





Servo-assisted 2/2 way piston valve

- Servo-assisted and compact piston valve with diameter of up to DN 13
- Vibration-resistant , screwed coil system
- Increased leak-tightness with welded plunger guiding tube
- Safe opening with hard-coupled piston system
- Explosion proof versions

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 2518 Cable Plug DIN EN 175301 - 803 - Form A	▶
	Type 2513 Cable plug acc. to DIN EN 175301 - 803 Form A	▶

Type description

The 6240 valve is a servo-assisted piston valve. The stopper and plunger guiding tube are welded together to enhance pressure resistance and leak-tightness. Various seal material combinations are available depending on the application. The housing design and surface quality enable maximum flow rates. The coils are moulded with chemically resistant epoxy. An optional sliding ring bearings increases the life cycle with dry gases. In combination with a plug in accordance with DIN EN 175301 - 803 Form A, the valves satisfy protection class IP65. Stainless steel valves satisfy NEMA 4X.

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1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "4. Dimensions" on page 7.
Materials	
Body	Brass, stainless steel
Coil	Epoxy
Orifice	DN 6, DN 12, DN 13 (steam version)
Duty cycle	100 % continuous rating
Coil insulation class	Class H
Performance data	
Response times ^{1.)}	
Standard DN 6	Opening: 10...20 ms Closing: 40...50 ms
Standard DN 12	Opening: 20...40 ms Closing: 80...100 ms
Steam version DN 13	Opening: 80...100 ms Closing: 200...300 ms
High pressure MX31 and MX32	Opening: 100...200 ms Closing: 300...600 ms
Electrical data	
Voltage tolerance	± 10 %
Electrical power consumption	Detailed information can be found in chapter "5.1. Electrical power consumption" on page 12.
Medium data	
Media (High temperature version)	Neutral gases and liquids, such as e.g. compressed air, water, hydraulic oil, steam and hot mediums
Viscosity	Max. 21 mm ² /sec
Media temperature	
Standard	Seat seal/Oexternal seal FKM/FKM: - 10 °C...+ 140 °C EPDM/EPDM: - 30 °C...+ 120 °C PTFE/FKM: - 10 °C...+ 140 °C
Standard high temperature	PTFE/PEEK DN 6: - 40 °C...+ 180 °C PTFE/PEEK DN 12: - 40 °C...+ 140 °C
Steam version DN 13	FKM/FKM: 0 °C...+ 140 °C
Approval DIN EN 161 (PO17)	NBR/NBR (PO17): - 10 °C...+ 80 °C
High pressure version up to 250 bar (MX32) or 160 bar (MX31)	PCTFE/FKM: - 10 °C...+ 80 °C PCTFE/EPDM: - 30 °C...+ 80 °C PCTFE/PEEK: - 40 °C...+ 80 °C
Approvals and certificates	
Protection class	IP65 with cable plug, X/IECEx junction box version and cable connection version NEMA 4x with cable plug Type 2518 or Type 2509 with stainless steel versions (other versions on request)
Process/Port connection & communication	
Port connections	G ¼, G ⅜, G ½ (NPT and Rc on request), steam version DN 13 also in G ⅜
Electrical connection	Tag connector acc. DIN EN 175 301 - 803 Form A for cable plug Type 2518 Detailed information can be found in chapter "Cable plug Type 2518, Form A according to DIN EN 175301 - 803" on page 21.
Environment and installation	
Ambient temperature	Max. 55 °C
Installation	As required, preferably with actuator upright

1.) Measured at the outlet with 6 bar inlet pressure at 20 °C

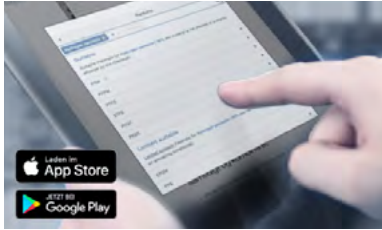
Opening: Pressure build-up 0...90 %, Closing: Pressure decrease 100...10 %

2. Circuit functions

Circuit functions	Description
	Type: A, solenoid valve 2/2 way Servo-controlled Normally closed
	Type: B, solenoid valve 2/2 way Servo-controlled Normally open

3. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp

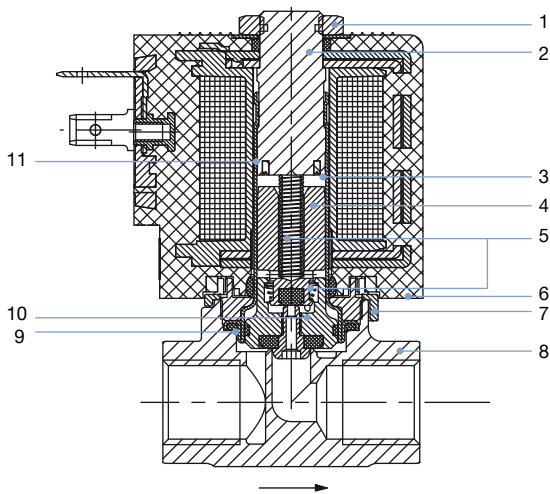


Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

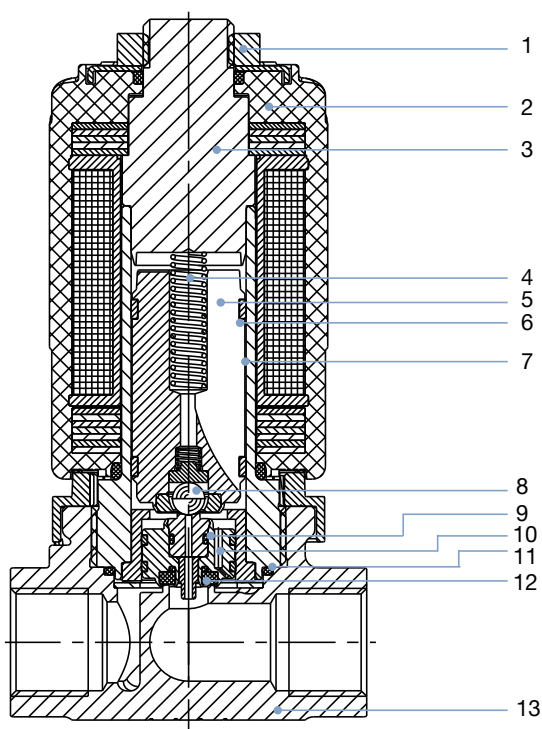
[Start Chemical Resistance Check](#)

3.2. Material specifications standard version



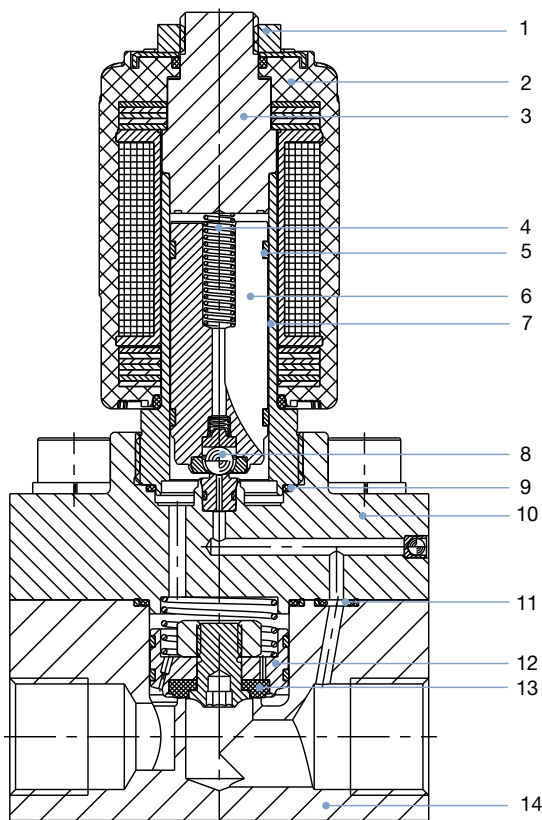
No.	Element	Material
1	Nut	Steel (surface finish thick film passivated) (Brass version) Stainless steel 1.4305 PTFE (Stainless steel version)
2	Stopper	1.4113
3	Armature guide tube	1.4303
4	Guide ring	PTFE coal-filled
5	Springs	1.4310
6	Coil	Epoxy
7	Safety lock	PPS
8	Body	Brass/stainless steel 1.4404
9	Seal facing outwards	FKM/EPDM/PEEK (high temperature version)
10	Piston complete	Brass/stainless steel 1.4305 Stainless steel PEEK PTFE coal-filled FKM/EPDM/PTFE (PTFE for high temperature and PTFE/FKM for high pressure versions)
11	Shading ring	Copper/silver

3.3. Material specifications high pressure version up to 250 bar (MX32) or 160 bar (MX31) – DN 6



No.	Element	Material
1	Nut	1.4305
2	Coil	Epoxy
3	Stopper	1.4523
4	Spring	1.4310
5	Core coupling	1.4113, 1.4305
6	Glide ring	PTFE coal-filled
7	Guide tube	1.4571
8	Core seal	Ceramic ball
9	Piston coupling	1.4305, PEEK, PTFE coal-filled
10	Piston guide	1.4305
11	Seal	FKM, EPDM
12	Seat seal	PCTFE
13	Body	Stainless steel 1.4404

