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## 2/2-way Globe Valve for media up to +180 °C, DN 10-100



- Compact globe valve version
- Flange, threaded and welded ports as standard
- Stainless steel 316L valve body
- Available with flow direction below and above seat

Type 2012 can be combined with...



**Type 8691**

Control head



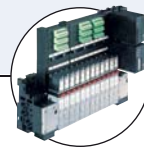
**Type 8690**

Pneum. control unit with feedback



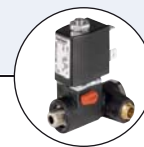
**Type 1062**

Electrical position feedback



**Type 8640/8644**

Valve block



**Type 6012/6014 P**

Pilot valve

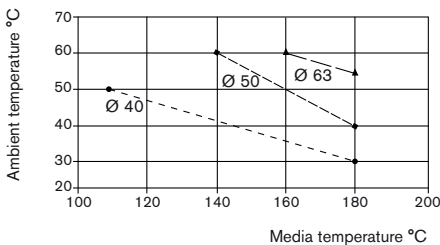


**Type 5470**

Solenoid valve

The externally piloted globe valve consists of a pneumatically operated piston actuator and a 2/2-way valve body. The actuator is made of PA or, for special operating conditions, PPS. The reliable self-adjusting packing gland provides high sealing integrity. These maintenance-free and robust valves can be retro-fitted with a comprehensive range of accessories for position indication, stroke limitation or manual override.

<sup>1)</sup> **Note:** For PA actuators in the sizes 40, 50 and 63, the combination of max. media temperature and max. ambient temperature is as shown in the following chart:



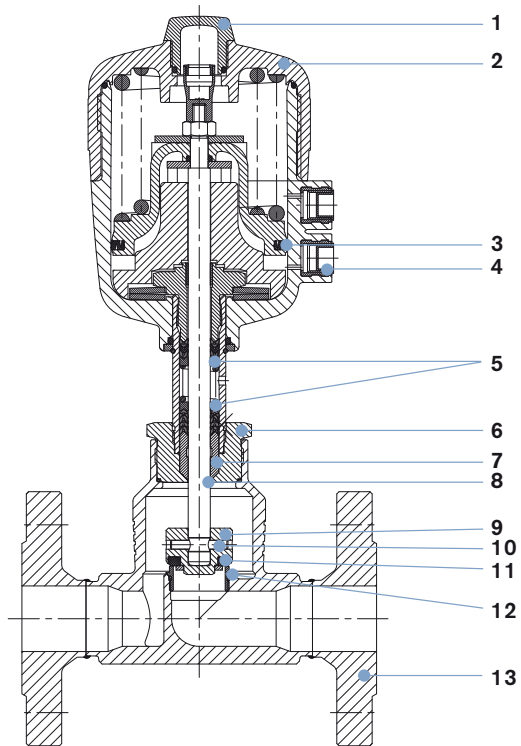
| Technical data                                       |   |
|--|---|
| <b>Orifice</b>                                       | DN 10-100   |
| <b>Body material</b>                                 | Cast stainless steel 316L   |
| <b>Actuator material</b>                             | PA, PPS   |
| <b>Seal material</b>                                 | PTFE (NBR, FKM and EPDM on request)   |
| <b>Medium</b>  | Water, alcohol, oils, fuel, salt solution, alkali solutions, organic solvents, steam  |
| <b>Viscosity</b>                                     | Max. 600 mm <sup>2</sup> /s   |
| <b>Packing gland</b> (with silicone grease)          | PTFE  |
| <b>Medium temperature</b> <sup>1)</sup>              | -10 to +180 °C with PTFE seal   |
| <b>Ambient temperature PA actuator</b> <sup>1)</sup> | Actuator sizes up to Ø 125: -10 to +60 °C<br>Actuator sizes Ø 175-225: -10 to +50 °C  |
| <b>PPS actuator</b>                                  | Actuator sizes Ø 40-80: +5 to +140 °C<br>Actuator sizes Ø 100-125: +5 to +90 °C   |
| <b>Installation</b>                                  | As required, preferably with actuator in upright position   |
| <b>Control medium</b>                                | Neutral gases, air  |
| <b>Max. pilot pressure</b>                           | Actuator size Ø 40 - 80: PA and PPS 10 bar<br>Actuator size Ø 100: PA 10 bar, PPS 7 bar<br>Actuator size Ø 125: PA and PPS 7 bar<br>Actuator size Ø 175-225: PA 6 bar |

### Content

| Valve specifications                    | System spec. On/Off Classic              | Request for quotation            |
|---|--|----------------------------------|
| <b>Type 2012</b>                        | <b>Type 8801-GA/<br/>8803-GA</b>         | <b>Type 8801-GA/<br/>8803-GA</b> |
| Technical data & ordering info. p. 1-14 | Ordering info. & technical data p. 15-18 | p. 19                            |

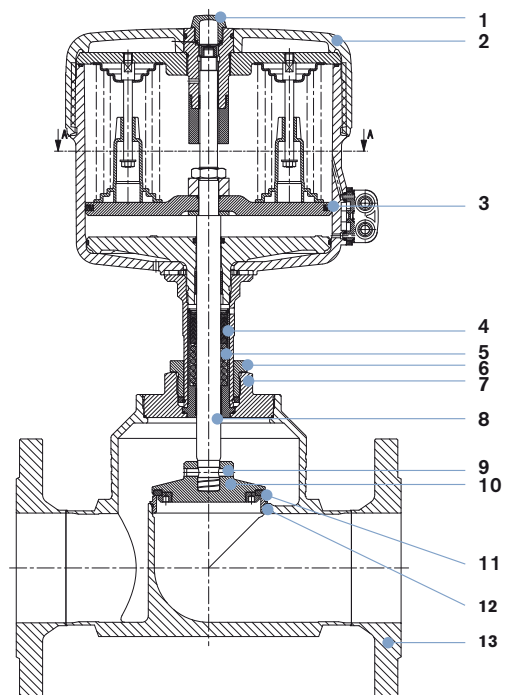
Materials

Actuator size 40-125 mm



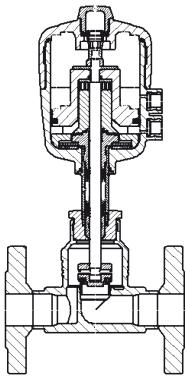
- |    |                        |                                  |
|----|------------------------|----------------------------------|
| 1  | <b>Transparent cap</b> | PC, PSU                          |
| 2  | <b>Actuator</b>        | PA, PPS                          |
| 3  | <b>Cylinder seal</b>   | NBR, FKM                         |
| 4  | <b>Pilot air ports</b> | Stainless steel 1.4305           |
| 5  | <b>V-seals</b>         | PTFE, FKM                        |
| 6  | <b>Nipple</b>          | Stainless steel 1.4401           |
| 7  | <b>Wiper</b>           | PTFE                             |
| 8  | <b>Spindle</b>         | Stainless steel 1.4401           |
| 9  | <b>Swivel plate</b>    | Stainless steel 1.4401           |
| 10 | <b>Pin</b>             | Stainless steel 1.4401           |
| 11 | <b>Seal</b>            | PTFE (NBR, FKM, EPDM on request) |
| 12 | <b>Valve seat</b>      | Stainless steel 1.4571           |
| 13 | <b>Valve body</b>      | Stainless steel 316L             |

