



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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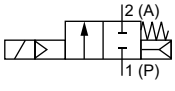
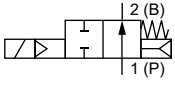
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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter “5. Dimensions” on page 7.
Material	
Seal	NBR, EPDM, FKM
Body	Brass CW617N, 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	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 AC, 120 V AC
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	
With NBR	+ 14 °F...+ 176 °F
With EPDM	- 22 °F...+ 212 °F
With FKM	+ 32 °F...+ 248 °F
Product connections	
Electrical connection	
Standard variant	- 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 21. - 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.
Explosion-proof variant	With moulded cable 3 m length, 3 × 0.5 mm ² with terminal box
Approvals and conformities	
Directives	CE, EAC
Degree of protection	IP65 with cable plug, IP67 with cable plug Type 2518 ▶ UL hazloc 2 with cable plug Type 2509 ▶ on request NEMA 4X with cable plug Type 2509 ▶ with stainless steel variants
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 variant	Max. + 131 °F
Variant with kick and drop coil	Max. + 131 °F (for variants with UR/UL approval)

1.) Measurement at + 68 °F, 87 psi 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 variants 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)

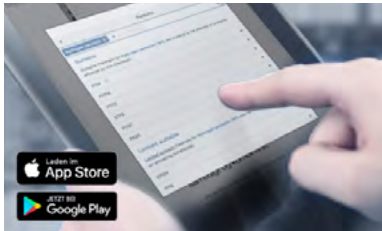
3.7. Others

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.

4. Materials

4.1. Bürkert resistApp

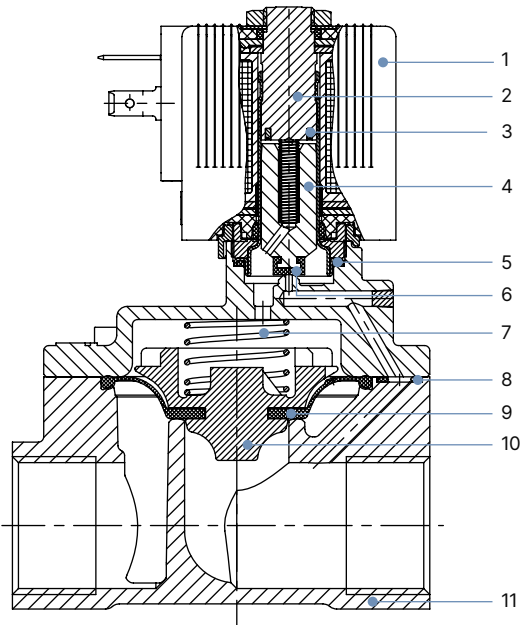


Bürkert resistApp – Chemical resistance chart

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	Epoxy
2	Stopper	Stainless steel 1.4113
3	Shading ring	Cu (brass variant) Ag (stainless steel variant)
4	Magnetic core	Stainless steel 1.4113
5	O-ring	NBR, FKM, EPDM
6	Core seal	NBR, FKM, EPDM
7	Spring	Stainless steel 1.4310
8	O-ring	NBR, FKM, EPDM
9	Diaphragm	NBR, FKM, EPDM
10	Diaphragm holder	PPSGF40, DN 50: brass and stainless steel
11	Valve body	Brass CW617N or stainless steel 1.4408 (CF8M)

