



Servo-assisted 2/2-way piston valve

- Servo-assisted piston valve with an orifice up to DN 50
- Explosion proof versions for Cat. 2
- Suitable for gas and steam applications up to 180°C
- Relief valves for compressors



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 description

The 5404 valve is a servo-assisted piston valve available in NC and NO versions. A minimum differential pressure is required for the valve switching function. The solenoid coils are moulded with high-quality epoxy resin. In combination with a plug to DIN EN 175301-803 Form A, the valves satisfy degree of protection IP65. The cable plug is not included and must be ordered separately.

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1. General technical data

Product properties

Materials

Body	Brass
Coil	Epoxy resin (polyamide on request)
Seal	PTFE seat seal + FKM PTFE seat seal + Graphite steam version PTFE seat seal + EPDM on request
Nominal diameter	DN 12...DN 50
Coil insulation class	H (B on request)
Valve internals	Stainless steel, brass

Electrical data

Voltage tolerance	± 10 %
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Electrical power consumption

Circuit function A, DN 12...DN 25 (not in combination with high pressure MX13)	Inrush AC: 24 VA Hold AC (hot coil): 14 VA/8 W Hold DC (hot/cold coil): 8/9.5 W
Circuit function B, DN 12...DN 25	Inrush AC: 24 VA Hold AC (hot coil): 14 VA/8 W Hold DC (hot/cold coil): 8/9.5 W
ATEX/IECEx version	Inrush AC: 9 VA Hold AC (hot coil): 9 VA Hold DC (hot/cold coil): 9 W
Circuit function A, DN 32...DN 50 and DN 12 as high pressure MX13	Inrush AC: 24 VA Hold AC (hot coil): 16 VA/10 W Hold DC (hot/cold coil): 12/13 W

Performance data

Duty cycle	100 % continuous rating
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Response times

DN 12...DN 25	Opening: 20...400 ms Closing: 100...1500 ms
DN 32...DN 50	Opening: 200...1500 ms Closing: 1000...3000 ms

Medium data

Medium	Neutral mediums, compressed air, water, hydraulic oil and steam
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Medium temperature

Standard	- 10 °C...120 °C
Steam version	Up to 160 °C, see "5.1. Temperature/duty cycle derating diagram for steam version NA07" on page 16 (from -40 °C on request) Up to 180 °C for AC 6 Watt

Approvals and Certificates

Protection class	IP65 with cable plug (IP67 on request)
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Product connections

Electrical connection	Tag connector acc. to DIN EN 175301 - 803 Form A
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Environment and installation

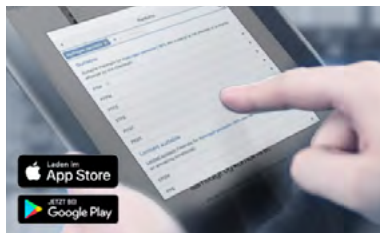
Installation	As required, preferably with actuator upright
Ambient temperature	- 10 °C...+55 °C (from -40 °C on request)

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



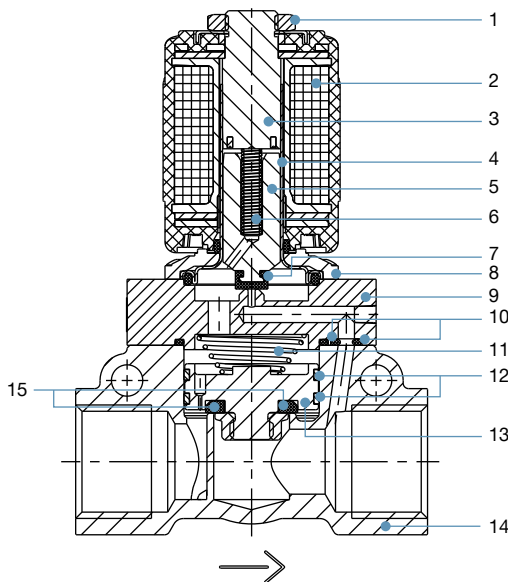
Bürkert resistApp – Chemical Resistance Chart

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](#)