Actuator size 175 and 225mm



- |    |                        |                                  |
|----|------------------------|----------------------------------|
| 1  | <b>Transparent cap</b> | PC                               |
| 2  | <b>Actuator</b>        | PA                               |
| 3  | <b>Cylinder seal</b>   | NBR                              |
| 4  | <b>V-seals</b>         | PTFE                             |
| 5  | <b>Spring</b>          | Stainless steel 1.4568           |
| 6  | <b>Screw</b>           | Stainless steel 1.4305           |
| 7  | <b>Nipple</b>          | Stainless steel 1.4404           |
| 8  | <b>Spindle</b>         | Stainless steel 1.4401           |
| 9  | <b>Pin</b>             | Stainless steel 1.4404           |
| 10 | <b>Swivel plate</b>    | Stainless steel 1.4404           |
| 11 | <b>Seal</b>            | PTFE (NBR, FKM, EPDM on request) |
| 12 | <b>Valve seat</b>      | Stainless steel 1.4571           |
| 13 | <b>Valve body</b>      | Stainless steel 316L             |

Technical data for valves with flow direction below the seat

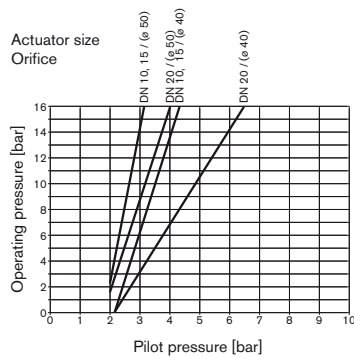


Flow direction below seat  
Type 2012 with flange port connection

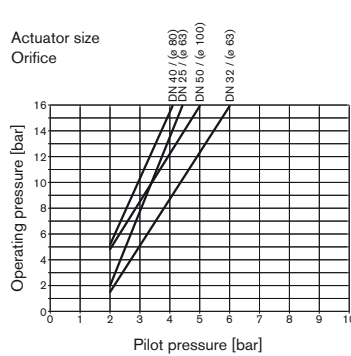
| Orifice [mm] | Actuator size [mm] | Kv value water (m³/h) | Minimum pilot pressure CFA [bar] | Maximum operating pressure up to +180° |           | Weight with CFA Flange [kg] | Threaded port and weld end [kg] |
|--------------|--------------------|-----------------------|----------------------------------|--|-----------|-----------------------------|---------------------------------|
|              |                    |                       |                                  | CFA [bar]                              | CFB [bar] |                             |                                 |
| 10           | 40                 | 4.7                   | 4.0                              | 15                                     | 16        | 2.3                         | 0.8                             |
|              | 50                 | 4.7                   | 3.9                              | 16                                     | 16        | 2.4                         | 0.9                             |
| 15           | 40                 | 4.7                   | 4.0                              | 15                                     | 16        | 2.3                         | 0.8                             |
|              | 50                 | 4.7                   | 3.9                              | 16                                     | 16        | 2.4                         | 0.9                             |
| 20           | 40                 | 8.1                   | 4.0                              | 6.5                                    | 16        | 3.1                         | 0.9                             |
|              | 50                 | 8.1                   | 3.9                              | 11                                     | 16        | 3.3                         | 1.1                             |
|              | 63                 | 8.1                   | 4.2                              | 16                                     | –         | 3.7                         | 1.5                             |
| 25           | 63                 | 13.0                  | 4.2                              | 11                                     | 16        | 4.6                         | 2.0                             |
|              | 80                 | 13.0                  | 5.0                              | 16                                     | –         | 5.4                         | 2.8                             |
| 32           | 63                 | 19.5                  | 4.2                              | 6                                      | 16        | 6.6                         | 2.9                             |
|              | 80                 | 19.5                  | 5.0                              | 15                                     | –         | 7.4                         | 3.7                             |
| 40           | 80                 | 31.0                  | 5.0                              | 10                                     | 16        | 8.4                         | 4.2                             |
|              | 125                | 31.0                  | 3.2                              | 16                                     | –         | 13.9                        | 9.7                             |
| 50           | 100                | 45.0                  | 4.4                              | 7.2                                    | 16        | 13.5                        | 7.7                             |
|              | 125                | 45.0                  | 3.2                              | 10                                     | –         | 15.6                        | 9.8                             |
| 65           | 125                | 73.0                  | 5.6                              | 12                                     | 15        | 20.2                        | 12.9                            |
|              | 175                | 73.0                  | 4.5                              | 15                                     | –         | 26                          | 18.7                            |
| 80           | 125                | 110.0                 | 5.6                              | 7.5                                    | 12.5      | 24.5                        | 16.1                            |
|              | 175                | 110.0                 | 4.5                              | 10                                     | –         | 30                          | 21.3                            |
|              | 225                | 110.0                 | 3.3                              | 12.5                                   | –         | 35.5                        | 26.9                            |
| 100          | 125                | 165.0                 | 5.6                              | 5                                      | 9         | 32.9                        | 20.6                            |
|              | 175                | 155.0                 | 4.5                              | 7                                      | 10        | 37.9                        | 25.6                            |
|              | 225                | 155.0                 | 4.8                              | 10                                     | –         | 43.5                        | 31.2                            |

Pressure charts for control function B and flow direction below the seat

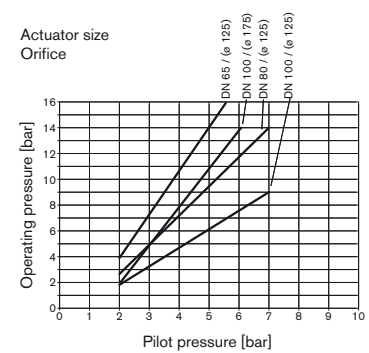
DN 10-20



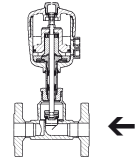
DN 25-50



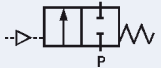
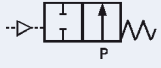
DN 65-100



