



Servo-assisted 2/2-way diaphragm valve

- Servo-assisted diaphragm valve up to DN 50
- Vibration-resistant, centrally screwed coil system
- Damped design for quiet closing
- Energy-saving double coil technology with kick and drop variant
- Explosion-proof variants



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

Can be combined with

	Type 2518 Cable plug, form A according to DIN EN 175301-803	▶
	Type 2509 Cable plug, form A according to DIN EN 175301-803	▶

Type description

Valve 6281 is a servo-assisted diaphragm valve. A minimum differential pressure is always required for the valve to function. Various diaphragm materials and circuit functions are available depending on the actual application. The standard brass body meets European drinking water requirements. For other markets, dezincification-resistant brass is available. The range includes a variant with a stainless steel body. To reduce electrical power consumption during operation, coils with integrated Kick-and-Drop (KD) electronics featuring double coil technology are available. The valve can be supplied with manual operation for easy maintenance and commissioning.

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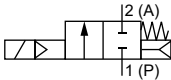
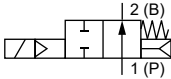
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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 7.
Material	
Seal	NBR, EPDM, FKM
Body	Brass acc. to DIN EN 50930 - 6, stainless steel (dezincification resistant on request)
Inner valve parts	Stainless steel, brass, plastic (PPS)
Orifice	DN 10...DN 50
Circuit function	Further information can be found in chapter "2. Circuit functions" on page 4.
Thermal insulation class of solenoid coil	Polyamide coil class B Epoxy coil class H
Performance data	
Duty cycle	100 % continuous operation
Switching time ¹⁾	Opening: 0.1...1.5 s Closing: 0.2...4 s
Electrical data	
Operating voltage	24 V/DC, 24 V/UC, 24 V/50...60 Hz, 230 V/UC, 230 V/50...60 Hz
Power consumption	Further information can be found in chapter "6. Performance specifications" on page 12.
Voltage tolerance	± 10 %
Medium data	
Operating medium	Medium that does not attack the housing and sealing materials Further information can be found in chapter "4.1. Bürkert resistApp" on page 6.
Medium temperature	
NBR	- 10 °C...+ 80 °C
EPDM	- 30 °C...+ 90 °C (with epoxy coil to + 100 °C) 0 °C...+ 60 °C (with drinking water approval according to UBA (PF36))
FKM	0 °C...+ 90 °C (with epoxy coil to + 120 °C)
Process/Port connection & communication	
Electrical connection	- Cable plug Type 2518 ▶, form A according to DIN EN 175301 - 803 Further information can be found in chapter "Cable plug Type 2518, form A according to DIN EN 175301 - 803" on page 20. - Cable plug Type 2509 ▶, form A according to DIN EN 175301 - 803 Further information can be found in chapter "Cable plug Type 2509, form A according to DIN EN 175301 - 803" on page 21.
Approvals and conformities	
Directives	CE, EAC
Degree of protection	IP65 with cable plug, cable connection and terminal box
Explosion protection	Further information can be found in chapter "3.4. Explosion protection" on page 4.
North America (USA/Canada)	Further information can be found in chapter "3.5. North America (USA/Canada)" on page 5.
Drinking water	Further information can be found in chapter "3.6. Drinking water" on page 5.
Others	Further information can be found in chapter "3.7. Others" on page 5.
Environment and installation	
Installation	As required, preferably with actuator upright
Ambient temperature	
Standard version	Max. + 55 °C
Version with kick and drop coil	Max. + 70 °C (max. 30 switching operations/min) Max. + 85 °C (max. 1 switching operation/min) Max. + 55 °C (for versions with UR/UL approval)

1) Measurement at + 20 °C, 6 bar at the valve inlet and free outlet, opening: pressure reduction to 90 % of the difference to the flow pressure, closing: pressure build-up to 90 % of the inlet pressure

2. Circuit functions

Symbol	Description
	Circuit function A (CF A) 2/2-way solenoid valve Servo-controlled Normally closed
	Circuit function B (CF B) 2/2-way solenoid valve Servo-controlled Normally open

3. Approvals and conformities

3.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available versions can be supplied with the below mentioned approvals or conformities.

3.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

3.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

3.4. Explosion protection

Approval	Description
 	Optional: Explosion protection ATEX: EPS 18 ATEX 1232 X II 2G Ex mb IIC T4 Gb II 2D Ex mb IIIC T130 °C Db II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIC T130 °C Db IECEx: IECEx EPS 18.0110 X Ex mb IIC T4 Gb Ex mb IIIC T130 °C Db Ex eb mb IIC T4 Gb Ex mb tb IIIC T130 °C Db

3.5. North America (USA/Canada)

Approval	Description
	Valid for valves: UL Listed for the USA The valves are UL Listed for the USA according to: UL 429 (electrically operated valves) and UL 429A (Electrically Operated Valves for Fire Protection Service)
	Valid for coils: UL Hazardous Locations – Explosion Protection UL Listed for Hazardous Locations for USA and Canada Class I, Zone 1 Class I, Division 2, Group A, B, C and D Class II + III, Division 2, Group F and G
	Valid for valves: UL Recognized for the USA The valves are UL Recognized for the USA according to: UL 429 (electrically operated valves) and UL 429A (Electrically Operated Valves for Fire Protection Service)
	Valid for coils: UL Recognized for the USA and Canada The coils are UL Recognized for the USA and Canada according to: - UL 429 (electrically operated valves) - CAN/CSA-C22.2 No. 61010-1
	Valid for valves: CSA for Canada The valves are CSA approved for Canada according to: CSA 139 (electrically operated valves)

3.6. Drinking water

Conformity	Description
	Suitable for use in drinking water applications The materials comply with the assessment principles (UBA) for materials in contact with drinking water (Trinkwasser). PF39: Suitable for products with a maximum temperature of 85 °C (hot water) PF36: Suitable for products with a maximum temperature of 60 °C (warm water)

3.7. Others

DNV GL classification

Approval	Description
	DNV GL classification – Ships, offshore units, and high speed and light craft The products are accepted for installation on all vessels classed by DNV GL.

Oxygen

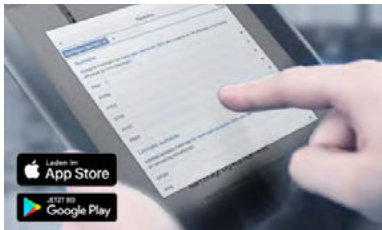
Conformity	Description
	Optional: Suitability for oxygen (valid for the variable code NL02) The products are suitable for use with gaseous oxygen, according to the manufacturer's declaration.

