bürkert
FLUID CONTROL SYSTEMS

# 2/2-way-Globe Valve with stainless steel design for media up to +185 °C, DN 15-100

- High cycle life
- Flow optimised body in stainless steel 316L
- Deliverable with flow direction below or above seat
- Clean design for optimal use in hygienic environment
- Suitable for steam up to 10 bar(g)

Type 2101 can be combined with...

**Type 8691**
Control Head

**Type 8695**
Control Head

**Type 8690**
Pneumatic Control Unit

**Type 8697**
Pneumatic Control Unit

**Type 8619**
MultiCELL Transmitter/Controller

**Type 8222**
Conductivity transmitter

In line with Bürkert's philosophy for modular valves and sensors the construction of the 2101 globe valve fulfils tough criteria for process environments. Unrivalled cycle life and sealing integrity is guaranteed by the proven self adjusting spindle packing with V-seals.

The design enables the easy integration of automation modules whether they are electrical/optical position feedback, pneumatic control units, an integrated fieldbus interface.

The fully integrated system has a compact and smooth design, integrated pneumatic lines, IP65/67 protection class and superior chemical resistance.

Optionally, an explosion-proof version is also available

| Technical data | |
|---|---|
| **Orifice** | DN15 to DN100 |
| **Port connections**<br>Flange acc. to<br>Welded and threaded | <br>DIN EN 1092-1, ANSI B16.5, JIS 10K<br>on request |
| **Body material** | Cast stainless steel 316L |
| **Nominal pressure** | PN25 (Body) |
| **Actuator material**<br>Actuator / Cover | <br>PPS / Stainless steel 1.4561 (316Ti) |
| **Sealing material** | PTFE |
| **Medium** | Water, alcohol, oils, fuels, hydraulic fluids, salt solution, alkali solutions, organic solvents, steam<br>optional fuel gas (EC Gas Appliances Directive 2009/142/EG) |
| **Viscosity** | max. 600 mm²/s |
| **Spindle packing** | PTFE V-rings with spring compensation |
| **Medium temperature** | -10 to +185 °C |
| **Ambient temperature** | 0 to +55 °C (integrated control head)<br>0 to +60 °C (push-in air ports) |
| **Control medium** | Neutral gases, air |
| **Max. pilot pressure** | max. 10 bar; actuator size 130 mm, 7 bar |
| **Pilot air ports** | Push-in connector for external ø 6 mm or 1/4" tube, thread G1/8 (on request) |
| **Installation** | As required, preferably with actuator in upright position |

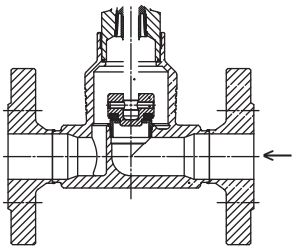
## Content



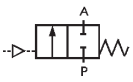


DTS 1000112108 EN Version: L Status: RL (released | freigegeben | validé) printed: 20.05.2016

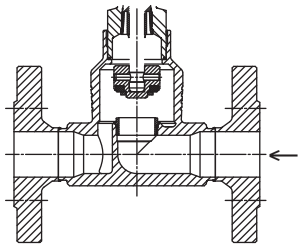
## Technical data globe valve Type 2101 flow direction below the seat (for gases and liquids)



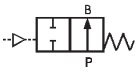
**Control function A**




Normally closed by spring action



**On request**
**Control function B**




Normally open by spring action

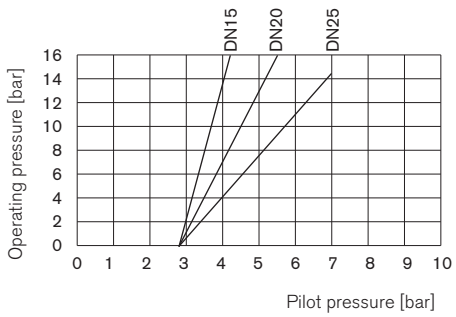
| Orifice [mm] | Actuator size [mm] | Kv value water ($m^3/h$) | Minimum pilot pressure CFA [bar] | Operating pressure up to +185°C CFA [bar] | Operating pressure up to +185°C On request :CFB [bar] |
|---|---|---|---|---|---|
| 15 | 50 | 4.7 | 4.8 | 25 | 16 |
| | 70 | 4.7 | 4.8 | 25 | 16 |
| 20 | 50 | 8.1 | 4.8 | 16 | 16 |
| | 70 | 8.1 | 4.8 | 20 | 16 |
| 25 | 50 | 13 | 4.8 | 9 | 14.5 |
| | 70 | 13 | 4.8 | 16 | 16 |
| 32 | 70 | 19.5 | 4.8 | 8.5 | 16 |
| | 90 | 19.5 | 5.0 | 16 | 16 |
| 40 | 70 | 31 | 4.8 | 6 | 16 |
| | 90 | 31 | 5.0 | 16 | 16 |
| 50 | 70 | 45 | - | – | 16 |
| | 90 | 45 | 5.0 | 10 | 16 |
| | 130 | 45 | 5.0 | 16 | - |
| 65 | 90 | 73 | 5.0 | 5 | 14 |
| | 130 | 73 | 5.6 | 16 (15*) | 16 (15*) |
| 80 | 130 | 110 | 5.6 | 10 | 11 |
| 100 | 130 | 165 | 5.6 | 6 | 7 |

**Flow rate:** *Kv value water [$m^3/h$]:* Measured at +20°C, 1 bar pressure at valve inlet and free outlet.
**Pressure valves [bar]:** Overpressure to the atmospheric pressure
* acc. to the Pressure Equipment Directive 97/23 / EC for compressible fluids in Group 1 (hazardous gases and vapors in accordance with Article 3, Section 1.3, letter a, first dash)

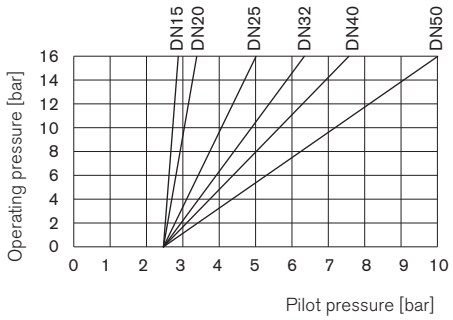
### On request control function B

### Pressure charts with control function B and flow direction below the seat

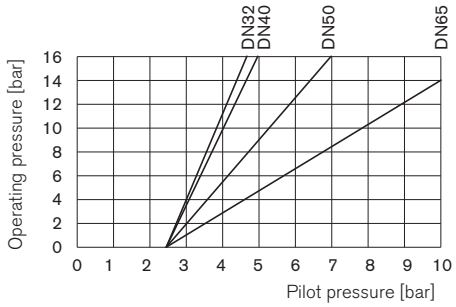
**Actuator size 50 mm**



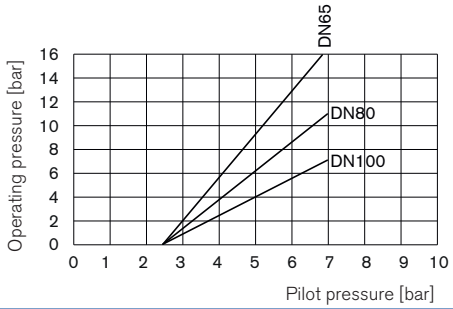

**Actuator size 70 mm**




**Actuator size 90 mm**




**Actuator size 130 mm**

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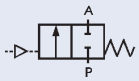
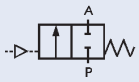
## Ordering chart Type 2101, flow direction below the seat (for gases and liquids)