## Ordering chart for valves with flow direction below the seat (other versions on request)



## Valves with flange connection according to DIN EN 1092-1, flow below seat

| Control function   | Orifice [mm] | Actuator size Ø [mm] | Kv value water [m³/h] | Minimum pilot pressure [bar] | Operating pressure up to +180 °C [bar] | Item no. PA actuator | Item no. PPS actuator |
|--|--------------|----------------------|-----------------------|------------------------------|--|----------------------|-----------------------|
| <b>A</b><br><br>2/2-way valve,<br>NC by spring action   | 10           | 40                   | 4.7                   | 4.0                          | 15                                     | 146 227              | 146 362               |
|  |              | 50                   | 4.7                   | 3.9                          | 16                                     | 146 237              | 146 370               |
|  | 15           | 40                   | 4.7                   | 4.0                          | 15                                     | 146 247              | –                     |
|  |              | 50                   | 4.7                   | 3.9                          | 16                                     | 146 259              | 146 378               |
|  |              | 63                   | 8.1                   | 4.2                          | 16                                     | 146 295              | 146 390               |
|  | 20           | 40                   | 8.1                   | 4.0                          | 6.5                                    | 146 271              | –                     |
|  |              | 50                   | 8.1                   | 3.9                          | 11                                     | 146 283              | –                     |
|  | 25           | 63                   | 13.0                  | 4.2                          | 11                                     | 146 299              | –                     |
|  |              | 80                   | 13.0                  | 5.0                          | 16                                     | 146 310              | 146 398               |
|  | 32           | 63                   | 19.5                  | 4.2                          | 6                                      | 146 314              | –                     |
|  |              | 80                   | 19.5                  | 5.0                          | 15                                     | 146 322              | 146 406               |
|  | 40           | 80                   | 31.0                  | 5.0                          | 10                                     | 146 327              | –                     |
|  |              | 125                  | 31.0                  | 3.2                          | 16                                     | 146 339              | 146 414               |
|  | 50           | 100                  | 45.0                  | 4.4                          | 7.2                                    | 146 345              | –                     |
|  |              | 125                  | 45.0                  | 3.2                          | 10                                     | 146 357              | 146 422               |
|  | 65           | 125                  | 73.0                  | 5.6                          | 12                                     | 152 743              | 156 476               |
|  |              | 175                  | 73.0                  | 4.5                          | 15                                     | 152 761              | –                     |
|  | 80           | 125                  | 110.0                 | 5.6                          | 7.5                                    | 155 527              | 156 484               |
|  |              | 175                  | 110.0                 | 4.5                          | 10                                     | 152 779              | –                     |
|  |              | 225                  | 110.0                 | 3.3                          | 12.5                                   | 152 797              | –                     |
| 100  | 125          | 165.0                | 5.6                   | 5                            | 155 546                                | 156 492              |                       |
|  | 175          | 155.0                | 4.5                   | 7.0                          | 152 815                                | –                    |                       |
|  | 225          | 155.0                | 4.8                   | 10                           | 152 833                                | –                    |                       |
| <b>B</b><br><br>2/2-way valve,<br>NO by spring action | 10           | 40                   | 4.7                   | see chart p3                 | 16                                     | 146 232              | 146 366               |
|  |              | 50                   | 4.7                   |                              | 16                                     | 146 242              | 146 374               |
|  | 15           | 40                   | 4.7                   |                              | 16                                     | 146 253              | –                     |
|  |              | 50                   | 4.7                   |                              | 16                                     | 146 265              | 146 382               |
|  | 20           | 40                   | 8.1                   |                              | 16                                     | 146 277              | –                     |
|  |              | 50                   | 8.1                   |                              | 16                                     | 146 289              | 146 386               |
|  | 25           | 63                   | 13.0                  |                              | 16                                     | 146 305              | 146 394               |
|  | 32           | 63                   | 19.5                  |                              | 16                                     | 146 318              | 146 402               |
|  | 40           | 80                   | 31.0                  |                              | 16                                     | 146 333              | 146 410               |
|  | 50           | 100                  | 45.0                  |                              | 16                                     | 146 351              | 146 418               |
|  | 65           | 125                  | 73.0                  |                              | 15                                     | 152 752              | 156 480               |
|  | 80           | 125                  | 110.0                 |                              | 12.5                                   | 152 770              | 156 488               |
|  | 100          | 125                  | 165.0                 |                              | 9                                      | 152 806              | 156 496               |
|  |              | 175                  | 155.0                 |                              | 10                                     | 152 824              | –                     |

**i Further versions on request**


**Port connections**  
 Flange acc. to ANSI, JIS  
 Clamp



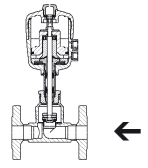
**Control function**  
 I (double-acting actuator)



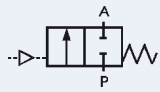
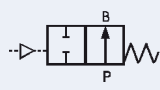
**Approvals**  
 GL, EC Gas Appliances Directive (previously DVGW), SIL



