



## Pneumatically operated 2/2-way angle seat valve CLASSIC

- Stainless steel or gunmetal housing with threaded, clamped or welded connection
- Long service life
- High flow rate
- Robust actuators with modular accessory program



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

### Can be combined with

|                                                                                     |                                                                                                   |   |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---|
|   | <b>Type 8644</b><br>AirLINE SP electropneumatic automation system                                 | ► |
|  | <b>Type 8640</b><br>Modular valve island for pneumatics                                           | ► |
|  | <b>Type 8697</b><br>Pneumatic control unit for decentralised automation of process valves ELEMENT | ► |
|  | <b>Type 7012</b><br>Direct-acting 3/2-way plunger valve                                           | ► |
|  | <b>Type 6014</b><br>Plunger valve 3/2-way direct-acting                                           | ► |
|  | <b>Type 8840</b><br>Modular process valve cluster – distributor and collector                     | ► |

### Type description

The externally piloted angle seat valve is operated with a single or double-acting piston actuator. The actuator is available in two different materials, depending on the ambient temperature. High flow rates are attained with the virtually straight flow path. The reliable self-adjusting packing gland provides high sealing integrity. These maintenance-free and robust valves can be retrofitted with a comprehensive range of accessories for position indication, stroke limitation or manual override.

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## 1. General technical data

|                                                                                                        |                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product properties</b>                                                                              |                                                                                                                                                                                                                                 |
| Dimensions                                                                                             | Further information can be found in chapter <a href="#">"6. Dimensions" on page 12.</a>                                                                                                                                         |
| Material                                                                                               | Further information can be found in chapter <a href="#">"5. Materials" on page 10.</a>                                                                                                                                          |
| Design                                                                                                 | Angle seat valve                                                                                                                                                                                                                |
| Nominal diameter (port connection)                                                                     | DN 10...DN 80, NPS 3/8...NPS 3                                                                                                                                                                                                  |
| Safety setting in case of power failure                                                                | Normally closed (control function A), normally open (control function B)                                                                                                                                                        |
| Flow direction                                                                                         | Flow to open (below seat), flow to close (above seat)                                                                                                                                                                           |
| <b>Performance data</b>                                                                                |                                                                                                                                                                                                                                 |
| Operating pressure                                                                                     | 0 bar(g)...25 bar(g), vacuum variants...- 0.9 bar(g) (option) (see <a href="#">"7.1. Fluidic data" on page 16</a> )                                                                                                             |
| Nominal pressure                                                                                       | PN 25 (DIN EN 1333), Class 150 (DIN EN 1759)                                                                                                                                                                                    |
| Pilot pressure                                                                                         | 2...10 bar(g) (see <a href="#">"7.1. Fluidic data" on page 16</a> )                                                                                                                                                             |
| Seat leakage                                                                                           | Leakage rate A (DIN EN 12266 - 1), seat seal PTFE and PEEK, test medium air                                                                                                                                                     |
| K <sub>v</sub> value                                                                                   | 1.6...140 m³/h (see <a href="#">"7.1. Fluidic data" on page 16</a> )                                                                                                                                                            |
| <b>Medium data</b>                                                                                     |                                                                                                                                                                                                                                 |
| Operating medium                                                                                       | Steam, water, neutral gases, alcohols, oils, fuels, hydraulic fluids, salt solutions, alkalis, organic solvents, oxygen and fuel gases of families I, II and III in accordance with the Gas Appliances Regulation (EU) 2016/426 |
| Medium temperature                                                                                     | - 40...+ 230 °C (see <a href="#">"7.2. Operating limits" on page 23</a> )                                                                                                                                                       |
| Viscosity                                                                                              | Max. 600 mm²/s                                                                                                                                                                                                                  |
| Control medium                                                                                         | Air, neutral gases                                                                                                                                                                                                              |
| <b>Product connections</b>                                                                             |                                                                                                                                                                                                                                 |
| <b>Port connection<sup>1)</sup></b>                                                                    |                                                                                                                                                                                                                                 |
| Threaded connection                                                                                    | G (DIN ISO 228 - 1)<br>NPT (ASME B1.20.1)<br>RC (ISO 7 - 1)                                                                                                                                                                     |
| Welded connection                                                                                      | DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B<br>DIN 11850 - 2 / DIN 11866 series A<br>ASME BPE / DIN 11866 series C<br>SMS 3008                                                                                              |
| Clamp connection                                                                                       | DIN 32676 series B (pipe: ISO 4200)<br>DIN 32676 series A (pipe: DIN 11850 - 2)<br>ASME BPE                                                                                                                                     |
| <b>Pilot air port</b>                                                                                  |                                                                                                                                                                                                                                 |
| Actuator size Ø 40 (C)                                                                                 | Thread G 1/8                                                                                                                                                                                                                    |
| Actuator size Ø 50 (D)...125 (H)                                                                       | Thread G 1/4                                                                                                                                                                                                                    |
| <b>Approvals and conformities</b>                                                                      |                                                                                                                                                                                                                                 |
| Further information can be found in chapter <a href="#">"4. Approvals and conformities" on page 8.</a> |                                                                                                                                                                                                                                 |
| Material certificate                                                                                   | 2.2, 3.1                                                                                                                                                                                                                        |
| <b>Environment and installation</b>                                                                    |                                                                                                                                                                                                                                 |
| Ambient temperature                                                                                    | - 40...+ 140 °C (see <a href="#">"2. Product variants" on page 5</a> )                                                                                                                                                          |
| Degree of protection                                                                                   | IP67                                                                                                                                                                                                                            |
| Installation position                                                                                  | As required, preferably with actuator upright                                                                                                                                                                                   |

1.) Others are available on request.

## 2. Product variants

### 2.1. Stainless steel body with PA actuator



| Product properties                              |                                                                                                  |                                         |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------|
|                                                 | Stainless steel body CF8                                                                         | Stainless steel body CF3M               |
| Nominal diameter (port connection)              | DN 10...DN 65,<br>NPS 3/8...NPS 2 1/2                                                            | DN 10...DN 80,<br>NPS 3/8...NPS 3       |
| Performance data                                |                                                                                                  |                                         |
| Operating pressure                              | 0...25 bar(g), vacuum up to -0.9 bar(g) (option)<br>(see <b>"7.1. Fluidic data" on page 16</b> ) |                                         |
| <b>Maximum pilot pressure</b>                   |                                                                                                  |                                         |
| Actuator size 40 (C), 50 (D),<br>63 (E), 80 (F) | 10 bar(g)                                                                                        |                                         |
| Actuator size 100 (G),125 (H)                   | 7 bar(g)                                                                                         |                                         |
| Media data                                      |                                                                                                  |                                         |
| Medium temperature                              | - 40...+ 185 °C                                                                                  |                                         |
| Product connection                              |                                                                                                  |                                         |
| Port connection                                 | Threaded connection                                                                              | Threaded, welded or clamp<br>connection |
| Environment and installation                    |                                                                                                  |                                         |
| Ambient temperature                             | - 40...+ 60 °C (see <b>"7.2. Operating limits" on page 23</b> )                                  |                                         |

### 2.2. Stainless steel body with PPS actuator



| Product properties                              |                                                                                               |                                         |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------|
|                                                 | Stainless steel body CF8                                                                      | Stainless steel body CF3M               |
| Nominal diameter (port connection)              | DN 10...DN 65,<br>NPS 3/8...NPS 2 1/2                                                         | DN 10...DN 80,<br>NPS 3/8...NPS 3       |
| Performance data                                |                                                                                               |                                         |
| Operating pressure                              | 0...25 bar(g), vacuum up to -0.9 bar(g) (option)<br>(see "7.1. Fluidic data" on page 16)      |                                         |
| Maximum pilot pressure                          |                                                                                               |                                         |
| Actuator size 40 (C), 50 (D),<br>63 (E), 80 (F) | 10 bar(g)                                                                                     |                                         |
| Actuator size 100 (G), 125 (H)                  | 7 bar(g)                                                                                      |                                         |
| Media data                                      |                                                                                               |                                         |
| Medium temperature                              | - 40...+ 185 °C                                                                               | - 40...+ 230 °C                         |
| Product connection                              |                                                                                               |                                         |
| Port connection                                 | Threaded connection                                                                           | Threaded, welded or clamp<br>connection |
| Environment and installation                    |                                                                                               |                                         |
| Ambient temperature                             | - 40...+ 140 °C (continuous operation...+ 130 °C)<br>(see "7.2. Operating limits" on page 23) |                                         |

2.3. Gunmetal body with PA actuator



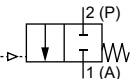
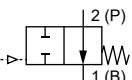
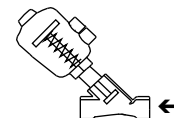
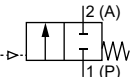
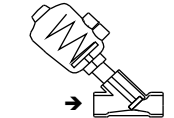
| Product properties                           |                                                                                           |
|----------------------------------------------|-------------------------------------------------------------------------------------------|
| Nominal diameter (port connection)           | DN 10...DN 65, NPS ¾...NPS 2 ½                                                            |
| Performance data                             |                                                                                           |
| Operating pressure                           | 0...16 bar(g), vacuum up to - 0.9 bar(g) (option)<br>(see "7.1. Fluidic data" on page 16) |
| Maximum pilot pressure                       |                                                                                           |
| Actuator size 40 (C), 50 (D), 63 (E), 80 (F) | 10 bar(g)                                                                                 |
| Actuator size 100.125 (H)                    | 7 bar(g)                                                                                  |
| Medium data                                  |                                                                                           |
| Medium temperature                           | - 40...+ 185 °C                                                                           |
| Product connection                           |                                                                                           |
| Port connection                              | Threaded connection                                                                       |
| Environment and installation                 |                                                                                           |
| Ambient temperature                          | - 40...+ 60 °C (see "7.2. Operating limits" on page 23)                                   |

3. Control functions

 **WARNING**

Risk of damage due to bursting pipes and bursting equipment when the flow is above the seat.  
In the case of liquid mediums, water hammer can occur, causing pipes and the device to burst.

Do not use valves with flow above the seat for liquid mediums.

| Symbol                                                                            | Description                                                                                                                                     |                                                                                      |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Flow direction below seat for liquids, steam and gases                            |                                                                                                                                                 |                                                                                      |
|  | <b>Control function A (CF A)</b><br>Pneumatically operated 2/2-way on/off valve<br>Flow direction below seat<br>Normally closed by spring force |   |
|  | <b>Control function B (CF B)</b><br>Pneumatically operated 2/2-way on/off valve<br>Flow direction below seat<br>Normally opened by spring force |   |
| Flow direction above seat for steam and gases                                     |                                                                                                                                                 |                                                                                      |
|  | <b>Control function A (CF A)</b><br>Pneumatically operated 2/2-way on/off valve<br>Flow direction above seat<br>Normally closed by spring force |  |

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## 4. Approvals and conformities

### 4.1. 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 variants can be supplied with the below mentioned approvals or conformities.

### 4.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives. This includes the following directives:

- Pressure Equipment Directive 2014/68/EU
- Machinery Directive 2006/42/EC

### 4.3. 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.

### 4.4. Explosion protection

| Approval                                                                                                                                                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                 |    |    |                             |          |          |          |                     |                 |                 |                 |                            |          |          |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|----|----|-----------------------------|----------|----------|----------|---------------------|-----------------|-----------------|-----------------|----------------------------|----------|----------|----------|
| <br> | <p><b>Optional: Explosion protection (valid for the variable code PX51)</b><br/>As a category 2 device suitable for zone 1/21 and zone 2/22.</p> <p><b>ATEX:</b><br/>EPS 18 ATEX 2 008 X<br/>II 2G Ex h IIC T4...T2 Gb<br/>II 2D Ex h IIIC T135 °C...T300 °C Db</p> <p><b>IECEx:</b><br/>IECEx EPS 18.0007X<br/>Ex h IIC T4...T2 Gb<br/>Ex h IIIC T135 °C...T300 °C Db</p> <table><tr><td>Temperature class</td><td>T2</td><td>T3</td><td>T4</td></tr><tr><td>Maximum surface temperature</td><td>+ 300 °C</td><td>+ 200 °C</td><td>+ 135 °C</td></tr><tr><td>Ambient temperature</td><td>- 40...+ 130 °C</td><td>- 40...+ 130 °C</td><td>- 40...+ 100 °C</td></tr><tr><td>Maximum medium temperature</td><td>+ 285 °C</td><td>+ 185 °C</td><td>+ 125 °C</td></tr></table> <p><b>Note:</b> The ambient and medium temperature range may be limited by non-ex-relevant specifications. Observe the operating instructions.</p> | Temperature class | T2              | T3 | T4 | Maximum surface temperature | + 300 °C | + 200 °C | + 135 °C | Ambient temperature | - 40...+ 130 °C | - 40...+ 130 °C | - 40...+ 100 °C | Maximum medium temperature | + 285 °C | + 185 °C | + 125 °C |
| Temperature class                                                                                                                                                          | T2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | T3                | T4              |    |    |                             |          |          |          |                     |                 |                 |                 |                            |          |          |          |
| Maximum surface temperature                                                                                                                                                | + 300 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | + 200 °C          | + 135 °C        |    |    |                             |          |          |          |                     |                 |                 |                 |                            |          |          |          |
| Ambient temperature                                                                                                                                                        | - 40...+ 130 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | - 40...+ 130 °C   | - 40...+ 100 °C |    |    |                             |          |          |          |                     |                 |                 |                 |                            |          |          |          |
| Maximum medium temperature                                                                                                                                                 | + 285 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | + 185 °C          | + 125 °C        |    |    |                             |          |          |          |                     |                 |                 |                 |                            |          |          |          |

### 4.5. Drinking water

| Conformity                                                                          | Description                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>Suitable for use in drinking water applications</b><br/>The materials comply with the assessment principles (UBA) for materials in contact with drinking water (TrinkwasserV).</p> <p><b>Gunmetal body/stainless steel body</b><br/>PF39: Suitable for products with medium temperature up to 85 °C (hot water)</p> |

