



## Pneumatically operated 2/2-way globe valve ELEMENT for decentralised automation

- Compact design
- Long service life
- Easy integration of automation units with ELEMENT
- Stainless steel valve body with flange, sleeve or welded connection
- Suitable for steam



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

### Can be combined with

|                                                                                     |                                                                                                   |   |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---|
|   | <b>Type 8690</b><br>Pneumatic control unit for decentralised automation of process valves ELEMENT | ► |
|  | <b>Type 8691</b><br>Control head for decentralised automation of ELEMENT process valves           | ► |
|  | <b>Type 8695</b><br>Control head for decentralised automation of ELEMENT process valves           | ► |
|  | <b>Type 8697</b><br>Pneumatic control unit for decentralised automation of process valves ELEMENT | ► |
|  | <b>Type 8801</b><br>On/off valve systems ELEMENT with decentralised automation – overview         | ► |
|  | <b>Type 8840</b><br>Modular process valve cluster – distributor and collector                     | ► |

### Type description

The Type 2101 globe valve is specially optimised for decentralised process automation and meets all practical requirements even under difficult operating conditions. Its unique design allows easy the integration of automation units in all expansion stages, from electrical/optical position feedback to pneumatic control and integrated fieldbus interface. Maximum service life and tightness are achieved by the proven self-adjusting v-seal packing gland. The highly integrated system of valve and automation unit is characterised by its compact and smooth design, integrated pilot air ducts, protection classes IP65/67, NEMA Type 4X and high resistance to chemicals.

## Table of contents

|                                                                                   |           |
|-----------------------------------------------------------------------------------|-----------|
| <b>1. General technical data</b>                                                  | <b>3</b>  |
| <b>2. Control functions</b>                                                       | <b>4</b>  |
| <b>3. Approvals and conformities</b>                                              | <b>5</b>  |
| 3.1. General notes .....                                                          | 5         |
| 3.2. Conformity .....                                                             | 5         |
| 3.3. Standards .....                                                              | 5         |
| 3.4. Explosion protection .....                                                   | 5         |
| 3.5. Drinking water .....                                                         | 5         |
| 3.6. Foods and beverages/Hygiene .....                                            | 6         |
| 3.7. Others .....                                                                 | 6         |
| DNV GL classification .....                                                       | 6         |
| Oxygen .....                                                                      | 6         |
| Fuel gases .....                                                                  | 6         |
| Hydrogen .....                                                                    | 6         |
| TA Luft .....                                                                     | 6         |
| <b>4. Materials</b>                                                               | <b>7</b>  |
| 4.1. Bürkert resistApp .....                                                      | 7         |
| 4.2. Material specifications .....                                                | 7         |
| Stainless steel for higher drive forces .....                                     | 8         |
| <b>5. Dimensions</b>                                                              | <b>9</b>  |
| 5.1. Actuator .....                                                               | 9         |
| Valve system on/off ELEMENT .....                                                 | 10        |
| 5.2. Body with flange connection .....                                            | 12        |
| 5.3. Body with threaded connection .....                                          | 13        |
| 5.4. Body with welded connection .....                                            | 14        |
| 5.5. Body with clamp connection .....                                             | 15        |
| <b>6. Performance specifications</b>                                              | <b>16</b> |
| 6.1. Fluidic data .....                                                           | 16        |
| Overview of fluidic data for flow below seat (for liquids, steam and gases) ..... | 16        |
| Pilot pressure diagrams with flow direction below seat (Control function B) ..... | 17        |
| Overview of fluidic data with flow above seat (for gases and steam) .....         | 18        |
| Pilot pressure diagram for flow direction above seat (control function A) .....   | 19        |
| 6.2. Operating limits .....                                                       | 20        |
| Operating limits for medium temperature and operating pressure .....              | 20        |
| Operating limits for ambient and medium temperature .....                         | 21        |
| Operating limits for optional variants .....                                      | 21        |
| <b>7. Product accessories</b>                                                     | <b>22</b> |
| <b>8. Networking and combination with other Bürkert products</b>                  | <b>23</b> |
| <b>9. Ordering information</b>                                                    | <b>24</b> |
| 9.1. Bürkert eShop .....                                                          | 24        |
| 9.2. Bürkert product filter .....                                                 | 24        |
| 9.3. Bürkert Product Enquiry Form .....                                           | 24        |
| 9.4. Ordering chart for flange connection .....                                   | 25        |
| Valves with flow direction below seat .....                                       | 25        |
| Valves with flow direction above seat .....                                       | 27        |

## 1. General technical data

|                                                                                                        |                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product properties</b>                                                                              |                                                                                                                                                                                                                                                              |
| Dimensions                                                                                             | Further information can be found in chapter <a href="#">"5. Dimensions" on page 9.</a>                                                                                                                                                                       |
| Material                                                                                               | Further information can be found in chapter <a href="#">"4. Materials" on page 7.</a>                                                                                                                                                                        |
| Design                                                                                                 | Globe valve                                                                                                                                                                                                                                                  |
| Nominal diameter (port connection)                                                                     | DN 10...DN 100, NPS 3/8...NPS 4                                                                                                                                                                                                                              |
| Safety setting in case of power failure                                                                | Normally closed (control function A), normally open (control function B)                                                                                                                                                                                     |
| Flow direction                                                                                         | Against closing direction (below seat), with closing direction (above seat)                                                                                                                                                                                  |
| <b>Performance data</b>                                                                                |                                                                                                                                                                                                                                                              |
| Operating pressure                                                                                     | 0 bar(g)...25 bar(g), 40 bar(g) on request (see <a href="#">"6.1. Fluidic data" on page 16</a> )<br>Vacuum variants... - 0.9 bar(g) (option)                                                                                                                 |
| Nominal pressure                                                                                       | PN 25/PN 40 (DIN EN 1333), Class 150 (DIN EN 1759)                                                                                                                                                                                                           |
| Pilot pressure                                                                                         | 2.5 bar(g)...10 bar(g) (see <a href="#">"6.1. 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                                                                                   | 4.7 m³/h...140 m³/h (see <a href="#">"6.1. Fluidic data" on page 16</a> )                                                                                                                                                                                    |
| <b>Medium data</b>                                                                                     |                                                                                                                                                                                                                                                              |
| Operating medium                                                                                       | Steam, water, neutral gases, alcohols, oils, fuels, hydraulic fluids, salt solutions, organic solvents, oxygen and fuel gases of families I, II and III in accordance with the Gas Appliances Regulation (EU) 2016/426, Hydrogen (optional), lyes (optional) |
| Medium temperature                                                                                     | - 40 °C...+ 230 °C (see <a href="#">"6.2. Operating limits" on page 20</a> )                                                                                                                                                                                 |
| Viscosity                                                                                              | Max. 600 mm²/s                                                                                                                                                                                                                                               |
| Control medium                                                                                         | Air, neutral gases                                                                                                                                                                                                                                           |
| <b>Product connections</b>                                                                             |                                                                                                                                                                                                                                                              |
| <b>Port connection<sup>1.)</sup></b>                                                                   |                                                                                                                                                                                                                                                              |
| Flange connection                                                                                      | DIN EN 1092 - 1<br>ANSI B 16.5<br>JIS 10K                                                                                                                                                                                                                    |
| 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                                                                                                                           |
| Pilot air port                                                                                         | Push-in connector (external Ø 6 mm or 1/4") or thread G 1/8" (on request)                                                                                                                                                                                    |
| <b>Approvals and conformities</b>                                                                      |                                                                                                                                                                                                                                                              |
| Further information can be found in chapter <a href="#">"3. Approvals and conformities" on page 5.</a> |                                                                                                                                                                                                                                                              |
| Material certificate                                                                                   | 2.2, 3.1                                                                                                                                                                                                                                                     |
| <b>Environment and installation</b>                                                                    |                                                                                                                                                                                                                                                              |
| Ambient temperature                                                                                    | - 10 °C...+ 100 °C (see <a href="#">"6.2. Operating limits" on page 20</a> )                                                                                                                                                                                 |
| Degree of protection                                                                                   | IP65/67                                                                                                                                                                                                                                                      |
| Installation position                                                                                  | As required, preferably with actuator in upright position                                                                                                                                                                                                    |

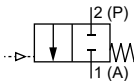
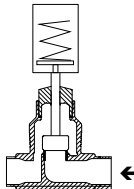
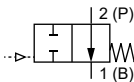
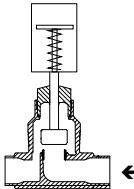
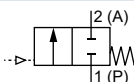
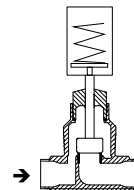
1.) Others are available on request.

2. 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 fluids, 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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### 3. Approvals and conformities

#### 3.1. 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.

#### 3.2. 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

#### 3.3. 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.

#### 3.4. Explosion protection

| Approval                                                                                                                                                                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                 |    |    |                             |          |          |          |                     |                 |                 |                 |                            |          |          |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|----|----|-----------------------------|----------|----------|----------|---------------------|-----------------|-----------------|-----------------|----------------------------|----------|----------|----------|
| <div><br/></div> | <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        |    |    |                             |          |          |          |                     |                 |                 |                 |                            |          |          |          |

#### 3.5. 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>Stainless steel body</b><br/>PF39: Suitable for products with medium temperature up to 85 °C (hot water)</p> |

### 3.6. 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. |
| USP                                                                               | <b>United States Pharmacopeial Convention (USP) (valid for the variable code PL04)</b><br>All wetted materials are biocompatible 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.                       |

### 3.7. 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                                                                                                                                                                       |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $O_2$      | <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> |

#### Hydrogen

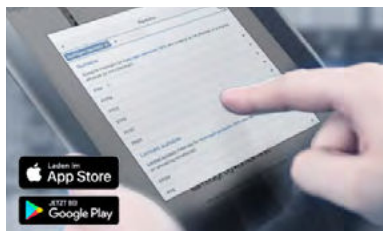
| Conformity | Description                                                                                                                                                                           |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $H_2$      | <b>Optional: Suitability for hydrogen (valid for the variable code NG18)</b><br>The products are suitable for use with gaseous hydrogen, according to the manufacturer's declaration. |

