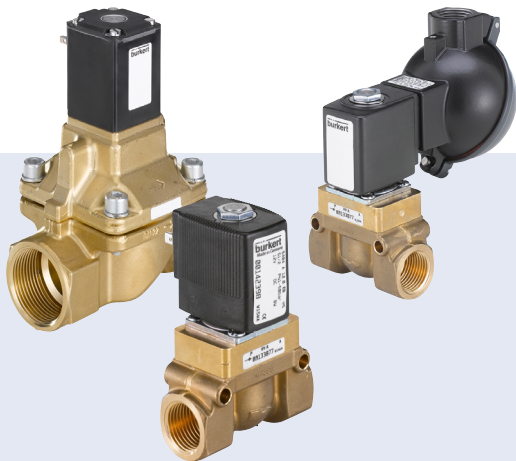


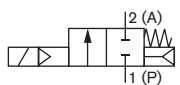


Servo-assisted 2/2 way piston valve

- 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

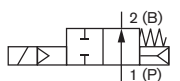
The 5404 valve is a servo-assisted piston valve available in NC and NO versions. A minimum differential pressure is required for the valve switching function. The solenoid coils are moulded with high-quality epoxy resin. In combination with a plug in accordance with DIN EN 175301 - 803 Form A, the valves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

Contenues:

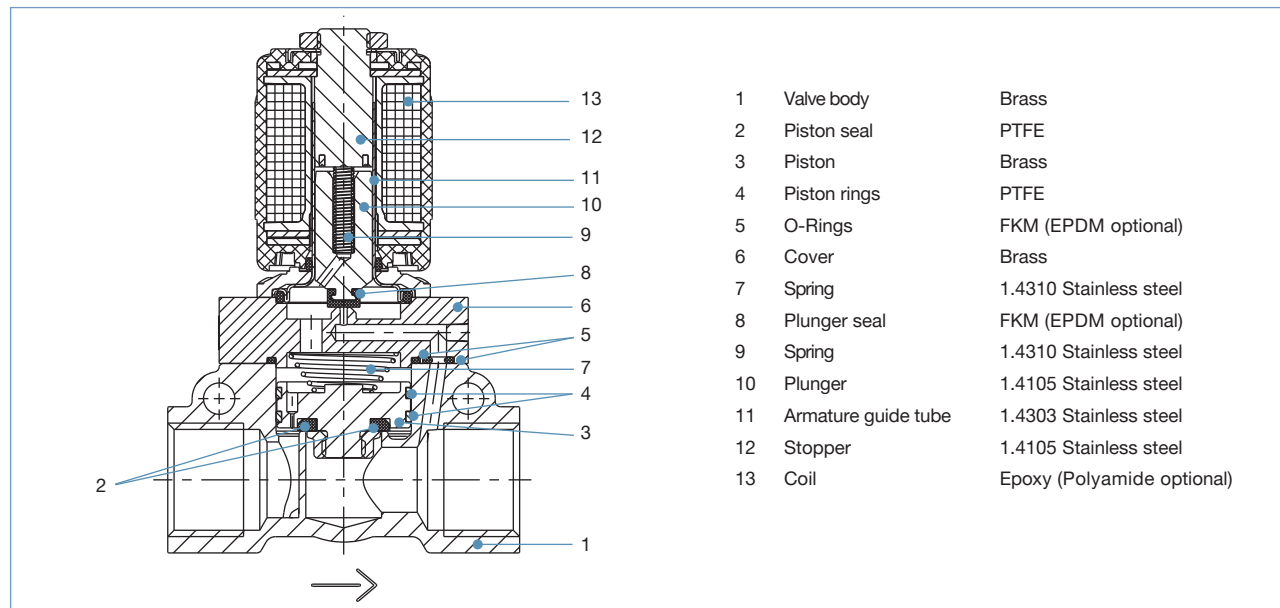
Standard version	p. 2
Steam version (variable Code NA07)	p. 5
High pressure version (var. Code MX13)	p. 9
Compressor systems (var. Code CF05)	p. 10
ATEX version (var. Code PX23)	p. 11
Accessories	p. 13

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

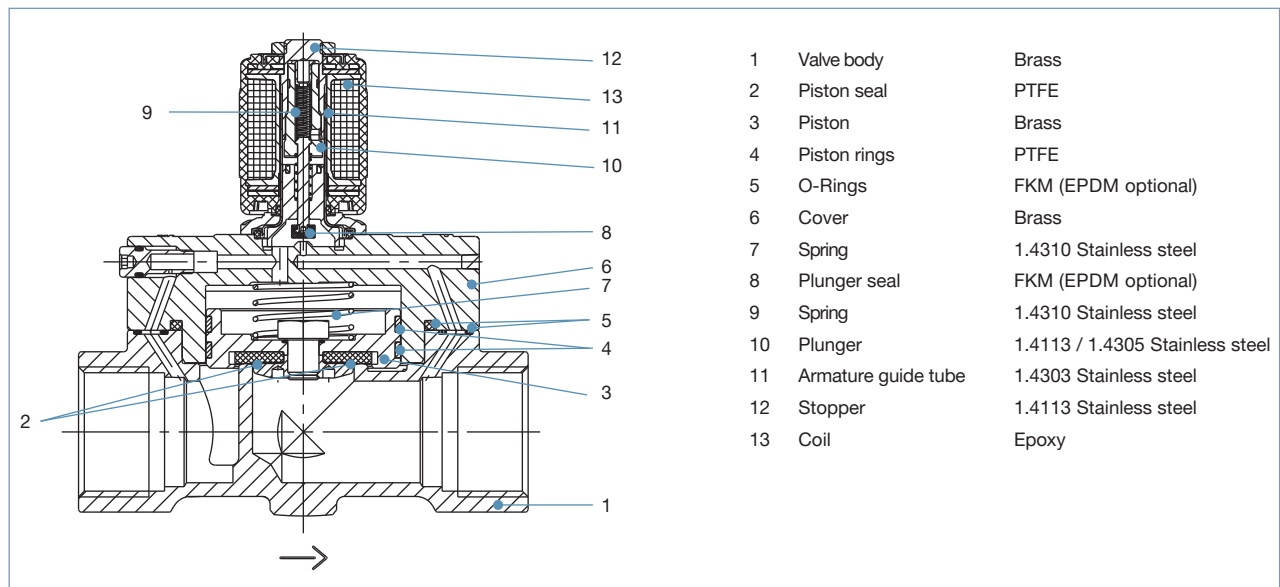
Electrical power consumption.			
Inrush AC	Hold AC (hot coil)		Hold DC (hot/cold coil)
[VA]	[VA]	[W]	[W]
Circuit function A DN12 to 25 mm (not in combination with high pressure MX13)			
24	14	8	8/9.5
Circuit function B DN12...25 mm			
24	16	7	8/9.5
ATEX/IECEx version			
9	9		9
Circuit function A DN32...50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

