DATA SHEET

Type 6027

bürkert
FLUID CONTROL SYSTEMS





Direct-acting 2/2 way plunger valve

- Direct-acting, powerful valve with diameter of up to DN13
- Vibration-proof, bolted coil system
- Increased leak-tightness with welded plunger guide tube
- Explosion proof versions
- High pressure variants for gases and liquids

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

Valve 6027 is a direct-acting plunger valve. The stopper and plunger guide tube are welded together to enhance pressure resistance and leak-tightness. Various seal material combinations are available depending on the application. The coils are moulded with chemically resistant epoxy. An optional sliding ring bearing increases the service life with dry gases. Special seal technology is used for high-pressure applications. In combination with a plug in accordance with DIN EN 17301-803 Form A, the valves satisfy protection class IP65. Stainless steel valves satisfy NEMA 4X.

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Visit product website ▸

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1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "4. Dimensions" on page 8.
Materials	
Body	Brass or stainless steel 1.4404
Coil	Epoxy
Orifice	DN1.0…DN13.0
Coil insulation class	Epoxy classe H
Performance data	
Duty cycle / single valve	100 % continuous rating
Response times[1.]	
Response times AC	Opening: 10…30 ms Closing: 50…80 ms
Response times DC	Opening: 20…30 ms Closing: 50…80 ms
Circuit function	A and B
Electrical data	
Voltage tolerance	±10 %
Voltages	24V/DC, 24V/50Hz, 230V/50Hz, others on request
Medium data	
Medium[2.]	Vacuum, neutral gases and liquids (e.g. compressed air, town gas, natural gas, water, hydraulic oil, petrol) and slightly aggressive medium, Hot liquids and steam Oil burner version PF15: Heating oil (EL, L, M, S) acc. to DIN 51603 part 1…6, shipping fuels acc. to ISO 8217, fatty acid methyl ester (FAME) acc. to DIN EN 14213, rapeseed oil acc. to DIN V 51605
Viscosity (max.)	21 mm²/sec 1.6…76 cSt (DN2, 2 NC 1.6…22 cSt) (Oil burner version PF15)
Medium temperature	**Seat seal/external seal**
Standard version[3.]	FKM/FKM: -10 °C…+140 °C EPDM/EPDM: -30 °C…+120 °C NBR/NBR: -10 °C…+80 °C PTFE/FKM: -10 °C…+140 °C PTFE/PEEK: -40 °C..+180 °C
High pressure version MX31 & MX32	PEEK/FKM: -10 °C…+80 °C PEEK/EPDM: -30 °C…+80 °C PEEK/PEEK: -40 °C..+80 °C
Approval DIN EN 161 (PO19)	NBR/NBR: 0 °C…+80 °C FKM/FKM: 0 °C…+80 °C
Oil burner version PF15	0 °C…160 °C
Approvals and Certificates	
Protection class	IP65 with cable plug
DIN Certco registration (Oil burner version PF15)	DN2.2 (NO) Reg. No.: 5S255 DN3.0 (NC) Reg. No.: 5S255 DN3.5 (NC) Reg. No.: 5S255 DN10.0 (NC) Reg. No.: 5S255
Product connections	
Port connection	G ¼, G ⅜, G ½, G ⅜ (NPT and RC on request) G ¼, G ⅜, G ½, G ⅛ (Oil burner version PF15)
Electrical connection	acc. to DIN EN 175 301-803 Form A for cable plug Type 2508 (see "Cable plug Type 2518, form A acc. to DIN EN 175301 - 803" on page 22)
Environment and installation	
Installation	As required, preferably with actuator upright
Ambient temperature (max.)	55 °C -15 °C…+60 °C (Oil burner version PF15)

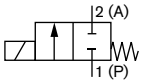
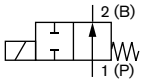
1.) Response times [ms]: Measured at valve outlet at 6 bar and +20 °C, opening: pressure build-up 0…90 %, closing: pressure relief 100…10 %

2.) Medium resistance according to material combination

3.) Circuit function normally open in conjunction with AC voltage is limited to max. 100 °C

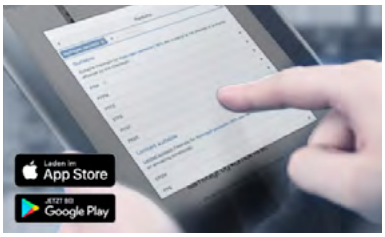
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2. Circuit functions

Circuit functions	Description
	**Type: A, solenoid valve** 2/2 way Direct-acting Normally closed
	**Type: B, solenoid valve** 2/2 way Direct-acting Normally opena

3. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp



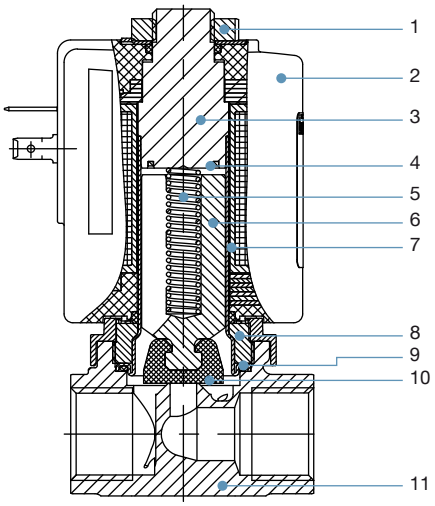
Bürkert resistApp – Chemical Resistance Chart

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

Elastomer seal version up to 30 bar

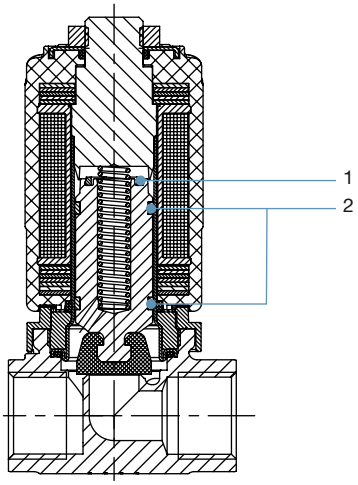


No.	Element	Material
1	Locknut	DIN 176 thick-film passivated or stainless steel
2	Coil	Epoxy
3	Stopper	Stainless steel 1.4113
4	Shading ring	Copper (brass body) Silver (stainless steel body)
5	Spring	Stainless steel 1.4310
6	Plunger	Stainless steel 1.4113
7	Guide tube	Stainless steel 1.4303
8	Nipple	Brass, stainless steel 1.4305
9	Seal	FKM, PEEK (EPDM on request)
10	Seat seal	FKM, PTFE (EPDM on request)
11	Housing	Brass, stainless steel 1.4404 (CF3M)

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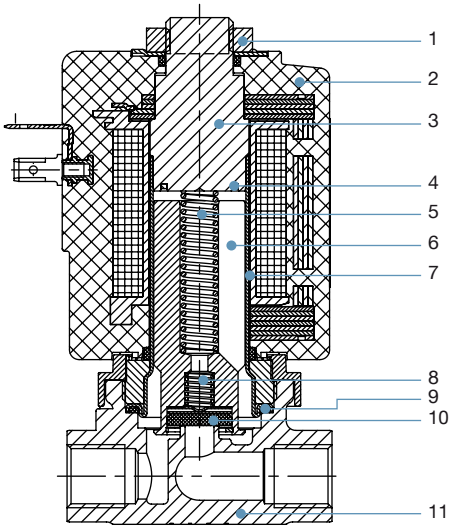
Version with increased lifespan NF39

Note:
All parts are the same as standard, but with two additional parts as follows.