#### 4.6. Foods and beverages/Hygiene

| Conformity                                                                        | Description                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FDA                                                                               | <b>FDA – Code of Federal Regulations (valid for the variable code PL02)</b><br>All wetted materials are compliant with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA) according to the manufacturer's declaration. |
|  | <b>EC Regulation 1935/2004 of the European Parliament and of the Council (valid for the variable code PL01, PL02)</b><br>All wetted materials are compliant with EC Regulation 1935/2004/EC according to the manufacturer's declaration.                     |
|  | <b>China food GB Standards of the People's Republic of China (valid for the variable code PL10)</b><br>All wetted materials are compliant with the requirement of China food GB Standards according to the manufacturer's declaration.                       |

#### 4.7. Others

##### DNV GL classification

| Approval                                                                          | Description                                                                                                                                                          |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>DNV GL classification – Ships, offshore units, and high speed and light craft</b><br>The products are accepted for installation on all vessels classed by DNV GL. |

##### Oxygen

| Conformity                                                                          | Description                                                                                                                                                                       |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Optional: Suitability for oxygen (valid for the variable code NL02)</b><br>The products are suitable for use with gaseous oxygen, according to the manufacturer's declaration. |

##### Fuel gases

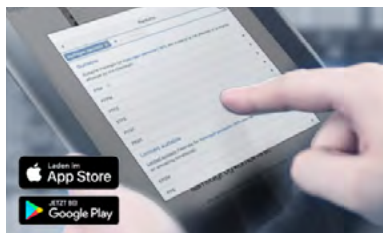
| Conformity                                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Fuel gases (valid for the variable code PO19, PO20)</b><br>The products comply with: <ul style="list-style-type: none"> <li>• Regulation (EU) 2016/426 – Appliances burning gaseous fuels and</li> <li>• DVGW DIN EN 161 (Automatic shut-off valves for gas burners and gas appliances) and</li> <li>• DIN EN 16678, Class A or Class D (Safety and control devices for gas burners and gas burning appliances – Automatic shut-off valves for operating pressure of above 500 kPa up to and including 6 300 kPa)</li> </ul> |

##### TA Luft

| Conformity | Description                                                                            |
|------------|----------------------------------------------------------------------------------------|
| TA Luft    | <b>Technical instruction on air quality control (valid for the variable code PM01)</b> |

## 5. Materials

### 5.1. Bürkert resistApp



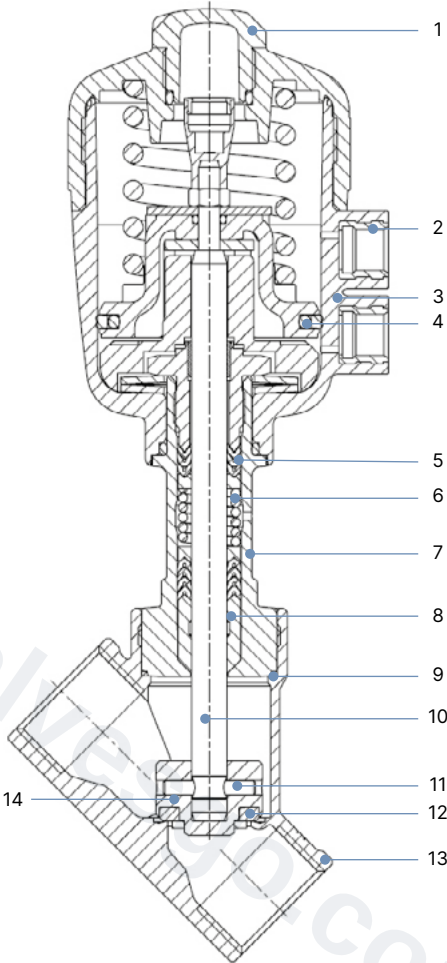
#### Bürkert resistApp – Chemical resistance chart

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](#)

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5.2. Material specifications



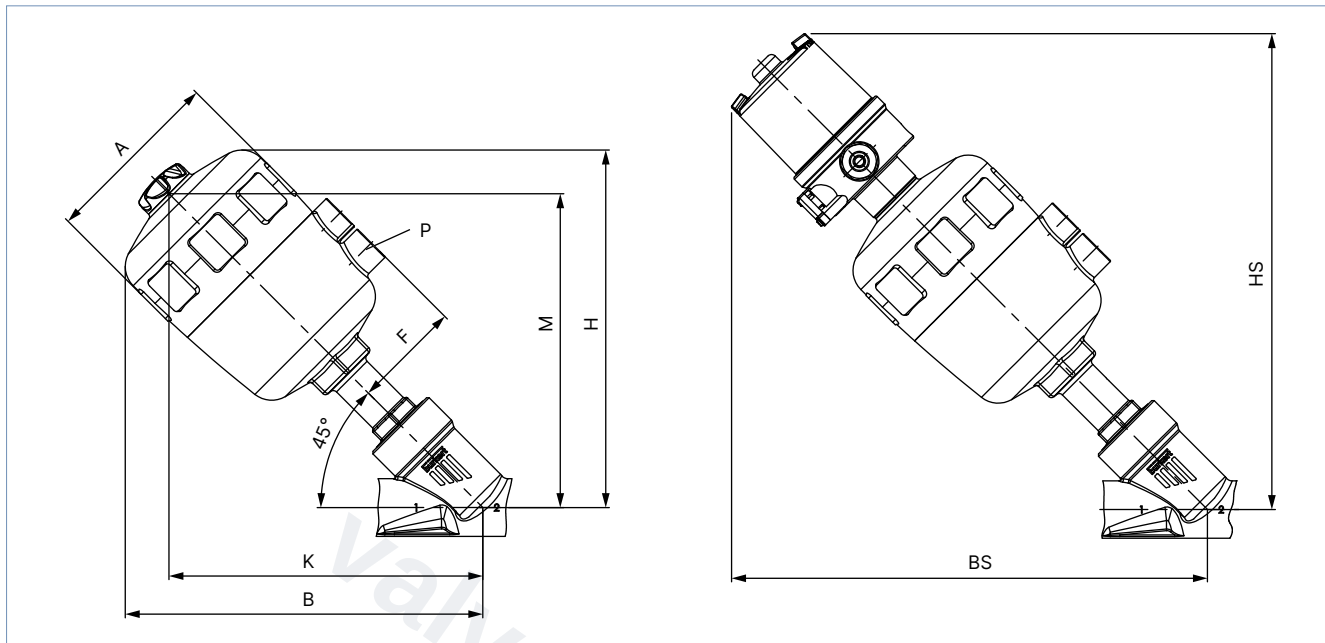
| Nr. | Element           | Material                                        |                                              |                   |                                        |                           |  |
|-----|-------------------|-------------------------------------------------|----------------------------------------------|-------------------|----------------------------------------|---------------------------|--|
|     |                   | Gunmetal body                                   | Stainless steel body CF8                     |                   |                                        | Stainless steel body CF3M |  |
|     |                   | with PA actuator                                | with PA actuator                             | with PPS actuator | with PA actuator                       | with PPS actuator         |  |
| 1   | Transparent cover | PC                                              | PC                                           | PSU               | PC                                     | PSU                       |  |
| 2   | Pilot air ports   | Stainless steel 1.4305                          |                                              |                   |                                        |                           |  |
| 3   | Actuator          | PA                                              | PA                                           | PPS               | PA                                     | PPS                       |  |
| 4   | Piston seal       | NBR                                             | NBR                                          | FKM               | NBR                                    | FKM                       |  |
| 5   | Packing gland     | PTFE V-Rings (filled), with spring compensation |                                              |                   |                                        |                           |  |
| 6   | Spring            | Stainless steel 1.4310                          |                                              |                   |                                        |                           |  |
| 7   | Pipe              | Brass                                           | Stainless steel CF8 / Stainless steel CF3M   |                   | Stainless steel CF3M                   |                           |  |
| 8   | Wiper             | PTFE (filled), PEEK <sup>1)</sup>               |                                              |                   |                                        |                           |  |
| 9   | Body seal         | Graphite, PTFE (option)                         |                                              |                   |                                        |                           |  |
| 10  | Spindle           | Stainless steel 1.4401 / 1.4404                 |                                              |                   |                                        |                           |  |
| 11  | Pin               | Stainless steel 1.4401 / 1.4404                 |                                              |                   |                                        |                           |  |
| 12  | Seat seal         | PTFE, PEEK (option), NBR (option), FKM (option) |                                              |                   |                                        |                           |  |
| 13  | Valve body        | Gun metal                                       | Stainless steel CF8                          |                   | Stainless steel CF3M                   |                           |  |
| 14  | Swivel plate      | Brass                                           | Stainless steel CF8 / CF3M / 1.4401 / 1.4404 |                   | Stainless steel CF3M / 1.4401 / 1.4404 |                           |  |

1.) For the actuator sizes 100 mm (G) and 125 mm (H)

## 6. Dimensions

### 6.1. Actuator

Angle seat valve Type 2000 and valve system on/off CLASSIC Type 8801-YA

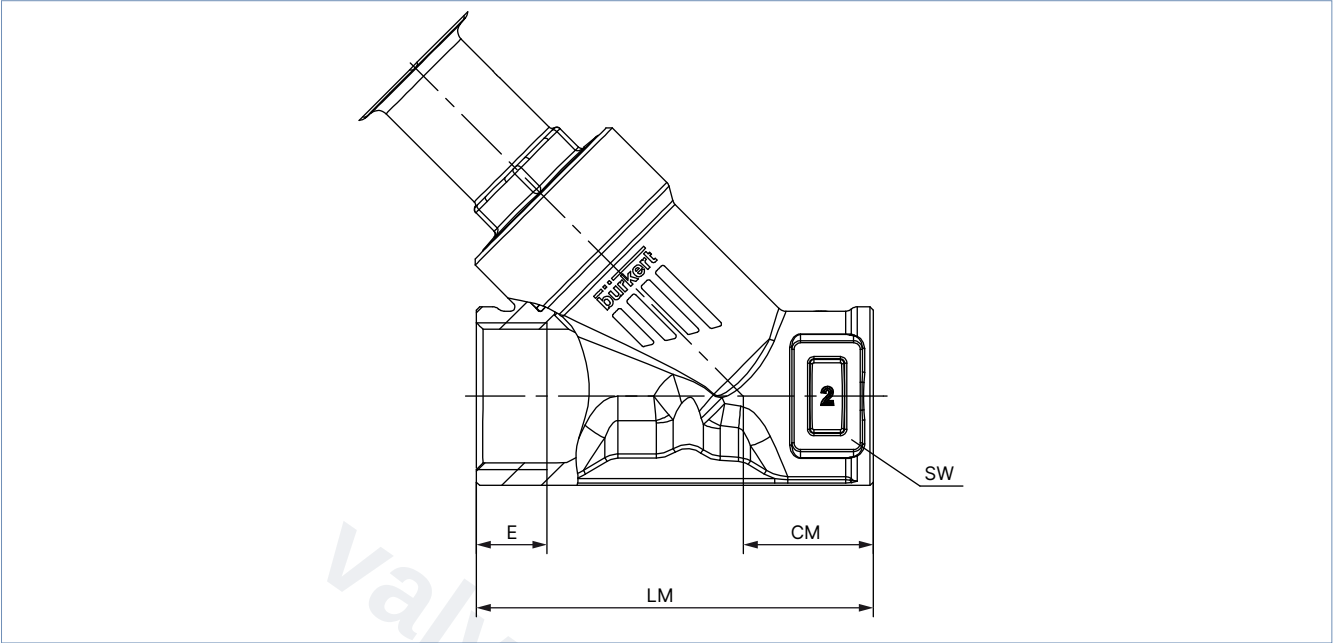


| Nominal diameter (port connection) |       | Actuator size Ø | Ø A  | B / H <sup>1)</sup> | K / M <sup>1)</sup> | P      | BS / HS <sup>1)</sup> |
|------------------------------------|-------|-----------------|------|---------------------|---------------------|--------|-----------------------|
| DN                                 | NPS   |                 | [mm] | [mm]                | [mm]                | [inch] | [mm]                  |
| 10                                 | 3/8   | 40 (C)          | 53   | 127                 | 110                 | G 1/8  | 198                   |
|                                    |       | 50 (D)          | 64   | 145                 | 129                 | G 1/4  | 216                   |
|                                    |       | 63 (E)          | 80   | 177                 | 158                 | G 1/4  | 246                   |
|                                    |       |                 |      |                     |                     |        |                       |
| 15                                 | 1/2   | 40 (C)          | 53   | 127                 | 110                 | G 1/8  | 198                   |
|                                    |       | 50 (D)          | 64   | 145                 | 129                 | G 1/4  | 216                   |
|                                    |       | 63 (E)          | 80   | 177                 | 158                 | G 1/4  | 246                   |
|                                    |       |                 |      |                     |                     |        |                       |
| 20                                 | 3/4   | 40 (C)          | 53   | 130                 | 113                 | G 1/8  | 201                   |
|                                    |       | 50 (D)          | 64   | 150                 | 133                 | G 1/4  | 207                   |
|                                    |       | 63 (E)          | 80   | 174                 | 155                 | G 1/4  | 243                   |
|                                    |       | 80 (F)          | 101  | 195                 | 171                 | G 1/4  | 259                   |
| 25                                 | 1     | 50 (D)          | 64   | 152                 | 136                 | G 1/4  | 223                   |
|                                    |       | 63 (E)          | 80   | 178                 | 159                 | G 1/4  | 242                   |
|                                    |       | 80 (F)          | 101  | 195                 | 171                 | G 1/4  | 259                   |
|                                    |       |                 |      |                     |                     |        |                       |
| 32                                 | 1 1/4 | 63 (E)          | 80   | 188                 | 169                 | G 1/4  | 257                   |
|                                    |       | 80 (F)          | 101  | 209                 | 185                 | G 1/4  | 273                   |
|                                    |       | 100 (G)         | 127  | 262                 | 232                 | G 1/4  | 320                   |
|                                    |       |                 |      |                     |                     |        |                       |
| 40                                 | 1 1/2 | 63 (E)          | 80   | 191                 | 172                 | G 1/4  | 260                   |
|                                    |       | 80 (F)          | 101  | 213                 | 188                 | G 1/4  | 277                   |
|                                    |       | 100 (G)         | 127  | 251                 | 221                 | G 1/4  | 309                   |
|                                    |       | 125 (H)         | 158  | 291                 | 254                 | G 1/4  | 342                   |
| 50                                 | 2     | 63 (E)          | 80   | 209                 | 190                 | G 1/4  | 278                   |
|                                    |       | 80 (F)          | 101  | 230                 | 206                 | G 1/4  | 294                   |
|                                    |       | 100 (G)         | 127  | 277                 | 247                 | G 1/4  | 335                   |
|                                    |       | 125 (H)         | 158  | 306                 | 269                 | G 1/4  | 357                   |
| 65                                 | 2 1/2 | 80 (F)          | 101  | 242                 | 218                 | G 1/4  | 306                   |
|                                    |       | 100 (G)         | 127  | 290                 | 260                 | G 1/4  | 348                   |
|                                    |       | 125 (H)         | 158  | 319                 | 282                 | G 1/4  | 370                   |
| 80                                 | 3     | 125 (H)         | 158  | 339                 | 301                 | G 1/4  | 390                   |

1.) The dimensions for B, H, K, M, HS and BS are maximum dimensions and may be up to 6 mm less, depending on the nominal diameter and standard.

