.08	Pressure switch
A042…A080	19.05	Soft start valve
BD	17.06	Filter pressure regulator
BP1/BP2	10.25	Prop. pressure regulator-combi
B042…B095	17.04	Filter pressure regulator
B11/B12	17.03	Filter pressure regulator
B11-S	15.32	Filter pressure regulator
B20/B21	17.05	Filter pressure regulator
B300	17.08	Filter pressure regulator
B548	17.02	Filter pressure regulator
B548-S/B558-S	15.32	Filter pressure regulator
B3000	15.30	Filter pressure regulator
CD2/CD3	19.08	FRL service unit
C2/C3	19.03	FRL service unit
C10/C11	19.06	FRL service unit
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C20/C21	19.07	FRL service unit
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DBC	8.02	Back pressure regulator
DBC	8.11	Back press. regul., low pressure
DBM	8.04	Back pressure regulator
DB110	8.08	Back press. regul., precision
DB208	8.12	Back press. regul., pilot-operated
DB240	8.07	Back press. regul., precision
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FG	16.14	Compressed air filter
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FM	16.08	Compressed air filter
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F035…F095	16.04	Compressed air filter
F10-S/F11-S	15.40	Compressed air filter
F20	16.07	Compressed air filter
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F2804	20.06	Check valve
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R7	1.13	Miniature pressure regulator
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R10-S	15.02	Standard pressure regulator
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GENERAL TERMS AND CONDITIONS

§ 1 GENERAL INFORMATION / SCOPE

1. The following General Terms and Conditions are valid for all contracts between the company AirCom Pneumatic GmbH, Siemensstraße 18, 40885 Ratingen ("Seller") and companies (§ 14 BGB), body corporate organised under public law and special assets under public law ("Purchaser").

2. The acceptance of the order confirmation as well as the receipt of deliveries of the Seller is valid as recognising these general terms and conditions even in cases where the Purchaser has submitted an offer based on own general terms and conditions.

3. Contrary or deviating conditions of the Purchaser are not recognised unless the validity of contrary or deviating conditions is explicitly accepted in writing.

4. An explicit rejection of deviating conditions of the Purchaser is not necessary.

5. Any individual agreement concluded between the parties shall take precedence over the General Terms and Conditions.

§ 2 CONTRACT CONCLUSION

1. The offers are non-binding and without obligation. The contract is not concluded until the order confirmation of the Seller is signed.

2. Deviations, supplements, and verbal agreements as well as agreements with travelling salesmen, representatives and agents require the written confirmation by the Seller to be valid when the contract is closed.

3. Minimal deviations by the delivered objects from the description of the offer or the order confirmation are considered as authorised and do not affect the fulfilment of the contract insofar as they concern conventional quantity and quality tolerances; in particular in cases of modifications and improvements that are based on tech-nical development.

4. Quotations, drawings, graphics and other documentations of the offer and order confirmation are meant only for the Purchaser and must not be made available to third parties. They remain property of the Seller and are protected by copyright. They must be returned upon request or if the order was not placed.

§ 3 PRICES AND PAYMENT

1. The price lists, price quotations and cost estimates are without obligation.

2. The specified prices are valid only for the concrete order determined by amount and delivery time. If our general delivery prices increase or drop before the delivery, the price for the individual order increases or diminishes accordingly. Price increases are limited by the price prevailing on the market. If a basic agreement has been signed by the parties, then the prices specified in it are valid for its validity period, deviating from sentence 1 and 2 of this number.

3. All prices are net prices and are understood as ex works or warehouse plus freight, transport insurance (see below § 4 (5)), brokerage fees, bank charges and the respective statutory value added tax as well as any possible handling costs if the latter are agreed upon between the two parties.

4. Payment is due within 30 days upon invoice date without deductions and only to the Seller. Further price re-ductions, rebates or deductions are not granted. A cash discount deduction of new invoices is not permitted if older due invoices are still unpaid.

