



Direct-acting 3/2-way plunger valve

- Direct-acting and compact small valve up to DN 1.6
- Slipped over coil system
- Banjo fitting for direct mounting on pneumatic valves
- Simple and fast push-in, flange or manifold mounting
- Explosion-proof variants

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

Type description

The 7012 valve is a direct-acting plunger valve. The stopper and the core guide tube are welded together to increase pressure resistance and leak-tightness. Various housing and seal material combinations are available depending on the actual application. A Bürkert-specific flange variant (SFB) enables the space-saving arrangement of valves on a multiple manifold. The range is supplemented by explosion-proof variants. Push-in fittings can be selected for a flexible hose connection. A banjo fitting with banjo bolt is the ideal solution for easy direct mounting on a pneumatic actuator. Optional manual override enables quick start-up and optimal maintenance. In combination with a plug to industry standard shape B or DIN EN 17301 - 803 shape C, the valves satisfy degree of protection IP65.



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1. General technical data

1.1. Standard and banjo variant

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 10.
Material	
Seal	FKM, EPDM
Body	Brass, polyamide (PA), polyphenylene sulphide (PPS), stainless steel 1.4305/303
Manual override	Optional, standard for Type 7012 banjo variant
Weight	
Standard variant 24.5 mm solenoid coil	146 g (with G 1/8)
Standard variant 20 mm solenoid coil	120 g (with G 1/8)
Banjo variant	135 g
Orifice	DN 1.2...DN 2.0
Circuit function	C and D Further information can be found in chapter "2. Circuit functions" on page 5.
Thermal insulation class of solenoid coil	Epoxy coil class H
Performance data	
Duty cycle	
Single valve	100 % resp. 50 % continuous operation
For block mounting on multiple manifold	With 4 W/5 W solenoid coil 100 % ED (at max. 55 °C)
Switching time¹⁾	
Standard variant	Orifice 1.2...1.6 mm: opening 8...12 ms, closing 8...12 ms
Banjo variant	Orifice 1.2 mm: opening 7...12 ms, closing 7...12 ms
Electrical data	
Operating voltage	24 V DC, 24 V 50 Hz, 24 V 60 Hz, 110 V 50 Hz, 120 V 60 Hz, 230 V 50 Hz, 240 V 60 Hz
Power consumption	Further information can be found in chapter "7. Performance specifications" on page 18.
Voltage tolerance	± 10 %
Medium data	
Operating medium	Neutral gases and fluids (e.g. compressed air, water, hydraulic oil, technical vacuum)
Medium temperature	
Standard variant	- 10 °C...+ 100 °C
Banjo variant	- 10 °C...+ 60 °C
Viscosity	Max. 21 mm²/s
Process/Port connection and communication	
Electrical connection	- Plug contacts according to DIN EN 175301 - 80 form C for cable plug Type 2516 ►. Further information can be found in chapter "Cable plug Type 2516, form C according to DIN EN 175301 - 803" on page 27. - Plug contacts according to industry standard form B for cable plug Type 2507 ►. Further information can be found in chapter "Cable plug Type 2507, form B according to industry standard" on page 28. - Flat pin terminal as protection class III device - Flying leads connection on request for coil size 20 mm
Port connection	
Standard variant	M5, G 1/8, NPT 1/8, Flange
Banjo variant	G 1/8, G 1/4, NPT 1/8, NPT 1/4 and hose connector Ø 6 mm
Approvals and conformities	
Degree of protection	IP65 with cable plug and ATEX/IECEx cable variant
North America (USA/Canada)	Further information can be found in chapter "3.5. North America (USA/Canada)" on page 6.
Drinking water	Further information can be found in chapter "3.6. Drinking water" on page 6.
Foods and beverages/Hygiene	Further information can be found in chapter "3.7. Foods and beverages/Hygiene" on page 7.

Environment and installation

Installation position As required, preferably with actuator upright

Ambient temperature

Standard variant Max. + 55 °C resp. 75 °C (depending on power level)

Banjo variant - 10 °C...+ 55 °C resp. 75 °C (depending on power level)

1.) Measurement at + 20 °C, 6 bar at the valve outlet acc. to DIN ISO 12238:2001, opening: pressure build-up 0...10 %, closing: pressure reduction 100...90 %

1.2. ATEX/IECEx cable variant
Product properties
Material

Seal FKM, EPDM

Body Brass, stainless steel 1.4305/303

 Circuit function A and B
 Further information can be found in chapter "2. Circuit functions" on page 5.

Available coil size SG3 (24.5 mm width)

Performance data

Operating pressure Up to 34 bar (depending on orifice and coil power)

Medium data

Operating medium Neutral gases and fluids (e.g. compressed air, water, hydraulic oil, technical vacuum)

Medium temperature^{1.)}

FKM - 10 °C...+ 100 °C

EPDM - 30 °C...+ 100 °C

Process/Port connection and communication

Electrical connection ATEX/IECEx cable variant with 3 m moulded-in cable

Port connection

Thread G 1/8, NPT 1/8, RC 1/8, M5, UNF 10 - 32

Flange Flange "FK01"

Approvals and conformities

Degree of protection IP65 with cable plug and ATEX/IECEx cable variant

Explosion protection Further information can be found in chapter "3.4. Explosion protection" on page 6.

Environment and installation
Ambient temperature^{1.)}

FKM - 10 °C...+ 55 °C (max. + 60 °C on request)

EPDM - 30 °C...+ 55 °C (max. + 60 °C on request)

1.) The minimum temperature depends on the seal material.

2. Circuit functions

Symbol	Description
	Circuit function C (CF C) 3/2-way solenoid valve Direct-acting Normally closed
	Circuit function D (CF D) 3/2-way solenoid valve Direct-acting 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 (valid for coils with fixed cable outlet) ATEX: EPS 21 ATEX 1 128 X II 2G Ex mb IIC T4 Gb II 2D Ex mb IIIC T130 °C Db IECEx: IECEx EPS 21.0045X Ex mb IIC T4 Gb Ex mb IIIC T130 °C Db Fixed cable is halogen-free according to IEC 60754 - 1

3.5. North America (USA/Canada)

Approval	Description
	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. 139

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 (TrinkwasserV). PA body: PF36: Suitable for products with a maximum temperature of 60 °C (warm water) PPS/brass/stainless steel body: PF39: Suitable for products with a maximum temperature of 85 °C (hot water)

3.7. Foods and beverages/Hygiene

Conformity	Description
FDA	FDA – Code of Federal Regulations (valid for the variable code PL02, PL03) All wetted materials are compliant with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA) according to the manufacturer's declaration.
USP	United States Pharmacopeial Convention (USP) (valid for the variable code PL04) All wetted materials are biocompatible according to the manufacturer's declaration.
	EC Regulation 1935/2004 of the European Parliament and of the Council (valid for the variable code PL01, PL02) All wetted materials are compliant with EC Regulation 1935/2004/EC according to the manufacturer's declaration.

4. Materials

4.1. Bürkert resistApp



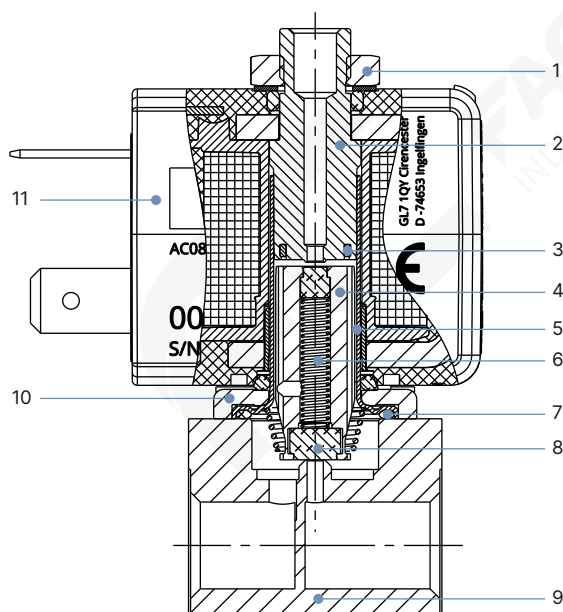
Bürkert resistApp – Chemical resistance chart

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](#)