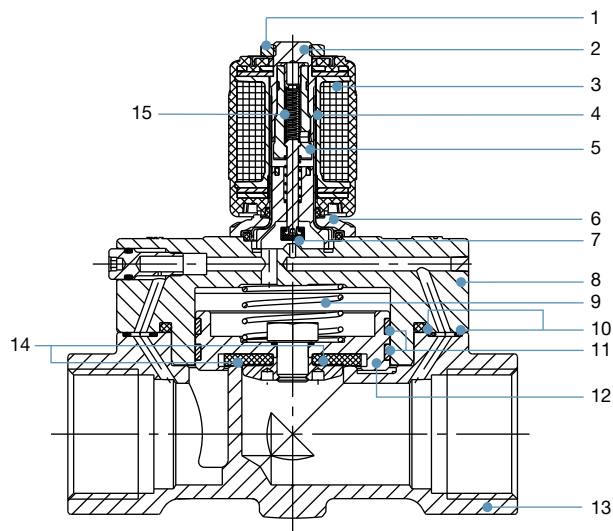
3.2. Standard version

DN 12, Circuit function A



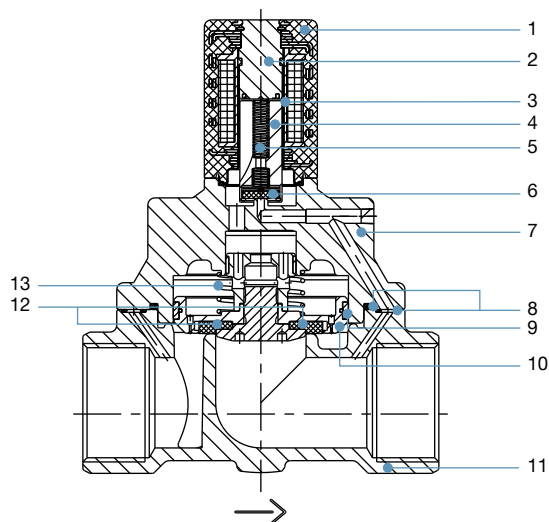
No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy (polyamide optional)
3	Stopper	Stainless steel 1.4105
4	Armature guide tube	Stainless steel 1.4303
5	Plunger	Stainless steel 1.4105
6	Spring	Stainless steel 1.4310
7	Plunger seal	FKM (EPDM optional)
8	Flange	Steel (thick-film passivated according to RoHS)
9	Cover	Brass
10	O-Rings	FKM (EPDM optional)
11	Spring	Stainless steel 1.4310
12	Piston rings	PTFE
13	Piston	Brass
14	Valve body	Brass
15	Piston seal	PTFE

DN 25, Circuit function B



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Stopper	Stainless steel 1.4113
3	Coil	Epoxy
4	Armature guide tube	Stainless steel 1.4303
5	Plunger	Stainless steel 1.4113/1.4305
6	Flange	Steel (thick-film passivated according to RoHS)
7	Plunger seal	FKM (EPDM optional)
8	Cover	Brass
9	Spring	Stainless steel 1.4310
10	O-Rings	FKM (EPDM optional)
11	Piston rings	PTFE
12	Piston	Brass
13	Valve body	Brass
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310

DN 32, Circuit function A

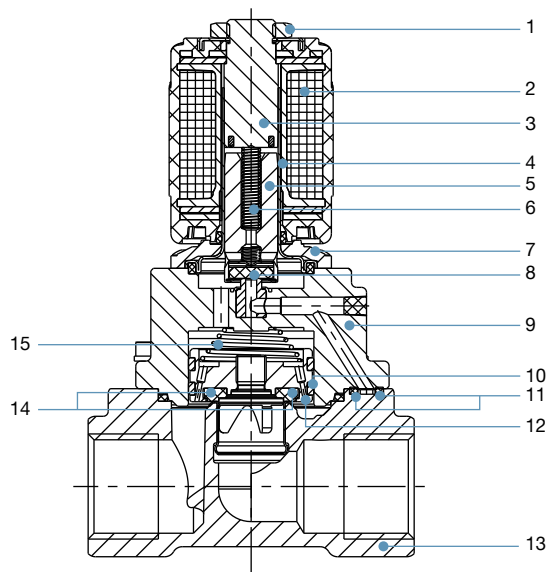


No.	Element	Material
1	Coil	Epoxy
2	Stopper	Stainless steel 1.4105
3	Armature guide tube	Stainless steel 1.4303
4	Plunger	Stainless steel 1.4105
5	Spring	Stainless steel 1.4310
6	Plunger seal	FKM
7	Cover	Brass
8	O-Rings	FKM
9	Piston rings	PTFE
10	Piston	Brass
11	Valve body	Brass
12	Piston seal	PTFE
13	Spring	Stainless steel 1.4310

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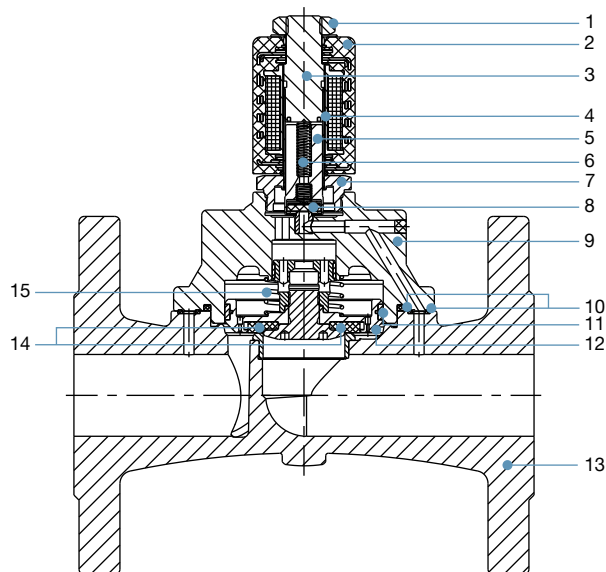
3.3. Steam version NA07

DN 13, Circuit function A



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy
3	Stopper	Stainless steel 1.4113
4	Armature guide tube	Stainless steel 1.4303
5	Plunger	Stainless steel 1.4113
6	Spring	Stainless steel 1.4310
7	Flange	Steel (thick-film passivated according to RoHS)
8	Plunger seal	PTFE
9	Cover	Brass
10	Piston rings	PTFE
11	O-Rings	Graphite
12	Piston	Brass
13	Valve body	Brass
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310