Materials - Standard version

DN12, Circuit function A

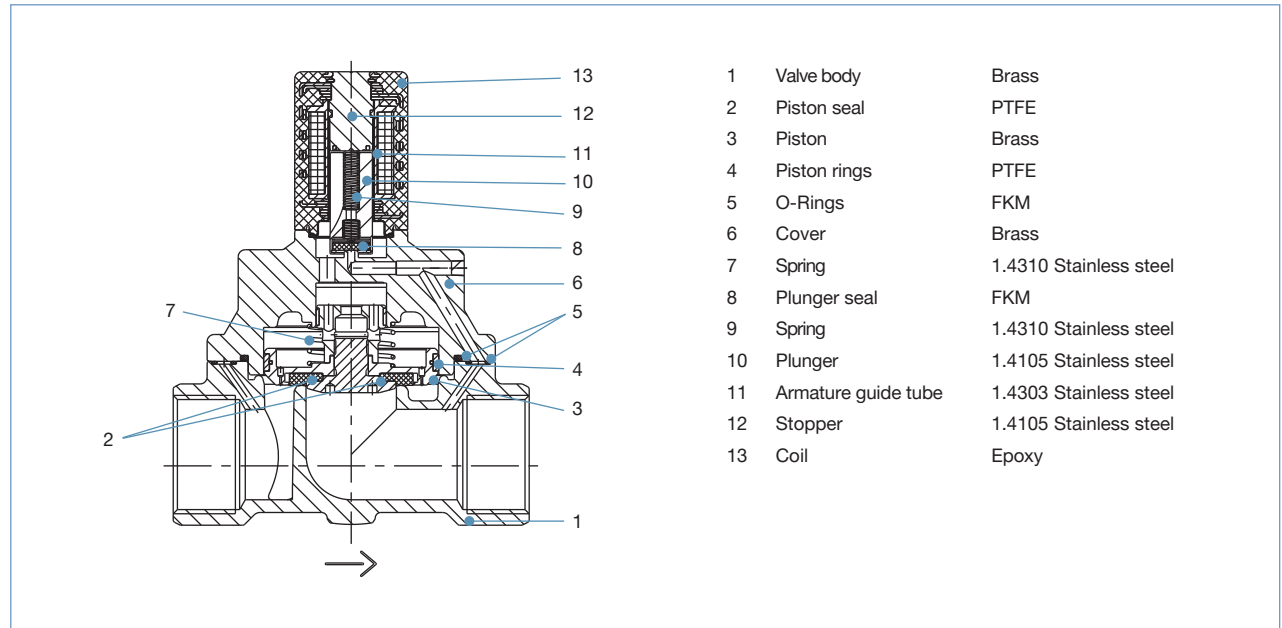


DN25, Circuit function B



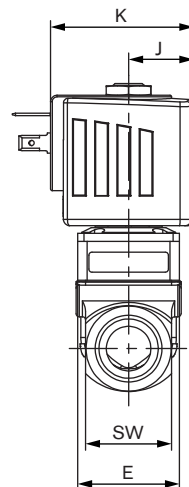
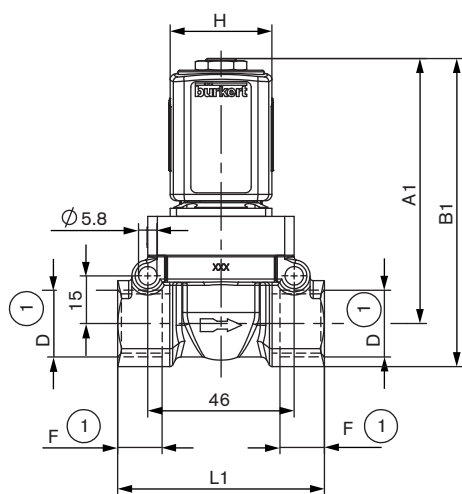
Materials - Standard version

DN32, Circuit function A

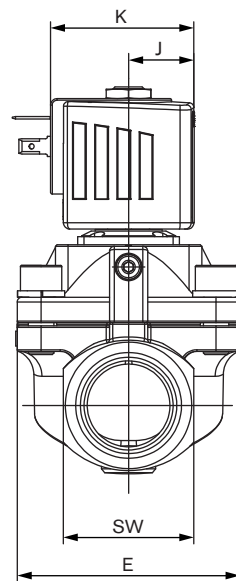
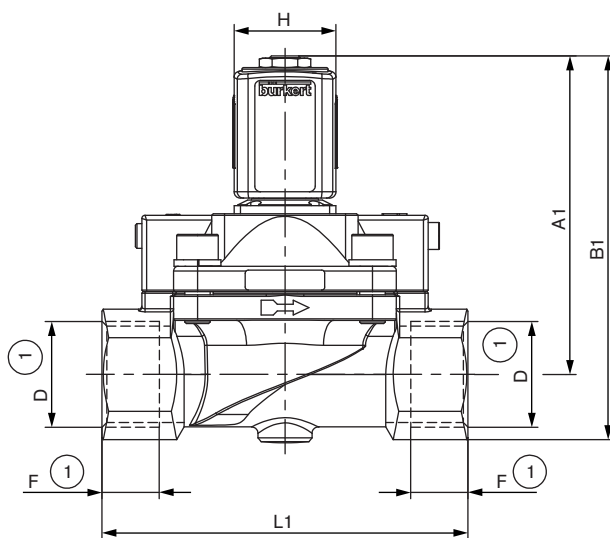