In the absence of other agreements, a payment to the Seller can be made only according to the specifications of the issued invoice. The employees of the Seller, representatives and travelling salesmen are only permitted to col-lect payment if a special written authority to collect is submitted. Bills of exchange can be accepted for payment only upon prior agreement. The acceptance of cheques and bills of exchange is done only as payment. Discount charges and collection expenses are at the expense of the Purchaser.

5. If the contracted payment terms are exceeded, default interest is charged to the amount of 9 percentage points above the respective base interest rate.

6. The Seller is not obligated to fulfilling the contract if the Purchaser does not meet his obligations as contracted, in particular when due invoices are not paid. Compensation or assertion of the right of retention based on claims from the Purchaser that are not explicitly recognised in writing by the Seller is excluded insofar as it does not con-cern undisputed, legally effective, time-barred claims.

7. If the Purchaser owes compensation for damages because of non-performance according to the general legal provisions, then the Purchaser is obligated to pay the Seller an amount of 15 % of the order amount including VAT as compensation for damages, subject to the assertion of further damages, unless the Purchaser can prove that there was no damage or loss of value or significantly less than the aforementioned flat rate.

§ 4 DELIVERY AND SHIPMENT / TRANSFER OF RISK

1. The written order confirmation of the Seller is solely applicable for the scope of the delivery.

2. Delivery is as quick as possible, the latest though within about eight weeks after the start of the delivery time. The delivery to the Purchaser is always subject to punctual and correct supply to the Seller. The delivery time be-gins with the sending of the order confirmation, however, not before receiving the documentation, authorisations, or releases to be provided by the Purchaser or before an agreed down payment has been received. The delivery time is maintained if the delivery item has left the factory or the readiness for dispatch has been informed before the delivery time's expiration. Maintaining of the delivery time requires that all contractual obligations be met by the Purchaser.

3. All cases of force majeure release the Seller from the obligation for fulfilling the contract for the duration and the scope of the occasion. Force majeure are considered in particular to be natural disasters, war or the risk of war, reactor accidents, epidemics and pandemics, labour strife, strikes, lockouts, unforeseeable disruption of operations or shortage of raw materials, limitation of energy supply by third parties or other events that are not the responsibility of the Seller. Claim for damages by the Purchaser are ruled out. In case of permanent impossibil-ity of performance, the parties retain the right of immediate withdrawal; any advance performances shall be re-turned. This is also valid if such situations occur after the delivery date has been exceeded.

4. If the delivery item is shipped to the Purchaser upon his request, then the risk of the accidental loss or acci-dental degradation of the delivery item is transferred to the Purchaser with the dispatch to the Purchaser or at the latest when the delivery item has left the factory or the warehouse of the Seller, unless something else was agreed upon. This is valid regardless of who pays the shipping costs. If the shipment is delayed upon request by the Pur-chaser, the risk is transferred when the readiness for delivery has been reported.

5. For total net order values equal to or greater than EUR 1,000.00 the Seller shall take out a transport insurance of 0.5% of the order value for the shipment at the expense of the Purchaser. This provision shall not apply for customers exempted from forwarding, logistics and warehousing insurance (SLVS waiver customers).

6. Claims for wrong or incomplete delivery due to obvious defects are ruled out if they are not reported in writing within a week upon arrival of the delivery item at its destination.

§ 5 ACCEPTANCE AND ASSEMBLY

1. Merchandise that is reported as ready for shipment must be fetched promptly by the Purchaser. If the Purchas-er falls into arrears with the fetching, the acceptance or the picking up of the merchandise, then the Seller has the right to demand compensation of the occurred damage. With the start of the acceptance delay, the risk of accidental degradation or accidental loss is transferred to the Purchaser.

2. The offer of the Seller excludes the assembly.

§ 6 RETENTION OF TITLE

1. The delivered merchandise remains the property of the Seller (reserved goods) until final payment of all claims made or being made based on the business relationship. If there are multiple claims or open invoices, the retention of title is valid as a collateral for the outstanding balance, even if individual merchandise shipments have already been paid.

