

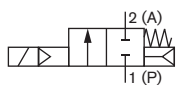


Servo-assisted 2/2 way piston valve

- Servo-assisted piston valve with diameter up to DN50
- Explosion proof versions Cat. 2
- Suitable for gas and steam applications up to 160 °C
- Relief valves for compressors

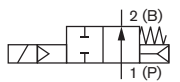
The 5404 valve is a servo-assisted piston valve available in NC and NO versions. A minimum differential pressure is required for the valve switching function. The solenoid coils are moulded with high-quality epoxy resin. In combination with a plug in accordance with DIN EN 175301 - 803 Form A, the valves satisfy protection class IP65. Please order the plug separately.

Circuit function A



2/2 way servo-controlled solenoid valve, normally closed

Circuit function B



2/2 way servo-controlled solenoid valve, normally open

Contentes:

Standard version	p. 2
Steam version (variable Code NA07)	p. 6
High pressure version (var. Code MX13)	p. 10
Compressor systems (var. Code CF05)	p. 11
ATEX version (var. Code PX23)	p. 12
Accessories	p. 14

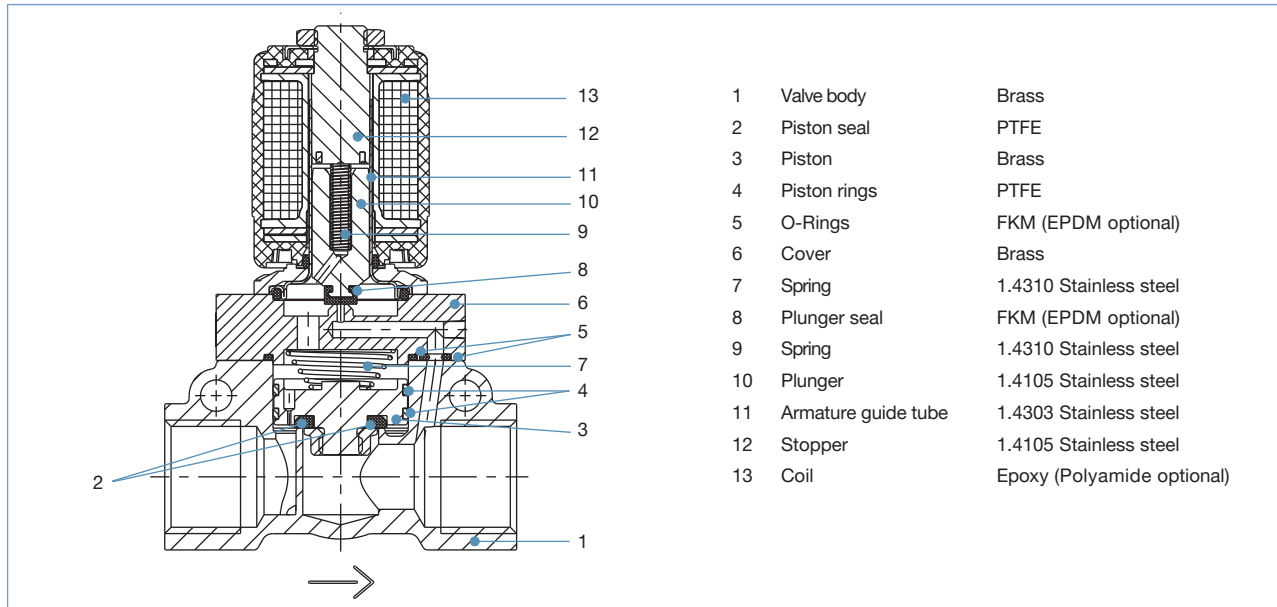
Technical data	
Orifice	DN12...50 mm
Body material	Brass
Coil material	Epoxy resin (Polyamide on request)
Coil insulation class	H (B on request)
Valve internals	Stainless steel, brass
Seal material	PTFE seat seal + FKM PTFE seat seal + Graphite steam version PTFE seat seal + EPDM on request
Medium	Neutral mediums, compressed air, water, hydraulic oil and steam
Medium temperature	Standard Steam version
	- 10 to + 110 °C up to 160 °C see Temperature Derating Diagram (from - 40 °C on request)
Ambient temperature	- 10 to + 55 °C (from - 40 °C on request)
Voltage tolerance	± 10 %
Duty cycle	100 % continuous rating
Electrical connection	Tag connector acc. to DIN EN 175301 - 803 Form A
Protection class	IP65 with cable plug (IP67 on request)
Installation	As required, preferably with actuator upright

Response times	Opening [ms]	Closing [ms]
DN12...25:	20...400	100...1500
DN32...50	200...1500	1000...3000

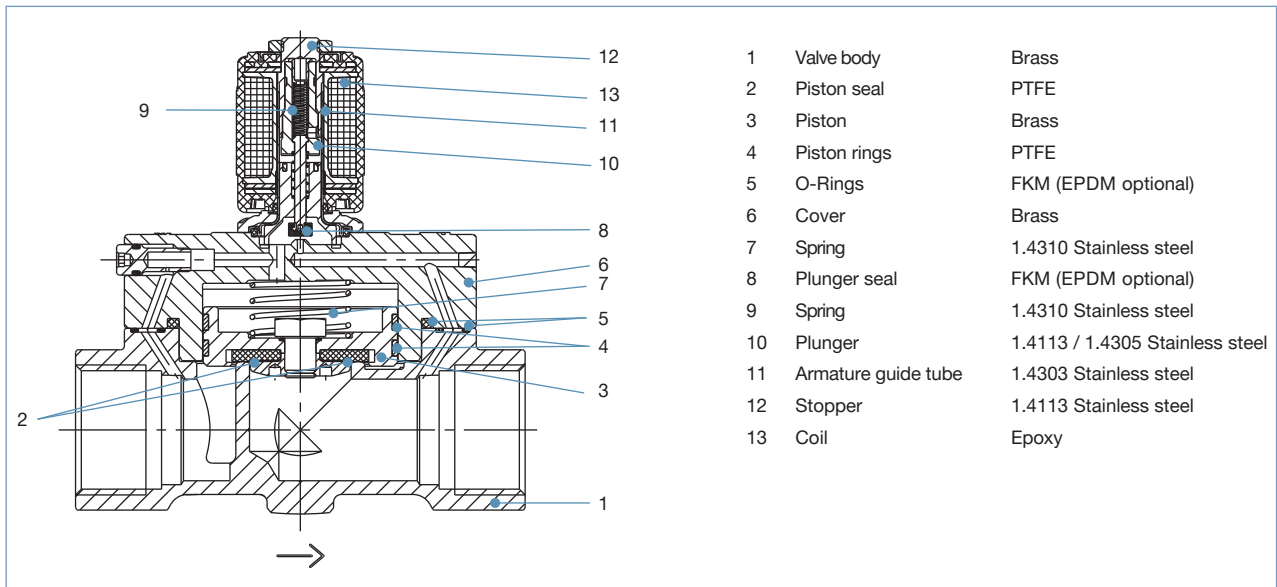
Electrical power consumption.			
Inrush AC	Hold AC (hot coil)		Hold DC (hot/cold coil)
[VA]	[VA]	[W]	[W]
Circuit function A DN12 zo 25 mm (not in combination with high pressure MX13)			
24	14	8	8/9.5
Circuit function B DN12...25 mm			
24	16	7	8/9.5
ATEX/IECEx version			
9	9		9
Circuit function A DN32...50 mm and DN12 as high pressure MX13			
24	16	10	12/13