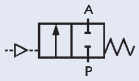
### Flange connection acc. to DIN EN 1092-1, flow direction below the seat

| Control function | Orifice (mm) | Actuator size ø [mm] | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. | Item no. certified Atex II 2GD Mechanical |
|---|---|---|---|---|---|---|
| **A** 2/2-way valve. NC   | 15 | 50 | 5.2 | 25 | 203 076 | 260 092 |
| | 20 | 50 | 5.2 | 16 | 203 077 | 260 093 |
| | | 70 | 4.8 | 20 | 203 078 | 260 094 |
| | 25 | 50 | 5.2 | 9 | 203 079 | 260 095 |
| | | 70 | 4.8 | 16 | 189 700 | 260 096 |
| | 32 | 70 | 4.8 | 8.5 | 203 080 | 260 099 |
| | | 90 | 5.0 | 16 | 203 081 | 260 100 |
| | 40 | 70 | 4.8 | 6 | 203 082 | 260 101 |
| | | 90 | 5.0 | 16 | 203 083 | 260 103 |
| | 50 | 90 | 5.0 | 10 | 203 084 | 260 104 |
| | | 130 | 5.0 | 16 | 218 418 | 260 106 |
| | 65 | 90 | 5.0 | 5 | 239 524 | 260 107 |
| | | 130 | 5.6 | 16 (15*) | 219 533 | 260 109 |
| | 80 | 130 | 5.6 | 10 | 239 528 | 260 110 |
| | 100 | 130 | 5.6 | 6 | 239 531 | 260 144 |

### Flange connection acc. to ANSI B16.5, flow direction below the seat

| Control function | Orifice (mm) | Actuator size ø [mm] | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. |
|---|---|---|---|---|---|
| **A** 2/2-way valve. NC   | 15 | 50 | 5.2 | 25 | 203 095 |
| | 20 | 50 | 5.2 | 16 | 203 086 |
| | | 70 | 4.8 | 20 | 203 097 |
| | 25 | 50 | 5.2 | 9 | 203 098 |
| | | 70 | 4.8 | 16 | 203 099 |
| | 40 | 70 | 4.8 | 6 | 203 100 |
| | | 90 | 5.0 | 16 | 203 101 |
| | 50 | 90 | 5.0 | 10 | 203 102 |
| | | 130 | 5.0 | 16 | 218 419 |
| | 65 | 90 | 5.0 | 5 | 239 525 |
| | | 130 | 5.6 | 16 (15*) | 239 527 |
| | 80 | 130 | 5.6 | 10 | 239 529 |
| | 100 | 130 | 5.6 | 6 | 239 532 |

### Flange connection acc. to JIS 10K, flow direction below the seat

| Control function | Orifice (mm) | Actuator size ø [mm] | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. |
|---|---|---|---|---|---|
| **A** 2/2-way valve. NC   | 15 | 50 | 5.2 | 25 | 203 111 |
| | 20 | 50 | 5.2 | 16 | 203 112 |
| | | 70 | 4.8 | 20 | 203 113 |
| | 25 | 50 | 5.2 | 9 | 203 114 |
| | | 70 | 4.8 | 16 | 203 115 |
| | 40 | 70 | 4.8 | 6 | 203 118 |
| | | 90 | 5.0 | 16 | 203 121 |
| | 50 | 90 | 5.0 | 10 | 203 122 |
| | | 130 | 5.0 | 16 | 218 471 |
| | 65 | 90 | 5.0 | 5 | 239 526 |
| | | 130 | 5.6 | 16 (15*) | 219 537 |
| | 80 | 130 | 5.6 | 10 | 239 530 |
| | 100 | 130 | 5.6 | 6 | 239 533 |

* acc. to the Pressure Equipment Directive 97/23 / EC for compressible fluids in Group 1 (hazardous gases and vapors in accordance with Article 3, Section 1.3, letter a, first dash)

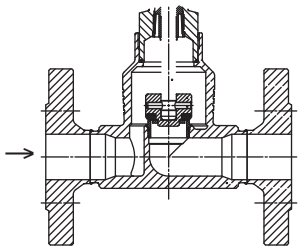
### Further versions on request

**Control function**
B (normally open) and I (double-acting)

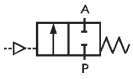
**Port connection**
Welded and threaded ports

DTS 1000112108 EN Version: L Status: RL (released | freigegeben | validé) printed: 20.05.2016

## Technical data globe valve Type 2101 flow direction above the seat (for gases and steam)



**Control function A**




Normally closed by spring action

**Attention!**

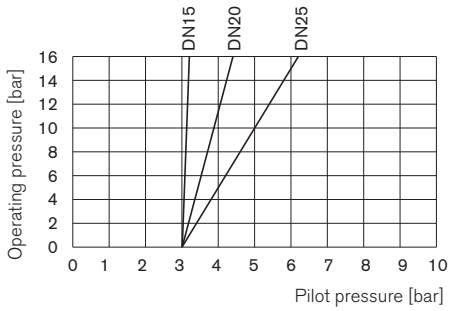
Valves with flow above the seat are only conditionally usable for liquid medium. There is a danger of waterhammer!

| Orifice [mm] | Actuator size [mm] | Kv value water ($m^3/h$) | Operating pressure up to +185°C CFA [bar] |
|---|---|---|---|
| 15 | 50 | 4.7 | 16 |
| | 70 | 4.7 | 16 |
| 20 | 50 | 8.1 | 16 |
| | 70 | 8.1 | 16 |
| 25 | 50 | 13 | 16 |
| | 70 | 13 | 16 |
| 32 | 70 | 19.5 | 16 |
| 40 | 70 | 31 | 16 |
| | 90 | 31 | 16 |
| 50 | 70 | 45 | 12 |
| | 90 | 45 | 16 |

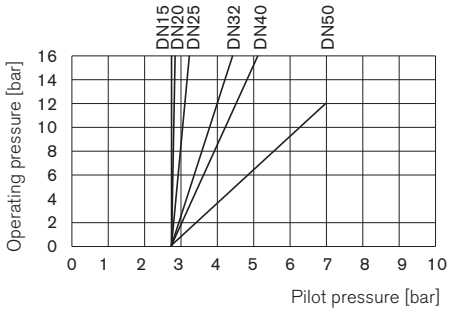
**Flow rate:** *Kv value water [$m^3/h$]:* Measured at +20°C, 1 bar pressure at valve inlet and free outlet.
**Pressure valves [bar]:** Overpressure to the atmospheric pressure

### Pressure charts with control function A and flow direction above the seat

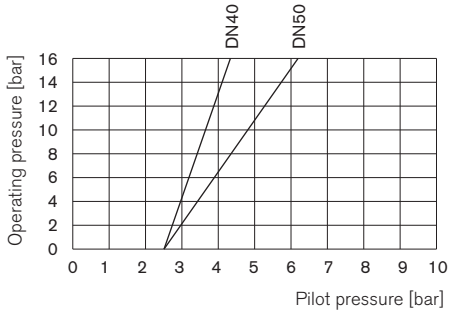
**Actuator size 50 mm**




**Actuator size 70 mm**




**Actuator size 90 mm**

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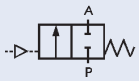
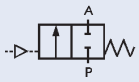
## Ordering chart Type 2101 flow direction above the seat (for gases and steam)

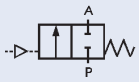
### Flange connection acc. to DIN EN 1092-1, flow direction below the seat

| Control function | Orifice (mm) | Actuator size ø [mm] | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. | Item no. certified Atex II 2GD Mechanical |
|---|---|---|---|---|---|---|
| **A** 2/2-way valve. NC   | 15 | 50 | see chart on p. 4 | 16 | 203 086 | 260 145 |
| | 20 | 50 | | 16 | 203 087 | 260 146 |
| | 25 | 50 | | 16 | 203 088 | 260 151 |
| | 32 | 70 | | 16 | 203 091 | 260 153 |
| | 40 | 70 | | 16 | 203 092 | 260 154 |
| | 50 | 70 | | 12 | 204 973 | 260 157 |
| | | 90 | | 16 | 203 094 | 260 158 |