DN 32, Circuit function A, flange body

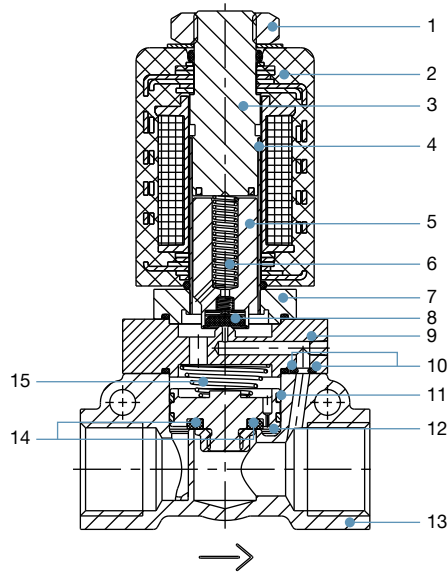


No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy
3	Stopper	Stainless steel 1.4113
4	Armature guide tube	Stainless steel 1.4571
5	Plunger	Stainless steel 1.4113
6	Spring	Stainless steel 1.4310
7	Threaded tube	Stainless steel 1.4401 or 1.4571
8	Plunger seal	PTFE
9	Cover	Brass
10	O-Rings	Graphite
11	Piston rings	PTFE
12	Piston	Brass
13	Valve body	Gray cast iron
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310

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3.4. High pressure version MX13

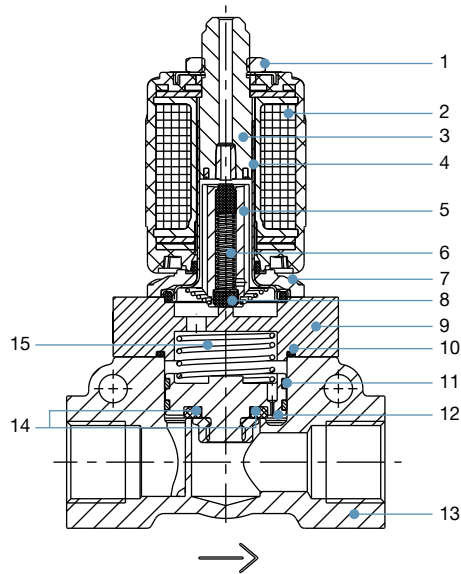
DN 12, Circuit function A



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy (polyamide)
3	Stopper	Stainless steel 1.4113
4	Armature guide tube	Stainless steel 1.4571
5	Plunger	Stainless steel 1.4113
6	Spring	Stainless steel 1.4310
7	Flange	Stainless steel 1.4401
8	Plunger seal	PTFE
9	Cover	Brass
10	O-Rings	FKM
11	Piston rings	PTFE
12	Piston	Brass
13	Valve body	Brass
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310

3.5. Discharge valve for compressor systems CF05

DN 12, Circuit function B



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy (polyamide optional)
3	Stopper	Stainless steel 1.4105
4	Armature guide tube	Stainless steel 1.4303
5	Plunger	Stainless steel 1.4105
6	Spring	Stainless steel 1.4310
7	Flange	Steel (thick-film passivated according to RoHS)
8	Plunger seal	FKM
9	Cover	Brass
10	O-Rings	FKM
11	Piston rings	PTFE
12	Piston	Brass
13	Valve body	Brass
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310

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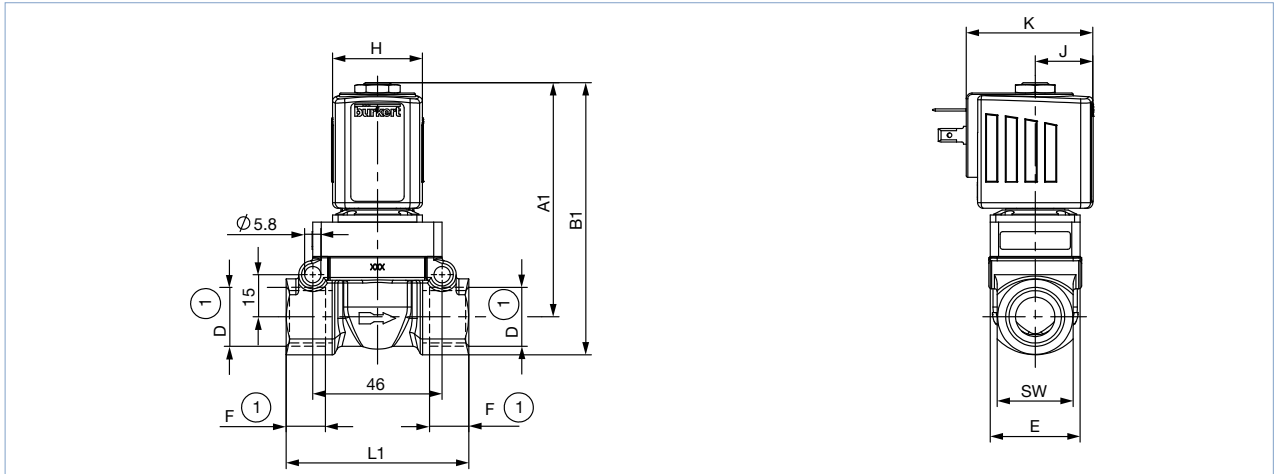
4. Dimensions

4.1. Standard version

Threaded version DN 12

Note:

- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D2 and F2 apply.
- For Rc-threads the dimensions D3 and F3 apply.
- Dimensions in mm