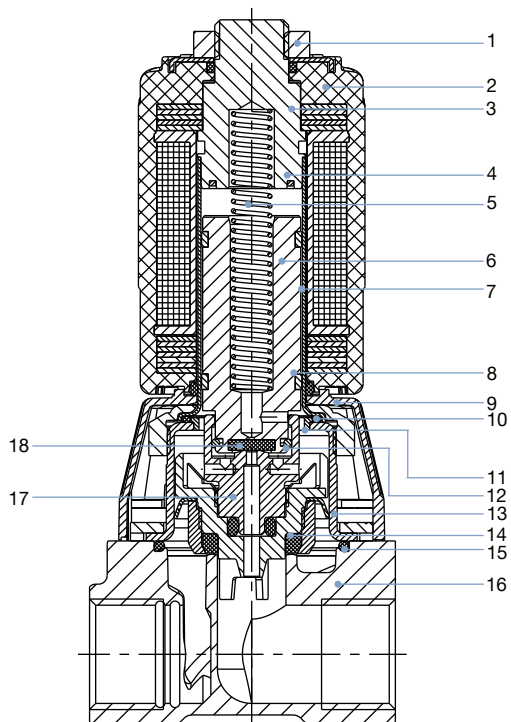
3.4. Material specifications high pressure version up to 250 bar (MX32) – DN 12



No.	Element	Material
1	Nut	1.4305 PTFE coated
2	Coil	Epoxy
3	Stopper	1.4523
4	Spring	1.4310
5	Glide ring	PTFE coal-filled
6	Core coupling	1.4113, 1.4305
7	Guide tube	1.4571
8	Core seal	Ceramic ball
9	Outer seal	FKM, EPDM
10	Flange coupling	Stainless steel 1.4404, PEEK, FKM/EPDM
11	Outer seal	FKM, EPDM
12	Piston coupling	1.4305, PTFE coal-filled
13	Seat seal	PCTFE
14	Body	Stainless steel 1.4404

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3.5. Material specifications steam version (NA67) – DN 13



No.	Element	Material
1	Nut	1.4305
2	Coil	Epoxy
3	Stopper	1.4105
4	Shading ring	Silver
5	Spring	1.4310
6	Core	1.4113
7	Guide tube	1.4303
8	Glide ring	PTFE coal filled
9	Cover	PA6
10	Seal	FKM
11	Support ring	PPS Fortron
12	Coupling ring	PEEK
13	Holding cap	1.4301
14	Seat gasket	FKM
15	Outer seal	FKM
16	Body	Brass, stainless steel 1.4408
17	Piston coupling	1.4401, PPS Fortron, PTFE, PEEK, FKM
18	Core seal	FKM

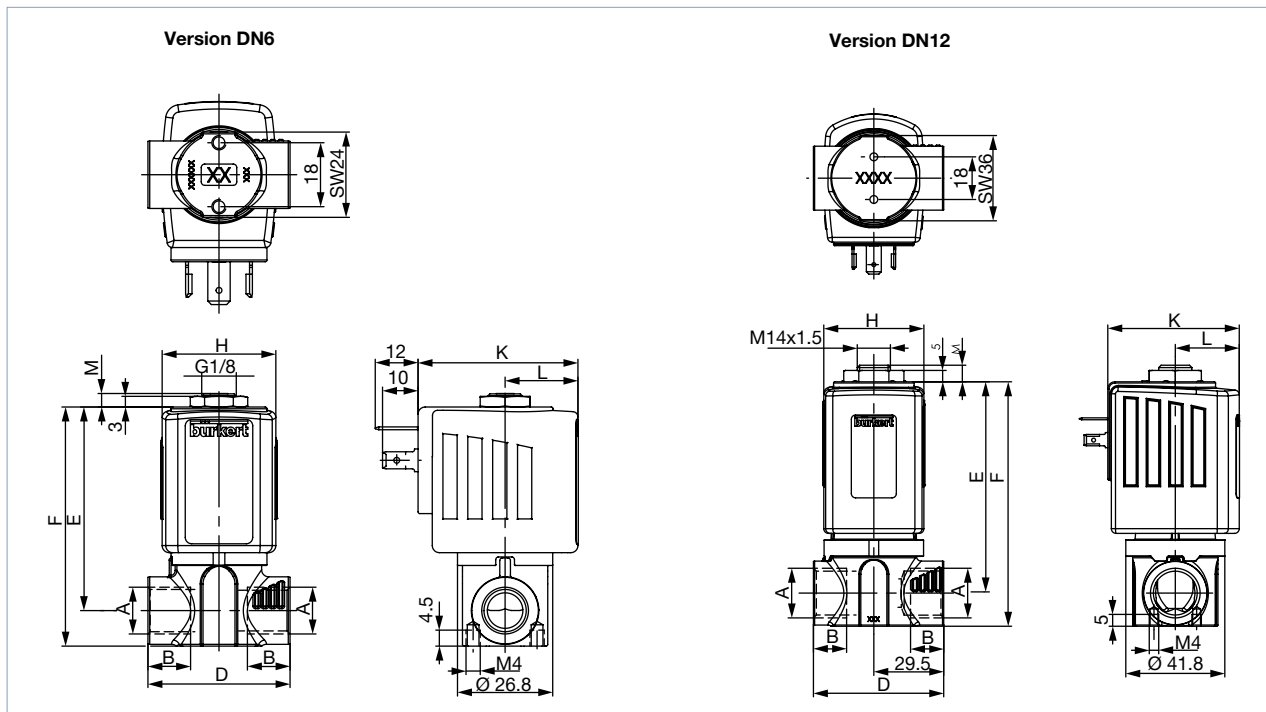
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4. Dimensions