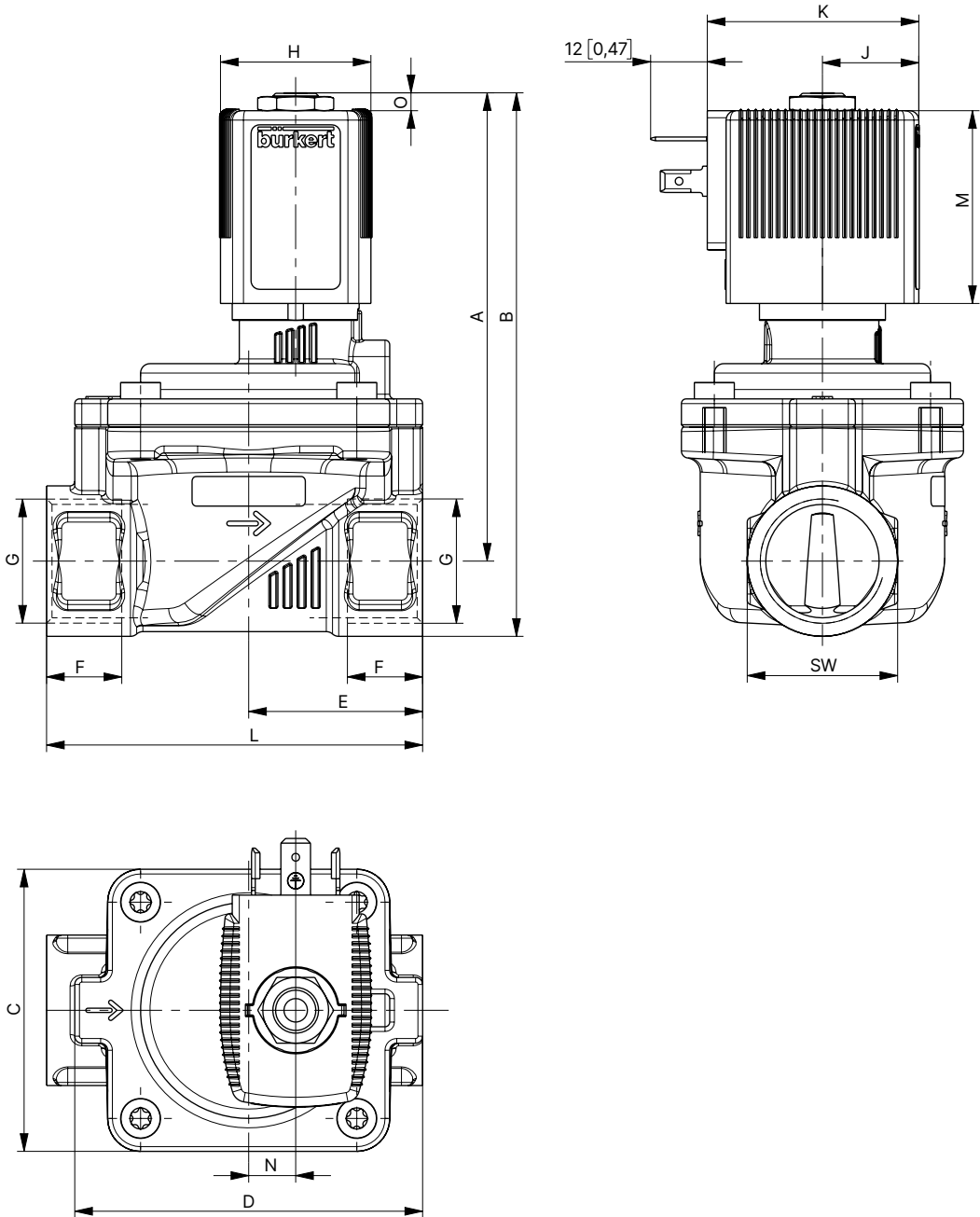
5. Dimensions

5.1. Standard variant

Threaded variant

Note:

Dimensions in mm [inch]



Coil size	H		J		K		M		O	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5	32	1.26	20.5	0.81	45	1.77	41	1.61	3.4	0.13
6	40	1.57	23.5	0.93	51	2.01	41.4	1.63	3.8	0.15

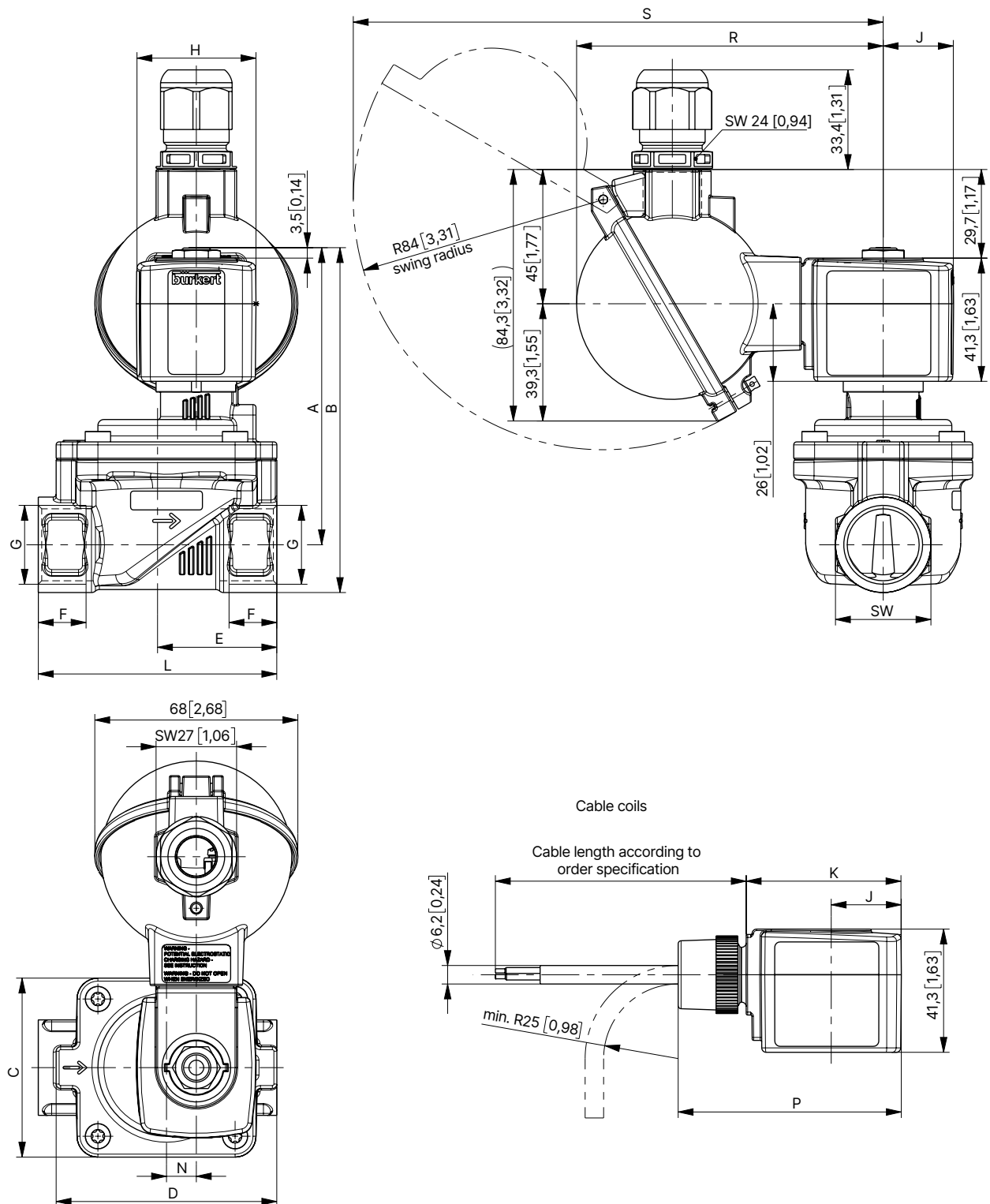
Body material	DN	A		B		C		D		E		F		G	L		SW		N	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[Zoll]	[mm]	[in]	[mm]	[in]	[mm]	[in]
Brass	10	83.1	3.27	94.1	3.70	32	1.26	44	1.73	22	0.87	10	0.39	NPT ¼	50	1.97	22	0.87	–	–
												10.3	0.41	NPT ⅜						
	13	91.1	3.59	104.6	4.12	42	1.65	54.5	2.15	32.5	1.28	13.7	0.54	NPT ½	65	2.56	27	1.06	–	–
	20	99.6	3.92	115.6	4.55	60	2.36	74	2.91	37	1.46	14	0.55	NPT ¾	80	3.15	32	1.26	10	0.39
	25	106.6	4.20	127.1	5.00	70	2.76	85	3.35	46	1.81	16.8	0.66	NPT 1	95	3.74	41	1.61	15	0.59
												17.3	0.68	NPT 1¼			50	1.97		
	40	125.6	4.94	155.6	6.13	99	3.90	114	4.49	61	2.40	17.3	0.68	NPT 1½	126	4.96	60	2.36	23	0.91
										64	2.52	17.6	0.69	NPT 2			70	2.76		
	50	119.9	4.72	154.9	6.10	115	4.53	132	5.20	82	3.23	17.6	0.69	NPT 2	164	6.46	70	2.76	37	1.46
										89.5	3.52	23.6	0.93	NPT 2½			85	3.35		
Stainless steel	13	91.1	3.59	104.6	4.12	42	1.65	54.5	2.15	32.5	1.28	13.7	0.54	NPT ½	65	2.56	27	1.06	–	–
	20	99.6	3.92	115.6	4.55	60	2.36	74	2.91	37	1.46	14	0.55	NPT ¾	80	3.15	32	1.26	10	0.39
	25	106.6	4.20	127.1	5.00	70	2.76	85	3.35	46	1.81	16.8	0.66	NPT 1	95	3.74	41	1.61	15	0.59
												17.3	0.68	NPT 1¼			50	1.97		
	40	125.6	4.94	155.6	6.13	99	3.90	114	4.49	61	2.40	17.3	0.68	NPT 1½	126	4.96	60	2.36	23	0.91
										64	2.52	17.6	0.69	NPT 2			70	2.76		