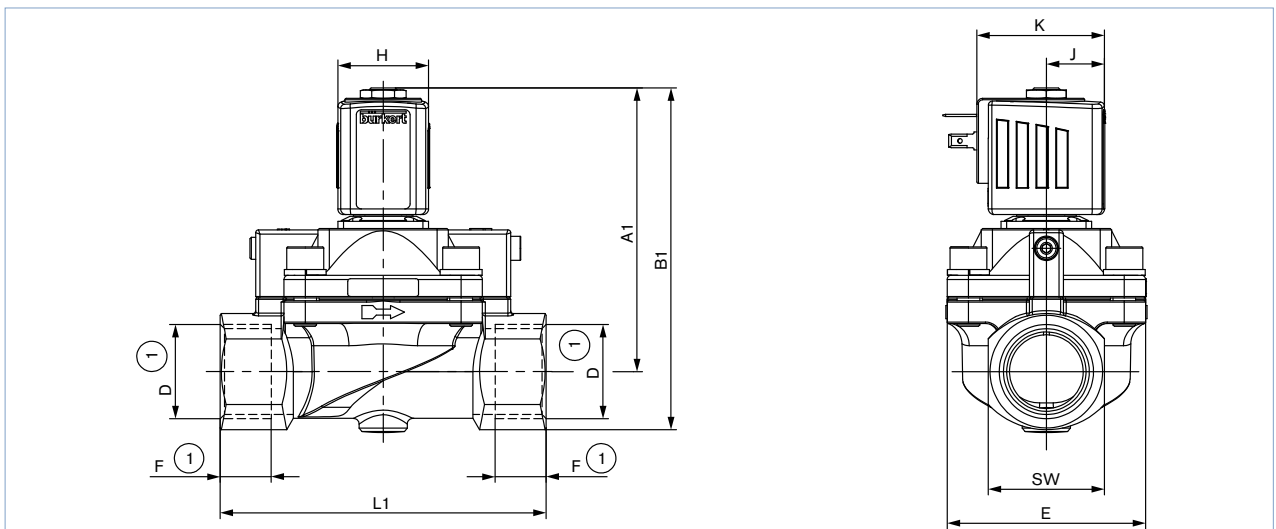


Coil size	DN	WWA		WWB		G thread		NPT thread		Rc thread		E	L1	SW	H	J	K
		A1	B1	A1	B1	D1	F1	D2	F2	D3	F3						
5	12.0	83	96.5	90.5	104	G ½	14	NPT ½	13.7	Rc ½	13.2	33	65	27	32	20.5	45
6	12.0	83	96.5	90.5	104	G ½	14	NPT ½	13.7	Rc ½	13.2	33	65	27	40	23.5	51

Threaded version DN 20 and DN 25

Note:

- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D2 and F2 apply.
- For Rc-threads the dimensions D3 and F3 apply.
- Dimensions in mm

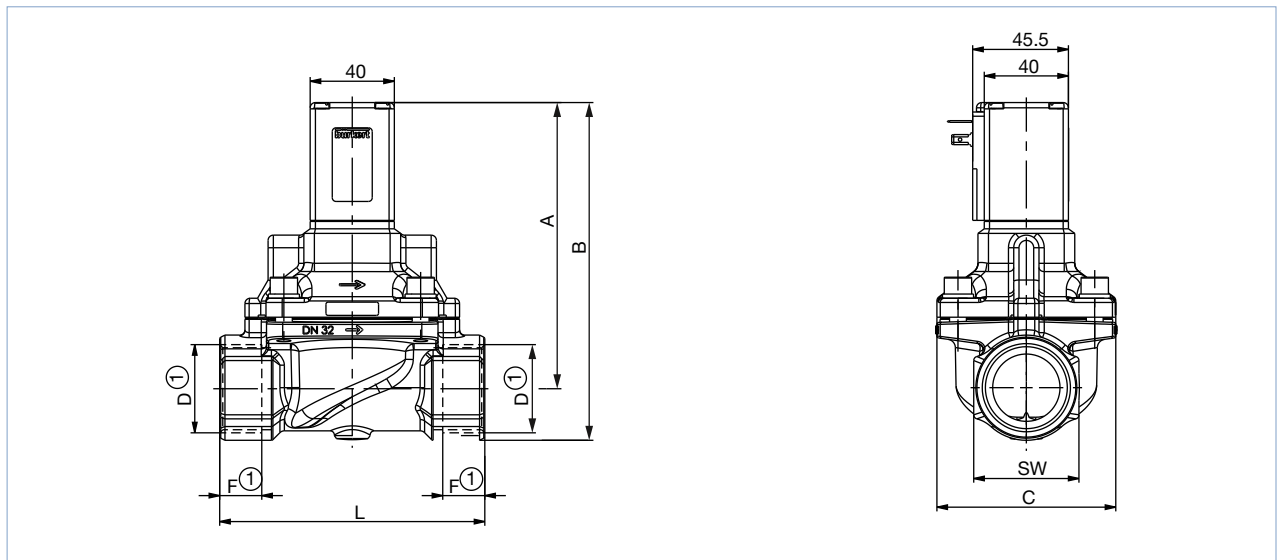


Coil size	DN	WWA		WWB		G thread		NPT thread		Rc thread		E	L1	SW	H	J	K
		A1	B1	A1	B1	D1	F1	D2	F2	D3	F3						
5	20.0	93	109	90.5	104	G ¼	16	NPT ¼	14	Rc ¼	14.5	60	100	32	32	20.5	45
	25.0	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			
6	20.0	93	109	90.5	104	G ¼	16	NPT ¼	14	Rc ¼	14.5	60	100	32	40	23.5	51
	25.0	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			

Threaded version DN 32 and DN 50

Note:

- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D1 and F1 apply.
- Dimensions in mm