No.	Element	Material
1	Damping ring	PEEK
2	Glider	PTFE carbon filled

Version PTFE pendulum seal up to 100 bar

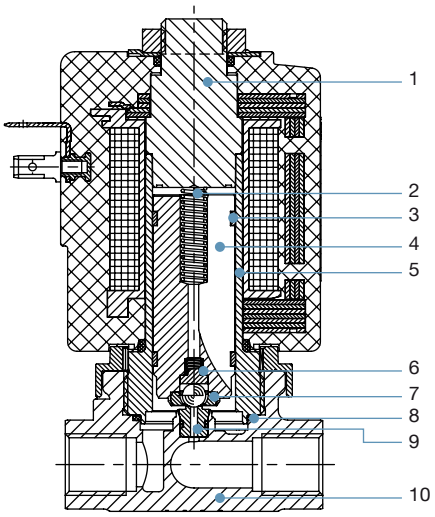


No.	Element	Material
1	Locknut	DIN 176 thick-film passivated or stainless steel
2	Coil	Epoxy
3	Stopper	Stainless steel 1.4113
4	Shading ring	Silver (stainless steel body)
5	Spring	Stainless steel 1.4310
6	Core	Stainless steel 1.4113
7	Guide tube	Stainless steel 1.4303
8	Spring	Stainless steel 1.4310
9	Seat	FKM
10	Seat seal	PTFE pendulum seal
11	Housing	Brass, stainless steel 1.4404 (CF3M)

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3.3. Materials High pressure version MX31 & MX32

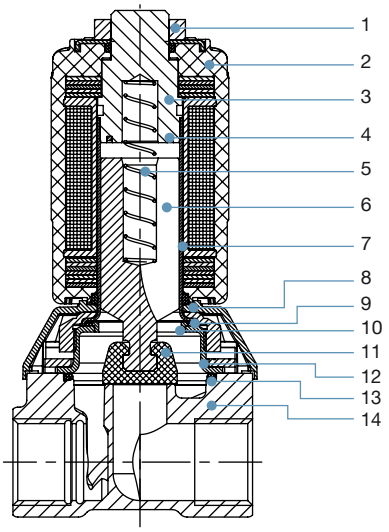
Note:
High pressure version from 135 bar, circuit function A



No.	Element	Material
1	Stopper	1.4523
2	Compression springs	1.4310
3	Glider	PTFE
4	Plunger	Stainless steel 1.4113
5	Armature guide tube	1.4571
6	Ball seat	1.4305
7	Seat seal	Ceramic ball
8	O-rings	FKM
9	Seat	PEEK
10	Housing	Stainless steel 1.4404 (CF3M) only in ¼" G and NPT

3.4. Materials version DN13

Version DN13 standard

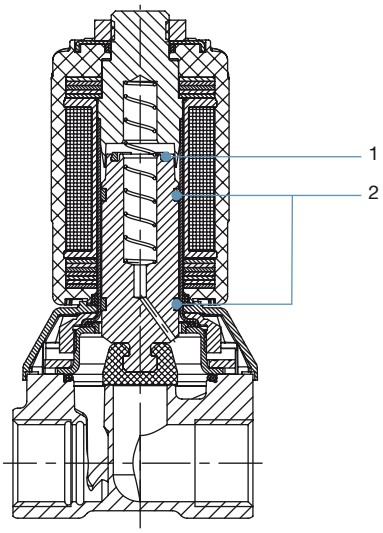


No.	Element	Material
1	Locknut	DIN 176 thick-film passivated or stainless steel
2	Coil	Epoxy
3	Stopper	Stainless steel 1.4113
4	Shading ring	Copper (brass body) Silver (stainless steel body)
5	Spring	Stainless steel 1.4310
6	Core	Stainless steel 1.4113
7	Guide tube	Stainless steel 1.4303
8	Hood	PA6
9	Seal	FKM, EPDM
10	Support ring	PPS Fortron
11	Core seal	FKM, EPDM, NBR
12	Cover	DN10…DN25 stainless steel 1.4301
13	Seal	FKM, EPDM
14	Housing	Brass, stainless steel 1.4408

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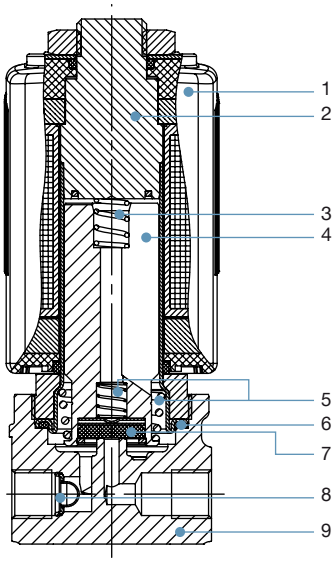
Version DN13 with increased lifespan NF39

Note:
All parts are the same as standard, but with two additional parts as follows.



Nr.	Element	Material
1	Damping ring	PEEK
2	Glider	PTFE carbon filled

3.5. Materials oil burner version PF15



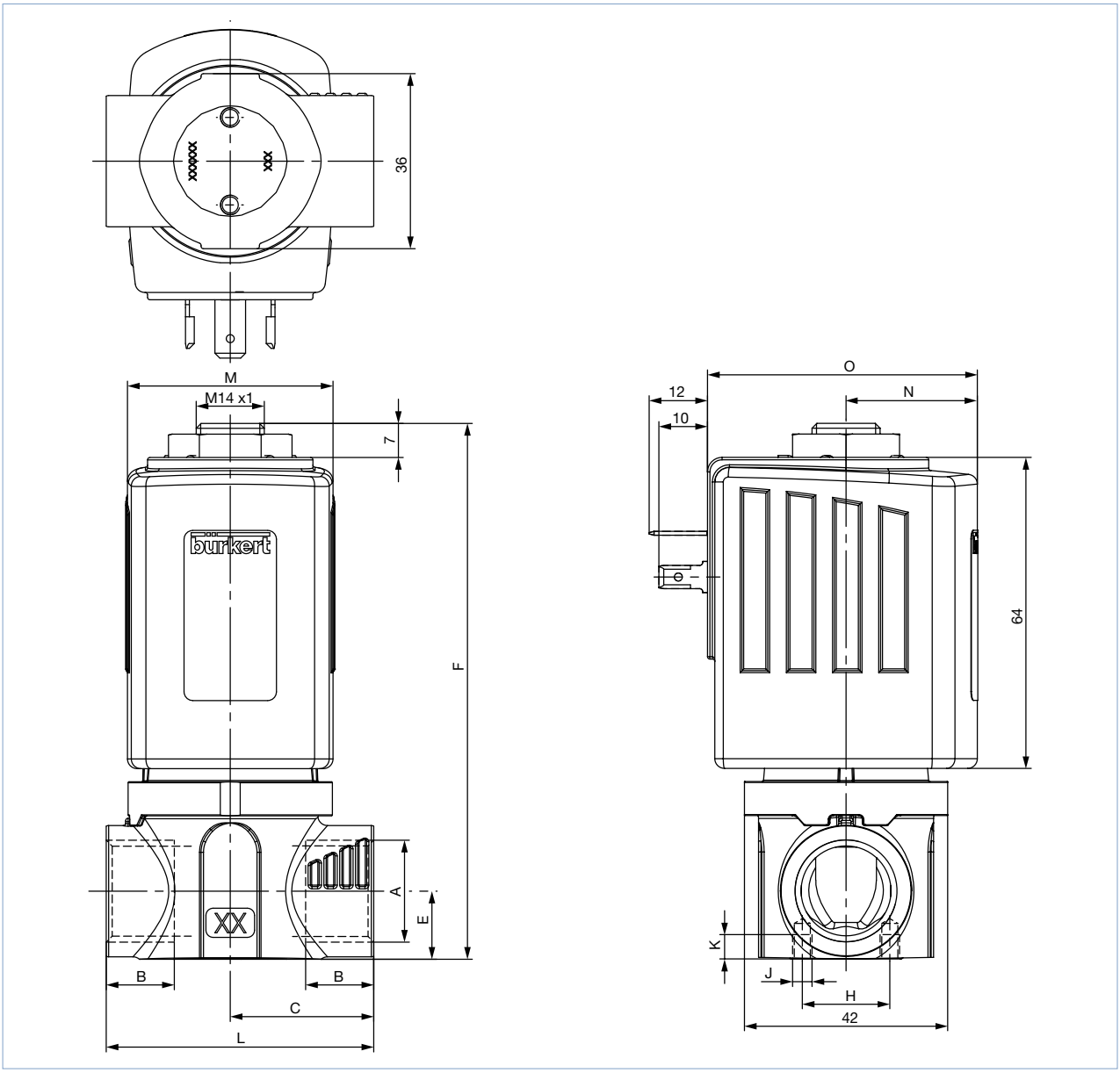
No.	Element	Material
1	Coil	Epoxy
2	Stopper	1.4113
3	Spring	1.4310
4	Plunger	1.4105
5	Spring	1.4310
6	Seal ring	FKM
7	Seat seal	PTFE
8	Strainer	Stainless steel only DN3 and 3.5
9	Valve body	Brass