### Flange connection acc. to ANSI B16.5, flow direction below the seat

| Control function | Orifice (mm) | Actuator size ø [mm] | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. |
|---|---|---|---|---|---|
| **A** 2/2-way valve. NC   | 15 | 50 | see chart on p. 4 | 16 | 203 103 |
| | 20 | 50 | | 16 | 203 104 |
| | 25 | 50 | | 16 | 203 105 |
| | 40 | 70 | | 16 | 203 107 |
| | 50 | 70 | | 12 | 204 974 |
| | | 90 | | 16 | 203 109 |

### Flange connection acc. to JIS 10K, flow direction below the seat

| Control function | Orifice (mm) | Actuator size ø [mm] | Minimum pilot pressure [bar] | Operating pressure up to +185°C [bar] | Item no. |
|---|---|---|---|---|---|
| **A** 2/2-way valve. NC   | 15 | 50 | see chart on p. 4 | 16 | 203 123 |
| | 20 | 50 | | 16 | 203 124 |
| | 25 | 50 | | 16 | 203 125 |
| | 40 | 70 | | 16 | 203 127 |
| | 50 | 70 | | 12 | 204 975 |
| | | 90 | | 16 | 203 129 |

**Further versions on request**

**Control function**
B (normally open) and I (double-acting)

**Port connection**
Welded and threaded ports

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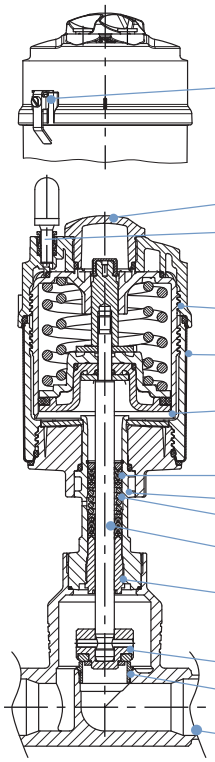
## Materials globe valve Type 2101



| | | |
|---|---|---|
| **A** | **Ground terminal** | Stainless steel 1.4301/1.4305<br>*Only for the ATEX version* |
| **1** | **Optical position indicator** | Transparent cap polysulfone PSU |
| **2** | **Pilot air ports** | Push-in connector PP (standard)<br>*On request:*<br>Thread G1/8" stainless steel 1.4305 |
| **3** | **Actuator** | PPS |
| **4** | **Cover** | Stainless steel 1.4561 (316Ti) |
| **5** | **Piston seal** | FKM |
| **6** | **Spring** | Stainless steel 1.4310 |
| **7** | **Pipe** | Stainless steel 1.4401 (316)/1.4404 (316L) |
| **8** | **Spindle packing** | PTFE |
| **9** | **Spindle** | Stainless steel 1.4401 (316)/1.4404 (316L) |
| **10** | **Spindle guide** | DN15 to DN65: PEEK;<br>DN80 to DN100: 1.4401 (316)/1.4404 (316L) |
| **11** | **Swivel plate** | Stainless steel 1.4401 (316)/1.4404 (316L) |
| **12** | **Seals** | PTFE |
| **13** | **Valve body** | Cast stainless steel 316L |

Lubricants for spindle packing and actuator are classified according NSF H1

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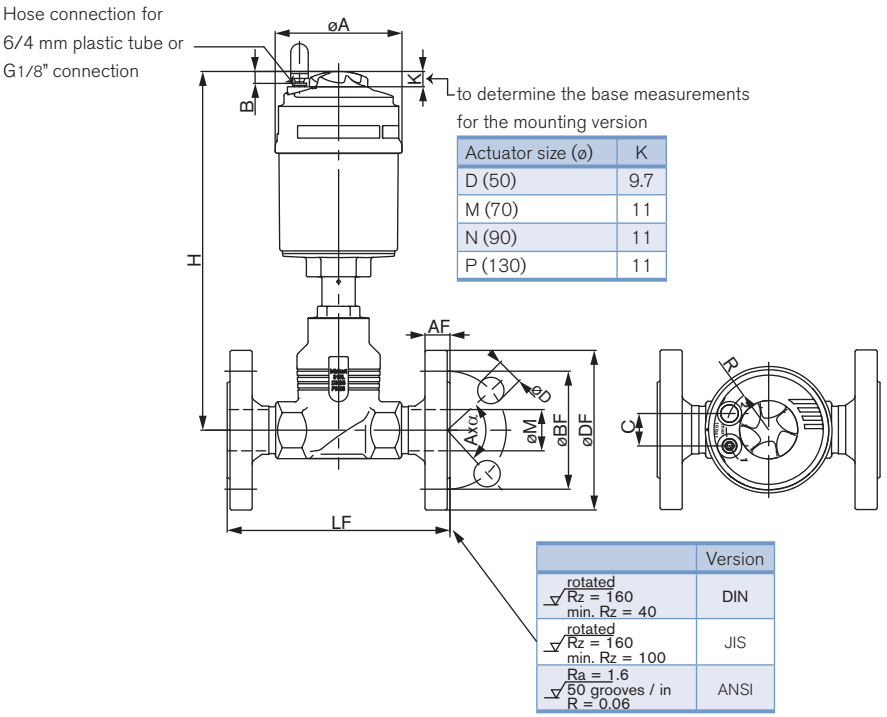
## Dimensions globe valve Type 2101 [mm]

### Flanged body




| Actuator size (ø) | K |
|---|---|
| D (50) | 9.7 |
| M (70) | 11 |
| N (90) | 11 |
| P (130) | 11 |

| | Version |
|---|---|
| rotated Rz = 160 min. Rz = 40 | DIN |
| rotated Rz = 160 min. Rz = 100 | JIS |
| Ra = 1.6 50 grooves / in R = 0.06 | ANSI |

