

## 3/2 way Seat Valve, for media up to +180 °C, DN15-50



For process valves with decentralized automation see ELEMENT Type 2106 (Start Q1 2016)



- Ultra compact version
- Long service life
- Valve body in gunmetal
- Various fluidic circuit and actuator control functions

Type 2002 can be combined with...



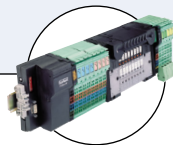
**Type 8697**

Electrical position feedback



**Type 6012/6014 P**

Pilot valve



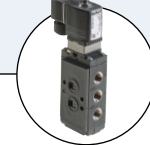
**Type 8640/8644**

Valve block



**Type 5470**

Solenoid valve



**Type 6519 NAMUR**

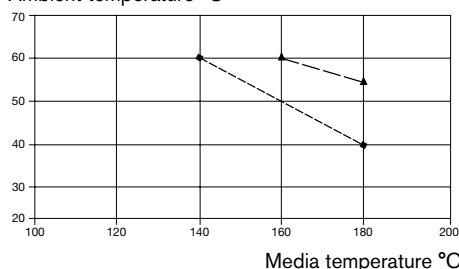
The pneumatically operated 3/2 way valve is operated with a piston actuator. The standard actuator material is PA. For high ambient temperatures (e.g. external sterilization) PPS is available on request for temperatures up to 140°. High flow rates are attained with the gunmetal 3-way body. The reliable self-adjusting packing gland provides high sealing integrity.

Various fluidic circuit functions can be obtained by a simple exchange of the pressure and service ports.

These maintenance-free and robust valves can be retro-fitted with a comprehensive range of accessories for position indication or manual override.

■ **Note:** For PA actuators in the sizes 50 and 63, the combination of max. media temperature and max. ambient temperature is as shown in the following chart:

Ambient temperature °C



| Technical data                                 |  |
|--|--|
| <b>Orifice</b>                                 | DN15 ... 50  |
| <b>Body materials</b>                          | Gunmetal   |
| <b>Actuator material</b>                       | PA (PPS on request)  |
| <b>Seal material</b>                           | PTFE   |
| <b>Media</b>                                   | Water, alcohol, oils, fuels, hydraulic fluid, alkaline solutions, salt solution, organic solutions, hot water, steam |
| <b>Viscosity</b>                               | Max. 600 mm <sup>2</sup> /s  |
| <b>Packing gland</b><br>(with silicone grease) | PTFE V-rings with spring compensation  |
| <b>Media temperature ■</b>                     | -10 ... +180 °C  |
| <b>Ambient temperature</b>                     |  |
| <b>PA actuator ■</b>                           | -10 ... +60 °C   |
| <b>PPS actuator</b>                            |  |
| Actuator sizes Ø 50 ... 80                     | +5 ... +140 °C   |
| Actuator sizes Ø 100 ... 125                   | +5 ... +90 °C, (up to 140 °C for a short period)   |
| <b>Installation</b>                            | As required, preferably with actuator in upright position  |
| <b>Control medium</b>                          | Neutral gases, air   |
| <b>Max. pilot pressure</b>                     | 10 bar<br>7 bar with actuator Ø 125  |
| <b>Port connections</b>                        | Threaded port ISO228   |

Ordering chart for valves with port 1 closed by spring action (other versions on request)

| Control function                         | Port connection | Orifice [mm] | Actuator size Ø [mm] | K <sub>v</sub> value water [m <sup>3</sup> /h] |       | Min. pilot pressure [bar] | Max. operating pressure to 180 °C [bar] |                | Weight | Item no. PA actuator |
|--|-----------------|--------------|----------------------|--|-------|---------------------------|---|----------------|--------|----------------------|
|  |                 |              |                      | 1 → 2  | 2 → 3 |                           | 1 → 2                                   | 2 → 3<br>2 → 1 |        |                      |
| A 3/2 way, normally closed (NC) (port 1) | G ½             | 15           | 50                   | 7  | 4.5   | 4.4                       | 11                                      | 16             | 1.3    | 002131               |
|  |                 |              | 63                   | 9  | 5.5   | 4.7                       | 16                                      | 16             | 1.6    | 002300               |
|  | G ¾             | 20           | 50                   | 8.9  | 6.3   | 4.4                       | 11                                      | 16             | 1.3    | 002132               |
|  |                 |              | 63                   | 10.5   | 6.5   | 4.7                       | 16                                      | 16             | 1.6    | 002301               |
|  | G 1             | 25           | 63                   | 17   | 11    | 4.9                       | 10                                      | 16             | 2.1    | 002133               |
|  |                 |              | 125                  | 38   | 24    | 3.4                       | 14                                      | 16             | 8.1    | 002302               |
|  | G 1 ¼           | 32           | 80                   | 32   | 22    | 6.0                       | 9                                       | 16             | 4.3    | 002134               |
|  |                 |              | 125                  | 38   | 24    | 3.4                       | 14                                      | 16             | 8.1    | 002303               |
|  | G 1 ½           | 40           | 80                   | 34   | 24    | 6.0                       | 9                                       | 16             | 4.3    | 002135               |
|  |                 |              | 125                  | 40   | 26    | 3.4                       | 14                                      | 16             | 8.1    | 002303               |
|  | G 2             | 50           | 125                  | 55   | 37    | 4.3                       | 10                                      | 16             | 9.5    | 002136               |