#### TA Luft

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

## 4. Materials

### 4.1. Bürkert resistApp



#### Bürkert resistApp – Chemical resistance chart

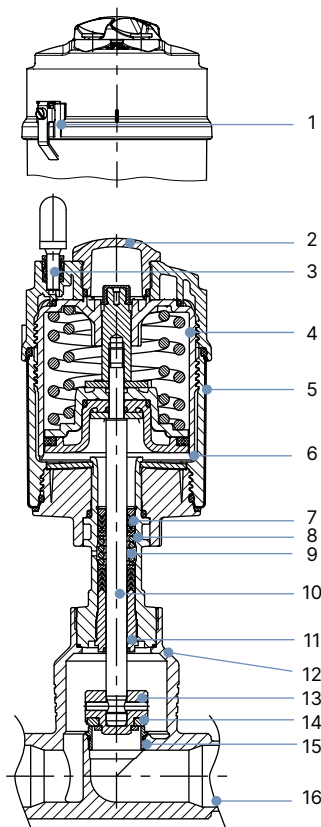
You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

### 4.2. Material specifications

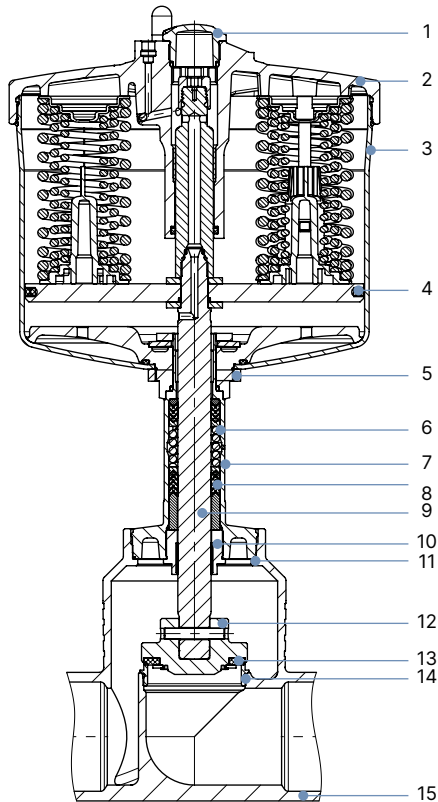
#### Note:

The lubricants for packing gland and actuator are classified according to NSF H1.



| No. | Element                    | Material                                                                             |
|-----|----------------------------|--------------------------------------------------------------------------------------|
| 1   | Ground terminal            | Stainless steel 1.4301/1.4305 only for ATEX variant                                  |
| 2   | Optical position indicator | Optical position indicator polysulfone PSU                                           |
| 3   | Pilot air ports            | Push-in connector PP (standard)<br>Thread G 1/8" stainless steel 1.4305 (on request) |
| 4   | Actuator cover             | PPS                                                                                  |
| 5   | Actuator casing            | Stainless steel 1.4561 (316Ti)                                                       |
| 6   | Piston seal                | FKM                                                                                  |
| 7   | Spring                     | Stainless steel 1.4310                                                               |
| 8   | Pipe                       | Stainless steel 1.4401 (316)/1.4404 (316L)                                           |
| 9   | Spindle packing            | PTFE V-Rings (filled), with spring compensation                                      |
| 10  | Spindle                    | Stainless steel 1.4401 (316)/1.4404 (316L)                                           |
| 11  | Spindle guide              | DN 15...DN 65: PEEK<br>DN 80...DN 100: 1.4401 (316)/1.4404 (316L)                    |
| 12  | Body seal                  | Graphite, PTFE (option)                                                              |
| 13  | Swivel plate               | Stainless steel 1.4401 (316)/1.4404 (316L)                                           |
| 14  | Seat seal                  | PTFE, PEEK (option)                                                                  |
| 15  | Valve seat with O-ring     | Stainless steel 1.4571, EPDM                                                         |
| 16  | Valve body                 | Stainless steel 316L / CF3M                                                          |

Stainless steel for higher drive forces



| No. | Element                | Material                                        |
|-----|------------------------|-------------------------------------------------|
| 1   | Transparent cover      | Ultrason S                                      |
| 2   | Drive cover            | Stainless steel 1.4308                          |
| 3   | Liner                  | Stainless steel 1.4404                          |
| 4   | Piston seal            | FKM                                             |
| 5   | Nut                    | Stainless steel 1.4301                          |
| 6   | Spring                 | Stainless steel 1.4310                          |
| 7   | Tube                   | Stainless steel CF3M                            |
| 8   | Packing gland          | PTFE V-rings (filled), with spring compensation |
| 9   | Stem                   | Stainless steel 1.4021                          |
| 10  | Stem guide             | Stainless steel 1.4404 (316L) / PTFE filled     |
| 11  | Housing seal           | Graphite or PTFE                                |
| 12  | Swing disc             | Stainless steel 1.4401 (316)/ 1.4404 (316L)     |
| 13  | Seat seal              | PTFE or PEEK (option)                           |
| 14  | Valve seat with O-ring | Stainless steel 1.4571, EPDM                    |
| 15  | Valve body             | Stainless steel 316L/CF3M                       |

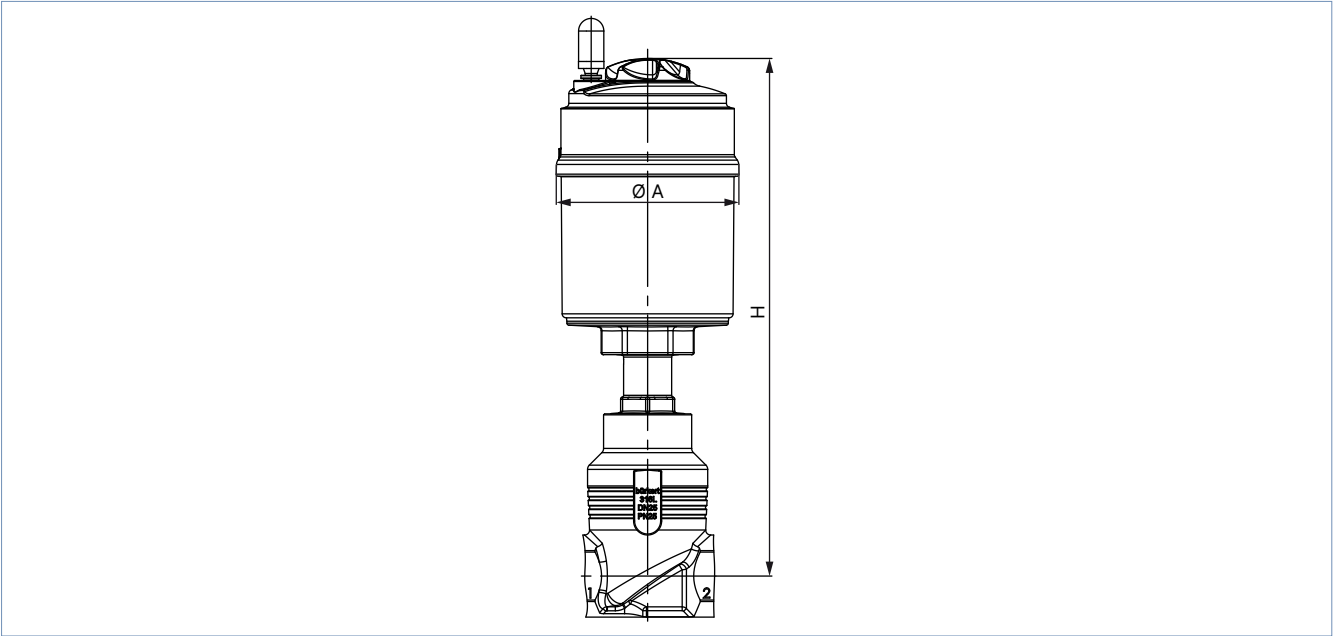
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5. Dimensions

5.1. Actuator

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



| Nominal diameter (port connection) |       | Actuator size Ø | Ø A  | H   |
|------------------------------------|-------|-----------------|------|-----|
| DN                                 | NPS   | [mm]            |      |     |
| 10                                 | 3/8   | 50 (D)          | 64.5 | 236 |
|                                    |       | 70 (M)          | 91   | 250 |
| 15                                 | 1/2   | 50 (D)          | 64.5 | 236 |
|                                    |       | 70 (M)          | 91   | 250 |
| 20                                 | 3/4   | 50 (D)          | 64.5 | 242 |
|                                    |       | 70 (M)          | 91   | 256 |
|                                    |       | 90 (N)          | 120  | 318 |
| 25                                 | 1     | 50 (D)          | 64.5 | 245 |
|                                    |       | 70 (M)          | 91   | 259 |
|                                    |       | 90 (N)          | 120  | 311 |
| 32                                 | 1 1/4 | 90 (N)          | 120  | 340 |
|                                    |       | 130 (P)         | 159  | 392 |
| 40                                 | 1 1/2 | 90 (N)          | 120  | 345 |
|                                    |       | 130 (P)         | 159  | 397 |
| 50                                 | 2     | 90 (N)          | 120  | 351 |
|                                    |       | 130 (P)         | 159  | 403 |
| 65                                 | 2 1/2 | 130 (P)         | 159  | 432 |
|                                    |       | 225 (L)         | 245  | 471 |
| 80                                 | 3     | 130 (P)         | 159  | 465 |
|                                    |       | 225 (L)         | 245  | 478 |
| 100                                | 4     | 130 (P)         | 159  | 475 |
|                                    |       | 225 (L)         | 245  | 488 |

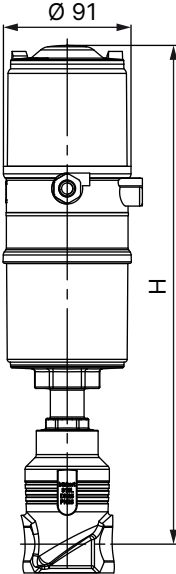
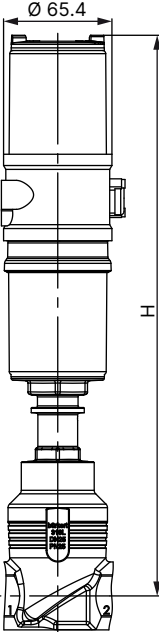
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Valve system on/off ELEMENT

Note:

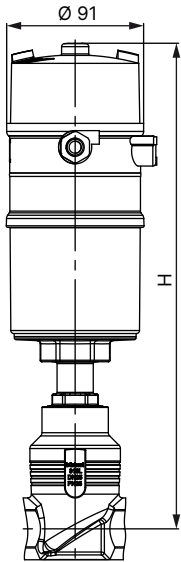
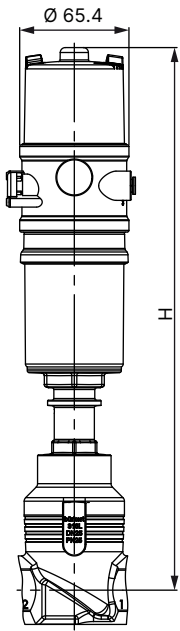
- Further information can be found in chapter “7. Product accessories” on page 22.
- Dimensions in mm, unless otherwise stated

