

2006 3/2-way stainless steel



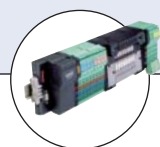
Pneumatically operated 3 way seat valve CLASSIC

- For mixing or distributing mediums
- Controlled by a pilot valve or centrally by a valve island
- Flow optimized body in stainless steel or brass/ stainless steel
- Long service life and maintenance-free operation

Type 2002 can be combined with...



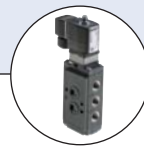
Type 6012/6014 P
Pilot valve



Type 8640/8644
Valve block



Type 5470
Solenoid valve



Type 6519 NAMUR



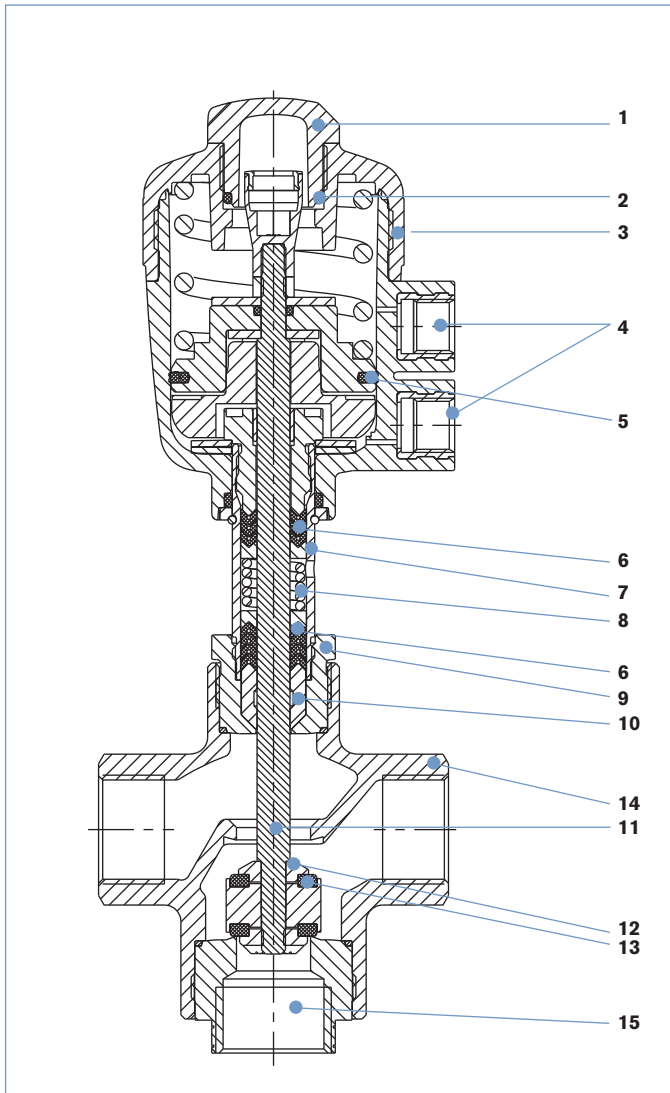
Type 8697
Feedback unit



The Bürkert 3 way seat valve, Type 2006, consists of a pneumatically operated CLASSIC actuator and a 3 way valve body. The actuator is available in two different materials, PA or PPS, depending on the ambient temperature. Available materials for the valve body include stainless steel and a brass/stainless steel variant. Interchanging of pressure and service ports enables different fluidic circuit functions, such as the mixing or distributing of mediums. The flow-optimized valve body of Type 2006 allows excellent flow rates. The tried and tested self-adjusting gland secures a high level of tightness and thus ensures reliable operation over years. The 3 way valve Type 2006 is controlled by a pilot valve, or by centralized automation using a valve island. It can be equipped easily with an electrical position indicator. For the user, the compact Type 2006 is thus often an economic alternative instead of two single shut-off valves.

