

## 2/2-Way, DN15-65, PN16, Cast iron



## Advantages / Benefits

- ▶ **High operating safety:**
  - Extended spindle guide and wiper seal with self-adjusting double packing glands
- ▶ **Maintenance-free actuator** with long-life piston ring
- ▶ **Easy to install:**
  - Infinitely rotatable actuator allows pneumatic connection in any position
- ▶ **Short face to face length** DIN 3202, F1
- ▶ **Cost savings in operation** due to minimized control air consumption
- ▶ **Standard optical position indication**
- ▶ **Comprehensive range of modular accessories** (as required)

## Design

The 2/2-way-operated globe valve is available with cast iron valve body.

The valve is operated with a single- or double-acting actuator. Standard material is polyamide, optional for ambient temperatures up to 140 °C is PPS (e.g. external sterilizing).

The reliable self-adjusting twin packing gland provides high sealing integrity.

- ON/OFF control function
- visual position indicator -> standard
- simple conversion of control functions (e.g. N/C to N/O or double-acting)
- safe and fast actuator servicing, due to no preloaded spring tension and few parts

### Optional accessories:

- manual override
- various electrical position feedbacks
- adjustable stroke limiters
- wide range of solenoid pilot valve systems

## Applications

### Fluids

Gases and liquids up to 16 bar

Steam up to 10 bar / 180°C (SIP)

Aggressive fluids (CIP-fluids)

### Industries

Systems engineering

Sterilizers

Food and beverage processing

Chemical industry



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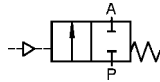
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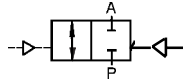
## Technical Data

### Control Functions

**A** 2/2-way flow valve,  
normally closed spring return

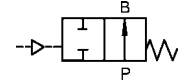


**I** 2/2-way flow valve,  
with double-acting actuator  
(on request)



### Control Functions

**B** 2/2-way flow valve,  
normally open spring return  
(on request)



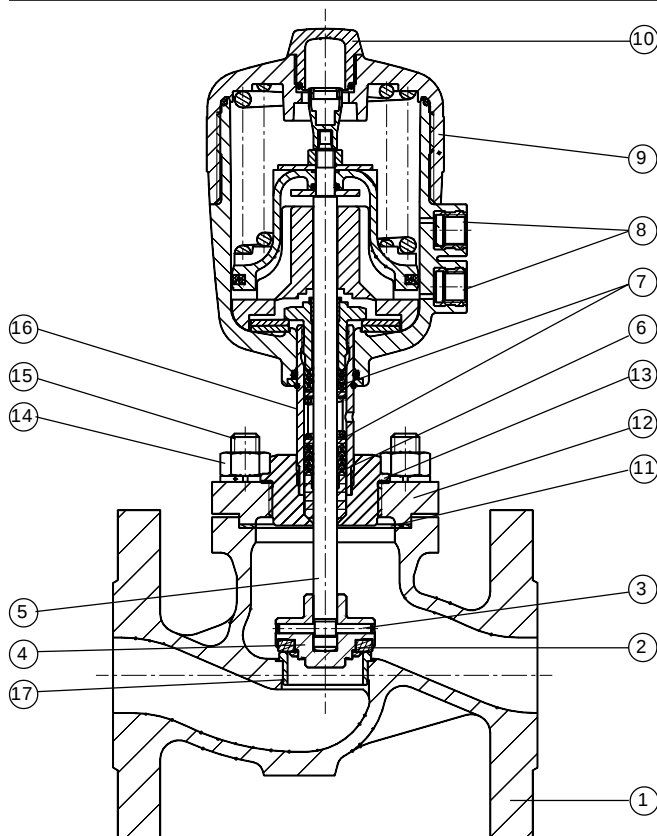
### Operating data, valve

|                                  |                            |
|----------------------------------|----------------------------|
| Valve body material              | Cast iron,                 |
| Flange connection                | DIN 2501                   |
| Orifice                          | DN 15-50                   |
| Nominal pressure                 | PN 16 according to DIN     |
| Max. operating pressure (medium) | 16 bar                     |
| Fluids                           | Neutral gases and liquids. |
| Max. viscosity                   | 600 mm <sup>2</sup> /s     |
| Fluid temperature                | min. -10 °C, max. +180 °C  |
| Ambient temperature              | min. -10 °C, max. +60 °C   |

### Operating data, actuator

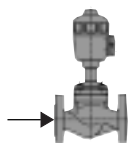
|                                   |                                                        |
|-----------------------------------|--------------------------------------------------------|
| Control pressure                  | see ordering chart                                     |
| Minimum control pressure          | flow below seat: 4.5 bar<br>flow above seat: see chart |
| Max. permissible control pressure | 10 bar (see ordering chart)                            |
| Control medium                    | Neutral gases, air                                     |
| Control connection                | G 1/4                                                  |
| Installation position             | as required, but preferably with actuator upright      |