Control head

| Type 8691                                                                          | Type 8695                                                                            |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |

| Nominal diameter (port connection) |       | Actuator size Ø | Type 8691 or<br>Type 8695 | Type 8690 or<br>Type 8697 |
|------------------------------------|-------|-----------------|---------------------------|---------------------------|
| DN                                 | NPS   | [mm]            |                           |                           |
| 10                                 | 3/8   | 50 (D)          | 330                       | –                         |
|                                    |       | 70 (M)          | 347                       | –                         |
| 15                                 | 1/2   | 50 (D)          | 330                       | –                         |
|                                    |       | 70 (M)          | 347                       | –                         |
| 20                                 | 3/4   | 50 (D)          | 336                       | –                         |
|                                    |       | 70 (M)          | 353                       | –                         |
|                                    |       | 90 (N)          | 414                       | –                         |
| 25                                 | 1     | 50 (D)          | 339                       | –                         |
|                                    |       | 70 (M)          | 356                       | –                         |
|                                    |       | 90 (N)          | 437                       | –                         |
| 32                                 | 1 1/4 | 90 (N)          | 437                       | –                         |
|                                    |       | 130 (P)         | 489                       | –                         |
| 40                                 | 1 1/2 | 90 (N)          | 442                       | –                         |
|                                    |       | 130 (P)         | 494                       | –                         |
| 50                                 | 2     | 90 (N)          | 448                       | –                         |
|                                    |       | 130 (P)         | 500                       | –                         |
| 65                                 | 2 1/2 | 130 (P)         | 529                       | –                         |
|                                    |       | 225 (L)         | 603                       | 316                       |
| 80                                 | 3     | 130 (P)         | 562                       | –                         |
|                                    |       | 225 (L)         | 611                       | 322                       |
| 100                                | 4     | 130 (P)         | 572                       | –                         |
|                                    |       | 225 (L)         | 621                       | 326                       |

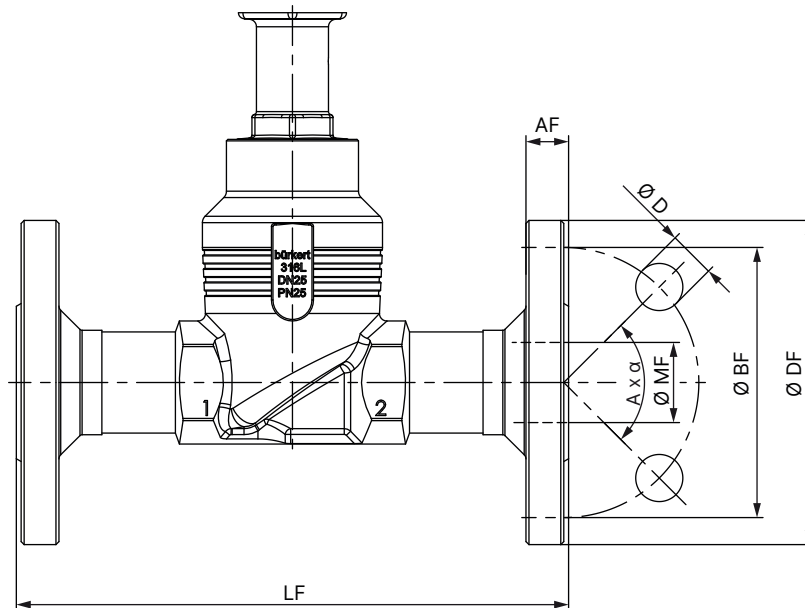
Pneumatic control units/position feedback

| Type 8690                                                                         | Type 8697                                                                           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |

| Nominal diameter (port connection) |       | Actuator size Ø | Type 8690 or Type 8697 |
|------------------------------------|-------|-----------------|------------------------|
| DN                                 | NPS   | [mm]            |                        |
| 10                                 | 3/8   | 50 (D)          | 316                    |
|                                    |       | 70 (M)          | 314                    |
| 15                                 | 1/2   | 50 (D)          | 316                    |
|                                    |       | 70 (M)          | 314                    |
| 20                                 | 3/4   | 50 (D)          | 322                    |
|                                    |       | 70 (M)          | 320                    |
|                                    |       | 90 (N)          | 384                    |
| 25                                 | 1     | 50 (D)          | 325                    |
|                                    |       | 70 (M)          | 323                    |
|                                    |       | 90 (N)          | 404                    |
| 32                                 | 1 1/4 | 90 (N)          | 404                    |
|                                    |       | 130 (P)         | 456                    |
| 40                                 | 1 1/2 | 90 (N)          | 409                    |
|                                    |       | 130 (P)         | 461                    |
| 50                                 | 2     | 90 (N)          | 415                    |
|                                    |       | 130 (P)         | 467                    |
| 65                                 | 2 1/2 | 130 (P)         | 496                    |
| 80                                 | 3     | 130 (P)         | 529                    |
| 100                                | 4     | 130 (P)         | 539                    |

DTS 1000112108 EN Version: AF Status: RL (released | freigegeben | valide) printed: 22.12.2025

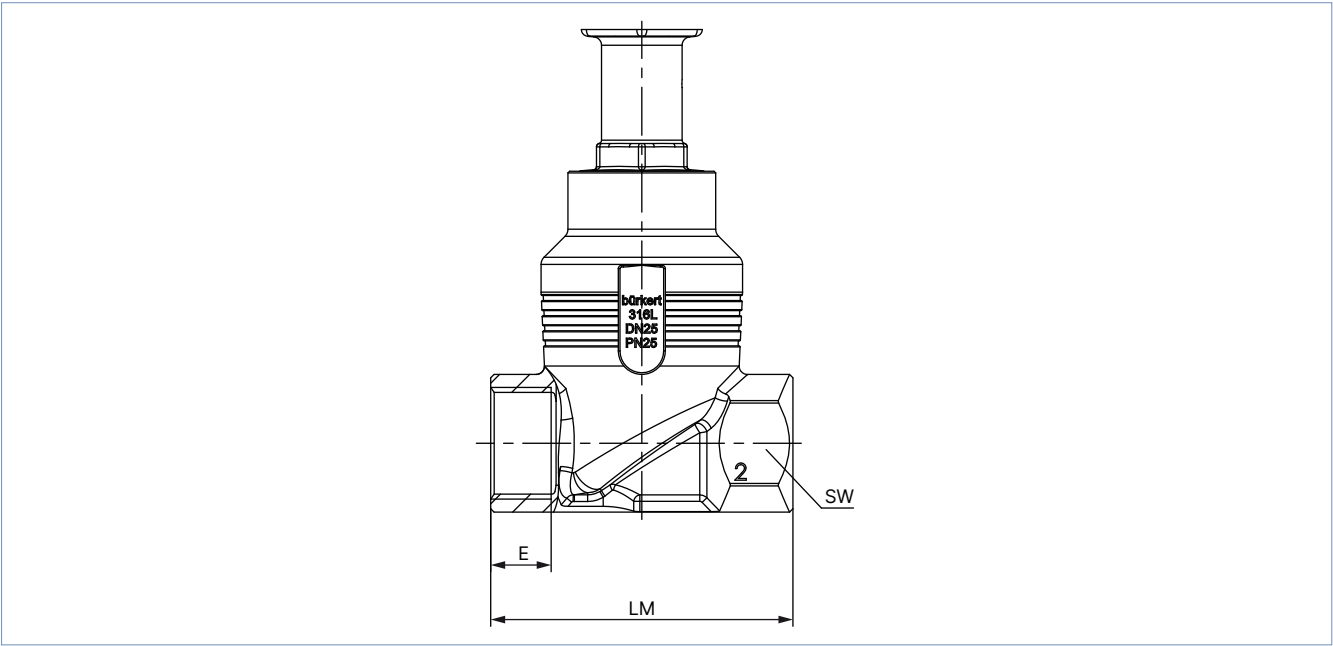
## 5.2. Body with flange connection



| Nominal diameter<br>(port connection) | DIN EN 1092 PN 25 FTF 1 according to DIN EN 558 - 1 |     |      |    |     |         |       | JIS 10K FTF 10 according to DIN EN 558 - 2 |     |      |    |     |         |       |
|---------------------------------------|-----------------------------------------------------|-----|------|----|-----|---------|-------|--------------------------------------------|-----|------|----|-----|---------|-------|
| DN                                    | Ø DF                                                | LF  | Ø BF | AF | Ø D | A x α   | Ø MF  | Ø DF                                       | LF  | Ø BF | AF | Ø D | A x α   | Ø MF  |
| 10                                    | 90                                                  | 130 | 60   | 16 | 14  | 4 x 90° | 13.6  | —                                          | —   | —    | —  | —   | —       | —     |
| 15                                    | 95                                                  | 130 | 65   | 16 | 14  | 4 x 90° | 18.1  | 95                                         | 108 | 70   | 12 | 15  | 4 x 90° | 18.1  |
| 20                                    | 105                                                 | 150 | 75   | 18 | 14  | 4 x 90° | 23.7  | 100                                        | 117 | 75   | 14 | 15  | 4 x 90° | 23.7  |
| 25                                    | 115                                                 | 160 | 85   | 18 | 14  | 4 x 90° | 29.7  | 125                                        | 127 | 90   | 14 | 19  | 4 x 90° | 29.7  |
| 32                                    | 140                                                 | 180 | 100  | 18 | 18  | 4 x 90° | 38.4  | 135                                        | 140 | 100  | 16 | 19  | 4 x 90° | 38.4  |
| 40                                    | 150                                                 | 200 | 110  | 18 | 18  | 4 x 90° | 44.3  | 140                                        | 165 | 105  | 16 | 19  | 4 x 90° | 44.3  |
| 50                                    | 165                                                 | 230 | 125  | 20 | 18  | 4 x 90° | 56.3  | 155                                        | 203 | 120  | 16 | 19  | 4 x 90° | 56.3  |
| 65                                    | 185                                                 | 290 | 145  | 22 | 18  | 8 x 45° | 66.0  | 175                                        | 216 | 140  | 18 | 19  | 4 x 90° | 71.5  |
| 80                                    | 200                                                 | 310 | 160  | 24 | 18  | 8 x 45° | 81.0  | 185                                        | 241 | 150  | 18 | 19  | 8 x 45° | 84.3  |
| 100                                   | 235                                                 | 350 | 190  | 24 | 22  | 8 x 45° | 100.0 | 292                                        | 292 | 175  | 18 | 19  | 8 x 45° | 109.1 |

