bürkert
FLUID CONTROL SYSTEMS

Plunger valve 2/2 way direct-acting

- Direct-acting and compact small-format valve with diameter of up to DN 2.4
- Screwed coil system
- Simple and quick flange or manifold installation
- Quick coupling (push-in fitting) for plug-in hose connections

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

Can be combined with

Type 2507
Cable plug,
form B according to
industry standard

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

Type description

Valve 6011 is a direct-acting plunger valve. The stopper and core guide tube are welded together to enhance pressure resistance and leak-tightness. Various seal material combinations are available depending on the application. A Bürkert-specific flange design (SFB) enables space-saving arrangement of valves on a manifold. Push-in fittings can be selected for flexible hose connection. In combination with a cable plug in accordance with industry standard Form B or DIN EN 175301-8 form C, the valves satisfy protection class IP65.

Phase out

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Visit product website

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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 6.
Material	
Seal	FKM
Body	Standard variant: Brass, polyamide (PA), stainless steel 1.4305 Analytical variant: Brass, stainless steel 1.4305
Weight	Approx. 125 g
Orifice	DN 1.2...DN 2.4
Circuit function	A Further information can be found in chapter "2. Circuit functions" on page 3.
Thermal insulation class of solenoid coil	Epoxy coil class H
Performance data	
Duty cycle	
Single valve	100 % continuous operation
For block mounting on multiple manifold	Intermittent operation 60 % (30 min) or with 2 W coil 100 % (on request)
Electrical data	
Operating voltage	
Standard variant	24 V DC, 24 V 50 Hz, 110/230 V 50 Hz
Analytical variant	24 V DC, 230 V 50 Hz
Voltage tolerance	± 10 %
Medium data	
Operating medium	
Standard variant	Technical vacuum, neutral gases and liquids (e.g. compressed air, water, hydraulic oil)
Analytical variant	Neutral/aggressive medium that do not attack the body and seal materials
Medium temperature	- 10 °C...+ 100 °C
Viscosity	Max. 21 mm²/s
Product connections	
Electrical connection	• Plug contac…75301 - 80 form C for cable plug **Type 2516** ▶. Further i…apter "Cable plug Type 2516, form C according to DIN EN 17530 • Pl…ard form B for cable plug **Type 2507** ▶. …apter "Cable plug Type 2507, form B according to industry
Port connection	
Standard variant	
Analytical variant	
Approvals and conf…	
Degree of protect…	
Environment	
Installation	…referably with actuator upright
Installa…	…se or silicones to be used as installation aids.
Am…	…55 °C

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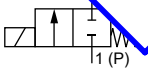
2. …ns

Symb…	Description
	**Circuit function A (CF A)** 2/2-way solenoid valve Direct-acting Normally closed

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.

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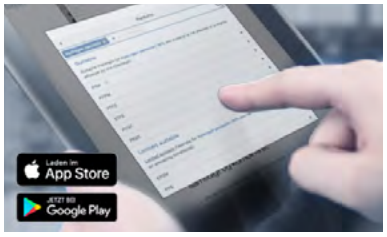
4. Materials

4.1. Bürkert resistApp



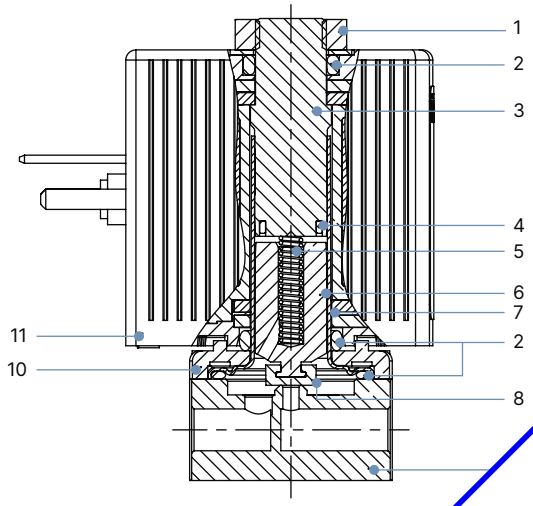
Bürkert resistApp – Chemical resistance chart