VDE – Certificate of conformity with factory surveillance

Approval	Description
	Optional: Certificate of conformity with factory surveillance (VDE Testing and Certification Institute) (valid for the variable code PW01 and PW02) The electrically operated water valves are tested and certified according to: • DIN EN 60730-1 (VDE 0631-1) • EN 60730-1 • DIN EN IEC 60730-2-8 (VDE 0631-2-8) The electrically operated water valves also fulfill the requirements of: • IEC 60730-1 • IEC 60730-2-8

4. Materials

4.1. Bürkert resistApp

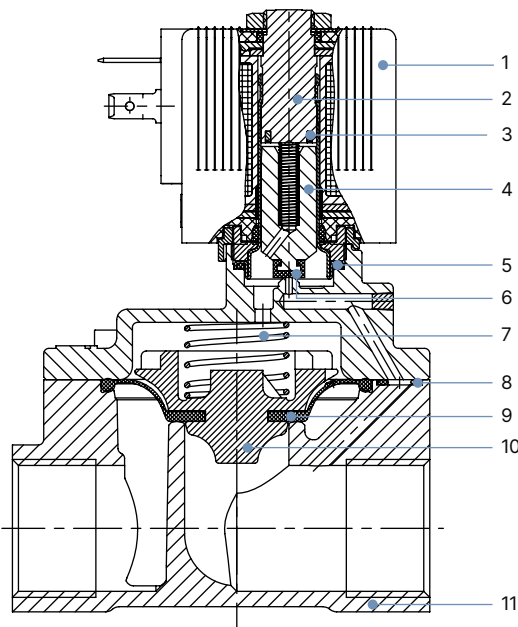


Bürkert resistApp – Chemical resistance chart

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](#)

4.2. Material specifications



No.	Element	Material
1	Coil	Polyamide ^{1.)} or Epoxy ^{2.)}
2	Stopper	Stainless steel 1.4113
3	Shading ring	Cu (brass version) Ag (stainless steel version)
4	Magnetic core	Stainless steel 1.4113
5	O-rings	NBR, FKM, EPDM
6	Core seal	NBR, FKM, EPDM
7	Spring	Stainless steel 1.4310
8	O-rings	NBR, FKM, EPDM
9	Diaphragm	NBR, FKM, EPDM
10	Diaphragm holder	PPSGF40, DN 50: Brass and stainless steel
11	Valve body	Brass acc. to DIN EN 50930 - 6 or stainless steel 1.4408 (CF8M)

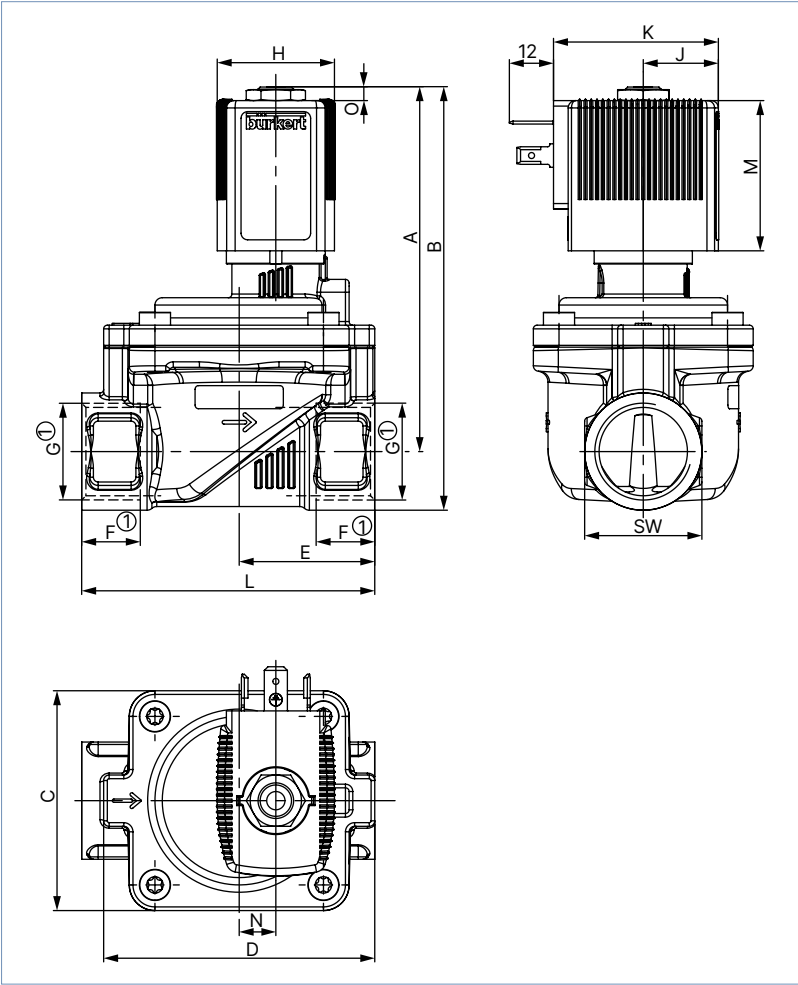
1.) With NBR/EPDM seal
2.) With FKM seal

5. Dimensions

5.1. Standard version

Note:

- Dimensions in mm
- The dimensions F1 and G1 apply to G-thread.
- The dimensions F2 and G2 apply to NPT-thread.
- The dimensions F3 and G3 apply to Rc-thread.