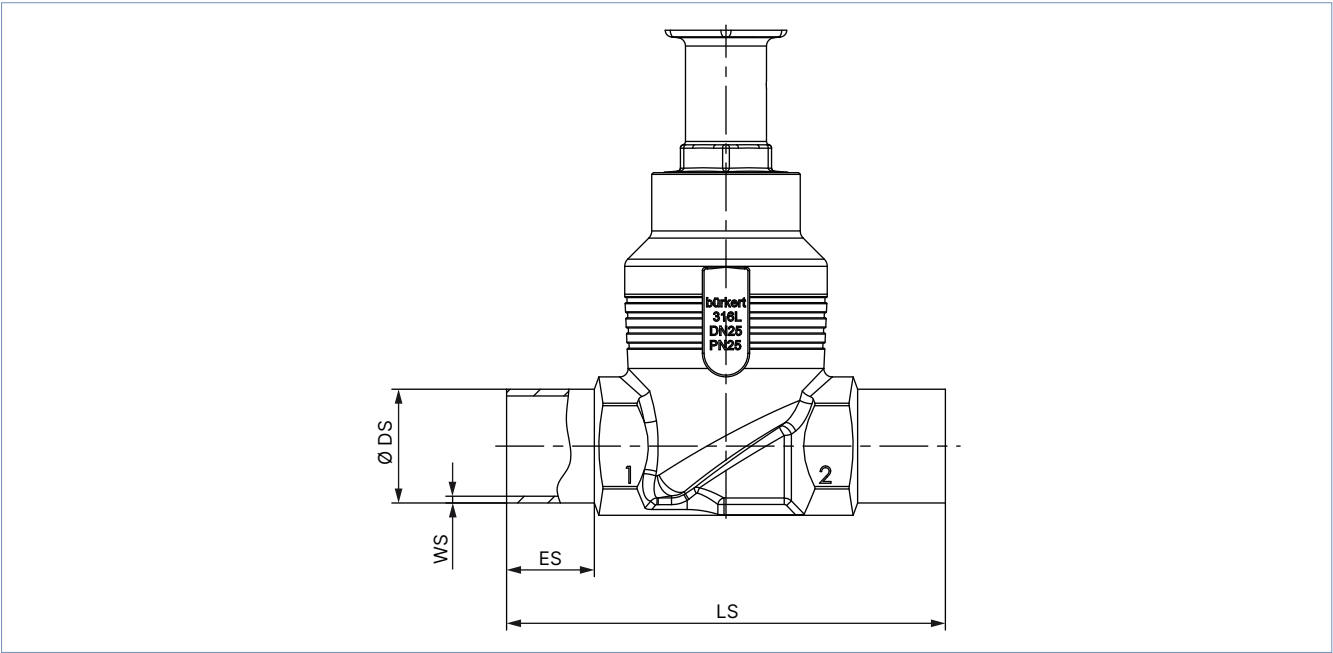
| Nominal diameter<br>(port connection) | ANSI B 16.5 Class 150 FTF 37 according to DIN EN 558 - 2 |     |       |      |      |         |       |
|---------------------------------------|----------------------------------------------------------|-----|-------|------|------|---------|-------|
| NPS                                   | Ø DF                                                     | LF  | Ø BF  | AF   | Ø D  | A x α   | Ø MF  |
| ½                                     | 89                                                       | 184 | 60.5  | 11.2 | 15.7 | 4 x 90° | 15.7  |
| ¾                                     | 99                                                       | 184 | 69.9  | 12.7 | 15.7 | 4 x 90° | 20.8  |
| 1                                     | 108                                                      | 184 | 79.2  | 14.2 | 15.7 | 4 x 90° | 26.7  |
| 1½                                    | 127                                                      | 222 | 98.6  | 17.5 | 15.7 | 4 x 90° | 40.9  |
| 2                                     | 152                                                      | 254 | 120.7 | 19.1 | 19.1 | 4 x 90° | 52.6  |
| 2½                                    | 178                                                      | 276 | 139.7 | 22.3 | 19.1 | 4 x 90° | 62.7  |
| 3                                     | 190                                                      | 298 | 152.5 | 23.9 | 19.1 | 4 x 90° | 78.0  |
| 4                                     | 229                                                      | 352 | 190.5 | 23.9 | 19.1 | 8 x 45° | 102.4 |

5.3. Body with threaded connection



| Nominal diameter (port connection) |       | G (DIN ISO 228 - 1)<br>NPT (ASME B1.20.1)<br>RC (ISO 7 - 1) |      |      |     |     |
|------------------------------------|-------|-------------------------------------------------------------|------|------|-----|-----|
|                                    |       | E                                                           |      |      | LM  | SW  |
| DN                                 | NPS   | G                                                           | NPT  | RC   |     |     |
| 10                                 | 3/8   | 12                                                          | 10.3 | 10.1 | 65  | 27  |
| 15                                 | 1/2   | 14                                                          | 13.7 | 13.2 | 65  | 27  |
| 20                                 | 3/4   | 16                                                          | 14   | 14.5 | 75  | 34  |
| 25                                 | 1     | 18                                                          | 16.8 | 16.8 | 90  | 41  |
| 32                                 | 1 1/4 | 20                                                          | 17.3 | 19.1 | 110 | 50  |
| 40                                 | 1 1/2 | 22                                                          | 17.3 | 19.1 | 120 | 55  |
| 50                                 | 2     | 24                                                          | 17.6 | 23.4 | 150 | 70  |
| 65                                 | 2 1/2 | 26                                                          | 23.7 | 26.7 | 185 | 85  |
| 80                                 | 3     | 28                                                          | 30.5 | 29.8 | 205 | 100 |
| 100                                | 4     | 32                                                          | 33   | 35.8 | 240 | 125 |

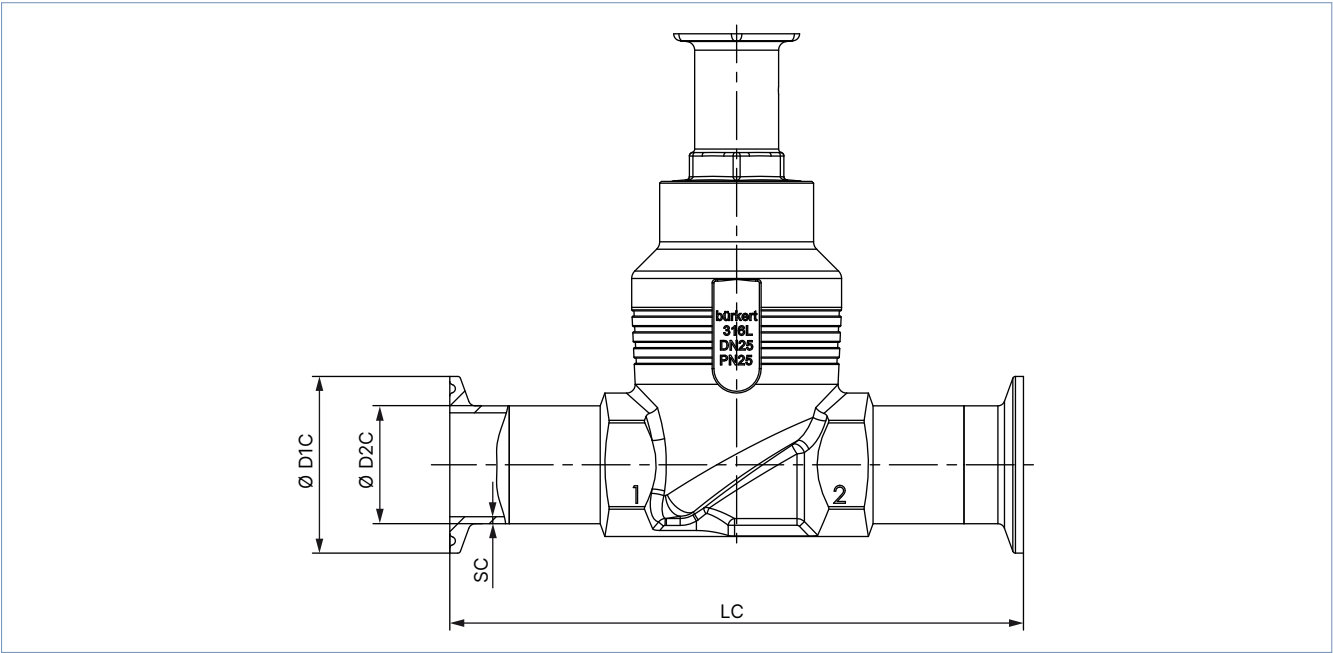
5.4. Body with welded connection



| Nominal diameter<br>(port connection) | ES | LS  | DIN EN ISO 1127 / ISO 4200 /<br>DIN 11866 series B |     | DIN 11850 - 2 / DIN 11866 series A /<br>DIN EN 10357 series A |     |
|---------------------------------------|----|-----|----------------------------------------------------|-----|---------------------------------------------------------------|-----|
| DN                                    |    |     | Ø DS                                               | WS  | Ø DS                                                          | WS  |
| 10                                    | 20 | 90  | 17.2                                               | 1.6 | 13                                                            | 1.5 |
| 15                                    | 20 | 90  | 21.3                                               | 1.6 | 19                                                            | 1.5 |
| 20                                    | 20 | 100 | 26.9                                               | 1.6 | 23                                                            | 1.5 |
| 25                                    | 26 | 130 | 33.7                                               | 2.0 | 29                                                            | 1.5 |
| 32                                    | 26 | 140 | 42.4                                               | 2.0 | 35                                                            | 1.5 |
| 40                                    | 26 | 150 | 48.3                                               | 2.0 | 41                                                            | 1.5 |
| 50                                    | 26 | 175 | 60.3                                               | 2.0 | 53                                                            | 1.5 |
| 65                                    | 26 | 210 | 76.1                                               | 2.3 | 70                                                            | 2.0 |
| 80                                    | 26 | 230 | 88.9                                               | 2.3 | 85                                                            | 2.0 |
| 100                                   | 26 | 260 | 114.3                                              | 2.6 | 104                                                           | 2.0 |

| Nominal diameter<br>(port connection) | ES | LS  | ASME BPE / DIN 11866 series C |      |
|---------------------------------------|----|-----|-------------------------------|------|
| NPS                                   |    |     | Ø DS                          | WS   |
| 1/2                                   | 20 | 90  | 12.7                          | 1.65 |
| 3/4                                   | 20 | 90  | 19.05                         | 1.65 |
| 1                                     | 20 | 100 | 25.4                          | 1.65 |
| 1 1/2                                 | 26 | 140 | 38.1                          | 1.65 |
| 2                                     | 26 | 150 | 50.8                          | 1.65 |
| 2 1/2                                 | 26 | 175 | 63.5                          | 1.65 |
| 3                                     | 26 | 210 | 76.2                          | 1.65 |
| 4                                     | 26 | 260 | 101.6                         | 2.11 |