2. In case the Purchaser acts contrary to the stipulations of the contract, for example delayed payment, the Seller has the right, upon preliminary setting of a reasonable deadline, to take back the reserved goods. If the reserved goods are taken back, this represents a withdrawal from the contract. The Seller has the right to dispose of the reserved goods after the retraction. After subtracting a reasonable amount for the disposal costs, the disposal proceeds are to be settled with the amounts owed by the Purchaser. The Purchaser is liable for the claim for the deficiency.

3. In case of third parties claiming the reserved goods, in particular distraints, the Purchaser will inform about the ownership of the Seller and will promptly notify the Seller so that owner rights can be asserted. Costs incurred thereby are borne by the Purchaser.

4. The Purchaser has the right to process and sell the reserved goods in normal course of business as long as he does not fall into arrears. Pledges as collateral or transfers by way of security are not permitted. Claims ensuing from the resale or other legal basis (insurance, unlawful act) regarding the reserved goods, are fully transferred already now by the Purchaser to the Seller as a collateral. Upon request of the Seller, the Purchaser must notify debtors of the assignment. The Purchaser is obligated to also reserve ownership of the reserved goods towards his Purchaser until it is paid in full. The Seller gives the revocable right to the Purchaser to collect the claims ceded to the Seller for his invoice in his own name. The direct debit authorisation becomes void if the Purchaser does not fulfil his payment obligations properly, has difficulty in meeting payments, judicial execution proceedings are taken against him or insolvency proceeding are filed against him or the filing of such insolvency proceedings are refused due to lack of assets.

5. Processing or transformation of the goods is always done for the Seller as manufacturer, but without obligation for him. If the delivery items are processed with other items not belonging to the Seller, then he acquires joint ownership of the new item in the ratio of the value of the delivery items to the other processed items at the time of the processing. If the delivery items are combined or inseparably mixed with other items not belonging to the Sell-er, then the Seller acquires joint ownership of the new item in the ratio of the value of the delivery items to the other combined or mixed items. If the combination or mixture of the item of the Purchaser is to be regarded as main item, then it is agreed upon that the Purchaser transfers the proportion of the joint ownership of the new item to the Seller. The Purchaser stores the thus created joint ownership for the Seller.

6. The Seller is obligated to release the collaterals to which he is entitled insofar as the realisable value of the col-laterals exceeds the claims by more than 10 %; the Seller has the choice thereby of the collaterals to be released.

§ 7 GUARANTEE / LIABILITY

1. If contractual obligations are infringed, the Purchaser has the legal rights in compliance with the following regu-lations.

2. The Purchaser can only file guarantee claims if he has performed his inspection and complaint obligations ac-cording to § 377 HGB (German Commercial Code) within a week of receiving the service. Contract, type, and scope of the defect must be specified during the notification.

3. The warranty is also under the condition that the Seller has the choice to view and check the faulty item at the Purchaser or having it sent back to the Seller.

4. The statutory limitation period for defects claims is one year after the transfer of risk. This is not valid unless the law requires longer periods in accordance with §§ 438 Section 1 no. 2 (Construction Work and Objects for Con-struction Work), 478, 479 (Supplier Regress) and 634 a Section 1 no. 2 (building defects) of the BGB (Civil Code) as well as in cases of injury to life, physical injury, or damage to health due to intentional or negligent dereliction of duty on the part of the Seller and if a defect was fraudulently concealed.

5. In case of an entitled and timely notification of defects, the Purchaser has the right to supplementary perfor-mance during the warranty period. The Seller has the right of choice for the type of supplementary performance – repairing the defect or delivery of a fault-free item. If the supplementary performance fails or if further supple-mentary performances are unacceptable for the Purchaser, then the Purchaser has the right to reduction or the withdrawal from the contract. Replaced parts become the property of the Seller.