**i Further versions on request**



**Materials**  
Actuator in PPS

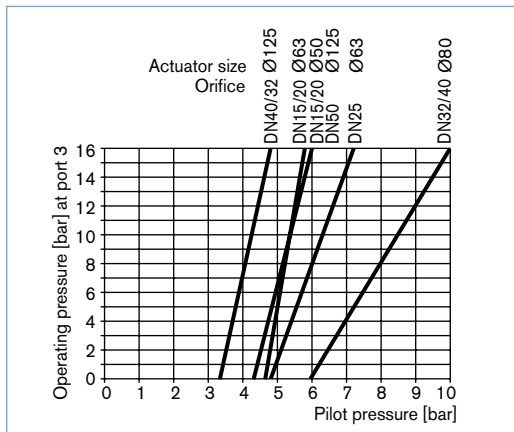


**Control functions**  
Normally open (B), Double-acting (I)



**Approvals**  
GL

**Pilot pressure chart** (CFA, flow direction 3 → 2)



**Ordering chart for accessories**

**3/2 way pilot valves with banjo bolts**

Seal material valve FKM, seal material banjo bolt NBR

| Valve for actuator size [Ø mm] | Type  | Pressure inlet P (valve body) | Service port A (banjo bolt) | Orifice [mm] | Q <sub>Nn</sub> value air [l/min] | Pressure range [bar] | Electrical coil connection Ind. Std. | Power consumption [W] | Item no. Voltage/frequency [V/Hz] |        |
|--------------------------------|-------|-------------------------------|-----------------------------|--------------|-----------------------------------|----------------------|--------------------------------------|-----------------------|-----------------------------------|--------|
|                                |       |                               |                             |              |                                   |                      |                                      |                       | 024/DC                            | 230/50 |
| 50 ... 63                      | 6012P | Tube fitting Ø 6 mm           | G ¼                         | 1.2          | 48                                | 0 ... 10             | Form B                               | 4                     | 552283                            | 552286 |
| 50 ... 125                     | 6014P | G ¼                           | G ¼                         | 2            | 120                               | 0 ... 10             | Form A                               | 8                     | 424103                            | 424107 |

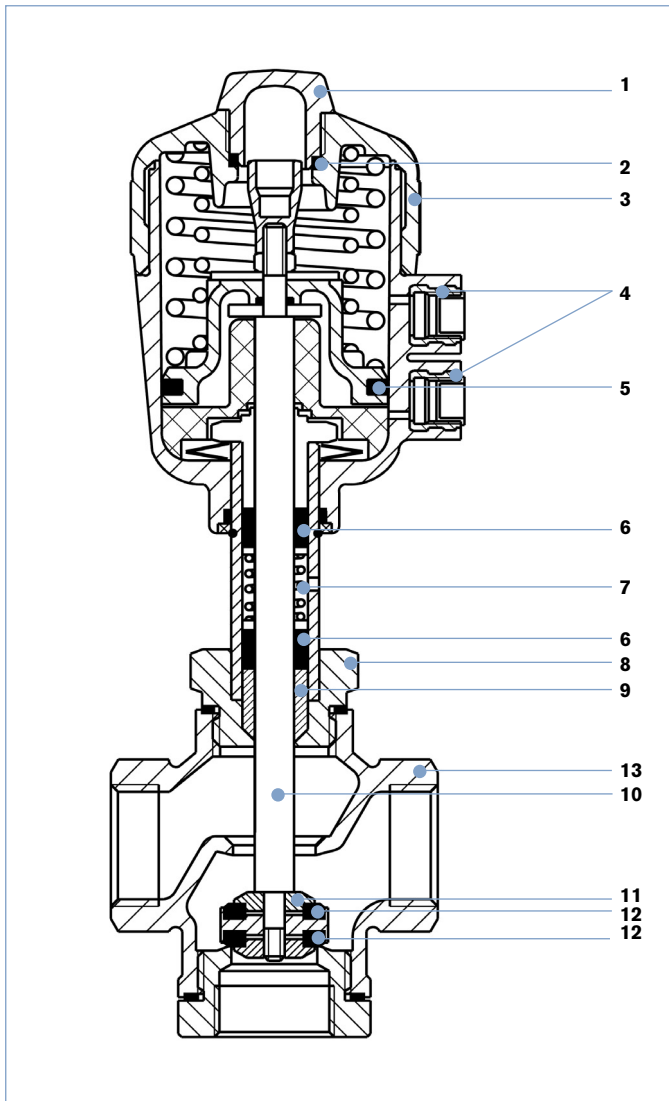
**Cable plug Type 2507, Form B or Type 2508, Form A**