Coil size	H	J	K	M	O
5	32	20.5	45	41	3.4
6	40	23.5	51	41.4	3.8

DN	A	B	C	D	E	G		NPT		Rc		L	SW	N
						F1	G1	F2	G2	F3	G3			
10 ¹⁾	83.1	94.1	32	44	22	12	G ¼	10	NPT ¼	–	–	50	22	–
	85.1	98.6			24.5	14	G ½	13.7	NPT ½	–	–	50	27	–
	83.6	94.6			22	12	G ¼	10	NPT ¼	–	–	50	22	–
10 ²⁾	85.6	99.1	42	54.5	24.5	14	G ½	13.7	NPT ½	–	–	55	27	–
	91.1	104.6			27.25	12	G ¾	–	–	–	–	58	27	–
	93.1	109.1			32.5	14	G ½	13.7	NPT ½	13.2	Rc ½	65	27	–
13 ¹⁾	99.6	115.6	60	74	37	16	G ¾	14	NPT ¾	14.5	Rc ¾	80	32	10
	102.1	122.6			37.5	18	G 1	16.8	NPT 1	–	–	80	41	–
	106.6	127.1			46	18	G 1	16.8	NPT 1	16.8	Rc 1	95	41	15
20	111.6	136.6	70	85	46	20	G 1¼	17.3	NPT 1¼	19.1	Rc 1¼	95	50	–

DN	A	B	C	D	E	G		NPT		Rc		L	SW	N
						F1	G1	F2	G2	F3	G3			
40 ^{1.)}	120.1	145.1	99	114	61	20	G 1¼	17.3	NPT 1¼	19.1	Rc 1¼	126	50	23
40	125.6	155.6				22	G 1½		NPT 1½		Rc 1½	126	60	
	131.6	166.6			64	24	G 2	17.6	NPT 2	23.4	Rc 2	132	70	
50 ^{1.)}	119.9	154.9	115	132	82	24	G 2	17.6	NPT 2	23.4	Rc 2	164	70	37
	119.6	162.1			89.5	27	G 2½	23.6	NPT 2½	–	–	179	85	

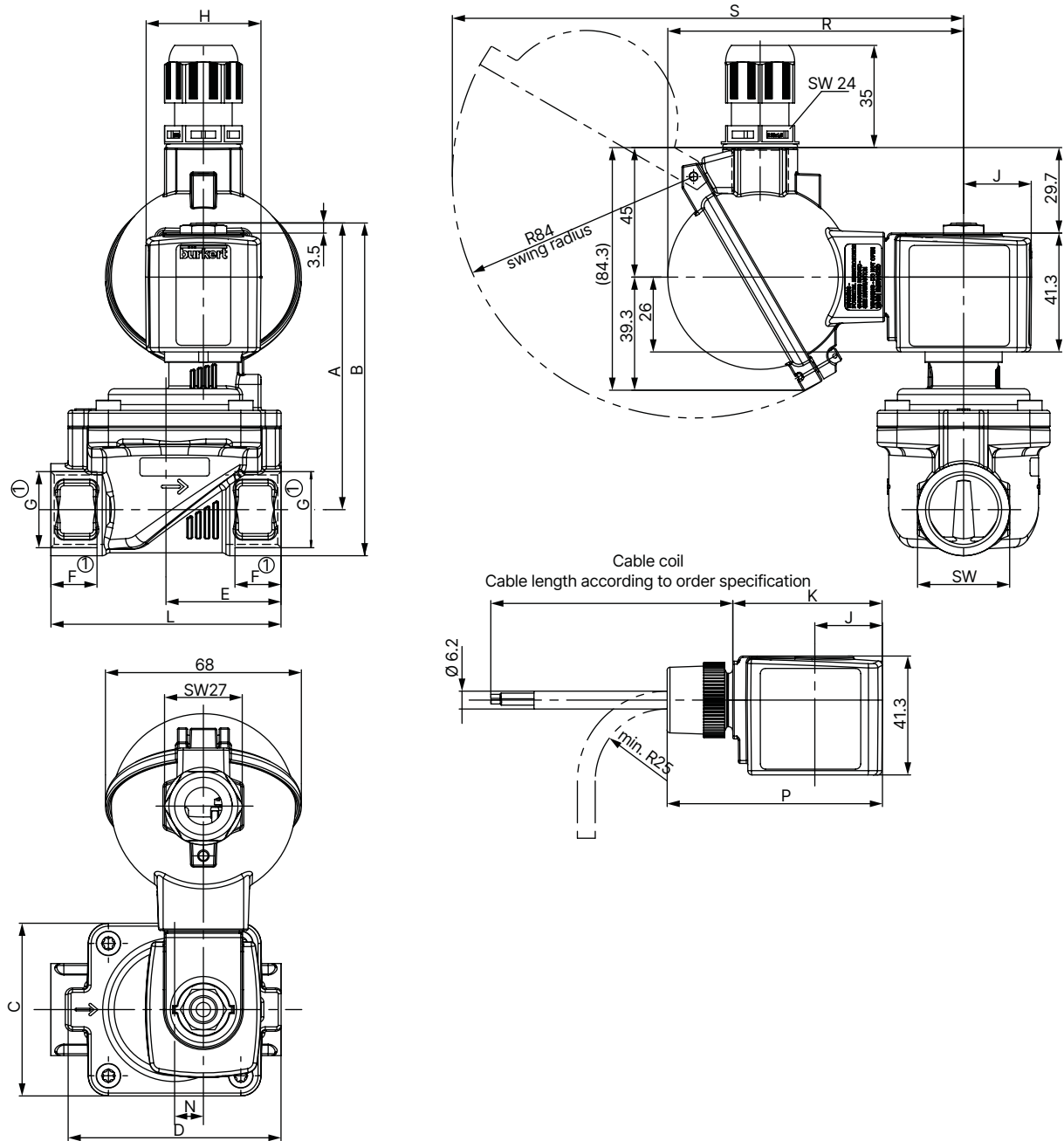
1.) Only threaded brass connection

2.) Only threaded stainless steel connection

5.2. ATEX/IECEx cable version

Note:

- Dimensions in mm
- The dimensions F1 and G1 apply to G-thread.
- The dimensions F2 and G2 apply to NPT-thread.
- The dimensions F3 and G3 apply to Rc-thread.
- For DN 50 see dimensions “5.3. ATEX/IECEx terminal box version” on page 10

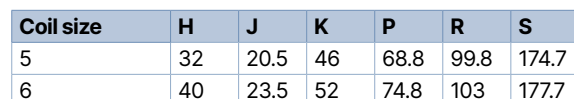


Coil size	H	J	K	P	R	S
5	32	20.5	46	68.8	99.8	174.7
6	40	23.5	52	74.8	103	177.7

- 1.) Only threaded brass connection
- 2.) Only threaded stainless steel connection

Note:

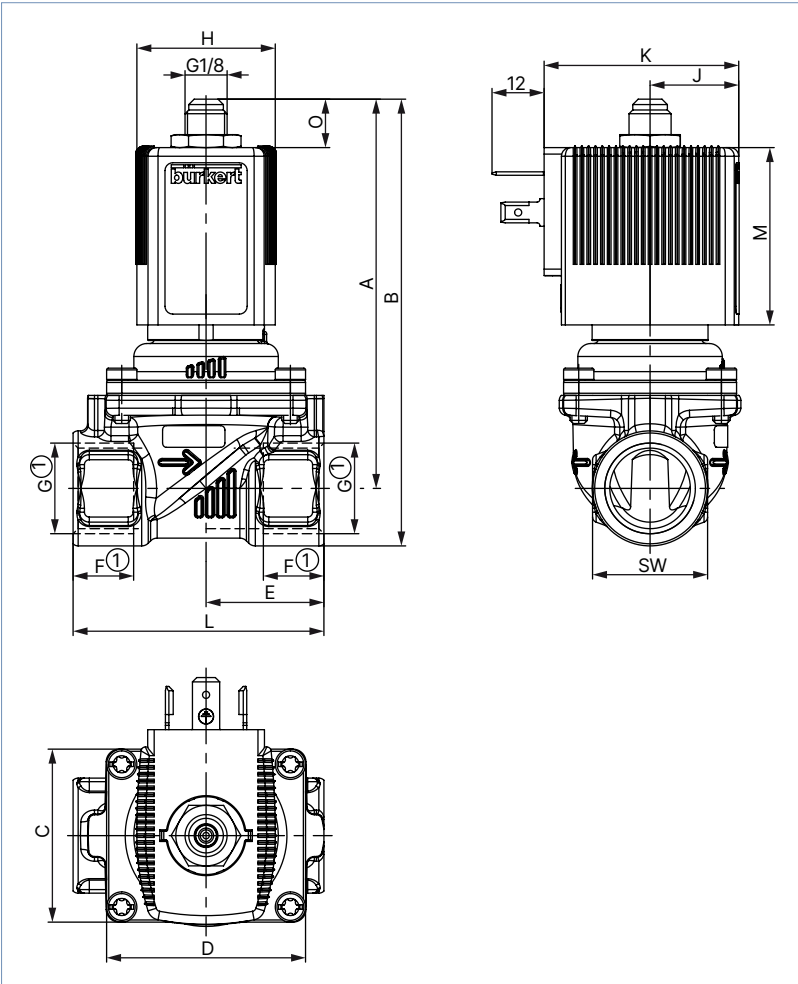
- Dimensions in mm
- Standard at DN 50



5.4. Compressor relief valves

Note:

- Dimensions in mm
- The dimensions F1 and G1 apply to G-thread.
- The dimensions F2 and G2 apply to NPT-thread.
- The dimensions F3 and G3 apply to Rc-thread.



Coil size	H	J	K	M	O
5	32	20.5	46	41	11.2
6	40	23.5	52	41.4	10.8

DN	A	B	C	D	E	G		NPT		Rc		L	SW
						F1	G1	F2	G2	F3	G3		
10	90.5	101.5	32	44	22	12	G ¼	10	NPT ¼	–	–	50	22
	12	G ⅜				10.3	NPT ⅜	10.1	Rc ⅜				
	92.5	106			24.5	14	G ½	13.7	NPT ½	13.2	Rc ½		27
13	90	103.5	42	54.5	27.25	12	G ⅜	–	–	–	–	58	27
		14			G ½	13.7	NPT ½	13.2	Rc ½				
	92	108			32.5	16	G ¾	14	NPT ¾	14.5	Rc ¾	65	32
20	107	123	60	74	37	16	G ¾	14	NPT ¾	14.5	Rc ¾	80	32
	109.5	130			37.5	18	G 1	16.8	NPT 1	–	–		41

6. Performance specifications

6.1. Power consumption

Circuit function	Orifice [mm]	Coil size [mm]	AC			DC		ATEX AC/DC Nominal power [W]
			Inrush power [VA]	Holding power [VA] [W]		Cold [W]	Hot [W]	
A	10...50	32	24	14	8	9.5	8	–
A	10...50	32	24	16	7	9.5	8	–
A / B	13...50	40	–	–	–	–	–	9
A	10	32	–	–	–	–	–	7
B	10	40	–	–	–	–	–	9
B u. CF05	10	32	18	11	5	6	5	–
B u. MX62	13	32	24	14	8	–	–	–
B u. MX62	13	40	–	–	–	11	9.5	–

6.2. Power consumption Kick and Drop coil

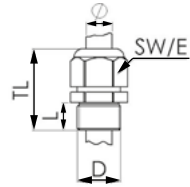
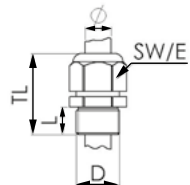
Circuit function	Orifice [mm]	Coil size [mm]	Voltage [V]	Inrush power (approx. 500 ms)		Holding power [W]
				[VA]	[W]	
A	10...50	40	024/UC	–	12	0.6
A	10...50	40	230/56	20	–	2
B	10...50	40	024/UC	–	20	2
B	10...50	40	230/56	20	–	2

7. Product accessories

7.1. Cable glands for ATEX/IECEx terminal box

Note:

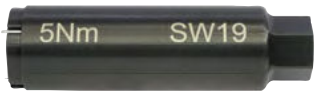
A polyamide cable gland is included in the scope of delivery. A nickel-plated brass version can be ordered for a surcharge, see ["Cable glands for ATEX/IECEx terminal box" on page 21](#).

Description	Ex approvals		Dimensions										
	Certification	Identification											
Ex cable gland, Nickel-plated brass, 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><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><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												

7.2. Special tool to turn the terminal box

Note:

This special tool is not included in the scope of delivery of the valve, see [“Cable glands for ATEX/IECEx terminal box” on page 21.](#)

Description	Components of the set
Set SC02-AC10 	• Special wrench • Service manual

8. Ordering information

8.1. Bürkert eShop



Bürkert eShop – Easy ordering and quick 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](#)

8.2. Bürkert product filter

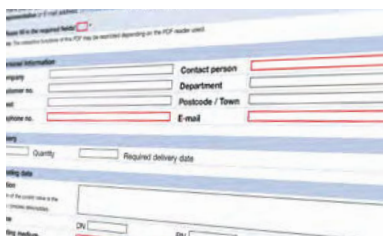


Bürkert product filter – Get quickly to the right product

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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8.3. Bürkert Product Enquiry Form



Bürkert Product Enquiry Form – Your enquiry quickly and compactly

Would you like to make a specific product enquiry based on your technical requirements? Use our Product Enquiry Form for this purpose. There you will find all the relevant information for your Bürkert contact. This will enable us to provide you with the best possible advice.

