



Diaphragm valve, 2/2-way, servo-assisted

- Servo-assisted diaphragm valve up to DN20
- Medium-separated
- Body available in brass, stainless steel and plastic
- Circuit function NC and NO



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

Can be combined with



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

Type description

Type 6212 is a pilot-operated 2/2-way solenoid valve with servo diaphragm. The actuator is separated from the medium by a separating diaphragm. This allows use with slightly aggressive media. The housing program includes brass, stainless steel and plastic. The valve requires little electrical power, is lightweight and has a compact design. The special design and geometry of the valve internal parts ensure a soft closing function with only very low pressure peaks.

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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 | NBR, EPDM, FKM |
| Pilot flange body | PPS |
| Body | Brass, stainless steel |
| Housing cover | Stainless steel |
| Orifice | DN 10...DN 20 |
| Circuit function | A and B Further information can be found in chapter "2. Circuit functions" on page 3. |
| Performance data | |
| Duty cycle | 100 % continuous operation (with 24 V/DC) 40 %, 20 min. intermittent duty (with 110...120 V/UC, 230...240 V/UC) |
| Switching time ^{1.)} | Opening: 0.1...0.5 sec Closing: 0.2...2.2 sec |
| Electrical data | |
| Operating voltage | 24 V/DC (further voltages on request) |
| Power consumption | 3.4 W 110...120 V/UC, 230...240 V/UC: 4 W |
| Voltage tolerance | ± 10 % |
| Medium data | |
| Operating medium | Neutral and slightly aggressive, gaseous and liquid mediums that do not attack the housing and sealing materials. Further information can be found in chapter "4.1. Bürkert resistApp" on page 5 . |
| Medium temperature | |
| With NBR | +32 °F...+122 °F |
| With EPDM | +14 °F...+122 °F |
| With FKM | +32 °F...+122 °F |
| Viscosity | Max. 21 cSt (21 mm ² /s) |
| Process/Port connection & communication | |
| Electrical connection | Plug contacts according to DIN EN 175301 -803 form C for cable plug Type 2516 ▶. (Plug contact sideways at 24 V/DC, plug contact above at 110/230 V/UC, see "5. Dimensions" on page 6) |
| Port connections | NPT ¼ ...NPT 1 (G on request) Threaded sockets NPT ¾, NPT ½ (with PPE/PA housing) Further information can be found in chapter "Three-part connection set made of PPE/PA" on page 10. |
| Approvals and conformities | |
| Degree of protection | IP65 with cable plug |
| Environment and installation | |
| Installation position | As required, preferably with actuator upright |
| Ambient temperature | Max. +131 °F (with PPE/PA housing +122 °F) |

1.) Measurement at +68 °F, 87 psi at the valve outlet, opening: pressure build-up 0...90 %, closing: pressure reduction 100...10 %

2. Circuit functions

| Symbol | Description |
|--------|---|
| | Circuit function A (CF A) 2/2-way solenoid valve Servo-controlled Normally closed |
| | Circuit function B (CF B) 2/2-way solenoid valve Servo-controlled Normally open |

3. Approvals and conformities

3.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available versions 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.

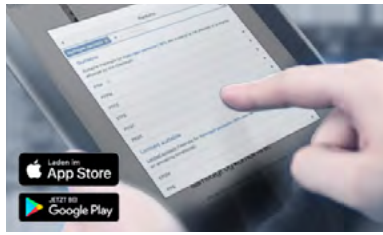
3.4. Drinking water

| Conformity | Description |
|---|---|
|  | <p>Suitable for use in drinking water applications (valid for nominal diameter 13) The materials comply with the assessment principles (UBA) for materials in contact with drinking water (TrinkwasserV).</p> <p>PF36: Suitable for products with a maximum temperature of 60 °C (warm water)</p> |