4.1. Standard version

Note:

Dimensions in mm

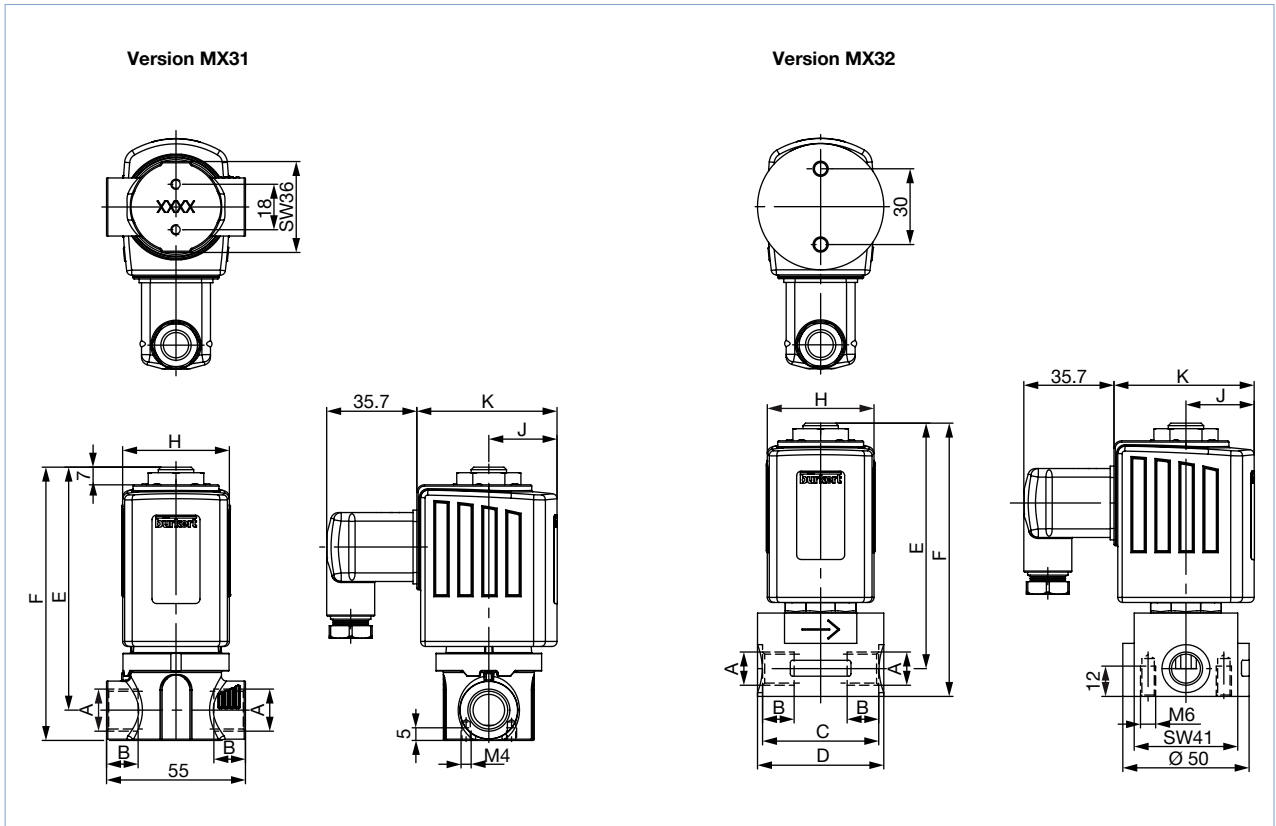


A (Body connection)	B	D	E	F	M	H	K	L
DN 6								
G ¼	12	40	57.3	67.3	3.7	32	45	20.5
NPT ¼	10							
RC ¼	9.7							
G ⅜	12	50	58.3	70.3				
NPT ⅜	10.3							
RC ⅜	10.1							
G ½	12	40	57.3	67.3	3.7	40	51	23.5
NPT ½	10							
RC ½	9.7							
G ¾	12	50	58.3	70.3				
NPT ¾	10.3							
RC ¾	10.1							
DN 12								
G ½	14	55	89	103	7.5	42	55.5	27
NPT ½	13.7							
RC ½	13.2							