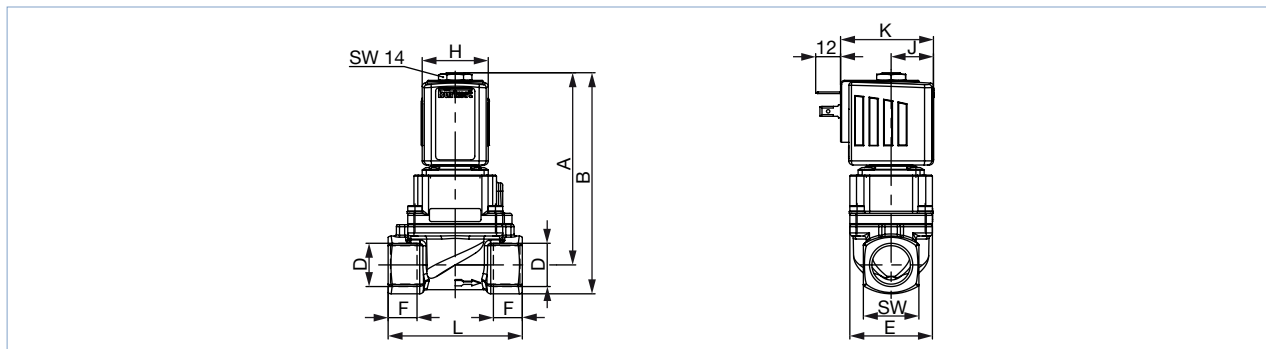
DN	A	B	G thread		NPT thread		C	L	SW
			D1	F1	D2	F2			
32	136	161	G 1 ¼	20	NPT 1 ¼	17.3	85	126	50
32	140	170	G 1 ½	22	NPT 1 ½	17.3	85	126	60
50	163	198	G 2	24	NPT 2	17.6	115	164	70

4.2. Steam version NA07

Threaded version DN 13

Note:

- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D2 and F2 apply.
- For Rc-threads the dimensions D3 and F3 apply.
- Dimensions in mm

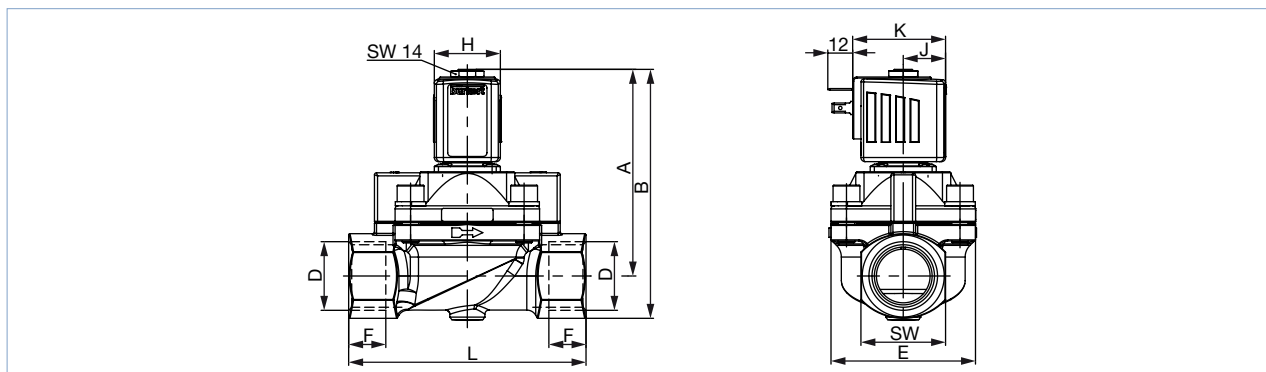


Coil size	DN	A	B	G thread		NPT thread		Rc thread		E	L	SW	H	J	K
				D1	F1	D2	F2	D3	F3						
5	13	93.1	107.1	G ½	14	NPT ½	13.7	Rc ½	13.2	40	65	27	32	20.5	45
6	13	93.1	107.1	G ½	14	NPT ½	13.7	Rc ½	13.2	40	65	27	40	23.5	51

Threaded version DN 20, DN 25

Note:

- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D2 and F2 apply.
- For Rc-threads the dimensions D3 and F3 apply.
- Dimensions in mm



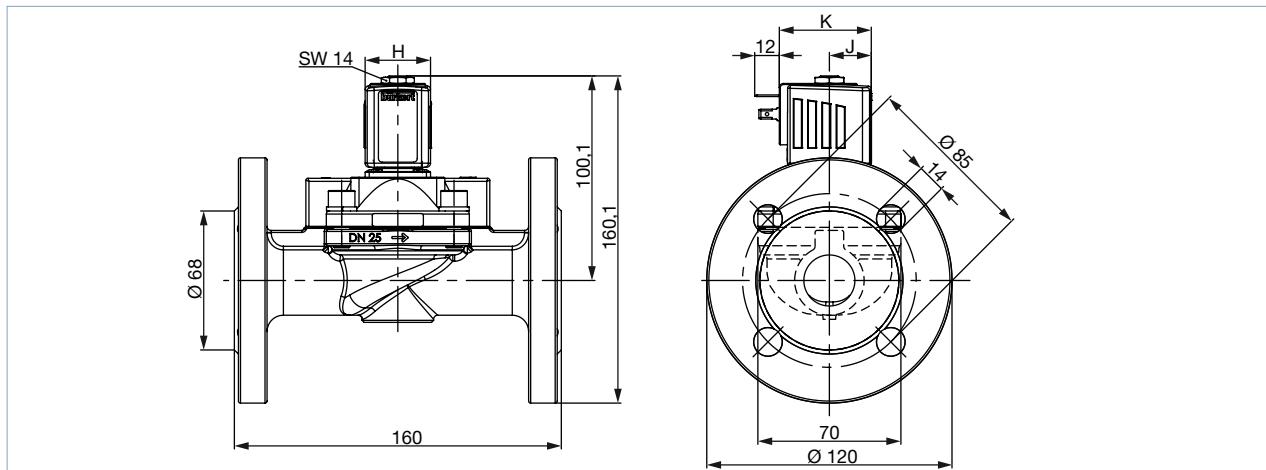
Coil size	DN	A	B	G thread		NPT thread		Rc thread		E	L	SW	H	J	K
				D1	F1	D2	F2	D3	F3						
5	20	96.1	112.1	G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32	32	20.5	45
	25	100.1	120.6	G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			
6	20	96.1	112.1	G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32	40	23.5	51
	25	100.1	120.6	G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			