5.5. Body with clamp connection



| Nominal diameter<br>(port connection) | Clamp: DIN 32676 series A<br>Pipe: DIN 11850 - 2 / DIN 11866 series A /<br>DIN EN 10357 series A |        |        |     | Clamp: DIN 32676 series B<br>Pipe: DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B |        |        |     |
|---------------------------------------|--------------------------------------------------------------------------------------------------|--------|--------|-----|------------------------------------------------------------------------------------|--------|--------|-----|
|                                       | LC                                                                                               | Ø D2 C | Ø D1 C | SC  | LC                                                                                 | Ø D2 C | Ø D1 C | SC  |
| 15                                    | 126                                                                                              | 19     | 34     | 1.5 | 146                                                                                | 21.3   | 50.5   | 1.6 |
| 20                                    | 136                                                                                              | 23     | 34     | 1.5 | 136                                                                                | 26.9   | 50.5   | 1.6 |
| 25                                    | 173                                                                                              | 29     | 50.5   | 1.5 | 164                                                                                | 33.7   | 50.5   | 2.0 |
| 40                                    | 193                                                                                              | 41     | 50.5   | 1.5 | 193                                                                                | 48.3   | 64.0   | 2.0 |
| 50                                    | 218                                                                                              | 53     | 64     | 1.5 | 218                                                                                | 60.3   | 77.5   | 2.0 |

| Nominal diameter<br>(port connection) | Clamp: ASME BPE / DIN 11866 series C<br>Pipe: ASME BPE / DIN 11866 series C |        |        |      |
|---------------------------------------|-----------------------------------------------------------------------------|--------|--------|------|
|                                       | LC                                                                          | Ø D2 C | Ø D1 C | SC   |
| ½                                     | 122                                                                         | 12.7   | 25.0   | 1.65 |
| ¾                                     | 126                                                                         | 19.05  | 25.0   | 1.65 |
| 1                                     | 126                                                                         | 25.4   | 50.5   | 1.65 |
| 1½                                    | 172                                                                         | 38.1   | 50.5   | 1.65 |
| 2                                     | 182                                                                         | 50.8   | 64.0   | 1.65 |
| 2½                                    | 231                                                                         | 63.5   | 77.5   | 1.65 |
| 3                                     | 265                                                                         | 76.2   | 91.0   | 1.65 |
| 4                                     | 315                                                                         | 101.6  | 119.0  | 2.11 |

## 6. Performance specifications

### 6.1. 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
- Pressure data [bar(g)]: Overpressure to atmospheric pressure

| Nominal diameter<br>(port connection) |                | Actuator size Ø        | $K_v$ value water | Pilot pressure min.<br>CF A | Operating pressure max. [bar(g)] |                           |                           |
|---------------------------------------|----------------|------------------------|-------------------|-----------------------------|----------------------------------|---------------------------|---------------------------|
|                                       |                |                        |                   |                             | CF A                             |                           | CF B                      |
|                                       |                |                        |                   |                             | Seat seal                        |                           |                           |
|                                       |                |                        |                   |                             | PTFE                             | PEEK                      | PTFE                      |
| DN                                    | NPS            | [mm]                   | [ $m^3/h$ ]       | [bar(g)]                    | [bar(g)]                         | [bar(g)]                  | [bar(g)]                  |
| 10                                    | $\frac{3}{8}$  | 50 (D)                 | 4.7               | 5.2                         | 25                               | 25                        | 25                        |
|                                       |                | 70 (M)                 | 4.7               | 4.8                         | 25<br>40 <sup>3.)</sup>          | 25                        | 25<br>40 <sup>3.)</sup>   |
| 15                                    | $\frac{1}{2}$  | 50 (D)                 | 4.7               | 5.2                         | 25                               | 25                        | 25                        |
|                                       |                | 70 (M)                 | 4.7               | 4.8                         | 25<br>40 <sup>3.)</sup>          | 25                        | 25<br>40 <sup>3.)</sup>   |
| 20                                    | $\frac{3}{4}$  | 50 (D)                 | 8.1               | 5.2                         | 16                               | 13.5                      | 25                        |
|                                       |                | 70 (M)                 | 8.1               | 4.8                         | 25                               | 25                        | 25<br>40 <sup>3.)</sup>   |
|                                       |                | 90 (N)                 | 8.1               | 5                           | 40 <sup>3.)</sup>                | –                         | –                         |
| 25                                    | 1              | 70 (M)                 | 13                | 4.8                         | 16                               | 13.5                      | 25<br>40 <sup>3.)</sup>   |
|                                       |                | 90 (N)                 | 13                | 5                           | 25<br>40 <sup>3.)</sup>          | 25                        | 25<br>40 <sup>3.)</sup>   |
| 32                                    | $1\frac{1}{4}$ | 70 (M)                 | 20                | 4.8                         | 8.5                              | –                         | 25                        |
|                                       |                | 90 (N)                 | 20                | 5                           | 25                               | 19.5                      | 25                        |
|                                       |                | 130 (P)                | 20                | 5                           | 25                               | 25                        | –                         |
| 40                                    | $1\frac{1}{2}$ | 70 (M)                 | 31                | 4.8                         | 6                                | –                         | 25                        |
|                                       |                | 90 (N)                 | 31                | 5                           | 16                               | 13.5                      | 25                        |
|                                       |                | 130 (P)                | 31                | 5                           | 25                               | 25                        | 25                        |
| 50                                    | 2              | 90 (N)                 | 45                | 5                           | 10                               | –                         | 25                        |
|                                       |                | 130 (P)                | 45                | 5                           | 25 (20 <sup>1.)</sup> )          | 23 (20 <sup>1.)</sup> )   | 25 (20 <sup>1.)</sup> )   |
| 65                                    | $2\frac{1}{2}$ | 90 (N)                 | 73                | 5                           | 5                                | –                         | 14                        |
|                                       |                | 130 (P)                | 73                | 5.6                         | 16 (15 <sup>1.)</sup> )          | 12.5                      | 16 (15 <sup>1.)</sup> )   |
|                                       |                | 225 (L) <sup>2.)</sup> | 73                | 3                           | 20 (15 <sup>1.)</sup> )          | 18 (15 <sup>1.)</sup> )   | –                         |
|                                       |                | 225 (L)                | 73                | 3.9                         | 25 (15 <sup>1.)</sup> )          | 22 (15 <sup>1.)</sup> )   | 25 (15 <sup>1.)</sup> )   |
| 80                                    | 3              | 130 (P)                | 110               | 5.6                         | 10                               | 8                         | 11                        |
|                                       |                | 225 (L) <sup>2.)</sup> | 110               | 3.8                         | 18 (12.5 <sup>1.)</sup> )        | 15 (12.5 <sup>1.)</sup> ) | –                         |
|                                       |                | 225 (L)                | 110               | 5.6                         | 25 (12.5 <sup>1.)</sup> )        | 22 (12.5 <sup>1.)</sup> ) | 25 (12.5 <sup>1.)</sup> ) |
| 100                                   | 4              | 130 (P)                | 165               | 5.6                         | 6                                | 5                         | 7                         |
|                                       |                | 225 (L) <sup>2.)</sup> | 165               | 3.8                         | 12                               | 10                        | –                         |
|                                       |                | 225 (L)                | 165               | 5.6                         | 16 (10 <sup>1.)</sup> )          | 14 (10 <sup>1.)</sup> )   | 16 (10 <sup>1.)</sup> )   |

1.) 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)

2.) Reduced compression spring force

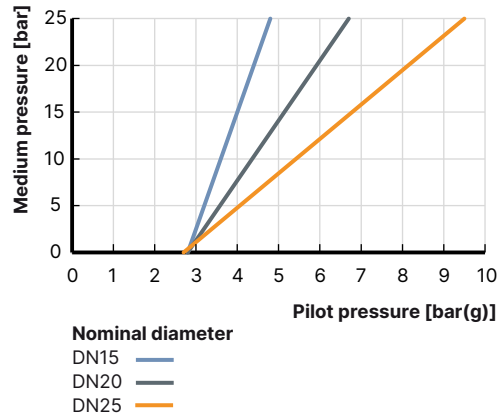
3.) Only for housing variants with nominal pressure PN 40 (optional)



Pilot pressure diagrams with flow direction below seat (Control function B)

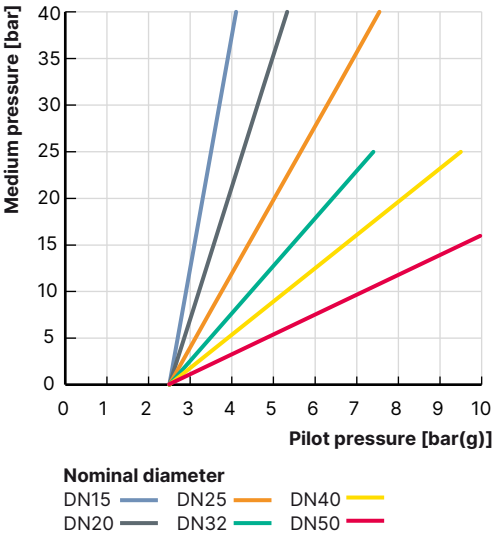
Actuator size Ø 50 mm

Maximum control pressure 10 bar(g)



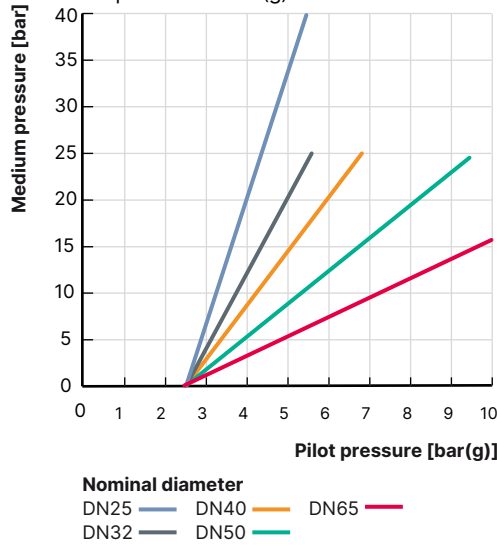
Actuator size Ø 70 mm

Maximum control pressure 10 bar(g)