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

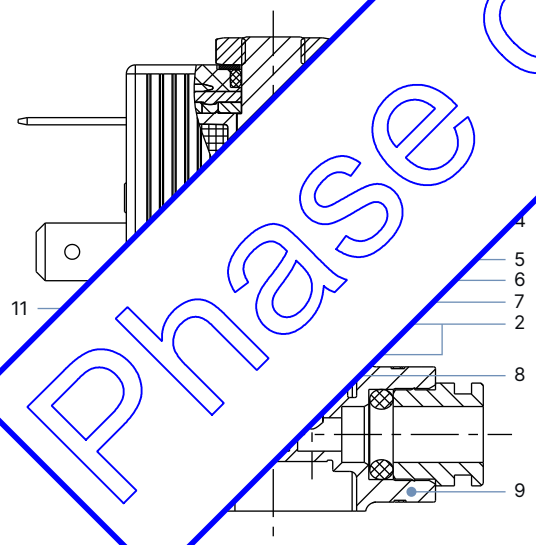
4.2. Material specifications

Standard variant



No.	Element	Material
1	Nut	9SMnPb28K Thick-film passivated
2	O-ring	FKM
3	Stopper	Stainless steel 1.4105
4	Shading ring	Copper, silver
5	Spring	Stainless steel 1.4310
6	Core	Stainless steel 1.4105
7	Guide tube	Stainless steel 1.4303
8	Armature seal	FKM
9	Body	Brass, stainless steel 1.4305, polyamide (PA)
10	Sub-base	Thick-film passivated (brass variant) Nickel-plated surface (stainless steel variant)
		DIN EN 175301-803 [1.)] form C: PA Industry standard connector form B: Epoxy

Plastic variant with plug-in coupling



No.	Element	Material
		9SMnPb28K Thick-film passivated
	O-ring	FKM, EPDM
	Stopper	Stainless steel 1.4105
4	Shading ring	Copper, silver
5	Spring	Stainless steel 1.4310
6	Core	Stainless steel 1.4105
7	Guide tube	Stainless steel 1.4303
8	Armature seal	FKM, EPDM
9	Body	Polyamide (PA)
10	Sub-base	Thick-film passivated (brass variant) Nickel-plated surface (stainless steel variant)
11	Coil	DIN EN 175301-803 [1.)] form C: PA Industry standard connector form B: Epoxy

1.) previously DIN 43650

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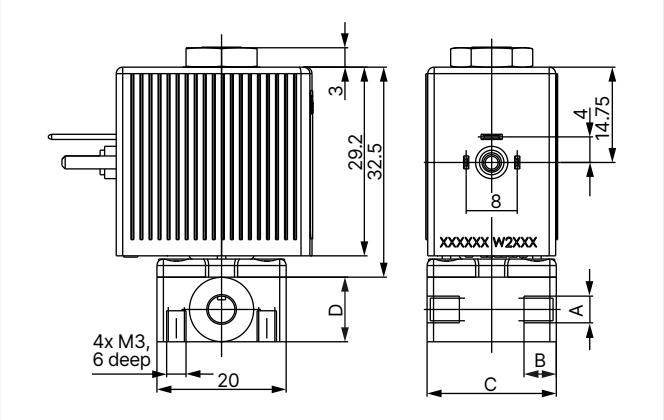
5. Dimensions

5.1. Standard variant

Threaded variant

Note:

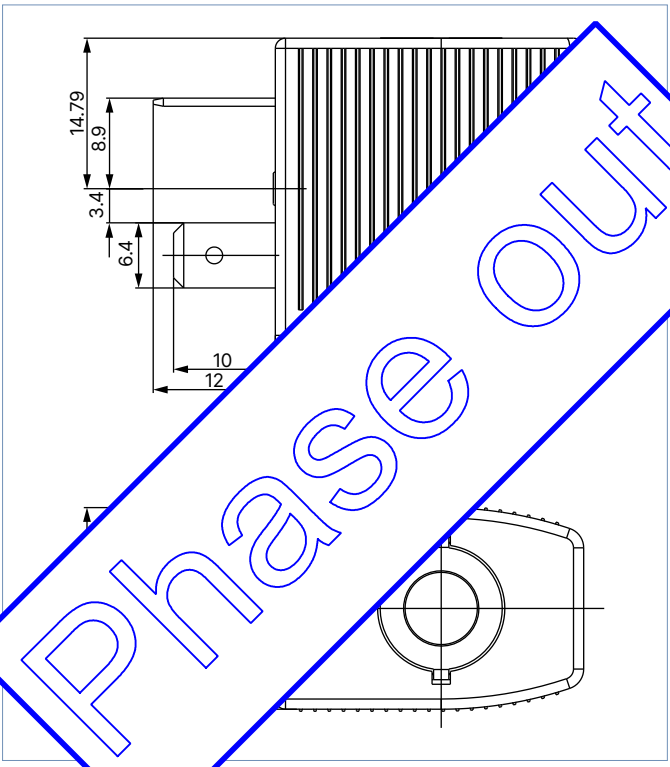
- Dimensions in mm
- Variant with coil according to DIN EN 175301-803 form C for cable plug Type 2516