| Orifice | Actuator size | All bodies | | | | | Flange acc. to DIN EN 1092-1, FTF acc. to EN558-1 Series 1 | | | | | | | Flange acc. to JIS 10K, FTF acc. to EN558-2 Series 20 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | øA | B | C | R | H | øDF | LF | øBF | AF | øD | Axα | øM | øDF | LF | øBF | AF | øD | Axα | øM |
| 15 | 50 | 64.5 | 6 | 19.8 | 19.8 | 236 | 90 | 130 | 60 | 16 | 14 | 4x90° | 13.6 | - | - | - | - | - | - | - |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 250 | | | | | | | | | | | | | | |
| 15 | 50 | 64.5 | 6 | 19.8 | 19.8 | 236 | 95 | 130 | 65 | 16 | 14 | 4x90° | 18.1 | 95 | 108 | 70 | 12 | 15 | 4x90° | 18.1 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 250 | | | | | | | | | | | | | | |
| 20 | 50 | 64.5 | 6 | 19.8 | 19.8 | 242 | 105 | 150 | 75 | 18 | 14 | 4x90° | 23.7 | 100 | 117 | 75 | 14 | 15 | 4x90° | 23.7 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 256 | | | | | | | | | | | | | | |
| 25 | 50 | 64.5 | 6 | 19.8 | 19.8 | 245 | 115 | 160 | 85 | 18 | 14 | 4x90° | 29.7 | 125 | 127 | 90 | 14 | 19 | 4x90° | 29.7 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 259 | | | | | | | | | | | | | | |
| 32 | 70 | 91 | 8.5 | 23.3 | 30.5 | 280 | 140 | 180 | 100 | 18 | 18 | 4x90° | 38.4 | 135 | 140 | 100 | 16 | 19 | 4x90° | 38.4 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 340 | | | | | | | | | | | | | | |
| 40 | 70 | 91 | 8.5 | 23.3 | 30.5 | 285 | 150 | 200 | 110 | 18 | 18 | 4x90° | 44.3 | 140 | 165 | 105 | 16 | 19 | 4x90° | 44.3 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 345 | | | | | | | | | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 397 | | | | | | | | | | | | | | |
| 50 | 70 | 91 | 8.5 | 23.3 | 30.5 | 295 | 165 | 230 | 125 | 20 | 18 | 4x90° | 56.3 | 155 | 203 | 120 | 16 | 19 | 4x90° | 56.3 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 351 | | | | | | | | | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 403 | | | | | | | | | | | | | | |
| 65 | 90 | 120 | 8.5 | 23.3 | 30.5 | 379 | 185 | 290 | 145 | 22 | 18 | 8x45° | 66 | 175 | 216 | 140 | 18 | 19 | 4x90° | 72 |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 432 | | | | | | | | | | | | | | |
| 80 | 130 | 159 | 8.5 | 23.3 | 30.5 | 465 | 200 | 310 | 160 | 24 | 18 | 8x45° | 81 | 185 | 241 | 150 | 18 | 19 | 4x90° | 84 |
| 100 | 130 | 159 | 8.5 | 23.3 | 30.5 | 475 | 235 | 350 | 190 | 24 | 22 | 8x45° | 100 | 210 | 292 | 175 | 18 | 19 | 8x45° | 109 |

| Orifice [inch] | Actuator size [mm] | All bodies | | | | | Flange acc. to ANSI B16.5, FTF acc. to EN558-2 Series 37 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | øA | B | C | R | H | øDF | LF | øBF | AF | øD | Axα | øM |
| 1/2" | 50 | 64.5 | 6 | 19.8 | 19.8 | 236 | 89 | 184 | 60.5 | 11.2 | 15.7 | 4x90° | 15.7 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 250 | | | | | | | |
| 3/4" | 50 | 64.5 | 6 | 19.8 | 19.8 | 242 | 99 | 184 | 69.9 | 12.7 | 15.7 | 4x90° | 20.8 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 256 | | | | | | | |
| 1" | 50 | 64.5 | 6 | 19.8 | 19.8 | 245 | 108 | 184 | 79.2 | 14.2 | 15.7 | 4x90° | 26.7 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 259 | | | | | | | |
| 1 1/2" | 70 | 91 | 8.5 | 23.3 | 30.5 | 285 | 127 | 222 | 98.6 | 17.5 | 15.7 | 4x90° | 40.9 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 345 | | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 397 | | | | | | | |
| 2" | 70 | 91 | 8.5 | 23.3 | 30.5 | 295 | 152 | 254 | 120.7 | 19.1 | 19.1 | 4x90° | 52.6 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 351 | | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 403 | | | | | | | |
| 2 1/2" | 90 | 120 | 8.5 | 23.3 | 30.5 | 379 | 178 | 276 | 139.7 | 22.3 | 19.1 | 4x90° | 63 |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 432 | | | | | | | |
| 3" | 130 | 159 | 8.5 | 23.3 | 30.5 | 465 | 190 | 298 | 152.4 | 23.9 | 19.1 | 4x90° | 78 |
| 4" | 130 | 159 | 8.5 | 23.3 | 30.5 | 475 | 229 | 352 | 190.5 | 23.9 | 19.1 | 8x45° | 102 |

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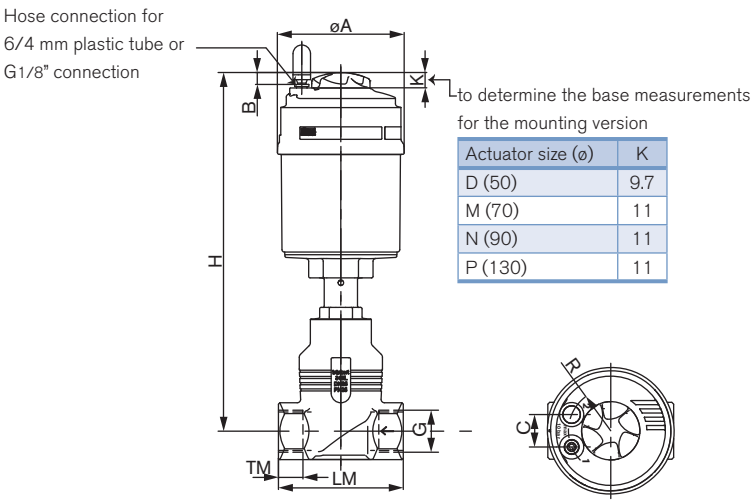
## Dimensions globe valve Type 2101 [mm], *continued*

### Threaded body




| Actuator size (ø) | K |
|---|---|
| D (50) | 9.7 |
| M (70) | 11 |
| N (90) | 11 |
| P (130) | 11 |

| Orifice | Actuator size | All bodies | | | | | | G | | NPT | | Rc | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | øA | B | C | R | H | LM | G | TM | G | TM | G | TM |
| 15 | 50 | 64.5 | 6 | 19.8 | 19.8 | 236 | 65 | G 3/8" | 12 | NPT 3/8" | 10.3 | Rc 3/8" | 10.1 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 250 | | | | | | | |
| 15 | 50 | 64.5 | 6 | 19.8 | 19.8 | 236 | 65 | G 1/2" | 14 | NPT 1/2" | 13.7 | Rc 1/2" | 13.2 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 250 | | | | | | | |
| 20 | 50 | 64.5 | 6 | 19.8 | 19.8 | 242 | 75 | G 3/4" | 16 | NPT 3/4" | 14 | Rc 3/4" | 14.5 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 256 | | | | | | | |
| 25 | 50 | 64.5 | 6 | 19.8 | 19.8 | 245 | 90 | G 1" | 18 | NPT 1" | 16.8 | Rc 1" | 16.8 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 259 | | | | | | | |
| 32 | 70 | 91 | 8.5 | 23.3 | 30.5 | 280 | 110 | G 1 1/4" | 20 | NPT 1 1/4" | 17.3 | Rc 1 1/4" | 19.1 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 340 | | | | | | | |
| 40 | 70 | 91 | 8.5 | 23.3 | 30.5 | 285 | 120 | G 1 1/2" | 22 | NPT 1 1/2" | 17.3 | Rc 1 1/2" | 19.1 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 345 | | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 397 | | | | | | | |
| 50 | 70 | 91 | 8.5 | 23.3 | 30.5 | 295 | 150 | G 2" | 24 | NPT 2" | 17.6 | Rc 2" | 23.4 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 351 | | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 403 | | | | | | | |
| 65 | 90 | 120 | 8.5 | 23.3 | 30.5 | 379 | 185 | G 2 1/2" | 26 | NPT 2 1/2" | 23.7 | Rc 2 1/2" | 26.7 |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 432 | | | | | | | |

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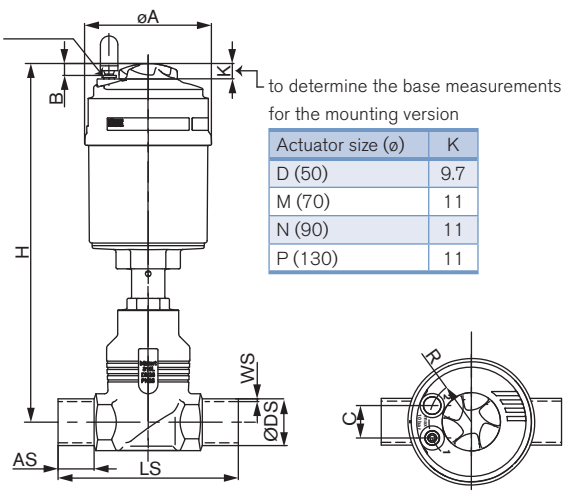
## Dimensions globe valve Type 2101 [mm], *continued*