## Ordering chart for valves with flow direction below the seat (other versions on request), cont.



## Valves with threaded port connection, flow below seat

| Control function  | Orifice [mm] | Threaded port connection | Actuator size Ø [mm] | Kv value water [m³/h] | Minimum pilot pressure [bar] | Operating pressure up to + 180 °C [bar] | Item no. PA actuator | Item no. PPS actuator |
|---|--------------|--------------------------|----------------------|-----------------------|------------------------------|---|----------------------|-----------------------|
| <b>A</b><br><br>2/2-way valve,<br>NC by spring<br>action   | 10           | G 3/8                    | 40                   | 4.7                   | 4.0                          | 15                                      | 146 228              | 146 363               |
|   |              |                          | 50                   | 4.7                   | 3.9                          | 16                                      | 146 238              | 146 371               |
|   | 15           | G 1/2                    | 40                   | 4.7                   | 4.0                          | 15                                      | 146 248              | –                     |
|   |              |                          | 50                   | 4.7                   | 3.9                          | 16                                      | 146 260              | 146 379               |
|   |              |                          | 63                   | 8.1                   | 4.2                          | 16                                      | 146 296              | 146 391               |
|   | 20           | G 3/4                    | 40                   | 8.1                   | 4.0                          | 6.5                                     | 146 272              | –                     |
|   |              |                          | 50                   | 8.1                   | 3.9                          | 11                                      | 146 284              | –                     |
|   | 25           | G 1                      | 63                   | 13.0                  | 4.2                          | 11                                      | 146 300              | –                     |
|   |              |                          | 80                   | 13.0                  | 5.0                          | 16                                      | 146 311              | 146 399               |
|   | 32           | G 1 1/4                  | 63                   | 19.5                  | 4.2                          | 6                                       | 146 315              | –                     |
|   |              |                          | 80                   | 19.5                  | 5.0                          | 15                                      | 146 323              | 146 407               |
|   | 40           | G 1 1/2                  | 80                   | 31.0                  | 5.0                          | 10                                      | 146 328              | –                     |
|   |              |                          | 125                  | 31.0                  | 3.2                          | 16                                      | 146 340              | 146 415               |
|   |              |                          | 125                  | 45.0                  | 3.2                          | 10                                      | 146 358              | 146 423               |
| 65  | G 2 1/2      | 125                      | 65.0                 | 5.6                   | 12                           | 152 745                                 | 156 477              |                       |
|   |              | 175                      | 65.0                 | 4.5                   | 15                           | 152 763                                 | –                    |                       |
| <b>B</b><br><br>2/2-way valve,<br>NO by spring<br>action | 10           | G 3/8                    | 40                   | 4.7                   | see chart p3                 | 16                                      | 146 233              | 146 367               |
|   |              |                          | 50                   | 4.7                   |                              | 16                                      | 146 243              | 146 375               |
|   | 15           | G 1/2                    | 40                   | 4.7                   |                              | 16                                      | 146 254              | –                     |
|   |              |                          | 50                   | 4.7                   |                              | 16                                      | 146 266              | 146 383               |
|   | 20           | G 3/4                    | 40                   | 8.1                   |                              | 16                                      | 146 278              | –                     |
|   |              |                          | 50                   | 8.1                   |                              | 16                                      | 146 290              | 146 387               |
|   | 25           | G 1                      | 63                   | 13.0                  |                              | 16                                      | 146 306              | 146 395               |
|   | 32           | G 1 1/4                  | 63                   | 19.5                  |                              | 16                                      | 146 319              | 146 403               |
|   | 40           | G 1 1/2                  | 80                   | 31.0                  |                              | 16                                      | 146 334              | 146 411               |
|   | 50           | G 2                      | 100                  | 45.0                  |                              | 16                                      | 146 352              | 146 419               |
|   | 65           | G 2 1/2                  | 125                  | 65.0                  |                              | 15                                      | 152 754              | 156 481               |

**i Further versions on request**


**Port connections**  
 Threaded port NPT, Rc  
 Clamp

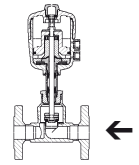


**Control function**  
 I (double-acting actuator)



**Approvals**  
 GL, EC Gas Appliances Directive (previously DVGW), SIL

## Ordering chart for valves with flow direction below the seat (other versions on request), cont.



## Valves with weld end according to EN ISO 1127/ISO 4200, flow below seat

| Control function                                  | Orifice [mm] | Weld end<br>EN ISO 1127/<br>ISO 4200<br>external Ø x Ws<br>[mm] | Actuator size Ø<br>[mm] | Kv value<br>water [m <sup>3</sup> /h] | Minimum pilot<br>pressure [bar] | Operating pressure<br>up to + 180 °C [bar] | Item no.<br>PA actuator | Item no.<br>PPS actuator |
|---|--------------|---|-------------------------|---------------------------------------|---------------------------------|--|-------------------------|--------------------------|
| <p>2/2-way valve,<br/>NC by spring<br/>action</p> | 10           | 17.2 x 1.6  | 40                      | 4.7                                   | 4.0                             | 15   | 146 229                 | 146 364                  |
|   |              |   | 50                      | 4.7                                   | 3.9                             | 16   | 146 239                 | 146 372                  |
|   | 15           | 21.3 x 1.6  | 40                      | 4.7                                   | 4.0                             | 15   | 146 249                 | –                        |
|   |              |   | 50                      | 4.7                                   | 3.9                             | 16   | 146 261                 | 146 380                  |
|   | 20           | 26.9 x 1.6  | 40                      | 8.1                                   | 4.0                             | 6.5  | 146 273                 | –                        |
|   |              |   | 50                      | 8.1                                   | 3.9                             | 11   | 146 285                 | –                        |
|   |              |   | 63                      | 8.1                                   | 4.2                             | 16   | 146 297                 | 146 392                  |
|   | 25           | 33.7 x 2.0  | 63                      | 13.0                                  | 4.2                             | 11   | 146 301                 | –                        |
|   |              |   | 80                      | 13.0                                  | 5.0                             | 16   | 146 312                 | 146 400                  |
|   | 32           | 42.4 x 2.0  | 63                      | 19.5                                  | 4.2                             | 6  | 146 316                 | –                        |
|   |              |   | 80                      | 19.5                                  | 5.0                             | 15   | 146 324                 | 146 408                  |
|   | 40           | 48.3 x 2.0  | 80                      | 31.0                                  | 5.0                             | 10   | 146 329                 | –                        |
|   |              |   | 125                     | 31.0                                  | 3.2                             | 16   | 146 341                 | 146 416                  |
|   | 50           | 60.3 x 2.0  | 100                     | 45.0                                  | 4.4                             | 7.2  | 146 347                 | –                        |
|   |              |   | 125                     | 45.0                                  | 3.2                             | 10   | 146 359                 | 146 424                  |
|   | 65           | 76.1 x 2.3  | 125                     | 73.0                                  | 5.6                             | 12   | 152 748                 | 156 478                  |
| 175   |              |   | 73.0                    | 4.5                                   | 15                              | 152 766                                    | –                       |                          |
| 80  | 88.9 x 2.3   | 125   | 110.0                   | 5.6                                   | 7.5                             | 155 542                                    | 156 486                 |                          |
|   |              | 175   | 110.0                   | 4.5                                   | 10                              | 152 784                                    | –                       |                          |
|   |              | 225   | 110.0                   | 3.3                                   | 12.5                            | 152 802                                    | –                       |                          |
| 100   | 114.3 x 2.6  | 125   | 165.0                   | 5.6                                   | 5                               | 155 551                                    | 156 494                 |                          |
|   |              | 175   | 155.0                   | 4.5                                   | 7.0                             | 152 820                                    | –                       |                          |
|   |              | 225   | 155.0                   | 4.8                                   | 10                              | 152 838                                    | –                       |                          |
| <p>2/2-way valve,<br/>NO by spring<br/>action</p> | 10           | 17.2 x 1.6  | 40                      | 4.7                                   | see chart p3                    | 16   | 146 234                 | 146 368                  |
|   |              |   | 50                      | 4.7                                   |                                 | 16   | 146 244                 | 146 376                  |
|   | 15           | 21.3 x 1.6  | 40                      | 4.7                                   |                                 | 16   | 146 255                 | –                        |
|   |              |   | 50                      | 4.7                                   |                                 | 16   | 146 267                 | 146 384                  |
|   | 20           | 26.9 x 1.6  | 40                      | 8.1                                   |                                 | 16   | 146 279                 | –                        |
|   |              |   | 50                      | 8.1                                   |                                 | 16   | 146 291                 | 146 388                  |
|   | 25           | 33.7 x 2.0  | 63                      | 13.0                                  |                                 | 16   | 146 307                 | 146 396                  |
|   | 32           | 42.4 x 2.0  | 63                      | 19.5                                  |                                 | 16   | 146 320                 | 146 404                  |
|   | 40           | 48.3 x 2.0  | 80                      | 31.0                                  |                                 | 16   | 146 335                 | 146 412                  |
|   | 50           | 60.3 x 2.0  | 100                     | 45.0                                  |                                 | 16   | 146 353                 | 146 420                  |
|   | 65           | 76.1 x 2.3  | 125                     | 73.0                                  |                                 | 15   | 152 757                 | 156 482                  |
|   | 80           | 88.9 x 2.3  | 125                     | 110.0                                 |                                 | 12.5                                       | 152 775                 | 156 490                  |
|   | 100          | 114.3 x 2.6   | 125                     | 165.0                                 |                                 | 9  | 152 811                 | 156 498                  |
|   |              |   | 175                     | 155.0                                 |                                 | 10   | 152 829                 | –                        |