Materials - Standard version

DN12, Circuit function A

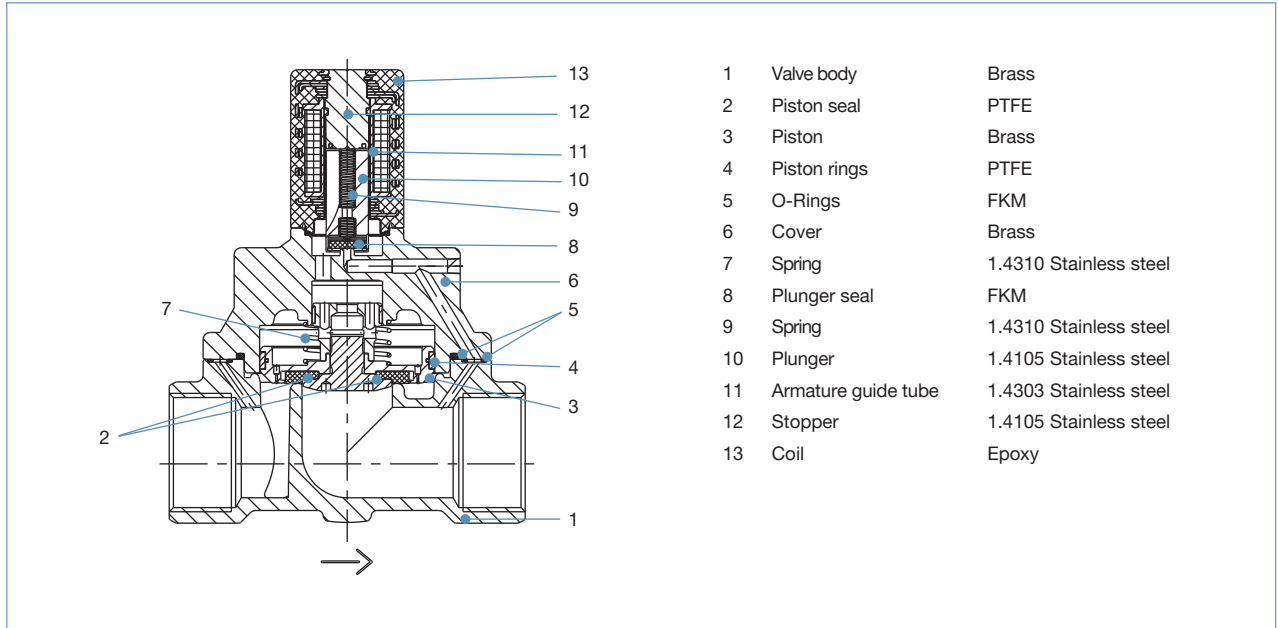


DN25, Circuit function B

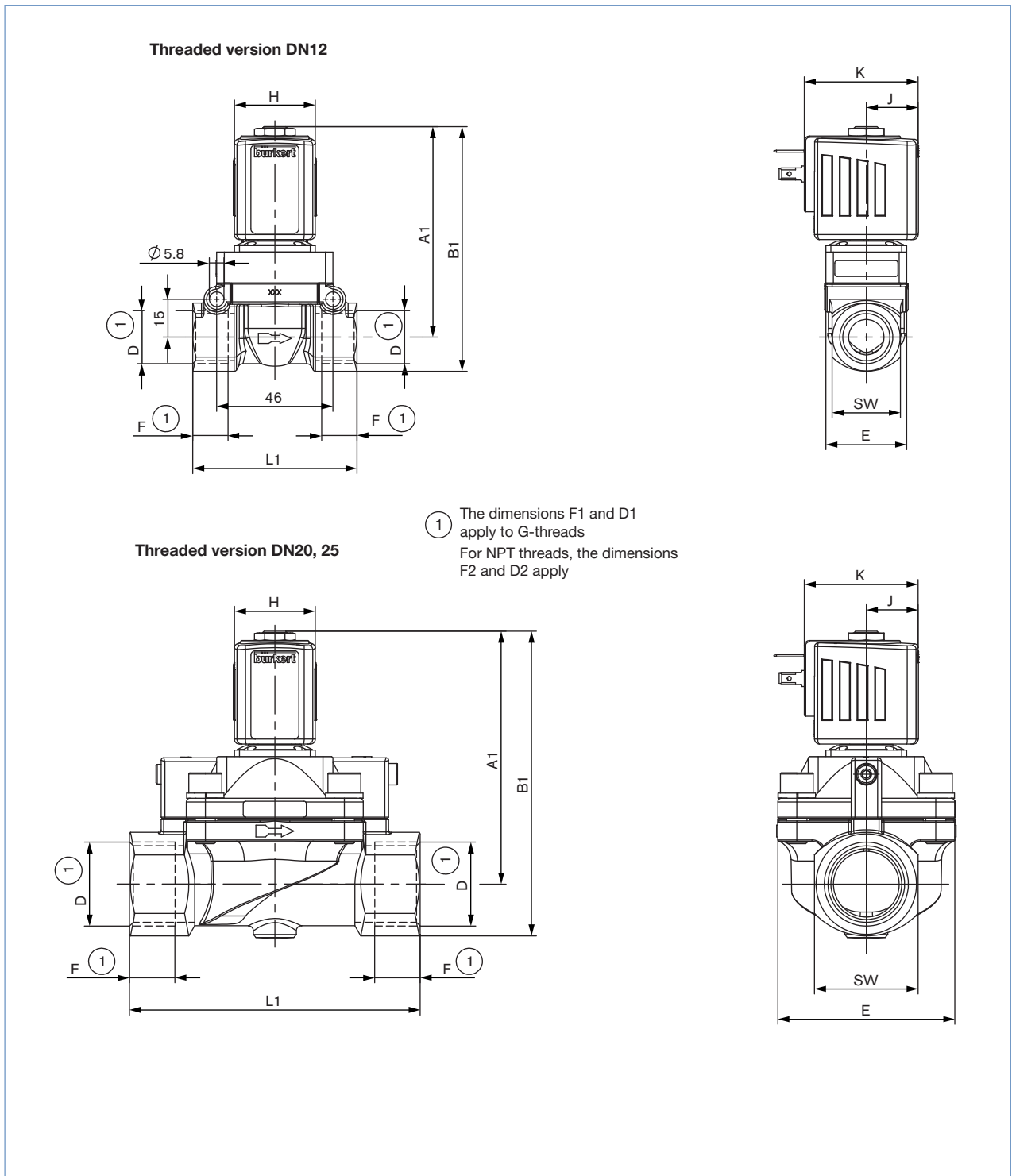


Materials - Standard version

DN32, Circuit function A

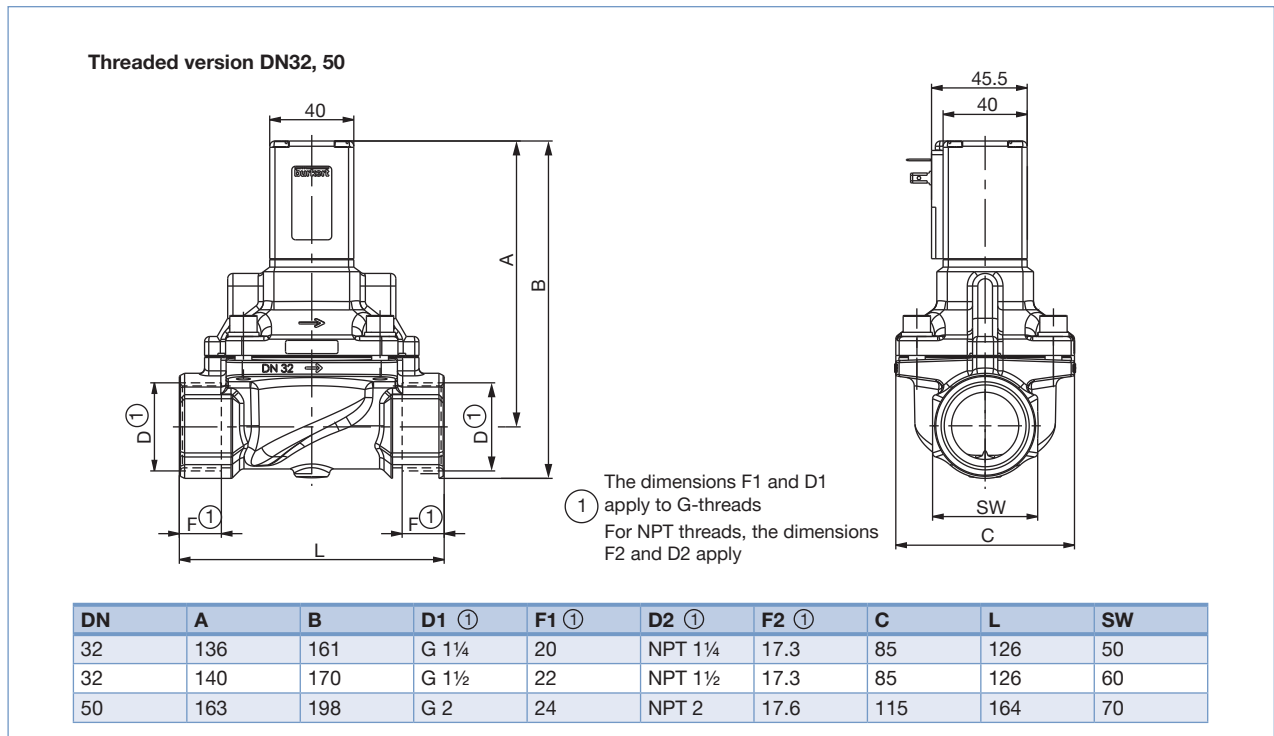


Dimensions [mm] - standard version



Threaded version																	
Coil size	DN [mm]	WWA		WWB		D1①	F1①	D2①	F2①	D3①	F3①	E	L1	SW	H	J	K
		A1	B1	A1	B1												
5	12.0	83	96.5	90.5	104	G 1/2	14	NPT 1/2	13.7	Rc 1/2	13.2	33	65	27	32	20.5	45
	20.0	93	109			G 3/4	16	NPT 3/4	14	Rc 3/4	14.5	60	100	32			
	25.0	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			
6	12.0	83	96.5	90.5	104	G 1/2	14	NPT 1/2	13.7	Rc 1/2	13.2	33	65	27	40	23.5	51
	20.0	93	109			G 3/4	16	NPT 3/4	14	Rc 3/4	14.5	60	100	32			