| Technical data | |
|---|--|
| Orifice | DN 15 - 50 |
| Body materials | Stainless steel 316L |
| Nominal pressure | PN16 (body) |
| 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 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 | G thread acc. to EN ISO 228-1 NPT thread acc. to ANSI B 1.20.1 (RC thread on request) |

Materials



| Description | Material |
|-------------------------|---|
| 1 Transparent cap | Polycarbonate (PC) (with PPS - actuator PSU) |
| 2 O-Ring | FKM |
| 3 Actuator | Polyamide (PPS) |
| 4 Pilot air ports G 1/4 | Stainless steel 1.4305 |
| 5 Cylinder seal | NBR (with PPS - actuator FKM) |
| 6 Spindle seal | PTFE |
| 7 Tube ²⁾ | Stainless steel 1.4401 / 316 Stainless steel 1.4404 / 316L ³⁾ |
| 8 Tension spring | Stainless steel 1.4310 |
| 9 Nipple ²⁾ | Stainless steel 1.4401 / 316 Stainless steel 1.4404 / 316L ³⁾ |
| 10 Wiper | PTFE PEEK ¹⁾ |
| 11 Spindle | Stainless steel 1.4404 / 316L |
| 12 Plug | Stainless steel 1.4404 / 316L |
| 13 Seals | PTFE |
| 14 Valve body | Stainless steel 1.4404 / 316L |
| 15 Seat nipple | Stainless steel 1.4404 / 316L |

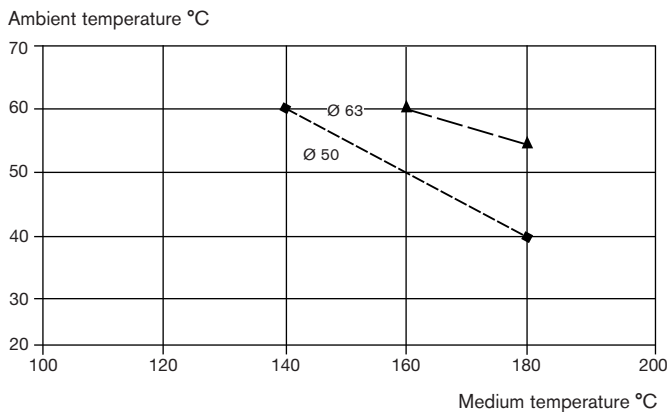
¹⁾ For actuator size 125 mm

²⁾ One-piece with the drive sizes 63 mm to 125 mm

³⁾ For actuator sizes 63 mm to 125 mm

Temperature chart

■ **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:

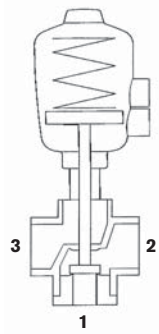


Connections for fluidic circuit functions C, D, E and F

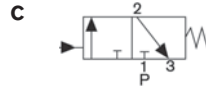
Actuator with control function A

When de-energised port connection 1 is closed with spring

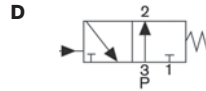
| Fluidic circuit function | Connection - port | | |
|--------------------------|-------------------|---|----|
| | 1 | 2 | 3 |
| C | P | A | R |
| D | R | A | P |
| E | P1 | A | P2 |
| F | A | P | B |



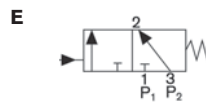
A, B service ports
P, P1, P2 pressure ports
R exhaust port



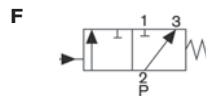
When de-energised, pressure port 1 closed, service port 2 exhausted



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

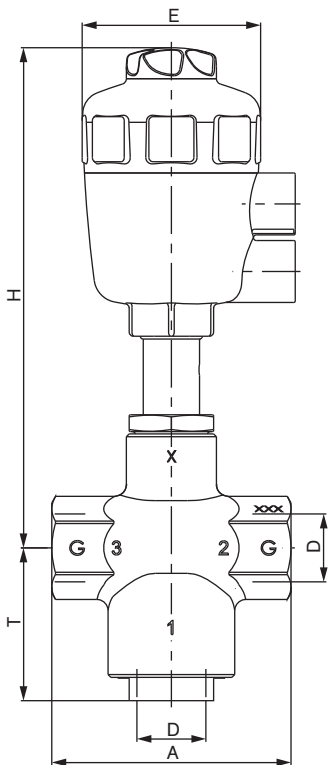


Mixer valve
When de-energised, pressure port 3 connected to service port 2, pressure port 1 closed