5.2. Coil UL Listed (cULus) for hazardous locations, Class I, Division 2

Cable variant

Note:

- Dimensions in mm [inch]
- For DN 10...DN 50



Coil size	H		J		K		P		R		S	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5	32	1.26	20.5	0.81	46	1.81	68.8	2.71	99.8	3.93	174.7	6.88
6	40	1.57	23.5	0.93	52	2.05	74.8	2.94	102.8	4.05	177.7	7.00

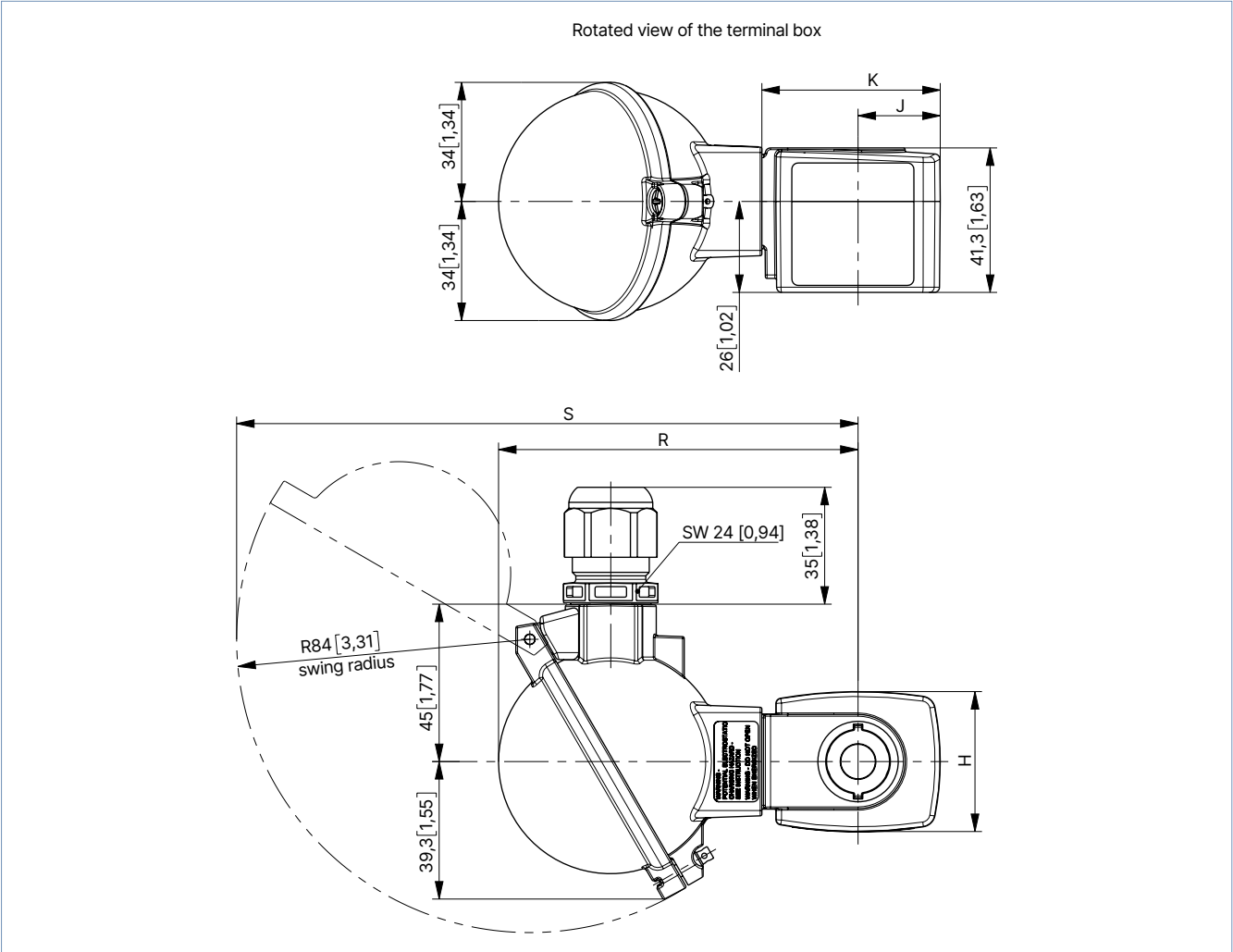
Body material	DN	A		B		C		D		E		F		G	L		SW		N	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[Zoll]	[mm]	[in]	[mm]	[in]	[mm]	[in]
Brass	10	83.1	3.27	94.1	3.70	32	1.26	44	1.73	22	0.87	10	0.39	NPT ¼	50	1.97	22	0.87	–	–
												10.3	0.41	NPT ⅜						
	13	91.1	3.59	104.6	4.12	42	1.65	54.5	2.15	32.5	1.28	13.7	0.54	NPT ½	65	2.56	27	1.06	–	–
	20	99.6	3.92	115.6	4.55	60	2.36	74	2.91	37	1.46	14	0.55	NPT ¾	80	3.15	32	1.26	10	0.39
	25	106.6	4.20	127.1	5.00	70	2.76	85	3.35	46	1.81	16.8	0.66	NPT 1	95	3.74	41	1.61	15	0.59
												17.3	0.68	NPT 1¼						
	40	125.6	4.94	155.6	6.13	99	3.90	114	4.49	61	2.40	17.3	0.68	NPT 1½	126	4.96	60	2.36	23	0.91
												64	2.52	NPT 2						
												89.5	3.52	NPT 2½						
	50	119.9	4.72	154.9	6.10	115	4.53	132	5.20	82	3.23	17.6	0.69	NPT 2	164	6.46	70	2.76	37	1.46
												89.5	3.52	NPT 2½						
Stainless steel	13	91.1	3.59	104.6	4.12	42	1.65	54.5	2.15	32.5	1.28	13.7	0.54	NPT ½	65	2.56	27	1.06	–	–
	20	99.6	3.92	115.6	4.55	60	2.36	74	2.91	37	1.46	14	0.55	NPT ¾	80	3.15	32	1.26	10	0.39
	25	106.6	4.20	127.1	5.00	70	2.76	85	3.35	46	1.81	16.8	0.66	NPT 1	95	3.74	41	1.61	15	0.59
												17.3	0.68	NPT 1¼						
	40	125.6	4.94	155.6	6.13	99	3.90	114	4.49	61	2.40	17.3	0.68	NPT 1½	126	4.96	60	2.36	23	0.91
												64	2.52	NPT 2						