Dimensions [mm] - standard version

Threaded version DN12



Threaded version DN20, 25



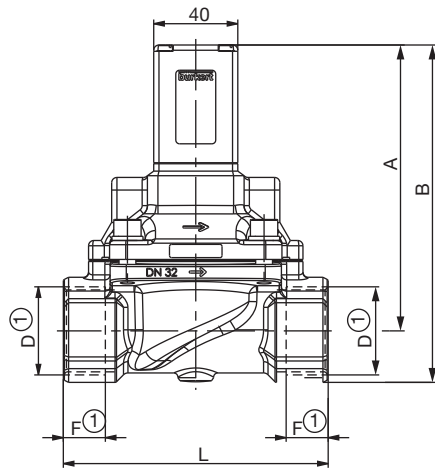
- ① The dimensions F1 and D1 apply to G-threads
For NPT threads, the dimensions F2 and D2 apply

Threaded version

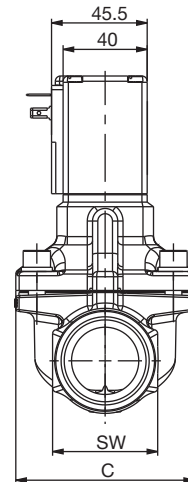
Coil size	DN [mm]	WWA		WWB		D1①	F1①	D2①	F2①	D3①	F3①	E	L1	SW	H	J	K
		A1	B1	A1	B1												
5	12.0	83	96.5	90.5	104	G ½	14	NPT ½	13.7	Rc ½	13.2	33	65	27	32	20.5	45
	20.0	93	109			G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32			
	25.0	99.5	119			G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			
6	12.0	83	96.5	90.5	104	G ½	14	NPT ½	13.7	Rc ½	13.2	33	65	27	40	23.5	51
	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			

Dimensions [mm] - Standard version

Threaded version DN32, 50

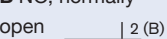


① The dimensions F1 and D1 apply to G-threads
For NPT threads, the dimensions F2 and D2 apply



DN	A	B	D1 ①	F1 ①	D2 ①	F2 ①	C	L	SW
32	136	161	G 1¼	20	NPT 1¼	17.3	85	126	50
32	140	170	G 1½	22	NPT 1½	17.3	85	126	60
50	163	198	G 2	24	NPT 2	17.6	115	164	70

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

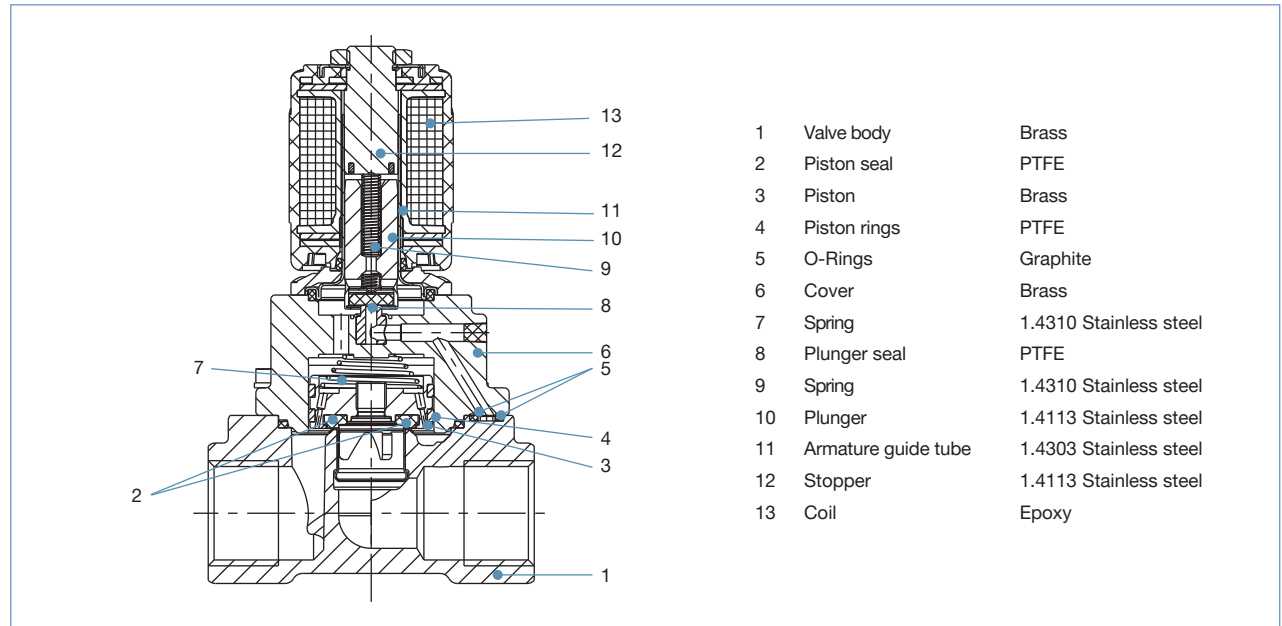
Circuit function	Port connection	Orifice [mm]	K _v value water [m³/h]	Pressure range for liquids [bar]	pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+FKM								
A NC, normally closed 	G ½	12	2.0	1 – 50	1 – 50	308501 	177853 	308502 
	G ¾	20	7.0	1 – 25	1 – 32	308503 	-	-
				1 – 25	1 – 40	-	308504 	308505 
				1 – 25	1 – 32	308506 	-	-
	G 1	25	10.0	1 – 25	1 – 40	-	308507 	308508 
B NO, normally open 	G ½	12	2.0	1 – 32	1 – 32	301738 	301170 	295636 
	G ¾	20	7.0	1 – 25	1 – 25	303209 	295276 	295651 
				1 – 25	1 – 25	295660 	308120 	301740 
	G 1	25	10.0	1 – 25	1 – 25	295660 	308120 	301740 