[Fill out the form now](#)

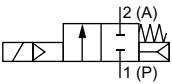
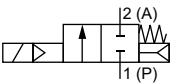
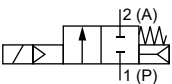
8.4. Ordering chart

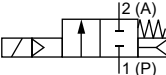
Standard version with brass body

Circuit function A

Note:

Please note that the cable plug must be ordered separately, see **"8.5. Ordering chart accessories"** on page 20 or separate data sheet for **Type 2518** ▶.

Circuit function	Port connection	Orifice	K _v value water ^{1.) 2.)}	Pressure range ^{3.)}	Weight	Article no.		
		[mm]	[m³/h]	[bar]	[kg]	024/DC [V/Hz]	024/50...60 [V/Hz]	230/50...60 [V/Hz]
Seal material NBR, polyamide coil, medium temperature - 10 °C...+ 80 °C								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	322499 	322500 	322501 
	G ⅜	10	1.9	0.2...16	0.40	322502 	322503 	322504 
	G ⅜	13	3.8	0.2...16	0.58	221841 	221842 	221843 
	G ½	13	3.8	0.2...16	0.54	221844 	221845 	221846 
	G ¾	13	3.8	0.2...16	0.59	221847 	221848 	221849 
	G ¾	20	8.5	0.2...16	0.89	221850 	221851 	221852 
	G 1	20	8.5	0.2...16	1.0	221853 	221854 	221855 
	G 1	25	12	0.2...16	1.3	221856 	221857 	221858 
	G 1¼	25	12	0.2...16	1.5	221859 	221860 	221861 
	G 1¼	40	23	0.2...16	2.7	270131 	268550 	270132 
	G 1½	40	30	0.2...16	3.0	221862 	221863 	221864 
	G 2	40	30	0.2...16	3.2	221865 	221866 	221867 
	G 2	50	40	0.2...16	4.5	253156 	253157 	253158 
	G 2½	50	40	0.2...16	5.2	253159 	253160 	253161 
Seal material NBR, polyamide coil, medium temperature - 10 °C...+ 80 °C, with manual override								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	322505 	322506 	322507 
	G ⅜	10	1.9	0.2...16	0.40	322508 	322509 	322510 
	G ½	13	3.8	0.2...16	0.54	221952 	o. r.	221953 
	G ¾	13	3.8	0.2...16	0.59	221954 	o. r.	221955 
	G ¾	20	8.5	0.2...16	0.89	221956 	o. r.	221957 
	G 1	20	8.5	0.2...16	1.0	221958 	o. r.	221959 
	G 1	25	12	0.2...16	1.3	221960 	o. r.	221961 
	G 1¼	25	12	0.2...16	1.5	221962 	o. r.	221963 
	G 1¼	40	23	0.2...16	2.7	270142 	o. r.	270143 
	G 1½	40	30	0.2...16	3.0	221964 	o. r.	221965 
	G 2	40	30	0.2...16	3.2	221966 	o. r.	221967 
	Seal material FKM, epoxy coil, medium temperature 0 °C...+ 120 °C							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	322511 	322512 	322513 
	G ⅜	10	1.9	0.2...16	0.40	322514 	322515 	322516 
	G ⅜	13	3.8	0.2...16	0.58	221868 	221869 	221870 
	G ½	13	3.8	0.2...16	0.54	221871 	221872 	221873 
	G ¾	13	3.8	0.2...16	0.59	221874 	221875 	221876 
	G ¾	20	8.5	0.2...16	0.89	221877 	221878 	221879 
	G 1	20	8.5	0.2...16	1.0	221880 	221881 	221882 
	G 1	25	12	0.2...16	1.3	221883 	221884 	221885 
	G 1¼	25	12	0.2...16	1.5	221886 	221887	221888
	G 1¼	40	23	0.2...16	2.7	270133	270134	270135
	G 1½	40	30	0.2...16	3.0	221889	221890	221891
	G 2	40	30	0.2...16	3.2	221892	221893	221894
	G 2	50	40	0.2...16	4.5	253168	253169	253170
	G 2½	50	40	0.2...16	5.2	253171	253172	253173

Circuit function	Port connection	Orifice	K _v value water ^{1.) 2.)}	Pressure range ^{3.)}	Weight	Article no.		
						024/DC	024/50...60	230/50...60
		[mm]	[m³/h]	[bar]	[kg]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material EPDM, polyamide coil, medium temperature - 30 °C...+ 90 °C								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	322517 	322518 	322519 
	G ⅜	10	1.9	0.2...16	0.40	322520 	322521 	322522 
	G ⅜	13	3.8	0.2...16	0.58	221895 	221896 	221897 
	G ½	13	3.8	0.2...16	0.54	221898 	221899 	221900 
	G ¾	13	3.8	0.2...16	0.59	221901 	221902 	221903 
	G ¾	20	8.5	0.2...16	0.89	221904 	221905 	221906 
	G 1	20	8.5	0.2...16	1.0	221907 	221908 	221909 
	G 1	25	12	0.2...16	1.3	221910 	221911 	221912 
	G 1¼	25	12	0.2...16	1.5	221913 	221914 	221915 
	G 1¼	40	23	0.2...16	2.7	270136 	270137 	270138 
	G 1½	40	30	0.2...16	3.0	221916 	221917 	221918 
	G 2	40	30	0.2...16	3.2	221919 	221920 	221921 
	G 2	50 ^{4.)}	40	0.2...16	4.5	253162 	253163 	253164 
	G 2½	50 ^{4.)}	40	0.2...16	5.2	253165 	253166 	253167 

o. r. = on request

1.) Measurement at + 20 °C, 1 bar at the valve inlet and free outlet

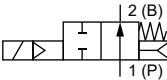
2.) A pressure difference of 0.5 bar is required to open the full cross-section.

3.) Pressure data: overpressure to atmospheric pressure

4.) Approved for drinking water according to KTW and W270

Circuit function B**Note:**

Please note that the cable plug must be ordered separately, see **"8.5. Ordering chart accessories"** on page 20 or separate data sheet for **Type 2518** ▶.