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 | 85 | 64 | 178 | 54 | |
| | 63 | | | 80 | | | 220 |
| 20 | 50 | G 3/4 | 85 | 64 | 178 | 54 | |
| | 63 | | | 80 | | | 220 |
| 25 | 63 | G 1 | 105 | 80 | 220 | 54 | |
| 32 | 80 | G 1 1/4 | 130 | 101 | 249 | 68 | |
| | 125 | | | 158 | | | 345 |
| 40 | 63 | G 1 1/2 | 130 | 80 | 226 | 68 | |
| | 80 | | | 101 | | | 249 |
| | 125 | | | 158 | | | 345 |
| 50 | 125 | G 2 | 150 | 158 | 352 | 72 | |

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

Threaded connection acc. to EN ISO 228-1

| Control function | Port connection | Orifice [mm] | Actuator size Ø [mm] | Kv value water [m³/h] | | Min. pilot pressure [bar] | Max. operating pressure to 180°C [bar] | | Weight [kg] | Item no. PA actuator | Item no. PPS 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 | 287 191 | 287 202 |
| | | | 63 | 8 | 4.5 | 4.7 | 16 | 16 | 1.6 | 287 192 | 287 203 |
| | G 3/4 | 20 | 50 | 9 | 6.2 | 4.4 | 11 | 16 | 1.3 | 287 193 | 287 204 |
| | | | 63 | 11 | 5.6 | 4.7 | 16 | 16 | 1.6 | 287 194 | 287 205 |
| | G 1 | 25 | 63 | 17 | 11 | 4.9 | 10 | 16 | 2.1 | 287 195 | 287 206 |
| | | | 80 | 32 | 21 | 6.0 | 9 | 16 | 4.3 | 287 196 | 287 207 |
| | G 1 1/4 | 32 | 125 | 35 | 24 | 3.4 | 14 | 16 | 8.1 | 287 197 | 287 208 |
| | | | 80 | 35 | 24 | 6.0 | 9 | 16 | 4.3 | 287 199 | 287 210 |
| | G 1 1/2 | 40 | 125 | 35 | 24 | 3.4 | 14 | 16 | 8.1 | 287 200 | 287 211 |
| | | | 50 | 51 | 35 | 4.3 | 10 | 16 | 9.5 | 287 201 | 287 212 |

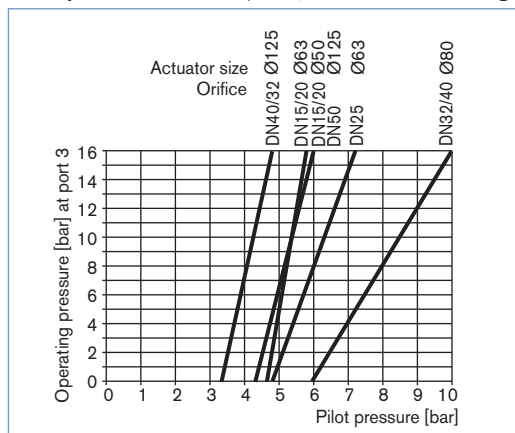
Threaded connection with NPT thread acc. to ANSI B 1.20.1