4.2. High pressure version up to 250 bar (MX32) or 160 bar (MX31) – DN 6

Note:

Dimensions in mm



A	B	E	F
G ¼	13	95.2	105.2
NPT ¼	10	95.2	105.2
G ⅜	12	96.2	108.2
NPT ⅜	10.3	96.2	108.2

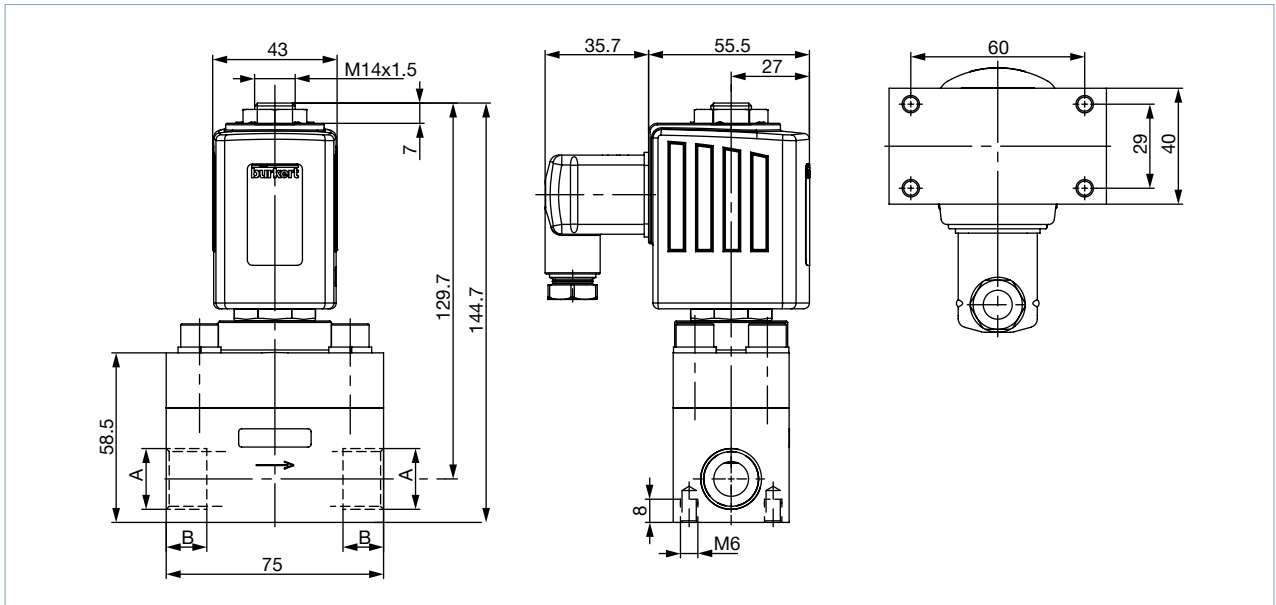
Coil size	H	J	K
K	42	27	55.5
L	65	37.5	72

A	B	C	D	E	F
G ¼	13	46	Ø 50	97.2	108.2
NPT ¼	10	46	Ø 50	97.2	108.2
G ⅜	12.5	44	44.4	98.7	111.2
NPT ⅜	10.3	44	44.4	98.7	111.2

4.3. High pressure version up to 250 bar (MX32) – DN 12

Note:

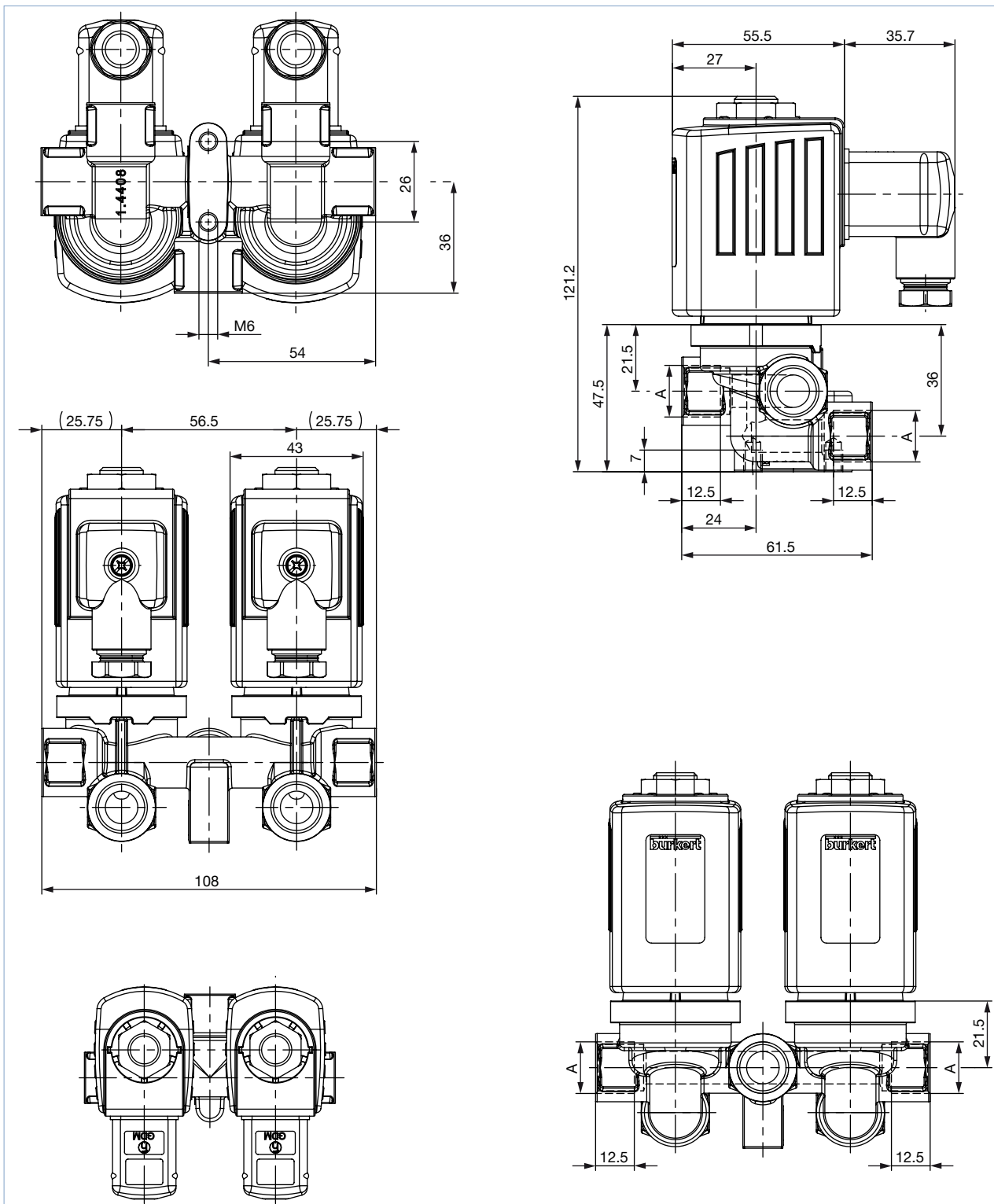
Dimensions in mm



A	B
G ½	14
NPT ½	13.7

4.4. Version for self-service car wash up to 160 bar (MX31) – Type 8820-6240

Note:
Dimensions in mm