	25.0	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			

Dimensions [mm] - Standard version



Ordering chart for valves - Standard version DN12...25 (other versions on request)

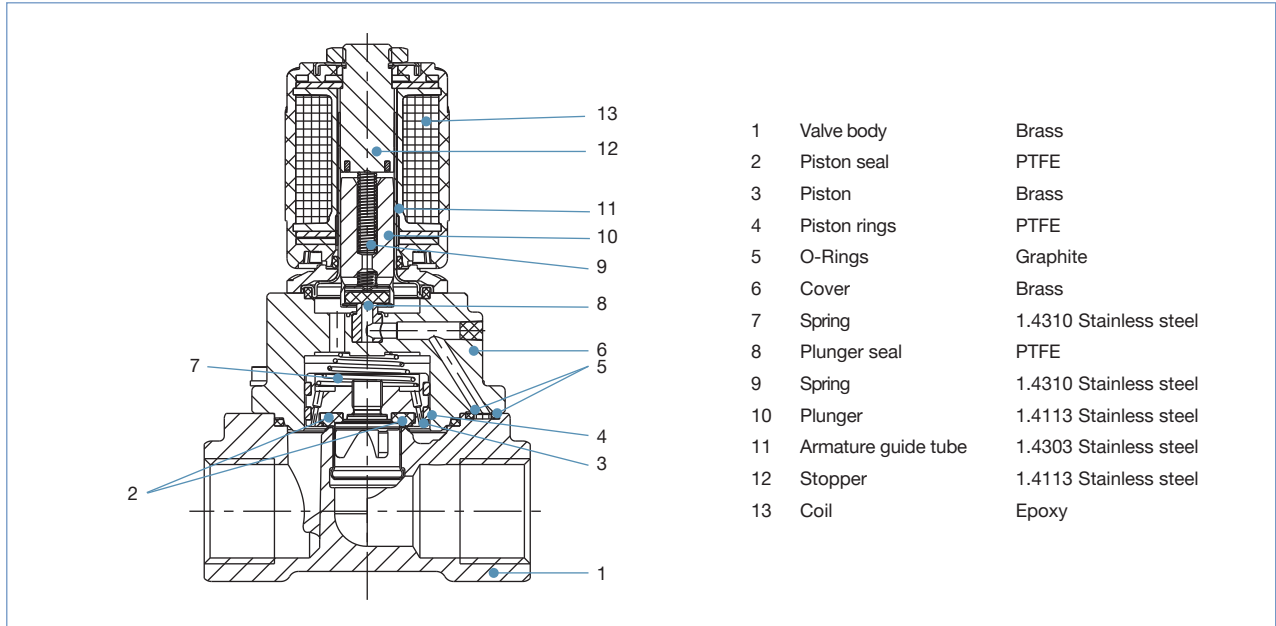
Circuit function	Port connection	Orifice [mm]	K _v value water [m³/h]	Pressure range for liquids [bar]	pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+FKM								
A NC, normally closed 	G ½	12	2.0	1-50	1-50	308501	177853	308502
		20	7.0	1-25	1-32	308503	-	-
	G 1	25	10.0	1-25	1-40	-	308504	308505
		25	10.0	1-25	1-32	308506	-	-
B NO, normally open 	G ½	12	2.0	1-32	1-32	309022	301170	295636
	G ¾	20	7.0	1-25	1-25	303209	295276	295651
	G 1	25	10.0	1-25	1-25	295660	308120	301740