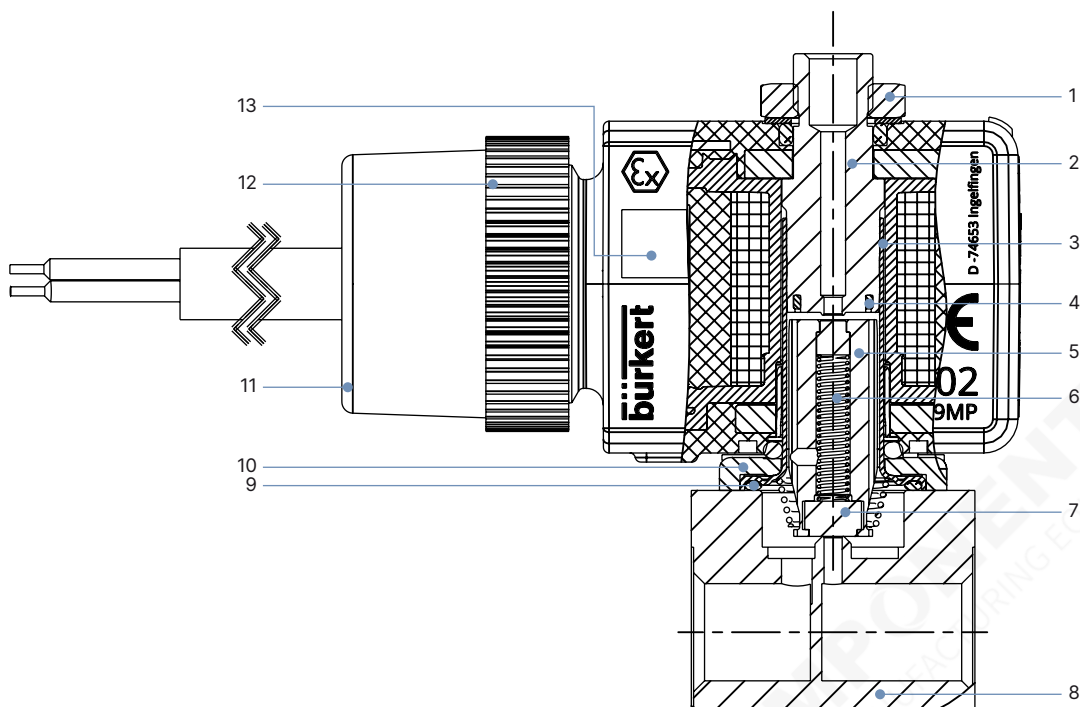
4.2. Material specifications

Standard variant



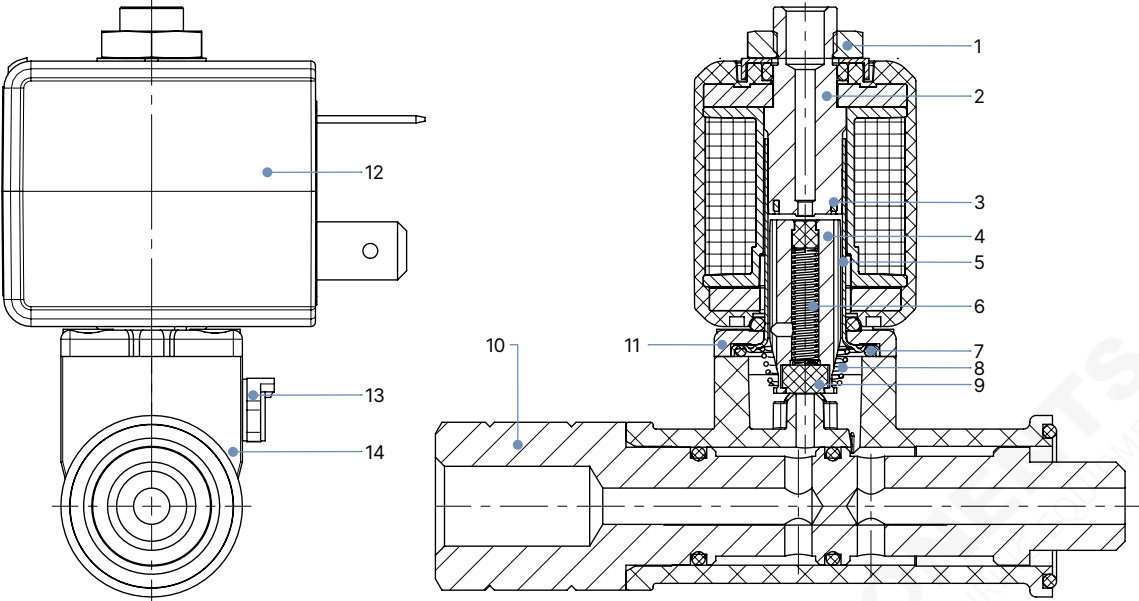
No.	Element	Material
1	Locknut	DIN 176 Surface finish thick film passivated KOSA0101
2	Stopper	Stainless steel 1.4113/434
3	Shading ring	Copper (silver optional)
4	Core	Stainless steel 1.4113/434
5	Core guide tube	Stainless steel 1.4303/305L
6	Spring	Stainless steel 1.4310/301
7	O-ring	FKM/EPDM
8	Seal	FKM/EPDM
9	Valve body	Brass, stainless steel 1.4305/303 PA (polyamide)
10	Flange	- Surface finish thick film passivated KOSA0101 (brass variant) - Nickel-plated surface (stainless steel variant)
11	Coil	Epoxy

ATEX/IECEx cable variant



No.	Element	Material
1	Locknut	DIN 176 Surface finish thick film passivated KOSA0101
2	Stopper	Stainless steel 1.4113/434
3	Core guide tube	Stainless steel 1.4303 ST/305L
4	Shading ring	Copper (optional silver)
5	Core	Stainless steel 1.4113/434
6	Spring	Stainless steel 1.4310/301
7	Seal	FKM/EPDM
8	Valve body	Brass, stainless steel 1.4305/303 PA (polyamide)
9	O-Ring	FKM/EPDM
10	Flange	• Surface finish thick film passivated KOSA0101 (brass variant) • Nickel-plated surface (stainless steel variant)
11	Sealing ring	Silicone
12	Union nut	PA (Polyamide)
13	Coil	Epoxy

Banjo variant



No.	Element	Material
1	Locknut	DIN 176 Surface finish thick film passivated KOSA0101
2	Stopper	Stainless steel 1.4113
3	Shading ring	Copper (silver optional)
4	Core	Stainless steel 1.4113
5	Core guide tube	Stainless steel 1.4303 ST
6	Spring	Stainless steel 1.4310
7	O-ring	FKM
8	Spring	Stainless steel 1.4310
9	Seal	FKM
10	Banjo bolt	Brass
11	Flange	• Surface finish thick film passivated KOSA0101 (brass variant) • Nickel-plated surface (stainless steel variant)
12	Coil	Epoxy
13	Manual override	Durethan
14	Body	PPS (polyphenylene sulphide)

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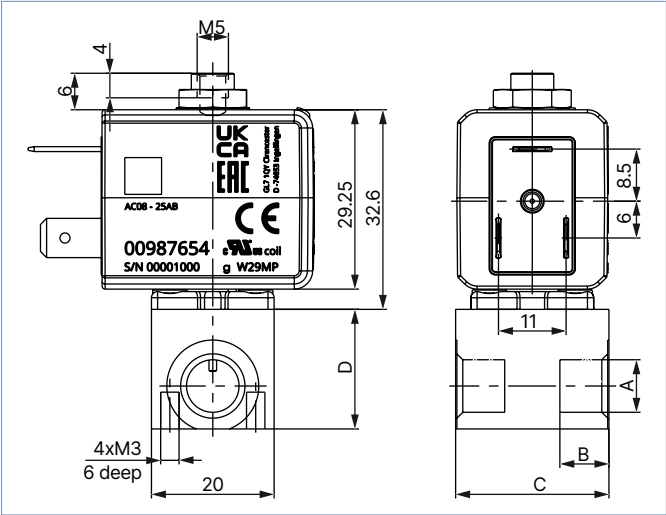
5. Dimensions

5.1. Standard variant

Threaded variant

Note:

- Dimensions in mm
- Variants according to industry standard form B

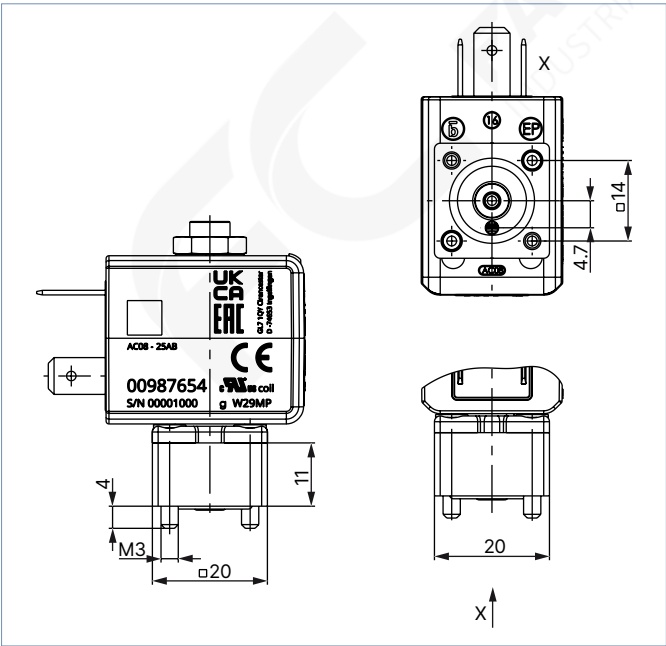


Port connection	A	B	C	D
		[mm]	[mm]	[mm]
Thread	M5	5	20	14
	G 1/8	8	25	19.5
	NPT 1/8	7	25	19.5

Flange variant

Note:

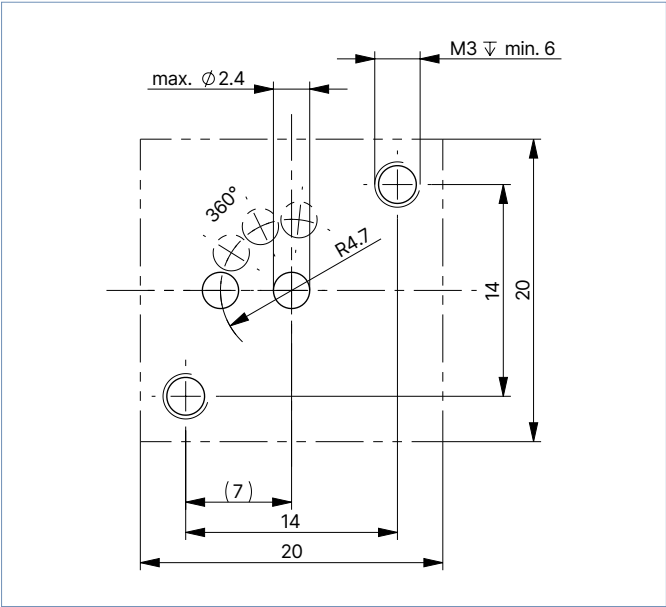
- Dimensions in mm
- Variants according to industry standard form B



Flange pattern

Note:

- Dimensions in mm
- On the connection side, the geometries are to be realised as shown in the following drawing.
- Flange variant (FK01) according to FST 1000225877

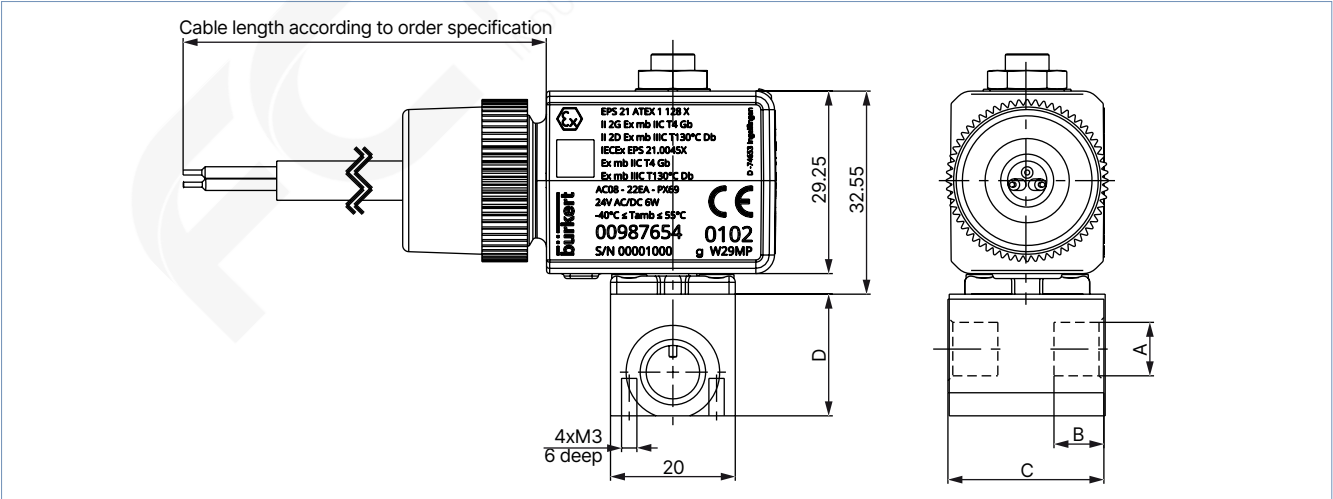


5.2. ATEX/IECEx cable variant

Threaded variant

Note:

Dimensions in mm

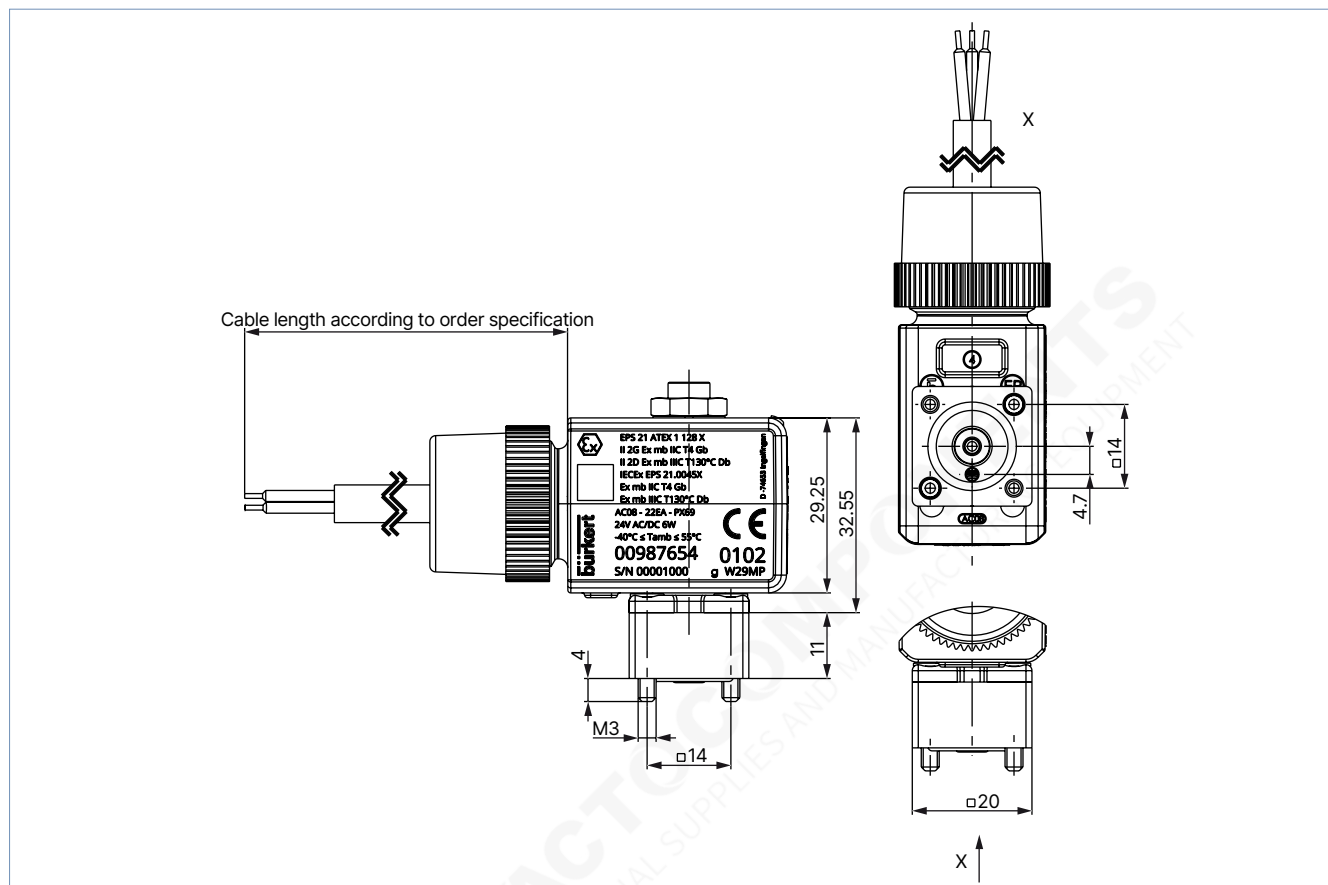


Port connection	A	B	C	D
		[mm]	[mm]	[mm]
Thread	M5	5	20	14
Thread	G 1/8	8	25	19.5

Flange variant

Note:

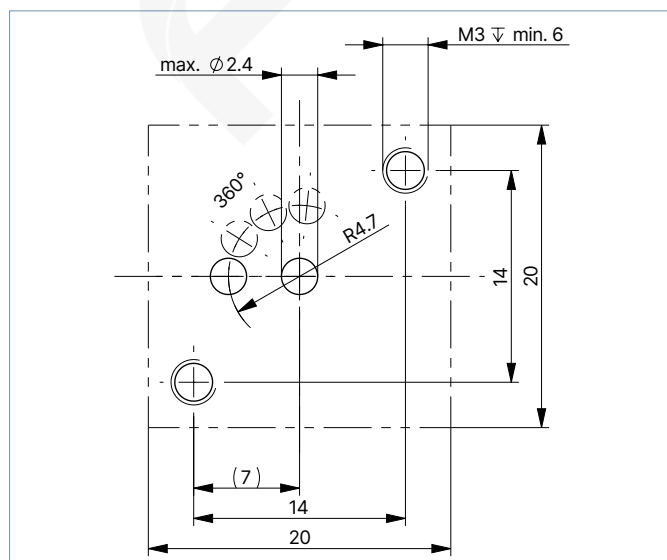
Dimensions in mm



Flange pattern

Note:

- Dimensions in mm
- On the connection side, the geometries are to be realised as shown in the following drawing.
- Flange variant (FK01) according to FST 1000225877