Port connection	A	B	C	D
		[mm]	[mm]	[mm]
Thread	M5	5	20	10
	G ⅛	8	25	15

Note:

- Dimensions in mm
- Variant with coil according to industry standard form B for cable plug Type 2507



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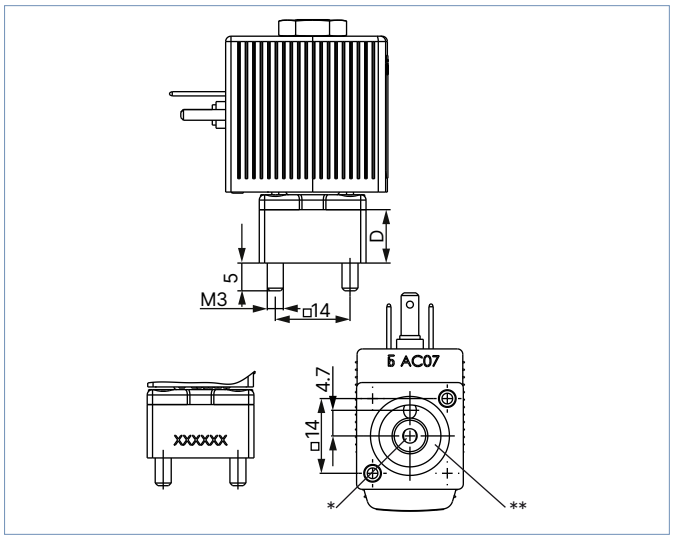
Sub-base variant

Note:

- Dimensions in mm
- Variant with coil according to DIN EN 175301 - 803 form C for cable plug Type 2516



Port connection	A	B	C	D
		[mm]	[mm]	[mm]
Sub-base	–	–	20	11

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.

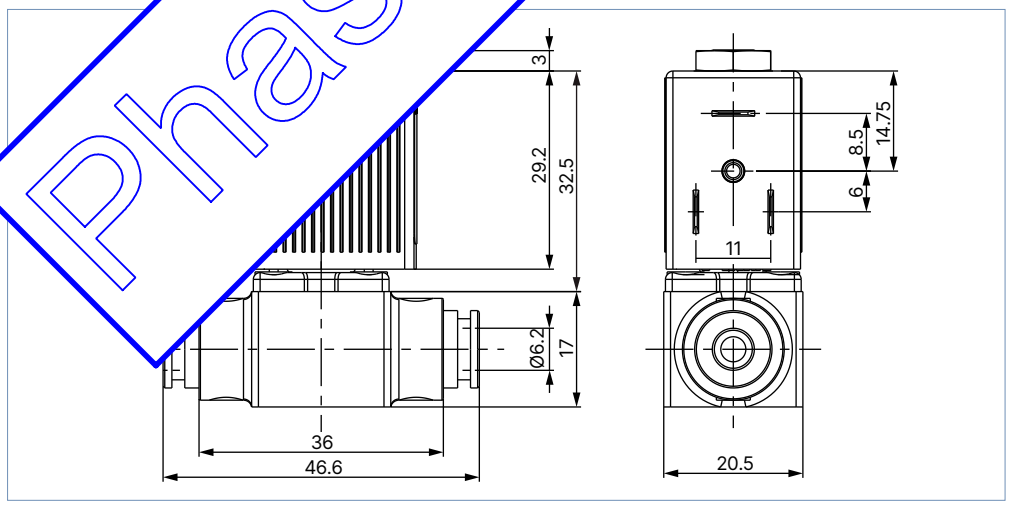
Circuit function	Connection type	
	*	**
A	P	A

Pin assignment vacuum applications

In vacuum applications the existing flow d must therefore always be applied to A.
(Other terminal assignment on reques