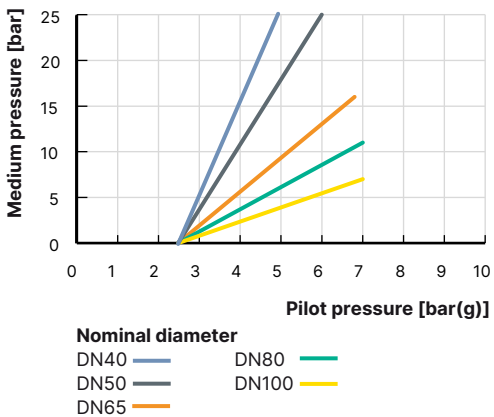
Actuator size Ø 90 mm

Maximum control pressure 10 bar(g)



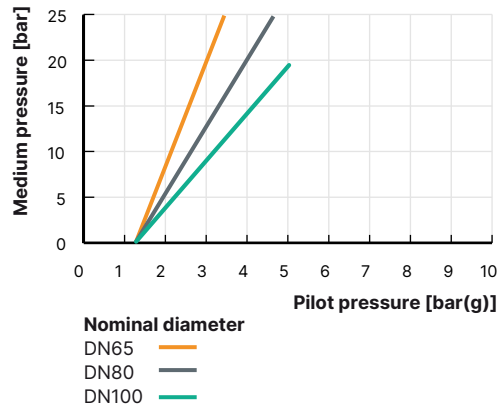
Actuator size Ø 130 mm

Maximum control pressure 7 bar(g)



Actuator size Ø 225 mm

Maximum control pressure 5 bar(g)



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

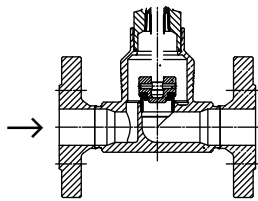
Note:

- $K_v$  value [m³/h]: Measured with water at + 20 °C, 1 bar(g) pressure at valve inlet and free outlet
- 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.**

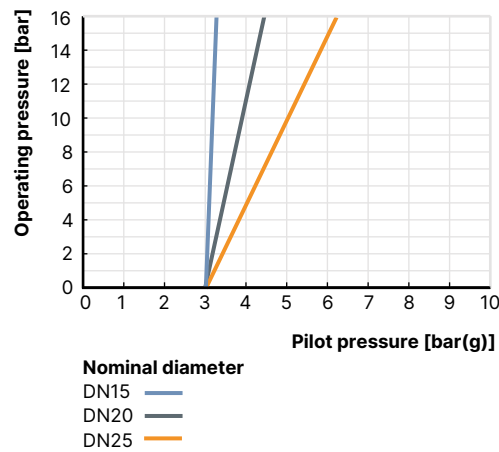
Do not use valves with flow above the seat for liquid mediums.



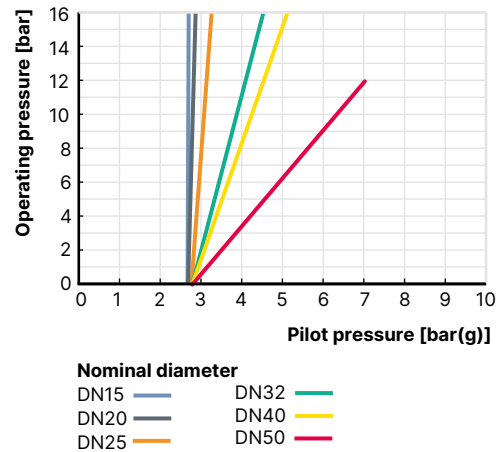
| Nominal diameter (port connection) |     | Actuator size Ø | $K_v$ value water | Operating pressure max. |
|------------------------------------|-----|-----------------|-------------------|-------------------------|
| DN                                 | NPS | [mm]            | [m³/h]            | CF A<br>[bar(g)]        |
| 15                                 | ½   | 50 (D)          | 4.7               | 16                      |
|                                    |     | 70 (M)          | 4.7               | 16                      |
| 20                                 | ¾   | 50 (D)          | 8.1               | 16                      |
|                                    |     | 70 (M)          | 8.1               | 16                      |
| 25                                 | 1   | 50 (D)          | 13                | 16                      |
|                                    |     | 70 (M)          | 13                | 16                      |
| 32                                 | 1¼  | 70 (M)          | 19.5              | 16                      |
| 40                                 | 1½  | 70 (M)          | 31                | 16                      |
|                                    |     | 90 (N)          | 31                | 16                      |
| 50                                 | 2   | 70 (M)          | 45                | 12                      |
|                                    |     | 90 (N)          | 45                | 16                      |

Pilot pressure diagram for flow direction above seat (control function A)

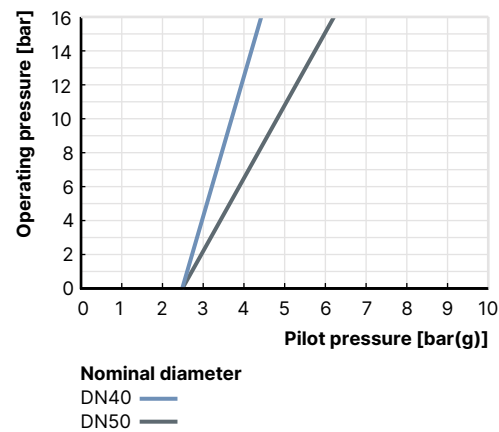
**Actuator size Ø 50 mm**  
Maximum control pressure 10 bar(g)



**Actuator size Ø 70 mm**  
Maximum control pressure 10 bar(g)



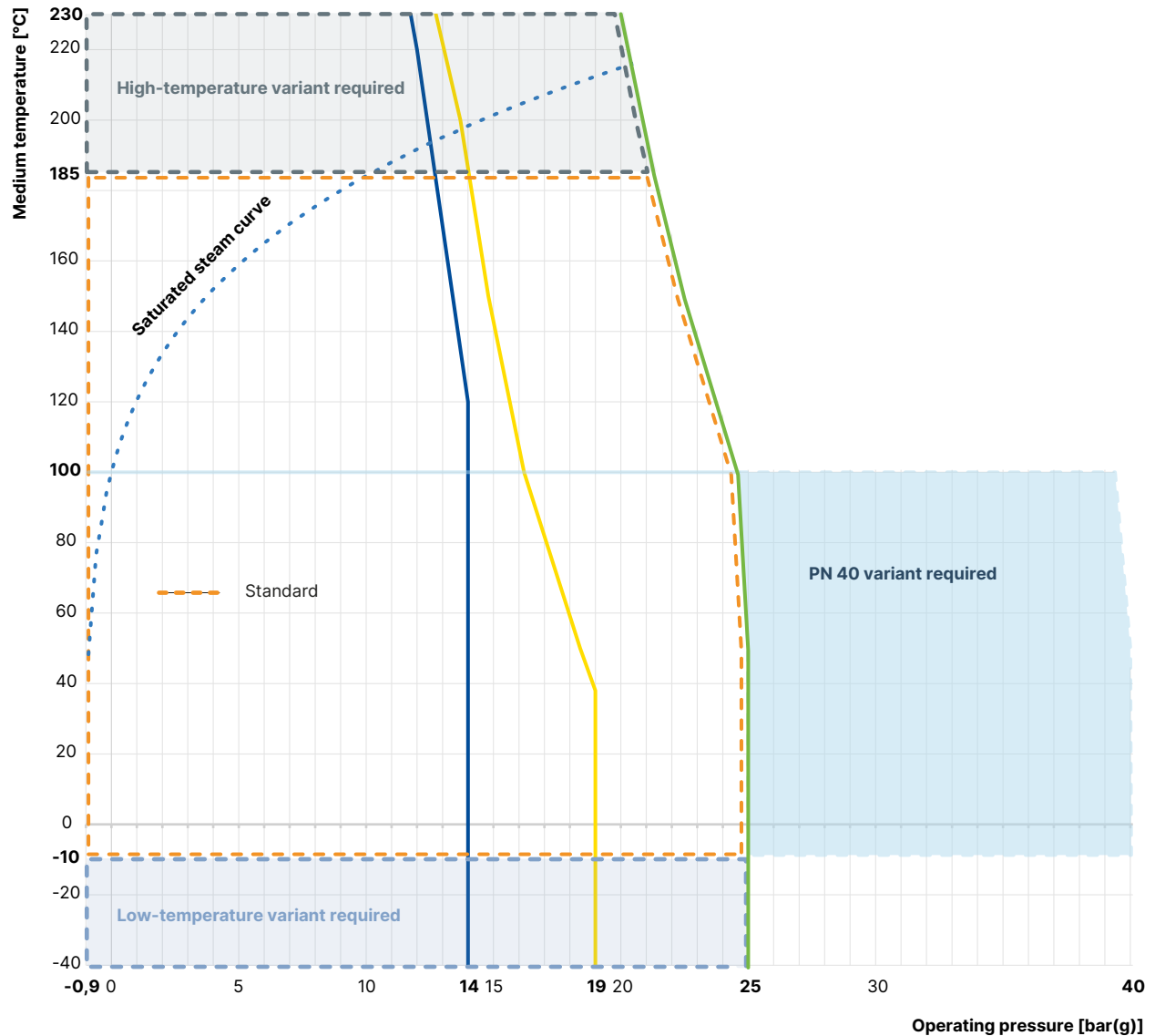
**Actuator size Ø 90 mm**  
Maximum control pressure 10 bar(g)