6.2. Body with threaded connection

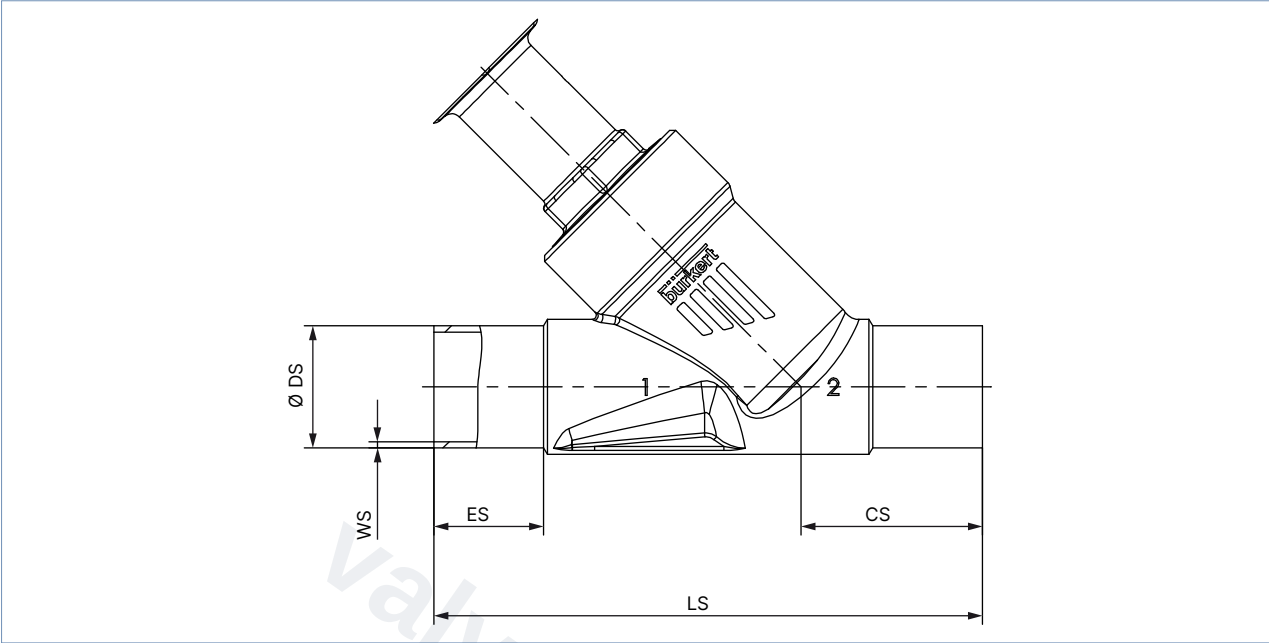
**Note:**  
Dimensions in mm, unless otherwise stated



| Nominal diameter (port connection) |     | G (DIN ISO 228-1)<br>NPT (ASME B1.20.1)<br>RC (ISO 7-1) |      |      |      |     |     |
|------------------------------------|-----|---------------------------------------------------------|------|------|------|-----|-----|
|                                    |     | E                                                       |      |      | CM   | LM  | SW  |
| DN                                 | NPS | G                                                       | NPT  | RC   |      |     |     |
| 15                                 | ½   | 14                                                      | 13.7 | 13.2 | 24   | 65  | 27  |
| 20                                 | ¾   | 16                                                      | 14.0 | 14.5 | 27   | 75  | 34  |
| 25                                 | 1   | 18                                                      | 16.8 | 16.8 | 29.5 | 90  | 41  |
| 32                                 | 1¼  | 16                                                      | 17.3 | 19.1 | 36   | 110 | 50  |
| 40                                 | 1½  | 18                                                      | 17.3 | 19.1 | 35   | 120 | 55  |
| 50                                 | 2   | 24                                                      | 17.6 | 23.4 | 45   | 150 | 70  |
| 65                                 | 2½  | 26                                                      | 23.7 | 26.7 | 57   | 185 | 85  |
| 80                                 | 3   | 28                                                      | –    | –    | 71   | 220 | 100 |

6.3. Body with welded connection

**Note:**  
Dimensions in mm, unless otherwise stated



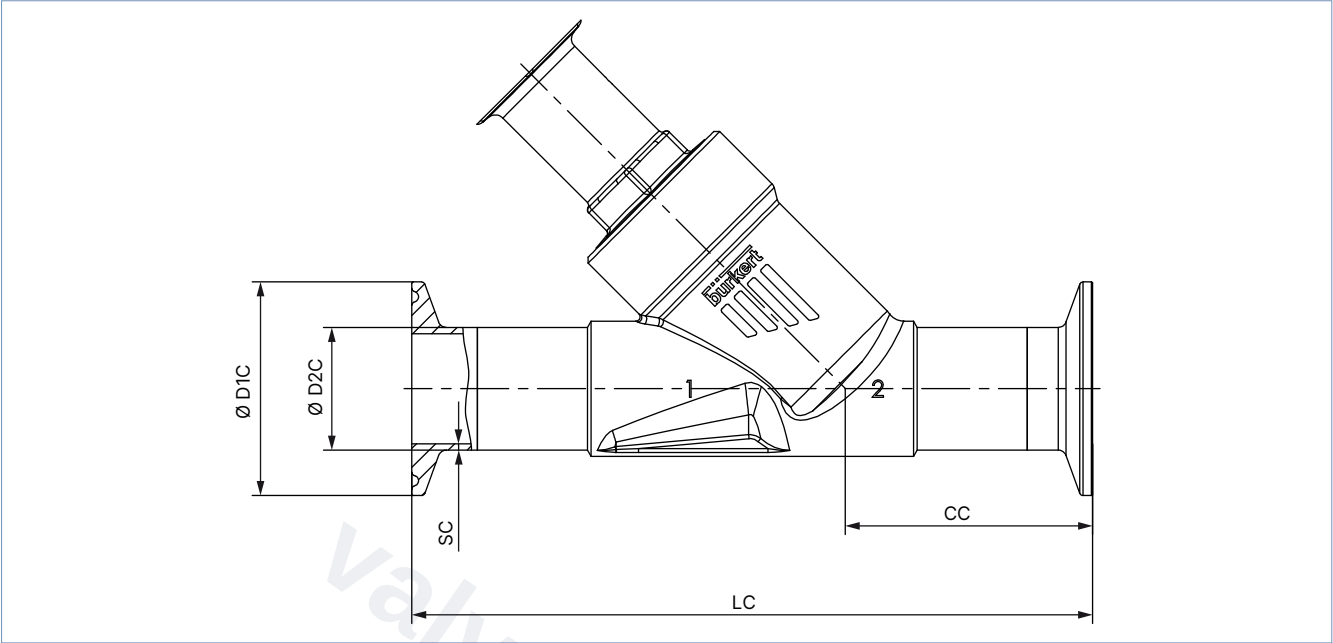
| Nominal diameter<br>(port connection) | DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B |      |     |      |     | DIN 11850 - 2 / DIN 11866 series A |      |     |      |     |
|---------------------------------------|-------------------------------------------------|------|-----|------|-----|------------------------------------|------|-----|------|-----|
|                                       | ES                                              | CS   | LS  | Ø DS | WS  | ES                                 | CS   | LS  | Ø DS | WS  |
| 15                                    | 19                                              | 34   | 100 | 21.3 | 1.6 | 19                                 | 34   | 100 | 19   | 1.5 |
| 20                                    | 20                                              | 39   | 115 | 26.9 | 1.6 | 20                                 | 39   | 115 | 23   | 1.5 |
| 25                                    | 26                                              | 43   | 130 | 33.7 | 2.0 | 26                                 | 43   | 130 | 29   | 1.5 |
| 32                                    | 26                                              | 45   | 145 | 42.4 | 2.0 | 26                                 | 45   | 145 | 35   | 1.5 |
| 40                                    | 26                                              | 49   | 160 | 48.3 | 2.0 | 26                                 | 49   | 160 | 41   | 1.5 |
| 50                                    | 26                                              | 50   | 175 | 60.3 | 2.0 | 26                                 | 50   | 175 | 53   | 1.5 |
| 65                                    | 26                                              | 50   | 210 | 76.1 | 2.3 | 26                                 | 50   | 210 | 70   | 2   |
| 80                                    | 26                                              | 88.5 | 266 | 88.9 | 2.3 | 26                                 | 88.5 | 266 | 85   | 2   |

| Nominal diameter<br>(port connection) | ASME BPE / DIN 11866 series C |      |     |       |      |
|---------------------------------------|-------------------------------|------|-----|-------|------|
|                                       | ES                            | CS   | LS  | Ø DS  | WS   |
| ½                                     | 30                            | 46   | 135 | 12.7  | 1.65 |
| ¾                                     | 30                            | 52   | 145 | 19.05 | 1.65 |
| 1                                     | 30                            | 51   | 152 | 25.4  | 1.65 |
| 1½                                    | 30                            | 60   | 182 | 38.1  | 1.65 |
| 2                                     | 30                            | 64   | 210 | 50.8  | 1.65 |
| 2½                                    | 26                            | 56   | 230 | 63.5  | 1.65 |
| 3                                     | 26                            | 88.5 | 266 | 76.2  | 1.65 |

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6.4. Body with clamp connection

**Note:**  
Dimensions in mm, unless otherwise stated



| Nominal diameter<br>(port connection) | Clamp: DIN 32676 series B<br>Pipe: DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B |      |        |        |     | Clamp: DIN 32676 series A<br>(DN 15 similar DIN 32676 series B)<br><br>Pipe: DIN 11850 - 2 / DIN 11866 series A |      |        |        |     |
|---------------------------------------|------------------------------------------------------------------------------------|------|--------|--------|-----|-----------------------------------------------------------------------------------------------------------------|------|--------|--------|-----|
|                                       | LC                                                                                 | CC   | Ø D1 C | Ø D2 C | SC  | LC                                                                                                              | CC   | Ø D1 C | Ø D2 C | SC  |
| 15                                    | 156                                                                                | 49.0 | 50.5   | 21.3   | 1.6 | 130                                                                                                             | 49.5 | 34.0   | 19     | 1.5 |
| 20                                    | 150                                                                                | 56.5 | 50.5   | 26.9   | 1.6 | 150                                                                                                             | 57.0 | 34.0   | 23     | 1.5 |
| 25                                    | 160                                                                                | 58.0 | 50.5   | 33.7   | 2.0 | 160                                                                                                             | 58.5 | 50.5   | 29     | 1.5 |
| 32                                    | 200                                                                                | 57.5 | 50.5   | 42.4   | 2.0 | 180                                                                                                             | 58.0 | 50.5   | 35     | 1.5 |
| 40                                    | 200                                                                                | 69.0 | 64.0   | 48.3   | 2.0 | 200                                                                                                             | 69.5 | 50.5   | 41     | 1.5 |
| 50                                    | 230                                                                                | 77.5 | 77.5   | 60.3   | 2.6 | 230                                                                                                             | 78.0 | 64.0   | 53     | 1.5 |

| Nominal diameter<br>(port connection) | Clamp: ASME BPE<br>Pipe: ASME BPE / DIN 11866 series C |      |        |        |      |
|---------------------------------------|--------------------------------------------------------|------|--------|--------|------|
|                                       | LC                                                     | CC   | Ø D1 C | Ø D2 C | SC   |
| 1/2                                   | 130                                                    | 49.0 | 25.0   | 12.7   | 1.65 |
| 3/4                                   | 150                                                    | 56.5 | 25.0   | 19.05  | 1.65 |
| 1                                     | 160                                                    | 58.0 | 50.5   | 25.4   | 1.65 |
| 1 1/2                                 | 200                                                    | 69.0 | 50.5   | 38.1   | 1.65 |
| 2                                     | 230                                                    | 77.5 | 64.0   | 50.8   | 1.65 |

## 7. Performance specifications

### 7.1. Fluidic data

Overview of fluidic data for flow below seat (for liquids, steam and gases)

Note:

- $K_v$  value [ $m^3/h$ ]: Measured with water at + 20 °C, 1 bar(g) pressure at valve inlet and free outlet
- $C_v$  value [GMP(US)] =  $K_v \times 1.156$