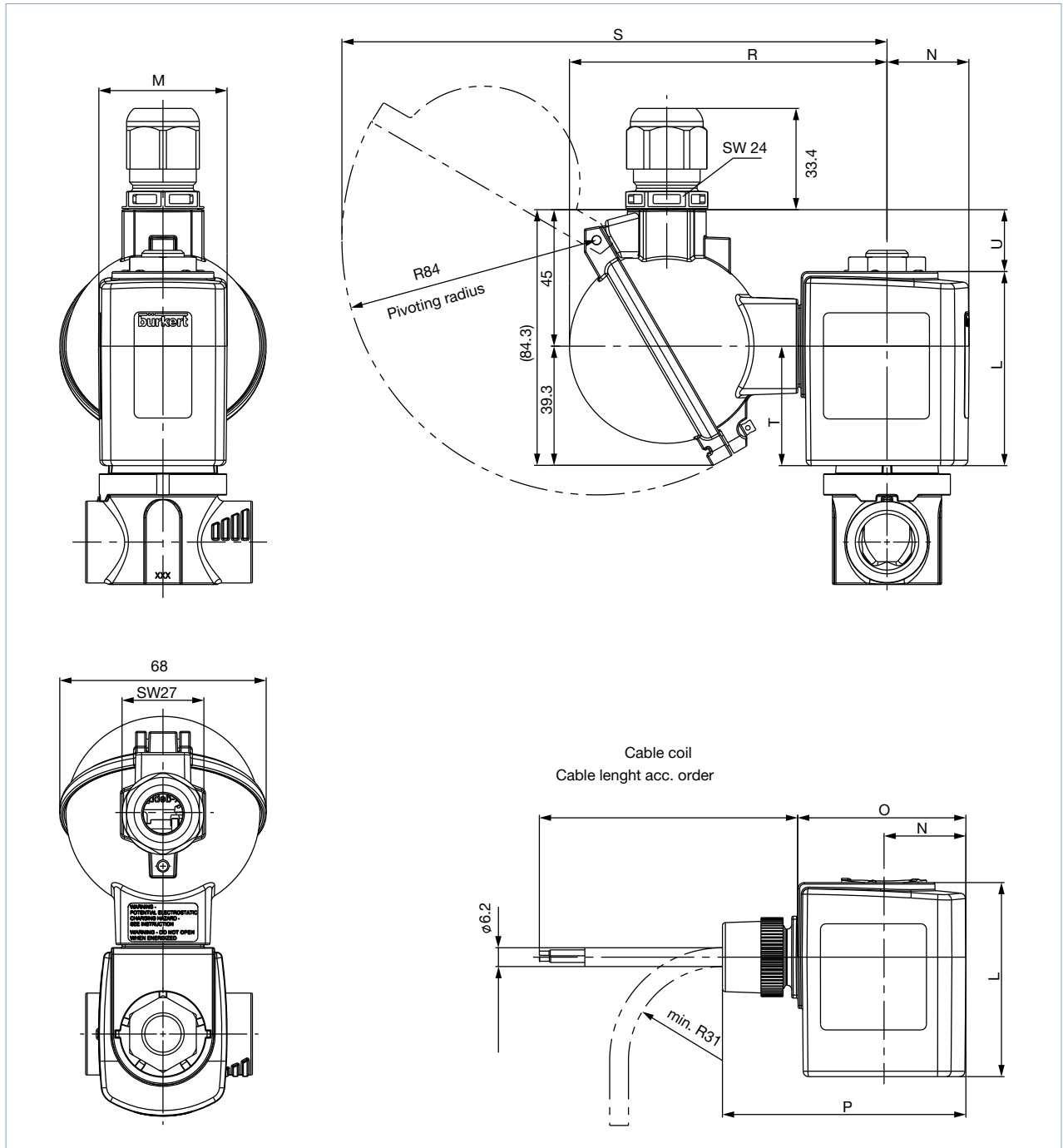
Version	A
AH40	G ¼
AH37	G ⅜

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4.5. ATEX/IECEx version (PX58, PX38 and PX39)

Note:

Dimensions in mm

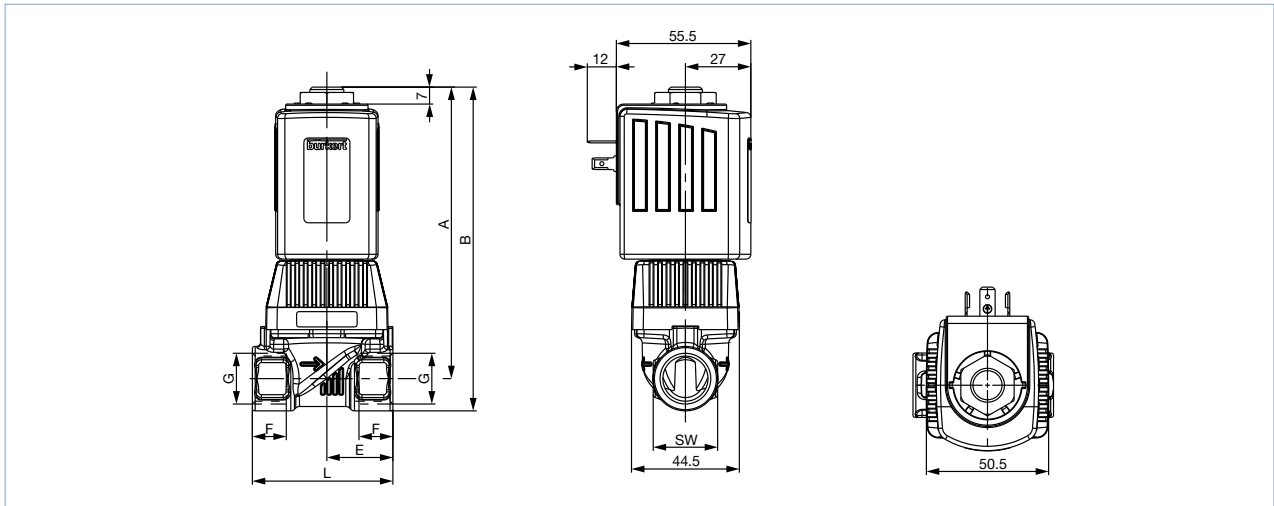


Var. Code	Coil size	M	N	O	P	L	R	S	T	U
PX32	6	40	23.5	52	74.8	41.3	102.8	177.5	26	29.7
PX38	K	42	27	55.5	80.3	64	104.8	179.8	39.4	20.4
PX39	L	65	37.5	72	97	64	110.8	185.8	39.4	20.4

4.6. DN 13 version

Note:

- For G threads sizes F1 and G1 apply.
- For NPT threads sizes F2 and G2 apply.
- For Rc threads sizes F3 and G3 apply.
- Dimensions in mm



Material	DN	A	B	E	F1	G1	F2	G2	F3	G3	L	SW
Brass	13	120.35	133.85	27.25	14	G 1/2	13.7	NPT 1/2	13.2	Rc 1/2	58	27
Stainless steel	13	120.35	133.85	32.5	14	G 1/2	13.7	NPT 1/2	13.2	Rc 1/2	65	27
Brass and stainless steel	13	122.35	138.35	32.5	16	G 3/4	14	NPT 3/4	14.5	Rc 3/4	65	32

5. Performance specifications

5.1. Electrical power consumption

Note:

KD coil AC/DC „Kick and Drop“ coil (KD coil) features integrated electronics for short-term power increase and reduction in double-coil technology.

Coil size	AC			DC		KD-Coil AC/DC		
	Inrush	Hold		Cold	Warm	Cold Inrush	Cold Hold	Warm Hold
[mm]	[VA]	[VA]	[W]	[W]	[W]	[W] 500 ms	[W]	[W]
32 (5)	32	18	8	12	10	-	-	-
40 (6)	40	23	10	14	12	-	-	-
40 (6) ATEX	-	-	-	9	7.5	-	-	-
42 (K)	150	37	16	21	16	85	8.5	7
42 (K) ATEX	-	-	-	15	12	44	6.5	5.5
65 (L)	-	-	-	28	21	-	-	-


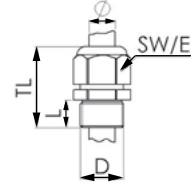

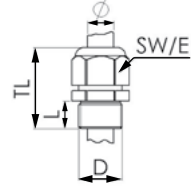
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6. Product accessories

6.1. Cable glands for ATEX/IECEX terminal box

Note:

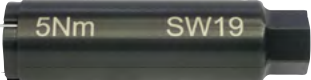
- A cable gland in polyamide version is included in the delivery. A nickel-plated brass version can be ordered at a surcharge.
- This special tool is not supplied with the valve (see [“Cable glands for ATEX/IECEX terminal box”](#) on page 21)

Description	Ex-Approval		Dimensions											
	Certification	Identification												
Ex cable gland, Brass, nickel-plated, 6...13 mm 	PTB 04 ATEX 1112 X, IECEx PTB 13.0027X	II 2 G Ex e IIC Gb, I 2 D Ex tb IIIC Db IP68		<table border="1"> <tr><td>TL</td><td>29...37 mm</td></tr> <tr><td>L</td><td>6 mm</td></tr> <tr><td>D</td><td>20 mm</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>27 mm</td></tr> </table>	TL	29...37 mm	L	6 mm	D	20 mm	SW	24 mm	E	27 mm
TL	29...37 mm													
L	6 mm													
D	20 mm													
SW	24 mm													
E	27 mm													
Ex cable gland, Polyamide, 7...13 mm 	PTB 13 ATEX 1015 X, IECEx PTB 13.0034X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68		<table border="1"> <tr><td>TL</td><td>36...45 mm</td></tr> <tr><td>L</td><td>10 mm</td></tr> <tr><td>D</td><td>20 mm</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>28 mm</td></tr> </table>	TL	36...45 mm	L	10 mm	D	20 mm	SW	24 mm	E	28 mm
TL	36...45 mm													
L	10 mm													
D	20 mm													
SW	24 mm													
E	28 mm													

6.2. Special tool to turn the junction box

Note:

This special tool is not supplied with the valve (see [“Cable glands for ATEX/IECEX terminal box”](#) on page 21).

Set SC02-AC10	
	Set includes: <ul style="list-style-type: none"> • Special wrench • Service manual

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