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4. Materials

4.1. Bürkert resistApp

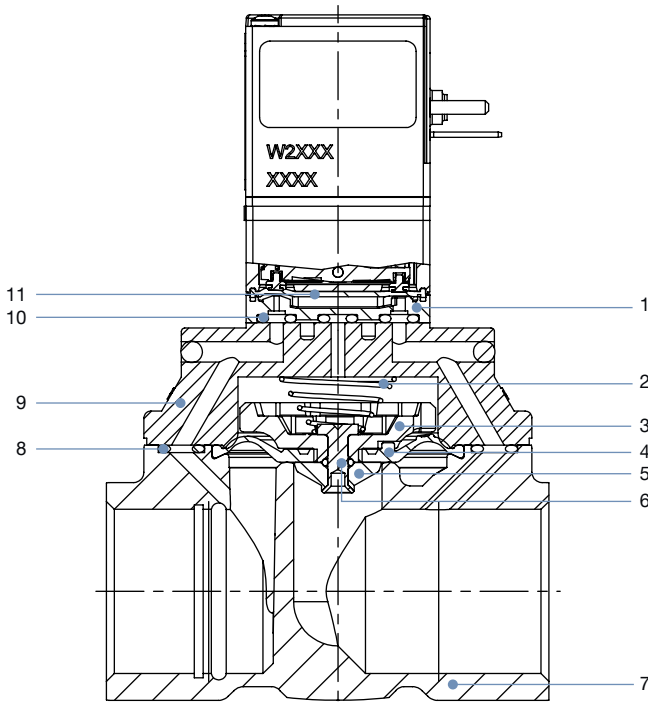


Bürkert resistApp – Chemical resistance chart

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



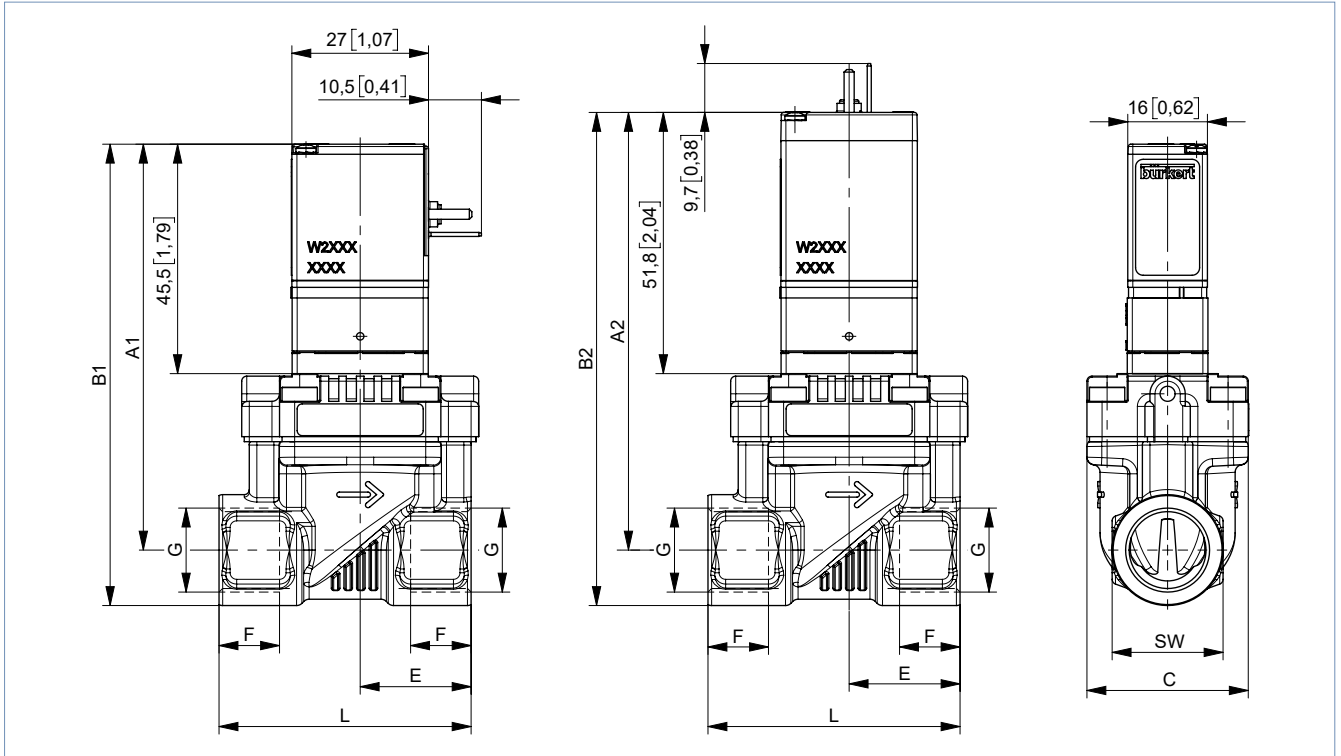
| No. | Element | Material |
|-----|----------------------|----------------------------------|
| 1 | Flange body | PPS |
| 2 | Pressure spring | Stainless steel |
| 3 | Diaphragm support | PPS |
| 4 | Diaphragm | NBR, FKM or EPDM |
| 5 | Diaphragm holder | PPS |
| 6 | Bolt | Brass or stainless steel |
| 7 | Valve body | Brass, stainless steel or PPE/PA |
| 8 | O-ring | FKM or EPDM |
| 9 | Cover | Stainless steel or PPE/PA |
| 10 | O-ring | NBR, FKM or EPDM |
| 11 | Separating diaphragm | FKM or EPDM |