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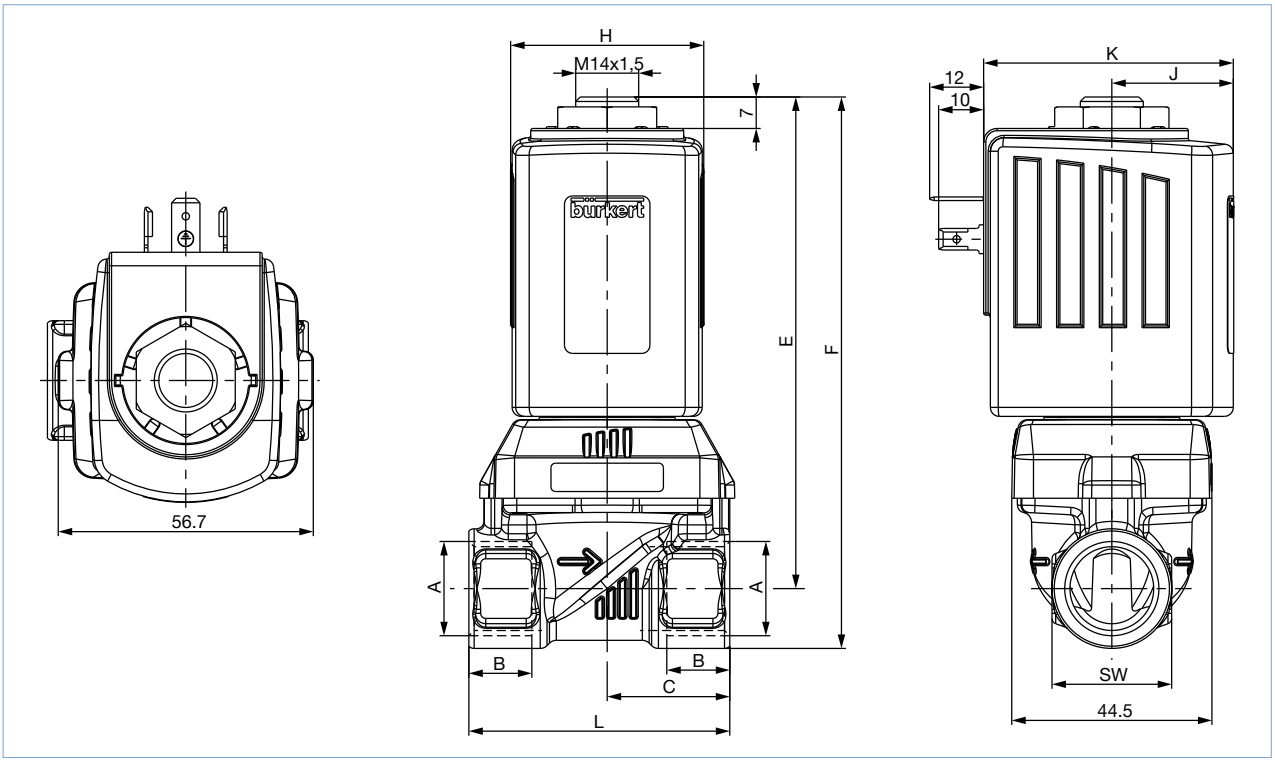
4. Dimensions

4.1. Standard version



Version	L	A	B	C	E	F	H	J	K
Version AG39	75	G ½	14.5	37.5	14	110	–	–	–
	75	G ⅜	12	37.5	14	110	–	–	–
Version AG48	40	G ¼	12	20	10	105	15	M5	7
	40	G ⅛	8	20	10	105	15	M5	7
Standard	55	Rc ½	13.2	29.5	14	110	18	M4	5
		NPT ½	13.7						
		G ½	14						
	55	Rc ⅜	10.1	27.5	12	108	18	M4	5
		NPT ⅜	10.3						
		G ⅜	12						
	55	Rc ¼	9.7	27.5	10	105	18	M4	5
		NPT ¼	10						
		G ¼	12						

