

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...



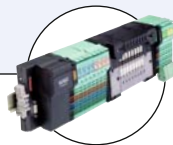
Type 8697

Electrical position feedback



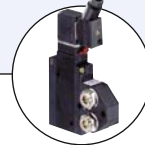
Type 6012/6014 P

Pilot valve



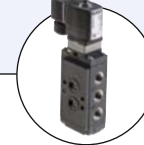
Type 8640/8644

Valve block



Type 5470

Solenoid valve



Type 6519 NAMUR

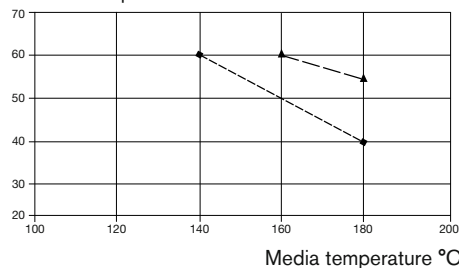
The pneumatically operated 3/2-way valve is operated with a piston actuator. The standard actuator material is PA. For high ambient temperatures (eg external sterilization) PPS is available on request for temperatures up to 140°. High flow rates are attained with the gunmetal 3-way body. The reliable 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 | |
|--|--|
| Orifice | DN 15 - 50 |
| Body materials | Gunmetal |
| Actuator material | PA (PPS on request) |
| Seal material | PTFE |
| Media | Water, alcohol, oils, fuels, hydraulic fluid, alkaline solutions, salt solution, organic solutions, hot water, steam |
| Viscosity | Max. 600 mm ² /s |
| Packing gland (with silicone grease) | PTFE V-rings with spring compensation |
| Media temperature ■ | -10 to +180 °C |
| Ambient temperature | |
| PA actuator ■ | -10 to +60 °C |
| PPS actuator | |
| Actuator sizes Ø 50-80 | +5 to +140 °C |
| Actuator sizes Ø 100-125 | +5 to +90 °C, (up to 140 °C for a short period) |
| Installation | As required, preferably with actuator in upright position |
| Control medium | Neutral gases, air |
| Max. pilot pressure | 10 bar 7 bar with actuator Ø 125 |
| Port connections | 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] | Kv value water [m ³ /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 2 → 1 | | |
| A 3/2-way, normally closed (NC) (port 1) | G 1/2 | 15 | 50 | 7 | 4.5 | 4.4 | 11 | 16 | 1.3 | 002 131 |
| | | | 63 | 9 | 5.5 | 4.7 | 16 | 16 | 1.6 | 002 300 |
| | G 3/4 | 20 | 50 | 8.9 | 6.3 | 4.4 | 11 | 16 | 1.3 | 002 132 |
| | | | 63 | 10.5 | 6.5 | 4.7 | 16 | 16 | 1.6 | 002 301 |
| | G 1 | 25 | 63 | 17 | 11 | 4.9 | 10 | 16 | 2.1 | 002 133 |
| | G 1 1/4 | 32 | 80 | 32 | 22 | 6.0 | 9 | 16 | 4.3 | 002 134 |
| | | | 125 | 38 | 24 | 3.4 | 14 | 16 | 8.1 | 002 302 |
| | G 1 1/2 | 40 | 80 | 34 | 24 | 6.0 | 9 | 16 | 4.3 | 002 135 |
| | | | 125 | 40 | 26 | 3.4 | 14 | 16 | 8.1 | 002 303 |
| | G 2 | 50 | 125 | 55 | 37 | 4.3 | 10 | 16 | 9.5 | 002 136 |

i Further versions on request



Materials
Actuator in PPS

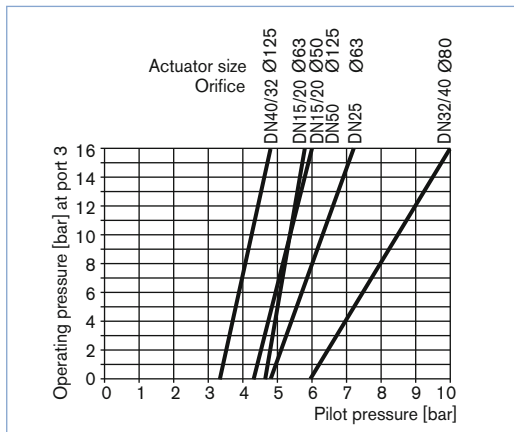


Control functions
Normally open (B), Double-acting (I)



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] | Qn 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 1/4 | 1.2 | 48 | 0-10 | Form B | 4 | 552 283 552 286 |
| 50-125 | 6014P | G 1/4 | G 1/4 | 2 | 120 | 0-10 | Form A | 8 | 424 103 424 107 |