5.2. Plastic variant

Note:
Dimensions in mm



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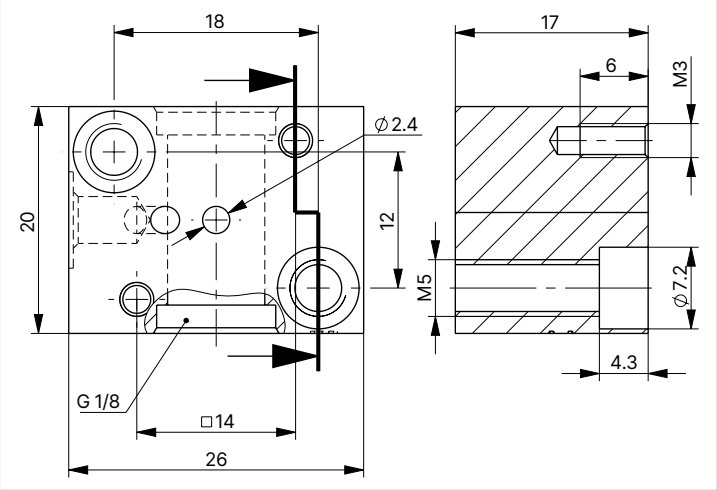
5.3. Single manifold

Note:
Dimensions in mm



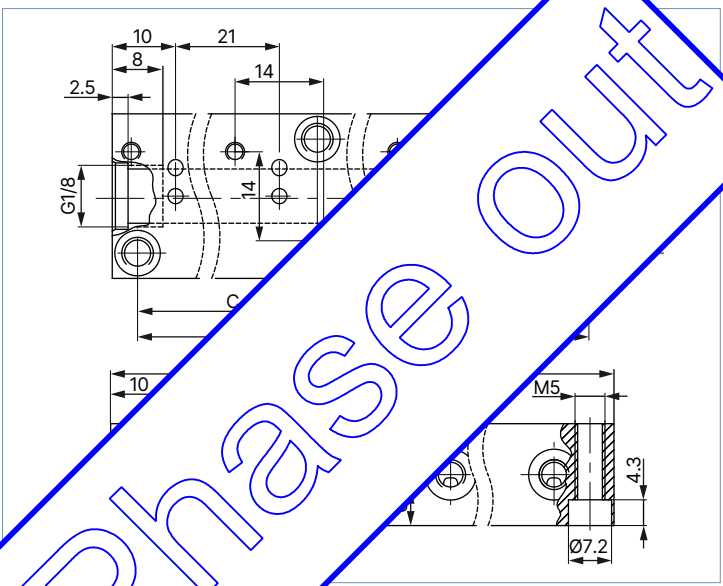
Quantity of valve slots	A [mm]	B [mm]	C [mm]	Article no.
1	20	12	–	005312

5.4. Multiple manifold

Manifolds for valves with 20 mm coil (SG2)

Note:

- Dimensions in mm
- Made of aluminium, anodized
- Can only be combined with variants circuit function C (no[illegible]y closed)



Quantity of valve slots	A [mm]	B [mm]	C [mm]	Article no.
2	41	33	–	005355
	62	54	–	005313
	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

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6. Ordering information

6.1. 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

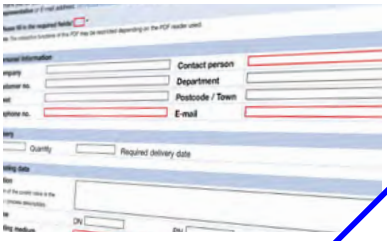
6.2. Bürkert product filter

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

6.3. Bürkert Product Enquiry Form



Bürkert Produ uiry Form – Your enquiry quickly and compactly

Would y pecific product enquiry based on your technical requirements? Use our P this purpose. There you will find all the relevant information for yo nable us to provide you with the best possible advice.

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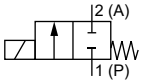
6.4. Ordering chart

Standard variant

Note:

- All valves complete with coil and FKM seal material and are supplied without a cable plug.
- Other variants are available on request.
- The previous standard DIN 43650 has been replaced by DIN EN 175301 - 803 form C.