| Control function | Port connection | Orifice [mm] | Actuator size Ø [mm] | Kv value water [m³/h] | | Min. pilot pressure [bar] | Max. operating pressure to 180°C [bar] | | Weight [kg] | Item no. PA actuator | Item no. PPS actuator |
|--|-----------------|--------------|----------------------|-----------------------|-------|---------------------------|--|----------------|-------------|----------------------|-----------------------|
| | | | | 1 → 2 | 2 → 3 | | 1 → 2 | 2 → 3 2 → 1 | | | |
| A 3/2 way, normally closed (NC) (port 1) | NPT 1/2 | 15 | 50 | 7 | 4.5 | 4.4 | 11 | 16 | 1.3 | 292 542 | 292 553 |
| | | | 63 | 8 | 4.5 | 4.7 | 16 | 16 | 1.6 | 292 543 | 292 554 |
| | NPT 3/4 | 20 | 50 | 9 | 6.2 | 4.4 | 11 | 16 | 1.3 | 292 544 | 292 555 |
| | | | 63 | 11 | 5.6 | 4.7 | 16 | 16 | 1.6 | 292 545 | 292 556 |
| | NPT 1 | 25 | 63 | 17 | 11 | 4.9 | 10 | 16 | 2.1 | 292 546 | 292 557 |
| | | | 80 | 32 | 21 | 6.0 | 9 | 16 | 4.3 | 292 547 | 292 558 |
| | NPT 1 1/4 | 32 | 125 | 35 | 24 | 3.4 | 14 | 16 | 8.1 | 292 548 | 292 559 |
| | | | 80 | 35 | 24 | 6.0 | 9 | 16 | 4.3 | 292 550 | 292 560 |
| | NPT 1 1/2 | 40 | 125 | 35 | 24 | 3.4 | 14 | 16 | 8.1 | 292 551 | 292 561 |
| | | | 50 | 51 | 35 | 4.3 | 10 | 16 | 9.5 | 292 552 | 292 562 |

i Further versions on request

 Port connection
RC thread

Pilot pressure chart (CFA, flow direction 3 g 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 _N 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 ø6 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 the accessories datasheet Type 2XXX for the full options programme.

Type 8697 Pneumatic feedback unit

| End position feedback | | | | | | | | | | | |
|--------------------------------|-------------------------------|--------------------------------|---------------------|----------------------------|----------------------|-----------------------|--|--|---|-------|---|
| Inductive Switch 3-wire PNP | Inductive Switch 2-wire NAMUR | Inductive Switch 2-wire 24V DC | Micro Switch 24V DC | Micro Switch 50-250V AC/DC | Feedback status LEDs | Electrical connection | ATEX / IECEX Cat. 3D/G Zone 22/2 ²⁾ | ATEX / IECEX Cat. 2D/G Zone 21/1 ³⁾ | ATEX / IECEX Cat. 2G Zone 1 ⁴⁾ | cULus | Item no. Actuator series CLASSIC Types 20XX |
| Feedback (without pilot valve) | | | | | | | | | | | |
| 2 | | | | | yes | Cable gland | | | | yes | 248 827 |
| 2 | | | | | yes | Cable gland | yes | | | | 255 851 |
| 2 | | | | | yes | M12 connector | yes | | | | 255 858 |
| 2 | | | | | yes | M12 connector | | | | yes | 250 472 |
| | 2 | | | | yes | Cable gland | | yes | | | 248 831 |
| | 2 | | | | yes | Cable gland | | | yes | | 255 863 |
| | | 2 | | | yes | Cable gland | | | | yes | 248 826 |
| | | 2 | | | yes | Cable gland | yes | | | | 255 850 |
| | | | 2 | | | Cable gland | | | | yes | 248 833 |
| | | | | 2 | | Cable gland | | | | yes | 248 825 |

Note: cULus only valid for versions without ATEX approval

²⁾ II 3D Ex tc IIIC T135 / II 3G Ex nA IIC T4 Gc

³⁾ II 2D Ex ia IIIC T135°C IP64 / II 2G Ex ia IIC T4 Gb

⁴⁾ II 2G Ex ia IIC T4 Gb

Adapter kit

| Description | Actuator size | Control function | Item no. |
|-------------|---------------|------------------|----------|
| Feedback | Ø50/63/80 mm | universal | 682 264 |
| Feedback | Ø125 mm | universal | 682 265 |

Weitere Informationen siehe Datenblatt Typ 8697

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.

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