5. Dimensions

5.1. Standard version with brass body or stainless steel body

Note:

Dimensions in mm [inch]



| DN | G | Tag connectors sideways | | | | Tag connectors above | | | | C | | E | | F | | L | | SW | |
|------------------|-----|-------------------------|------|--------|------|----------------------|------|--------|------|----|------|------|------|----|------|-----|------|----|------|
| | | A1 | | B1 | | A2 | | B2 | | | | | | | | | | | |
| | | [Zoll] | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [mm] | | | | | | | | | | |
| 10 | G ¼ | 80.5 | 1.26 | 91.5 | 3.60 | 86.8 | 3.42 | 97.8 | 3.85 | 32 | 1.26 | 22 | 0.87 | 12 | 0.47 | 50 | 1.97 | 22 | 0.87 |
| 10 | G ⅜ | 80.5 | 3.17 | 91.5 | 3.60 | 86.8 | 3.42 | 97.8 | 3.85 | 32 | 1.26 | 22 | 0.87 | 12 | 0.47 | 50 | 1.97 | 22 | 0.87 |
| 10 ¹⁾ | G ½ | 82.5 | 3.25 | 96 | 3.78 | 88.8 | 3.50 | 102.3 | 4.03 | 32 | 1.26 | 24.5 | 0.96 | 14 | 0.55 | 50 | 1.97 | 27 | 1.06 |
| 10 ²⁾ | G ½ | 82.5 | 3.25 | 96 | 3.78 | 88.8 | 3.50 | 102.3 | 4.03 | 32 | 1.26 | 24.5 | 0.96 | 14 | 0.55 | 55 | 2.17 | 27 | 1.06 |
| 13 | G ½ | 85 | 3.35 | 98.5 | 3.88 | 91.3 | 3.59 | 104.8 | 4.13 | 42 | 1.65 | 32.5 | 1.28 | 14 | 0.55 | 65 | 2.56 | 27 | 1.06 |
| 13 | G ¾ | 87 | 3.43 | 103 | 4.06 | 93.3 | 3.67 | 109.3 | 4.30 | 42 | 1.65 | 32.5 | 1.28 | 16 | 0.63 | 65 | 2.56 | 32 | 1.26 |
| 20 | G ¾ | 94 | 3.70 | 114.5 | 4.51 | 100.3 | 3.95 | 120.8 | 4.76 | 60 | 2.36 | 50 | 1.97 | 16 | 0.63 | 100 | 3.94 | 41 | 1.61 |
| 20 | G 1 | 94 | 3.70 | 114.5 | 4.51 | 100.3 | 3.95 | 120.8 | 4.76 | 60 | 2.36 | 50 | 1.97 | 18 | 0.71 | 100 | 3.94 | 41 | 1.61 |

1.) Brass version

2.) Stainless steel version

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

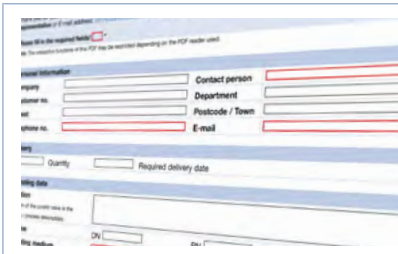
You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

6.3. Bürkert Product Enquiry Form

Note:

Please see our Product Enquiry Form for a full explanation of our specification key.



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.