Ordering chart for valves - Standard version DN32...50 (other versions on request)

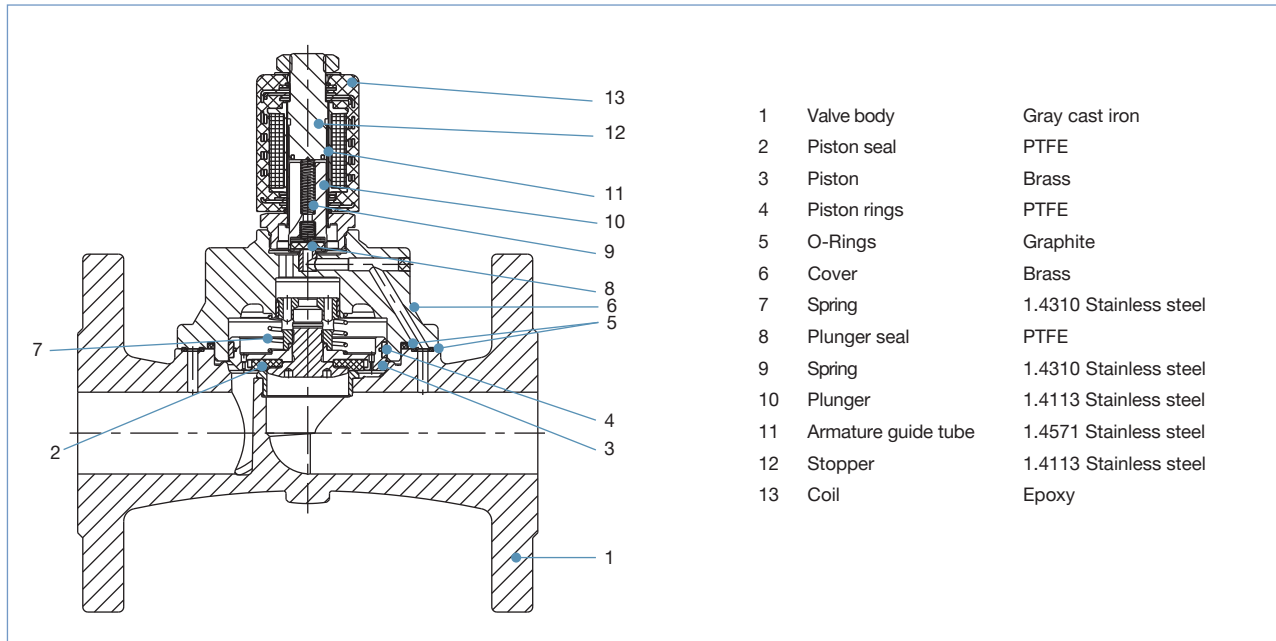
Circuit function	Port connection	Orifice [mm]	K _v value water [m³/h]	Pressure range for liquids [bar]	pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+FKM								
A NC, normally closed 	G 1¼	32	18.0	1-16	1-16	122579	-	-
				1-25	1-25	-	085337	085340
	G 1½	40	18.0	1-16	1-16	085343	-	-
				1-25	1-25	-	085342	085345
				1-8	1-8	307475	-	-
G 2	50	36.0	1-20	1-20	-	307476	085350	