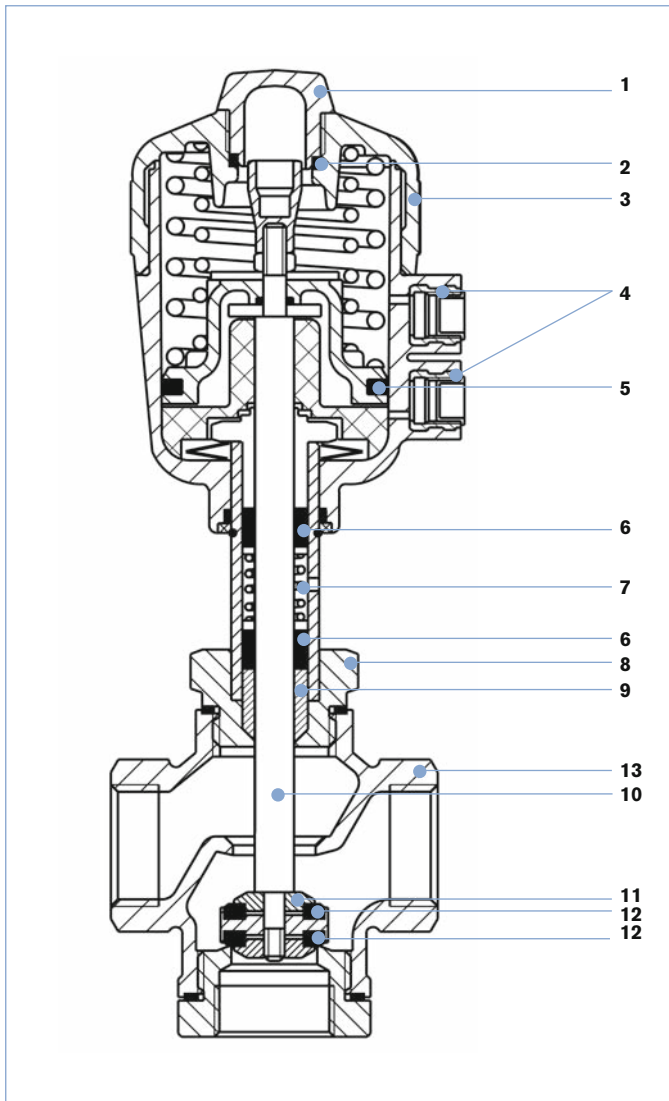
Cable plug Type 2507, Form B or Type 2508, Form A

| | Item no. |
|--|----------|
| Type 2507, Form B Industrial standard, 0 to 250 V without circuitry (Type 6012 P) | 423 845 |
| Type 2508, Form A acc. DIN EN 175301-803, 0 to 250 V without circuitry (Type 6014 P, Type 0331P) | 008 376 |

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



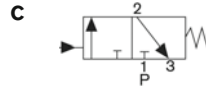
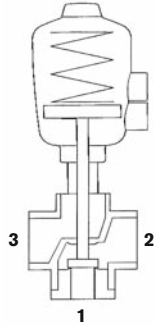
| Description | Material |
|-------------------------|-----------------------------|
| 1 Transparent cap | Polycarbonate (PC) |
| 2 O-Ring | FKM |
| 3 Actuator | Polyamide (PA) |
| 4 Pilot air ports G 1/4 | Brass |
| 5 Cylinder seal | NBR |
| 6 V-seals | PTFE |
| 7 Tension spring | 1.4310 |
| 8 Nipple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

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

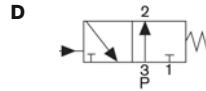
Actuator with control function A
When de-energised port connection 1 is closed with spring

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

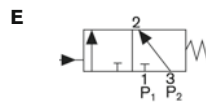
A, B service ports
P, P1, P2 pressure ports
R exhaust port



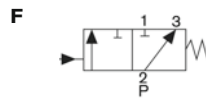
When de-energised, pressure port 1 closed, service port 2 exhausted



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

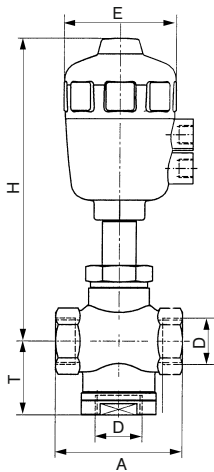


Mixer valve
When de-energised, pressure port 3 connected to service port 2, pressure port 1 closed



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 1/2 | 75 | 64 | 179 | 49 |
| | 63 | G 1/2 | 75 | 80 | 213 | 49 |
| 20 | 50 | G 3/4 | 75 | 64 | 179 | 49 |
| 25 | 63 | G 1 | 90 | 80 | 216 | 52.5 |
| 32 | 80 | G 1 1/4 | 120 | 101 | 237 | 66 |
| | 125 | G 1 1/4 | 120 | 153 | 336 | 66 |
| 40 | 80 | G 1 1/2 | 120 | 101 | 237 | 66 |
| | 125 | G 1 1/2 | 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

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

We reserve the right to make technical changes without notice.

1509/6_EU-en_00891664