Type 6281

Terminal box variant

Note:

- Dimensions in mm [inch]
- Terminal box alignment for DN 50



Coil size	H		J		K		P		R		S	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5	32	1.26	20.5	0.81	46	1.81	68.8	2.71	99.8	3.93	174.7	6.88
6	40	1.57	23.5	0.93	52	2.05	74.8	2.94	102.8	4.05	177.7	7.00

6. Performance specifications

6.1. Power consumption

Standard variant

Circuit function	Orifice [mm]	Coil size [mm]	AC			DC		EX AC/DC Nominal power [W]
			Inrush power [VA]	Holding power [VA] [W]		Cold power [W]	Warm power [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

With Kick and Drop coil

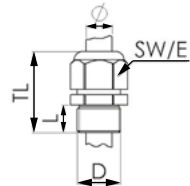
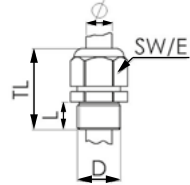
Circuit function	Orifice [mm]	Coil size [mm]	Voltage [V]	Inrush power (approx. 500 ms)		Holding power [W]
				[VA]	[W]	
A	10...50	40	024/UC	–	12	0.6
A	10...50	40	230/56	20	–	2
B	10...50	40	024/UC	–	20	2
B	10...50	40	230/56	20	–	2

7. Product accessories

7.1. Cable glands for ATEX/IECEx terminal box

Note:

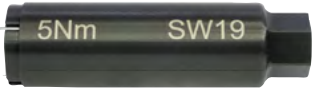
A polyamide cable gland is included in the scope of delivery. A nickel-plated brass variant can be ordered for a surcharge, see ["Cable plug Type 2509, form A according to DIN EN 175301 - 803" on page 21.](#)

Description	Ex approval		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 plug Type 2509, form A according to DIN EN 175301 - 803**” on page 21.

Description	Components of the set
Set SC02-AC10 	• Special tool • 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

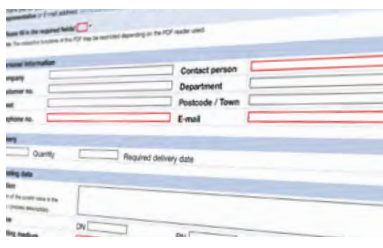


Bürkert product filter – Get quickly to the right product

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.

[Try out our product filter](#)

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](#)

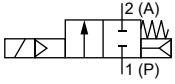
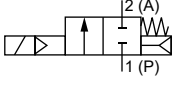
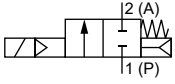
8.4. Ordering chart

Standard variant with brass body

Circuit function A

Note:

Please note that the cable plug Type 2518 is included at the UL Recognized variants. Further information can be found in chapter "Cable plug Type 2518, form A according to DIN EN 175301-803" on page 21 or separate data sheet **Type 2518** ►.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1.)2.)}	Pressure range ^{3.)} (MAWP ^{4.)}	Weight	Article no.		
		[mm]				024/DC	024/50...60	120/50...60
			[gal/min]	[psi]	[lb]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material NBR, UR (UL-recognized)-approval, coil UL Recognized, medium temperature + 14 °F...+ 176 °F, with cable plug								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/2	13	4.4	3...232	1.2	314383 ☒	316266 ☒	264073 ☒
	NPT 3/4	20	9.8	3...232	2.0	273429 ☒	316088 ☒	273432 ☒
	NPT 1	25	13.9	3...232	2.9	273433 ☒	273435 ☒	273436 ☒
	NPT 1 1/4	25	13.9	3...232	3.3	273437 ☒	273438 ☒	273440 ☒
	NPT 1 1/2	40	34.7	3...232	6.6	273441 ☒	273443 ☒	273444 ☒
	NPT 2	40	34.7	3...232	7.1	382159 ☒	273446 ☒	273447 ☒
	NPT 2	50	46.2	3...232	9.9	273448 ☒	273449 ☒	273450 ☒
	NPT 2 1/2	50	46.2	3...232	11.5	o. r.	o. r.	369539 ☒
Seal material FKM, UR (UL-recognized)-approval, coil UL Recognized, medium temperature + 32 °F...+ 248 °F, with cable plug								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/2	13	4.4	3...232	1.2	306761 ☒	306780 ☒	293686 ☒
	NPT 3/4	20	9.8	3...232	2.0	306762 ☒	306781 ☒	293688 ☒
	NPT 1	25	13.9	3...232	2.9	306763 ☒	306782 ☒	293690 ☒
	NPT 1 1/4	25	13.9	3...232	3.3	306764 ☒	306783 ☒	306838 ☒
	NPT 1 1/2	40	34.7	3...232	6.6	306765 ☒	306784 ☒	293689 ☒
	NPT 2	40	34.7	3...232	7.1	o. r.	o. r.	o. r.
	NPT 2	50	46.2	3...232	9.9	306766 ☒	306785 ☒	293691 ☒
	NPT 2 1/2	50	46.2	3...232	11.5	o. r.	338019 ☒	275476 ☒
Seal material EPDM UR (UL-recognized)-approval, coil UL Recognized, medium, temperature - 22 °F...+ 212 °F, with cable plug								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/2	13	4.4	3...232	1.2	273460 ☒	273462 ☒	273463 ☒
	NPT 3/4	20	9.8	3...232	2.0	273464 ☒	273466 ☒	392858 ☒
	NPT 1	25	13.9	3...232	2.9	273468 ☒	273469 ☒	273470 ☒
	NPT 1 1/4	25	13.9	3...232	3.3	o. r.	o. r.	392857 ☒
	NPT 1 1/2	40	34.7	3...232	6.6	20007617 ☒	o. r.	304992 ☒
	NPT 2	40	34.7	3...232	7.1	o. r.	o. r.	o. r.
	NPT 2	50	46.2	3...232	9.9	336454 ☒	o. r.	392025 ☒
	NPT 2 1/2	50	46.2	3...232	11.5	o. r.	o. r.	o. r.

o. r. = on request

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

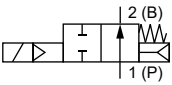
3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Circuit function B

Note:

Please note that the cable plug Type 2518 is included at the UL Recognized variants. Further information can be found in chapter "Cable plug Type 2518, form A according to DIN EN 175301 - 803" on page 21 or separate data sheet Type 2518 ►.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1,2,)}	Pressure range ^{3,)} (MAWP ^{4,)}	Weight	Article no.		
						024/DC	024/60	120/60
		[mm]	[gal/min]	[psi]		[lb]	[V/Hz]	[V/Hz]
Seal material NBR, UR (UL-recognized)-approval, coil UL Recognized, medium temperature + 14 °F...+ 176 °F, with cable plug								
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT ½	13	4.4	3...232	1.2	264080 ☹	264083 ☹	264084 ☹
	NPT ¾	20	9.8	3...232	2.0	273471 ☹	273472 ☹	273473 ☹
	NPT 1	25	13.9	3...232	2.9	273474 ☹	273475 ☹	273476 ☹
	NPT 1¼	25	13.9	3...232	3.3	273477 ☹	273478 ☹	273479 ☹
	NPT 1½	40	34.7	3...232	6.6	273480 ☹	273481 ☹	273483 ☹
	NPT 2	40	34.7	3...232	7.1	273485 ☹	273486 ☹	273487 ☹
	NPT 2	50	46.2	3...232	9.9	273488 ☹	273489 ☹	273490 ☹
	NPT 2½	50	46.2	3...232	11.5	o. r.	o. r.	o. r.

o. r. = on request

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

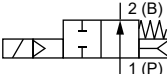
3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Circuit function B

Note:

Please note that the cable plug Type 2518 is included at the UL Recognized variants. Further information can be found in chapter "Cable plug Type 2518, form A according to DIN EN 175301 - 803" on page 21 or separate data sheet Type 2518 ►.

Circuit function	Port connection	Orifice	C _v flow coefficient water ¹⁾²⁾	Pressure range ³⁾ (MAWP ⁴⁾)	Weight	Article no.		
						024/DC	024/50...60	120/60
		[mm]	[gal/min]	[psi]	[lb]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material FKM, UR (UL-recognized)-approval, coil UL Recognized, medium temperature + 32 °F...+ 248 °F, with cable plug								
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT ½	13	4.4	3...232	1.2	306767 ☹	–	306798 ☹
	NPT ¾	20	9.8	3...232	2.0	306768 ☹	–	306799 ☹
	NPT 1	25	13.9	3...232	2.9	306769 ☹	–	306800 ☹
	NPT 1¼	25	13.9	3...232	3.3	306770 ☹	–	306801 ☹
	NPT 1½	40	34.7	3...232	6.6	306772 ☹	–	306802 ☹
	NPT 2	40	34.7	3...232	7.1	o. r.	–	o. r.
	NPT 2	50	46.2	3...232	9.9	306773 ☹	–	306803 ☹
	NPT 2½	50	46.2	3...232	11.5	–	–	–
	NPT ½	13	4.4	3...232	1.4	–	306786 ☹	–
	NPT ¾	20	9.8	3...232	2.1	–	306787 ☹	–
	NPT 1	25	13.9	3...232	3.1	–	306788 ☹	–
	NPT 1¼	25	13.9	3...232	3.5	–	306789 ☹	–
	NPT 1½	40	34.9	3...232	6.8	–	306790 ☹	–
	NPT 2	40	34.9	3...232	7.3	–	o. r.	–
	NPT 2	50	46.2	3...232	10.1	–	306791 ☹	–
	NPT 2½	50	46.2	3...232	11.5	–	o. r.	–

o. r. = on request

— = not available

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

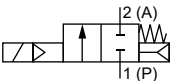
3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Circuit function A