Materials - Steam version NA07

DN13, Circuit function A

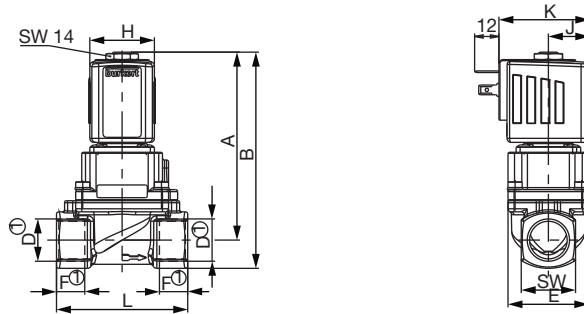


DN32, Circuit function A, NA07, flange body

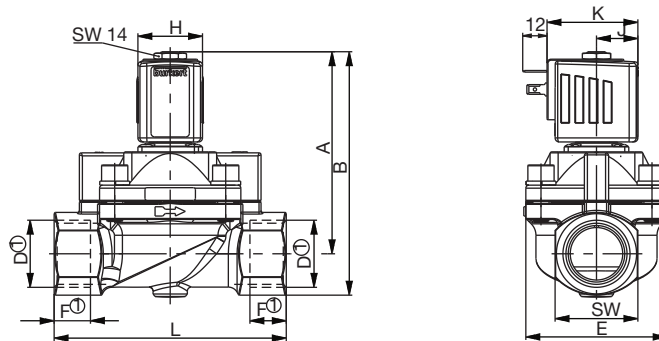


Dimensions [mm] - Steam version NA07

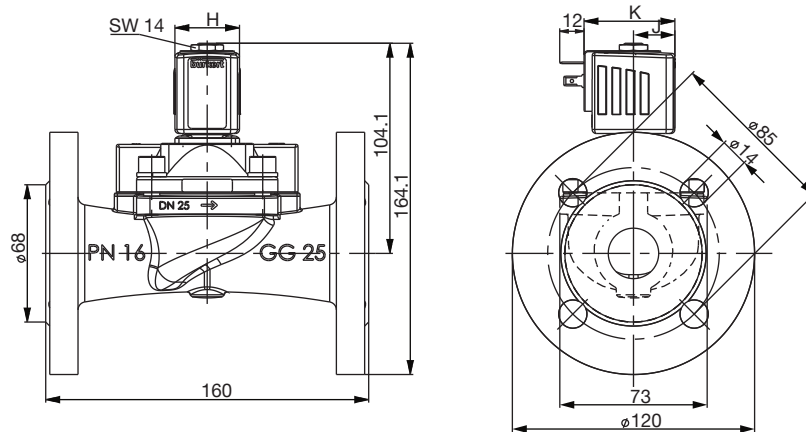
Threaded version DN13



Threaded version DN20, 25



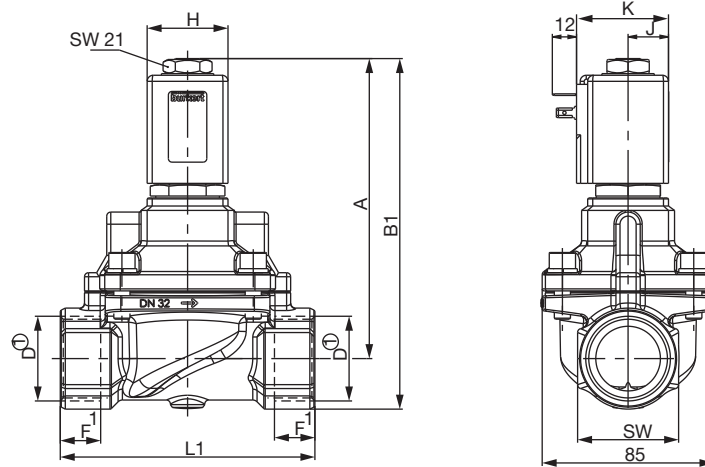
Flange version DN25



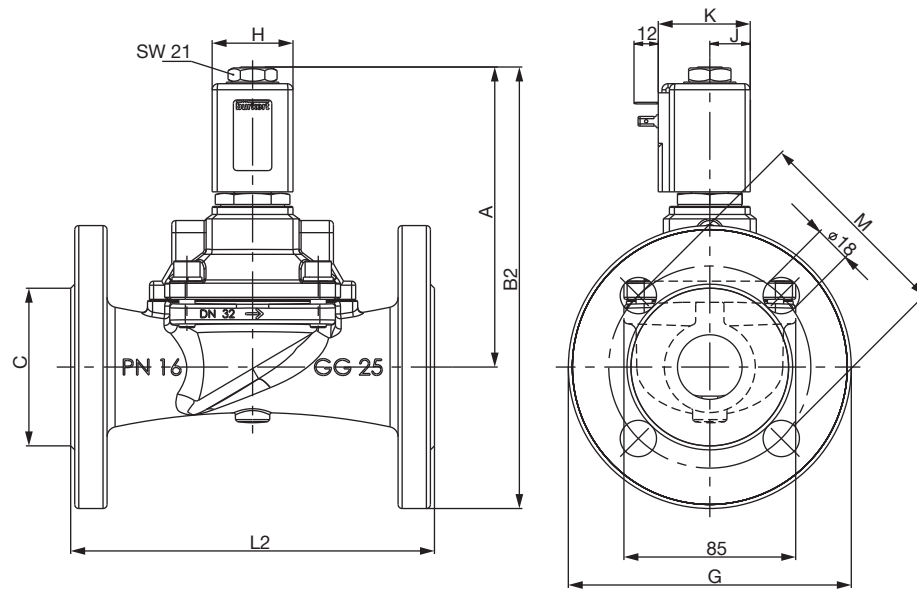
Coil size	DN	A	B	D1 ①	F1 ①	D2 ①	F2 ①	D3 ①	F3 ①	E	L	SW	H	J	K
5	13	93.1	107.1	G ½	14	NPT ½	13.7	Rc ½	13.2	40	65	27	32	20.5	45
	20	96.1	112.1	G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32			
	25	100.1	120.6	G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			
6	13	93.1	107.1	G ½	14	NPT ½	13.7	Rc ½	13.2	40	65	27	40	23.5	51
	20	96.1	112.1	G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32			
	25	100.1	120.6	G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			

Dimensions [mm] - Steam version NA07

Threaded version DN32, 40



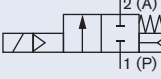
Flange version DN32, 40



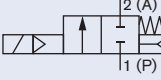
1 The dimensions F1 and D1 apply to G-threads
For NPT threads, the dimensions F2 and D2 apply

DN	A	B1	D1 ①	F1 ①	D2 ①	F2 ①	L	B2	C	G	L2	M	SW	H	J	K	Coil size
32	148	173	G 1¼	20	NPT 1¼	17.3	126	218	78	140	180	100	50	40	20	45	C
40	153	181	G 1½	22	NPT 1½	17.3	126	227	88	150	200	110	60				

Ordering chart for valves - Steam version NA07, DN13...25 (other versions on request)

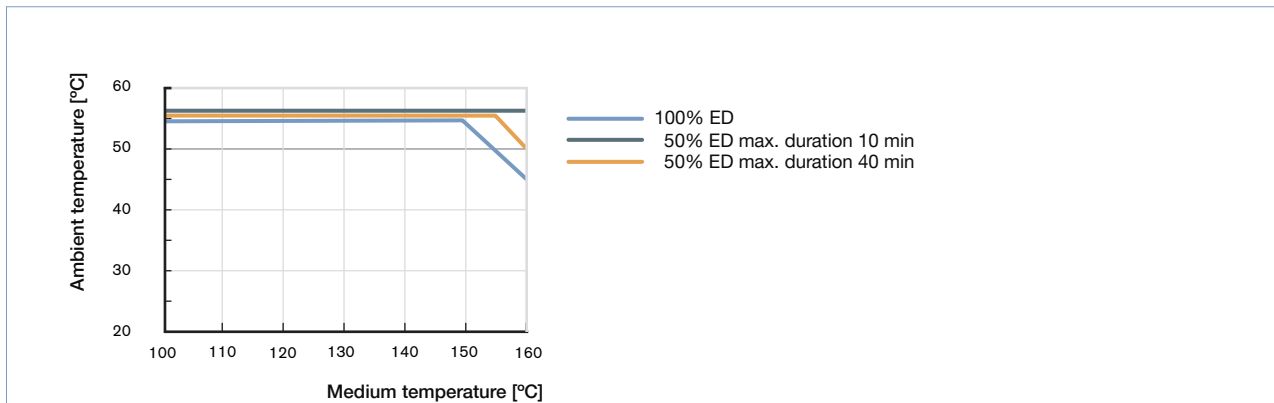
Circuit function	Port connections	Orifice [mm]	K _v value water [m³/h]	Pressure range [bar]	Body material	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+Graphite								
A NC, normally closed 	G ½	13	3.7	1-5	Brass	307267	-	-
				1-12	Brass	-	307269	307276
	G ¾	20	7.0	1-5	Brass	307286	-	-
				1-12	Brass	-	307284	307326
	G 1	25	10.0	1-5	Brass	307342	-	-
				1-12	Brass	-	307343	307351
Flange acc. to DIN EN 1902-1	25	10.0	1-5	GG25	307354	-	-	
			1-12	GG25	-	X	307344	