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

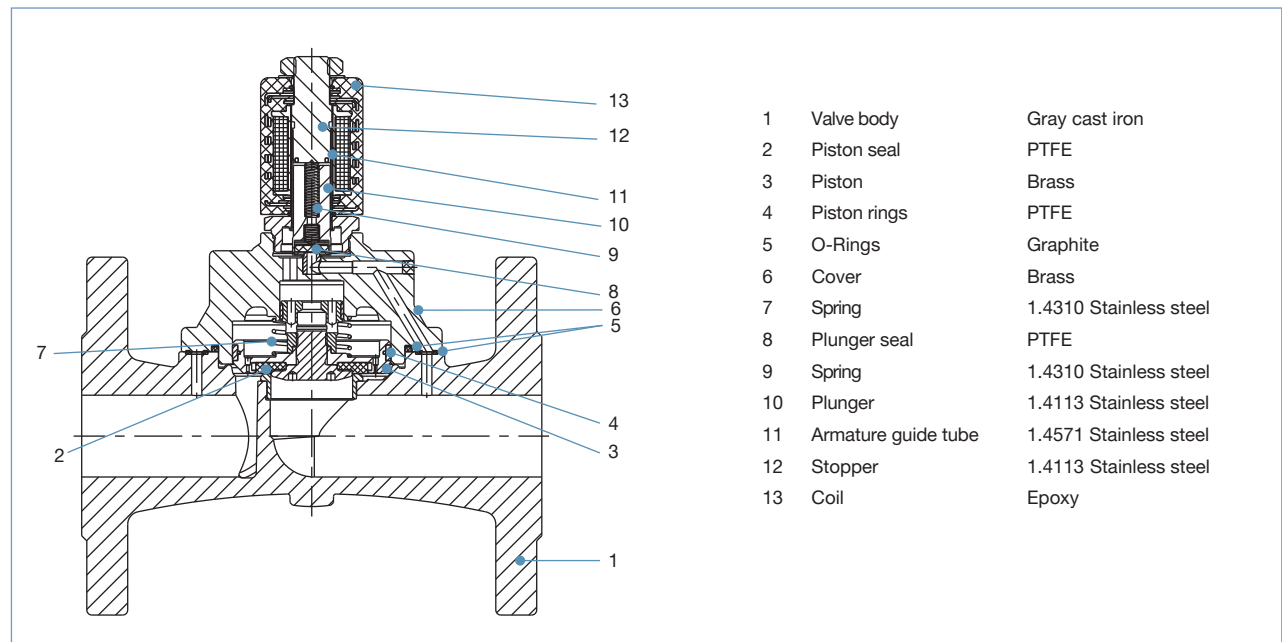
Circuit function	Port connection	Orifice [mm]	K _v value water [m³/h]	Pressure range for liquids [bar]	pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+FKM								
A NC, normally closed 	G 1¼	32	18.0	1 – 16	1 – 16	122579 	-	-
	G 1½	40	18.0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

