





## 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

	<b>Type 2507</b> Cable plug - industry standard plug Form B	▶
	<b>Type 2516</b> Cable plug DIN EN 175301 - 803 - form C	▶

### Type description

Valve 6011 is a direct-acting plunger valve. The stopper and plunger guide tube are welded together to enhance pressure resistance and leak-tightness. Various seal material combinations are available depending on the application. 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 - 803 Form C, the valves satisfy protection class IP65.

## Table of contents

<b>1. General Technical Data</b>	<b>3</b>
<hr/>	
<b>2. Circuit functions</b>	<b>3</b>
<hr/>	
<b>3. Materials</b>	<b>4</b>
3.1. Chemical Resistance Chart – Bürkert resistApp.....	4
3.2. Material specifications .....	4
Standard version.....	4
Plastic version with plug-in coupling .....	4
<hr/>	
<b>4. Dimensions</b>	<b>5</b>
4.1. Single manifold .....	5
4.2. Multiple manifold .....	5
4.3. Version with coil acc. to DIN EN 175301 - 803 Form C for cable plug Type 2516 .....	6
PIN Assignments .....	6
4.4. Version with coil acc. to industry standard connector Form B for cable plug Type 2507 .....	7
4.5. Plastic version with plug-in coupling .....	7
<hr/>	
<b>5. Ordering information</b>	<b>8</b>
5.1. Bürkert eShop – Easy ordering and quick delivery.....	8
5.2. Bürkert product filter .....	8
5.3. Ordering chart.....	8
Standard version.....	8
Analytical version.....	10
Plastic version with plug-in coupling .....	11
5.4. Ordering chart accessories.....	11
Manifolds .....	11
Accessories for manifolds .....	11
Cable plug Type 2516 acc. to DIN EN 175301 - 803 Form C .....	11
Cable plug Type 2507 acc. to industry standard connector Form B .....	12

## 1. General Technical Data


Product properties	
Dimensions	Detailed information can be found in chapter "4. Dimensions" on page 5.
Material	
Seal	FKM
Body	Standard version: Brass, polyamide (PA), stainless steel 1.4305 Analytical version: Brass, stainless steel 1.4305
Weight	Ca. 125 g
Performance data	
Duty cycle/single valve when mounted as a block on a manifold	100 % continuous rating Intermittent operation 60 % (30 min) or with 2 W coil (on request)
Circuit function	A
Electrical data	
Operating voltage	
Standard version	24 V DC, 24 V/50 Hz, 110/230 V/50 Hz
Analytical version	24 V DC, 230 V/50 Hz
Voltage tolerance	± 10 %
Medium data	
Medium	
Standard version	Technical vacuum, neutral gases and fluids (e.g. compressed air, water, hydraulic oil)
Analytical version	Neutral/aggressive medium that do not attack the body and seal materials
Viscosity	Max. 21 mm <sup>2</sup> /s
Medium temperature	-10...+100 °C
Approvals and certificates	
Degree of protection	IP65 with cable plug
Process/Port connection & communication	
Port connection	
Standard version	M5, G 1/8, sub-base
Analytical version	G 1/8, sub-base
Electrical connection	To DIN EN 175 301 - 803 Form C for cable plug Type 2516 (see "5.4. Ordering chart accessories" on page 11) To industry standard connector Form B for cable plug Type 2507 (see "5.4. Ordering chart accessories" on page 11)
Environment and installation	
Installation position	As required, preferably with actuator upright
Ambient temperature (max.)	+ 55 °C
Installation instructions	No oil, grease or silicones to be used as installation aids

## 2. Circuit functions

Circuit functions	Description
	<b>Type: A, solenoid valve</b> 2/2 way Direct-acting Normally closed