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Flange version DN 25

Note:

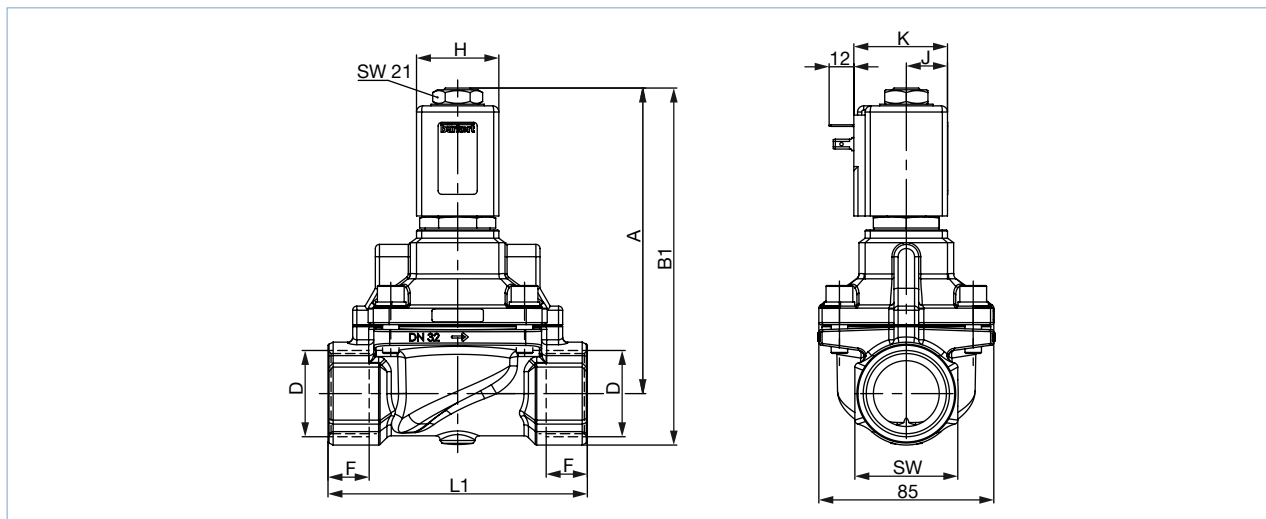
- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D2 and F2 apply.
- For Rc-threads the dimensions D3 and F3 apply.
- Dimensions in mm



Coil size	DN	A	B	G thread		NPT thread		Rc thread		E	L	SW	H	J	K
				D1	F1	D2	F2	D3	F3						
5	25	100.1	120.6	G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41	32	20.5	45
6	25	100.1	120.6	G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41	40	23.5	51

Threaded version DN 32 and DN 40

- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D2 and F2 apply.
- Dimensions in mm



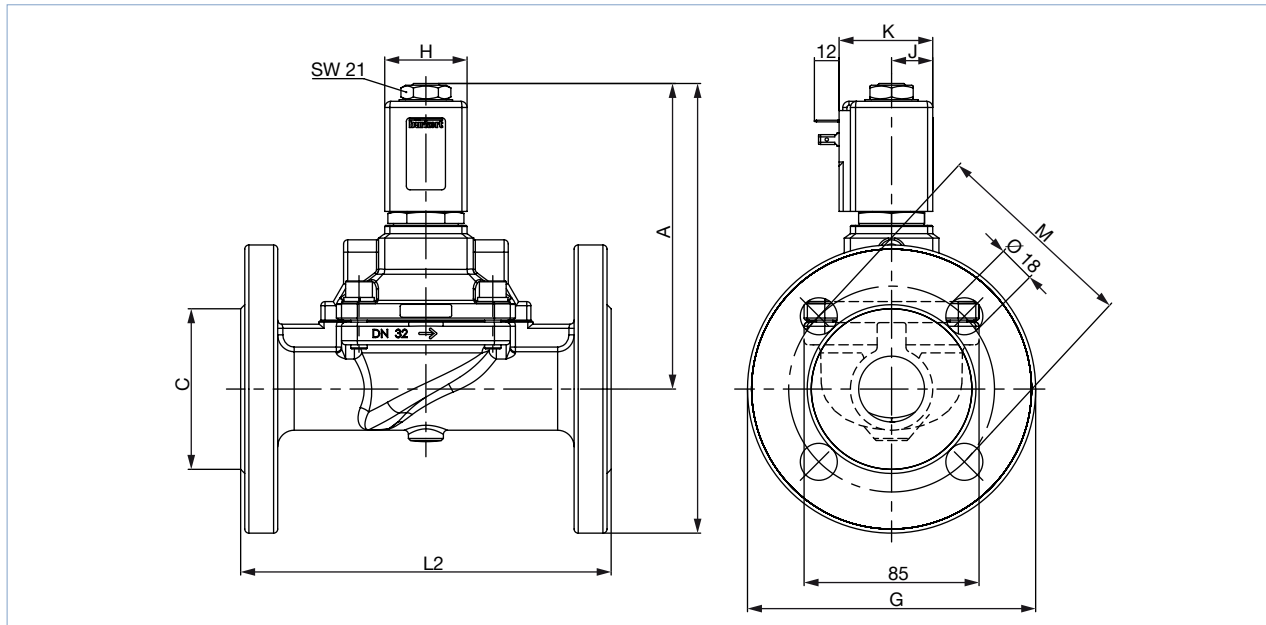
Coil size	DN	A	B1	G thread		NPT thread		L	B2	C	G	L2	M	SW	H	J	K
				D1	F1	D2	F2										
C	32	148	173	G 1¼	20	NPT 1¼	17.3	126	218	78	140	180	100	50	40	20	45
	40	153	181	G 1½	22	NPT 1½	17.3	126	227	88	150	200	110	60			

