





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 - industry standard plug Form B | ▶ |
|  | Type 2516 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.

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1. General Technical Data

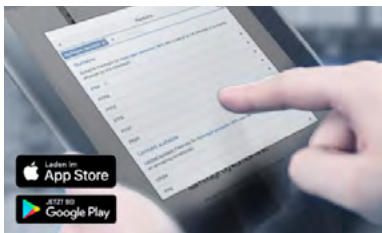
| Product properties | |
|---|---|
| Dimensions | Detailed information can be found in chapter "4. Dimensions" on page 5. |
| Material | |
| Seal | FKM |
| Body | Standard version: Brass, polyamide (PA), stainless steel 1.4305 Analytical version: Brass, stainless steel 1.4305 |
| Weight | Ca. 125 g |
| 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 ² /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 |
|---|---|
|  | Type: A, solenoid valve 2/2 way Direct-acting Normally closed |

3. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp



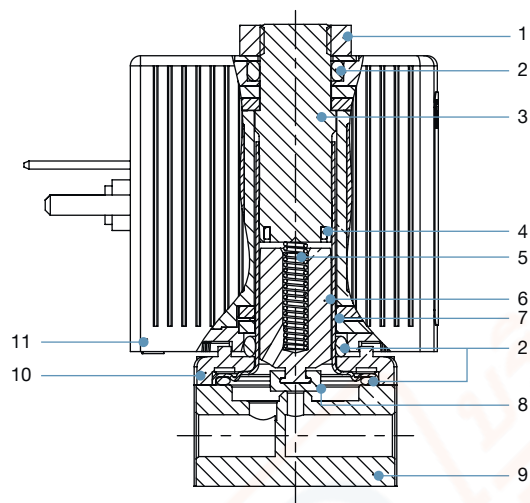
Bürkert resistApp – Chemical Resistance Chart

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

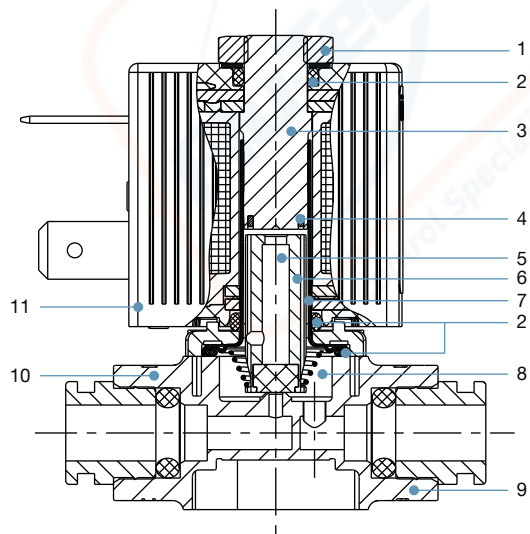
Standard version



| 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 ¹⁾ 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 ¹⁾ Form C: PA Industry standard connector Form B: Epoxy |

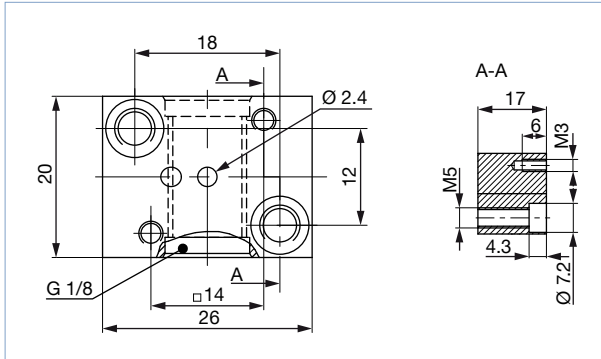
1.) previously DIN 43650

4. Dimensions

4.1. Single manifold

Note:

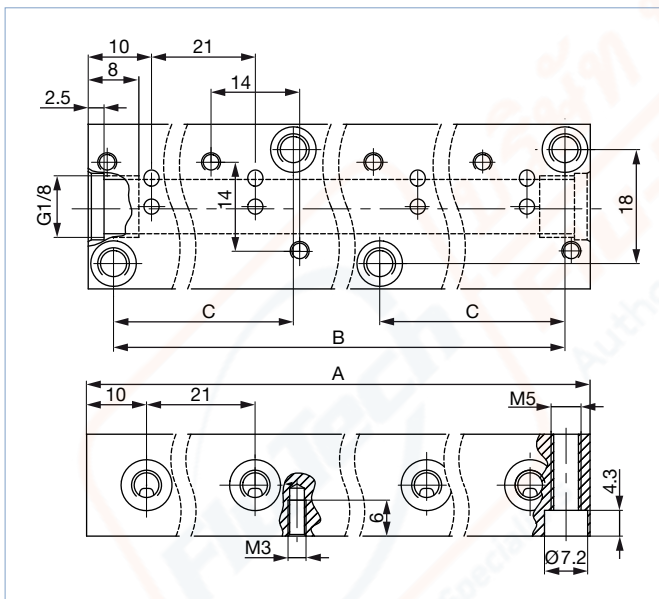
Dimensions in mm



4.2. Multiple manifold

Note:

Dimensions in mm



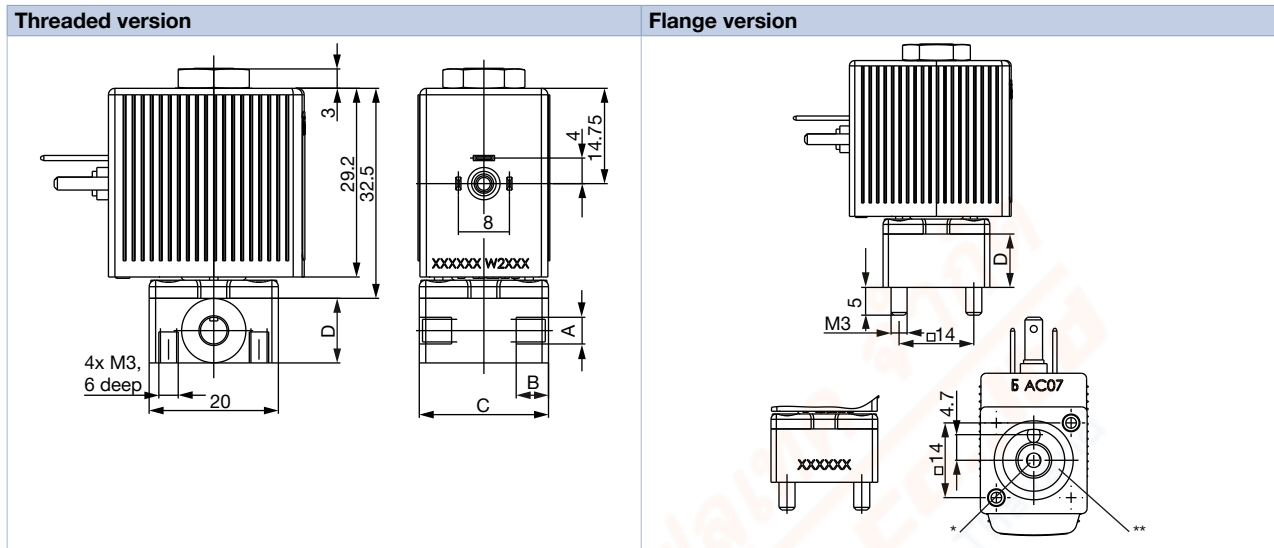
| No. of valves | A [mm] | B [mm] | C [mm] |
|---------------|-----------|-----------|-----------|
| 1 | 20 | 12 | - |
| 2 | 41 | 33 | - |
| 3 | 62 | 54 | - |
| 4 | 83 | 75 | - |
| 5 | 104 | 96 | - |
| 6 | 125 | 117 | - |
| 7 | 146 | 138 | - |
| 8 | 167 | 159 | 54 |
| 9 | 188 | 180 | 54 |
| 10 | 209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

DTS 1000011026 EN Version: U Status: RL (released | freigegeben | valide) printed: 26.01.2021

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

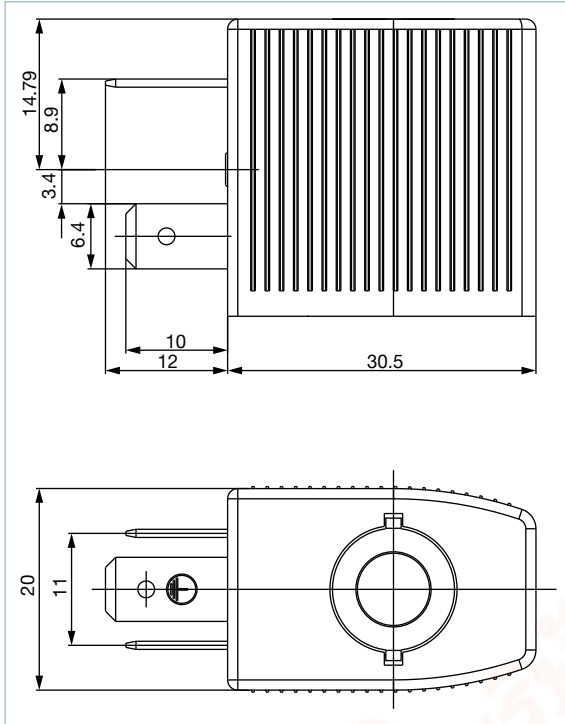
In vacuum applications the existing flow direction must be maintained. Vacuum must therefore always be applied to A. (Other terminal assignment on request)

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

Threaded version

Note:

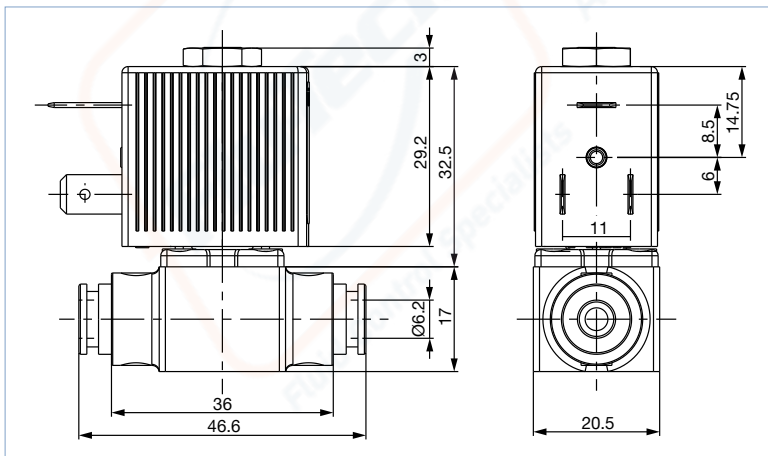
Dimensions in mm



4.5. Plastic version with plug-in coupling

Note:


Dimensions in mm



DTS 1000011026 EN Version: U Status: RL (released | freigegeben | valide) printed: 26.01.2021

5. Ordering information

5.1. Bürkert eShop – Easy ordering and quick delivery




Bürkert eShop – Easy ordering and fast 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](#)

5.2. 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.

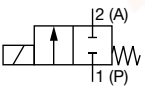
[Try out our product filter](#)

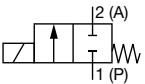
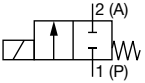
5.3. Ordering chart

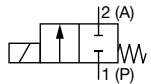
Standard version

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 _v value water [m ³ /h] | Pressure range [bar] ¹⁾ | Voltage/ Frequency [V/Hz] | Article no. Brass body | Article no. Stainless steel body |
|--|---------|-----------------|--|------------------------------------|---------------------------|------------------------|----------------------------------|
| | [mm] | | | | | | |
| 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 | | | | | | | |
| A, solenoid valve 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 |
| | 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 _v value water [m ³ /h] | Pressure range [bar] ¹⁾ | Voltage/ Frequency [V/Hz] | Article no. Brass body | Article no. Stainless steel body | | |
|--|----------|-----------------|---|---------------------------------------|---------------------------------|---------------------------|-------------------------------------|--------|--------|
| | [mm] | | | | | | | | |
| A, solenoid valve 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 | - | | |
| Solenoid valve complete in ported or flanged version with electrical coil acc. to industry standard connector Form B for cable plug Type 2507 | | | | | | | | | |
| A, solenoid valve 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 | 0.06 | 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...12 | | | | 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 | | | |
| 1.6 | Sub-base | 0.06 | 0...12 | 230/50 | 163528 | 163540 | | | |
| | | | 0...12 | 230/50 | 163528 | 163540 | | | |

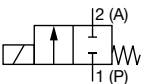
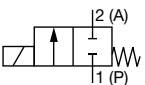
| Circuit function | Orifice | Port connection | K _v value water [m ³ /h] | Pressure range [bar] ^{1.)} | Voltage/ Frequency [V/Hz] | Article no. Brass body | Article no. Stainless steel body |
|--|---------|-----------------|---|--|---------------------------------|---------------------------|-------------------------------------|
| | [mm] | | | | | | |
| A, solenoid valve 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:

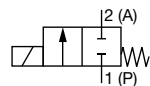
- All valves complete with coil (4 W) and FKM seal material; without cable plug
- Other versions on request
- The previous standard DIN 43650 has been replaced by DIN EN 175301 - 803 Form C.

| Circuit function | Orifice | Port connection | K _v value water [m ³ /h] | Pressure range [bar] ^{1.)} | Voltage/ Frequency [V/Hz] | Article no. Brass body | Article no. Stainless steel body | |
|--|--|-----------------|---|--|---------------------------------|---------------------------|-------------------------------------|--------|
| | [mm] | | | | | | | |
| 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 | | | | | | | | |
| A, solenoid valve 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 |
| | Solenoid valve complete in threaded or flanged version with electrical coil acc. to industry standard connector Form B for cable plug Type 2507 | | | | | | | |
| | A, solenoid valve 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

Plastic version with plug-in coupling

| Circuit function | Orifice | Seal material | K _v value water | Pressure range | Voltage/requency | Article no. |
|---|---------|---------------|----------------------------|----------------|------------------|-------------|
| | [mm] | | [m ³ /h] | | | |
| 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 | | | | | | |
| A, solenoid valve 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 |

Visit product website ▶

11 | 13

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  |