### Weld end body

Hose connection for
6/4 mm plastic tube or
G1/8" connection




to determine the base measurements for the mounting version

| Actuator size (ø) | K |
|---|---|
| D (50) | 9.7 |
| M (70) | 11 |
| N (90) | 11 |
| P (130) | 11 |

| Orifice | Actuator size | All bodies | | | | | | | ISO 4200 | | DIN 11850 R2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | øA | B | C | R | H | AS | LS | ø DS | WS | ø DS | WS |
| 15 | 50 | 64.5 | 6 | 19.8 | 19.8 | 236 | 20 | 90 | 17.2 | 1.6 | 13 | 1.5 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 250 | | | | | | |
| 15 | 50 | 64.5 | 6 | 19.8 | 19.8 | 236 | 20 | 90 | 21.3 | 1.6 | 19 | 1.5 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 250 | | | | | | |
| 20 | 50 | 64.5 | 6 | 19.8 | 19.8 | 242 | 20 | 10 | 26.9 | 1.6 | 23 | 1.5 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 256 | | | | | | |
| 25 | 50 | 64.5 | 6 | 19.8 | 19.8 | 245 | 26 | 130 | 33.7 | 2.0 | 29 | 1.5 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 259 | | | | | | |
| 32 | 70 | 91 | 8.5 | 23.3 | 30.5 | 280 | 26 | 140 | 42.4 | 2.0 | 35 | 1.5 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 340 | | | | | | |
| 40 | 70 | 91 | 8.5 | 23.3 | 30.5 | 285 | 26 | 150 | 48.3 | 2.0 | 41 | 1.5 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 345 | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 397 | | | | | | |
| 50 | 70 | 91 | 8.5 | 23.3 | 30.5 | 295 | 26 | 175 | 60.3 | 2.0 | 53 | 1.5 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 351 | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 403 | | | | | | |
| 65 | 90 | 120 | 8.5 | 23.3 | 30.5 | 379 | 26 | 210 | 76.1 | 2.3 | 70 | 2.0 |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 432 | | | | | | |

| Orifice [inch] | Actuator size [mm] | All bodies | | | | | | | BS 4825 Part1 | | ASME BPE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | øA | B | C | R | H | AS | LS | ø DS | WS | ø DS | WS |
| 1/2" | 50 | 64.5 | 6 | 19.8 | 19.8 | 236 | 20 | 90 | 12.7 | 1.2 | 12.7 | 1.65 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 250 | | | | | | |
| 3/4" | 50 | 64.5 | 6 | 19.8 | 19.8 | 242 | 20 | 90 | 19.05 | 1.2 | 19.05 | 1.65 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 256 | | | | | | |
| 1" | 50 | 64.5 | 6 | 19.8 | 19.8 | 245 | 20 | 100 | 25.4 | 1.6 | 25.4 | 1.6 |
| | 70 | 91 | 8.5 | 23.3 | 30.5 | 259 | | | | | | |
| 1 1/2" | 70 | 91 | 8.5 | 23.3 | 30.5 | 285 | 26 | 140 | 38.1 | 1.6 | 38.1 | 1.6 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 345 | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 397 | | | | | | |
| 2" | 70 | 91 | 8.5 | 23.3 | 30.5 | 295 | 26 | 150 | 50.8 | 1.6 | 50.8 | 1.6 |
| | 90 | 120 | 8.5 | 23.3 | 30.5 | 351 | | | | | | |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 403 | | | | | | |
| 2 1/2" | 90 | 120 | 8.5 | 23.3 | 30.5 | 379 | 26 | 175 | 63.5 | 1.6 | 63.5 | 1.6 |
| | 130 | 159 | 8.5 | 23.3 | 30.5 | 432 | | | | | | |

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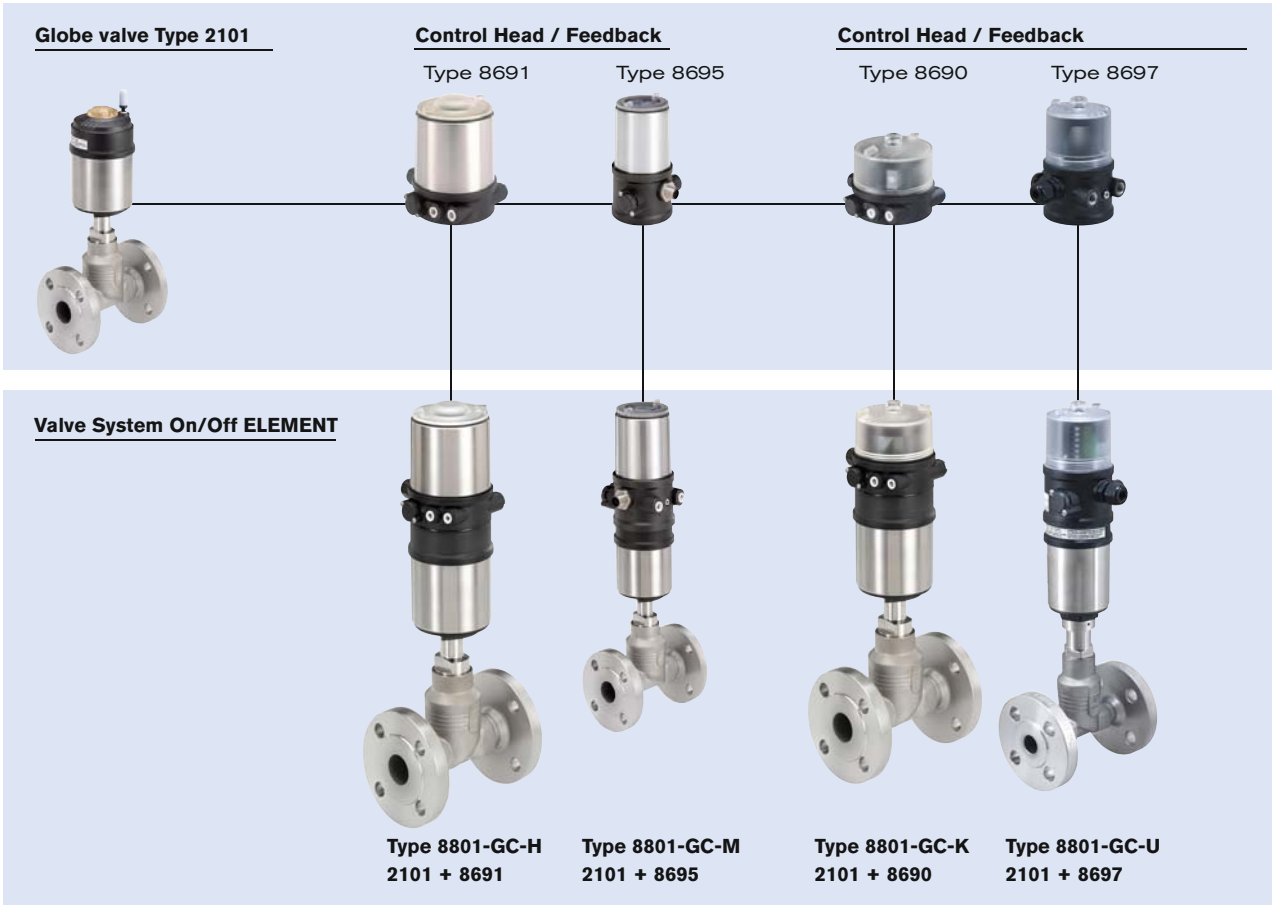
## Ordering information for valve system On/Off ELEMENT Type 8801-GC

A **valve system On/Off ELEMENT Type 8801-GC** consists of a **globe valve Type 2101** and a valve actuation system control head **Type 8691/8695** or a pneumatic control unit **Type 8690/8697** (see separate datasheets).
For the configuration of further valve systems please use the "Request for quotation" on p. 16-17. go to page
You order two components and receive a complete assembled and certified valve.