#### Threaded port G, NPT and RC

| Nominal diameter<br>(port connection) |     | Seat size | Actuator size Ø | K <sub>v</sub> value water | Pilot pressure<br>min. | Operating pressure max.                |                   |                                          |
|---------------------------------------|-----|-----------|-----------------|----------------------------|------------------------|----------------------------------------|-------------------|------------------------------------------|
|                                       |     |           |                 |                            |                        | CF A                                   |                   | CF B                                     |
|                                       |     |           |                 |                            |                        | Seat seal                              |                   |                                          |
|                                       |     |           |                 |                            |                        | PTFE                                   | PEEK              | PTFE                                     |
| DN                                    | NPS | DN        | [mm]            | [m³/h]                     | [bar(g)]               | [bar(g)]                               | [bar(g)]          | [bar(g)]                                 |
| 8                                     | ¼   | 15        | 40 (C)          | 2.6                        | 4                      | 15                                     | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 2.6                        | 4.1                    | 16                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 2.6                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 10                                    | ⅜   |           | 40 (C)          | 4.7                        | 4                      | 15                                     | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 5                          | 4.1                    | 16                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 5.4                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 15                                    | ½   |           | 40 (C)          | 4.7                        | 4                      | 15                                     | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 5                          | 4.1                    | 16                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 5.4                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 20                                    | ¾   | 20        | 40 (C)          | 8.4                        | 4                      | 6.5                                    | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 10                         | 4.1                    | 11                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 11                         | 4.5                    | 20 <sup>1.)</sup>                      | 16                | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 11                         | 5                      | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | –                                        |
| 25                                    | 1   | 25        | 50 (D)          | 15                         | 4.1                    | 5.2                                    | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 19                         | 4.5                    | 11                                     | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 19                         | 5                      | 25 <sup>1.)</sup>                      | 21 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 32                                    | 1¼  | 32        | 63 (E)          | 29                         | 4.5                    | 6                                      | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 30                         | 5                      | 14                                     | 11.5              | 25 <sup>1.)</sup>                        |
|                                       |     |           | 100 (G)         | 32                         | 4.4                    | 16                                     | –                 | –                                        |
|                                       |     |           | 125 (H)         | 32                         | 4.1                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | –                                        |
| 40                                    | 1½  | 40        | 63 (E)          | 38                         | 4.5                    | 4                                      | –                 | 24 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 40                         | 5                      | 9                                      | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 100 (G)         | 47                         | 4.4                    | 12.5                                   | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 125 (H)         | 46                         | 4.1                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | –                                        |
| 50                                    | 2   | 50        | 63 (E)          | 44                         | 4.5                    | 2.5                                    | –                 | 13                                       |
|                                       |     |           | 80 (F)          | 49                         | 5                      | 6                                      | –                 | 25 <sup>1.)</sup> (20 <sup>2.)</sup> )   |
|                                       |     |           | 100 (G)         | 62                         | 4.4                    | 7.2                                    | –                 | 25 <sup>1.)</sup> (20 <sup>2.)</sup> )   |
|                                       |     |           | 125 (H)         | 62                         | 5.7                    | 24 <sup>1.)</sup> (20 <sup>2.)</sup> ) | 19 <sup>1.)</sup> | –                                        |
| 65                                    | 2½  | 65        | 80 (F)          | 74                         | 5                      | 3.5                                    | –                 | 15                                       |
|                                       |     |           | 125 (H)         | 91                         | 5.7                    | 12                                     | 10                | 23 <sup>1.)</sup> (15 <sup>2.)</sup> )   |
| 80                                    | 3   | 80        | 125 (H)         | 140                        | 5.7                    | 7.5                                    | –                 | 14 <sup>1.)</sup> (12.5 <sup>2.)</sup> ) |

1.) Gunmetal variants are limited to a maximum of 16 bar(g).

2.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to Article 4, paragraph (1), c), i), first indent)

## Welded connection DIN 11850 series 2, DIN 11866 series A, DIN EN 10357 series A

| Nominal diameter<br>(port connection) |     | Seat size | Actuator size Ø | K <sub>v</sub> value water | Pilot pressure<br>min. | Operating pressure max.                |                   |                                          |
|---------------------------------------|-----|-----------|-----------------|----------------------------|------------------------|----------------------------------------|-------------------|------------------------------------------|
|                                       |     |           |                 |                            |                        | CF A                                   |                   | CF B                                     |
|                                       |     |           |                 |                            |                        | Seat seal                              |                   |                                          |
|                                       |     |           |                 |                            |                        | PTFE                                   | PEEK              | PTFE                                     |
| DN                                    | NPS | DN        | [mm]            | [m³/h]                     | [bar(g)]               | [bar(g)]                               | [bar(g)]          | [bar(g)]                                 |
| 10                                    | ⅜   | 15        | 40 (C)          | 2.5                        | 4                      | 15                                     | —                 | 16                                       |
|                                       |     |           | 50 (D)          | 2.5                        | 4.1                    | 16                                     | —                 | 16                                       |
|                                       |     |           | 63 (E)          | 2.5                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 15                                    | ½   | 20        | 40 (C)          | 4.7                        | 4                      | 15                                     | —                 | 16                                       |
|                                       |     |           | 50 (D)          | 5                          | 4.1                    | 16                                     | —                 | 16                                       |
|                                       |     |           | 63 (E)          | 5.4                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 20                                    | ¾   | 20        | 40 (C)          | 8.4                        | 4                      | 6.5                                    | —                 | 16                                       |
|                                       |     |           | 50 (D)          | 10                         | 4.1                    | 11                                     | —                 | 16                                       |
|                                       |     |           | 63 (E)          | 11                         | 4.5                    | 20 <sup>1.)</sup>                      | 16                | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 11                         | 5                      | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | —                                        |
| 25                                    | 1   | 25        | 50 (D)          | 14                         | 4.1                    | 5.2                                    | —                 | 16                                       |
|                                       |     |           | 63 (E)          | 19                         | 4.5                    | 11                                     | —                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 19                         | 5                      | 25 <sup>1.)</sup>                      | 21 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 32                                    | 1¼  | 32        | 63 (E)          | 26                         | 4.5                    | 6                                      | —                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 26                         | 5                      | 14                                     | 11.5              | 25 <sup>1.)</sup>                        |
|                                       |     |           | 100 (G)         | 30                         | 4.4                    | 16                                     | —                 | —                                        |
|                                       |     |           | 125 (H)         | 30                         | 4.1                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | —                                        |
| 40                                    | 1½  | 40        | 63 (E)          | 33                         | 4.5                    | 4                                      | —                 | 24 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 35                         | 5                      | 9                                      | —                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 100 (G)         | 41                         | 4.4                    | 12.5                                   | —                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 125 (H)         | 40                         | 4.1                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | —                                        |
| 50                                    | 2   | 50        | 63 (E)          | 44                         | 4.5                    | 2.5                                    | —                 | 13                                       |
|                                       |     |           | 80 (F)          | 49                         | 5                      | 6                                      | —                 | 25 <sup>1.)</sup> (20 <sup>2.)</sup> )   |
|                                       |     |           | 100 (G)         | 60                         | 4.4                    | 7.2                                    | —                 | 25 <sup>1.)</sup> (20 <sup>2.)</sup> )   |
|                                       |     |           | 125 (H)         | 60                         | 5.7                    | 24 <sup>1.)</sup> (20 <sup>2.)</sup> ) | 19 <sup>1.)</sup> | —                                        |
| 65                                    | 2½  | 65        | 80 (F)          | 74                         | 5                      | 3.5                                    | —                 | 15                                       |
|                                       |     |           | 125 (H)         | 91                         | 5.7                    | 12                                     | 10                | 23 <sup>1.)</sup> (15 <sup>2.)</sup> )   |
| 80                                    | 3   | 80        | 125 (H)         | 140                        | 5.7                    | 7.5                                    | —                 | 14 <sup>1.)</sup> (12.5 <sup>2.)</sup> ) |

1.) Gunmetal variants are limited to a maximum of 16 bar(g).

2.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to Article 4, paragraph (1), c), i), first indent)

## Welded connection ISO 4200, DIN EN ISO 1127, DIN 11866 series B / Flange DIN EN 1092 - 1 (PN 25)

| Nominal diameter<br>(port connection) |     | Seat size | Actuator size Ø | K <sub>v</sub> value water | Pilot pressure<br>min. | Operating pressure max.                |                   |                                          |
|---------------------------------------|-----|-----------|-----------------|----------------------------|------------------------|----------------------------------------|-------------------|------------------------------------------|
|                                       |     |           |                 |                            |                        | CF A                                   |                   | CF B                                     |
|                                       |     |           |                 |                            |                        | Seat seal                              |                   |                                          |
|                                       |     |           |                 |                            |                        | PTFE                                   | PEEK              | PTFE                                     |
| OD [mm]                               | NPS | DN        | [mm]            | [m³/h]                     | [bar(g)]               | [bar(g)]                               | [bar(g)]          | [bar(g)]                                 |
| 13.5                                  | –   | 15        | 40 (C)          | 2.5                        | 4                      | 15                                     | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 2.5                        | 4.1                    | 16                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 2.5                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 17.2                                  |     |           | 40 (C)          | 4.7                        | 4                      | 15                                     | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 5                          | 4.1                    | 16                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 5.4                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 21.3                                  |     |           | 40 (C)          | 4.7                        | 4                      | 15                                     | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 5                          | 4.1                    | 16                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 5.4                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 26.9                                  |     | 20        | 40 (C)          | 8.4                        | 4                      | 6.5                                    | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 10                         | 4.1                    | 11                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 11                         | 4.5                    | 20 <sup>1.)</sup>                      | 16                | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 11                         | 5                      | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | –                                        |
| 33.7                                  |     | 25        | 50 (D)          | 15                         | 4.1                    | 5.2                                    | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 19                         | 4.5                    | 11                                     | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 19                         | 5                      | 25 <sup>1.)</sup>                      | 21 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 42.4                                  |     | 32        | 63 (E)          | 29                         | 4.5                    | 6                                      | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 30                         | 5                      | 14                                     | 11.5              | 25 <sup>1.)</sup>                        |
|                                       |     |           | 100 (G)         | 32                         | 4.4                    | 16                                     | –                 | –                                        |
|                                       |     |           | 125 (H)         | 32                         | 4.1                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | –                                        |
| 48.3                                  |     | 40        | 63 (E)          | 38                         | 4.5                    | 4                                      | –                 | 24 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 40                         | 5                      | 9                                      | –                 | 25 <sup>1.)</sup> (20 <sup>2.)</sup> )   |
|                                       |     |           | 100 (G)         | 47                         | 4.4                    | 12.5                                   | –                 | 25 <sup>1.)</sup> (20 <sup>2.)</sup> )   |
|                                       |     |           | 125 (H)         | 46                         | 4.1                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | –                                        |
| 60.3                                  |     | 50        | 63 (E)          | 44                         | 4.5                    | 2.5                                    | –                 | 13                                       |
|                                       |     |           | 80 (F)          | 49                         | 5                      | 6                                      | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 100 (G)         | 62                         | 4.4                    | 7.2                                    | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 125 (H)         | 62                         | 5.7                    | 24 <sup>1.)</sup> (20 <sup>2.)</sup> ) | 19 <sup>1.)</sup> | –                                        |
| 76.1                                  |     | 65        | 80 (F)          | 74                         | 5                      | 3.5                                    | –                 | 15                                       |
|                                       |     |           | 125 (H)         | 91                         | 5.7                    | 12                                     | 10                | 23 <sup>1.)</sup> (15 <sup>2.)</sup> )   |
| 88.9                                  |     | 80        | 125 (H)         | 140                        | 5.7                    | 7.5                                    | –                 | 14 <sup>1.)</sup> (12.5 <sup>2.)</sup> ) |

1.) Gunmetal variants are limited to a maximum of 16 bar(g).

2.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to Article 4, paragraph (1), c), i), first indent)

## Welded connection ASME BPE, DIN 11866 series C / Clamp ASME BPE

| Nominal diameter<br>(port connection) |     | Seat size | Actuator size Ø | K <sub>v</sub> value water | Pilot pressure<br>min. | Operating pressure max.                |                   |                                          |
|---------------------------------------|-----|-----------|-----------------|----------------------------|------------------------|----------------------------------------|-------------------|------------------------------------------|
|                                       |     |           |                 |                            |                        | CF A                                   |                   | CF B                                     |
|                                       |     |           |                 |                            |                        | Seat seal                              |                   |                                          |
|                                       |     |           |                 |                            |                        | PTFE                                   | PEEK              | PTFE                                     |
| DN                                    | NPS | DN        | [mm]            | [m³/h]                     | [bar(g)]               | [bar(g)]                               | [bar(g)]          | [bar(g)]                                 |
| 15                                    | ½   | 15        | 40 (C)          | 1.6                        | 4                      | 15                                     | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 1.6                        | 4.1                    | 16                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 1.6                        | 4.5                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 20                                    | ¾   | 20        | 40 (C)          | 6.9                        | 4                      | 6.5                                    | –                 | 16                                       |
|                                       |     |           | 50 (D)          | 8.4                        | 4.1                    | 11                                     | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 9.6                        | 4.5                    | 20 <sup>1.)</sup>                      | 16                | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 9.4                        | 5                      | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | –                                        |
| 25                                    | 1   | 25        | 50 (D)          | 13                         | 4.1                    | 5.2                                    | –                 | 16                                       |
|                                       |     |           | 63 (E)          | 16                         | 4.5                    | 11                                     | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 16                         | 5                      | 25 <sup>1.)</sup>                      | 21 <sup>1.)</sup> | 25 <sup>1.)</sup>                        |
| 40                                    | 1½  | 40        | 63 (E)          | 32                         | 4.5                    | 4                                      | –                 | 24 <sup>1.)</sup>                        |
|                                       |     |           | 80 (F)          | 35                         | 5                      | 9                                      | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 100 (G)         | 41                         | 4.4                    | 12.5                                   | –                 | 25 <sup>1.)</sup>                        |
|                                       |     |           | 125 (H)         | 40                         | 4.1                    | 25 <sup>1.)</sup>                      | 25 <sup>1.)</sup> | –                                        |
| 50                                    | 2   | 50        | 63 (E)          | 44                         | 4.5                    | 2.5                                    | –                 | 13                                       |
|                                       |     |           | 80 (F)          | 49                         | 5                      | 6                                      | –                 | 25 <sup>1.)</sup> (20 <sup>2.)</sup> )   |
|                                       |     |           | 100 (G)         | 58                         | 4.4                    | 7.2                                    | –                 | 25 <sup>1.)</sup> (20 <sup>2.)</sup> )   |
|                                       |     |           | 125 (H)         | 58                         | 5.7                    | 24 <sup>1.)</sup> (20 <sup>2.)</sup> ) | 19 <sup>1.)</sup> | –                                        |
| 65                                    | 2½  | 65        | 80 (F)          | 74                         | 5                      | 3.5                                    | –                 | 15                                       |
|                                       |     |           | 125 (H)         | 85                         | 5.7                    | 12                                     | 10                | 23 <sup>1.)</sup> (15 <sup>2.)</sup> )   |
| 80                                    | 3   | 80        | 125 (H)         | 91                         | 5.7                    | 12                                     | 10                | 23 <sup>1.)</sup> (15 <sup>2.)</sup> )   |
| 80                                    | 3   |           | 125 (H)         | 140                        | 5.7                    | 7.5                                    | –                 | 14 <sup>1.)</sup> (12.5 <sup>2.)</sup> ) |