Circuit function	Port connection	Orifice	K_V value water	Voltage/ Frequency	Pressure range [1.)]	Article no. Brass body	Article no. Stainless steel body
		[mm]	[m³/h]	[V/Hz]	[bar]		
Solenoid valve complete in threaded or sub-base variant with coil according to DIN EN 175 301 - 803 form C for cable plug Type 2516							
CF A 2/2-way solenoid valve Direct-acting Normally closed  	M5	1.2	0.045	024/DC	0...12	134084	–
				024/50	0...21	134085	–
				110/50	0...21	134086	–
				230/50	0...21	134087	–
	M5	1.6	0.06	024/DC	0...6	134088	–
				024/50	0...12	134089	–
				110/50	0...12	134090	–
				230/50	0...12	134091	–
	G ⅛		0.06	024/DC	0...6	134071	134103
				024/50	0...12	134092	134104
				110/50	0...12	134093	134105
				230/50	0...12	134094	134106
	G ⅛	2.0	0.11	024/DC	0...4.5	134095	134107
				024/50	0...8	134096	134108
				110/50	0...8	134097	134109
				230/50	0...8	134098	134110
	G ⅛	2.4	0.1	024/DC	0...3	134099	134111
				024/50	0...6	134100	134112
				110/50	0...6	134101	134113
				230/50	0...6	134102	134114
	Sub-base	1.2		024/DC	0...12	134115	–
				/50	0...21	134116	–
				0	0...21	134117	–
				230/50	0...21	134118	–
	Sub-bas			024/DC	0...6	134119	134131
				024/50	0...12	134120	134132
				110/50	0...12	134121	134133
				230/50	0...12	134122	134134
			.11	024/DC	0...4.5	134123	134135
				024/50	0...8	134124	134136
				110/50	0...8	134125	134137
				230/50	0...8	134126	134138
			0.13	024/DC	0...3	134127	–
				024/50	0...6	134128	–
				110/50	0...6	134129	–
				230/50	0...6	134130	–

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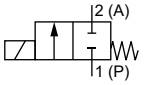
Circuit function	Port connection	Orifice	K_V value water	Voltage/ Frequency	Pressure range [1.)]	Article no. Brass body	Article no. Stainless steel body
		[mm]	[m³/h]	[V/Hz]	[bar]		
Solenoid valve complete in threaded or sub-base variant with coil according to industry standard form B for cable plug Type 2507							
CF A 2/2-way solenoid valve Direct-acting Normally closed  	M5	1.2	0.045	024/DC	0...12	163491	–
				024/50	0...21	163492	–
				110/50	0...21	163493	–
				230/50	0...21	163494	–
	M5	1.6	0.06	024/DC	0...6	163495	–
				024/50	0...12	163496	–
				110/50	0...12	163497	–
				230/50	0...12	163498	–
	G ⅛		0.06	024/DC	0...6	163499	163509
				024/50	0...12	163500	163510
				110/50	0...12	163501	163511
				230/50	0...12	163502	163512
	G ⅛	2.0	0.11	024/DC	0...4.5	163503	163513
				024/50	0...8	163504	163514
				110/50	0...8	163505	163515
				230/50	0...8	163506	163516
	G ⅛	2.4	0.13	024/DC	0...3	161193	163517
				024/50	0...6	163507	163518
				110/50	0...6	163508	163519
				230/50	0...6	161194	163520
	Sub-base	1.2	0.045	024/DC	0...12	163521	–
				024/50	0...21	163522	–
				110/50	0...21	163523	–
				230/50	0...21	163524	–
	Sub-base	1.6		024/DC	0...6	163525	163537
				024/50	0...12	163526	163538
				110/50	0...12	163527	163539
				230/50	0...12	163528	163540
	Sub-base	2.0		/DC	0...4.5	163529	163541
				0	0...8	163530	163542
				/50	0...8	163531	163543
				230/50	0...8	163532	163544
	Sub-b			024/DC	0...3	163533	–
				024/50	0...6	163534	–
				110/50	0...6	163535	–
				230/50	0...6	163536	–

– = not available

1.) Pressure data: ov

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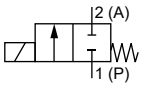
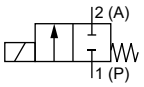
Analytical variant

Note:

- All valves complete with coil (4 W) and FKM seal material and are supplied without a cable plug.
- Other variants are available on request.
- The previous standard DIN 43650 has been replaced by DIN EN 175301 - 803 form C.