Ordering chart for valves - Steam version NA07, DN32...40 (other versions on request)

Circuit function	Port connections	Orifice [mm]	K _v value water [m³/h]	Pressure range [bar]	Body material	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+Graphite								
A NC, normally closed 	G 1¼	32	18.0	1-4	Brass	316584	-	-
				1-12	Brass	-	316580	316579
	Flange acc. to DIN EN 1902-1	32	18.0	1-4	GG25	X	-	-
				1-12	GG25	-	X	316583
	G 1½	40	18.0	1-4	Brass	316592	-	-
				1-12	Brass	-	316586	316588
Flange acc. to DIN EN 1902-1	40	18.0	1-4	GG25	X	-	-	
			1-12	GG25	-	X	316591	

X on request

Temperature derating for steam version



Characteristic values of intermittent operation

$$t_{SD}[s] = \frac{60}{SH[\frac{1}{min}]}$$

$$t_{ED}[s] = \frac{ED[\%]}{100} \times t_{SD}[s]$$

$$t_{SP}[s] = t_{SD}[s] - t_{ED}[s]$$

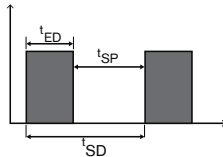
t_{SD} - Cycle time

t_{ED} - Duty cycle

t_{SP} - De-energized pause

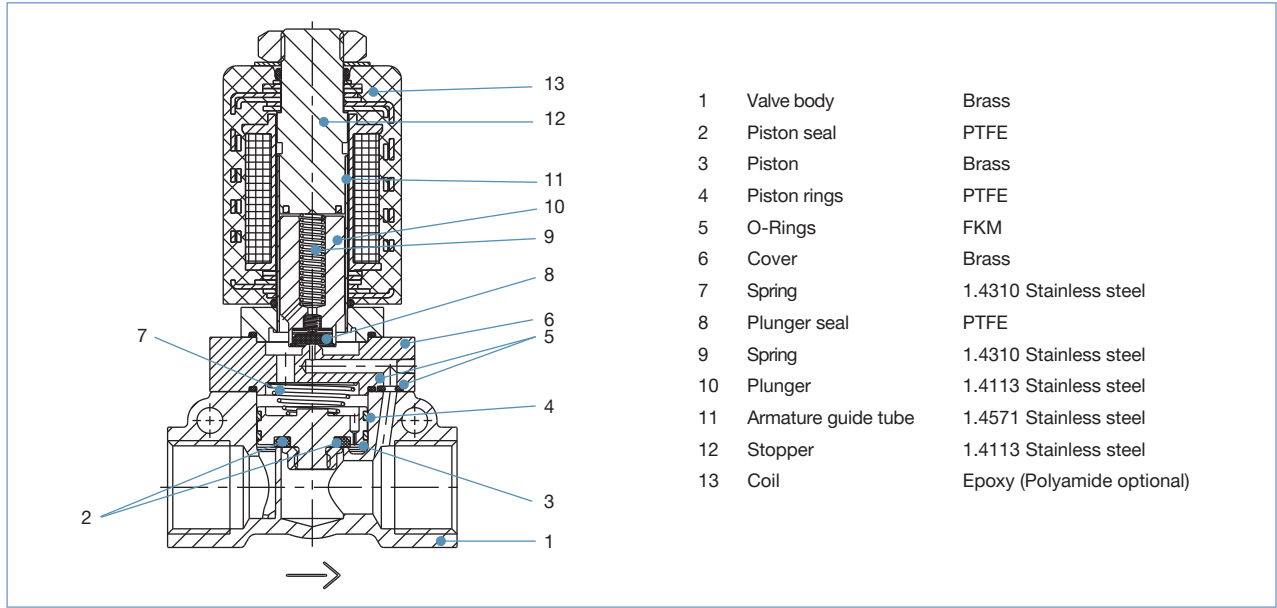