4.2. Version DN13

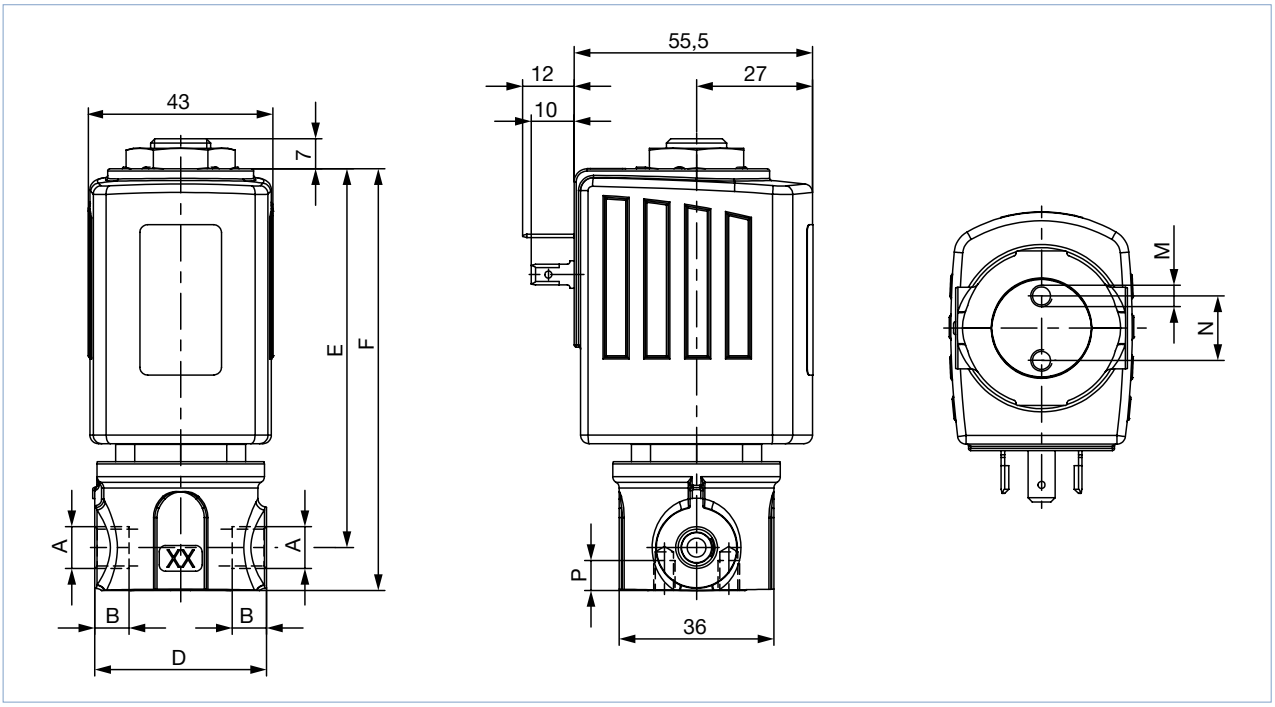


Materials	A	B	C	E	F	L	SW
Brass / Stainless steel	Rc ¾	14.5	32.5	111.3	127.3	65	32
	NPT ¾	14					
	G ¾	16					
Stainless steel	Rc ½	13.2	32.5	109.3	122.6	65	27
	NPT ½	13.7					
	G ½	14					
Brass	Rc ½	13.2	27.25	109.3	122.6	58	27
	NPT ½	13.7					
	G ½	14					

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

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4.3. Oil burner version PF15

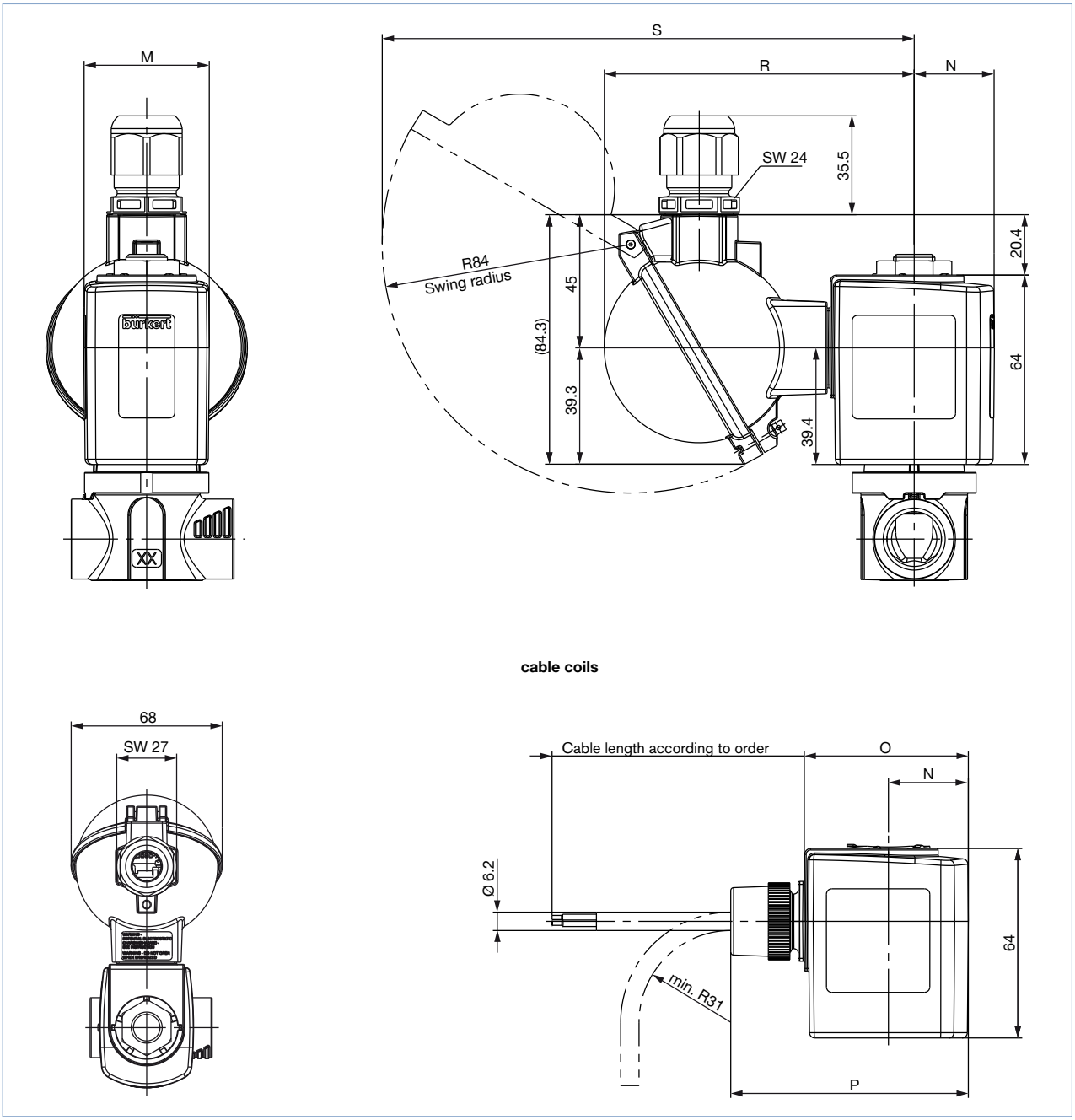


DN	Function	A	B	D	E	F	M	N	P	SW
2.2	NO	G ⅛	8	40	88.2	98.2	M5	15	7	–
	NO	G ¼	12							
3	NC	G ⅛	8	40	88.2	98.2	M5	15	7	–
3.5	NC	G ¼	12	40	88.2	98.2	M5	15	7	–
10	NC	G ⅜	12	75	89.2	103.2	–	–	–	27
	NC	G ½	14.5							

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4.4. ATEX/IECEx version

Note:
Dimensions apply exclusively to ATEX/IECEx version of the solenoid coil. For other dimensions see previous versions.