Circuit function	Port connection	Orifice [mm]	K_v value water [m³/h]	Voltage/ Frequency [V/Hz]	Pressure range [1.)] [bar]	Article no. Brass body	Article no. Stainless steel body
Solenoid valve complete in threaded or sub-base variant with coil according to DIN EN 175 301 - 803 form C for cable plug Type 2516							
CF A 2/2-way solenoid valve Direct-acting Normally closed  	G ⅛	1.6	0.06	024/DC	0...6	137794	137800
				230/50	0...12	137795	137801
	G ⅛	2.0	0.11	024/DC	0...4.5	137796	137802
				230/50	0...8	137797	137803
	G ⅛	2.4	0.13	024/DC	0...3	137798	137804
				230/50	0...6	137799	137805
	Sub-base	1.2	0.045	024/DC	0...12	137806	137812
				230/50	0...21	137807	137813
	Sub-base	1.6	0.06	024/DC	0...6	137808	137814
				230/50	0...12	137809	137815
	Sub-base	2.0	0.11	024/DC	0...4.5	137810	137816
				230/50	0...8	137811	137817
Solenoid valve complete in threaded or flanged variant with electrical coil according to industry standard connector form B for cable plug Type 2507							
CF A 2/2-way solenoid valve Direct-acting Normally closed  	G ⅛	1.6	0.06	024/DC	0...6	163545	163551
				230/50	0...12	163546	163552
	G ⅛	2.0	0.11	024/DC	0...4.5	163547	163553
				230/50	0...8	163548	163554
	G ⅛	2.4	0	024/DC	0...3	163549	163555
				230/50	0...6	163550	163556
	Sub-base	1.2		024/DC	0...12	163557	163563
				230/50	0...21	163558	163564
	Sub-base	1.6		24/DC	0...6	163559	163565
				50	0...12	163560	163566
	Sub-base			4/DC	0...4.5	163561	163567
				230/50	0...8	163562	163568

1.) Pressure data: overpressure to atmosph

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Plastic variant with plu

Circuit function		Voltage/ requency [V/Hz]	Pressure range [1.)] [bar]	Seal material	Article no.
Solenoid and co		**l and plastic housing with hose plug connection for external hose with diameter 6 mm B for cable plug Type 2507**			
CF	0.06	230/50	6	FKM	319647
	0.15	230/50	3	FKM	319650

1.) Pressure data: essure to atmospheric pressure

6.5. Ordering chart accessories

Single manifold

Note:
Further ordering information can be found in chapter "5.3. Single manifold" on page 8.

Multiple manifold

Note:
Further ordering information can be found in chapter "5.4. Multiple manifold" on page 8.

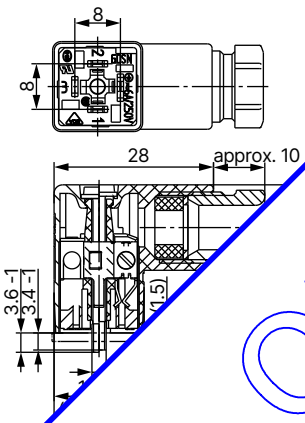
Accessories for manifolds

Accessory	Features	Article no.
Lock screw	With seal ring, G ⅛	005041
Cover plate	For unoccupied valve position	005100

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 fastening screw.
- For further variants see data sheet **Type 2516** ▶.

Cable plug	Dimensions	Variant	Voltage	Article no.
		Without wiring	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

Phase out

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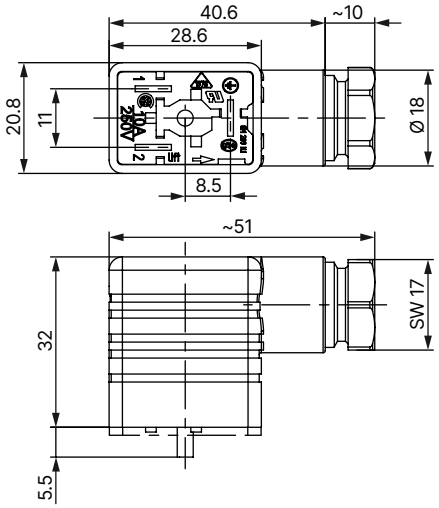
Cable plug Type 2507, form B according to industry standard

Note:

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

Cable plug	Dimensions	Variant	Voltage	Article no.
		Without wiring (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	12...24 V AC/DC	423853
			2...250 V AC/DC	423854

Phase out

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