### Materials



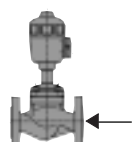
|                          |                |
|--------------------------|----------------|
| 1. Valve body:           | Grey cast iron |
| 2. Seat-Seal:            | PTFE           |
| 3. Pin:                  | 1.4401         |
| 4. Swivel plate:         | Brass          |
| 5. Spindle:              | 1.4401         |
| 6. Wiper:                | PTFE           |
| 7. V-seals:              | PTFE           |
| 8. Cone glands G1/4:     | Brass          |
| 9. Actuator casing:      | Polyamide      |
| 10. Position indication: | Polycarbonat   |
| 11. Seal:                | Graphite       |
| 12. Flange:              | GGG 40.3       |
| 13. Flat-seal:           | Klingerit      |
| 14. Locknut:             | A2L            |
| 15. Screw:               | A2L            |
| 16. Tube:                | Brass          |
| 17. Screwed single seat: | A2L            |

## Ordering Chart



**Control function A, normally closed**  
**Flow direction below seat**

| Nominal valve size | Orifice size [mm] | Actuator size [ømm] | Max. operating pressure (fluid) [bar] | Control pressure [bar] | Kv [m³/h] | Flow direction | Weight [kg] |  | Item-No.  |
|--------------------|-------------------|---------------------|---------------------------------------|------------------------|-----------|----------------|-------------|--|-----------|
| DN15               | 15.0              | 63                  | 10.0                                  | 4.2-10                 | 4.0       | below seat     | 3.5         |  | 424 277 Y |
| DN20               | 20.0              | 63                  | 10.0                                  | 4.2-10                 | 7.0       | below seat     | 4.3         |  | 424 278 H |
| DN25               | 25.0              | 63                  | 10.0                                  | 4.2-10                 | 12.0      | below seat     | 5.5         |  | 424 279 A |
| DN32               | 32.0              | 80                  | 10.0                                  | 5.0-10                 | 19.0      | below seat     | 6.8         |  | 424 280 Y |
| DN40               | 40.0              | 80                  | 7.5                                   | 5.0-10                 | 31.0      | below seat     | 8.7         |  | 424 281 M |
| DN40               | 40.0              | 100                 | 10.0                                  | 4.4-10                 | 31.0      | below seat     | 10.3        |  | 424 282 N |
| DN50               | 50.0              | 100                 | 7.5                                   | 4.4-10                 | 47.0      | below seat     | 13.5        |  | 424 283 P |
| DN50               | 50.0              | 125                 | 10.0                                  | 3.2- 7                 | 47.0      | below seat     | 15.5        |  | 424 284 Q |



**Control function A, normally closed**  
**Flow direction above seat**

| Nominal valve size | Orifice size [mm] | Actuator size [ømm] | Max. operating pressure (fluid) [bar] | Control pressure [bar] | Kv [m³/h] | Flow direction | Weight [kg] |  | Item-No.<br>Stainless steel |
|--------------------|-------------------|---------------------|---------------------------------------|------------------------|-----------|----------------|-------------|--|-----------------------------|
| DN15               | 15.0              | 63                  | 16.0                                  | See chart next page    | 4.0       | above seat     | 3.5         |  | 424 285 R                   |
| DN20               | 20.0              | 63                  | 16.0                                  |                        | 7.0       | above seat     | 4.3         |  | 424 286 J                   |
| DN25               | 25.0              | 63                  | 16.0                                  |                        | 12.0      | above seat     | 5.5         |  | 424 287 K                   |
| DN32               | 32.0              | 63                  | 16.0                                  |                        | 19.0      | above seat     | 6.5         |  | 424 288 U                   |
| DN40               | 40.0              | 63                  | 16.0                                  |                        | 31.0      | above seat     | 7.7         |  | 424 289 V                   |
| DN50               | 50.0              | 63                  | 16.0                                  |                        | 47.0      | above seat     | 10.7        |  | 424 290 S                   |

## Options (on request)

- Normally open or double-acting actuator
- PPS-actuator for ambient temperatures up to 140 °C
- Vacuum version
- Position feedback with Type 1062 or with external inductive switches
- Manual override
- NAMUR adapter for pilot valve
- Stroke adjustment (high/low flow)
- Positioner 1067