|  | Item no. |
|--|----------|
| Type 2507, Form B Industrial standard, 0 ... 250 V without circuitry (Type 6012 P)                 | 423845   |
| Type 2508, Form A acc. DIN EN 175 301-803, 0 ... 250 V without circuitry (Type 6014 P, Type 0331P) | 008376   |

For further accessories see Type 1062, page 238 or the accessories datasheet Type 2XXX for the full options programme.

**Note:** For design reasons, some of the accessories cannot be supplied for actuator size Ø 40 mm. Please request the accessories datasheet Type 2XXX.

## Materials



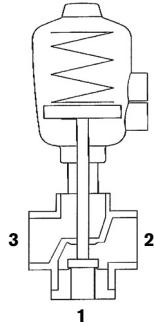
| Description           | Material                    |
|-----------------------|-----------------------------|
| 1 Transparent cap     | Polycarbonate (PC)          |
| 2 O-Ring              | FKM                         |
| 3 Actuator            | Polyamide (PA)              |
| 4 Pilot air ports G ¼ | Brass                       |
| 5 Cylinder seal       | NBR                         |
| 6 V-seals             | PTFE                        |
| 7 Tension spring      | 1.4310                      |
| 8 Nipple              | Brass CuZn                  |
| 9 Wiper               | PTFE                        |
| 10 Spindle            | 1.4401                      |
| 11 Plug               | CuZn36Pb1.5                 |
| 12 Seals              | PTFE                        |
| 13 Valve body         | Gunmetal<br>G-CuSn5ZnPb2%Ni |

**Connections for fluidic circuit functions C, D, E and F**

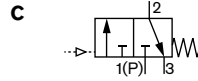
Actuator with control function A

When de-energised port connection 1 is closed with spring

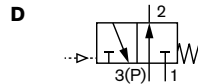
| Fluidic circuit function | Connection - port |   |    |
|--------------------------|-------------------|---|----|
|                          | 1                 | 2 | 3  |
| C                        | P                 | A | R  |
| D                        | R                 | A | P  |
| E                        | P1                | A | P2 |
| F                        | A                 | P | B  |



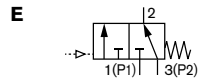
A, B service ports  
 P, P1, P2 pressure ports  
 R exhaust port



When de-energised, pressure port 1 closed, service port 2 exhausted

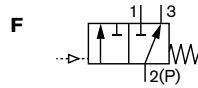


When de-energised, pressure port 3 connected to service port 2, exhaust port 1 closed



**Mixer valve**

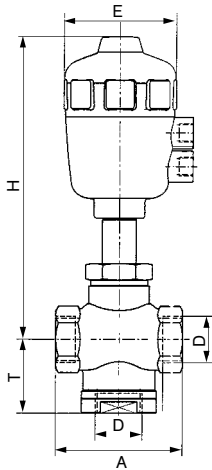
When de-energised, pressure port 3 connected to service port 2, pressure port 1 closed



**Distributor valve**

When de-energised, pressure port 2 connected to service port 3, service port 1 closed

**Dimensions [mm]**



| Orifice | Actuator size Ø | Port connection D | A   | E   | H   | T    |
|---------|-----------------|-------------------|-----|-----|-----|------|
| 15      | 50              | G ½               | 75  | 64  | 179 | 49   |
|         | 63              | G ½               | 75  | 80  | 213 | 49   |
| 20      | 50              | G ¾               | 75  | 64  | 179 | 49   |
| 25      | 63              | G 1               | 90  | 80  | 216 | 52.5 |
| 32      | 80              | G 1 ¼             | 120 | 101 | 237 | 66   |
|         | 125             | G 1 ¼             | 120 | 153 | 336 | 66   |
| 40      | 80              | G 1 ½             | 120 | 101 | 237 | 66   |
|         | 125             | G 1 ½             | 120 | 153 | 336 | 66   |
| 50      | 125             | G 2               | 160 | 153 | 350 | 85   |

To find your nearest Bürkert facility, click on the orange box →

[www.burkert.com](http://www.burkert.com)

In case of special application conditions, please consult for advice.

We reserve the right to make technical changes without notice.

1712/7\_EU-en\_00891664