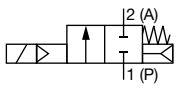
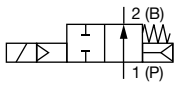
[Fill out the form now](#)

6.4. Ordering chart

Standard version with brass body

Note:

- Please note that the cable plug **Type 2516** ▶ is included. Further versions are available on request. For details see “**Cable plug Type 2516, form C according to DIN EN 175301-803**” on page 10.
- The electrical connection is located on the side.
- Available on request: 110...120 or 230...240 V coils with integrated rectifier and a varistor. They are therefore suitable for direct and alternating current. Only use cable plug without electronics assembly for this version.

| Circuit function | Port connection | Orifice | C _v value water ^{1.)} | Voltage/frequency | Pressure range ^{2.)} | Weight | Article no. NBR seal | Article no. FKM seal | Article no. EPDM seal |
|---|-----------------|---------|---|-------------------|-------------------------------|---------|----------------------|----------------------|-----------------------|
| | | [mm] | [gal/min] | [V/Hz] | [psi] | [lbs] | | | |
| Brass body, cover material PPE/PA, different sealing materials | | | | | | | | | |
| CF A 2/2-way solenoid valve Servo-controlled Normally closed  | NPT 3/8 | 10 | 2.2 | 024/DC | 2.9...145 ^{3.)} | 0.46 | o. r. | o. r. | o. r. |
| | NPT 1/2 | | | | | 0.53 | | | |
| | NPT 1/2 | 13 | 4.2 | 024/DC | 2.9...145 ^{3.)} | 0.64 | o. r. | o. r. | o. r. |
| | | | | | | NPT 3/4 | | | |
| | NPT 3/4 | 20 | 9.6 | 024/DC | 2.9...145 ^{3.)} | 2.27 | o. r. | o. r. | o. r. |
| | | | | | | NPT 1 | | | |
| CF B 2/2-way solenoid valve Servo-controlled Normally open  | NPT 3/8 | 10 | 2.2 | 024/DC | 2.9...87 ^{3.)} | 0.46 | o. r. | o. r. | o. r. |
| | NPT 1/2 | | | | | 0.53 | | | |
| | NPT 1/2 | 13 | 4.2 | 024/DC | 2.9...87 ^{3.)} | 0.64 | o. r. | o. r. | o. r. |
| | | | | | | NPT 3/4 | | | |
| | NPT 3/4 | 20 | 9.6 | 024/DC | 2.9...87 ^{3.)} | 2.27 | o. r. | o. r. | o. r. |
| | | | | | | NPT 1 | | | |

o. r. = on request

1.) Measurement at +68 °F, 14.5 psi^{2.)} at the valve inlet and free outlet

2.) Pressure data: overpressure to atmospheric pressure

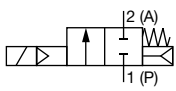
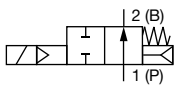
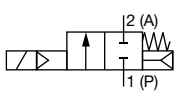
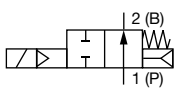
3.) A differential pressure of 7 psi is required to open the full cross section.

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Standard version with stainless steel body

Note:

- Please note that the cable plug **Type 2516** ▶ is included. Further versions are available on request. For details see **“Cable plug Type 2516, form C according to DIN EN 175301-803” on page 10.**
- The electrical connection is located on the side.
- Available on request: 110...120 or 230...240 V coils with integrated rectifier and a varistor. They are therefore suitable for direct and alternating current. Only use cable plug without electronics assembly for this version.