Materials - Steam version NA07

DN13, Circuit function A

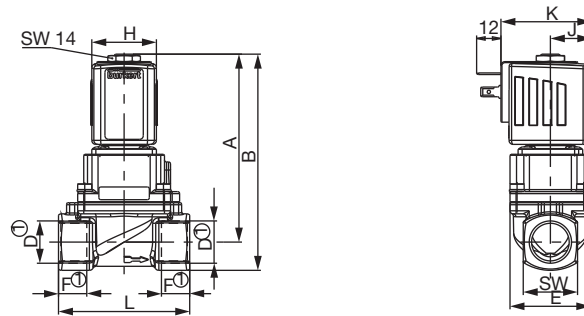


DN32, Circuit function A, NA07, flange body

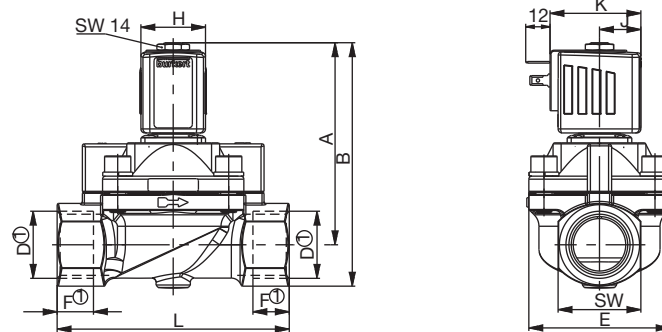


Dimensions [mm] - Steam version NA07

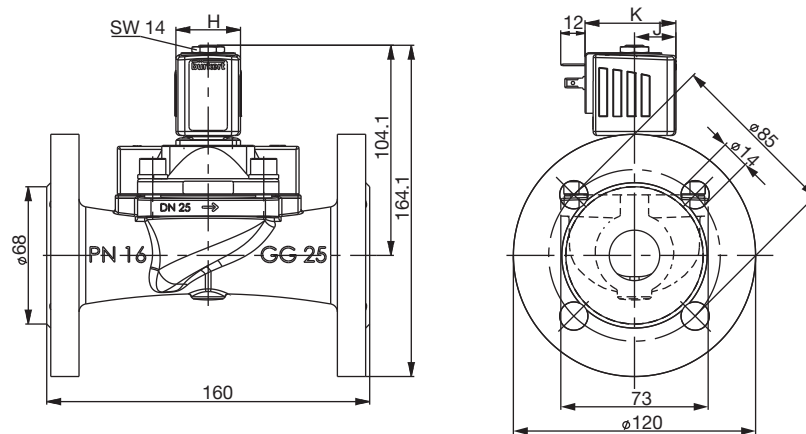
Threaded version DN13



Threaded version DN20, 25



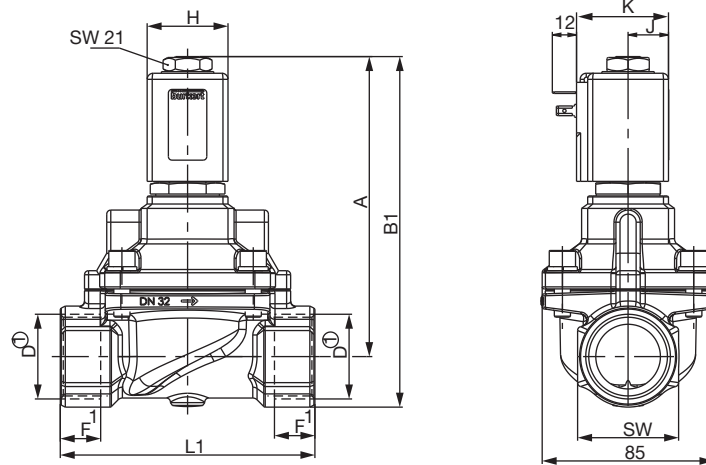
Threaded version DN25



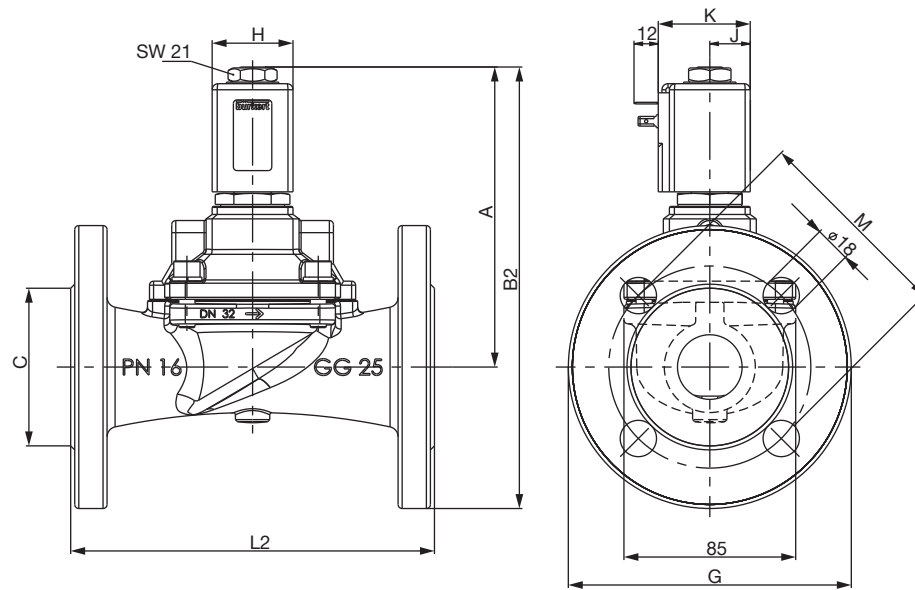
Coil size	DN	A	B	D1 ①	F1 ①	D2 ①	F2 ①	D3 ①	F3 ①	E	L	SW	H	J	K
5	13	93.1	107.1	G ½	14	NPT ½	13.7	Rc ½	13.2	40	65	27	32	20.5	45
	20	96.1	112.1	G ¾	16	NPT ¾	14	Rc ¾	14.5	60	100	32			
	25	100.1	120.6	G 1	18	NPT 1	16.8	Rc 1	16.8	70	115	41			
6	13	93.1	107.1	G ½	14	NPT ½	13.7	Rc ½	13.2	40	65	27	40	23.5	51
	20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



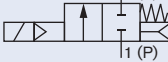
Flange version DN32, 40



- 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)

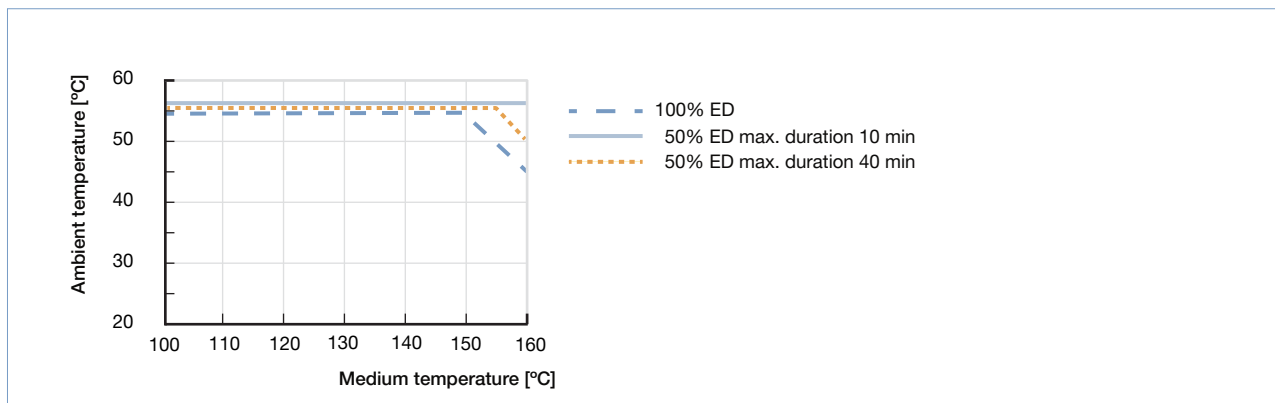
Circuit function	Port connections	Orifice [mm]	K _v value water [m³/h]	Pressure range [bar]	Body material	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+Graphite								
 A NC, normally closed	G ½	13	3.7	1–5	Brass	307267 	-	-
				1–12	Brass	-	307269 	307276 
	G ¾	20	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)