*A detailed description of the control heads and pneumatic control units is on the next page.* →

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## Ordering information for valve system On/Off ELEMENT Type 8801-GC, *continued*

### Control Head / Feedback

More info.

**Type 8691**
Actuator size 70/90/130

More info.

**Type 8695**
Actuator size 50

The Control Head Type 8691/ 8695 is optimised for integrated mounting on the 21XX process valve series. The registration of the valve end position is done through a contactless analog position sensor, which automatically recognises and saves the valve end position through the Teach function when starting up. The integrated pilot valve controls single or double-acting actuators. The status of the valve is shown through high power coloured LEDs.

**Features**
- High power coloured Status-LEDs
- Contactless inductive position sensor
- Pilot valve with manual override
- Teach function for automatic registration of valve positions
- Hygienic stainless steel design
- Easy to clean chemically resistant housing featuring IP65 / IP67, 4X Rating
- AS-Interface or DeviceNet Fieldbus communication

**Benefits**
- Easy and safe Start-up through Teach function
- Easy process monitoring and error detection through clearly visible high-power coloured LEDs
- High plant availability due to prolonged actuator life boosted by spring chamber ventilation
- Minimised space requirement in the plant piping for more flexibilty in plant design

### Pneumatic Control Unit / Feedback

More info.

**Type 8690**
Actuator size 70/90/130

More info.

**Type 8697**
Actuator size 50

The pneumatic control unit Type 8697/8690 is optimised for integrated mounting on the 21XX process valve series. Mechanical or inductive limit switches register the position of the valve. The integrated pilot valve controls single or double-acting (8690) actuators.

**Features**
- Visual position indicator
- Mechanical or inductive limit switches for end position registering
- Pilot valve with manual override
- Compact design
- Easy to clean chemically resistant housing featuring IP65 / IP67, 4X Rating
- Optional intrinsically safe version acc. to ATEX

**Benefits**
- Easy and safe Start-up through Teach function (Type 8697)
- High level of signal reliability thanks to self adjusting limit switches
- Minimised space requirement in the plant piping for more flexibilty in plant design

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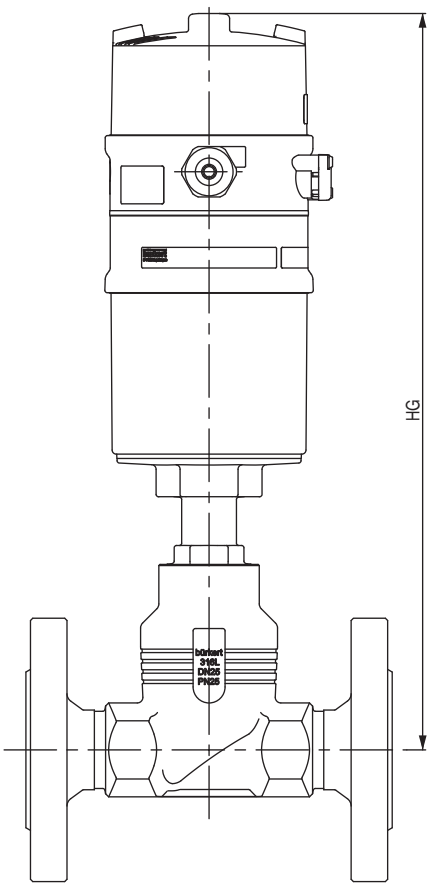
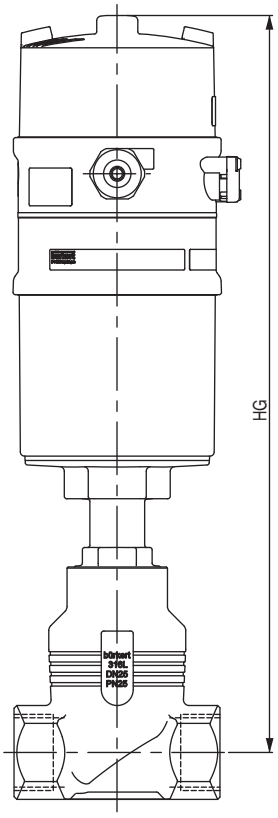
## Dimensions for valve system On/Off ELEMENT Type 8801-GC [mm]

### Dimensions valve system On/Off ELEMENT Type 8801-GC-K *(with pneumatic control unit Type 8690)*

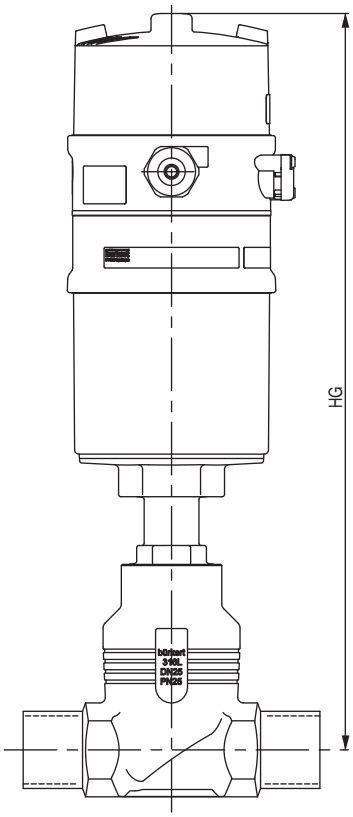
**Flanged body**




**Threaded body**




**Weld end body**




| Orifice [mm] | Orifice [inch] | Actuator size | HG |
|---|---|---|---|
| 15 | - | 70 | 313 |
| 15 | 1/2" | 70 | 313 |
| 20 | 3/4" | 70 | 319 |
| 25 | 1" | 70 | 322 |
| 32 | - | 70 | 343 |
| | | 90 | 403 |
| 40 | 1 1/2" | 70 | 348 |
| | | 90 | 408 |
| | | 130 | 460 |
| 50 | 2" | 70 | 358 |
| | | 90 | 414 |
| | | 130 | 466 |
| 65 | 2 1/2" | 90 | 442 |
| | | 130 | 495 |
| 80 | 3" | 130 | 528 |
| 100 | 4" | 130 | 528 |