Circuit function	Port connection	Orifice	K _v value water ^{1.) 2.)}	Pressure range ^{3.)}	Weight	Article no.		
						024/DC	024/50	230/50
		[mm]	[m³/h]	[bar]	[kg]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material NBR, epoxy coil, medium temperature - 10 °C...+ 80 °C								
CF B 2/2-way solenoid valve Servo-controlled Normally open 	G ¼	10	1.5	0.2...16	0.43	322523 	322524 	322525 
	G ⅜	10	1.9	0.2...16	0.40	322526 	322527 	322528 
	G ⅜	13	3.8	0.2...16	0.58	221923 	221924 	221925 
	G ½	13	3.8	0.2...16	0.54	221926 	221928 	221929 
	G ¾	13	3.8	0.2...16	0.59	221930 	221931 	221933 
	G ¾	20	8.5	0.2...16	0.89	221934 	221935 	221936 
	G 1	20	8.5	0.2...16	1.0	221937 	221938 	221939 
	G 1	25	12	0.2...16	1.3	221940 	221941 	221942 
	G 1¼	25	12	0.2...16	1.5	221943 	221944 	221945 
	G 1¼	40	23	0.2...16	2.7	270139 	270140 	270141 
	G 1½	40	30	0.2...16	3.0	221946 	221947 	221948 
	G 2	40	30	0.2...16	3.2	221949 	221950 	221951 
	G 2	50	40	0.2...16	4.5	253174 	253175 	253176 
	G 2½	50	40	0.2...16	5.2	253177 	253178 	253179 

1.) Measurement at + 20 °C, 1 bar at the valve inlet and free outlet

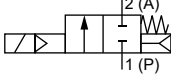
2.) A pressure difference of 0.5 bar is required to open the full cross-section.

3.) Pressure data: overpressure to atmospheric pressure

Circuit function A, with Kick and Drop coil

Note:

- Please note that the cable plug must be ordered separately, see ["8.5. Ordering chart accessories" on page 20](#) or separate data sheet for **Type 2518** ▶.
- The Kick and Drop coil (AC/DC) features integrated electronics for short-term power increase and decrease in double coil technology.

Circuit function	Port connection	Orifice	K _v value water ^{1.) 2.)}	Pressure range ^{3.)}	Weight	Article no.	
		[mm]				024 / AC/DC	230 / 50...60
			[m ³ /h]	[bar]	[kg]	[V/Hz]	[V/Hz]
Seal material FKM, epoxy coil, medium temperature 0 °C...+ 120 °C							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	20046906	20046961
	G ⅜	10	1.9	0.2...16	0.40	20046907	20046960
	G ½	13	3.8	0.2...16	0.54	20046908	20046963
	G ¾	20	8.5	0.2...16	0.89	20046909	20046964
	G 1	25	12	0.2...16	1.3	20046910	20046965
	G 1¼	40	23	0.2...16	2.7	20046911	20046966
	G 1½	40	30	0.2...16	3.0	20046912	20046967
	G 2	50	40	0.2...16	4.5	20046913	20046968
	G 2½	50	40	0.2...16	5.2	20046914	20046969

1.) Measurement at + 20 °C, 1 bar at the valve inlet and free outlet

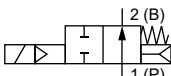
2.) A pressure difference of 0.5 bar is required to open the full cross-section.

3.) Pressure data: overpressure to atmospheric pressure

Circuit function B, with Kick and Drop coil

Note:

- Please note that the cable plug must be ordered separately, see ["8.5. Ordering chart accessories" on page 20](#) or separate data sheet for **Type 2518** ▶.
- The Kick and Drop coil (AC/DC) features integrated electronics for short-term power increase and decrease in double coil technology.

Circuit function	Port connection	Orifice	K _v value water ^{1.) 2.)}	Pressure range ^{3.)}	Weight	Article no.	
		[mm]				024 / AC/DC	230 / 50...60
			[m ³ /h]	[bar]	[kg]	[V/Hz]	[V/Hz]
Seal material FKM, epoxy coil, medium temperature 0 °C...+ 120 °C							
CF B 2/2-way solenoid valve Servo-controlled Normally open 	G ¼	10	1.5	0.2...16	0.43	20046924	20046970
	G ⅜	10	1.9	0.2...16	0.40	20046925	20046971
	G ½	13	3.8	0.2...16	0.54	20046927	20046972
	G ¾	20	8.5	0.2...16	0.89	20046928	20046973
	G 1	25	12	0.2...16	1.3	20046929	20046974
	G 1¼	40	23	0.2...16	2.7	20046930	20046975
	G 1½	40	30	0.2...16	3.0	20046931	20046976
	G 2	50	40	0.2...16	4.5	20046932	20046978
	G 2½	50	40	0.2...16	5.2	20046933	20046979

1.) Measurement at + 20 °C, 1 bar at the valve inlet and free outlet

2.) A pressure difference of 0.5 bar is required to open the full cross-section.

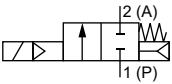
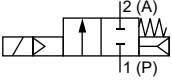
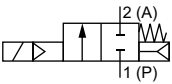
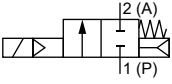
3.) Pressure data: overpressure to atmospheric pressure

Standard version with stainless steel body

Circuit function A

Note:

Please note that the cable plug must be ordered separately, see **"8.5. Ordering chart accessories"** on page 20 or separate data sheet for Type 2518 ►.