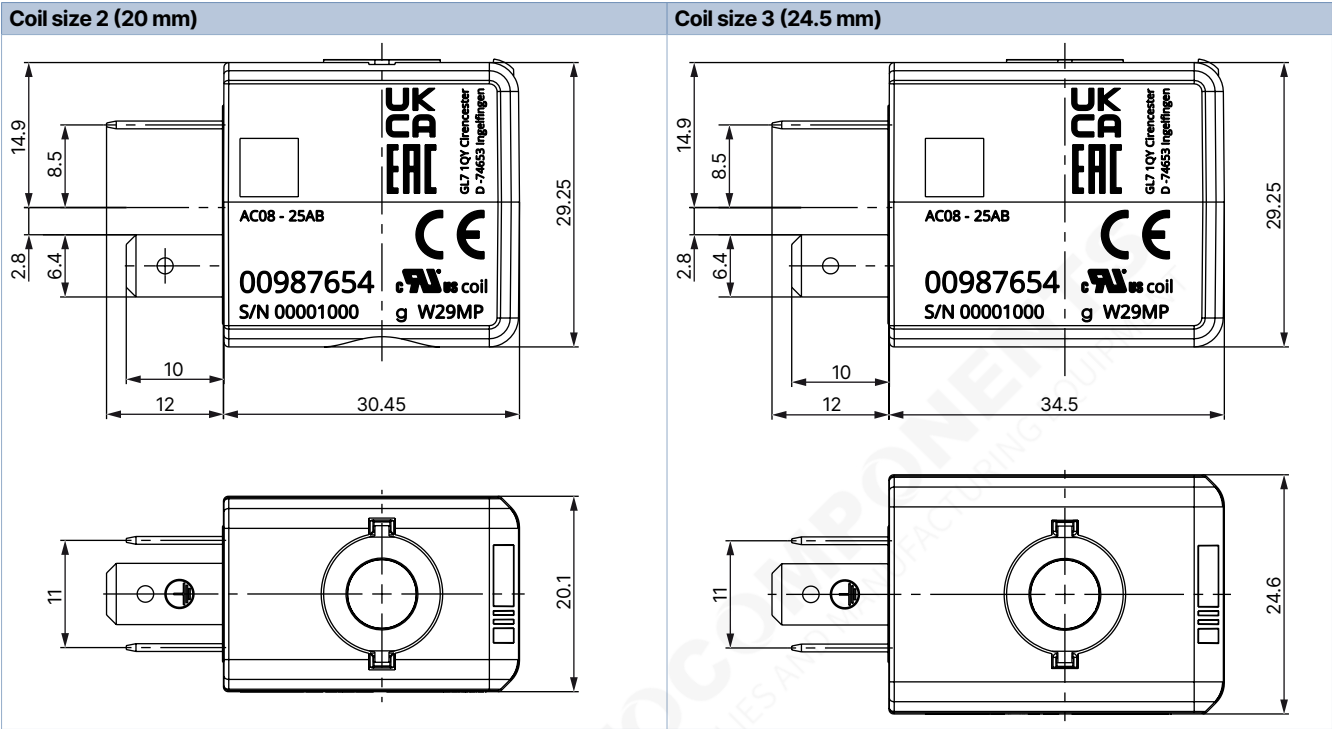


5.3. Coil variants

Variants according to industry standard form B

Note:

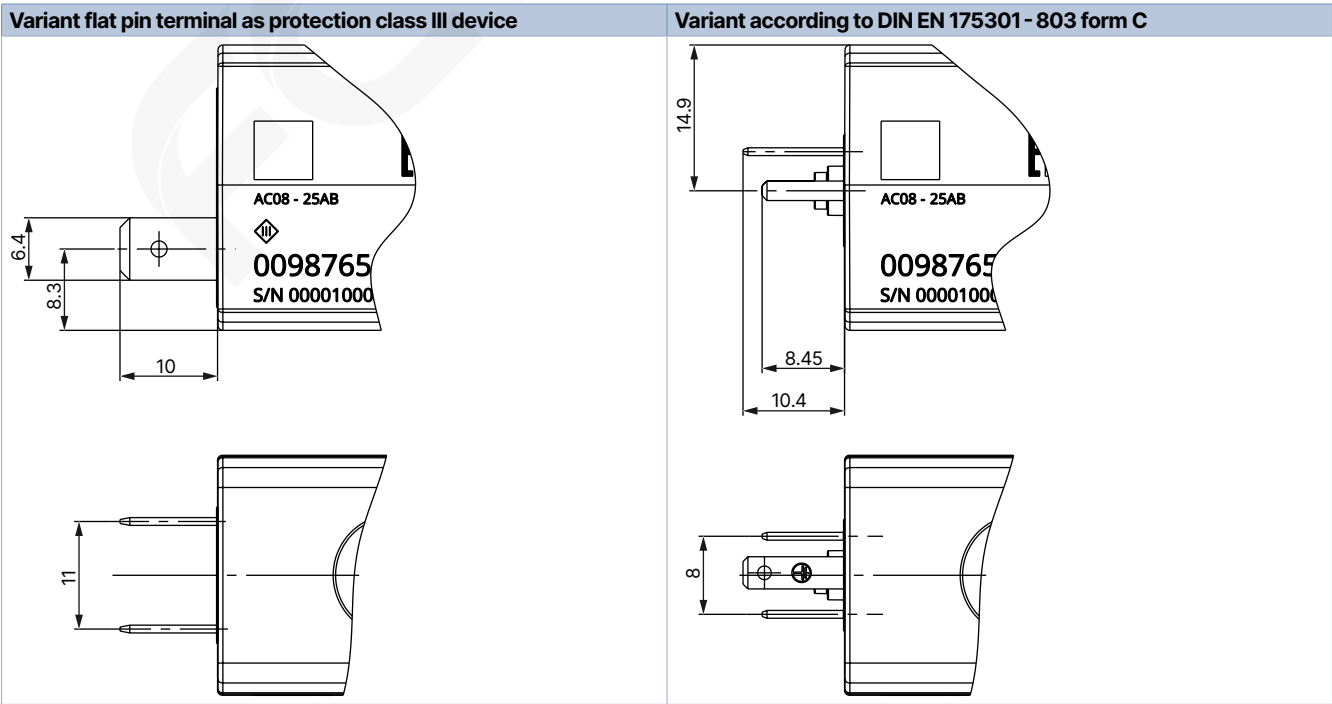
Dimensions in mm



Further electrical connections

Note:

- Dimensions in mm
- Specifications apply to coil sizes 20 mm and 24.5 mm

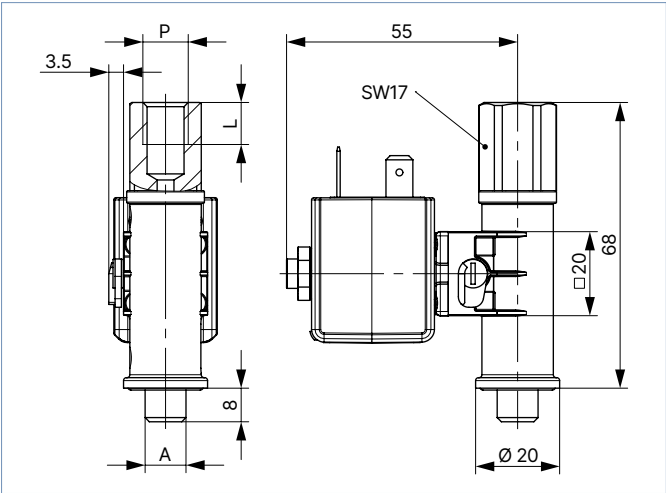


5.4. Banjo variant

With 76 mm banjo bolt

Note:

- Dimensions in mm
- Coil size 24.5 mm
- Available orifices: 1.2 mm, 1.6 mm and 2.0 mm

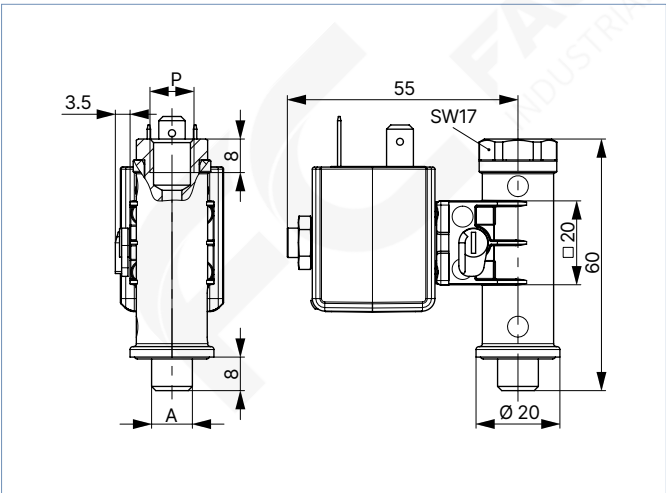


Port connection	P	A	L
	[Zoll]	[Zoll]	[mm]
BJ02	G ¼	G ¼	12
BJ03	NPT ¼	G ⅜	12.9
BJ04	NPT ¼	G ¼	12.9
BJ05	G ¼	G ⅜	12
BJ07	NPT ⅜	G ⅜	8.9