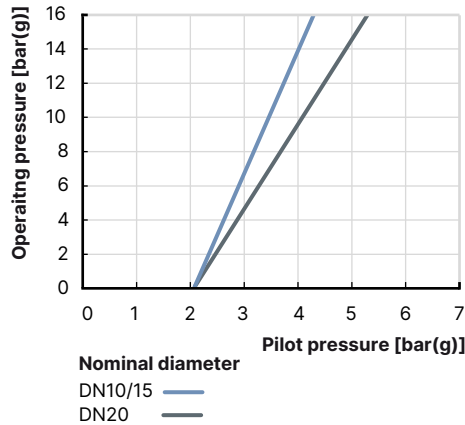
1.) Gunmetal variants are limited to a maximum of 16 bar(g).

2.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to Article 4, paragraph (1), c), i), first indent)

**Pilot pressure diagrams with flow direction below seat (control function B, seat seal PTFE)**

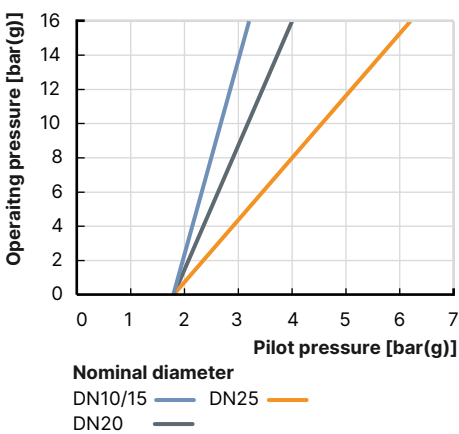
**Actuator size Ø 40 mm (C)**

Maximum pilot pressure 10 bar(g)



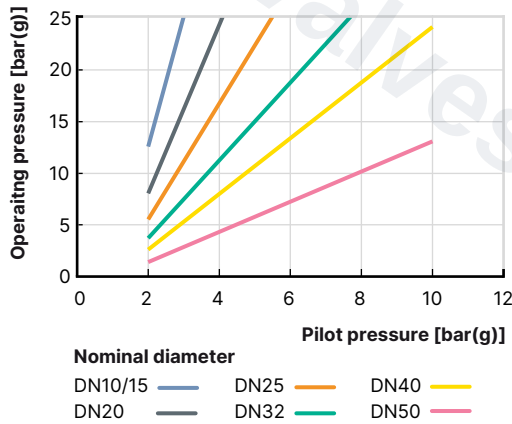
**Actuator size Ø 50 mm (D)**

Maximum pilot pressure 10 bar(g)



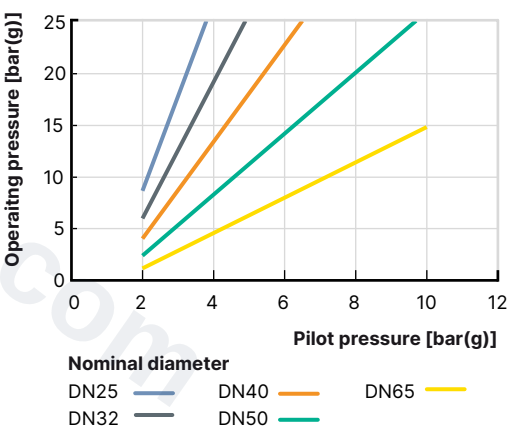
**Actuator size Ø 63 mm (E)**

Maximum pilot pressure 10 bar(g)



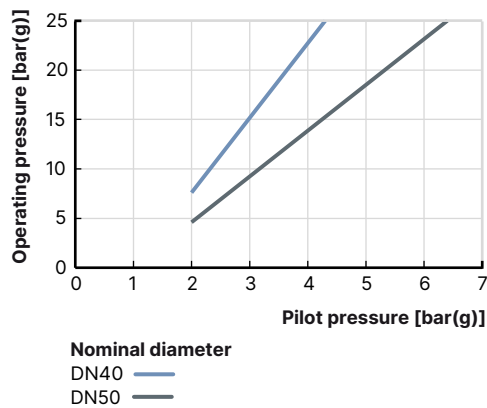
**Actuator size Ø 80 mm (F)**

Maximum pilot pressure 10 bar(g)



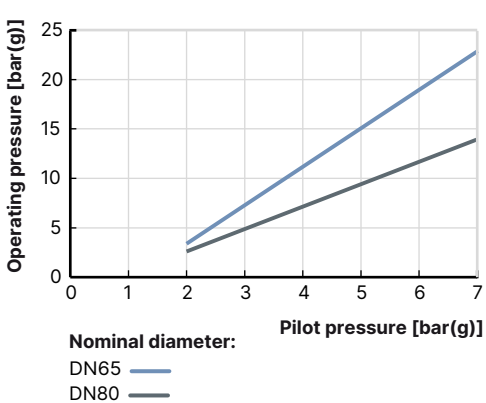
**Actuator size Ø 100 mm (G)**

Maximum pilot pressure 7 bar(g)



**Actuator size Ø 125 mm (H)**

Maximum pilot pressure 7 bar(g)



DTS 1000444947 EN Version: AD Status: RL (released | freigegeben | valide) printed: 28.04.2026

**Overview of fluidic data with flow above seat (for gases and steam)**
**Note:**

- $K_v$  value [ $m^3/h$ ]: Measured with water at + 20 °C, 1 bar(g) pressure at valve inlet and free outlet
- $K_v$  value water: see [“Overview of fluidic data for flow below seat \(for liquids, steam and gases\)” on page 16](#)
- Pressure data [bar(g)]: Overpressure to atmospheric pressure

**⚠ WARNING**

**Risk of damage due to bursting pipes and bursting equipment when the flow is above the seat.**  
**In the case of liquid mediums, water hammer can occur, causing pipes and the device to burst.**

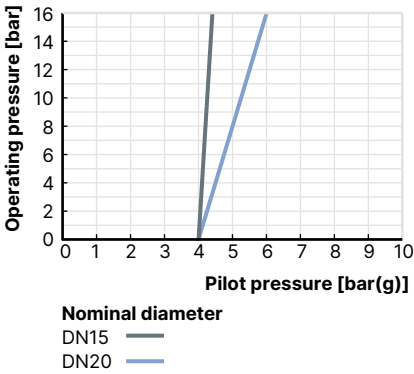
Do not use valves with flow above the seat for liquid mediums.

| Nominal diameter (port connection) |                | Actuator size Ø | Operating pressure max. |
|------------------------------------|----------------|-----------------|-------------------------|
|                                    |                |                 | CF A                    |
|                                    |                |                 | PTFE                    |
| DN                                 | NPS            | [mm]            | [bar(g)]                |
| 10                                 | $\frac{3}{8}$  | 40 (C)          | 16                      |
|                                    |                | 50 (D)          | 16                      |
| 15                                 | $\frac{1}{2}$  | 40 (C)          | 16                      |
|                                    |                | 50 (D)          | 16                      |
| 20                                 | $\frac{3}{4}$  | 40 (C)          | 16                      |
|                                    |                | 50 (D)          | 16                      |
| 25                                 | 1              | 50 (D)          | 16                      |
|                                    |                | 63 (E)          | 16                      |
| 32                                 | $1\frac{1}{4}$ | 63 (E)          | 16                      |
| 40                                 | $1\frac{1}{2}$ | 63 (E)          | 16                      |
|                                    |                | 80 (F)          | 16                      |
| 50                                 | 2              | 63 (E)          | 16                      |
|                                    |                | 80 (F)          | 16                      |
| 65                                 | $2\frac{1}{2}$ | 80 (F)          | 14                      |
|                                    |                | 100 (G)         | 15                      |

**Pilot pressure diagram with flow direction above seat (control function A, seat seal PTFE)**

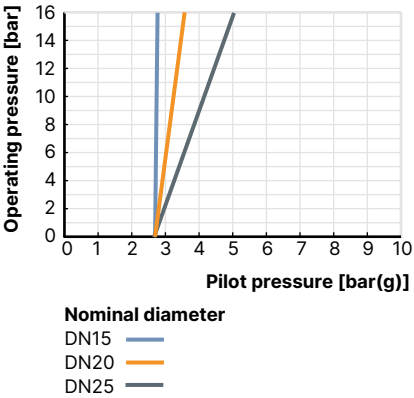
**Actuator size Ø 40 mm**

Maximum pilot pressure 10 bar(g)



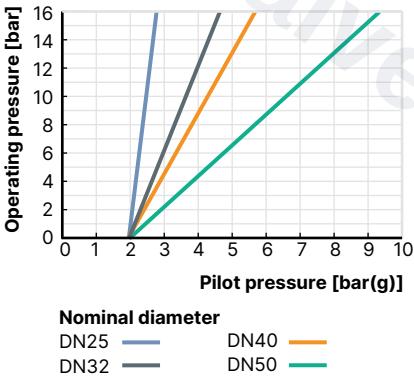
**Actuator size Ø 50 mm**

Maximum pilot pressure 10 bar(g)



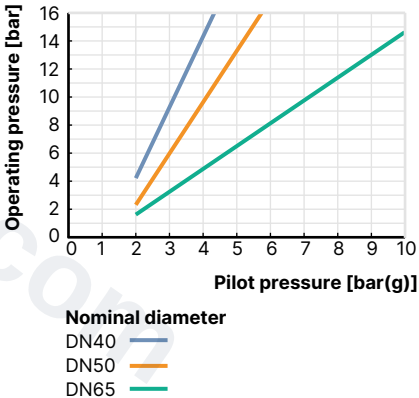
**Actuator size Ø 63 mm**

Maximum pilot pressure 10 bar(g)



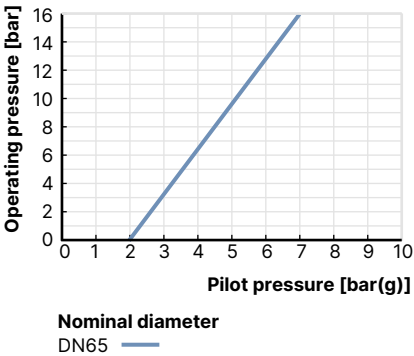
**Actuator size Ø 80 mm**

Maximum pilot pressure 10 bar(g)



**Actuator size Ø 100 mm**

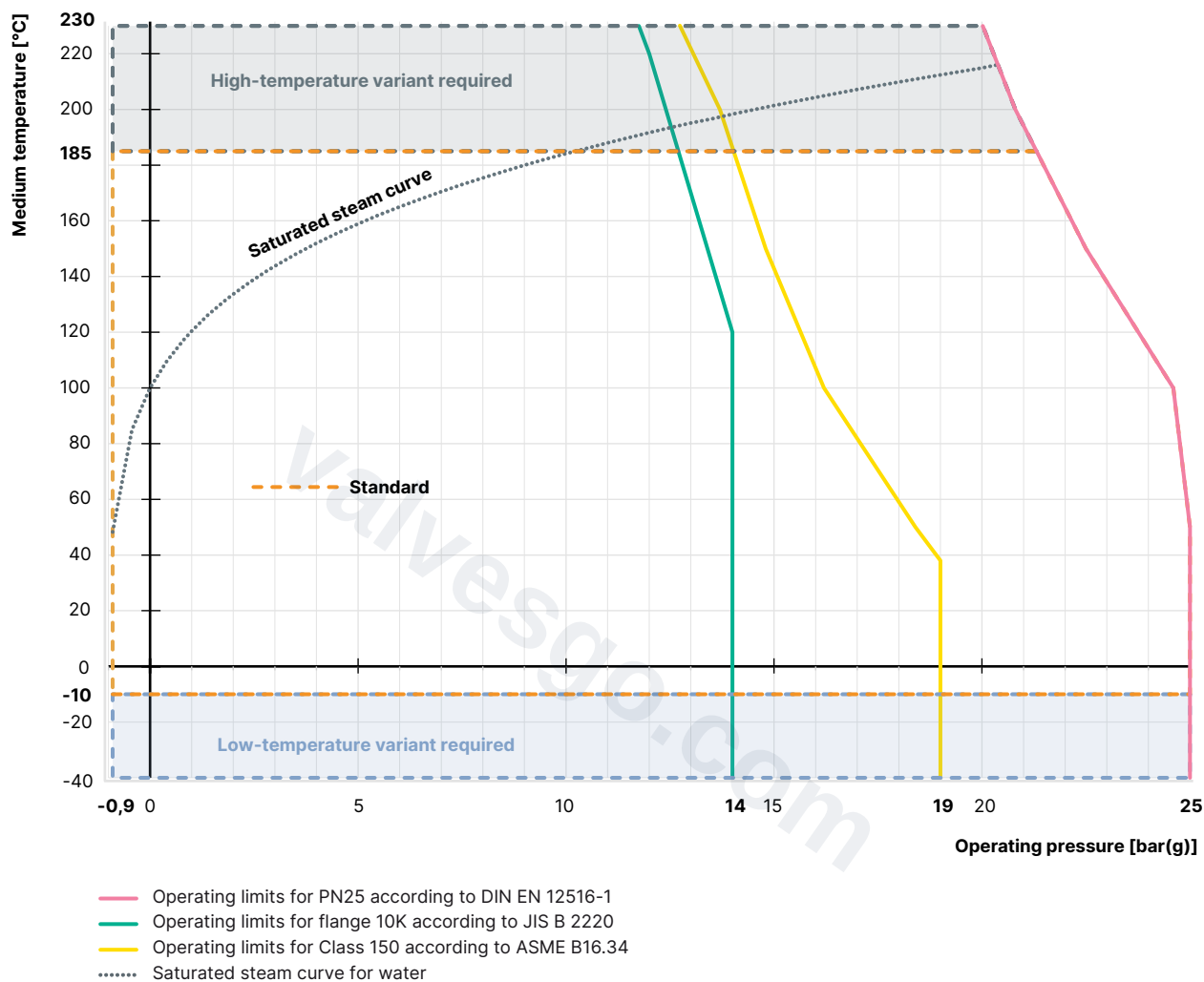
Maximum pilot pressure 7 bar(g)



## 7.2. Operating limits

### Operating limits for medium temperature and operating pressure

In addition to the maximum operating pressures, the operating range of Bürkert process valves is limited by the nominal pressure according to the relevant standard.