## 6.2. Operating limits

### Operating limits for medium temperature and operating pressure

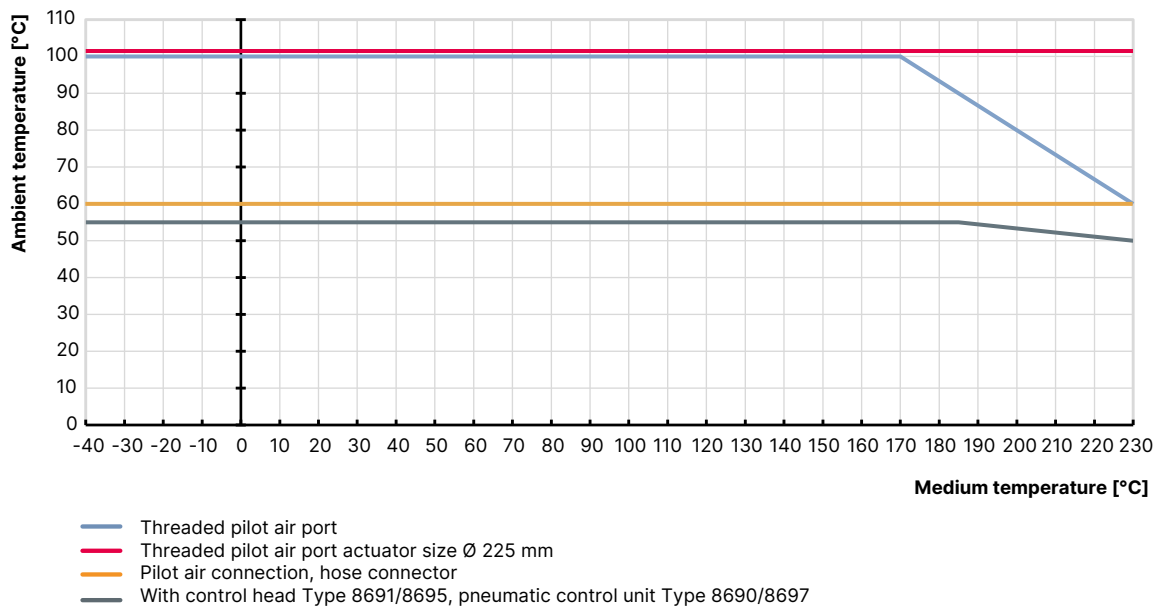
In addition to the maximum operating pressures, the operating range of Bürkert process valves is limited by the nominal pressure according to the relevant standard.



- Operating limits for PN25 according to DIN EN 12516 - 1
- Operating limits for PN40 according to DIN EN 12516 - 1
- Operating limits for flange 10K according to JIS B 2220
- Operating limits for Class 150 according to ASME B16.34
- Saturated steam curve for water

## Operating limits for ambient and medium temperature

### ELEMENT on/off valve



## Operating limits for optional variants

### High-temperature variant

Thanks to an adaption of the packing gland, 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 packing gland increases service life significantly. It is recommended for water temperatures starting at + 85 °C.

### Drinking water variant

Wetted materials are tested in contact with the medium are tested for suitability with drinking water up to + 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

### Oxygen variant

Non-metallic wetted materials are tested for suitability with oxygen and are suitable for operating pressures up to 25 bar(g) and medium temperatures up to + 60 °C. Optional variant for operating pressures up to 40 bar(g) and medium temperatures up to + 100 °C on request.

### Hydrogen variant

Wetted materials are tested for suitability with hydrogen and are suitable for operating pressures up to 40 bar(g) and medium temperatures up to + 100 °C.

The hydrogen variant of Type 2101 is tested for an external tightness (stem seal and body seal) totalling  $10^{-6}$  mbar\*l/s at 40 bar, + 20 °C helium and  $2.78 \times 10^{-3}$  mbar\*l/s at 40 bar, - 10 °C/+ 100 °C hydrogen. An external leak-tightness of  $10^{-4}$  mbar\*l/s is ensured when delivered.

## 7. Product accessories

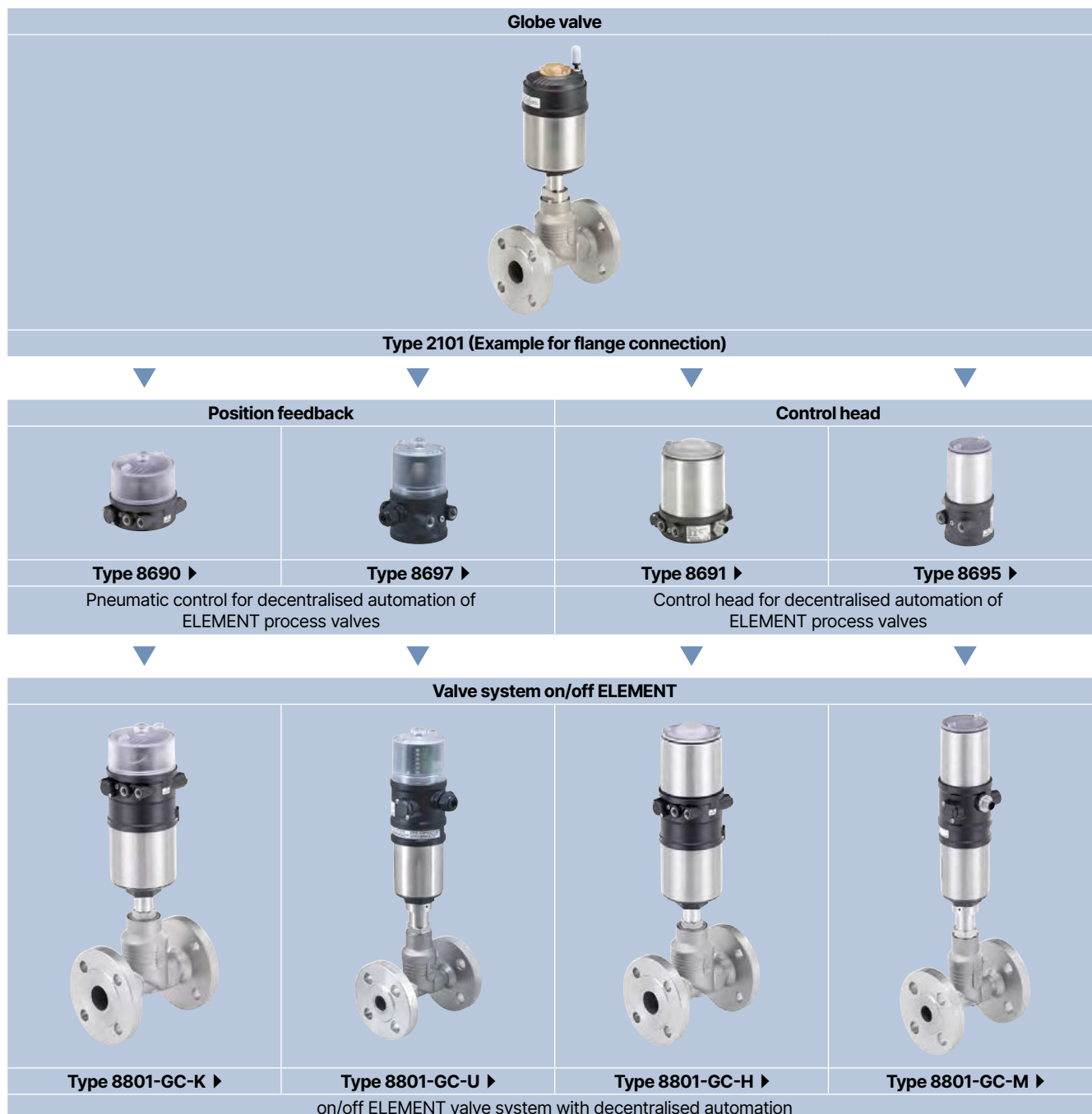
| Electrical position indicator                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control head                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Type 8691 ▶ Actuator size Ø 70 mm                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|    | <p>The control heads Type 8691 and Type 8695 are optimised for integrated mounting on process valves of the 21XX series. The valve position is detected without contact via an analogue sensor element. The sensor element automatically detects and stores the valve end positions during commissioning using the teach function. The integrated pilot valve controls single-acting or double-acting actuators. The valve switching status is indicated by coloured high-performance LEDs.</p> <p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Status indication via coloured high-performance LEDs</li> <li>• Wear-free inductive position sensor</li> <li>• Pilot valve with manual override</li> <li>• Teach function for automatic recognition of valve end positions</li> <li>• Hygienic stainless steel design</li> <li>• Easy-to-clean, chemically resistant housing according to IP65/67, 4X rating</li> <li>• AS-Interface, IO-Link, Bürkert system bus (bÜS)</li> </ul> |
|                                                                                     | <p><b>Customer benefits</b></p> <ul style="list-style-type: none"> <li>• Simple and safe commissioning using the teach function</li> <li>• Easy process monitoring and fault detection through visible coloured high-performance LEDs</li> <li>• High degree of system availability due to increased actuator service life by means of spring chamber ventilation</li> <li>• Minimal space requirement in plant piping for more flexibility in plant design</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Type 8695 ▶ Actuator size Ø 50 mm                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Pneumatic control unit/position feedback                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Type 8690 ▶ Actuator size Ø 70 mm                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|  | <p>The pneumatic control units Type 8690 and 8697 are optimised for integrated mounting on process valves of the 21XX series. Mechanical or inductive limit switches detect the valve position. The integrated pilot valve controls single-acting or double-acting (Type 8690) actuators.</p> <p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Optical position indicator</li> <li>• Mechanical or inductive proximity switches for end position detection</li> <li>• Pilot valve with manual override</li> <li>• Compact design</li> <li>• Easy-to-clean, chemically resistant housing according to IP65/67, 4X rating</li> <li>• Optionally intrinsically safe design according to ATEX/IECEx</li> </ul>                                                                                                                                                                                                                                                                          |
|                                                                                     | <p><b>Customer benefits</b></p> <ul style="list-style-type: none"> <li>• Simple and safe commissioning using the teach function (Type 8697)</li> <li>• Signal reliability due to the automatic adjustment of the limit switches</li> <li>• Minimal space requirement in plant piping for more flexibility in plant design</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Type 8697 ▶ Actuator size Ø 50 mm                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## 8. Networking and combination with other Bürkert products

The **globe valve Type 2101** can be combined with the **position feedback Type 8690/8697** and the **control head Type 8691/8695** to form the **valve system on/off ELEMENT Type 8801-GC**.

### Note:

- For the configuration of further valve systems use the **Product Enquiry Form** (see **"9.3. Bürkert Product Enquiry Form" on page 24**).
- You order two components and receive a completely assembled and tested valve.



## 9. Ordering information

### 9.1. 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](#)

### 9.2. 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](#)

### 9.3. Bürkert Product Enquiry Form

#### Note:

Please see our Product Enquiry Form for a full explanation of our specification key.