### 3. Materials

#### 3.1. Chemical Resistance Chart – Bürkert resistApp



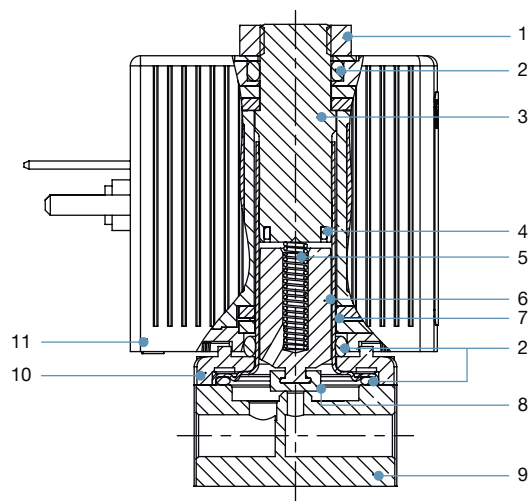
**Bürkert resistApp – Chemical Resistance Chart**

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start Chemical Resistance Check](#)

#### 3.2. Material specifications

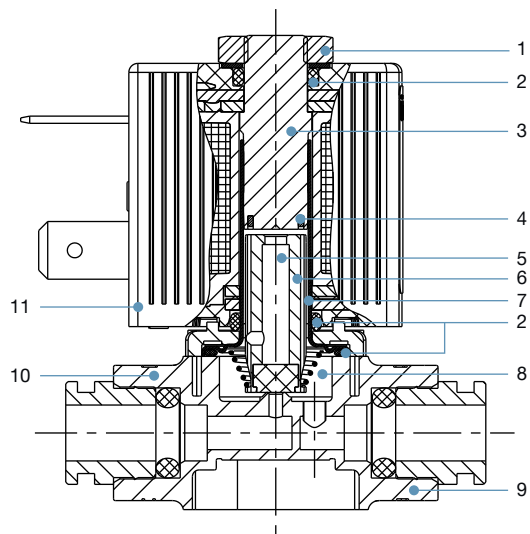
##### Standard version



No.	Element	Material
1	Locknut	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, PA (polyamide)
10	Sub-base	Thick-film passivated (brass version) Nickel-plated surface (stainless steel version)
11	Coil	DIN EN 175301 - 803 <sup>1)</sup> Form C: PA Industry standard connector Form B: Epoxy

1.) previously DIN 43650

##### Plastic version with plug-in coupling



No.	Element	Material
1	Locknut	9SMnPb28K Thick-film passivated
2	O-ring	FKM, EPDM
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, EPDM
9	Body	PA (polyamide)
10	Sub-base	Thick-film passivated (brass version) Nickel-plated surface (stainless steel version)
11	Coil	DIN EN 175301 - 803 <sup>1)</sup> Form C: PA Industry standard connector Form B: Epoxy

1.) previously DIN 43650

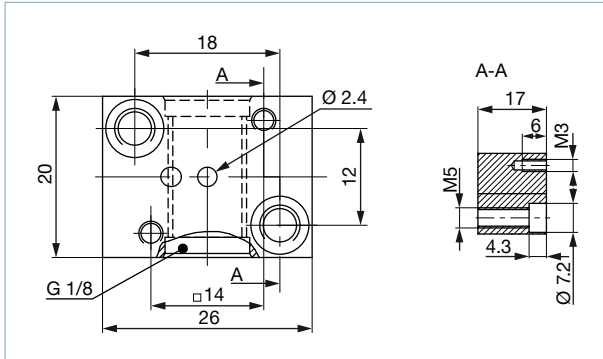
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## 4. Dimensions