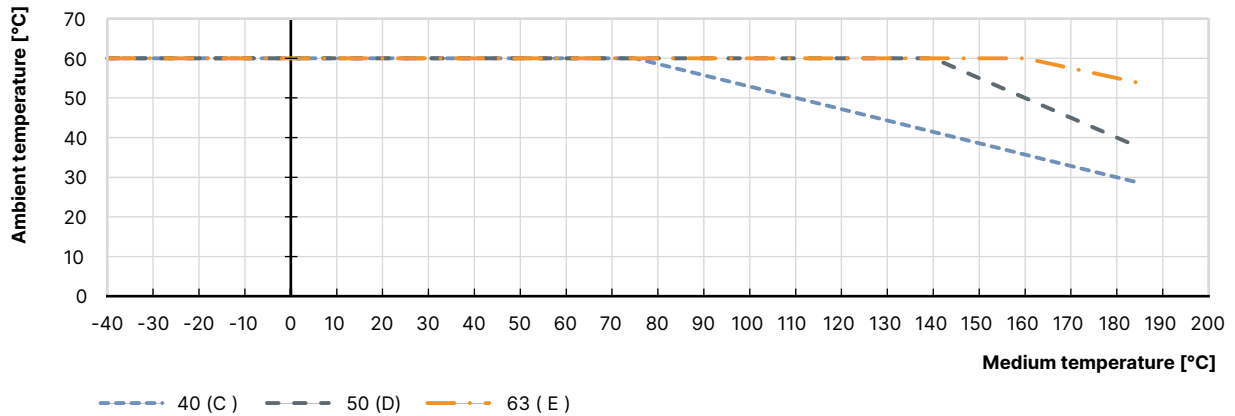


### Operating limits for ambient and medium temperature

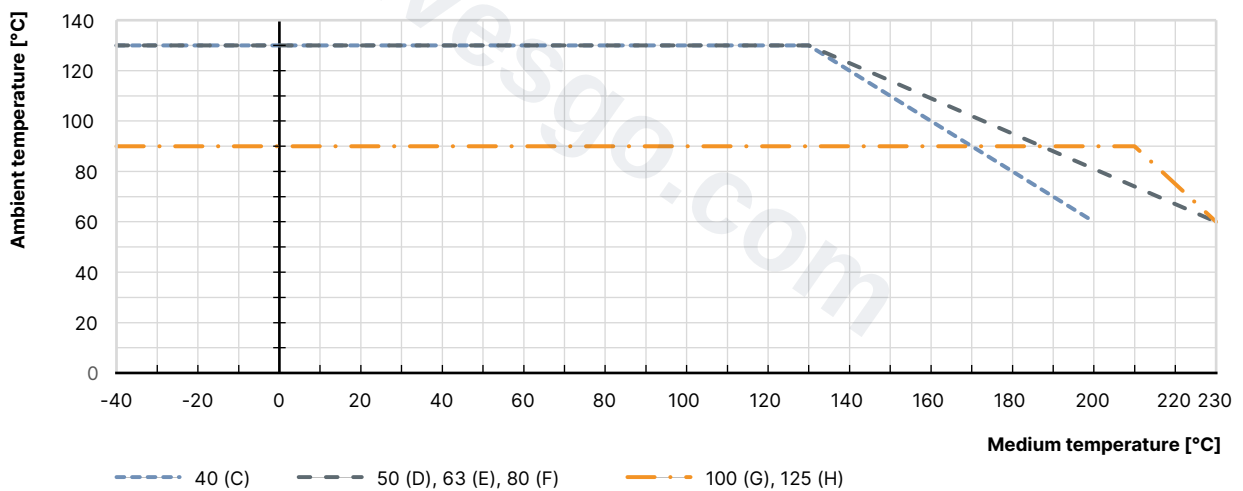
#### Note:

For size 40, 50 and 63 PA actuators, the combination of maximum medium temperature and maximum ambient temperature is shown in the following diagram:

#### Classic PA actuator



#### Classic PPS actuator



### Operating limits for optional variants

#### High-temperature variant

Thanks to an adaption of the packing gland and seat seal in PEEK, this variant is suitable for applications with steam, neutral gases and other heat transfer mediums up to + 230 °C.

#### Water variant

For applications with water up to + 200 °C, a special configuration of the spindle seal increases service life significantly. It is recommended for water temperatures starting at + 85 °C.

#### Vacuum variant

Without leakage bore, this design is suitable for pressures down to - 0.9 bar(g).

#### Low-temperature variant

Suitable for minimum medium temperatures down to - 40 °C

## 8. Product accessories

### Electric position feedback indicator

#### Type 8697 ▶ Actuator size Ø 40 (C)...125 (H)



The position feedback Type 8697 is designed for integrated mounting on CLASSIC series 20XX process valves, suiting the requirements of hygienic process environments. Mechanical or inductive limit switches register the position of the valve.

#### Features

- Compact design
- LED position indicator
- Mechanical or inductive limit switches for end position registering
- Easy-to-clean clean chemically resistant housing featuring IP65/IP67, 4X Rating
- Optionally intrinsically safe variant according to IECEx

#### Customer benefits

- Easy and quick installation
- High level of signal reliability thanks to self-adjusting limit switches
- Minimised space requirement in the plant piping for more flexibility in plant design

### Adaptation for proximity switch

#### Type 2XXX ▶



Various options for the use of inductive proximity switches are available for the CLASSIC series actuators:

- Nipple
- Support bracket, 1-fold
- Support bracket, 2-fold

### Plunger valve 3/2-way direct acting

#### Type 6012 ▶ for Actuator size Ø 40 (C)...63 (E), Type 6014 ▶ for Actuator size Ø 50 (D)...125 (H)



For easy direct mounting to a pneumatic actuator, a banjo connection with banjo bolt is the ideal solution. An optional manual override allows fast commissioning and optimum maintenance.

In conjunction with a cable plug according to DIN EN 175301-803 Form A or B, the valves meet protection class IP65.

#### Features

- High reliability
- Resistant according to IP65

#### Customer benefits

Easy and quick installation

### Stroke limiter

#### Type 2XXX ▶



Stroke limitations can be used to limit the minimum and maximum flow rate of the valves.

Different variants are available:

- Maximum stroke limitation
- Maximum and minimum stroke limitation with optical position indicator

## 9. Networking and combination with other Bürkert products

The **angled seat valve Type 2000** can be combined with the **feedback positioner Type 8697** to form the **valve system on/off CLASSIC Type 8801-YA**.

### Note:

- For the configuration of further valve systems use the **Product Enquiry Form** (see **"10.3. Bürkert Product Enquiry Form" on page 27**).
- You order two components and receive a completely assembled and tested valve.



## 10. Ordering information

### 10.1. 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](#)

### 10.2. Bürkert product filter

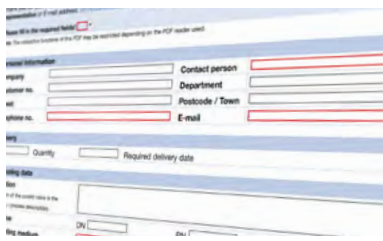


#### Bürkert product filter – Get quickly to the right product

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](#)

### 10.3. Bürkert Product Enquiry Form



#### 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](#)

#### 10.4. Ordering chart threaded connection

Valve with flow direction below seat

Gunmetal body

| Control function                                       | Nominal diameter<br>(port connection) | Actuator size Ø | Pilot pressure min.        | Operating pressure<br>max. | Article no.                                                                                  |
|--------------------------------------------------------|---------------------------------------|-----------------|----------------------------|----------------------------|----------------------------------------------------------------------------------------------|
|                                                        | NPS                                   | [mm]            | [bar(g)]                   | [bar(g)]                   | PA actuator                                                                                  |
| <b>DIN ISO 228 - 1</b>                                 |                                       |                 |                            |                            |                                                                                              |
| <b>A (CF A)</b><br>see control functions <sup>1)</sup> | 3/8                                   | 40 (C)          | 4.0                        | 15                         | 344651    |
|                                                        | 1/2                                   | 40 (C)          | 4.0                        | 15                         | 342508    |
|                                                        |                                       | 50 (D)          | 4.1                        | 16                         | 344665    |
|                                                        | 3/4                                   | 50 (D)          | 4.1                        | 11                         | 344662    |
|                                                        |                                       | 63 (E)          | 4.5                        | 16                         | 344654    |
|                                                        | 1                                     | 63 (E)          | 4.5                        | 11                         | 344658    |
|                                                        |                                       | 80 (F)          | 5.0                        | 16                         | 344768    |
|                                                        | 1 1/4                                 | 80 (F)          | 5.0                        | 14                         | 344680    |
|                                                        |                                       | 80 (F)          | 5.0                        | 9                          | 344675    |
|                                                        | 1 1/2                                 | 125 (H)         | 3.2                        | 16                         | 343138    |
|                                                        |                                       | 125 (H)         | 4.1                        | –                          | –                                                                                            |
|                                                        | 2                                     | 100 (G)         | 4.4                        | 7.2                        | 183193    |
|                                                        |                                       | 125 (H)         | 3.2                        | 10                         | 344411    |
|                                                        | 2 1/2                                 | 125 (H)         | 5.7                        | –                          | –                                                                                            |
|                                                        |                                       | 125 (H)         | 3.2                        | 5.2                        | 344384    |
|                                                        | 3                                     | 125 (H)         | 5.7                        | –                          | –                                                                                            |
| <b>B (CF B)</b><br>see control functions <sup>1)</sup> | 3/8                                   | 40 (C)          | See diagrams <sup>2)</sup> | 16                         | 344510  |
|                                                        | 1/2                                   | 40 (C)          |                            | 16                         | 344641  |
|                                                        |                                       | 50 (D)          |                            | 16                         | 344672  |
|                                                        | 3/4                                   | 50 (D)          |                            | 16                         | 344668  |
|                                                        | 1                                     | 50 (D)          |                            | 16                         | 344685  |
|                                                        | 1 1/4                                 | 63 (E)          |                            | 16                         | 344681  |
|                                                        | 1 1/2                                 | 63 (E)          |                            | 16                         | 344698  |
|                                                        | 2                                     | 63 (E)          |                            | 13                         | 342965  |
|                                                        |                                       | 80 (F)          |                            | 16                         | 344412  |
|                                                        | 2 1/2                                 | 80 (F)          |                            | 15                         | 439038  |
|                                                        | 3                                     | 125 (H)         |                            | –                          | –                                                                                            |

o. r. = on request

1.) For more information, refer to the chapter **"3. Control functions"** on page 7.