Note:

Please note that the cable plug Type 2509 is included at the UL Listed variants. Further information can be found in chapter "Cable plug Type 2509, form A according to DIN EN 175301 - 803" on page 21 or separate data sheet Type 2509 ▶.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1.)2.)}	Pressure range ^{3.)} (MAWP ^{4.)})	Weight	Article no.		
						024/DC	024/50...60	120/50...60
		[mm]	[gal/min]	[psi]	[lb]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material FKM, UL (UL Listed) approval, coil UL Recognized, medium temperature + 32 °F...+ 248 °F, with cable plug								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT ½	13	4.4	3...232	1.2	306547 ☒	306585 ☒	306617 ☒
	NPT ¾	20	9.8	3...232	2.0	306548 ☒	306586 ☒	306618 ☒
	NPT 1	25	13.9	3...232	2.9	306552 ☒	306588 ☒	306619 ☒
	NPT 1¼	25	13.9	3...232	3.3	306560 ☒	306589 ☒	306620 ☒
	NPT 1½	40	34.7	3...232	6.6	306561 ☒	306592 ☒	306621 ☒
	NPT 2	50	46.2	3...232	9.9	306562 ☒	306593 ☒	306622 ☒
	NPT 2½	50	46.2	3...232	11.5	303513 ☒	o. r.	303598 ☒

o. r. = on request

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

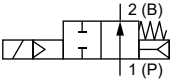
3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Circuit function B

Note:

Please note that the cable plug Type 2509 is included at the UL Listed variants. Further information can be found in chapter "Cable plug Type 2509, form A according to DIN EN 175301 - 803" on page 21 or separate data sheet Type 2509 ▶.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1,2,)}	Pressure range ^{3,)} (MAWP ^{4,)}	Weight	Article no.		
						024/DC	024/50...60	120/60
		[mm]	[gal/min]	[psi]	[lb]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material FKM, UL (UL Listed) approval, coil UL Recognized, medium temperature + 32 °F...+ 248 °F, with cable plug								
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT ½	13	4.4	3...232	1.2	306570 ☒	–	306630 ☒
	NPT ¾	20	9.8	3...232	2.0	306572 ☒	–	306631 ☒
	NPT 1	25	13.9	3...232	2.9	306573 ☒	–	306632 ☒
	NPT 1¼	25	13.9	3...232	3.3	306574 ☒	–	306633 ☒
	NPT 1½	40	34.7	3...232	6.6	306575 ☒	–	306634 ☒
	NPT 2	50	46.2	3...232	9.9	306577 ☒	–	306635 ☒
	NPT ½	13	4.4	3...232	1.4	–	306603 ☒	–
	NPT ¾	20	9.8	3...232	2.1	–	306604 ☒	–
	NPT 1	25	13.9	3...232	3.1	–	306605 ☒	–
	NPT 1¼	25	13.9	3...232	3.5	–	306607 ☒	–
	NPT 1½	40	34.7	3...232	6.8	–	306608 ☒	–
	NPT 2	50	46.2	3...232	10.1	–	306609 ☒	–

– = not available

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

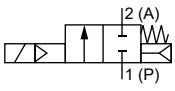
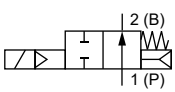
3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Circuit function A, with Kick and Drop coil

Note:

- Please note that the cable plug Type 2518 is included. Further information can be found in chapter “Cable plug Type 2518, form A according to DIN EN 175301-803” on page 21 or separate data sheet **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	C _v flow coefficient water ^{1.)2.)}	Pressure range ^{3.)} (MAWP ^{4.)})	Weight	Article no.	
		[mm]				024/UC	120/50...60
			[gal/min]	[psi]	[lb]	[V/Hz]	[V/Hz]
Seal material FKM, coil UL Recognized, medium temperature + 32 °F...+ 248 °F, with cable plug							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/4	10	1.7	3...232	1.2	20046915	20046943
	NPT 3/8	10	2.2	3...232	1.1	20046916	20046944
	NPT 1/2	13	4.4	3...232	1.4	20046917	20046945
	NPT 3/4	20	9.8	3...232	2.1	20046918	20046946
	NPT 1	25	13.9	3...232	3.1	20046919	20046947
	NPT 1 1/4	25	13.9	3...232	3.5	20046920	20046948
	NPT 1 1/2	40	34.7	3...232	6.8	20046921	20046949
	NPT 2	40	34.7	3...232	7.3	o. r.	o. r.
	NPT 2	50	46.2	3...232	10.1	20046922	20046950
	NPT 2 1/2	50	46.2	3...232	11.5	20046923	20046951
	NPT 1/4	10	1.7	3...232	1.2	20046934	20046952
	NPT 3/8	10	2.2	3...232	1.1	20046935	20046953
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT 1/2	13	4.4	3...232	1.4	20046936	20046954
	NPT 3/4	20	9.8	3...232	2.1	20046937	20046955
	NPT 1	25	13.9	3...232	3.1	20046938	20046956
	NPT 1 1/4	25	13.9	3...232	3.5	20046939	20046957
	NPT 1 1/2	40	34.7	3...232	6.8	20046940	20046958
	NPT 2	40	34.7	3...232	7.3	o. r.	o. r.
	NPT 2	50	46.2	3...232	10.1	20046941	20046959
	NPT 2 1/2	50	46.2	3...232	11.5	20046942	20046960

o. r. = on request

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

3.) Pressure indication: overpressure to atmospheric pressure

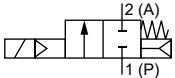
4.) Maximum allowable working pressure

Standard variant with stainless steel body

Circuit function A

Note:

Please note that the cable plug Type 2518 is included at the UL Recognized variants. Further information can be found in chapter **"Cable plug Type 2518, form A according to DIN EN 175301 - 803"** on page 21 or separate data sheet **Type 2518** ►.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1.)2.)}	Pressure range ^{3.)} (MAWP ^{4.)})	Weight	Article no.		
		[mm]				024/DC	024/50...60	120/50...60
			[gal/min]	[psi]	[lb]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material FKM, UR (UL-recognized)-approval, coil UL Recognized, medium temperature + 32 °F...+ 248 °F, with cable plug								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/2	13	4.4	3...232	1.2	307890 ☒	307907 ☒	307915 ☒
	NPT 3/4	20	9.8	3...232	1.9	307901 ☒	307908 ☒	307916 ☒
	NPT 1	25	13.9	3...232	2.9	307903 ☒	307909 ☒	307917 ☒
	NPT 1 1/4	25	13.9	3...232	3.1	307904 ☒	307910 ☒	307918 ☒
	NPT 1 1/2	40	34.7	3...232	6.2	307906 ☒	307912 ☒	307919 ☒
	NPT 2	40	34.7	3...232	6.6	307905 ☒	307913 ☒	307920 ☒

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

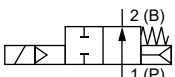
3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Circuit function B

Note:

Please note that the cable plug Type 2518 is included at the UL Recognized variants. Further information can be found in chapter **"Cable plug Type 2518, form A according to DIN EN 175301 - 803"** on page 21 or separate data sheet **Type 2518** ►.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1.)2.)}	Pressure range ^{3.)} (MAWP ^{4.)})	Weight	Article no.		
		[mm]				024/DC	024/50...60	120/60
			[gal/min]	[psi]	[lb]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material FKM, UR (UL-recognized)-approval, coil UL Recognized, medium temperature + 32 °F...+ 248 °F, with cable plug								
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT 1/2	13	4.4	3...232	1.2	306774 ☒	–	306804 ☒
	NPT 3/4	20	9.8	3...232	1.9	306775 ☒	–	306805 ☒
	NPT 1	25	13.9	3...232	2.9	306776 ☒	–	306806 ☒
	NPT 1 1/4	25	13.9	3...232	3.1	306777 ☒	–	306807 ☒
	NPT 1 1/2	40	34.7	3...232	6.2	306778 ☒	–	306808 ☒
	NPT 2	40	34.7	3...232	6.6	306779 ☒	–	306809 ☒
	NPT 1/2	13	4.4	3...232	1.4	–	306792 ☒	–
	NPT 3/4	20	9.8	3...232	2.1	–	306793 ☒	–
	NPT 1	25	13.9	3...232	3.1	–	306794 ☒	–
	NPT 1 1/4	25	13.9	3...232	3.3	–	306795 ☒	–
	NPT 1 1/2	40	34.7	3...232	6.4	–	306796 ☒	–
	NPT 2	40	34.7	3...232	6.8	–	306797 ☒	–

– = not available

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

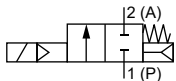
3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Circuit function A

Note:

Please note that the cable plug Type 2509 is included at the UL Listed variants. Further information can be found in chapter "Cable plug Type 2509, form A according to DIN EN 175301 - 803" on page 21 or separate data sheet Type 2509 ▶.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1.)2.)}	Pressure range ^{3.)} (MAWP ^{4.)}	Weight	Article no.		
						024/DC	024/50...60	120/50...60
		[mm]	[gal/min]	[psi]	[lb]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material FKM, UL (UL Listed) approval, coil UL Recognized, medium temperature + 32 °F... + 248 °F, with cable plug								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT ½	13	4.4	3...232	1.2	306563 	306595 	306623 
	NPT ¾	20	9.8	3...232	2.0	306564 	306596 	306624 
	NPT 1	25	13.9	3...232	2.9	306566 	306597 	306625 
	NPT 1¼	25	13.9	3...232	3.3	306567 	306599 	306626 
	NPT 1½	40	34.7	3...232	6.2	306568 	306600 	306627 
	NPT 2	40	34.7	3...232	6.6	306569 	306602 	306629 

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

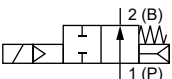
3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Circuit function B

Note:

Please note that the cable plug Type 2509 is included at the UL Listed variants. Further information can be found in chapter "Cable plug Type 2509, form A according to DIN EN 175301 - 803" on page 21 or separate data sheet Type 2509 ▶.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1.)2.)}	Pressure range ^{3.)} (MAWP ^{4.)}	Weight	Article no.		
						024/DC	024/50...60	120/60
		[mm]	[gal/min]	[psi]		[lb]	[V/Hz]	[V/Hz]
Seal material FKM, UL (UL Listed) approval, coil UL Recognized, medium temperature + 32 °F...+ 248 °F, with cable plug								
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT ½	13	4.4	3...232	1.2	306578 	–	306637 
	NPT ¾	20	9.8	3...232	1.9	306579 	–	306638 
	NPT 1	25	13.9	3...232	2.9	306580 	–	306639 
	NPT 1¼	25	13.9	3...232	3.1	306581 	–	306640 
	NPT 1½	40	34.7	3...232	6.2	306583 	–	306641 
	NPT 2	40	134.7	3...232	6.6	306584 	–	306643 
	NPT ½	13	4.4	3...232	1.4	–	306610 	–
	NPT ¾	20	9.8	3...232	2.1	–	306611 	–
	NPT 1	25	13.9	3...232	3.1	–	306612 	–
	NPT 1¼	25	13.9	3...232	3.3	–	306614 	–
	NPT 1½	40	34.7	3...232	6.4	–	306615 	–
	NPT 2	40	34.7	3...232	6.8	–	306616 	–

– = not available

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

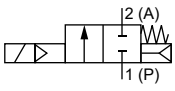
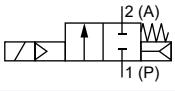
2.) A pressure difference of 7.5 psi is required to open the full cross-section.