## Further versions on request



**Port connections**  
Weld end O.D.  
Clamp

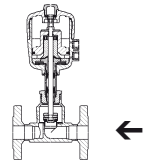


**Approvals**  
GL, EC Gas Appliances Directive (previously DVGW), SIL



**Control function**  
I (double-acting actuator)

## Ordering chart for valves with flow direction below the seat (other versions on request), cont.



## Valves with weld end according to DIN 11850 Series 2, flow below seat

| Control function   | Orifice [mm] | Weld end<br>DIN 11850 S2<br>external Ø x Ws [mm] | Actuator size Ø<br>[mm] | Kv value<br>water [m <sup>3</sup> /h] | Minimum pilot<br>pressure [bar] | Operating pressure<br>up to + 180 °C [bar] | Item no.<br>PA actuator | Item no.<br>PPS actuator |
|--|--------------|--|-------------------------|---------------------------------------|---------------------------------|--|-------------------------|--------------------------|
| <b>A</b><br><br>2/2-way valve,<br>NC by spring<br>action | 10           | 13 x 1.5   | 40                      | 4.7                                   | 4.0                             | 15   | 146 230                 | 146 365                  |
|  |              |  | 50                      | 4.7                                   | 3.9                             | 16   | 146 240                 | 146 373                  |
|  | 15           | 19 x 1.5   | 40                      | 4.7                                   | 4.0                             | 15   | 146 250                 | –                        |
|  |              |  | 50                      | 4.7                                   | 3.9                             | 16   | 146 262                 | 146 381                  |
|  | 20           | 23 x 1.5   | 40                      | 8.1                                   | 4.0                             | 6.5  | 146 274                 | –                        |
|  |              |  | 50                      | 8.1                                   | 3.9                             | 11   | 146 286                 | –                        |
|  |              |  | 63                      | 8.1                                   | 4.2                             | 16   | 146 298                 | 146 393                  |
|  | 25           | 29 x 1.5   | 63                      | 13.0                                  | 4.2                             | 11   | 146 302                 | –                        |
|  |              |  | 80                      | 13.0                                  | 5.0                             | 16   | 146 313                 | 146 401                  |
|  | 32           | 35 x 1.5   | 63                      | 19.5                                  | 4.2                             | 6  | 146 317                 | –                        |
|  |              |  | 80                      | 19.5                                  | 5.0                             | 15   | 146 325                 | 146 409                  |
|  | 40           | 41 x 1.5   | 80                      | 31.0                                  | 5.0                             | 10   | 146 330                 | –                        |
|  |              |  | 125                     | 31.0                                  | 3.2                             | 16   | 146 342                 | 146 417                  |
|  | 50           | 53 x 1.5   | 100                     | 45.0                                  | 4.4                             | 7.2  | 146 348                 | –                        |
|  |              |  | 125                     | 45.0                                  | 3.2                             | 10   | 146 360                 | 146 425                  |
|  | 65           | 70.0 x 2.0                                       | 125                     | 73.0                                  | 5.6                             | 12   | 152 749                 | 156 479                  |
|  |              |  | 175                     | 73.0                                  | 4.5                             | 15   | 152 767                 | –                        |
|  | 80           | 85.0 x 2.0                                       | 125                     | 110.0                                 | 5.6                             | 7.5  | 155 543                 | 156 487                  |
| 175  |              |  | 110.0                   | 4.5                                   | 10                              | 152 785                                    | –                       |                          |
| 225  |              |  | 110.0                   | 3.3                                   | 12.5                            | 152 803                                    | –                       |                          |
| 100  | 104.0 x 2.0  | 125  | 165.0                   | 5.6                                   | 5                               | 155 552                                    | 156 495                 |                          |
|  |              | 175  | 155.0                   | 4.5                                   | 7.0                             | 152 821                                    | –                       |                          |
|  |              | 225  | 155.0                   | 4.8                                   | 10                              | 152 839                                    | –                       |                          |
| <b>B</b><br><br>2/2-way valve,<br>NO by spring<br>action | 10           | 13 x 1.5   | 40                      | 4.7                                   | see chart p3                    | 16   | 146 235                 | 146 369                  |
|  |              |  | 50                      | 4.7                                   |                                 | 16   | 146 245                 | 146 377                  |
|  | 15           | 19 x 1.5   | 40                      | 4.7                                   |                                 | 16   | 146 256                 | –                        |
|  |              |  | 50                      | 4.7                                   |                                 | 16   | 146 268                 | 146 385                  |
|  | 20           | 23 x 1.5   | 40                      | 8.1                                   |                                 | 16   | 146 280                 | –                        |
|  |              |  | 50                      | 8.1                                   |                                 | 16   | 146 292                 | 146 389                  |
|  | 25           | 29 x 1.5   | 63                      | 13.0                                  |                                 | 16   | 146 308                 | 146 397                  |
|  | 32           | 35 x 1.5   | 63                      | 19.5                                  |                                 | 16   | 146 321                 | 146 405                  |
|  | 40           | 41 x 1.5   | 80                      | 31.0                                  |                                 | 16   | 146 336                 | 146 413                  |
|  | 50           | 53 x 1.5   | 100                     | 45.0                                  |                                 | 16   | 146 354                 | 146 421                  |
|  | 65           | 70.0 x 2.0                                       | 125                     | 73.0                                  |                                 | 15   | 152 758                 | 156 483                  |
|  | 80           | 85.0 x 2.0                                       | 125                     | 110.0                                 |                                 | 12.5                                       | 152 776                 | 156 491                  |
|  | 100          | 104.0 x 2.0                                      | 125                     | 165.0                                 |                                 | 9  | 152 812                 | 156 499                  |
|  |              |  | 175                     | 155.0                                 |                                 | 10   | 152 830                 | –                        |