2.) See diagrams in chapter **"Pilot pressure diagrams with flow direction below seat (control function B, seat seal PTFE)"** on page 20

3.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to article 4, paragraph (1), c), i), first indent)

## Stainless steel body

| Control function                                | Nominal diameter<br>(port connection) | Actuator size Ø | Pilot pressure min.         | Operating pressure max.   | Article no.                                                                                  |       |                                                                                              |       |
|-------------------------------------------------|---------------------------------------|-----------------|-----------------------------|---------------------------|----------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------|-------|
|                                                 |                                       |                 |                             |                           | CF3M                                                                                         | CF8   | CF3M                                                                                         | CF8   |
|                                                 | NPS                                   | [mm]            | [bar(g)]                    | [bar(g)]                  | PA actuator                                                                                  |       | PPS actuator                                                                                 |       |
| DIN ISO 228 - 1                                 |                                       |                 |                             |                           |                                                                                              |       |                                                                                              |       |
| A (CF A)<br>see control functions <sup>1)</sup> | 3/8                                   | 40 (C)          | 4.0                         | 15                        | 342352    | o. r. | 344649    | o. r. |
|                                                 | 1/2                                   | 40 (C)          | 4.0                         | 15                        | 345487    | o. r. | 344645    | o. r. |
|                                                 |                                       | 50 (D)          | 4.1                         | 16                        | 341191    | o. r. | 344663    | o. r. |
|                                                 | 3/4                                   | 50 (D)          | 4.1                         | 11                        | 344660    | o. r. | 344659    | o. r. |
|                                                 |                                       | 63 (E)          | 4.5                         | 20                        | 342666    | o. r. | 344652    | o. r. |
|                                                 | 1                                     | 63 (E)          | 4.5                         | 11                        | 344656    | o. r. | 344655    | o. r. |
|                                                 |                                       | 80 (F)          | 5.0                         | 25                        | 342693    | o. r. | 344822    | o. r. |
|                                                 | 1¼                                    | 80 (F)          | 5.0                         | 14                        | 340789    | o. r. | 344676    | o. r. |
|                                                 | 1½                                    | 80 (F)          | 5.0                         | 9                         | 343142    | o. r. | 344673    | o. r. |
|                                                 |                                       | 125 (H)         | 3.2                         | 16                        | 342695    | o. r. | o. r.                                                                                        | o. r. |
|                                                 |                                       | 125 (H)         | 4.1                         | 25                        | 344989    | o. r. | o. r.                                                                                        | o. r. |
|                                                 | 2                                     | 100 (G)         | 4.4                         | 7.2                       | 344381    | o. r. | 344382    | o. r. |
|                                                 |                                       | 125 (H)         | 3.2                         | 10                        | o. r.                                                                                        | o. r. | o. r.                                                                                        | o. r. |
|                                                 |                                       | 125 (H)         | 5.7                         | 24 (20 <sup>3.)</sup> )   | 20001172  | o. r. | o. r.                                                                                        | o. r. |
|                                                 | 2½                                    | 125 (H)         | 3.2                         | 5.2                       | 344385    | o. r. | 344432    | o. r. |
|                                                 |                                       | 125 (H)         | 5.7                         | 12                        | o. r.                                                                                        | o. r. | 361565    | o. r. |
|                                                 | 3                                     | 125 (H)         | 5.7                         | 7.5                       | 350628    | o. r. | o. r.                                                                                        | o. r. |
| B (CF B)<br>see control functions <sup>1)</sup> | 3/8                                   | 40 (C)          | See dia-grams <sup>2)</sup> | 16                        | 344517  | o. r. | 344647  | o. r. |
|                                                 | 1/2                                   | 40 (C)          |                             | 16                        | 344642  | o. r. | 344643  | o. r. |
|                                                 |                                       | 50 (D)          |                             | 16                        | 344670  | o. r. | 344669  | o. r. |
|                                                 | 3/4                                   | 50 (D)          |                             | 16                        | 344667  | o. r. | 344666  | o. r. |
|                                                 | 1                                     | 50 (D)          |                             | 16                        | 344683  | o. r. | 344682  | o. r. |
|                                                 | 1¼                                    | 63 (E)          |                             | 25                        | 344687  | o. r. | 344686  | o. r. |
|                                                 | 1½                                    | 63 (E)          |                             | 25                        | 344696  | o. r. | 344695  | o. r. |
|                                                 | 2                                     | 63 (E)          |                             | 13                        | 344386  | o. r. | 344433  | o. r. |
|                                                 |                                       | 80 (F)          |                             | 25 (20 <sup>3.)</sup> )   | 344413  | o. r. | 344459  | o. r. |
|                                                 | 2½                                    | 80 (F)          |                             | 15                        | 344387  | o. r. | 344434  | o. r. |
|                                                 | 3                                     | 125 (H)         |                             | 14 (12.5 <sup>3.)</sup> ) | 370263  | o. r. | o. r.                                                                                        | o. r. |

o. r. = on request

1.) For more information, refer to the chapter "3. Control functions" on page 7.

2.) See diagrams in chapter "Pilot pressure diagrams with flow direction below seat (control function B, seat seal PTFE)" on page 20

3.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to article 4, paragraph (1), c), i), first indent)

**Valve with flow direction above seat**
**Note:**

 See diagrams in chapter **"Pilot pressure diagram with flow direction above seat (control function A, seat seal PTFE)"** on page 22.

| Control function                                       | Nominal diameter<br>(port connection) | Actuator size Ø | Operating pressure max. | Article no.   |                           |              |                          |              |
|--------------------------------------------------------|---------------------------------------|-----------------|-------------------------|---------------|---------------------------|--------------|--------------------------|--------------|
|                                                        |                                       |                 |                         | Gunmetal body | Stainless steel body CF3M |              | Stainless steel body CF8 |              |
|                                                        | NPS                                   | [m³/h]          | [bar(g)]                | PA actuator   | PA actuator               | PPS actuator | PA actuator              | PPS actuator |
| <b>DIN ISO 228 - 1</b>                                 |                                       |                 |                         |               |                           |              |                          |              |
| <b>A (CF A)</b><br>see control functions <sup>1)</sup> | 3/8                                   | 40 (C)          | 16                      | 344782        | 344516                    | o. r.        | o. r.                    | o. r.        |
|                                                        | 1/2                                   | 50 (D)          | 16                      | 344734        | 344761                    | 344765       | o. r.                    | o. r.        |
|                                                        | 3/4                                   | 40 (C)          | 16                      | 344803        | 344820                    | o. r.        | o. r.                    | o. r.        |
|                                                        |                                       | 50 (D)          | 16                      | 344741        | 344740                    | 344709       | o. r.                    | o. r.        |
|                                                        | 1                                     | 50 (D)          | 16                      | 344763        | 344793                    | 344827       | o. r.                    | o. r.        |
|                                                        |                                       | 63 (E)          | 16                      | 344694        | 344693                    | 344692       | o. r.                    | o. r.        |
|                                                        | 1 1/4                                 | 63 (E)          | 16                      | 344691        | 344700                    | 344699       | o. r.                    | o. r.        |
|                                                        | 1 1/2                                 | 63 (E)          | 16                      | 344703        | 344702                    | 344701       | o. r.                    | o. r.        |
|                                                        | 2                                     | 63 (E)          | 16                      | 344383        | 344395                    | 344454       | o. r.                    | o. r.        |
|                                                        | 2 1/2                                 | 80 (F)          | 14                      | 344394        | 344396                    | 344457       | o. r.                    | o. r.        |
|                                                        |                                       | 100 (G)         | 15                      | 344485        | 344487                    | o. r.        | o. r.                    | o. r.        |

o. r. = on request

 1.) For more information, refer to the chapter **"3. Control functions"** on page 7.

**Further variants on request**

|                                                                                                                                                                                  |                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Approval</b><br>Food processing, drinking water, oxygen, fuel gases, explosion protection |  <b>Pressure</b><br>Other variants for operating pressures up to 25 bar(g)<br>Vacuum variant down to -0.9 bar(g)                              |
|  <b>Material</b><br>Seal: NBR, FKM, EPDM                                                      |  <b>Temperature</b><br>High temperature variant up to + 230 °C<br>Hot water variant up to + 200 °C<br>Low temperature variant down to - 40 °C |
|  <b>Process connection</b><br>Clamp connection, welded connection                             |                                                                                                                                                                                                                                  |

## 10.5. Ordering chart welded connection

Valve with flow direction below seat

| Control function                                 | Nominal diameter (port connection) | Actuator size Ø | Port connection Pipe Ø | Pilot pressure min.         | Operating pressure max. | Article no.                                                                                    |                                                                                              |
|--------------------------------------------------|------------------------------------|-----------------|------------------------|-----------------------------|-------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                                  | NPS                                | [mm]            | [mm]                   | [bar(g)]                    | [bar(g)]                | PA actuator                                                                                    | PPS actuator                                                                                 |
| DIN EN ISO 1127 / ISO 4200                       |                                    |                 |                        |                             |                         |                                                                                                |                                                                                              |
| A (CF A)<br>see control functions <sup>1.)</sup> | 15                                 | 50 (D)          | 21.3 × 1.6             | 4.1                         | 16                      | 344388      | 344473    |
|                                                  | 20                                 | 50 (D)          | 26.9 × 1.6             | 4.1                         | 11                      | 344389      | 344474    |
|                                                  | 25                                 | 63 (E)          | 33.7 × 2.0             | 4.5                         | 11                      | 344390      | 344475    |
|                                                  | 32                                 | 80 (F)          | 42.4 × 2.0             | 5                           | 14                      | 344391      | 344450    |
|                                                  | 40                                 | 80 (F)          | 48.3 × 2.0             | 5                           | 9                       | 344392      | 344483    |
|                                                  | 50                                 | 100 (G)         | 60.3 × 2.0             | 4.4                         | 7.2                     | 345012      | 356461    |
|                                                  | 65                                 | 125 (H)         | 76.1 × 2.3             | 3.2                         | 5.2                     | 344588      | o. r.                                                                                        |
|                                                  |                                    |                 | 76.1 × 2.3             | 5.7                         | 12                      | 20001505    | o. r.                                                                                        |
| B (CF B)<br>see control functions <sup>1.)</sup> | 15                                 | 50 (D)          | 21.3 × 1.6             | See diagrams <sup>2.)</sup> | 16                      | 345485      | 344478    |
|                                                  | 20                                 | 50 (D)          | 26.9 × 1.6             |                             | 16                      | 344405      | 344479    |
|                                                  | 25                                 | 63 (E)          | 33.7 × 2.0             |                             | 25                      | 344406      | o. r.                                                                                        |
|                                                  | 32                                 | 63 (E)          | 42.4 × 2.0             |                             | 25                      | 344407      | o. r.                                                                                        |
|                                                  | 40                                 | 63 (E)          | 48.3 × 2.0             |                             | 25                      | 344408      | 353580    |
|                                                  | 50                                 | 63 (E)          | 60.3 × 2.0             |                             | 13                      | 345013      | o. r.                                                                                        |
|                                                  | 65                                 | 80 (F)          | 76.1 × 2.3             |                             | 15                      | 344609      | o. r.                                                                                        |
| DIN 11850 - 2                                    |                                    |                 |                        |                             |                         |                                                                                                |                                                                                              |
| A (CF A)<br>see control functions <sup>1.)</sup> | 15                                 | 50 (D)          | 19 × 1.5               | 4.1                         | 16                      | 344267     | 344557   |
|                                                  | 20                                 | 50 (D)          | 23 × 1.5               | 4.1                         | 11                      | 344522    | 344559  |
|                                                  | 25                                 | 63 (E)          | 29 × 1.5               | 4.5                         | 11                      | 344523    | 344540  |
|                                                  | 32                                 | 80 (F)          | 35 × 1.5               | 5                           | 14                      | 344524    | 352462  |
|                                                  | 40                                 | 80 (F)          | 41 × 1.5               | 5                           | 9                       | 344525    | 352468  |
|                                                  | 50                                 | 100 (G)         | 53 × 1.5               | 4.4                         | 7.2                     | 344526    | 352467  |
|                                                  | 65                                 | 125 (H)         | 70 × 2.0               | 3.2                         | 5.2                     | 344614    | o. r.                                                                                        |
|                                                  |                                    |                 | 70 × 2.0               | 5.7                         | 12                      | 20015086  | o. r.                                                                                        |
| B (CF B)<br>see control functions <sup>1.)</sup> | 15                                 | 50 (D)          | 19 × 1.5               | See diagrams <sup>2.)</sup> | 16                      | 344527    | 352208  |
|                                                  | 20                                 | 50 (D)          | 23 × 1.5               |                             | 16                      | 344528    | 344558  |
|                                                  | 25                                 | 63 (E)          | 29 × 1.5               |                             | 25                      | 344530    | 366314  |
|                                                  | 32                                 | 63 (E)          | 35 × 1.5               |                             | 25                      | 344531    | 352385  |
|                                                  | 40                                 | 63 (E)          | 41 × 1.5               |                             | 25                      | 344532    | 352387  |
|                                                  | 50                                 | 63 (E)          | 53 × 1.5               |                             | 13                      | 344533    | 154903  |
|                                                  | 65                                 | 80 (F)          | 70 × 2.0               |                             | 15                      | 344617    | o. r.                                                                                        |
| ASME BPE                                         |                                    |                 |                        |                             |                         |                                                                                                |                                                                                              |
| A (CF A)<br>see control functions <sup>1.)</sup> | ½                                  | 50 (D)          | 12.7 × 1.65            | 4.1                         | 16                      | 344549    | 344547  |
|                                                  | ¾                                  | 50 (D)          | 19.05 × 1.65           | 4.1                         | 11                      | 344726    | o. r.                                                                                        |
|                                                  | 1                                  | 63 (E)          | 25.4 × 1.65            | 4.5                         | 11                      | 345476    | 344879  |
|                                                  | 1½                                 | 80 (F)          | 38.1 × 1.65            | 5                           | 9                       | 344553    | o. r.                                                                                        |
|                                                  | 2                                  | 100 (G)         | 50.8 × 1.65            | 4.4                         | 7.2                     | 344727    | o. r.                                                                                        |
| B (CF B)<br>see control functions <sup>1.)</sup> | ½                                  | 50 (D)          | 12.7 × 1.65            | See diagrams <sup>2.)</sup> | 16                      | 344550    | 364483  |
|                                                  | ¾                                  | 50 (D)          | 19.05 × 1.65           |                             | 16                      | 344583    | o. r.                                                                                        |
|                                                  | 1                                  | 63 (E)          | 25.4 × 1.65            |                             | 25                      | 183280    | o. r.                                                                                        |
|                                                  | 1½                                 | 63 (E)          | 38.1 × 1.65            |                             | 25                      | 344554    | o. r.                                                                                        |
|                                                  | 2                                  | 63 (E)          | 50.8 × 1.65            |                             | 13                      | 344630    | o. r.                                                                                        |

o. r. = on request

1.) For more information, refer to the chapter "3. Control functions" on page 7.