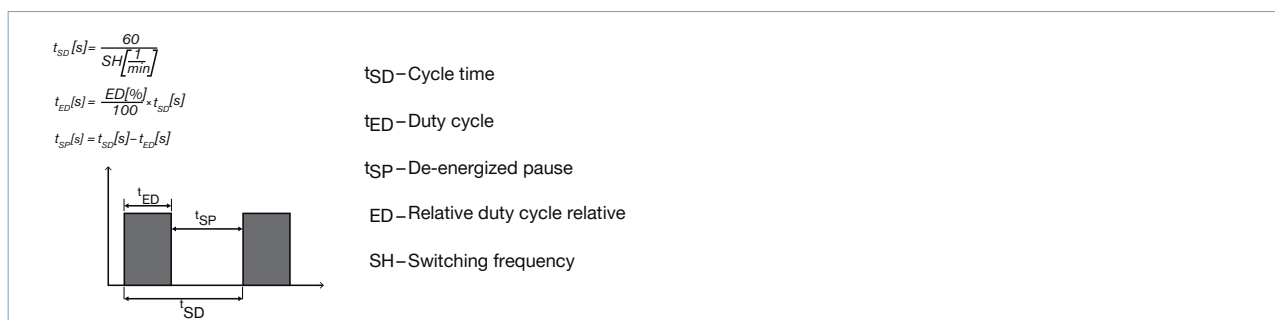
Circuit function	Port connections	Orifice [mm]	K _v value water [m³/h]	Pressure range [bar]	Body material	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+Graphite								
 A NC, normally closed	G 1¼	32	18.0	1 – 4	Brass	316584 	-	-
				1 – 12	Brass	-	316580 	316579 
	Flange 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