**i Further versions on request**


**Port connections**  
 Weld end O.D.  
 Clamp



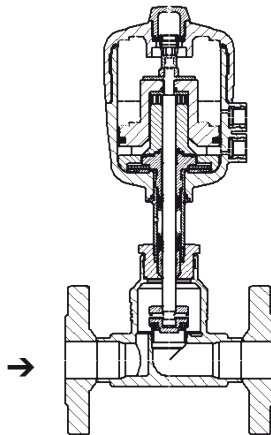
**Approvals**  
 GL, EC Gas Appliances Directive (previously DVGW), SIL



**Control function**  
 I (double-acting actuator)



Technical data for valves with flow direction above the seat



Flow direction above seat

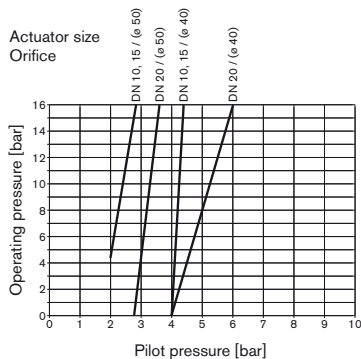
Type 2012 with flange connection

| Technical data       | Flow direction above the seat                           |
|----------------------|---|
| Medium               | Gaseous medium and steam                                |
| Other technical data | Please see technical data for flow direction below seat |

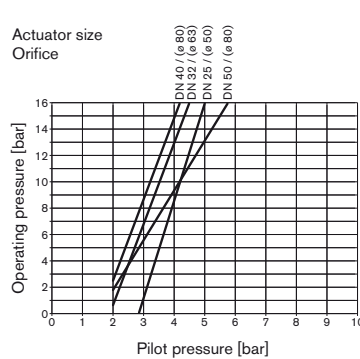
| Orifice [mm] | Actuator size [mm] | Kv value water [m³/h] | Minimum pilot pressure [bar] | Operating pressure up to +180° [bar] | Weight with flange [kg] | Threaded port and weld end [kg] |
|--------------|--------------------|-----------------------|------------------------------|--------------------------------------|-------------------------|---------------------------------|
| 10           | 40                 | 3.0                   | 4.5                          | 16                                   | 2.3                     | 0.8                             |
|              | 50                 | 3.0                   | 2.8                          | 16                                   | 2.4                     | 0.9                             |
| 15           | 40                 | 4.7                   | 4.4                          | 16                                   | 2.3                     | 0.8                             |
|              | 50                 | 4.7                   | 2.8                          | 16                                   | 2.4                     | 0.9                             |
| 20           | 40                 | 8.1                   | 6.0                          | 16                                   | 3.1                     | 0.9                             |
|              | 50                 | 8.1                   | 3.7                          | 16                                   | 3.3                     | 1.1                             |
| 25           | 50                 | 13.0                  | 5.0                          | 16                                   | 4.0                     | 1.4                             |
| 32           | 63                 | 19.5                  | 4.5                          | 16                                   | 6.6                     | 2.9                             |
| 40           | 80                 | 31.0                  | 4.2                          | 16                                   | 8.4                     | 4.2                             |
| 50           | 80                 | 45.0                  | 5.8                          | 16                                   | 11.4                    | 5.6                             |
| 65           | 125                | 73.0                  | 5.6                          | 10                                   | 20.2                    | 12.9                            |
| 80           | 125                | 110.0                 | 5.6                          | 10                                   | 24.5                    | 16.1                            |
| 100          | 125                | 165.0                 | 5.6                          | 6                                    | 32.9                    | 20.6                            |

Pressure charts

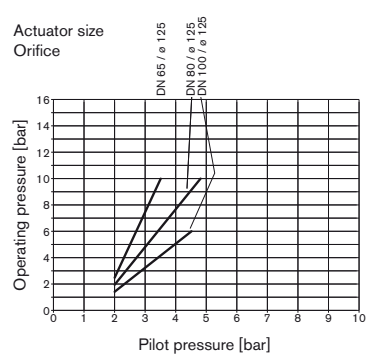
DN 10-20



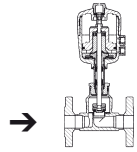
DN 25-50



DN 65-100



## Ordering chart valves with flow direction above the seat (other versions on request)



## Valves with flange connection according to DIN EN 1092-1, flow above seat

| Control function                          | Orifice [mm] | Connection | Actuator size Ø [mm] | Kv value water [m³/h] | Minimum pilot pressure [bar] | Operating pressure up to +180 °C [bar] | Item no. PA actuator | Item no. PPS actuator |
|---|--------------|------------|----------------------|-----------------------|------------------------------|--|----------------------|-----------------------|
| <p>2/2-way valve, NC by spring action</p> | 10           | Flange     | 40                   | 4.7                   | 4.5                          | 16                                     | 146 427              | –                     |
|   |              | Flange     | 50                   | 4.7                   | 2.8                          | 16                                     | 146 432              | 146 492               |
|   | 15           | Flange     | 40                   | 4.7                   | 4.4                          | 16                                     | 146 437              | –                     |
|   |              | Flange     | 50                   | 4.7                   | 2.8                          | 16                                     | 146 443              | 146 496               |
|   | 20           | Flange     | 40                   | 8.1                   | 6.0                          | 16                                     | 146 448              | –                     |
|   |              | Flange     | 50                   | 8.1                   | 3.7                          | 16                                     | 146 454              | 146 500               |
|   | 25           | Flange     | 50                   | 13.0                  | 5.0                          | 16                                     | 146 460              | 146 504               |
|   | 32           | Flange     | 63                   | 19.5                  | 4.5                          | 16                                     | 146 465              | 146 508               |
|   | 40           | Flange     | 80                   | 31.0                  | 4.2                          | 16                                     | 146 476              | 146 512               |
|   | 50           | Flange     | 80                   | 45.0                  | 5.8                          | 16                                     | 146 487              | 146 516               |
|   | 65           | Flange     | 125                  | 73.0                  | 5.6                          | 10                                     | 152 842              | –                     |
|   | 80           | Flange     | 125                  | 110.0                 | 5.6                          | 10                                     | 152 851              | –                     |
| 100                                       | Flange       | 125        | 165.0                | 5.6                   | 6                            | 152 860                                | –                    |                       |