2.) See diagrams in chapter "Pilot pressure diagrams with flow direction below seat (control function B, seat seal PTFE)" on page 20

**Valve with flow direction above seat**

The following tables refer to valves with stainless steel body, n actuator of PA and Ra inside from  $\leq 3.2 \mu\text{m}$ .

| Control function                                | Nominal diameter (port connection) | Actuator size Ø | Port connection Pipe Ø | Pilot pressure min.        | Operating pressure max. | Article no.                                                                                  |                                                                                              |
|-------------------------------------------------|------------------------------------|-----------------|------------------------|----------------------------|-------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                                 | NPS                                | [mm]            | [mm]                   | [bar(g)]                   | [bar(g)]                | PA actuator                                                                                  | PPS actuator                                                                                 |
| DIN EN ISO 1127 / ISO 4200                      |                                    |                 |                        |                            |                         |                                                                                              |                                                                                              |
| A (CF A)<br>see control functions <sup>1)</sup> | 15                                 | 50 (D)          | 21.3 × 1.6             | See diagrams <sup>2)</sup> | 16                      | 344402    | 352370    |
|                                                 | 20                                 | 50 (D)          | 26.9 × 1.6             |                            | 16                      | 344401    | o. r.                                                                                        |
|                                                 | 25                                 | 63 (E)          | 33.7 × 2               |                            | 16                      | 344400    | 352457    |
|                                                 | 32                                 | 63 (E)          | 42.4 × 2               |                            | 16                      | 344397    | o. r.                                                                                        |
|                                                 | 40                                 | 63 (E)          | 48.3 × 2               |                            | 16                      | 344398    | 344480    |
|                                                 | 50                                 | 63 (E)          | 60.3 × 2.0             |                            | 16                      | 345014    | o. r.                                                                                        |
|                                                 | 65                                 | 80 (F)          | 76.1 × 2.3             |                            | 14                      | 345146    | o. r.                                                                                        |
| DIN 11850 - 2                                   |                                    |                 |                        |                            |                         |                                                                                              |                                                                                              |
| A (CF A)<br>see control functions <sup>1)</sup> | 15                                 | 50 (D)          | 19 × 1.5               | See diagrams <sup>2)</sup> | 16                      | 342493    | 344582    |
|                                                 | 20                                 | 50 (D)          | 23 × 1.5               |                            | 16                      | 344534    | 344863    |
|                                                 | 25                                 | 63 (E)          | 29 × 1.5               |                            | 16                      | 344535    | 352203    |
|                                                 | 32                                 | 63 (E)          | 35 × 1.5               |                            | 16                      | 344536    | 352390    |
|                                                 | 40                                 | 63 (E)          | 41 × 1.5               |                            | 16                      | 344537    | 352207    |
|                                                 | 50                                 | 63 (E)          | 53 × 1.5               |                            | 16                      | 341778    | 352461    |
|                                                 | 65                                 | 80 (F)          | 70 × 2.0               |                            | 14                      | 344625    | 367783    |
| ASME BPE                                        |                                    |                 |                        |                            |                         |                                                                                              |                                                                                              |
| A (CF A)<br>see control functions <sup>1)</sup> | ½                                  | 50 (D)          | 12.7 × 1.65            | See diagrams <sup>2)</sup> | 16                      | 344728  | o. r.                                                                                        |
|                                                 | ¾                                  | 50 (D)          | 19.05 × 1.65           |                            | 16                      | 344729  | o. r.                                                                                        |
|                                                 | 1                                  | 63 (E)          | 25.4 × 1.65            |                            | 16                      | 344730  | 344556  |
|                                                 | 1½                                 | 63 (E)          | 38.1 × 1.65            |                            | 16                      | 344731  | o. r.                                                                                        |
|                                                 | 2                                  | 63 (E)          | 50.8 × 1.65            |                            | 16                      | 344602  | o. r.                                                                                        |

o. r. = on request

1.) For more information, refer to the chapter "3. Control functions" on page 7.

2.) See diagrams in chapter "Pilot pressure diagram with flow direction above seat (control function A, seat seal PTFE)" on page 22

**Further variants on request**

|                                                                                                                                                                                  |                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Approval</b><br>Food processing, drinking water, oxygen, fuel gases, explosion protection |  <b>Pressure</b><br>Other variants for operating pressures up to 25 bar(g)<br>Vacuum variant down to -0.9 bar(g)                           |
|                                                                                                                                                                                  |  <b>Material</b><br>Seal: NBR, FKM, EPDM                                                                                                   |
|  <b>Process connection</b><br>Clamp connection, threaded connection                           |  <b>Temperature</b><br>High temperature variant up to +230 °C<br>Hot water variant up to +200 °C<br>Low temperature variant down to -40 °C |

## 10.6. Ordering chart clamp connection

### Valve with flow direction below seat

#### Note:

The following tables refer to valves with stainless steel body.

| Control function                                | Nominal diameter (port connection) | Actuator size Ø | Port connection external Ø | Pilot pressure min.        | Operating pressure max. | Article no.                                                                                  |                                                                                            |
|-------------------------------------------------|------------------------------------|-----------------|----------------------------|----------------------------|-------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|                                                 | DN                                 | [mm]            | [mm]                       | [bar(g)]                   | [bar(g)]                | PA actuator                                                                                  | PPS actuator                                                                               |
| ISO 2852                                        |                                    |                 |                            |                            |                         |                                                                                              |                                                                                            |
| A (CF A)<br>see control functions <sup>1)</sup> | 15                                 | 50 (D)          | 34.0                       | 4.1                        | 16                      | 345128    | o. r.                                                                                      |
|                                                 | 20                                 | 50 (D)          | 50.5                       | 4.1                        | 11                      | 345129    | o. r.                                                                                      |
|                                                 | 25                                 | 63 (E)          | 50.5                       | 4.2                        | 11                      | 345130    | 344574  |
|                                                 | 32                                 | 80 (F)          | 50.5                       | 5                          | 14                      | 345131    | o. r.                                                                                      |
|                                                 | 40                                 | 80 (F)          | 64.0                       | 5                          | 9                       | 345132    | o. r.                                                                                      |
|                                                 | 50                                 | 100 (G)         | 77.5                       | 4.4                        | 7.2                     | 345133    | o. r.                                                                                      |
| B (CF B)<br>see control functions <sup>1)</sup> | 15                                 | 50 (D)          | 34.0                       | See diagrams <sup>2)</sup> | 16                      | 363929    | o. r.                                                                                      |
|                                                 | 20                                 | 50 (D)          | 50.5                       |                            | 16                      | 345134    | o. r.                                                                                      |
|                                                 | 25                                 | 50 (D)          | 50.5                       |                            | 16                      | 363930    | o. r.                                                                                      |
|                                                 | 32                                 | 63 (E)          | 50.5                       |                            | 16                      | 363933    | o. r.                                                                                      |
|                                                 | 40                                 | 63 (E)          | 64.0                       |                            | 16                      | 363940    | o. r.                                                                                      |
|                                                 | 50                                 | 63 (E)          | 77.5                       |                            | 13                      | 363942    | o. r.                                                                                      |
| ASME BPE                                        |                                    |                 |                            |                            |                         |                                                                                              |                                                                                            |
| A (CF A)<br>see control functions <sup>1)</sup> | ½                                  | 50 (D)          | 25.0                       | 4.1                        | 16                      | 344632   | o. r.                                                                                      |
|                                                 | ¾                                  | 50 (D)          | 25.0                       | 4.1                        | 11                      | 344633  | o. r.                                                                                      |
|                                                 | 1                                  | 63 (E)          | 50.5                       | 4.2                        | 11                      | 344634  | o. r.                                                                                      |
|                                                 | 1½                                 | 80 (F)          | 50.5                       | 5                          | 9                       | 344635  | o. r.                                                                                      |
|                                                 | 2                                  | 100 (G)         | 64.0                       | 4.4                        | 7.2                     | 344636  | o. r.                                                                                      |
| B (CF B)<br>see control functions <sup>1)</sup> | ½                                  | 50 (D)          | 25.0                       | See diagrams <sup>2)</sup> | 16                      | o. r.                                                                                        | o. r.                                                                                      |
|                                                 | ¾                                  | 50 (D)          | 25.0                       |                            | 16                      | o. r.                                                                                        | o. r.                                                                                      |
|                                                 | 1                                  | 50 (D)          | 50.5                       |                            | 16                      | o. r.                                                                                        | o. r.                                                                                      |
|                                                 | 1½                                 | 63 (E)          | 50.5                       |                            | 16                      | o. r.                                                                                        | o. r.                                                                                      |
|                                                 | 2                                  | 63 (E)          | 64.0                       |                            | 13                      | o. r.                                                                                        | o. r.                                                                                      |

o. r. = on request

1.) For more information, refer to the chapter "3. Control functions" on page 7.

2.) See diagrams in chapter "Pilot pressure diagrams with flow direction below seat (control function B, seat seal PTFE)" on page 20

## Valve with flow direction above seat

| Control function                                | Nominal diameter (port connection) | Actuator size Ø | Port connection external Ø | Pilot pressure min.        | Operating pressure max. | Article no.                                                                                |                                                                                            |
|-------------------------------------------------|------------------------------------|-----------------|----------------------------|----------------------------|-------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|                                                 | DN                                 | [mm]            | [mm]                       | [bar(g)]                   | [bar(g)]                | PA actuator                                                                                | PPS actuator                                                                               |
| ISO 2852                                        |                                    |                 |                            |                            |                         |                                                                                            |                                                                                            |
| A (CF A)<br>see control functions <sup>1)</sup> | 15                                 | 50 (D)          | 34.0                       | See diagrams <sup>2)</sup> | 16                      | 345135  | 345145  |
|                                                 | 20                                 | 50 (D)          | 50.5                       |                            | 16                      | 345136  | o. r.                                                                                      |
|                                                 | 25                                 | 63 (E)          | 50.5                       |                            | 16                      | 345137  | o. r.                                                                                      |
|                                                 | 32                                 | 63 (E)          | 50.5                       |                            | 16                      | 345138  | o. r.                                                                                      |
|                                                 | 40                                 | 63 (E)          | 64.0                       |                            | 16                      | 345139  | o. r.                                                                                      |
|                                                 | 50                                 | 63 (E)          | 77.5                       |                            | 16                      | 345140  | 431027  |
| ASME BPE                                        |                                    |                 |                            |                            |                         |                                                                                            |                                                                                            |
| A (CF A)<br>see control functions <sup>1)</sup> | ½                                  | 50 (D)          | 25.0                       | See diagrams <sup>2)</sup> | 16                      | 344721  | o. r.                                                                                      |
|                                                 | ¾                                  | 50 (D)          | 25.0                       |                            | 16                      | 344722  | o. r.                                                                                      |
|                                                 | 1                                  | 63 (E)          | 50.5                       |                            | 16                      | 344723  | o. r.                                                                                      |
|                                                 | 1½                                 | 63 (E)          | 50.5                       |                            | 16                      | 344724  | o. r.                                                                                      |
|                                                 | 2                                  | 63 (E)          | 64.0                       |                            | 16                      | 344725  | o. r.                                                                                      |

o. r. = on request

1.) For more information, refer to the chapter "3. Control functions" on page 7.

2.) See diagrams in chapter "Pilot pressure diagram with flow direction above seat (control function A, seat seal PTFE)" on page 22

## Further variants on request

|                                                                                    |                                                                                                         |                                                                                    |                                                                                                                                              |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Approval</b><br>Food processing, drinking water, oxygen, fuel gases, explosion protection            |  | <b>Pressure</b><br>Other variants for operating pressures up to 25 bar(g)<br>Vacuum variant down to -0.9 bar(g)                              |
|                                                                                    | <b>Material</b><br>Seal: NBR, FKM, EPDM                                                                 |                                                                                    | <b>Temperature</b><br>High temperature variant up to + 230 °C<br>Hot water variant up to + 200 °C<br>Low temperature variant down to - 40 °C |
|                                                                                    | <b>Process connection</b><br>Clamp connection acc. to DIN 32676, welded connection, threaded connection |                                                                                    |                                                                                                                                              |

## 10.7. Ordering chart accessories

### Accessories for 3/2-way pilot valves with banjo bolts

#### Note:

- Seal material FKM / NBR
- For complete program, see data sheet [Type 7012](#) ▶, [Type 6014](#) ▶, [Type 2507](#) ▶, [Type 2518](#) ▶

| Valves<br>for<br>actuator<br>size Ø | Type | Pilot air<br>port                   | Working<br>port<br>(banjo<br>bolt) | Q <sub>Nn</sub> value<br>air | Pres-<br>sure<br>range | Electrical<br>coil<br>connec-<br>tion<br>Industry<br>standard | Power<br>con-<br>sump-<br>tion | Article no.                                                                                    |                                                                                                |                                                                                              |                                                                                              |
|-------------------------------------|------|-------------------------------------|------------------------------------|------------------------------|------------------------|---------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                     |      |                                     |                                    |                              |                        |                                                               |                                | Voltage/Frequency                                                                              |                                                                                                | Cable plug                                                                                   |                                                                                              |
|                                     |      |                                     |                                    |                              |                        |                                                               |                                | 024 V/DC                                                                                       | 230 V/50                                                                                       | 12...24<br>AC/DC<br>with LED                                                                 | 0...250<br>AC/DC                                                                             |
| [mm]                                |      |                                     |                                    | [l/min]                      | [bar(g)]               |                                                               | [W]                            | [V]                                                                                            | [V]                                                                                            | [V]                                                                                          | [V]                                                                                          |
| 40 (C)                              | 7012 | Thread<br>G ¼                       | Thread<br>G ⅝                      | 48                           | 0...10                 | Type 2507<br>Form B                                           | 4                              | 20077598    | 20077609    | 423849    | 423845    |
|                                     |      | Push-in<br>con-<br>nector<br>Ø 6 mm |                                    |                              |                        |                                                               |                                | 20087641    | 20096098    |                                                                                              |                                                                                              |
| 50 (D)...<br>63 (E)                 |      | Thread<br>G ¼                       | Thread<br>G ¼                      |                              |                        |                                                               |                                | 20077514   | 20077519  |                                                                                              |                                                                                              |
|                                     |      | Push-in<br>con-<br>nector<br>Ø 6 mm |                                    |                              |                        |                                                               |                                | 20087628  | 20092512  |                                                                                              |                                                                                              |
| 50 (D)...<br>125 (H)                | 6014 | Thread<br>G ¼                       | Thread<br>G ¼                      | 120                          | 0...10                 | Type 2518<br>Form A                                           | 8                              | 334870    | 389550    | 314812  | 314802  |