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Flange version DN 32 and DN 40

Note:

- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D2 and F2 apply.
- Dimensions in mm

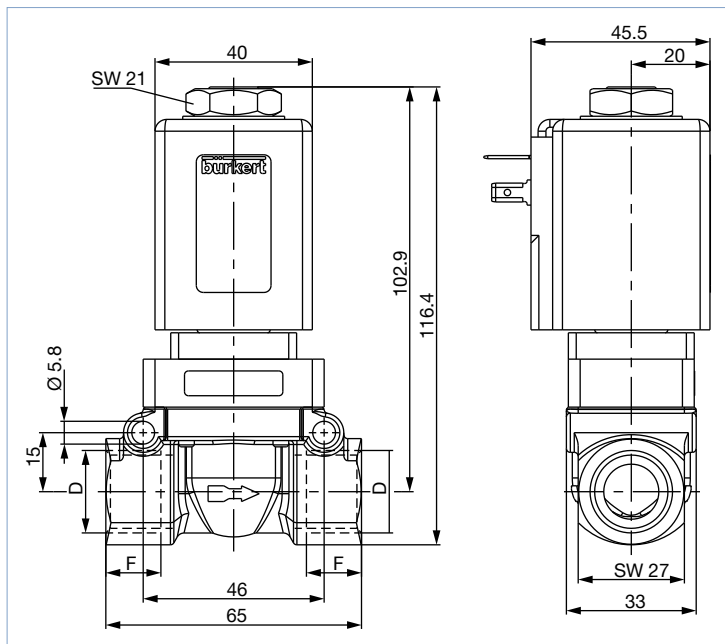


Coil size	DN	A	B1	G thread		NPT thread		L	B2	C	G	L2	M	SW	H	J	K
				D1	F1	D2	F2										
C	32	148	173	G 1¼	20	NPT 1¼	17.3	126	218	78	140	180	100	50	40	20	45
	40	153	181	G 1½	22	NPT 1½	17.3	126	227	88	150	200	110	60			

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4.3. High pressure version MX13