### 4.1. Single manifold

**Note:**

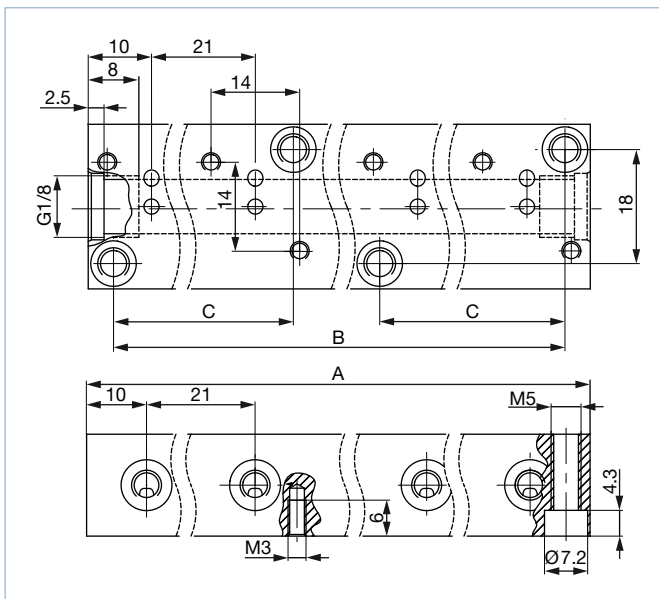
Dimensions in mm



### 4.2. Multiple manifold

**Note:**

Dimensions in mm

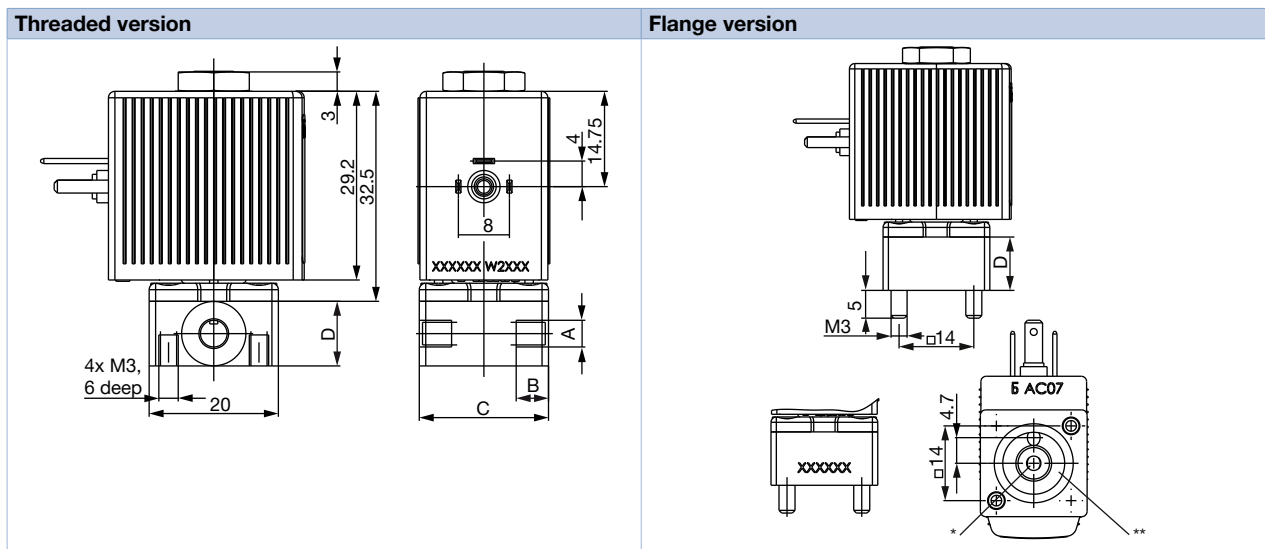


No. of valves	A [mm]	B [mm]	C [mm]
1	20	12	–
2	41	33	–
3	62	54	–
4	83	75	–
5	104	96	–
6	125	117	–
7	146	138	–
8	167	159	54
9	188	180	54
10	209	201	75
11	230	222	75
12	251	243	96

4.3. Version with coil acc. to DIN EN 175301 - 803 Form C for cable plug Type 2516

Note:

- The previous standard DIN 43650 has been replaced by DIN EN 175301 - 803 Form C.
- Dimensions in mm