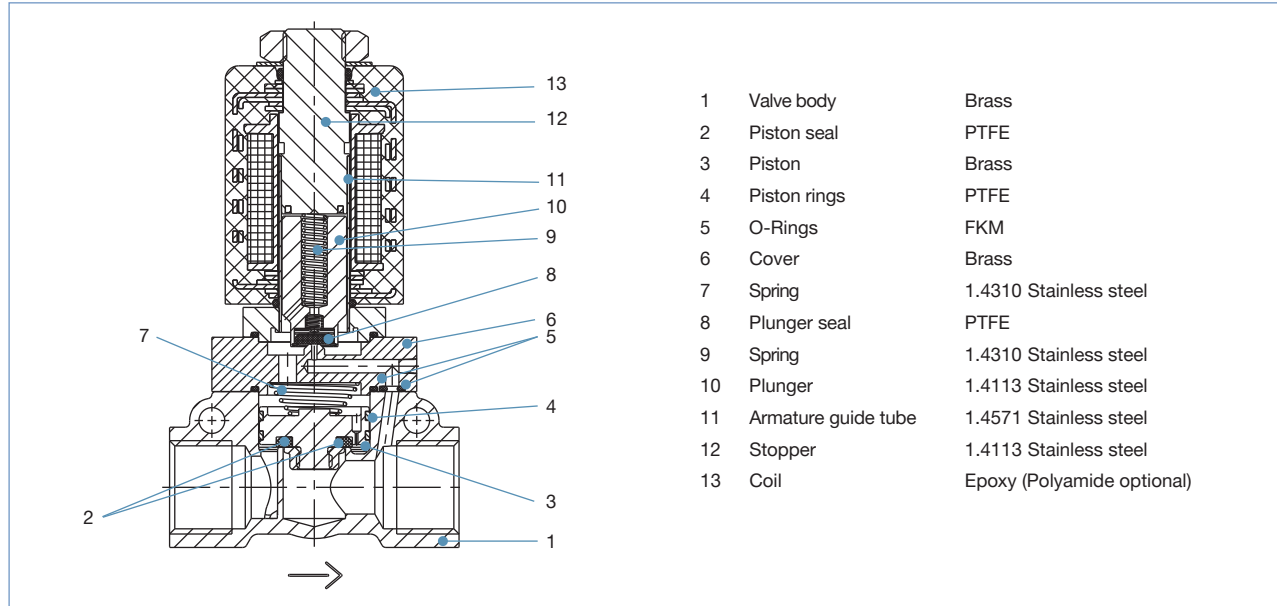


Characteristic values of intermittent operation

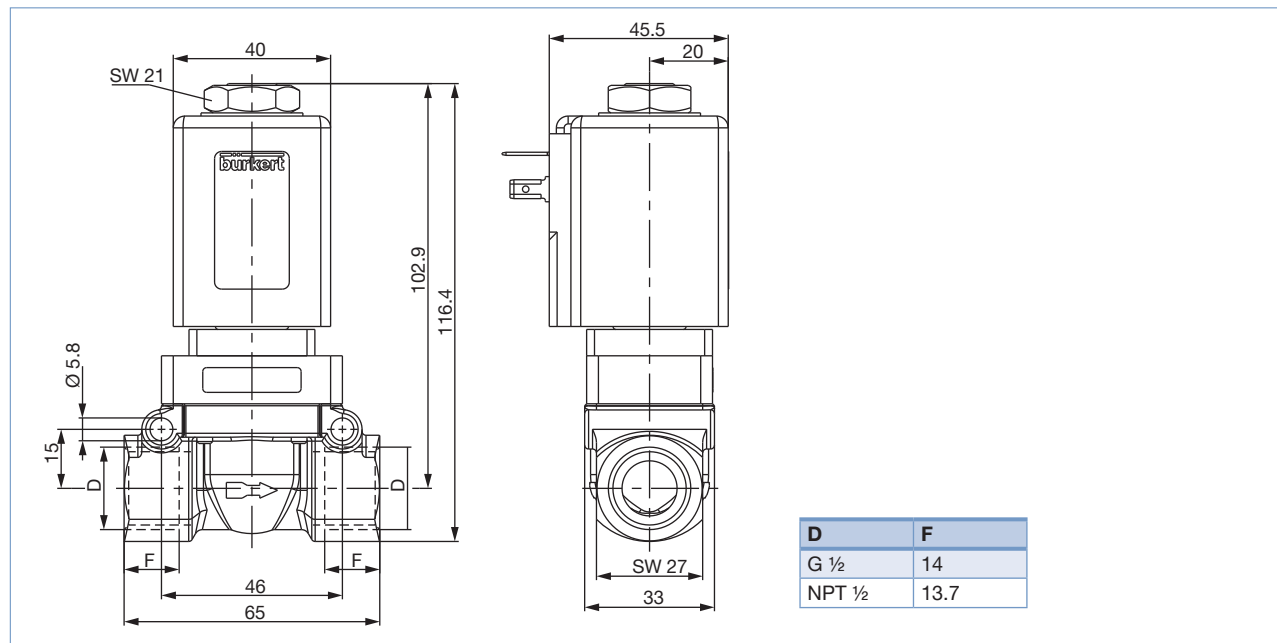


Materials - High pressure version MX13

DN12, Circuit function A, MX13



Dimensions [mm] - High pressure version MX13



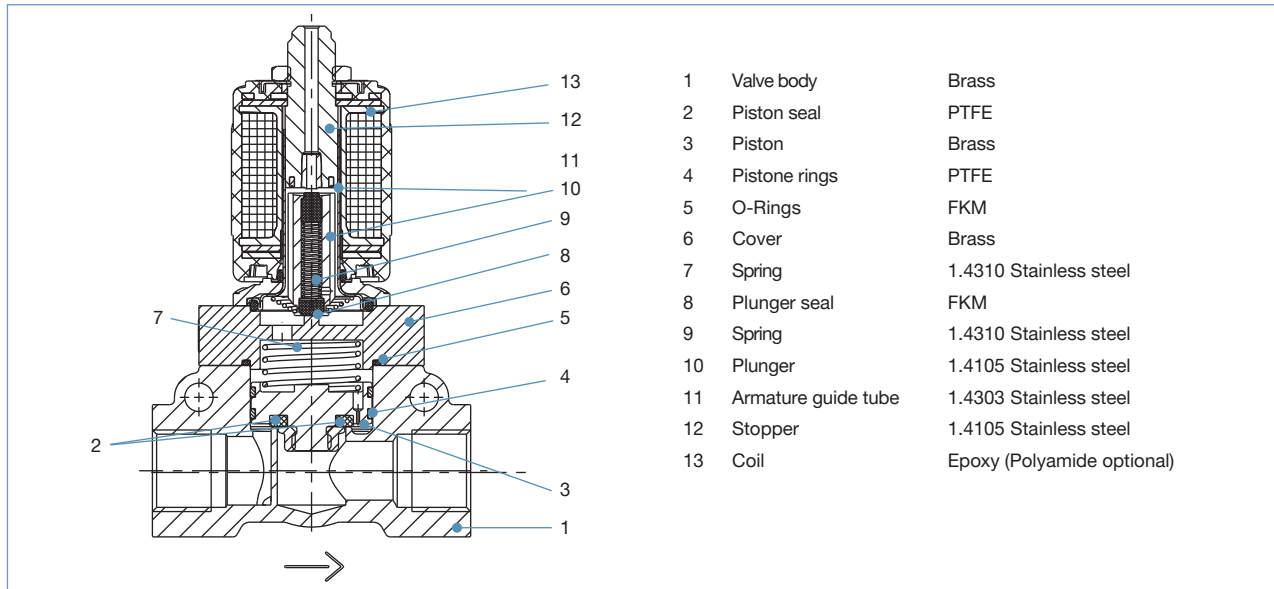
Ordering chart for valves - High pressure version MX13 (other versions on request)

Circuit functions	Port connection	Orifice [mm]	K _v valve water [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 – 80	1 – 80	304191 	304193 	304194 