With 60 mm banjo bolt

Note:

- Dimensions in mm
- Coil size 24.5 mm
- Available orifices: 1.2 mm, 1.6 mm and 2.0 mm



Port connection	P	A	L
	[Zoll]	[Zoll]	[mm]
BJ01	G ⅜	G ⅜	8
BJ06	G ⅜	G ¼	8

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With enclosed push-in hose connector, rotatable

Note:

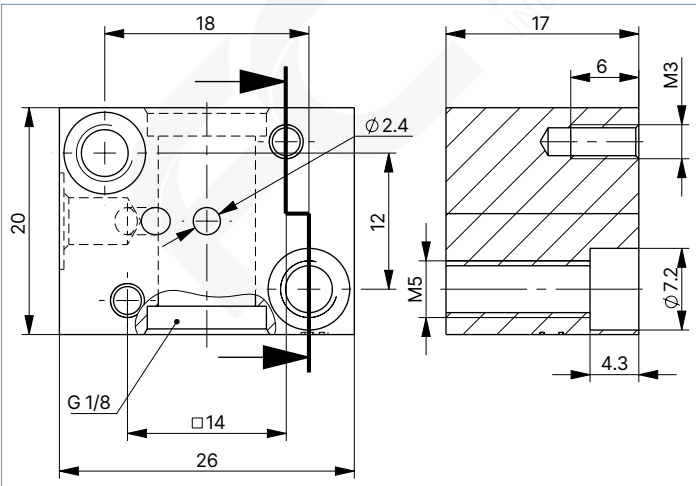
- Dimensions in mm
- Only available for banjo variants with 60 mm banjo bolt and port connection BJ01 and BJ06
- Minimum order quantity 50 pieces

Elbow screw fitting, rotatable with O-Ring, made of nickel-plated brass, supplied loose (variable code: LB26)	Elbow screw fitting, rotatable with O-Ring, made of POM, supplied loose (variable code: LB27)

5.5. Single manifold

Note:

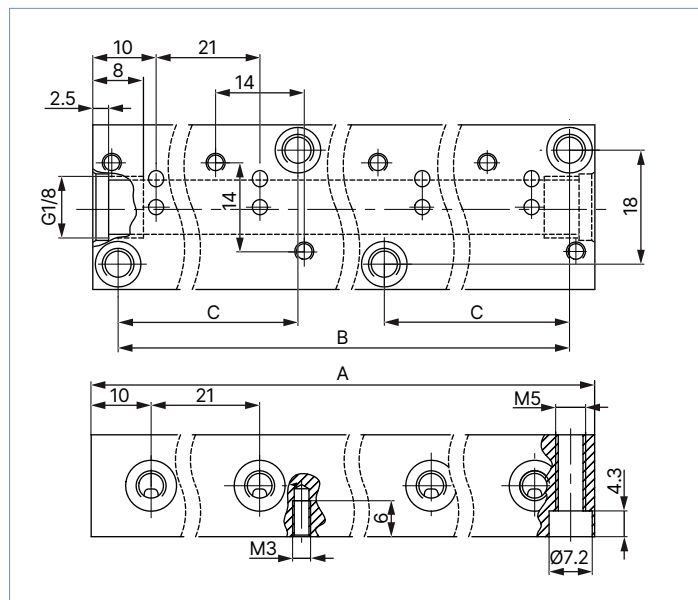
- Dimensions in mm
- Can only be combined with valves with coil size 20 mm



Quantity of valve places	A [mm]	B [mm]	C [mm]	Article no.
1	20	12	–	005312

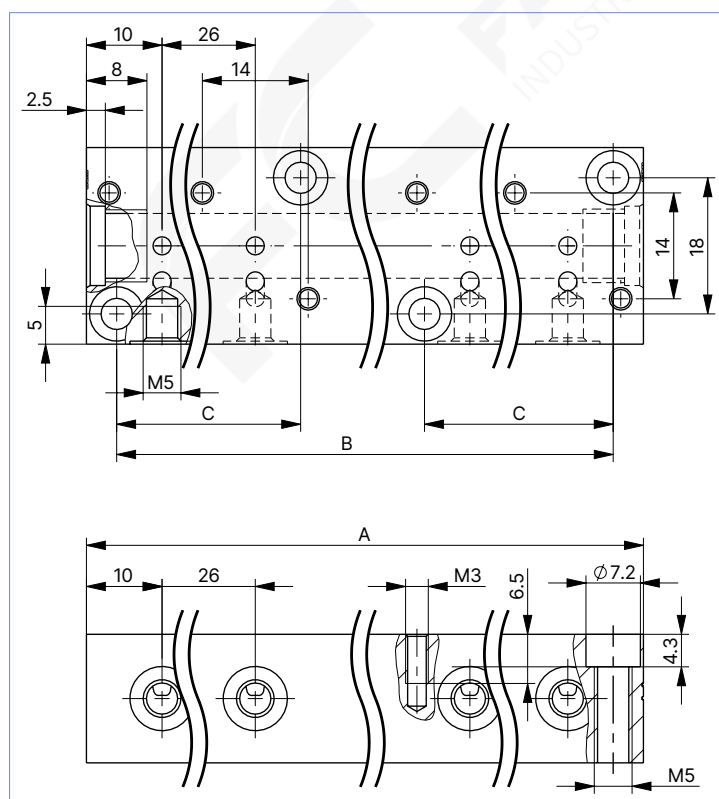
Manifolds for valves with 20 mm coil (SG2)

- Dimensions in mm
- Can only be combined with Type 7012 valves with coil size 20 mm



Quantity of valve places	A	B	C	Article no.
	[mm]	[mm]	[mm]	
2	41	33	—	005355 
3	62	54	—	005313 
4	83	75	—	005314 
5	104	96	—	005315 
6	125	117	—	005316 
7	146	138	—	005893 
8	167	159	54	005166 
9	188	180	54	005241 
10	209	201	75	005819 
11	230	222	75	005242 
12	251	243	96	005222 

- Dimensions in mm
- Can be combined with Type 7012 valves with coil size 24.5 mm or with valves with function B



Quantity of valve places	A [mm]	B [mm]	C [mm]	Article no.
2	46	38	–	60021427 
3	72	64	–	60021342 
4	98	90	–	60021429 
5	124	116	–	60021428 
6	150	142	–	60021442 
7	176	168	–	20060327 
8	202	194	64	20060338 
9	228	220	64	20060341 
10	254	246	90	20015744 
11	280	272	90	20060374 
12	306	298	116	20060376 

6. Device/Process connections

6.1. Pin assignment

For the positions marked with *, ** or *** in the drawing, the connections are marked with the letters shown in the table above, depending on the circuit function. Unused connections in circuit functions A or B will be closed off with a blanking plug or cap nut.

Circuit function	Connection Type			Threaded variant	Flange variant
	*	**	***		
A	P	to lock	A		
B	to lock	B	P		
C	P	R	A		
D	R	P	B		
T	P	R	A		

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7. Performance specifications

7.1. Power consumption

Standard variant, coil size 24.5 mm

Coil	Orifice	Electrical power					Switching times ¹⁾	
		Inrush AC	Hold AC		DC		Opening	Closing
	[mm]	[VA]	[VA]	[W]	Cold [W]	Hot [W]	[ms]	[ms]
24 V/DC/7 W	1.2	–	–	–	7	5.5	8...12	8...12
	1.6							
	2.0							
24 V/DC/5.5 W	1.2	–	–	–	5.5	4.5		
	1.6							
	2.0							
24 V/50 Hz/4 W	1.2	12	6.5	4	–	–		
	1.6							
	2.0							
230 V/50 Hz/4 W	1.2	12	6.5	4	–	–		
	1.6							
	2.0							

1.) Measurement at +20 °C, 6 bar²⁾ at the valve outlet acc. to DIN ISO 12238:2001, opening: pressure build-up 0...10 %, closing: pressure reduction 100...90 %

2.) Pressure data: overpressure to atmospheric pressure and air as a medium

Standard variant, coil size 20 mm

Coil	Orifice	Electrical power					Switching times ¹⁾	
		Inrush AC	Hold AC		DC		Opening	Closing
	[mm]	[VA]	[VA]	[W]	Cold [W]	Hot [W]	[ms]	[ms]
24 V/DC/6.5 W	1.2	–	–	–	6.5	5	8...12	8...12
	1.6							
	2.0							
24 V/50 Hz/6 W	1.2	11	7	6	–	–		
	1.6							
	2.0							
230 V/50 Hz/6 W	1.2	11	7	6	–	–		
	1.6							
	2.0							
24 V/DC/5 W	1.2	–	–	–	5	4		
	1.6							
	2.0							
24 V/50 Hz/4 W	1.2	9	5	4	–	–		
	1.6							
	2.0							
230 V/50 Hz/4 W	1.2	9	5	4	–	–		
	1.6							
	2.0							

1.) Measurement at +20 °C, 6 bar²⁾ at the valve outlet acc. to DIN ISO 12238:2001, opening: pressure build-up 0...10 %, closing: pressure reduction 100...90 %

2.) Pressure data: overpressure to atmospheric pressure and air as a medium

8. Ordering information

8.1. Bürkert eShop

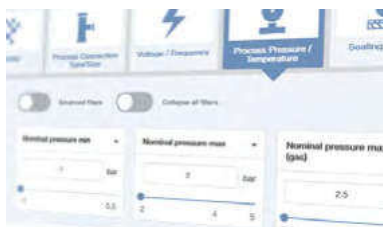


Bürkert eShop – Easy ordering and quick delivery

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

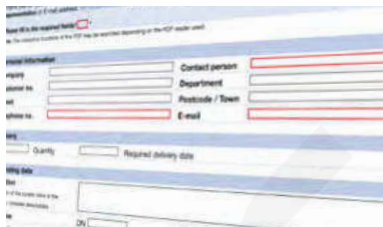


Bürkert product filter – Get quickly to the right product

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.