## Valves with threaded port connection, flow above seat

| Control function                          | Orifice [mm] | Connection | Actuator size Ø [mm] | Kv value water [m³/h] | Minimum pilot pressure [bar] | Operating pressure up to +180 °C [bar] | Item no. PA actuator | Item no. PPS actuator |
|---|--------------|------------|----------------------|-----------------------|------------------------------|--|----------------------|-----------------------|
| <p>2/2-way valve, NC by spring action</p> | 10           | G 3/8      | 40                   | 4.7                   | 4.5                          | 16                                     | 146 428              | –                     |
|   |              |            | 50                   | 4.7                   | 2.8                          | 16                                     | 146 433              | 146 493               |
|   | 15           | G 1/2      | 40                   | 4.7                   | 4.4                          | 16                                     | 146 438              | –                     |
|   |              |            | 50                   | 4.7                   | 2.8                          | 16                                     | 146 444              | 146 497               |
|   | 20           | G 3/4      | 40                   | 8.1                   | 6.0                          | 16                                     | 146 449              | –                     |
|   |              |            | 50                   | 8.1                   | 3.7                          | 16                                     | 146 455              | 146 501               |
|   | 25           | G 1        | 50                   | 13.0                  | 5.0                          | 16                                     | 146 461              | 146 505               |
|   | 32           | G 1/4      | 63                   | 19.5                  | 4.5                          | 16                                     | 146 466              | 146 509               |
|   | 40           | G 1 1/2    | 80                   | 31.0                  | 4.2                          | 16                                     | 146 477              | 146 513               |
|   | 50           | G 2        | 80                   | 45.0                  | 5.8                          | 16                                     | 146 488              | 146 517               |
|   | 65           | G 2 1/2    | 125                  | 65.0                  | 5.6                          | 10                                     | 152 844              | –                     |

**Attention!**

Valves with flow direction above the seat are only conditionally usable for liquid media.

Waterhammer will occur! For flange and threaded port connections pilot pressures, please refer to Charts on page 8.

## Further versions on request

**Port connections**

Flange acc. to ANSI, JIS  
Threaded port NPT, Rc  
Clamp

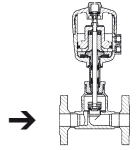
**Approvals**

GL, EC Gas Appliances Directive (previously DVGW), SIL

**Control function**

I (double-acting actuator) and B (spring-return normally-open)

## Ordering chart valves with flow direction above the seat (other versions on request), cont.



## Valves with weld end according to EN ISO 1127/ISO 4200, flow above seat

| Control function                                   | Orifice [mm] | Weld end external Ø x Ws [mm] | Actuator size Ø [mm] | Kv value water [m³/h] | Minimum pilot pressure [bar] | Operating pressure up to +180 °C [bar] | Item no. PA actuator | Item no. PPS actuator |
|--|--------------|-------------------------------|----------------------|-----------------------|------------------------------|--|----------------------|-----------------------|
| <b>A</b><br><br>2/2-way valve, NC by spring action | 10           | 17.2 x 1.6                    | 40                   | 4.7                   | 4.5                          | 16                                     | 146 429              | –                     |
|  |              |                               | 50                   | 4.7                   | 2.8                          | 16                                     | 146 434              | 146 494               |
|  | 15           | 21.3 x 1.6                    | 40                   | 4.7                   | 4.4                          | 16                                     | 146 439              | –                     |
|  |              |                               | 50                   | 4.7                   | 2.8                          | 16                                     | 146 445              | 146 498               |
|  | 20           | 26.9 x 1.6                    | 40                   | 8.1                   | 6.0                          | 16                                     | 146 450              | –                     |
|  |              |                               | 50                   | 8.1                   | 3.7                          | 16                                     | 146 456              | 146 502               |
|  | 25           | 33.7 x 2.0                    | 50                   | 13.0                  | 5.0                          | 16                                     | 146 462              | 146 506               |
|  | 32           | 42.4 x 2.0                    | 63                   | 19.5                  | 4.5                          | 16                                     | 146 467              | 146 510               |
|  | 40           | 48.3 x 2.0                    | 80                   | 31.0                  | 4.2                          | 16                                     | 146 478              | 146 514               |
|  | 50           | 60.3 x 2.0                    | 80                   | 45.0                  | 5.8                          | 16                                     | 146 489              | 146 518               |
| 65   | 76.1 x 2.3   | 125                           | 73.0                 | 5.6                   | 10                           | 152 847                                | –                    |                       |
| 80   | 88.9 x 2.3   | 125                           | 110.0                | 5.6                   | 10                           | 152 856                                | –                    |                       |
| 100  | 114.3 x 2.6  | 125                           | 165.0                | 5.6                   | 6                            | 152 865                                | –                    |                       |

## Valves with weld end according to DIN 11850 Series 2, flow above seat

| Control function                                   | Orifice [mm] | Weld end external Ø x Ws [mm] | Actuator size Ø [mm] | Kv value water [m³/h] | Minimum pilot pressure [bar] | Operating pressure up to +180 °C [bar] | Item no. PA actuator | Item no. PPS actuator |
|--|--------------|-------------------------------|----------------------|-----------------------|------------------------------|--|----------------------|-----------------------|
| <b>A</b><br><br>2/2-way valve, NC by spring action | 10           | 13 x 1.5                      | 40                   | 4.7                   | 4.5                          | 16                                     | 146 430              | –                     |
|  |              |                               | 50                   | 4.7                   | 2.8                          | 16                                     | 146 435              | 146 495               |
|  | 15           | 19 x 1.5                      | 40                   | 4.7                   | 4.4                          | 16                                     | 146 440              | –                     |
|  |              |                               | 50                   | 4.7                   | 2.8                          | 16                                     | 146 446              | 146 499               |
|  | 20           | 23 x 1.5                      | 40                   | 8.1                   | 6.0                          | 16                                     | 146 451              | –                     |
|  |              |                               | 50                   | 8.1                   | 3.7                          | 16                                     | 146 457              | 146 503               |
|  | 25           | 29 x 1.5                      | 50                   | 13.0                  | 5.0                          | 16                                     | 146 463              | 146 507               |
|  | 32           | 35 x 1.5                      | 63                   | 19.5                  | 4.5                          | 16                                     | 146 468              | 146 511               |
|  | 40           | 41 x 1.5                      | 80                   | 31.0                  | 4.2                          | 16                                     | 146 479              | 146 515               |
|  | 50           | 53 x 1.5                      | 80                   | 45.0                  | 5.8                          | 16                                     | 146 490              | 146 519               |
| 65   | 70.0 x 2.0   | 125                           | 73.0                 | 5.6                   | 10                           | 152 848                                | –                    |                       |
| 80   | 85.0 x 2.0   | 125                           | 110.0                | 5.6                   | 10                           | 152 857                                | –                    |                       |
| 100  | 104.0 x 2.0  | 125                           | 165.0                | 5.6                   | 6                            | 152 866                                | –                    |                       |

**Attention!**

Valves with flow direction above the seat are only conditionally usable for liquid media. Waterhammer will occur! For weld ends according to EN ISO 1127/ISO 4200 and DIN 11850 Series 2 pilot pressures, please refer to Charts page 8.