Further dimensions see p. 7, 8 and 9

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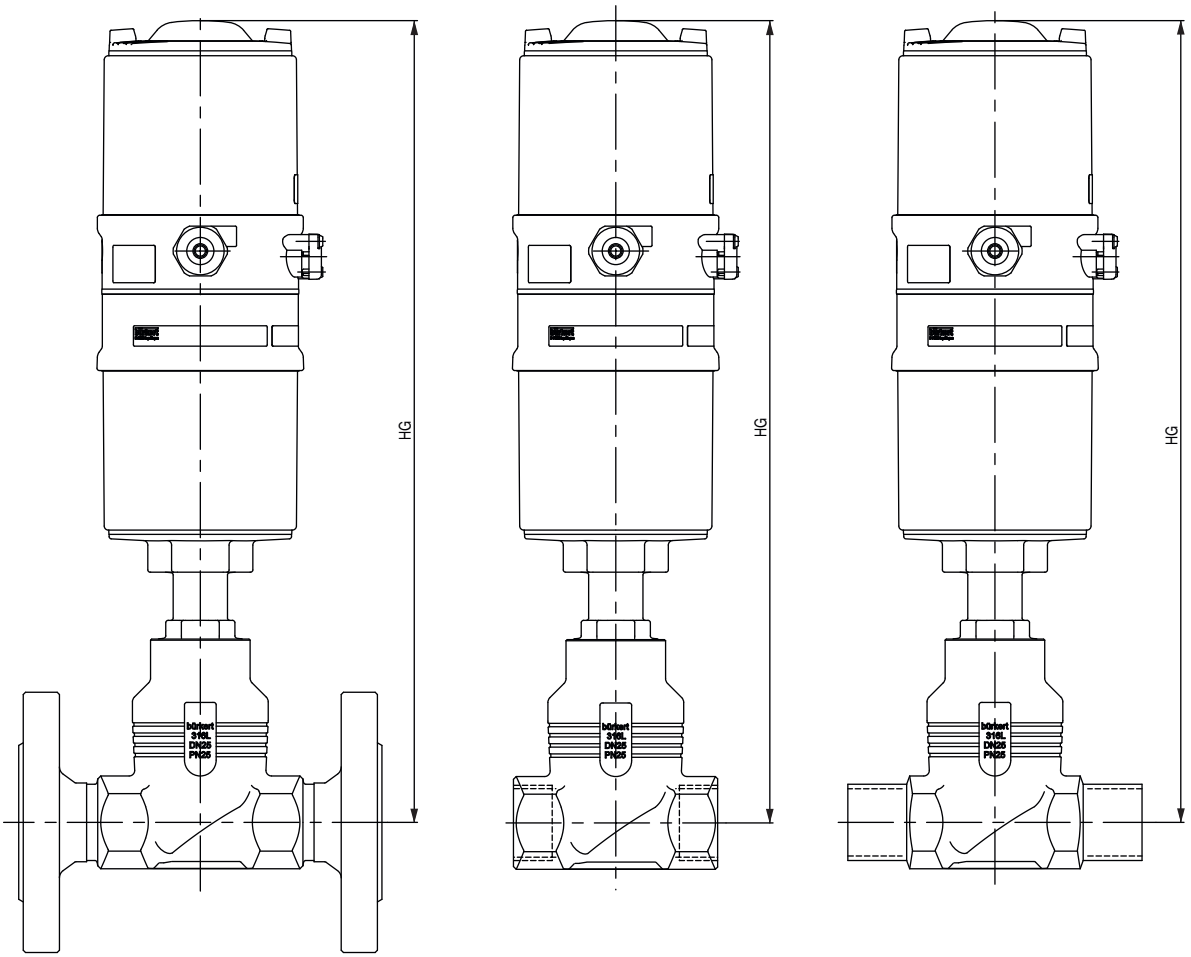
## Dimensions for valve system On/Off ELEMENT Type 8801-GC [mm]

### Dimensions valve system On/Off ELEMENT Type 8801-GC-H *(with control head Type 8691)*

**Flanged body** **Threaded body** **Weld end body**




| Orifice [mm] | Orifice [inch] | Actuator size | HG |
|---|---|---|---|
| 15 | - | 70 | 346 |
| 15 | 1/2" | 70 | 346 |
| 20 | 3/4" | 70 | 352 |
| 25 | 1" | 70 | 355 |
| 32 | - | 70 | 376 |
| | | 90 | 436 |
| 40 | 1 1/2" | 70 | 381 |
| | | 90 | 441 |
| | | 130 | 493 |
| 50 | 2" | 70 | 391 |
| | | 90 | 447 |
| | | 130 | 499 |
| 65 | 2 1/2" | 90 | 475 |
| | | 130 | 528 |
| 80 | 3" | 130 | 561 |
| 100 | 4" | 130 | 571 |

Further dimensions see p. 7, 8 and 9

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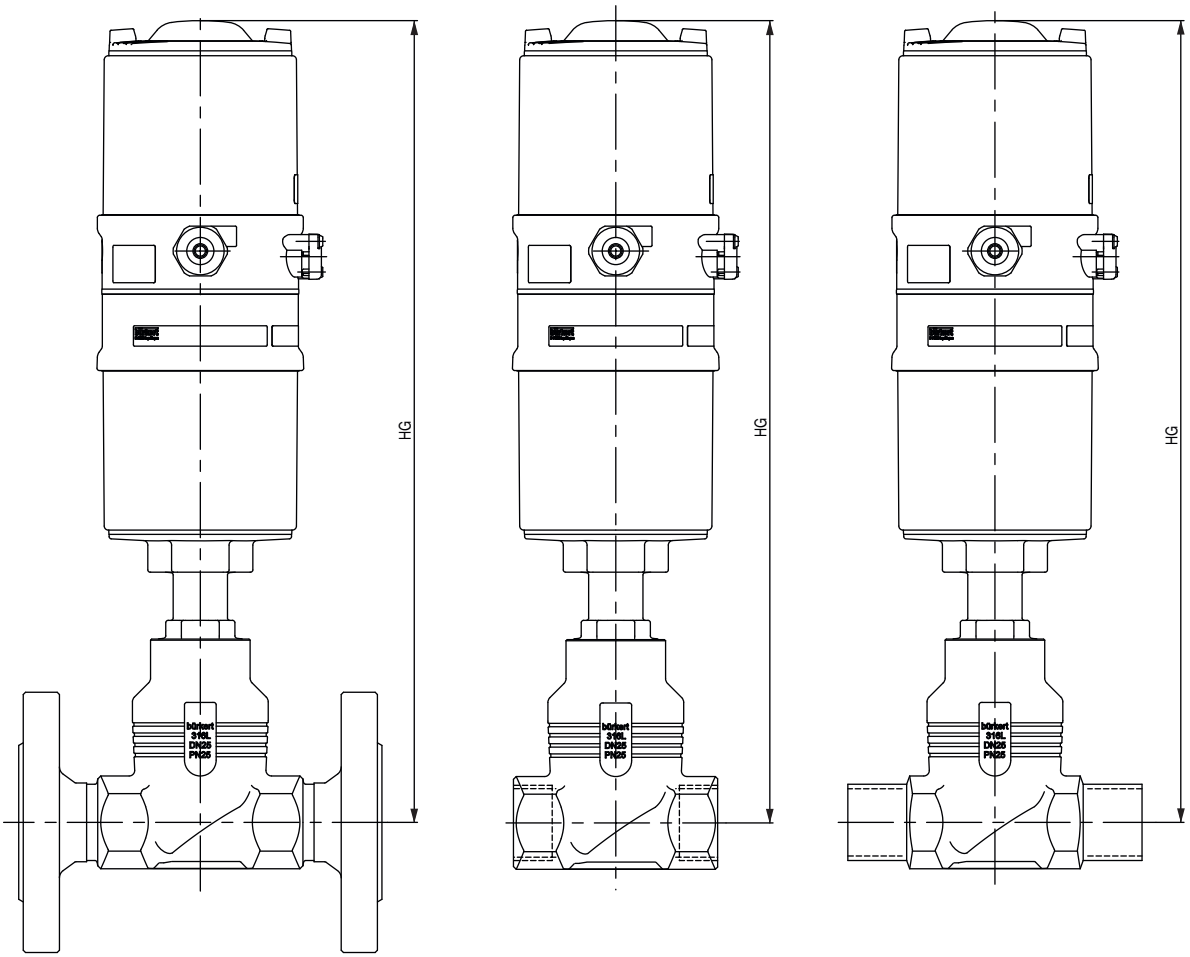
## Dimensions for valve system On/Off ELEMENT Type 8801-GC [mm]