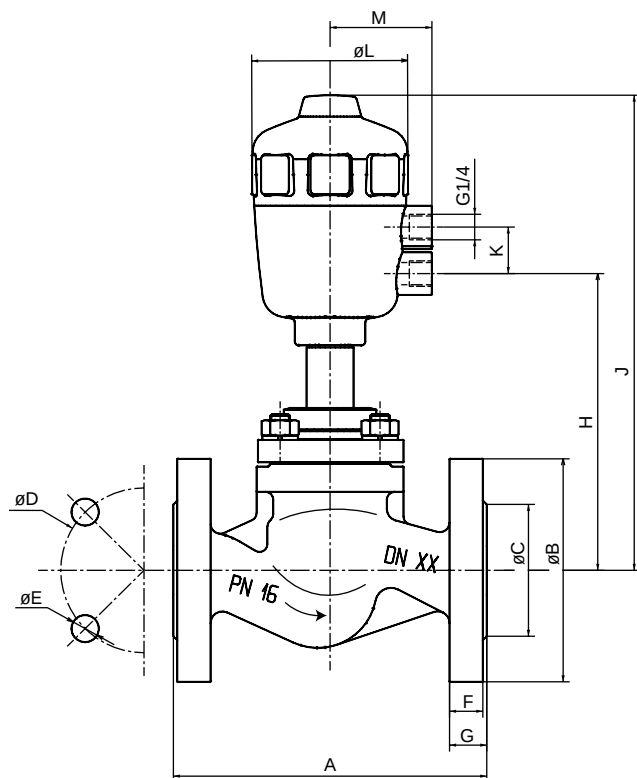
## Pneumatic pilot valve systems

Burkert offers a comprehensive range of pneumatic valve systems from single pilot valves up to multiple valve systems with different bus connections. Please ask for data sheet "Pneumatic Valve Actuation System for the Process Technology and Industry"

Example: Type 2010 with Burkert Banjo-pilot valve



## Dimensions [mm]

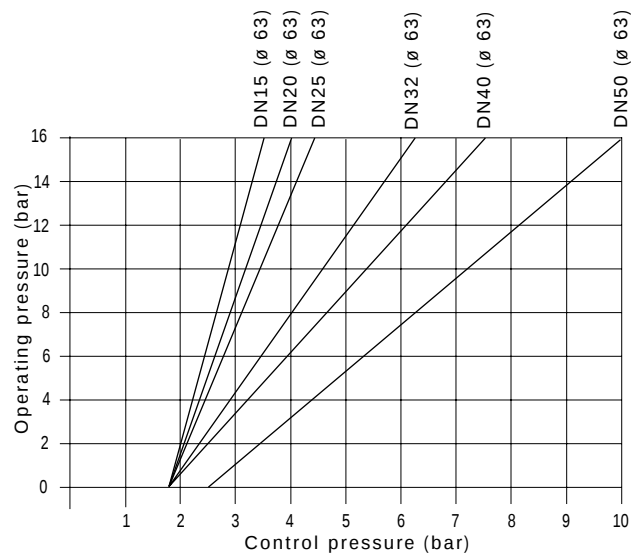


### Flow direction:

flow direction below seat →  
flow direction above seat ←

## Pressure chart

Control Function A, flow above seat



## Variable dimensions [mm]

| DN             | 15    | 20    | 25    | 32    | 32    | 40    | 40    | 40    | 50    | 50    | 50    |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Actuator [ømm] | 63    | 63    | 63    | 63    | 80    | 63    | 80    | 100   | 63    | 100   | 125   |
| A              | 130.0 | 150.0 | 160.0 | 180.0 | 180.0 | 200.0 | 200.0 | 200.0 | 230.0 | 230.0 | 230.0 |
| B              | 95.0  | 105.0 | 115.0 | 140.0 | 140.0 | 150.0 | 150.0 | 150.0 | 165.0 | 165.0 | 165.0 |
| C              | 45.0  | 55.0  | 68.0  | 78.0  | 78.0  | 87.0  | 87.0  | 87.0  | 102.0 | 102.0 | 102.0 |
| D              | 65.0  | 75.0  | 85.0  | 100.0 | 100.0 | 110.0 | 110.0 | 110.0 | 125.0 | 125.0 | 125.0 |
| E              | 14.0  | 14.0  | 14.0  | 18.0  | 18.0  | 18.0  | 18.0  | 18.0  | 18.0  | 18.0  | 18.0  |
| F              | 14.0  | 16.0  | 16.0  | 18.0  | 18.0  | 17.0  | 17.0  | 17.0  | 19.0  | 19.0  | 19.0  |
| G              | 16.0  | 18.0  | 18.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 22.0  | 22.0  | 22.0  |
| H              | 140.0 | 146.0 | 149.0 | 160.0 | 165.0 | 165.0 | 170.0 | 194.0 | 196.0 | 206.0 | 213.0 |
| J              | 232.0 | 238.0 | 241.0 | 252.0 | 275.0 | 257.0 | 280.0 | 347.0 | 288.0 | 359.0 | 391.0 |
| K              | 24.0  | 24.0  | 24.0  | 24.0  | 24.0  | 24.0  | 24.0  | 30.0  | 24.0  | 30.0  | 30.0  |
| L              | 80.0  | 64.0  | 64.0  | 80.0  | 101.0 | 80.0  | 101.0 | 127.0 | 80.0  | 127.0 | 153.0 |
| M              | 44.0  | 44.0  | 44.0  | 52.0  | 60.0  | 52.0  | 60.0  | 73.0  | 52.0  | 73.0  | 86.0  |



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