Port connection	A	B	C	D
Thread	M5	5	20	10
Thread	G $\frac{1}{8}$	8	25	15
Sub-base	-	-	20	11

PIN Assignments

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

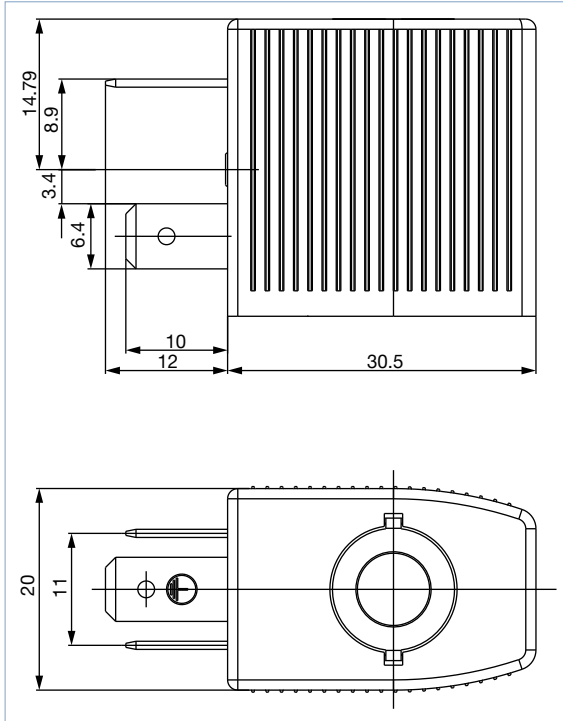
In vacuum applications the existing flow direction must be maintained. Vacuum must therefore always be applied to A. (Other terminal assignment on request)

**4.4. Version with coil acc. to industry standard connector Form B for cable plug Type 2507**

**Threaded version**

**Note:**

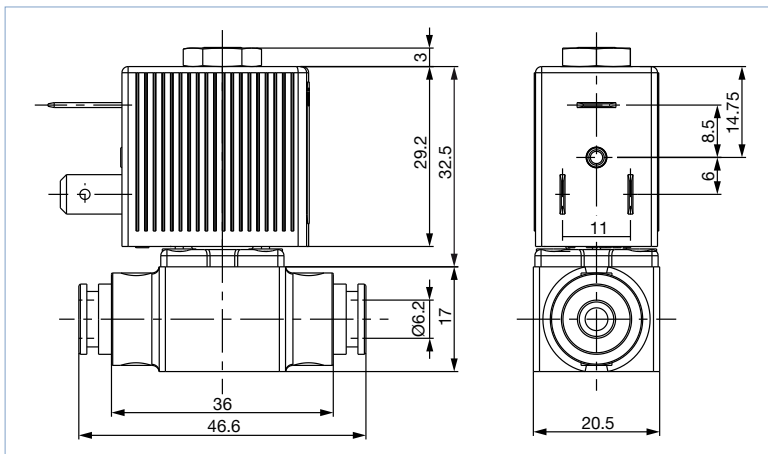
Dimensions in mm



**4.5. Plastic version with plug-in coupling**


**Note:**

Dimensions in mm



## 5. Ordering information

### 5.1. Bürkert eShop – Easy ordering and quick delivery




**Bürkert eShop – Easy ordering and fast delivery**

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### 5.2. Bürkert product filter



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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.

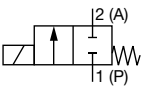
[Try out our product filter](#)

### 5.3. Ordering chart

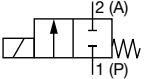
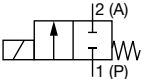
#### Standard version

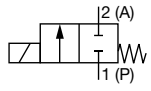
**Note:**

- All valves complete with coil and FKM seal material; without cable plug
- Other versions on request
- The previous standard DIN 43650 has been replaced by DIN EN 175301 - 803 Form C.