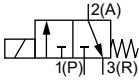
[Fill out the form now](#)

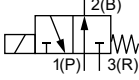
8.4. Ordering chart

Standard variant according to industry standard form B, coil size 24.5 mm

Note:

All valves are delivered without a cable plug.

Circuit function	Port connection	Orifice	K _v value water ¹⁾	Voltage/ Frequency/ Power	Maximum duty cycle	Pressure range ²⁾		Article no.	
						Ambient temperature 75 °C	Ambient temperature 55 °C	Brass body	Stainless steel body
		[mm]	[m³/h]	[V/Hz/W]		Air + water [bar]	Air + water [bar]	FKM seal	
CFC 3/2-way solenoid valve Direct-acting Normally closed 	M5	1.2	0.045	24/DC/7	100 % ED	–	0...13	380922 ☒	381000 ☒
				24/DC/5.5		0...11.5	0...11.5	390256 ☒	390258 ☒
				24/50/4		0...13	0...13	380924 ☒	381002 ☒
				230/50/4		0...13	0...13	380927 ☒	381004 ☒
		1.6	0.060	24/DC/7	100 % ED	–	0...7.5	380932 ☒	381021 ☒
				24/DC/5.5		0...6	0...6	390265 ☒	390267 ☒
				24/50/4		0...7.5	0...7.5	380931 ☒	381023 ☒
				230/50/4		0...7.5	0...7.5	380928 ☒	381025 ☒
		2.0 ³⁾	0.110	24/DC/7	100 % ED	–	0...7	o. r.	o. r.
				24/DC/5.5		0...5	0...5	o. r.	o. r.
				24/50/4		0...6	0...6	o. r.	o. r.
				230/50/4		0...6	0...6	o. r.	o. r.
	G 1/8	1.2	0.045	24/DC/7	100 % ED	–	0...13	379906 ☒	380132 ☒
				24/DC/5.5		0...11.5	0...11.5	390269 ☒	390271 ☒
				24/50/4		0...13	0...13	379928 ☒	380139 ☒
				230/50/4		0...13	0...13	380116 ☒	380217 ☒
		1.6	0.060	24/DC/7	100 % ED	–	0...7.5	379915 ☒	380137 ☒
				24/DC/5.5		0...6	0...6	390275 ☒	390273 ☒
				24/50/4		0...7.5	0...7.5	379930 ☒	380141 ☒
				230/50/4		0...7.5	0...7.5	380118 ☒	380218 ☒
		2.0 ³⁾	0.110	24/DC/7	100 % ED	–	0...7	o. r.	o. r.
				24/DC/5.5		0...5	0...5	o. r.	o. r.
				24/50/4		0...6	0...6	o. r.	o. r.
				230/50/4		0...6	0...6	o. r.	o. r.
	Flange (FK01)	1.2	0.045	24/DC/7	100 % ED	–	0...13	380943 ☒	390301 ☒
				24/DC/5.5		0...11.5	0...11.5	390348 ☒	390351 ☒
				24/50/4		0...13	0...13	380942 ☒	381029 ☒
				230/50/4		0...13	0...13	380940 ☒	390353 ☒
		1.6	0.060	24/DC/7	100 % ED	–	0...7.5	380934 ☒	390355 ☒
				24/DC/5.5		0...6	0...6	390358 ☒	390360 ☒
				24/50/4		0...7.5	0...7.5	380936 ☒	390362 ☒
				230/50/4		0...7.5	0...7.5	380938 ☒	389484 ☒
		2.0 ³⁾	0.110	24/DC/7	100 % ED	–	0...7	o. r.	o. r.
				24/DC/5.5		0...5	0...5	o. r.	o. r.
				24/50/4		0...6	0...6	o. r.	o. r.
				230/50/4		0...6	0...6	o. r.	o. r.

Circuit function	Port connection	Orifice	K _v value water ^{1.)}	Voltage/ Frequency/ Power	Maximum duty cycle	Pressure range ^{2.)}		Article no.	
						Ambient temperature 75 °C	Ambient temperature 55 °C	Brass body	Stainless steel body
		[mm]	[m³/h]			Air + water [bar]	Air + water [bar]	FKM seal	
CFD 3/2-way solenoid valve Direct-acting Normally open 	M5	1.2	0.045	24 / DC / 5.5	100 % ED	0...10	0...10	390363 ☞	390365 ☞
				24 / 50 / 4		0...10	0...10	390367 ☞	390382 ☞
				230 / 50 / 4		0...10	0...10	390385 ☞	390384 ☞
		1.6	0.060	24 / DC / 5.5	100 % ED	0...6	0...6	390390 ☞	390392 ☞
				24 / 50 / 4		0...6	0...6	390396 ☞	390398 ☞
				230 / 50 / 4		0...6	0...6	390400 ☞	390401 ☞
		2.0 ^{3.)}	0.110	24 / DC / 5.5	100 % ED	0...8	0...8	o. r.	o. r.
				24 / 50 / 4		0...7	0...7	o. r. ^{4.)}	o. r. ^{4.)}
				230 / 50 / 4		0...7	0...7	o. r. ^{4.)}	o. r. ^{4.)}
	G 1/8	1.2	0.045	24 / DC / 5.5	100 % ED	0...10	0...10	385475 ☞	390402 ☞
				24 / 50 / 4		0...10	0...10	390406 ☞	390409 ☞
				230 / 50 / 4		0...10	0...10	390438 ☞	390439 ☞
		1.6	0.060	24 / DC / 5.5	100 % ED	0...6	0...6	390440 ☞	390442 ☞
				24 / 50 / 4		0...6	0...6	390444 ☞	390446 ☞
				230 / 50 / 4		0...6	0...6	390448 ☞	390449 ☞
		2.0 ^{3.)}	0.110	24 / DC / 5.5	100 % ED	0...8	0...8	o. r.	o. r.
				24 / 50 / 4		0...7	0...7	o. r. ^{4.)}	o. r. ^{4.)}
				230 / 50 / 4		0...7	0...7	o. r. ^{4.)}	o. r. ^{4.)}
	Flange (FK01)	1.2	0.045	24 / DC / 5.5	100 % ED	0...10	0...10	390450 ☞	390452 ☞
				24 / 50 / 4		0...10	0...10	390456 ☞	393085 ☞
				230 / 50 / 4		0...10	0...10	390459 ☞	390460 ☞
		1.6	0.060	24 / DC / 5.5	100 % ED	0...6	0...6	390462 ☞	390464 ☞
				24 / 50 / 4		0...6	0...6	390468 ☞	390466 ☞
				230 / 50 / 4		0...6	0...6	390470 ☞	390471 ☞
		2.0 ^{3.)}	0.110	24 / DC / 5.5	100 % ED	0...8	0...8	o. r.	o. r.
				24 / 50 / 4		0...7	0...7	o. r. ^{4.)}	o. r. ^{4.)}
				230 / 50 / 4		0...7	0...7	o. r. ^{4.)}	o. r. ^{4.)}

o. r. = on request

1.) Measurement at + 20 °C, 1 bar^{2.)} at the valve inlet and free outlet

2.) Pressure data: overpressure to atmospheric pressure and air as a medium

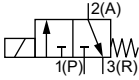
3.) Limited swelling compensation

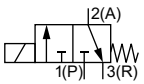
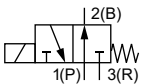
4.) Can also be feasible with coil size 2

Standard variant according to industry standard form B, coil size 20 mm

Note:

All valves are delivered without a cable plug.