3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Coil UL Listed (cULus) for hazardous locations, Class I, Division 2, electrical connection with 3 m cable
Note:

- The maximum medium temperature must never exceed the permitted temperature class (T4: + 275 °F, T5: + 212 °F, T6: + 212 °F) minus 9 °F.
- Refer to chapter **"3. Approvals and conformities"** on page 4 for more information about the approvals.

Circuit function	Port connection	Orifice	C _v flow coefficient water ^{1.)2.)}	Pressure range ^{3.)} (MAWP ^{4.)})	Weight	Article no.	
		[mm]	[gal/min]	[psi]	[lb]	024 / AC/DC	120/60
						[V/Hz]	[V/Hz]
Seal material FKM, brass body, medium temperature + 32 °F...+ 248 °F							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/4	10	1.7	3...232	1.4	20013600 ㉔	20013601 ㉔
	NPT 1/2	13	4.4	3...232	1.8	378848 ㉔	371835 ㉔
	NPT 3/4	20	9.8	3...232	2.7	378849 ㉔	378854 ㉔
	NPT 1	25	13.9	3...232	3.5	378850 ㉔	372932 ㉔
	NPT 1 1/4	25	13.9	3...232	4.0	378851 ㉔	378855 ㉔
	NPT 1 1/2	40	34.7	3...232	7.3	378852 ㉔	378856 ㉔
	NPT 2	50	46.2	3...232	10.6	378853 ㉔	378857 ㉔
Seal material FKM, stainless steel body, medium temperature + 32 °F...+ 248 °F							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/2	13	4.4	3...232	1.8	378858 ㉔	378864 ㉔
	NPT 3/4	20	9.8	3...232	2.7	378859 ㉔	378865 ㉔
	NPT 1	25	13.9	3...232	3.5	378860 ㉔	378866 ㉔
	NPT 1 1/4	25	13.9	3...232	3.8	378861 ㉔	378867 ㉔
	NPT 1 1/2	40	34.7	3...232	6.8	378862 ㉔	378868 ㉔
	NPT 2	40	34.7	3...232	7.3	382488 ㉔	382489 ㉔

 1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A pressure difference of 7.5 psi is required to open the full cross-section.

3.) Pressure indication: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

Further variants on request

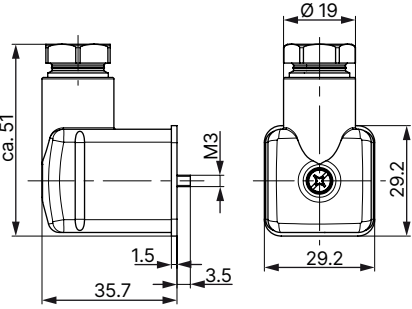
	Material Brass dezincification resistant		Voltage Further voltages
			
	Process connection NPT, G		Approval Further information can be found in chapter "3. Approvals and conformities" on page 4.

8.5. Ordering chart accessories

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

Note:

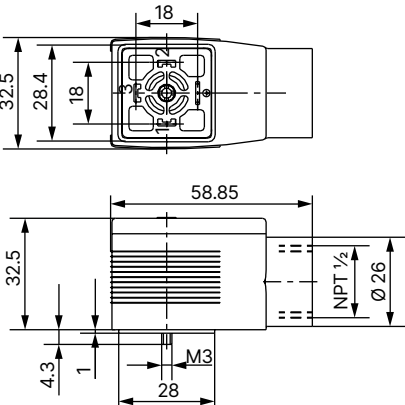
For further variants see data sheet **Type 2518** ▶.

Cable plug	Dimensions	Variant	Voltage	Article no.
		Without wiring (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 wiring (AC/DC) with silicone seal for higher ambient temperature, e.g. steam variant (NA07)	0...250 V AC/DC	361687 

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

Note:

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

Cable plug	Dimensions	Variant	Voltage	Article no.
		Without wiring	0...250 V AC/DC	137943 

Cable glands for ATEX/IECEx terminal box

Note:

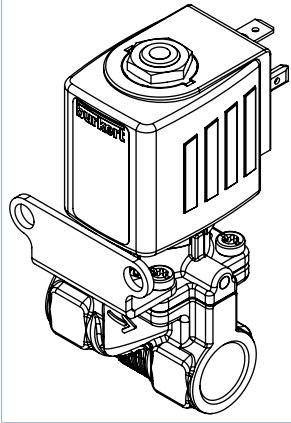
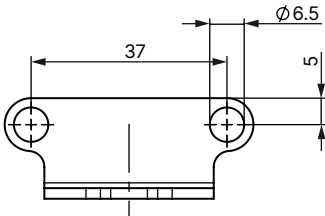
- A polyamide cable gland is included in the scope of delivery. A nickel-plated brass variant can be ordered for a surcharge.
- Refer to **"7.1. Cable glands for ATEX/IECEx terminal box"** on page 12 for more information about Ex cable glands.
- Refer to **"7.2. Special tool to turn the terminal box"**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

Description	Article no.
Ex cable gland, nickel-plated brass, 6...13 mm ^{1.)}	773278 𐀀
Ex cable gland, polyamide, 7...13 mm ^{1.)}	773277 𐀀
Set SC02-AC10: Special tool ^{2.)} incl. service manual	293488 𐀀

1.) Cable diameter

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

Mounting bracket kit for DN 10

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