Circuit function	Orifice	Port connection	K <sub>v</sub> value water [m <sup>3</sup> /h]	Pressure range [bar] <sup>1)</sup>	Voltage/ Frequency [V/Hz]	Article no. Brass body	Article no. Stainless steel body
	[mm]						
<b>Solenoid valve complete in ported or flanged version with electrical coil connection to DIN EN 175 301 - 803 Form C for cable plug Type 2516</b>							
<b>A, solenoid valve</b> 2/2 way Direct-acting Normally closed  	1.2	M5	0.045	0...12	24/DC	134084	–
				0...21	24/50	134085	–
				0...21	110/50	134086	–
				0...21	230/50	134087	–
	1.6	M5	0.06	0...6	24/DC	134088	–
				0...12	24/50	134089	–
				0...12	110/50	134090	–
				0...12	230/50	134091	–
				0...6	24/DC	134071	134103
				0...12	24/50	134092	134104
				0...12	110/50	134093	134105
				0...12	230/50	134094	134106
	2.0	G 1/8	0.11	0...4.5	24/DC	134095	134107
				0...8	24/50	134096	134108
				0...8	110/50	134097	134109
				0...8	230/50	134098	134110



Circuit function	Orifice	Port connection	K <sub>v</sub> value water [m <sup>3</sup> /h]	Pressure range [bar] <sup>1)</sup>	Voltage/ Frequency [V/Hz]	Article no. Brass body	Article no. Stainless steel body	
	[mm]							
<b>A, solenoid valve</b> 2/2 way Direct-acting Normally closed  	2.4	G 1/8	0.13	0...3	24/DC	134099	134111	
				0...6	24/50	134100	134112	
				0...6	110/50	134101	134113	
				0...6	230/50	134102	134114	
	1.2	Sub-base	0.045	0...12	24/DC	134115	-	
				0...21	24/50	134116	-	
				0...21	110/50	134117	-	
				0...21	230/50	134118	-	
	1.6	Sub-base	0.06	0...6	24/DC	134119	134131	
				0...12	24/50	134120	134132	
				0...12	110/50	134121	134133	
				0...12	230/50	134122	134134	
	2.0	Sub-base	0.11	0...4.5	24/DC	134123	134135	
				0...8	24/50	134124	134136	
				0...8	110/50	134125	134137	
				0...8	230/50	134126	134138	
	2.4	Sub-base	0.13	0...3	24/DC	134127	-	
				0...6	24/50	134128	-	
				0...6	110/50	134129	-	
				0...6	230/50	134130	-	
	<b>Solenoid valve complete in ported or flanged version with electrical coil acc. to industry standard connector Form B for cable plug Type 2507</b>							
	<b>A, solenoid valve</b> 2/2 way Direct-acting Normally closed  	1.2	M5	0.045	0...12	24/DC	163491	-
					0...21	24/50	163492	-
					0...21	110/50	163493	-
0...21					230/50	163494	-	
1.6		M5	0.06	0...6	24/DC	163495	-	
				0...12	24/50	163496	-	
				0...12	110/50	163497	-	
				0...12	230/50	163498	-	
				G 1/8	0...6	24/DC	163499	163509
					0...12	24/50	163500	163510
0...12		110/50	163501		163511			
2.0		G 1/8	0.11	0...12	230/50	163502	163512	
				0...4.5	24/DC	163503	163513	
				0...8	24/50	163504	163514	
				0...8	110/50	163505	163515	
2.4		G 1/8	0.13	0...8	230/50	163506	163516	
				0...3	24/DC	161193	163517	
				0...6	24/50	163507	163518	
				0...6	110/50	163508	163519	
1.2		Sub-base	0.045	0...6	230/50	161194	163520	
				0...21	24/DC	163521	-	
				0...21	24/50	163522	-	
				0...21	110/50	163523	-	
1.6		Sub-base	0.06	0...21	230/50	163524	-	
	0...6			24/DC	163525	163537		
	0...12			24/50	163526	163538		
	0...12			110/50	163527	163539		
0...12	230/50	163528	163540					