Coil dimensions						
Coil size	**M**	**N**	**O**	**P**	**R**	**S**
L	65	37.5	72	97	110.8	185.8
K	42	27	55.5	80.3	104.8	179.8

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5. Performance specifications

5.1. Power consumption

Orifice [mm]	AC			DC		ATEX/IECEx AC/DC	KD coil AC/DC[1.]		
	Inrush power	Holding power					Cold performance		Warm performance
	[VA]	[VA]	[W]	Cold performance [W]	Warm performance [W]	Rated power [W]	Inrush power [W] 500 ms	Holding power [W]	Holding power [W]
42 (K)	150	37	16	21	16	12	85	8.5	7
65 (L)	–	–	–	28	21	20	–	–	–

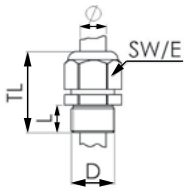
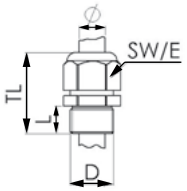
1.) “Kick and Drop” coil (KD coil): Integrated electronics for short-term power increase and reduction in dual coil technology

6. Product accessories

6.1. Cable glands for ATEX/IECEx terminal box

Note:

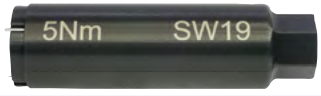
- A cable gland in polyamide version is included in the delivery. A nickel-plated brass version can be ordered at a surcharge, see “7.11. Ordering chart accessories” on page 22.
- This special tool is not supplied with the valve (see “Cable glands for ATEX/IECEx terminal box” on page 23)

Description	Ex approvals		Dimensions	
	Certification	Identification		
Ex cable gland, 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		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		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 “7.11. Ordering chart accessories” on page 22)
- This special tool can only be used with ATEX AC10 coils.

Set SC02-AC10	
	**Set includes:** • Special wrench • Service manual

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7. Ordering information

7.1. Bürkert eShop – Easy ordering and quick delivery



Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

Order online now

7.2. Bürkert product filter



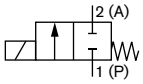
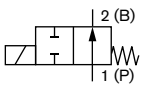
Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

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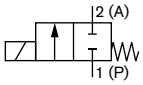
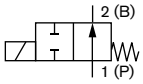
7.3. Ordering chart standard version elastomer seal up to 30 bar

Note:
Further versions with alternative voltages, NPT- or RC-inner thread, seal material EPDM/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_v value water [m³/h]	Max. medium pressure [bar]						Article no. acc. to voltage/frequency [V/Hz]		
				Water		Oil		Air				
				DC	AC	DC	AC	DC	AC	24/DC	24/50	230/50
Housing material brass												
G-inner thread, seal material FKM/FKM												
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	3.0	0.28	0…30	0…25	0…30	0…25	0…30	0…25	178295	178296	178297
		4.0	0.54	0…12	0…16	0…12	0…16	0…12	0…16	178299	178300	178301
		5.0	0.73	0…6	0…10	0…6	0…10	0…6	0…10	178303	178304	178305
		6.0	0.95	0…3	0…6	0…3	0…6	0…3	0…6	178307	178308	178309
	G ⅜	3.0	0.28	0…30	0…25	0…30	0…25	0…30	0…25	178311	178312	178313
		4.0	0.54	0…12	0…16	0…12	0…16	0…12	0…16	178315	178316	178317
		5.0	0.73	0…6	0…10	0…6	0…10	0…6	0…10	178319	178320	178321
		6.0	0.95	0…3	0…6	0…3	0…6	0…3	0…6	178323	178324	178325
		8.0	1.6	0…1	0…3	0…1	0…3	0…1	0…3	178327	178328	178329
	G ½	6.0	0.95	0…3	0…6	0…3	0…6	0…3	0…6	178331	178332	178333
		8.0	1.6	0…1	0…3	0…1	0…3	0…1	0…3	178335	178336	178337
		10.0	1.8	0…0.4	0…2	0…0.4	0…2	0…0.4	0…2	178339	178340	178341
B, solenoid valve 2/2 way Direct-acting Normally open 	G ¼	3.0	0.28	0…16	0…16	0…16	0…16	0…16	0…16	211914	228487	228488
		4.0	0.54	0…10	0…10	0…10	0…10	0…10	0…10	208623	228489	228490
		6.0	0.95	0…6	0…6	0…6	0…6	0…6	0…6	211915	X	227530
	G ⅜	6.0	0.95	0…6	0…6	0…6	0…6	0…6	0…6	228497	228498	228499
		8.0	1.6	0…3	0…3	0…3	0…3	0…3	0…3	228500	228501	228502
	G ½	8.0	1.6	0…3	0…3	0…3	0…3	0…3	0…3	211916	228503	228504
		10.0	1.8	0…2	0…2	0…2	0…2	0…2	0…2	210436	219530	210438

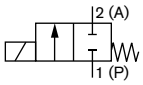
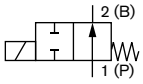
X: on request

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Circuit function	Port connection	Orifice [mm]	K_v value water [m³/h]	Max. medium pressure [bar]						Article no. acc. to voltage/frequency [V/Hz]		
				Water		Oil		Air				
				DC	AC	DC	AC	DC	AC	24/DC	24/50	230/50
Housing material stainless steel												
G-inner thread, seal material FKM/FKM												
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	3.0	0.28	0…30	0…25	0…30	0…25	0…30	0…25	178239	178240	178241
		4.0	0.54	0…12	0…16	0…12	0…16	0…12	0…16	178243	178244	178245
		5.0	0.73	0…6	0…10	0…6	0…10	0…6	0…10	178247	178248	178249
		6.0	0.95	0…3	0…6	0…3	0…6	0…3	0…6	178251	178252	178253
	G ⅜	3.0	0.28	0…30	0…25	0…30	0…25	0…30	0…25	178255	178256	178257
		4.0	0.54	0…12	0…16	0…12	0…16	0…12	0…16	178259	178260	178261
		5.0	0.73	0…6	0…10	0…6	0…10	0…6	0…10	178263	178264	178265
		6.0	0.95	0…3	0…6	0…3	0…6	0…3	0…6	178267	178268	178269
		8.0	1.6	0…1	0…3	0…1	0…3	0…1	0…3	178271	178272	178273
	G ½	6.0	0.95	0…3	0…6	0…3	0…6	0…3	0…6	178275	178276	178277
		8.0	1.6	0…1	0…3	0…1	0…3	0…1	0…3	178279	178280	178281
		10.0	1.8	0…0.4	0…2	0…0.4	0…2	0…0.4	0…2	178283	178284	178285
		12.0	2	0…0.2	0…1.2	0…0.2	0…1.2	0…0.2	0…1.2	178287	178288	178289
B, solenoid valve 2/2 way Direct-acting Normally open 	G ¼	3.0	0.28	0…16	0…16	0…16	0…16	0…16	0…16	230243	230244	230245
		4.0	0.54	0…10	0…10	0…10	0…10	0…10	0…10	230246	230247	230248
		6.0	0.95	0…6	0…6	0…6	0…6	0…6	0…6	230255	230256	230257
	G ⅜	6.0	0.95	0…6	0…6	0…6	0…6	0…6	0…6	230255	230256	230257
		8.0	1.6	0…3	0…3	0…3	0…3	0…3	0…3	230258	230259	230260
	G ½	8.0	1.6	0…3	0…3	0…3	0…3	0…3	0…3	230261	230262	230263
		10.0	1.8	0…2	0…2	0…2	0…2	0…2	0…2	225248	230264	230265
		12.0	2	0…1	0…1	0…1	0…1	0…1	0…1	210441	230266	210321

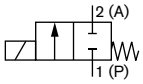
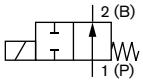
7.4. Ordering chart standard version pendulum seal up to 100 bar