ED - Relative duty cycle relative

SH - Switching frequency

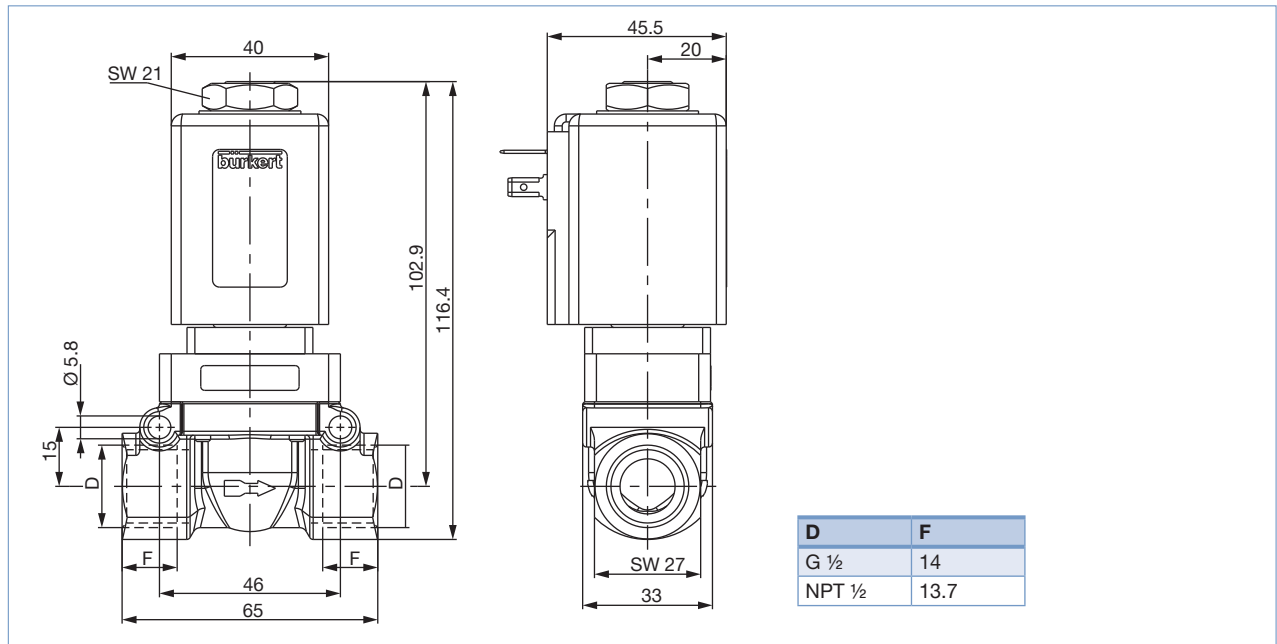


Materials - High pressure version MX13

DN12, Circuit function A, MX13



Dimensions [mm] - High pressure version MX13



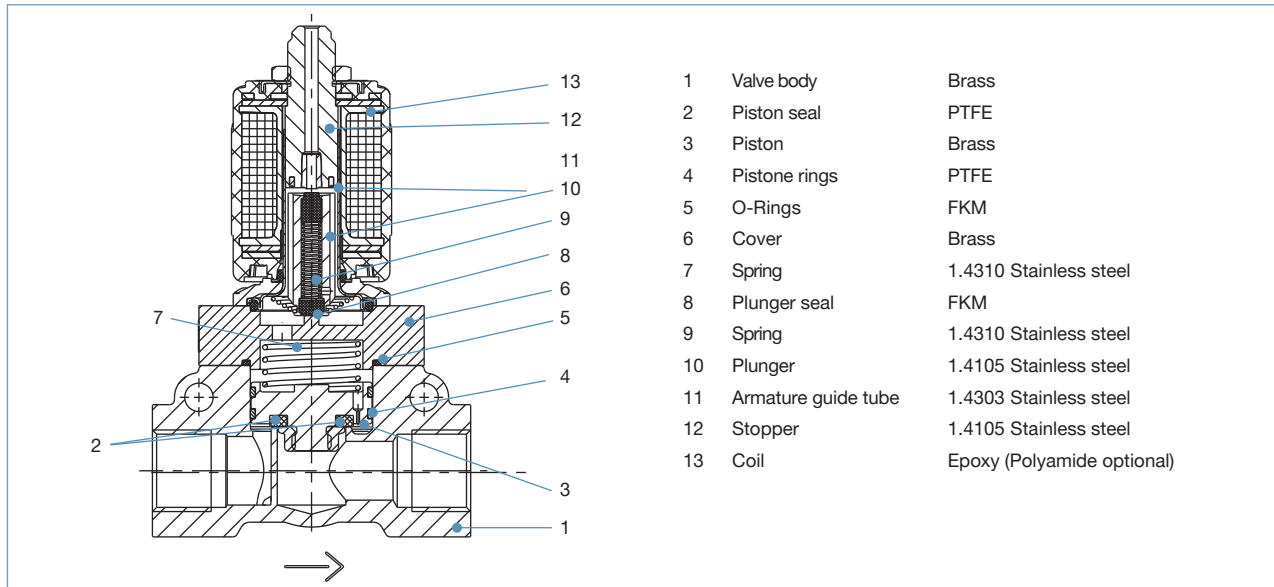
Ordering chart for valves - High pressure version MX13 (other versions on request)

Circuit functions	Port connection	Orifice [mm]	K _v valve water [m ³ /h]	Pressure range for liquids [bar]	Pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+FKM								
A NC, normally closed	G 1/2	12	2.0	1-80	1-80	304191	304193	304194

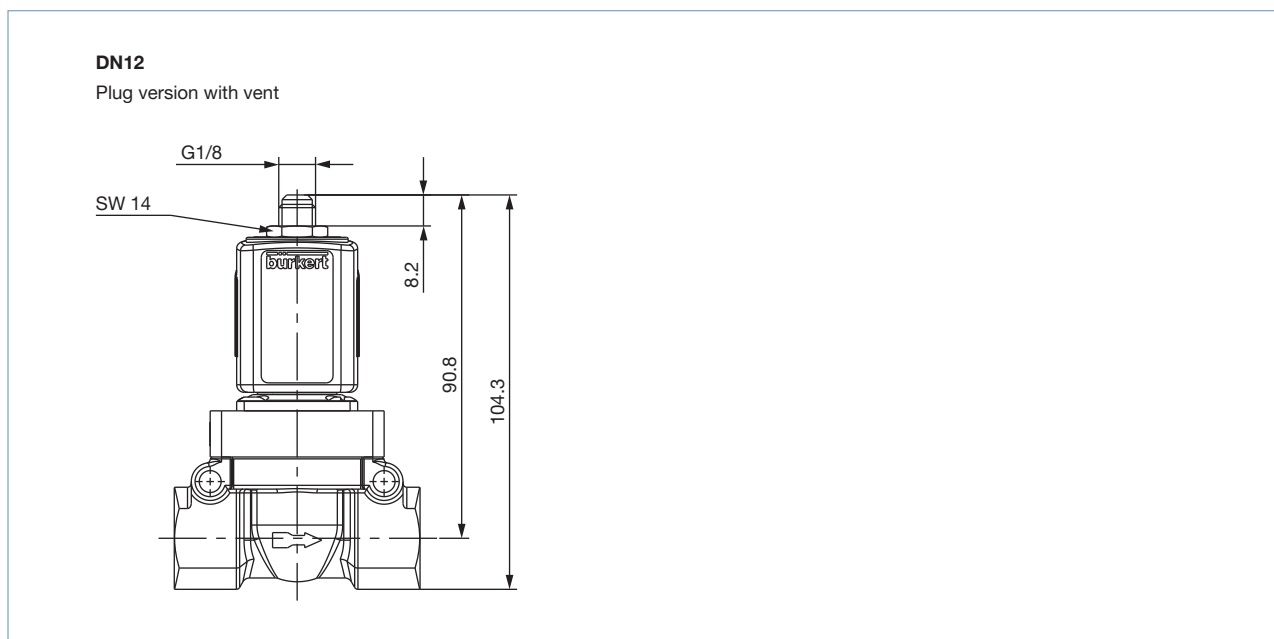
Note: High shut off levels may occur with liquids and high differential pressure!

Materials - Discharge valve for compressor systems CF05

DN12, Circuit function B, CF05



Dimensions [mm] - Discharge valve for compressor systems CF05

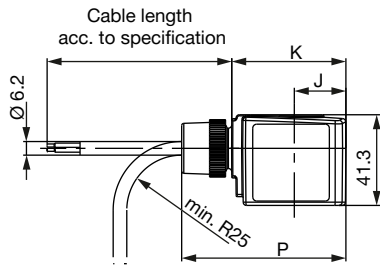


Ordering chart - Discharge valve for compressor systems CF05 (other version on request)