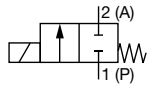
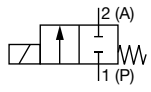
Circuit function	Orifice	Port connection	K <sub>v</sub> value water [m <sup>3</sup> /h]	Pressure range [bar] <sup>1.)</sup>	Voltage/ Frequency [V/Hz]	Article no. Brass body	Article no. Stainless steel body
	[mm]						
<b>A, solenoid valve</b> 2/2 way Direct-acting Normally closed 	2.0	Sub-base	0.11	0...4.5	24/DC	163529	163541
				0...8	24/50	163530	163542
				0...8	110/50	163531	163543
				0...8	230/50	163532	163544
	2.4	Sub-base	0.13	0...3	24/DC	163533	-
				0...6	24/50	163534	-
				0...6	110/50	163535	-
				0...6	230/50	163536	-

1.) Pressure data: Overpressure with respect to atmospheric pressure

**Analytical version**

**Note:**

- All valves complete with coil (4 W) and FKM seal material; without cable plug
- Other versions on request
- The previous standard DIN 43650 has been replaced by DIN EN 175301 - 803 Form C.

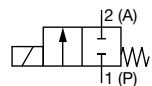
Circuit function	Orifice	Port connection	K <sub>v</sub> value water [m <sup>3</sup> /h]	Pressure range [bar] <sup>1.)</sup>	Voltage/ Frequency [V/Hz]	Article no. Brass body	Article no. Stainless steel body	
	[mm]							
<b>Solenoid valve complete in threaded or flanged version with electrical coil connection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

1.) Pressure data: Overpressure with respect to atmospheric pressure

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## Plastic version with plug-in coupling

Circuit function	Orifice	Seal material	K <sub>v</sub> value water	Pressure range	Voltage/requency	Article no.
	[mm]		[m <sup>3</sup> /h]			
<b>Solenoid valve complete with seal material FKM and plastic housing with hose plug connection for external hose with diameter 6 mm and coil acc. to industry standard connector Form B for cable plug Type 2507</b>						
<b>A, solenoid valve</b> 2/2 way Direct-acting Normally closed	1.5	FKM	0.06	6	230/50	319647
	2.7	FKM	0.15	3	230/50	319650



1.) Pressure data: Overpressure with respect to atmospheric pressure

## 5.4. Ordering chart accessories

## Manifolds

Material	No. of valves	Article no.
Aluminium, anodized	1	005312
	2	005355
	3	005313
	4	005314
	5	005315
	6	005316
	7	005893
	8	005166
	9	005241
	10	005819
	11	005242
	12	005222

## Accessories for manifolds

Accessory	Features	Article no.
Blanking plug	with seal ring, G 1/8	005041
Cover plate	for unused valves	005100

## Cable plug Type 2516 acc. to DIN EN 175301 -803 Form C






## Note:

- Delivery of cable plug includes a flat seal and a fixing screw.
- Further versions of cable plug with circuitry acc. to DIN EN 175 301 -803 Form C as well as detailed technical data, see data sheet **Type 2516**

Cable plug	Version	Voltage	Current	Article no.
	Without circuitry	0...250 V AC/DC	Max. 6 A	303141
	With LED	12...24 V AC/DC	Max. 3 A	303145
	With LED and varistor	12...24 V AC/DC	Max. 3 A	303148
	With rectifier, LED and varistor	12...24 V AC/DC	Max. 1 A	303142

**Cable plug Type 2507 acc. to industry standard connector Form B**
**Note:**

- Delivery of cable plug includes a flat seal and a fixing screw.
- Further versions of cable plug with circuitry acc. to industry standard connector Form B as well as detailed technical data, see data sheet **Type 2507** ▶.

Cable plug	Version	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	12...24 V AC/DC	423853 

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