Note:
Further versions with alternative voltages, NPT- or RC-inner thread, seal material PTFE/FKM or PTFE/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_v value water [m³/h]	Max. medium pressure [bar]						Article no. acc. to voltage/frequency [V/Hz]		
				Water		Oil		Air				
				DC	AC	DC	AC	DC	AC	24/DC	24/50	230/50
Housing material brass												
G-inner thread, seal material PTFE/PEEK												
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	2.0	0.14	0…100	0…75	0…100	0…75	0…100	0…75	X	X	X
		3.0	0.28	0…60	0…50	0…60	0…50	0…60	0…50	262435	X	X
		4.0	0.54	0…20	0…30	0…20	0…30	0…20	0…30	206367	X	319934
		6.0	0.95	0…5	0…12	0…5	0…12	0…5	0…12	257403	X	X
	G ⅜	4.0	0.54	0…20	0…30	0…20	0…30	0…20	0…30	263995	X	317310
		6.0	0.95	0…5	0…12	0…5	0…12	0…5	0…12	187966	X	208842
		8.0	1.6	0…1	0…5	0…1	0…5	0…1	0…5	293606	X	X
	G ½	6.0	0.95	0…5	0…12	0…5	0…12	0…5	0…12	260425	X	X
		8.0	1.6	0…1	0…5	0…1	0…5	0…1	0…5	254796	X	X
		10.0	1.8	0…0.4	0…2	0…0.4	0…2	0…0.4	0…2	255365	X	X
B, solenoid valve 2/2 way Direct-acting Normally open 	G ¼	2.0	0.14	0…30	0…16	0…16	0…16	0…16	0…16	X	X	X
		3.0	0.28	0…16	0…10	0…10	0…10	0…10	0…10	214561	X	231075
		4.0	0.54	0…10	0…6	0…6	0…6	0…6	0…6	299424	X	X
		6.0	0.95	0…6	0…2	0…2	0…2	0…2	0…2	317174	X	X
	G ⅜	4.0	0.54	0…10	0…6	0…6	0…6	0…6	0…6	263993	X	X
		6.0	0.95	0…6	0…2	0…2	0…2	0…2	0…2	251443	X	X
	G ½	6.0	0.95	0…6	0…2	0…2	0…2	0…2	0…2	254762	X	X

X: on request

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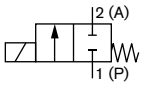
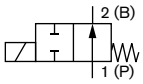
Circuit function	Port connec-tion	Orifice [mm]	K_v value water [m^3/h]	Max. medium pressure [bar]						Article no. acc. to voltage/frequency [V/Hz]		
				Water		Oil		Air				
				DC	AC	DC	AC	DC	AC	24/DC	24/50	230/50
Housing material stainless steel												
G-inner thread, seal material PTFE/PEEK												
A, solenoid valve 2/2 way Direct-acting Normally closed  	G ¼	2.0	0.14	0…100	0…75	0…100	0…75	0…100	0…75	184689	271441	184690
		3.0	0.28	0…60	0…50	0…60	0…50	0…60	0…50	247937	X	X
		4.0	0.54	0…20	0…30	0…20	0…30	0…20	0…30	184692	230667	184693
		6.0	0.95	0…5	0…12	0…5	0…12	0…5	0…12	300077	X	304305
	G ⅜	4.0	0.54	0…20	0…30	0…20	0…30	0…20	0…30	292674	X	X
		6.0	0.95	0…5	0…12	0…5	0…12	0…5	0…12	184695	202757	184696
		8.0	1.6	0…1	0…5	0…1	0…5	0…1	0…5	184698	X	184699
	G ½	6.0	0.95	0…5	0…12	0…5	0…12	0…5	0…12	259348	X	280481
		8.0	1.6	0…1	0…5	0…1	0…5	0…1	0…5	271411	X	X
		10.0	1.8	0…0.4	0…2	0…0.4	0…2	0…0.4	0…2	184701	X	184702
		12.0	2	0…0.2	0…1.2	0…0.2	0…1.2	0…0.2	0…1.2	184704	227982	184705
B, solenoid valve 2/2 way Direct-acting Normally open  	G ¼	2.0	0.14	0…30	0…16	0…16	0…16	0…16	0…16	X	X	X
		3.0	0.28	0…16	0…10	0…10	0…10	0…10	0…10	256088	X	255406
		4.0	0.54	0…10	0…6	0…6	0…6	0…6	0…6	242618	X	223726
		6.0	0.95	0…6	0…2	0…2	0…2	0…2	0…2	299913	X	X
	G ⅜	4.0	0.54	0…10	0…6	0…6	0…6	0…6	0…6	X	X	X
		6.0	0.95	0…6	0…2	0…2	0…2	0…2	0…2	267659	316119	239314
	G ½	6.0	0.95	0…6	0…2	0…2	0…2	0…2	0…2	X	X	X

X: on request

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7.5. Ordering chart high pressure version MX31 & MX32

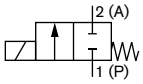
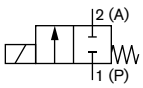
Note:
Further versions with alternative voltages, NPT- or RC-inner thread, seal material PEEK/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_v value water [m³/h]	Max. medium pressure [bar]						Article no. acc. to voltage/frequency [V/Hz]		
				Water		Oil		Air				
				DC	AC	DC	AC	DC	AC	24/DC	24/AC	230/AC
Housing material stainless steel												
G-inner thread, seal material PEEK/FKM, cable head with integrated rectifier for AC part of delivery												
High pressure version with ball sealing – pressure stage up to 250 bar (MX32) or 160 bar (MX31)												
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	1.0	0.03	0…250	0…250	0…250	0…250	0…250	0…250	265507	–	267229
				0…250	0…250	0…200	0…200	0…250	0…250	–	267226	–
		1.5	0.07	0…150	0…150	0…80	0…80	0…150	0…150	267217	–	267237
				0…150	0…150	0…70	0…70	0…150	0…150	–	267234	–
B, solenoid valve 2/2 way Direct-acting Normally open 	G ¼	1.0	0.03	0…200	0…200	0…150	0…150	0…250	0…250	269823	267219	267239
		1.5	0.07	0…100	0…100	0…80	0…80	0…130	0…130	269824	267240	271269

7.6. Ordering chart DN13 version with increased lifespan NF39

Note:

- Further versions with alternative voltages, stainless steel body, ¾" connection, seal material EPDM/EPDM on request.
- For all subsequent values, the nominal diameter is 13 mm and the K_v value water is 4 m³/h.

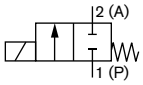
Circuit function	Port connection	Orifice [mm]	K_v value water [m³/h]	Max. medium pressure [bar]						Article no. acc. to voltage/frequency [V/Hz]		
				Water		Oil		Air				
				DC	AC	DC	AC	DC	AC	24/DC	24/50	230/50
Housing material brass												
Seal material FKM/FKM												
For liquid and gaseous media												
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ½	13.0	4	0…0.15	0…0.15	0…0.15	0…0.15	0…0.15	0…0.15	315080	315082	315084
				0…0.75	–	0…0.75	–	0…0.75	–	315088	–	–
	NPT ½	13.0	4	0…0.15	0…0.15	0…0.15	0…0.15	0…0.15	0…0.15	315095	315097	315100
				0…0.75	–	0…0.75	–	0…0.75	–	315102	–	–
Only for liquid media												
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ½	13.0	4	–	0…0.75	–	0…0.75	–	0…0.75	–	315089	315093
	NPT ½	13.0	4	–	0…0.75	–	0…0.75	–	0…0.75	–	315103	315105

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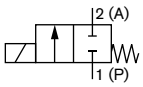
7.7. Ordering chart DIN EN 161 PO19 certification version

Note:

- Materials and dimensions for DN4…DN12 see "3.2. Material specifications standard version" on page 4 and for DN13 see "3.4. Materials version DN13" on page 6
- Further versions with alternative voltages, brass housing, ¼" or ¾" connection on request.