#### 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](#)



## 9.4. Ordering chart for flange connection

Valves with flow direction below seat

| Control function                                           | Nominal diameter<br>(port connection) | Actuator size Ø | Pilot pressure<br>min. | Operating<br>pressure <sup>3.)</sup> max.<br>+ 185 °C | Article no.                                                                                  | Article no.<br>certified<br>ATEX II 2GD<br>(mechanical)                                      |
|------------------------------------------------------------|---------------------------------------|-----------------|------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                                            | DN                                    | [mm]            | [bar(g)]               | [bar(g)]                                              |                                                                                              |                                                                                              |
| <b>DIN EN 1092 - 1</b>                                     |                                       |                 |                        |                                                       |                                                                                              |                                                                                              |
| <b>A (CF A)</b><br>see control<br>functions <sup>1.)</sup> | 15                                    | 50 (D)          | 5.2                    | 25                                                    | 203076    | 260092    |
|                                                            | 20                                    | 50 (D)          | 5.2                    | 16                                                    | 203077    | 260093    |
|                                                            |                                       | 70 (M)          | 4.8                    | 25                                                    | 203078    | 260094    |
|                                                            | 25                                    | 50 (D)          | 5.2                    | 9                                                     | 203079    | 260095    |
|                                                            |                                       | 70 (M)          | 4.8                    | 16                                                    | 189700    | 260096    |
|                                                            | 32                                    | 70 (M)          | 4.8                    | 8.5                                                   | 203080    | 260099    |
|                                                            |                                       | 90 (N)          | 5.0                    | 25                                                    | 203081    | 260100    |
|                                                            | 40                                    | 70 (M)          | 4.8                    | 6                                                     | 203082    | 260101    |
|                                                            |                                       | 90 (N)          | 5.0                    | 16                                                    | 203083    | 260103    |
|                                                            | 50                                    | 90 (N)          | 5.0                    | 10                                                    | 203084    | 260104    |
|                                                            |                                       | 130 (P)         | 5.0                    | 25 (20 <sup>2.)</sup> )                               | 218418    | 260106    |
|                                                            | 65                                    | 90 (N)          | 5.0                    | 5                                                     | 239524    | 260107    |
|                                                            |                                       | 130 (P)         | 5.6                    | 16 (15 <sup>2.)</sup> )                               | 219533    | 260109    |
|                                                            |                                       | 225 (L)         | 3.9                    | 25 (15 <sup>2.)</sup> )                               | 20060527  | 20060548  |
|                                                            | 80                                    | 130 (P)         | 5.6                    | 10                                                    | 239528    | 260110    |
|                                                            |                                       | 225 (L)         | 5.6                    | 25 (12.5 <sup>2.)</sup> )                             | 20060528  | 20060549  |
|                                                            | 100                                   | 130 (P)         | 5.6                    | 6                                                     | 239531    | 260144    |
|                                                            |                                       | 225 (L)         | 5.6                    | 16 (10 <sup>2.)</sup> )                               | 20060529  | 20060551  |

1.) Further information can be found in chapter "2. Control functions" on page 4.

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)

3.) Observe operating limits, see "6.2. Operating limits" on page 20

| Control function                                    | Nominal diameter<br>(port connection) | Actuator size Ø | Pilot pressure min. | Operating pressure <sup>3.)</sup><br>max. + 185 °C | Article no.                                                                                    |
|-----------------------------------------------------|---------------------------------------|-----------------|---------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------|
|                                                     | DN                                    | [mm]            | [bar(g)]            | [bar(g)]                                           |                                                                                                |
| ANSI B16.5                                          |                                       |                 |                     |                                                    |                                                                                                |
| A (CF A)<br>see control<br>functions <sup>1.)</sup> | 15                                    | 50 (D)          | 5.2                 | 25                                                 | 203095      |
|                                                     | 20                                    | 50 (D)          | 5.2                 | 16                                                 | 203096      |
|                                                     |                                       | 70 (M)          | 4.8                 | 25                                                 | 203097      |
|                                                     | 25                                    | 50 (D)          | 5.2                 | 9                                                  | 203098      |
|                                                     |                                       | 70 (M)          | 4.8                 | 16                                                 | 203099      |
|                                                     | 40                                    | 70 (M)          | 4.8                 | 6                                                  | 203100      |
|                                                     |                                       | 90 (N)          | 5.0                 | 16                                                 | 203101      |
|                                                     | 50                                    | 90 (N)          | 5.0                 | 10                                                 | 203102      |
|                                                     |                                       | 130 (P)         | 5.0                 | 25 (20 <sup>2.)</sup> )                            | 218419      |
|                                                     | 65                                    | 90 (N)          | 5.0                 | 5                                                  | 239525      |
|                                                     |                                       | 130 (P)         | 5.6                 | 16 (15 <sup>2.)</sup> )                            | 239527      |
|                                                     |                                       | 225 (L)         | 3.9                 | 25 (15) <sup>2.)</sup>                             | 20060530    |
|                                                     | 80                                    | 130 (P)         | 5.6                 | 10                                                 | 239529      |
|                                                     |                                       | 225 (L)         | 5.6                 | 25 (12.5) <sup>2.)</sup>                           | 20060531    |
|                                                     | 100                                   | 130 (P)         | 5.6                 | 6                                                  | 239532      |
|                                                     |                                       | 225 (L)         | 5.6                 | 16 (10) <sup>2.)</sup>                             | 20060532    |
| JIS 10K                                             |                                       |                 |                     |                                                    |                                                                                                |
| A (CF A)<br>see control<br>functions <sup>1.)</sup> | 15                                    | 50 (D)          | 5.2                 | 25                                                 | 203111      |
|                                                     | 20                                    | 50 (D)          | 5.2                 | 16                                                 | 203112      |
|                                                     |                                       | 70 (M)          | 4.8                 | 25                                                 | 203113     |
|                                                     | 25                                    | 50 (D)          | 5.2                 | 9                                                  | 203114    |
|                                                     |                                       | 70 (M)          | 4.8                 | 16                                                 | 203115    |
|                                                     | 40                                    | 70 (M)          | 4.8                 | 6                                                  | 203118    |
|                                                     |                                       | 90 (N)          | 5.0                 | 16                                                 | 203121    |
|                                                     | 50                                    | 90 (N)          | 5.0                 | 10                                                 | 203122    |
|                                                     |                                       | 130 (P)         | 5.0                 | 25 (20 <sup>2.)</sup> )                            | 218471    |
|                                                     | 65                                    | 90 (N)          | 5.0                 | 5                                                  | 239526    |
|                                                     |                                       | 130 (P)         | 5.6                 | 16 (15 <sup>2.)</sup> )                            | 219537    |
|                                                     |                                       | 225 (L)         | 3.9                 | 25 (15) <sup>2.)</sup>                             | 20060533  |
|                                                     | 80                                    | 130 (P)         | 5.6                 | 10                                                 | 239530    |
|                                                     |                                       | 225 (L)         | 5.6                 | 25 (12.5) <sup>2.)</sup>                           | 20060534  |
|                                                     | 100                                   | 130 (P)         | 5.6                 | 6                                                  | 239533    |
|                                                     |                                       | 225 (L)         | 5.6                 | 16 (10) <sup>2.)</sup>                             | 20060535  |

1.) Further information can be found in chapter "2. Control functions" on page 4.

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)

3.) Observe operating limits, see "6.2. Operating limits" on page 20

| 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                             |                                                                                     |                                                                                                                                              |

## Valves with flow direction above seat

| Control function                                    | Nominal diameter<br>(port connection) | Actuator size Ø | Pilot pressure<br>min.     | Operating<br>pressure <sup>3.)</sup> max.<br>+ 185 °C | Article no.                                                                                | Article no.<br>certified<br>ATEX II 2GD<br>mechanical                                      |
|-----------------------------------------------------|---------------------------------------|-----------------|----------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|                                                     | DN                                    | [mm]            | [bar(g)]                   | [bar(g)]                                              |                                                                                            |                                                                                            |
| DIN EN 1092 - 1                                     |                                       |                 |                            |                                                       |                                                                                            |                                                                                            |
| A (CF A)<br>see control<br>functions <sup>1.)</sup> | 15                                    | 50 (D)          | See Diagram <sup>2.)</sup> | 16                                                    | 203086  | 260145  |
|                                                     | 20                                    | 50 (D)          |                            | 16                                                    | 203087  | 260146  |
|                                                     | 25                                    | 50 (D)          |                            | 16                                                    | 203088  | 260151  |
|                                                     | 32                                    | 70 (M)          |                            | 16                                                    | 203091  | 260153  |
|                                                     | 40                                    | 70 (M)          |                            | 16                                                    | 203092  | 260154  |
|                                                     | 50                                    | 70 (M)          |                            | 12                                                    | 204973  | 260157  |
|                                                     |                                       | 90 (N)          |                            | 16                                                    | 203094  | 260158  |

| Control function                                    | Nominal diameter<br>(port connection) | Actuator size Ø | Pilot pressure min.        | Operating pressure <sup>3.)</sup><br>max. + 185 °C | Article no.                                                                                  |
|-----------------------------------------------------|---------------------------------------|-----------------|----------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                                     | DN                                    | [mm]            | [bar(g)]                   | [bar(g)]                                           |                                                                                              |
| ANSI B16. 5                                         |                                       |                 |                            |                                                    |                                                                                              |
| A (CF A)<br>see control<br>functions <sup>1.)</sup> | 15                                    | 50 (D)          | See Diagram <sup>2.)</sup> | 16                                                 | 203103    |
|                                                     | 20                                    | 50 (D)          |                            | 16                                                 | 203104    |
|                                                     | 25                                    | 50 (D)          |                            | 16                                                 | 203105    |
|                                                     | 40                                    | 70 (M)          |                            | 16                                                 | 203107    |
|                                                     | 50                                    | 70 (M)          |                            | 12                                                 | 204974    |
|                                                     |                                       | 90 (N)          |                            | 16                                                 | 203109  |
| JIS 10K                                             |                                       |                 |                            |                                                    |                                                                                              |
| A (CF A)<br>see control<br>functions <sup>1.)</sup> | 15                                    | 50 (D)          | See Diagram <sup>2.)</sup> | 16                                                 | 203123  |
|                                                     | 20                                    | 50 (D)          |                            | 16                                                 | 203124  |
|                                                     | 25                                    | 50 (D)          |                            | 16                                                 | 203125  |
|                                                     | 40                                    | 70 (M)          |                            | 16                                                 | 203127  |
|                                                     | 50                                    | 70 (M)          |                            | 12                                                 | 204975  |
|                                                     |                                       | 90 (N)          |                            | 16                                                 | 203129  |

1.) Further information can be found in chapter "2. Control functions" on page 4.

2.) See diagram in chapter "" on page 18

3.) Observe operating limits, see "6.2. Operating limits" on page 20

## Further variants on request

|                                                                                                                                                                                     |                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Approval</b><br>Food processing, drinking water, oxygen, fuel gases,<br>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                                |                                                                                                                                                                                                                             |