Circuit function	Port connection	Orifice	K _v value water ¹⁾	Voltage/ Frequency/ Power	Maximum duty cycle	Pressure range ²⁾		Article no.	
						Ambient temperature 75 °C	Ambient temperature 55 °C	Brass body	Stainless steel body
		[mm]	[m³/h]			Air + water [bar]	Air + water [bar]	FKM seal	
CF C 3/2-way solenoid valve Direct-acting Normally closed 	M5	1.2	0.045	24/DC/6.5	100 % ED	–	0...11	o. r.	o. r.
				24/50/6		–	0...13	o. r.	o. r.
				230/50/6		–	0...13	o. r.	o. r.
				24/DC/5		0...10	0...10	o. r.	o. r.
				24/50/4		0...11	0...11	o. r.	o. r.
				230/50/4		0...11	0...11	o. r.	o. r.
		1.6	0.060	24/DC/6.5	100 % ED	–	0...6	o. r.	o. r.
				24/50/6		–	0...7.5	o. r.	o. r.
				230/50/6		–	0...7.5	o. r.	o. r.
				24/DC/5		0...5.5	0...5.5	o. r.	o. r.
				24/50/4		0...6	0...6	o. r.	o. r.
				230/50/4		0...6	0...6	o. r.	o. r.
		2.0 ³⁾	0.110	24/DC/6.5	100 % ED	–	0...5	o. r.	o. r.
				24/50/6		–	0...6	o. r.	o. r.
				230/50/6		–	0...6	o. r.	o. r.
				24/DC/5		0...4	0...4	o. r.	o. r.
				24/50/4		0...5.5	0...5.5	o. r.	o. r.
				230/50/4		0...5.5	0...5.5	o. r.	o. r.
	G 1/8	1.2	0.045	24/DC/6.5	100 % ED	–	0...11	o. r.	o. r.
				24/50/6		–	0...13	o. r.	o. r.
				230/50/6		–	0...13	o. r.	o. r.
				24/DC/5		0...10	0...10	o. r.	o. r.
				24/50/4		0...11	0...11	o. r.	o. r.
				230/50/4		0...11	0...11	o. r.	o. r.
		1.6	0.060	24/DC/6.5	100 % ED	–	0...6	o. r.	o. r.
				24/50/6		–	0...7.5	o. r.	o. r.
				230/50/6		–	0...7.5	o. r.	o. r.
				24/DC/5		0...5.5	0...5.5	o. r.	o. r.
				24/50/4		0...6	0...6	o. r.	o. r.
				230/50/4		0...6	0...6	o. r.	o. r.
		2.0 ³⁾	0.110	24/DC/6.5	100 % ED	–	0...5	o. r.	o. r.
				24/50/6		–	0...6	o. r.	o. r.
				230/50/6		–	0...6	o. r.	o. r.
				24/DC/5		0...4	0...4	o. r.	o. r.
				24/50/4		0...5.5	0...5.5	o. r.	o. r.
				230/50/4		0...5.5	0...5.5	o. r.	o. r.
	Flange (FK01)	1.2	0.045	24/DC/6.5	100 % ED	–	0...11	o. r.	o. r.
				24/50/6		–	0...13	o. r.	o. r.
				230/50/6		–	0...13	o. r.	o. r.
				24/DC/5		0...10	0...10	o. r.	o. r.
				24/50/4		0...11	0...11	o. r.	o. r.
				230/50/4		0...11	0...11	o. r.	o. r.

Circuit function	Port connection	Orifice	K _v value water ¹⁾	Voltage/ Frequency/ Power	Maximum duty cycle	Pressure range ²⁾		Article no.	
						Ambient temperature 75 °C	Ambient temperature 55 °C	Brass body	Stainless steel body
		[mm]	[m ³ /h]			Air + water [bar]	Air + water [bar]	FKM seal	
CFC 3/2-way solenoid valve Direct-acting Normally closed 	Flange (FK01)	1.6	0.060	24 / DC / 6.5	100 % ED	–	0...6	o. r.	o. r.
				24 / 50 / 6		–	0...7.5	o. r.	o. r.
				230 / 50 / 6		–	0...7.5	o. r.	o. r.
				24 / DC / 5		0...5.5	0...5.5	o. r.	o. r.
				24 / 50 / 4		0...6	0...6	o. r.	o. r.
				230 / 50 / 4		0...6	0...6	o. r.	o. r.
		2.0 ³⁾	0.110	24 / DC / 6.5	100 % ED	–	0...5	o. r.	o. r.
				24 / 50 / 6		–	0...6	o. r.	o. r.
				230 / 50 / 6		–	0...6	o. r.	o. r.
				24 / DC / 5		0...4	0...4	o. r.	o. r.
				24 / 50 / 4		0...5.5	0...5.5	o. r.	o. r.
				230 / 50 / 4		0...5.5	0...5.5	o. r.	o. r.
CFD 3/2-way solenoid valve Direct-acting Normally open 	M5	1.2	0.045	24 / DC / 5	100 % ED	0...10	0...10	o. r.	o. r.
				24 / 50 / 4		0...10	0...10	o. r.	o. r.
				230 / 50 / 4		0...10	0...10	o. r.	o. r.
		1.6	0.060	24 / DC / 5	100 % ED	0...6	0...6	o. r.	o. r.
				24 / 50 / 4		0...6	0...6	o. r.	o. r.
				230 / 50 / 4		0...6	0...6	o. r.	o. r.
		2.0 ³⁾	0.110	24 / DC / 6.5	100 % ED	–	0...8	o. r.	o. r.
				24 / DC / 5		0...6	0...6	o. r.	o. r.
				24 / 50 / 4		0...7	0...7	o. r.	o. r.
				230 / 50 / 4		0...7	0...7	o. r.	o. r.
		G 1/8	0.045	24 / DC / 5	100 % ED	0...10	0...10	o. r.	o. r.
				24 / 50 / 4		0...10	0...10	o. r.	o. r.
				230 / 50 / 4		0...10	0...10	o. r.	o. r.
	Flange (FK01)	1.2	0.045	24 / DC / 5	100 % ED	0...10	0...10	o. r.	o. r.
				24 / DC / 5.5		0...6	0...6	o. r.	o. r.
				24 / 50 / 4		0...10	0...10	o. r.	o. r.
		1.6	0.060	24 / DC / 5	100 % ED	0...6	0...6	o. r.	o. r.
				24 / 50 / 4		0...6	0...6	o. r.	o. r.
				230 / 50 / 4		0...6	0...6	o. r.	o. r.
		2.0 ³⁾	0.110	24 / DC / 6.5	100 % ED	–	0...8	o. r.	o. r.
				24 / DC / 5		0...6	0...6	o. r.	o. r.
				24 / 50 / 4		0...7	0...7	o. r.	o. r.
				230 / 50 / 4		0...7	0...7	o. r.	o. r.

o. r. = on request

1.) Measurement at +20 °C, 1 bar²⁾ at the valve inlet and free outlet

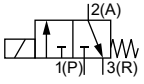
2.) Pressure data: overpressure to atmospheric pressure and air as a medium

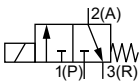
3.) Limited swelling compensation

Banjo variant

Note:

- All valves are delivered without a cable plug.
- Coil size 24.5 mm
- Orifices 1.6 mm and 2.0 mm on request.

Circuit function	Port connection	Orifice	Q _{in} value air ¹⁾	Voltage/Frequency/ Power	Maximum duty cycle	Medium pressure ²⁾ Ambient temperature max. + 55 °C resp. + 75 °C ³⁾	Article no.
		[mm]				Air [bar]	
CF C 3/2-way solenoid valve Direct-acting Normally closed 	BJ01 P: G 1/8 A: G 1/8	1.2	35	24/DC/7	100 % ED	0...13	20077509 
				24/DC/5.5		0...11.5	20087634 
				24/50/4		0...13	20077511 
				230/50/4		0...13	20070709 
		1.6	48	24/DC/7	100 % ED	0...7.5	o. r.
				24/DC/5.5		0...6	o. r.
				24/50/4		0...7.5	o. r.
				230/50/4		0...7.5	o. r.
		2.0	75	24/DC/7	100 % ED	0...7	o. r.
				24/DC/5.5		0...5.5	o. r.
				24/50/4		0...6	o. r.
				230/50/4		0...6	o. r.
	BJ02 P: G 1/4 A: G 1/4	1.2	35	24/DC/7	100 % ED	0...13	20077512 
				24/DC/5.5		0...11.5	20077514 
				24/50/4		0...13	20077516 
				230/50/4		0...13	20077519 
		1.6	48	24/DC/7	100 % ED	0...7.5	o. r.
				24/DC/5.5		0...6	o. r.
				24/50/4		0...7.5	o. r.
				230/50/4		0...7.5	o. r.
		2.0	75	24/DC/7	100 % ED	0...7	o. r.
				24/DC/5.5		0...5.5	o. r.
				24/50/4		0...6	o. r.
				230/50/4		0...6	o. r.
	BJ03 P: NPT 1/4 A: G 1/8	1.2	35	24/DC/7	100 % ED	0...13	20077523 
				24/DC/5.5		0...11.5	20077564 
				24/50/4		0...13	20077570 
				230/50/4		0...13	20077574 
		1.6	48	24/DC/7	100 % ED	0...7.5	o. r.
				24/DC/5.5		0...6	o. r.
				24/50/4		0...7.5	o. r.
				230/50/4		0...7.5	o. r.
		2.0	75	24/DC/7	100 % ED	0...7	o. r.
				24/DC/5.5		0...5.5	o. r.
				24/50/4		0...6	o. r.
				230/50/4		0...6	o. r.