Circuit function	Port connection	Orifice	K _v value water ^{1)2.)}	Pressure range ^{3.)}	Weight	Article no.		
		[mm]	[m³/h]	[bar]	[kg]	024/DC [V/Hz]	024/50...60 [V/Hz]	230/50...60 [V/Hz]
Seal material NBR, polyamide coil, medium temperature - 10 °C...+ 80 °C								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	322529 	322530 	322531 
	G ⅜	10	1.9	0.2...16	0.40	322532 	322533 	322534 
	G ½	13	3.8	0.2...16	0.54	221968 	221969 	221970 
	G ¾	20	8.5	0.2...16	0.86	221971 	221972 	221973 
	G 1	20	8.5	0.2...16	0.97	221974 	221975 	221976 
	G 1	25	12	0.2...16	1.3	221977 	221978 	221979 
	G 1¼	25	12	0.2...16	1.4	221980 	221981 	221982 
	G 1½	40	30	0.2...16	2.8	221983 	221984 	221985 
	G 2	40	30	0.2...16	3.0	221986 	221987 	221988 
Seal material FKM, epoxy coil, medium temperature 0 °C...+ 120 °C								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	322535 	322536 	322537 
	G ⅜	10	1.9	0.2...16	0.40	322538 	322539 	322540 
	G ½	13	3.8	0.2...16	0.54	221989 	221990 	221991 
	G ¾	20	8.5	0.2...16	0.86	221992 	221993 	221994 
	G 1	20	8.5	0.2...16	0.97	221995 	221996 	221997 
	G 1	25	12	0.2...16	1.3	221998 	221999 	222000 
	G 1¼	25	12	0.2...16	1.4	222001 	222002 	222003 
	G 1½	40	30	0.2...16	2.8	222004 	222005 	222006 
	G 2	40	30	0.2...16	3.0	222007 	222008 	222009 
Seal material FKM, epoxy coil, medium temperature 0 °C...+ 120 °C, with manual override								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	323894 	o. r.	323968 
	G ⅜	10	1.9	0.2...16	0.40	323971 	o. r.	323972 
	G ½	13	3.8	0.2...16	0.54	323973 	o. r.	323975 
	G ¾	20	8.5	0.2...16	0.86	323977 	o. r.	323978
	G 1	25	12	0.2...16	1.3	323979	o. r.	323980
	G 1¼	25	1.4	0.2...16	1.4	323982	o. r.	323984
	G 1½	40	30	0.2...16	2.8	323986	o. r.	323987
	G 2	40	30	0.2...16	3.0	323988	o. r.	323989
	Seal material EPDM, polyamide coil, medium temperature - 30 °C...+ 90 °C							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.43	322541	322542	322543
	G ⅜	10	1.9	0.2...16	0.40	322544	322545	322546
	G ½	13	3.8	0.2...16	0.54	222010	222011	222012
	G ¾	20	8.5	0.2...16	0.86	222013	222014	222015
	G 1	20	8.5	0.2...16	0.97	222016	222017	222018
	G 1	25	12	0.2...16	1.3	222019	222020	222021
	G 1¼	25	12	0.2...16	1.4	222022	222023	222024
	G 1½	40	30	0.2...16	2.8	222025	222026	222027
	G 2	40	30	0.2...16	3.0	222028	222029	222031

o. r. = on request

1.) Measurement at +20 °C, 1 bar at the valve inlet and free outlet

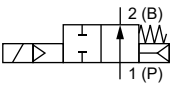
2.) A pressure difference of 0.5 bar is required to open the full cross-section.

3.) Pressure data: overpressure to atmospheric pressure

Circuit function B

Note:

Please note that the cable plug must be ordered separately, see **"8.5. Ordering chart accessories"** on page 20 or separate data sheet for **Type 2518** ▶.

Circuit function	Port connection	Orifice	K _v value water ^{1.) 2.)}	Pressure range ^{3.)}	Weight	Article no.		
		[mm]	[m³/h]	[bar]	[kg]	024/DC [V/Hz]	024/50 [V/Hz]	230/50 [V/Hz]
	Seal material FKM, epoxy coil, medium temperature 0 °C...+ 120 °C							
CF B 2/2-way solenoid valve Servo-controlled Normally open 	G ¼	10	1.5	0.2...16	0.43	322547 	322548 	322549 
	G ⅜	10	1.9	0.2...16	0.40	322550 	322551 	322552 
	G ½	13	3.8	0.2...16	0.54	228387 	228388 	228389 
	G ¾	20	8.5	0.2...16	0.86	228390 	228391 	228392 
	G 1	25	12	0.2...16	1.3	228393 	228394 	228395 
	G 1¼	25	12	0.2...16	1.4	228396 	228397 	228398 
	G 1½	40	30	0.2...16	2.8	228399 	228400 	228401 
	G 2	40	30	0.2...16	3.0	228402 	228403 	228404 

1.) Measurement at + 20 °C, 1 bar at the valve inlet and free outlet

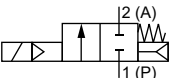
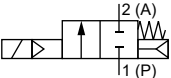
2.) A pressure difference of 0.5 bar is required to open the full cross-section.

3.) Pressure data: overpressure to atmospheric pressure

ATEX/IECEx cable version

Note:

- The maximum medium temperature must never exceed the permitted temperature class (T4: + 135 °C, T5: + 100 °C, T6: + 85 °C) minus 5 K.
- Delivery includes 3 metre cable.
- Refer to chapter **"3. Approvals and conformities"** on page 4 for more information about the approvals.

Circuit function	Port connection	Orifice	K _v value water ^{1) 2.)}	Pressure range ^{3.)}	Weight	Article no.	
						024 / AC/DC	230 / AC/DC
		[mm]	[m³/h]	[bar]	[kg]	[V/Hz]	[V/Hz]
Seal material NBR, brass body, medium temperature - 10 °C...+ 80 °C							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.62	349656 	349658 
	G ⅜	10	1.9	0.2...16	0.59	349660 	349662 
	G ½	13	3.8	0.2...16	0.84	349690 	349696 
	G ¾	20	8.5	0.2...16	1.2	349717 	349719 
	G 1	25	12	0.2...16	1.7	349731 	349734 
	G 1¼	25	12	0.2...16	1.8	349737 	349739 
	G 1¼	40	23	0.2...16	3.0	349751 	349754 
	G 1½	40	30	0.2...16	3.3	349756 	349758 
	G 2	40	30	0.2...16	3.5	349760 	349762 
	G 2	50	40	0.2...16	4.8	349773 	349775 
G 2½	50	40	0.2...16	5.5	349777 	349778 	
Seal material FKM, stainless steel body, medium temperature 0 °C...+ 90 °C							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.62	349665 	349666 
	G ⅜	10	1.9	0.2...16	0.59	349669 	349670 
	G ½	13	3.8	0.2...16	0.84	349707 	349708 
	G ¾	20	8.5	0.2...16	1.2	349724 	349727 
	G 1	25	12	0.2...16	1.6	349742 	349744 
	G 1¼	25	12	0.2...16	1.7	349747 	349750 
	G 1½	40	30	0.2...16	3.1	349765 	349767 
	G 2	40	30	0.2...16	3.3	349770 	349771 

1.) Measurement at + 20 °C, 1 bar at the valve inlet and free outlet

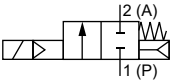
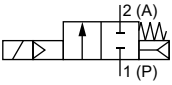
2.) A pressure difference of 0.5 bar is required to open the full cross-section.

3.) Pressure data: overpressure to atmospheric pressure

ATEX/IECEx terminal box version

Note:

- The maximum medium temperature must never exceed the permitted temperature class (T4: + 135 °C, T5: + 100 °C, T6: + 85 °C) minus 5 K.
- Refer to chapter “3. Approvals and conformities” on page 4 for more information about the approvals.