Note:
Dimensions in mm

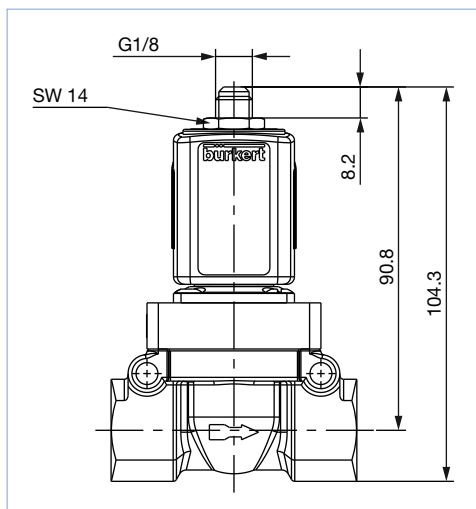


D	F
G 1/2	14
NPT 1/2	13.7

4.4. Discharge valve for compressor systems CF05

Plug version with ventilation

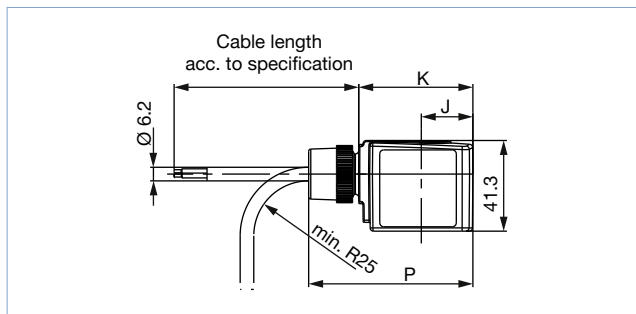
Note:
Dimensions in mm



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4.5. ATEX/IECEEx version

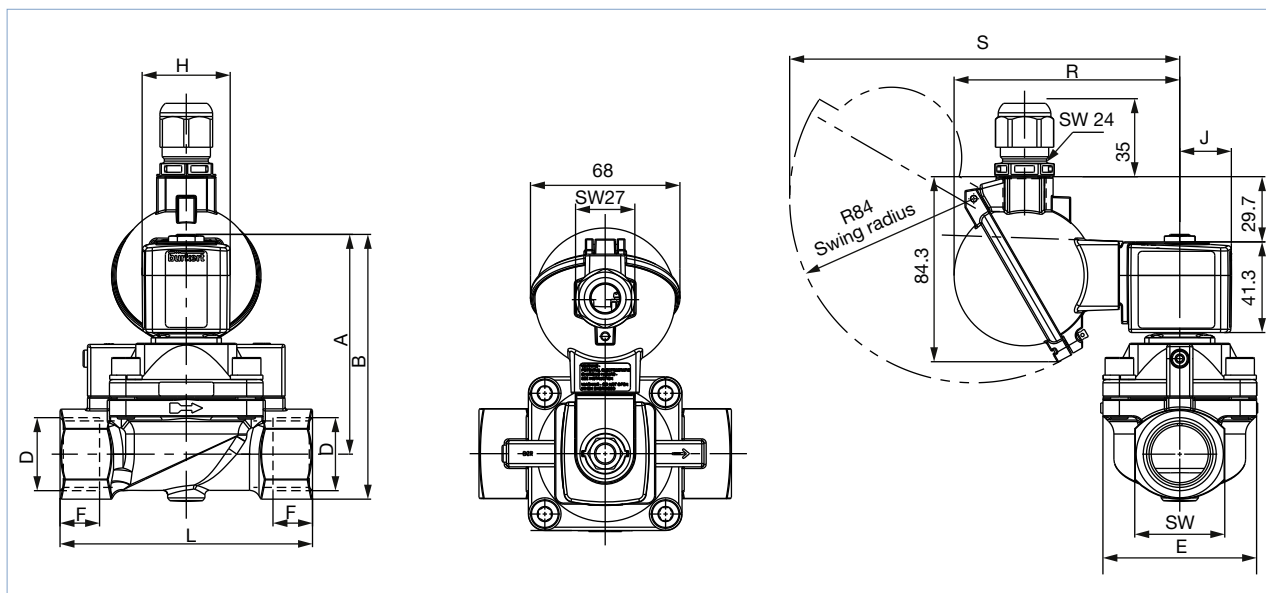
Cable version



Terminal box

Note:

- For G-threads the dimensions D1 and F1 apply.
- For NPT-threads the dimensions D2 and F2 apply.
- For Rc-threads the dimensions D3 and F3 apply.
- Dimensions in mm

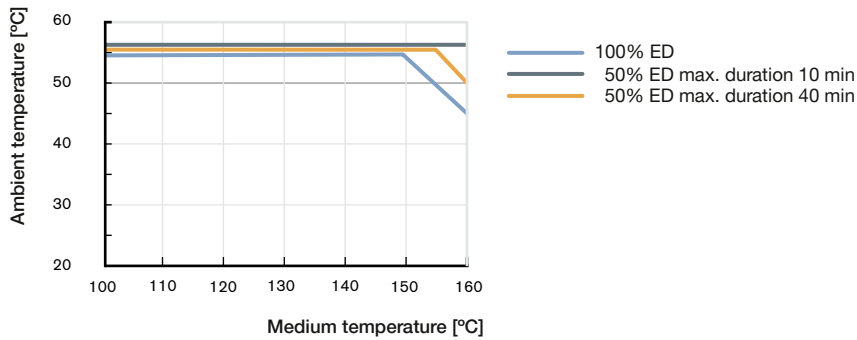


Coil size	DN	WWA		WWB		G thread		NPT thread		Rc thread		E	L	SW	H	J	K	P	R	S	
		A	B	A	B	D1	F1	D2	F2	D3	F3										
5	12	83	96.5	90.8	104.3	G ½	14	NPT ½	13.7	Rc ½	13.2	33	65	27	32	20.5	46	68.8	99.8	174.7	
	20	93	109			G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32							
	25	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41							
6	12	83	96.5	90.8	104.3	G ½	14	NPT ½	13.7	Rc ½	13.2	33	65	27	40	23.5	52	74.8	102.8	177.7	
	20	93	109			G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32							
	25	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41							

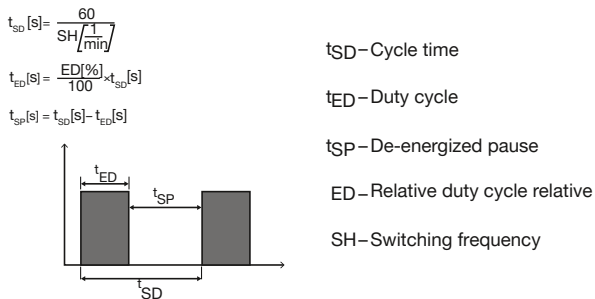
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5. Performance specifications

5.1. Temperature/duty cycle derating diagram for steam version NA07



5.2. Characteristic values of intermittent operation


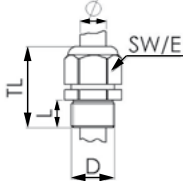

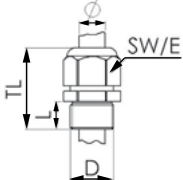


6. Product accessories

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.

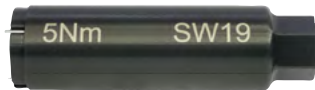
Description	Ex approvals		Dimensions										
	Certification	Identification											
Ex cable gland, Brass, nickel-plated, 6...13 mm 	PTB 04 ATEX 1112 X, IECEx PTB 13.0027X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68	 <table border="1"> <tr><td>TL</td><td>29...37 mm</td></tr> <tr><td>L</td><td>6 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 “7.4. Ordering chart accessories” on page 22).

Set SC02-AC10



Set includes:

- Special wrench
- Service manual

7. Ordering information

7.1. Bürkert eShop – Easy ordering and quick delivery



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7.2. Bürkert product filter



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