Circuit function	Port connection	Orifice	Q _{in} value air ^{1.)}	Voltage/Frequency/ Power	Maximum duty cycle	Medium pressure ^{2.)} Ambient temperature max. + 55 °C resp. + 75 °C ^{3.)}	Article no.
		[mm]				Air [bar]	
CF C 3/2-way solenoid valve Direct-acting Normally closed 	BJ05 P: G 1/4 A: G 1/8	1.2	35	24/DC/7	100 % ED	0...13	20077596 ☒
				24/DC/5.5		0...11.5	20077598 ☒
				24/50/4		0...13	20077604 ☒
				230/50/4		0...13	20077609 ☒
		1.6	48	24/DC/7	100 % ED	0...7.5	o. r.
				24/DC/5.5		0...6	o. r.
				24/50/4		0...7.5	o. r.
				230/50/4		0...7.5	o. r.
		2.0	75	24/DC/7	100 % ED	0...7	o. r.
				24/DC/5.5		0...5.5	o. r.
				24/50/4		0...6	o. r.
				230/50/4		0...6	o. r.
	BJ06 P: G 1/4 A: G 1/8	1.2	35	24/DC/7	100 % ED	0...13	20098864 ☒
				24/DC/5.5		0...11.5	20087550 ☒
				24/50/4		0...13	20098869 ☒
				230/50/4		0...13	20098870 ☒
		1.6	48	24/DC/7	100 % ED	0...7.5	o. r.
				24/DC/5.5		0...6	o. r.
				24/50/4		0...7.5	o. r.
				230/50/4		0...7.5	o. r.
		2.0	75	24/DC/7	100 % ED	0...7	o. r.
				24/DC/5.5		0...5.5	o. r.
				24/50/4		0...6	o. r.
				230/50/4		0...6	o. r.
	BJ07 P: NPT 1/8 A: G 1/8	1.2	35	24/DC/7	100 % ED	0...13	20077610 ☒
				24/DC/5.5		0...11.5	20077615 ☒
				24/50/4		0...13	20077618 ☒
				230/50/4		0...13	20077626 ☒
		1.6	48	24/DC/7	100 % ED	0...7.5	o. r.
				24/DC/5.5		0...6	o. r.
				24/50/4		0...7.5	o. r.
				230/50/4		0...7.5	o. r.
		2.0	75	24/DC/7	100 % ED	0...7	o. r.
				24/DC/5.5		0...5.5	o. r.
				24/50/4		0...6	o. r.
				230/50/4		0...6	o. r.

o. r. = on request

1.) For P1: 6 bar absolute and P2: 5 bar absolute

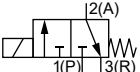
2.) Pressure data: overpressure to atmospheric pressure and air as a medium

3.) Depending on the performance level

ATEX/IECEx cable variant

Note:

- The maximum medium temperature may never exceed the permissible temperature class (T4 135 °C) minus 5K.
- Only single mounting permissible
- With 3 m cable as standard. Other lengths on request.

Circuit function	Port connection	Orifice	K _v value water ^{1.)}	Voltage/Frequency/ Power	Maximum duty cycle	Pressure range ^{2.)}	Article no.		
		[mm]	[m³/h]			[V/Hz/W]	Ambient temperature + 55 °C	Brass body	Stainless steel body
							Air + water [bar]	FKM seal	
CFC 3/2-way solenoid valve Direct-acting Normally closed 	G 1/8	1.2	0.045	24 / AC/DC / 6	100 % ED	0...8	20017950 	20053187 	
				230 / AC/DC / 6		0...8	20017953 	20053193 	
				24 / AC / 6		0...11	20017952 	20077468 	
				230 / AC / 6		0...11	20077471 	20077470 	
		1.6	0.060	24 / AC/DC / 6	100 % ED	0...4	20017954 	20053195 	
				230 / AC/DC / 6		0...4	20017958 	20053196 	
				24 / AC / 6		0...5.5	20017957 	20077485 	
				230 / AC / 6		0...5.5	20077475 	20077478 	
		2.0	0.110	24 / AC/DC / 6	100 % ED	0...3	20017961 	20053197 	
				230 / AC/DC / 6		0...3	20010156 	20053199 	
				24 / AC / 6		0...4	20017959 	20077490 	
				230 / AC / 6		0...4	20025746 	20077492 	

1.) Measurement at + 20 °C, 1 bar^{2.)} at the valve inlet and free outlet

2.) Pressure data: overpressure to atmospheric pressure and air as a medium

Additional options

Note:

Available on request

Option	Variable Code	Description
Oxygen variants	NL02	Suitable for applications with oxygen (non-metal materials that are in contact with the medium are tested and approved according to BAM)
Increased purity requirements e.g. oil, grease and silicone-free	NL50/NL05	Wetted parts are specially cleaned and packaged in accordance with the valves
Increased tightness requirements	PC05	Leakage rate *less than 10 ⁻⁴ mbar l/sec
	PC08	Leakage rate *less than 10 ⁻⁵ mbar l/sec
	PC06	Leakage rate *less than 10 ⁻⁶ mbar l/sec
Vacuum variant	on request	–

8.5. Ordering chart accessories

Single manifold

Note:

Further ordering information can be found in chapter "5.5. Single manifold" on page 15.

Multiple manifold

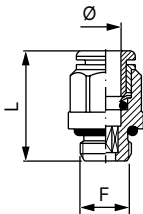
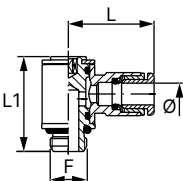
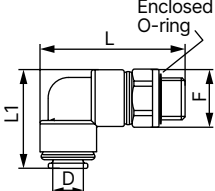
Note:

Further ordering information can be found in chapter "5.6. Multiple manifold" on page 16.

Accessories for manifolds

Accessory	Features	Article no.
Threaded plug	With seal ring, G 1/8	005041
Cover plate	For unoccupied valve position	005100

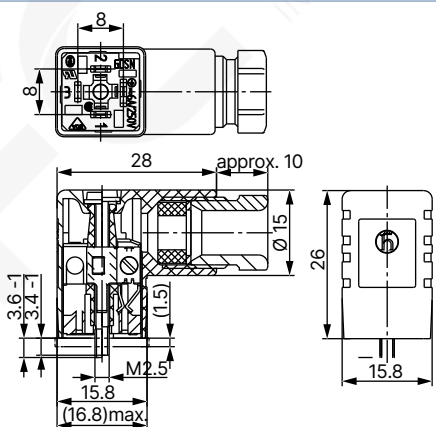
Accessories for G 1/8" threaded connections

Accessories	Material	Connection diameter	F	L	L1	Article no.
		[mm]	[mm]	[mm]	[mm]	
Straight push-in connector with O-Ring						
	Brass, nickel-plated	4	G 1⁄8	18.0	–	780001 
		6	G 1⁄8	21.6	–	780003 
		8	G 1⁄8	25.4	–	780005 
Elbow screw fitting, rotatable with O-Ring						
	Brass, nickel-plated	4	G 1⁄8	21.3	24.9	780081 
		6	G 1⁄8	23.0	24.9	780082 
		8	G 1⁄8	24.8	24.9	780086 
	POM	4	G 1⁄8	35.5	24.0	782344 
		6	G 1⁄8	39.5	27.0	782345 
		8	G 1⁄8	41.5	30.0	782346 

Cable plug Type 2516, form C according to DIN EN 175301 - 803

Note:

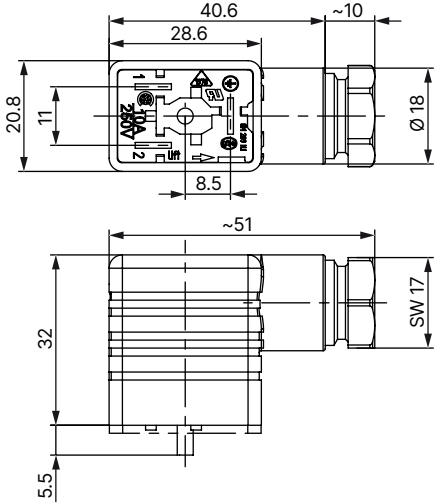
- Dimensions in mm
- Delivery of cable plug includes a flat seal and a fixing screw.
- For further variants see data sheet **Type 2516** .

Cable plug	Dimensions	Variant	Voltage	Article no.
		Without circuitry	0...250 V AC/DC	303141 
		With LED	12...24 V AC/DC	303145 
		With LED and varistor	12...24 V AC/DC	303148 
		With rectifier, LED and varistor	12...24 V AC/DC	303142 

Cable plug Type 2507, form B according to industry standard

Note:

- Dimensions in mm
- Delivery of cable plug includes a flat seal and a fixing screw.
- Refer to data sheet **Type 2507** ▶ for more information about the cable plug.

Cable plug	Dimensions	Variant	Voltage	Article no.
		Without circuitry (standard)	2...250 V AC/DC	423845 
		With LED	24 V AC/DC	423849 
		With LED and free-wheeling diode	12...24 V AC/DC	423851 
		With rectifier, LED and varistor	2...250 V AC/DC	423854 
			12...24 V AC/DC	423853 