6. If claims are made towards the Purchaser by his customer or a consumer due to a defect of the delivered mer-chandise that was already present during the transfer of risk or that was complained about by a consumer as end user, the legal claims to recourse of the Purchaser towards the Seller remain untouched in accordance with §§478, 479 BGB.

7. Claim for damages due to a defect can be asserted by the Purchaser only if the supplementary performance has failed or if we deny the supplementary performance. The right of the Purchaser to assertion of the right of further claim for damages remains untouched by that.

8. Claims against the Seller due to defects may only be made by the Purchaser and are not assignable.

9. The Seller is liable for occurring damages only insofar as they stem from a breach of an essential contractual duty or intentional or grossly negligent behaviour on the part of its legal representatives or vicarious agents. If an essential contractual duty is only slightly negligently breached, then the liability is limited to the foreseeable damages typical for the contract. An essential contractual duty prevails for obligations whose fulfilment makes the proper execution of the contract even possible and which the Purchaser has expected to be complied with or could expect to be complied with. Any further liability for compensation is ruled out. The liability for culpable injury to life, body, and health in accordance with legal regulations remains untouched. This is also valid for man-datory liability in accordance with the product liability law.

§ 8 DISCLOSURE OF PERSONAL DATA FOR THE PURPOSE OF LAW ENFORCEMENT AND DEBT COLLECTION

1. In the event of a legitimate interest according to Art. 6 para. 1 lit. f GDPR, particularly in case of payment default, the Seller reserves the right to disclose the data provided when placing the order for law enforcement and debt collection purposes to a lawyer and/or external companies (e. g. AKZEPTA GmbH, Krausenstraße 8, D-10117 Ber-lin).

2. Furthermore the Seller collects address information, information on the Purchaser's payment behaviour and credit worthiness based on mathematical and statistical methods applying address data information from external companies such as CRIF Bürgel GmbH, Radlkoferstraße 2, D-81373 Munich, to fulfil the contract. The processing of this data is necessary to fulfil contractual purposes or implement pre-contractual measures (Art. 6(1)(b)) and to protect the legitimate interests of the Seller (Art. 6 (1)(f)).

3. Declaration of consent, Art. 6 (1)(a) GDPR

The Purchaser declares as follows: „I hereby agree that AirCom Pneumatic GmbH collects and processes address information, information on my payment behaviour and credit worthiness based on mathematical and statistical methods from external companies such as CRIF Bürgel GmbH, Radlkoferstraße 2, D-81373 Munich, applying address data information for the purpose of the conclusion of contract."

The Purchaser declares furthermore as follows:

„I hereby agree that AirCom Pneumatic GmbH discloses data provided when placing an order to lawyers or external companies such as AKZEPTA GmbH, Krausenstraße 8, D-10117 Berlin, for the purpose of law enforcement and debt collection."

4. Possibility of revocation / Possibility of opposition

The consent given to the Seller can be revoked by the Purchaser at any time. This does not affect the legality of the collection and use of the data based on this consent until the consent is withdrawn. The Purchaser is entitled to object at any time to the processing of its data. This applies if the processing is not required to fulfil a contract with the Purchaser or precontractual measures or does not preclude legitimate interests of the Seller in particular.

§ 9 FINAL PROVISIONS

1. Place of performance for all delivery obligations of the Seller and for other contractual obligation of both par-ties is the registered office of the Seller AirCom Pneumatic GmbH, Siemensstraße 18, 40885 Ratingen.

2. The contract concluded between the parties, the terms, and conditions of the Seller as well as all the legal rela-tions between the Purchaser and the Seller are subject to the laws of the Federal Republic of Germany with the exclusion of all references to other legal orders and international contracts. The United Nations Convention on Contracts is excluded.

3. The place of jurisdiction for all disputes arising from this contractual relationship is Düsseldorf, insofar as Seller and Purchaser do not constitute a different common place of jurisdiction. The Seller has the right, however, to file suit against the Purchaser also at his registered office.

4. Should a provision of these terms and conditions be ineffective or contain an omission, then the effectiveness of the remaining provisions remain unaffected.

REFERENCES

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