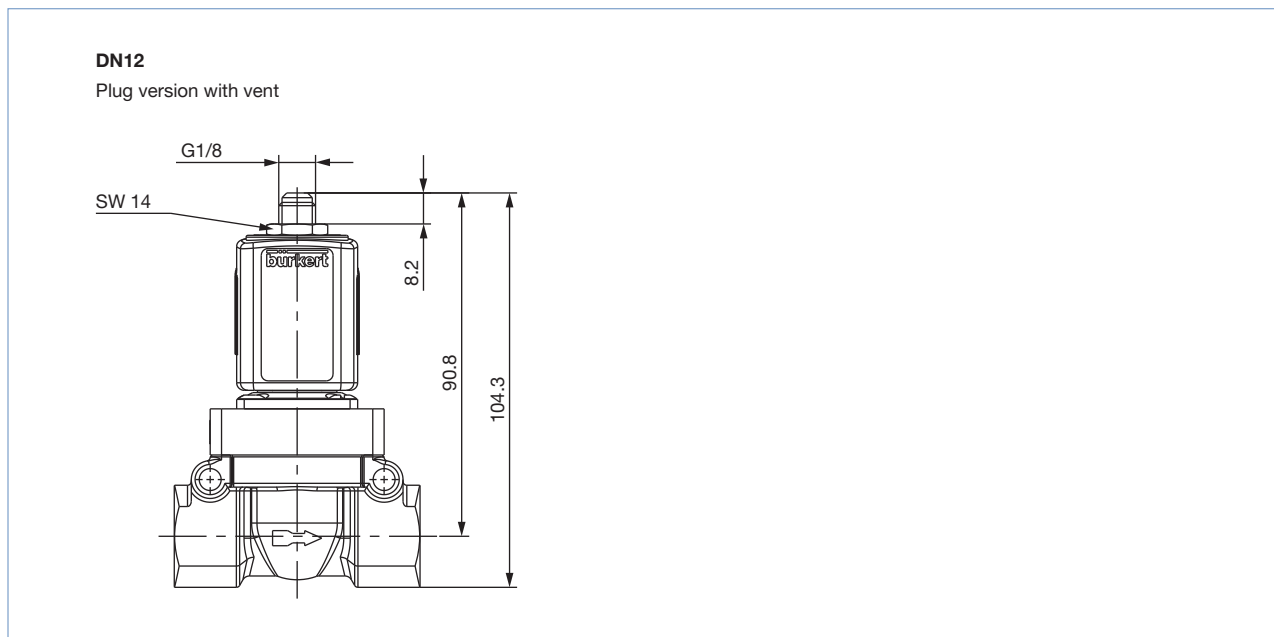
Note: High shut off levels may occur with liquids and high differential pressure!

Materials - Discharge valve for compressor systems CF05

DN12, Circuit function B, CF05



Dimensions [mm] - Discharge valve for compressor systems CF05

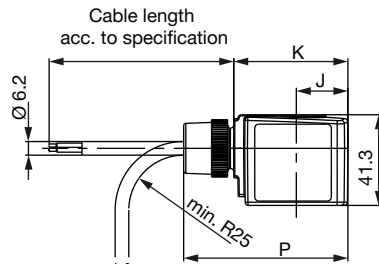


Bestell-Tabelle - Discharge valve for compressor systems CF05 (other version on request)

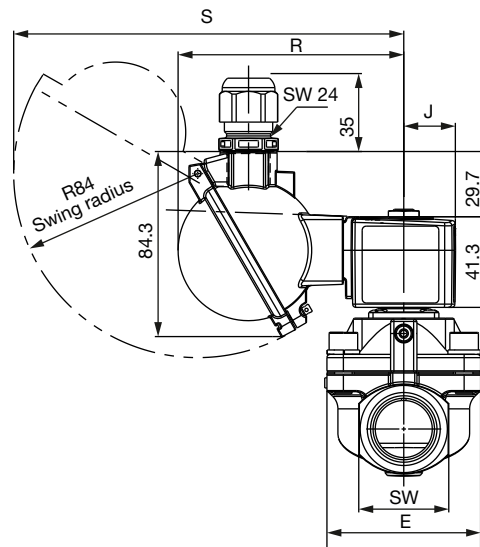
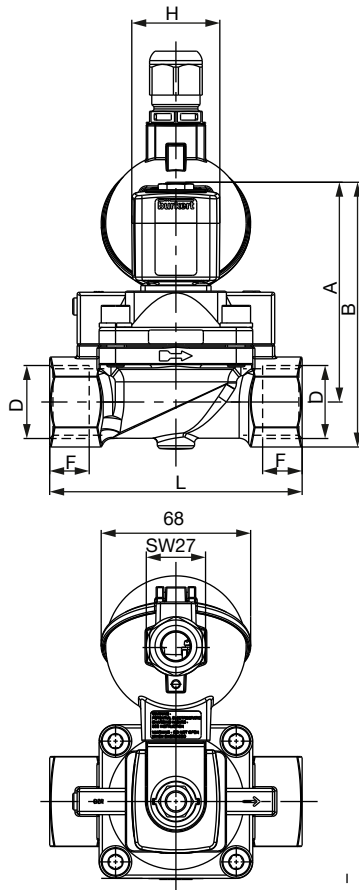
Circuit function	Port connection	Orifice [mm]	K _v value water [m³/h]	Pressure range for liquids [bar]	Pressure range for gases [bar]	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50	230/50
Seals PTFE+FKM								
B NO, normally open	G ½	12	2.0	1 – 40	1 – 40	301723 	308781 	308783 

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 [m³/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

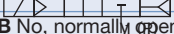
II 2D Ex mb IIIC T130 °C Db

IECEx: IECEx PTB 14.0049 X

Ex mb IIC T4 Gb

Ex mb IIIC T130 °C Db

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

Circuit function	Port con- nection	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/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.

Further versions on request



Approvals

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

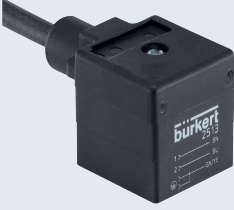
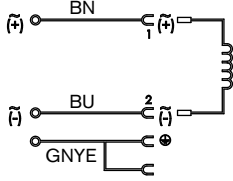


Voltage

110/50, non-standard voltages

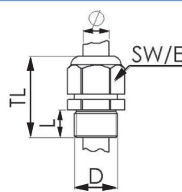
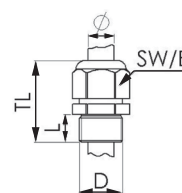
Cable plug Type 2513 acc. to DIN EN 175301 – 803, Form A

Meets the requirements of ATEX category 3 GD

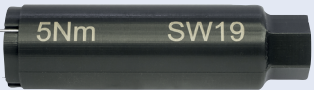
		Cable length [mm]	Article no. [in mm]
		12000	260893 
		5000	260892 
		3000	260891 
		300	260890 

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. 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,	773278 	 <table><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><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														
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E	28 mm														

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

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

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please consult for advice.We reserve the right to make technical
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