Circuit function	Port connection	Orifice	K _v value water ^{1.) 2.)}	Pressure range ^{3.)}	Weight	Article no.	
						024 / AC/DC	230 / AC/DC
		[mm]	[m³/h]	[bar]	[kg]	[V/Hz]	[V/Hz]
Seal material NBR, brass body, medium temperature - 10 °C...+ 80 °C							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.62	349657 	349659 
	G ⅜	10	1.9	0.2...16	0.59	349661 	349663 
	G ½	13	3.8	0.2...16	0.84	349691 	349697 
	G ¾	20	8.5	0.2...16	1.2	349718 	349720 
	G 1	25	12	0.2...16	1.7	349733 	349735 
	G 1¼	25	12	0.2...16	1.8	349738 	349740 
	G 1¼	40	23	0.2...16	3.0	349753 	349755 
	G 1½	40	30	0.2...16	3.3	349757 	349759 
	G 2	40	30	0.2...16	3.5	349761 	349763 
	G 2	50	40	0.2...16	4.8	349774 	349776 
Seal material FKM, stainless steel body, medium temperature 0 °C...+ 90 °C							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	G ¼	10	1.5	0.2...16	0.62	349664 	349667 
	G ⅜	10	1.9	0.2...16	0.59	349668 	349671 
	G ½	13	3.8	0.2...16	0.84	349705 	349709 
	G ¾	20	8.5	0.2...16	1.2	349725 	349728 
	G 1	25	12	0.2...16	1.6	349743 	349745 
	G 1¼	25	12	0.2...16	1.7	349748 	349749 
	G 1½	40	30	0.2...16	3.1	349766 	349768 
	G 2	40	30	0.2...16	3.3	349769 	349772 

1.) Measurement at + 20 °C, 1 bar at the valve inlet and free outlet

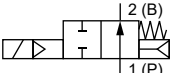
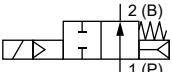
2.) A pressure difference of 0.5 bar is required to open the full cross-section.

3.) Pressure data: overpressure to atmospheric pressure

Compressor relief valve with brass body

Note:

- Please note that the cable plug must be ordered separately, see **"8.5. Ordering chart accessories" on page 20** or separate data sheet for **Type 2518** ▶
- The valve is open in the rest position. The medium also flows via the exhaust port on the solenoid.

Circuit function	Port connection	Orifice	K _v value water ^{1,2,3)}	Pressure range ^{3,)}	Weight	Article no.			
						024/DC	024/50...60	110/50...60	230/50...60
		[mm]	[m³/h]	[bar]	[kg]	[V/Hz]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material FKM, polyamide coil, medium temperature 0 °C...+ 90 °C, DN 10									
CF B 2/2-way solenoid valve Servo-controlled Normally open 	G 3/8	10	1.9	0.2...16	0.43	330985	330986	330987	330988
	G 1/2	10	1.9	0.2...16	0.40	330989	331007	331008	331009
Seal material FKM, polyamide coil, medium temperature 0 °C...+ 90 °C, DN 13									
CF B 2/2-way solenoid valve Servo-controlled Normally open 	G 3/8	13	3.6	0.5...16	0.58	310663	310662	310661	310659
	G 1/2	13	3.6	0.5...16	0.54	310667	310666	310665	310664

1.) Measurement at + 20 °C, 1 bar at the valve inlet and free outlet

2.) A pressure difference of 0.5 bar is required to open the full cross-section.

3.) Pressure data: overpressure to atmospheric pressure

Further versions on request

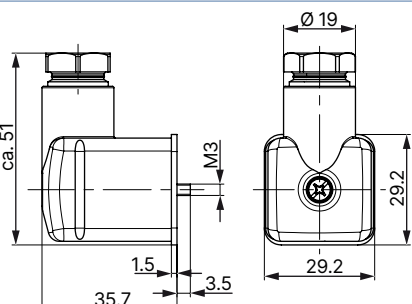
 Material Brass dezincification resistant	 Temperature • EPDM version up to + 100 °C with epoxy coil • FKM version up to + 120 °C with epoxy coil
 Process connection NPT, Rc	 Approval Further information can be found in chapter "3. Approvals and conformities" on page 4 .
 Voltage Further voltages	

8.5. Ordering chart accessories

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

Note:

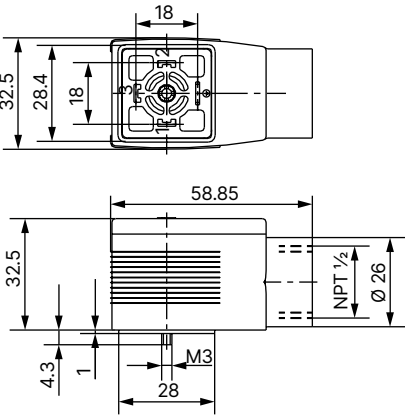
For further versions see data sheet **Type 2518** ▶

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
		Without circuitry (AC/DC) with silicone seal for higher ambient temperature, e.g. steam version (NA07)	0...250 V AC/DC	361687

Cable plug Type 2509, form A according to DIN EN 175301 - 803

Note:

- Without circuitry (standard)
- Refer to data sheet **Type 2509** ▶ for more information about the cable plug.

Cable plug	Dimensions	Version	Voltage	Article no.
		Without circuitry	0...250 V AC/DC	137943 

Cable glands for ATEX/IECEx terminal box

Note:

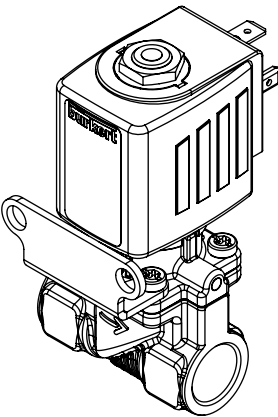
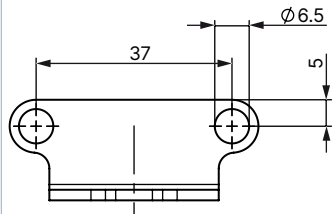
- A cable gland in polyamide version is included in the delivery. A nickel-plated brass version can be ordered at surcharge.
- Refer to **"7.1. Cable glands for ATEX/IECEx terminal box"** on page 12 for more information about Ex cable glands.
- Refer to **"7.2. Special tool to turn the terminal box"** on page 13 for more information about Special wrench.

Description	Article no.
Ex cable gland, nickel-plated brass, 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

Mounting set for DN 10

Cable plug	Dimensions	Description	Article no.
		Mounting bracket kit (consisting of mounting bracket and screws)	365730 