### Dimensions valve system On/Off ELEMENT Type 8801-GC-M *(with control head Type 8695)*

**Flanged body** **Threaded body** **Weld end body**




| Orifice [mm] | Orifice [inch] | Actuator size | HG |
|---|---|---|---|
| 15 | - | 50 | 329 |
| 15 | 1/2" | 50 | 329 |
| 20 | 3/4" | 50 | 335 |
| 25 | 1" | 50 | 342 |

Further dimensions see p. 7, 8 and 9

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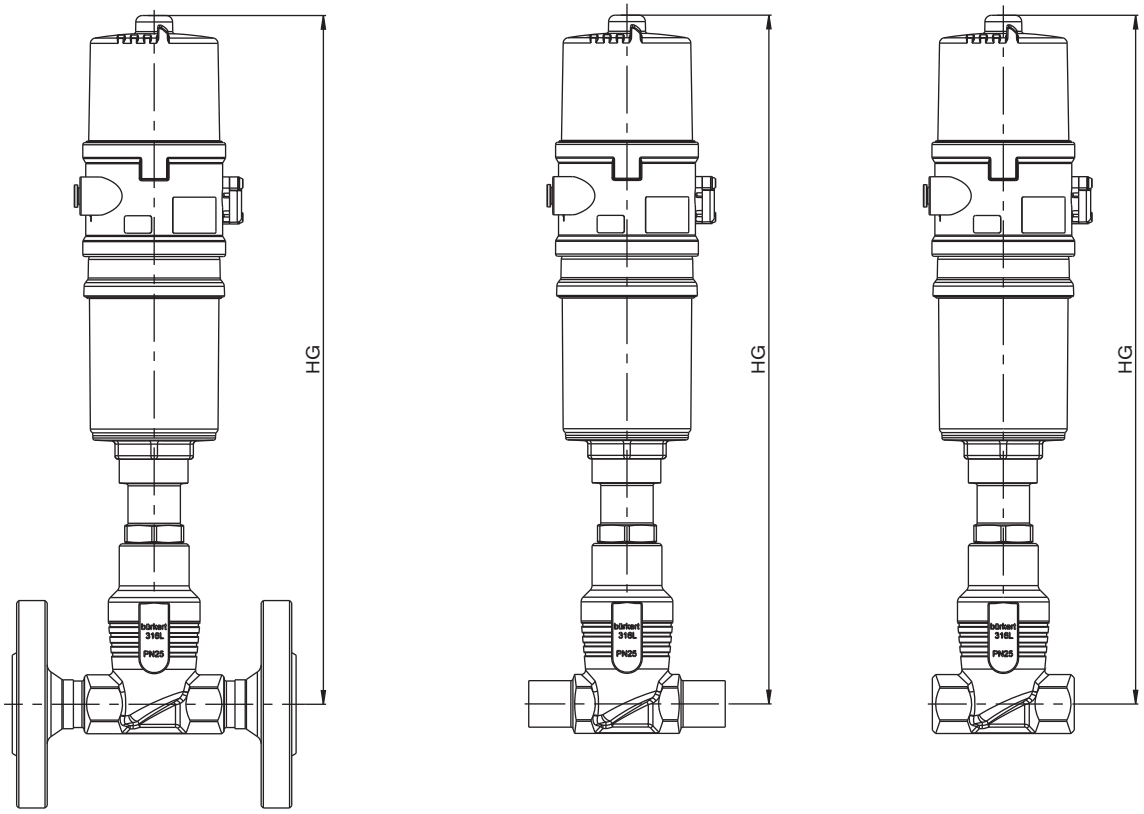
## Dimensions for valve system On/Off ELEMENT Type 8801-GC [mm]

**Dimensions valve system On/Off ELEMENT Type 8801-GC-U** *(with control head Type 8697)*




| Orifice [mm] | Actuator size | HG |
|---|---|---|
| 15 | 50 | 316 |
| 20 | 50 | 322 |
| 25 | 50 | 325 |

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**Note**
You can fill out the fields directly in the PDF file before printing out the form.

# Valve system On/Off ELEMENT Type 8801-GC – request for quotation

**Please fill out and send to your nearest Bürkert facility* with your inquiry or order**

| | |
|---|---|
| Company | Contact person |
| Customer no. | Department |
| Address | Tel./Fax |
| Postcode/town | E-Mail |

■ = mandatory fields to fill out  Quantity  Required delivery date

## Operating data

**Pipe line** DN  PN
**Pipe material**
■ **Process medium**
■ **Type of media** ☐ Liquid ☐ Steam ☐ Gas

## Valve features

**Seal material** ☐ PTFE ☐ NBR ☐ Other
**Nominal pressure** PN
**Orifice** DN
**Type of connection** ☐ Flanged ☐ Threaded ☐ Welded ☐ Clamp
**Standard connection** ☐ ISO ☐ DIN ☐ Other
**Control function** ☐ NC [1] ☐ NO [1] ☐ Double-acting
**Pilot pressure** min. max.
**Atex II 2GD Mechanical**
**Please specify item no.** (if known):

[1] NC: normally closed by spring action; NO: normally oppen by spring action

*Continued on next page* →

reset form

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## Valve system On/Off ELEMENT Type 8801-YE – request for quotation, *continued*

### Automation unit features

Click on the orange box "More info"… you will come to our website for the resp. product where you can download the data sheet.

#### Control Head / Feedback

☐ **Type 8691** More info.
For actuator size 70/90/130

☐ **Type 8695** More info.
For actuator size 50

- Inductive position sensor with automatic Teach function
- Coloured high power LEDs
- With/without pilot valve for single or double-acting actuators
- Fieldbus communication
- Hygienic stainless steel design

**Pneumatic function**
- ☐ Single-acting
- ☐ Double-acting
- ☐ Without pilot valve

**Electrical connection**
- ☐ Cable gland
- ☐ M12 connector

**Communication**
- ☐ AS-Interface
- ☐ DeviceNet
- ☐ without

**Approvals**
- ☐ ATEX cat. 3GD, IECEx
- ☐ without

#### Pneumatic Control Unit / Feedback

☐ **Type 8690** More info.
For actuator size 70/90/130

☐ **Type 8697** More info.
For actuator sizee 50

- visual status indicator
- Micro- or proximity switches for end position feedback
- With/ without pilot valve for single or double-acting actuators
- Optional intrinsically safe version acc. to ATEX / IECEx
- Teach function for automatic Start-up

**Pneumatic function**
- ☐ Single-acting
- ☐ Double-acting (only with 8690)
- ☐ Without pilot valve

**Number of Position feedback switches**
- ☐ 1x
- ☐ 2x

**Position feedback switches**
- ☐ Micro-switch 24V DC
- ☐ Micro-switchr 50 – 225 V DC/AC (only 8697)
- ☐ Inductive switch 3-wire PNP
- ☐ Inductive switch 2-wire NAMUR
- ☐ Inductive switch 2-wire 24V DC
- ☐ without

**Electrical connection**
- ☐ Cable gland
- ☐ M12 connector

**Approvals**
- ☐ ATEX cat. 3GD, IECEx
- ☐ ATEX cat. 2DG, IECEx
- ☐ without

### Certifications

- ☐ Attestation of compliance with the order EN-ISO 10204 2.1 (Item-No. 440 788)
- ☐ Test report EN-ISO 10204 2.2 (Item-No. 803 722)
- ☐ Certification of Conformity for Raw Material EN-ISO 10204 3.1 (Included in delivery)
- ☐ EN161 (European Gas Device guideline)
- ☐ FDA and USP compliance

### Comment /sketch

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