Circuit function	Port connec-tion	Orifice [mm]	K_v value water [m³/h]	Max. medium pressure [bar]		Seal material	Coil size [mm]	Article no. acc. to voltage/frequency [V/Hz]		
				Gas						
				DC	AC			24/DC	24/AC	230/AC
Housing material stainless steel										
G-inner thread, seal material NBR/NBR or FKM/FKM optional, cable head with integrated rectifier for AC included.										
Automatic shut-off valves for gas burners up to 5 bar with increased lifespan NF39										
A, solenoid valve 2/2 way Direct-acting Normally closed  	G ⅜	4.0	0.54	0…6	0…10	FKM	42	322103	X	X
				0…15	–	NBR	65	322105	–	–
	G ⅜	6.0	0.95	0…2.5	0…2.5	FKM	42	X	X	X
				0…7.5	–	NBR	65	X	–	–
	G ½	8.0	1.6	0…1.3	0…1.3	FKM	42	322107	X	X
				0…4	–	NBR	65	322109	–	–
	G ½	10.0	1.8	0…0.5	0…0.5	FKM	42	X	X	X
				0…1.8	–	NBR	65	X	–	–
	G ½	12.0	2	0…0.4	0…0.4	FKM	42	X	X	X
				0…1.4	–	NBR	65	X	–	–
	G ½	13.0	0.28	0…0.15	0…0.15	FKM	42	322110	X	X
				0…0.75	–	NBR	65	322112	–	–

X: on request

Circuit function	Port connection	Orifice [mm]	K_v value water [m³/h]	Max. medium pressure [bar]	Seal material	Coil size [mm]	Article no. acc. to voltage/frequency [V/Hz]	
				Gas				
				AC			24/DC	230/50
Housing material brass								
G-inner thread, seal material NBR/NBR								
Automatic shut-off valves for gas burners up to 5 bar in standard								
A, solenoid valve 2/2 way Direct-acting Normally closed  	G ⅜	4.0	0.54	0…13	NBR	42	X	322106
	G ½	6.0	0.95	0…5.5	NBR	42	X	291453
	G ½	8.0	1.6	0…2.3	NBR	42	X	270994
	G ½	10.0	1.8	0…1.3	NBR	42	X	267347
	G ½	13.0	0.28	0…0.5	NBR	42	X	–

X: on request

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7.8. Ordering chart oil burner version PF15

Feed line valve/return line valve combinations

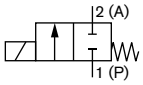
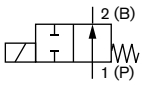
If the oil burner is designed with a return nozzle and without a nozzle shut-off valve (see DIN EN 267), the feed line and return line valves with safety shut-off function are required. The following combinations are possible:

Feed line valve				Return line valve			
Type	**Orifice [mm]**	**Housing material**	**K_V value water [m³/h]**	**Type**	**Orifice [mm]**	**Housing material**	**K_V value water [m³/h]**
6027	3	Brass	0.22	6027	3	Brass	0.18
6027	3.5	Brass	0.38	6027	3.5	Brass	0.35
5406[1.)]	13	Brass	3.5	6027	10	Brass	1.8
5406[1.)]	20	Stainless steel	6.3	5407[2.)]	20	Stainless steel	4.7

1.) See data sheet **Type 5406** ▸ solenoid valve safety shut off valve for oil burner

2.) See data sheet **Type 5407** ▸ solenoid valve safety shut off valve for oil burner

Note:
Further versions with alternative voltages, frequencies and thread connections on request.

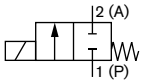
Circuit function	**Port connection**	**Orifice [mm]**	**K_V value water [m³/h]**	**Closing times [ms]**	**Applications**	**Max. medium pressure [bar]**		**Electrical power**		**Article no. acc. to voltage/frequency**	
						Oil		**Operation**	**Acceleration**	**[V/Hz]**	
						differential pressure	**static**	**[W]**	**[VA]**	**110 - 120 /50**	**220 - 240 /50**
Housing material brass											
G-inner thread, seal material PTFE/FKM											
DIN EN ISO 23553 - 1 Safety isolating equipment for liquid fuels PF15											
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ⅛	3.0	0.22 0.18	30	Feed line Return line	0…30	30	20	120	322828	322829
	G ¼	3.0	0.22 0.18	30	Feed line Return line	0…30	30	20	120	X	322830
		3.5	0.38	30	Feed line Return line	0…30	30	20	180	301016	284833
	G ⅜	10.0	2	50	Return line	–	30	20	180	X	X
	G ½	10.0	2	50	Return line	–	30	20	180	281948	281947
B, solenoid valve 2/2 way Direct-acting Normally open 	G ¼	2.2	0.16	30	circulation line	0…30	30	20	120	301018	261036

X: on request

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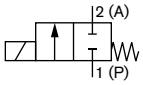
7.9. Ordering chart ATEX/IECEx version with 3 meter cable

Note:
Further versions with Normally Open, alternative voltages, stainless steel body, NPT- or RC-inner thread, seal material EPDM/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_V value water [m³/h]	Max. medium pressure [bar]			Article no. acc. to voltage/frequency [V/Hz]	
				Water	Oil	aAir	24/UC	230/UC
Housing material brass								
G-inner thread, seal material FKM/FKM								
Standard version with elastomer seal								
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	3.0	0.28	0…16	0…16	0…16	X	X
		4.0	0.54	0…6	0…6	0…6	X	X
		5.0	0.73	0…2	0…2	0…2	X	298656
		6.0	0.95	0…1	0…1	0…1	X	298657
	G ½	8.0	1.6	0…0.5	0…0.5	0…0.5	X	X
		10.0	1.8	0…0.1	0…0.1	0…0.1	310656	310655

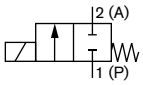
X: on request

Note:
Further versions with Normally Open, alternative voltages, brass housing, NPT- or RC-inner thread, seal material PTFE/FKM or PTFE/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_V value water [m³/h]	Max. medium pressure [bar]			Article no. acc. to voltage/frequency [V/Hz]	
				Water	Oil	Air	24/UC	230/UC
Housing material stainless steel								
G-inner thread, seal material FKM/FKM								
Standard version with pendulum seal								
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	2.0	0.14	0…60	0…60	0…60	298649	298648
		3.0	0.28	0…20	0…20	0…20	298659	X
		4.0	0.54	0…8	0…8	0…8	298647	X
	G ½	6.0	0.95	0…1.5	0…1.5	0…1.5	298660	X
		8.0	1.6	0…0.5	0…0.5	0…0.5	X	X
		10.0	1.8	0…0.2	0…0.2	0…0.2	X	X
		12.0	2	0…0.1	0…0.1	0…0.1	X	X

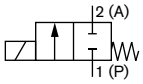
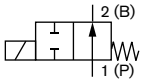
X: on request

Note:
Further versions with alternative voltages, stainless steel body, NPT- and RC-inner thread, ¾" connection, seal material EPDM/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_V value water [m³/h]	Max. medium pressure [bar]			Article no. acc. to voltage/frequency [V/Hz]	
				Water	Oil	Air	24/UC	230/UC
G-inner thread, seal material FKM/FKM								
Version DN13 with increased lifespan and noise reduction NF39								
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ½	13.0	4	0…0.5	0…0.5	0…0.5	322817	322818