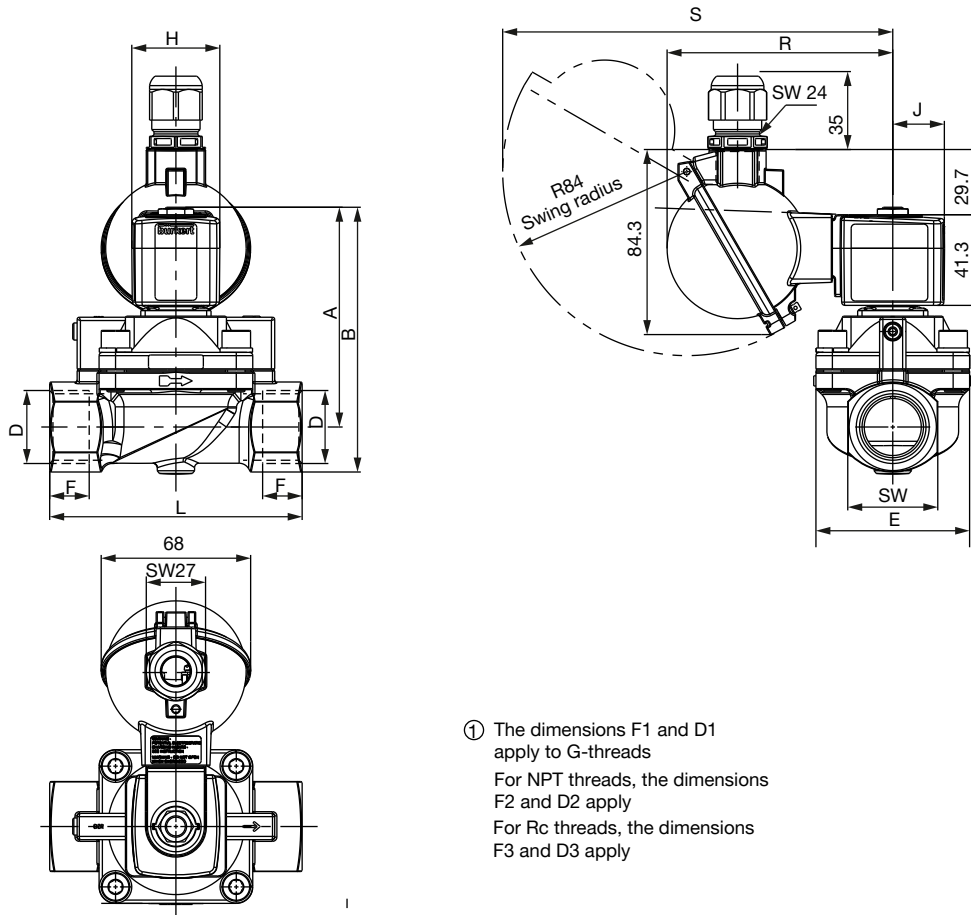
Circuit function	Port connection	Orifice [mm]	K _v value water [m ³ /h]	Pressure range for liquids [bar]	Pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+FKM								
B NO, normally open	G ½	12	2.0	1-40	1-40	301723	308781	308783

Dimensions [mm] - ATEX/IECEx version

Cable



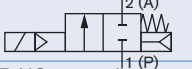
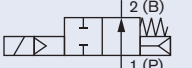
Terminal box



① The dimensions F1 and D1 apply to G-threads
 For NPT threads, the dimensions F2 and D2 apply
 For Rc threads, the dimensions F3 and D3 apply

Coil size	DN [mm]	WWA		WWB		D1 ①	F1 ①	D2 ①	F2 ①	D3 ①	F3 ①	E	L	SW	H	J	K	P	R	S
		A	B	A	B															
5	12.0	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
	20.0	93	109			G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32						
	25.0	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41						
6	12.0	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
	20.0	93	109			G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32						
	25.0	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41						

Ordering chart for valves - ATEX/IECEX cable (other versions on request)

Circuit function	Port connection	Orifice [mm]	K _v value water [m ³ /h]	Pressure range for liquids [bar]	Pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]	
						024/UC	230/UC
Seals PTFE+FKM							
A NC, normally closed 	G ½	12	2.0	1–50	1–50	278117	278118
	G ¾	20	7.0	1–25	1–32	285858	278121
	G 1	25	10.0	1–25	1–32	290175	300215
B NO, normally open 	G ½	12	2.0	1–32	1–32	278123	278124
	G ¾	20	7.0	1–25	1–25	307455	307456
	G 1	25	10.0	1–25	1–25	305468	307458

Explosions protected approvals

ATEX: PTB 14 ATEX 2023 X

II 2G Ex mb IIC T4 Gb

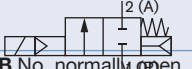
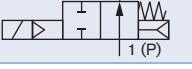
II 2D Ex mb IIC T130 °C Db

IECEX: IECEX PTB 14.0049 X

Ex mb IIC T4 Gb

Ex mb IIC T130 °C Db

Ordering chart for valves - ATEX/IECEX terminal box (other versions on request)

Circuit function	Port connection	Orifice [mm]	K _v value water [m ³ /h]	Pressure range for liquids [bar]	Pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]	
						024/UC	230/UC
Seals PTFE+FKM							
A NC, normally closed 	G ½	12	2.0	1–50	1–50	289362	289371
	G ¾	20	7.0	1–25	1–32	307460	307461
	G 1	25	10.0	1–25	1–32	307463	307465
B No, normally open 	G ½	12	2.0	1–32	1–32	307466	307467
	G ¾	20	7.0	1–25	1–25	307468	307469
	G 1	25	10.0	1–25	1–25	307471	307473

Explosions protected approvals

ATEX: PTB 15 ATEX 1011U

IECEX: PTB 15.0037U

Note: the pressure values for liquid media are shown on the rating plate!**Please note** that the cable plug has to be ordered separately.**i Further versions on request****Approvals**


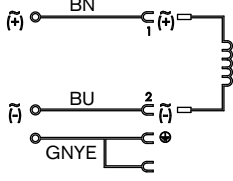




UL, cURus for coil system, Hazardous Locations Expl. proof, EEx m/ed, versions for oxygen applications

**Voltage**

110/50, non-standard voltages



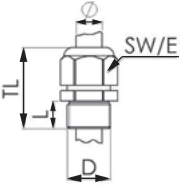


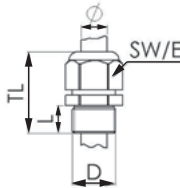
Cable plug Type 2513 acc. to DIN EN 175301 – 803, Form A

Meets the requirements of ATEX category 3 GD

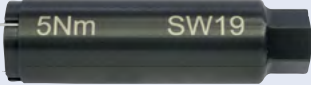

		Cable length [mm]	Article no. [in mm]
		12000	260893 
		5000	260892 
		3000	260891 
		300	260890 

Cable glands for ATEX/IECEX terminal box

(polyamide version included in delivery / surcharge applied for brass nickel plated version)

	Ex Approvals		Article no												
	Certification	Identification													
	Brass, nickelplated, 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,	773278 	 <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</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	SW	24 mm	E	27 mm
TL	29–37 mm														
L	6 mm														
D	20														
SW	24 mm														
E	27 mm														
	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	773277 	 <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</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	SW	24 mm	E	28 mm
TL	36–45 mm														
L	10 mm														
D	20														
SW	24 mm														
E	28 mm														

Special tool to turn the junction box (not included in delivery)

	Article no.
	Set SC02-AC10 Special wrench Service Manual 293488 

To find your nearest Bürkert facility, click on the orange box →

www.burkert.com

In case of special application conditions, please consult for advice.

We reserve the right to make technical changes without notice.

1902/14_EU-en_00891714