| Circuit function | Port connection | Orifice | C _v value water ^{1.)} | Voltage/frequency | Pressure range ^{2.)} | Weight | Article no. NBR seal | Article no. FKM seal | Article no. EPDM seal |
|---|-----------------|---------|---|-------------------|-------------------------------|--------|----------------------|----------------------|-----------------------|
| | | [mm] | [gal/min] | [V/Hz] | [psi] | [lbs] | | | |
| Stainless steel body, cover material stainless steel, different sealing materials | | | | | | | | | |
| CF A 2/2-way solenoid valve Servo-controlled Normally closed  | NPT 3/8 | 10 | 2.2 | 024/DC | 2.9...145 ^{3.)} | 0.60 | o. r. | o. r. | o. r. |
| | NPT 1/2 | | | | | 0.62 | o. r. | o. r. | o. r. |
| | NPT 1/2 | 13 | 4.2 | 024/DC | 2.9...145 ^{3.)} | 0.84 | o. r. | o. r. | o. r. |
| | NPT 3/4 | | | | | 0.90 | o. r. | o. r. | o. r. |
| | NPT 3/4 | 20 | 9.6 | 024/DC | 2.9...145 ^{3.)} | 2.47 | o. r. | o. r. | o. r. |
| | NPT 1 | | | | | 2.65 | o. r. | o. r. | o. r. |
| CF B 2/2-way solenoid valve Servo-controlled Normally open  | NPT 3/8 | 10 | 2.2 | 024/DC | 2.9...87 ^{3.)} | 0.60 | o. r. | o. r. | o. r. |
| | NPT 1/2 | | | | | 0.62 | o. r. | o. r. | o. r. |
| | NPT 1/2 | 13 | 4.2 | 024/DC | 2.9...87 ^{3.)} | 0.84 | o. r. | o. r. | o. r. |
| | NPT 3/4 | | | | | 0.90 | o. r. | o. r. | o. r. |
| | NPT 3/4 | 20 | 9.6 | 024/DC | 2.9...87 ^{3.)} | 2.47 | o. r. | o. r. | o. r. |
| | NPT 1 | | | | | 2.65 | o. r. | o. r. | o. r. |
| Stainless steel body, cover material PA/PPE, different sealing materials | | | | | | | | | |
| CF A 2/2-way solenoid valve Servo-controlled Normally closed  | NPT 3/8 | 10 | 2.2 | 024/DC | 2.9...145 ^{3.)} | 0.49 | o. r. | o. r. | o. r. |
| | NPT 1/2 | | | | | 0.57 | o. r. | o. r. | o. r. |
| | NPT 1/2 | 13 | 4.2 | 024/DC | 2.9...145 ^{3.)} | 0.62 | o. r. | o. r. | o. r. |
| | NPT 3/4 | | | | | 0.75 | o. r. | o. r. | o. r. |
| | NPT 3/4 | 20 | 9.6 | 024/DC | 2.9...145 ^{3.)} | 2.27 | o. r. | o. r. | o. r. |
| | NPT 1 | | | | | 1.87 | o. r. | o. r. | o. r. |
| CF B 2/2-way solenoid valve Servo-controlled Normally open  | NPT 3/8 | 10 | 2.2 | 024/DC | 2.9...87 ^{3.)} | 0.49 | o. r. | o. r. | o. r. |
| | NPT 1/2 | | | | | 0.57 | o. r. | o. r. | o. r. |
| | NPT 1/2 | 13 | 4.2 | 024/DC | 2.9...87 ^{3.)} | 0.62 | o. r. | o. r. | o. r. |
| | NPT 3/4 | | | | | 0.75 | o. r. | o. r. | o. r. |
| | NPT 3/4 | 20 | 9.6 | 024/DC | 2.9...87 ^{3.)} | 2.27 | o. r. | o. r. | o. r. |
| | NPT 1 | | | | | 1.87 | o. r. | o. r. | o. r. |

o. r. = on request

1.) Measurement at +68 °F, 14.5 psi^{2.)} at the valve inlet and free outlet

2.) Pressure data: overpressure to atmospheric pressure

3.) A differential pressure of 7 psi is required to open the full cross section.

Further versions on request

| | |
|---|---|
|  Voltage Non standard voltages, 110...120 V, 230...240 V |  Port connection G |
|  Material Housing material PPE/PA | |

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6.5. Ordering chart accessories

Three-part connection set made of PPE/PA

Note:

- You need two connection sets for one valve.
- The connection set is not included in the delivery and must be ordered separately.

| Accessories | Port connection | Orifice | Seal material | Article no. |
|-------------|-----------------|---------|---------------|-------------|
| | | [mm] | (O-ring) | |
| | G 3/8 | 10 | NBR | 142425 |
| | | | FPM | 142426 |
| | | | EPDM | 142427 |
| | G 1/2 | 13 | NBR | 142428 |
| | | | FPM | 142429 |
| | | | EPDM | 142430 |

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 versions see data sheet **Type 2516** ▶

| Cable plug | Dimensions | Version | 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 |

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