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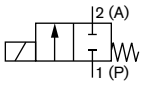
Note:
Further versions with alternative voltages, NPT- and RC-inner thread, seal material PEEK/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_V value water [m³/h]	Max. medium pressure [bar]			Article no. acc. to voltage/frequency [V/Hz]	
				Water	Oil	Air	24/UC	230/UC
Housing material stainless steel								
G-inner thread								
High pressure version with ball sealing – pressure stages up to 250 bar (MX[32]) or 160 bar (MX[31])								
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	1.0	0.03	0…200	0…150	0…250	298651	298652
		1.5	0.07	0…80	0…40	0…100	298653	298654
B, solenoid valve 2/2 way Direct-acting Normally open 	G ¼	1.0	0.03	0…200	0…200	0…150	298667	X
		1.5	0.07	0…100	0…100	0…80	X	X

X: on request

7.10. Ordering chart ATEX/IECEx version clamp junction box

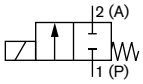
Note:
Further versions with normally open, alternative voltages, stainless steel body, NPT- or RC-inner thread, seal material EPDM/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_V value water [m³/h]	Max. medium pressure [bar]			Article no. acc. to voltage/frequency [V/Hz]	
				Water	Oil	Air	24/UC	230/UC
Housing material brass								
G-inner thread, seal material FKM/FKM								
Standard version with elastomer seal								
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	3.0	0.28	0…16	0…16	0…16	X	X
		4.0	0.54	0…6	0…6	0…6	X	X
		5.0	0.73	0…2	0…2	0…2	314976	314978
		6.0	0.95	0…1	0…1	0…1	314191	X
	G ½	8.0	1.6	0…0.5	0…0.5	0…0.5	X	X
		10.0	1.8	0…0.1	0…0.1	0…0.1	310655	310656

X: on request

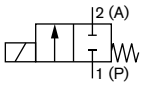
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Note:
Further versions with normally open, alternative voltages, brass housing, NPT- or RC-inner thread, seal material PTFE/FKM or PTFE/EPDM on request.

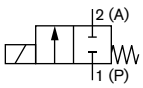
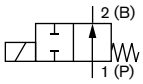
Circuit function	Port connection	Orifice [mm]	K_V value water [m³/h]	Max. medium pressure [bar]			Article no. acc. to voltage/frequency [V/Hz]	
				Water	Oil	Air	24/UC	230/UC
Housing material stainless steel								
G-inner thread, seal material FKM/FKM								
Standard version with pendulum seal								
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	2.0	0.14	0…60	0…60	0…60	X	030488
		3.0	0.28	0…20	0…20	0…20	316557	X
		4.0	0.54	0…8	0…8	0…8	X	X
	G ½	6.0	0.95	0…1.5	0…1.5	0…1.5	X	X
		8.0	1.6	0…0.5	0…0.5	0…0.5	X	X
		10.0	1.8	0…0.2	0…0.2	0…0.2	X	X
		12.0	2	0…0.1	0…0.1	0…0.1	X	X

X: on request

Note:
Further versions with alternative voltages, stainless steel body, NPT- and RC-inner thread, ¾" connection, seal material EPDM/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_V value water [m³/h]	Max. medium pressure [bar]			Article no. acc. to voltage/frequency [V/Hz]	
				Water	Oil	Air	24/UC	230/UC
G-inner thread, seal material FKM/FKM								
DN13 version with increased lifespan and noise reduction								
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ½	13.0	4	0…0.5	0…0.5	0…0.5	322819	322821

Note:
Further versions with alternative voltages, NPT-connection, seal material PEEK/EPDM on request.

Circuit function	Port connection	Orifice [mm]	K_V value water [m³/h]	Max. medium pressure [bar]			Article no. acc. to voltage/frequency [V/Hz]	
				Water	Oil	Air	24/UC	230/UC
Housing material stainless steel								
G-inner thread								
High pressure version with ball sealing – pressure ratings up to 250 bar (MX32) or 160 bar (MX31)								
A, solenoid valve 2/2 way Direct-acting Normally closed 	G ¼	1.0	0.03	0…200	0…150	0…250	304891	X
		1.5	0.07	0…80	0…40	0…100	X	X
B, solenoid valve 2/2 way Direct-acting Normally open 	G ¼	1.0	0.03	0…200	0…200	0…150	X	X
		1.5	0.07	0…100	0…100	0…80	X	X

X: on request

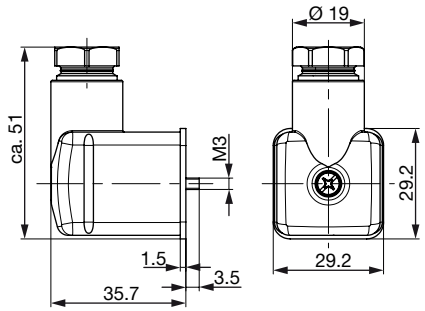
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Further versions on request	
Certification • cULus(UL-listed) certification • cURus(UL-recognized) certification • Drinking water approval acc. to KTW/W270 • FDA (Food and Drug Administration) certification • Versions for oxygen applications	**Temperature** Special temperature ranges
Process connection • NPT • RC	**Voltage** 110/50 and further non-standard voltages

7.11. Ordering chart accessories

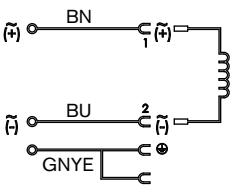
Cable plug Type 2518, form A acc. to DIN EN 175301 - 803

Note:
For other versions see data sheet **Type 2518** ▸.

Cable plug	Dimensions	Version	Voltage	Article no.
		Without circuitry (AC/DC)	0…250 V AC/DC	314802
		With LED (AC/DC)	12…24 V AC/DC	314812
		With LED and varistor (AC/DC)	12…24 V AC/DC	314820
		With rectifier, LED and varistor	12…24 V AC/DC	314816

Cable plug Type 2513, form A acc. to DIN EN 175301 - 803

Note:
- The Cable plug Type 2513 meets the requirements of ATEX category 3 GD.
- For more information on the cable plug, see data sheet **Type 2513** ▸.

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

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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 surcharge.
- For more information on Ex cable glands, see "6.1. Cable glands for ATEX/IECEx terminal box" on page 12.

Description	Article no.
Ex cable gland, brass, nickelplated, 6…13 mm[1.]	773278
Ex cable gland, polyamide, 7…13 mm[1.]	773277
Set SC02-AC10: Special wrench[2.] incl. service manual	293488

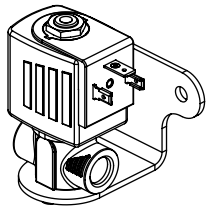
1.) Cable diameter

2.) Not included in the scope of delivery of the valve Befestigungsbügel

Mounting bracket for Type 6027/6240

Note:

- The scope of delivery includes the mounting bracket, two cylinder screws M4x8 and two spring rings.
- The mounting bracket can be used for all standard and high-pressure versions including ATEX / IECEx and DIN EN 161 options up to orifice of 12 mm.
- The mounting bracket can not be used for the oil burner and DN13 versions as well as various special housings made of solid material.

Description	Article no.
	282304

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