**i Further versions on request**

**Port connections**  
Weld end, O.D.  
Clamp



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



**Approvals**  
GL, EC Gas Appliances Directive (previously DVGW), SIL

## Ordering chart for accessories

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

Seal material valve FKM, seal material banjo bolt NBR

| Valve for actuator size [Ø mm] | Type  | Pressure inlet P (valve body) | Service port A (banjo bolt) | Orifice [mm] | Qn value air [l/min] | Pressure range [bar] | Electrical coil connection Ind. Std. | Power consumption [W] | Item no. Voltage/frequency [V/Hz] |         |
|--------------------------------|-------|-------------------------------|-----------------------------|--------------|----------------------|----------------------|--------------------------------------|-----------------------|-----------------------------------|---------|
|                                |       |                               |                             |              |                      |                      |                                      |                       | 024/DC                            | 230/50  |
| 40                             | 6012P | Tube fitting ø6 mm            | G 1/8                       | 1.2          | 48                   | 0-10                 | Form B                               | 4                     | 552 287                           | 552 290 |
| 40                             | 6012P | G 1/8                         | G 1/8                       | 1.2          | 48                   | 0-10                 | Form B                               | 4                     | 552 299                           | 552 302 |
| 40                             | 6012P | G 1/4                         | G 1/8                       | 1.2          | 48                   | 0-10                 | Form B                               | 4                     | 552 295                           | 552 298 |
| 50-63                          | 6012P | Tube fitting ø6 mm            | G 1/4                       | 1.2          | 48                   | 0-10                 | Form B                               | 4                     | 552 283                           | 552 286 |
| 50-125                         | 6014P | G 1/4                         | G 1/4                       | 2            | 120                  | 0-10                 | Form A                               | 8                     | 424 103                           | 424 107 |
| 175-225                        | 6014P | G 1/8                         | G 1/4                       | 2.5          | 174                  | 0-6                  | Form A                               | 8                     | 786 014                           | 786 015 |
| 175-225                        | 0331P | G 1/4                         | G 1/4                       | 3            | 194                  | 0-10                 | Form A                               | 8                     | –                                 | 041 233 |

### Cable plug Type 2507, Form B or Type 2508, Form A

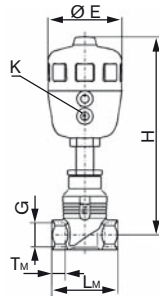
|  | Item no. |
|--|----------|
| Type 2507, Form B Industrial standard, 0 to 250 V without circuitry (Type 6012 P)                | 423 845  |
| Type 2508, Form A acc. DIN EN 175301-803, 0 to 250 V without circuitry (Type 6014 P, Type 0331P) | 008 376  |

For further accessories see Type 1062, or the accessories datasheet Type 2XXX for the full options programme.

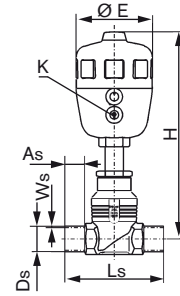
**Note:** For design reasons, some of the accessories cannot be supplied for actuator size Ø 40, 175 and 225 mm. Please request the accessories datasheet Type 2XXX.

Dimensions [mm]

**DN 10-50**  
With threaded  
port connection

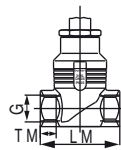


**DN 10-50**  
With weld end acc. to  
EN ISO 1127/ISO 4200 or  
DIN 11850 Series 2

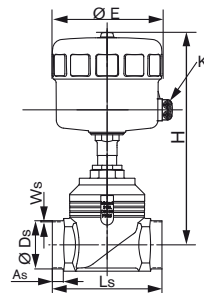


| All bodies |                    |        |     |       | Threaded port body |     |    | Weld end bodies<br>EN ISO 1127/ISO 4200 |      |     |     | Weld end bodies<br>DIN11850 Series 2 |    |     |     |
|------------|--------------------|--------|-----|-------|--------------------|-----|----|---|------|-----|-----|--------------------------------------|----|-----|-----|
| DN         | Actuator<br>size Ø | E<br>Ø | H   | K     | G                  | LM  | TM | As                                      | Ds   | Ls  | Ws  | As                                   | Ds | Ls  | Ws  |
| 10         | 40                 | 53     | 168 | G 1/8 | G 3/8              | 65  | 12 | 20                                      | 17.2 | 90  | 1.6 | 20                                   | 13 | 90  | 1.5 |
|            | 50                 | 64     | 211 | G 1/4 |                    |     |    |   |      |     |     |                                      |    |     |     |
| 15         | 40                 | 53     | 168 | G 1/8 | G 1/2              | 65  | 14 | 20                                      | 21.3 | 90  | 1.6 | 20                                   | 19 | 90  | 1.5 |
|            | 50                 | 64     | 211 | G 1/4 |                    |     |    |   |      |     |     |                                      |    |     |     |
| 20         | 40                 | 53     | 170 | G 1/8 | G 3/4              | 75  | 16 | 20                                      | 26.9 | 100 | 1.6 | 20                                   | 23 | 100 | 1.5 |
|            | 50                 | 64     | 213 | G 1/4 |                    |     |    |   |      |     |     |                                      |    |     |     |
|            | 63                 | 80     | 247 |       |                    |     |    |   |      |     |     |                                      |    |     |     |
| 25         | 50                 | 64     | 220 | G 1/4 | G 1                | 90  | 18 | 26                                      | 33.7 | 130 | 2.0 | 26                                   | 29 | 130 | 1.5 |
|            | 63                 | 80     | 251 |       |                    |     |    |   |      |     |     |                                      |    |     |     |
|            | 80                 | 101    | 273 |       |                    |     |    |   |      |     |     |                                      |    |     |     |
| 32         | 63                 | 80     | 271 | G 1/4 | G 1<br>1/4         | 110 | 20 | 26                                      | 42.4 | 140 | 2.0 | 26                                   | 35 | 140 | 1.5 |
|            | 80                 | 101    | 294 |       |                    |     |    |   |      |     |     |                                      |    |     |     |
| 40         | 80                 | 101    | 299 | G 1/4 | G 1<br>1/2         | 120 | 22 | 26                                      | 48.3 | 150 | 2.0 | 26                                   | 41 | 150 | 1.5 |
|            | 100                | 127    | 366 |       |                    |     |    |   |      |     |     |                                      |    |     |     |
|            | 125                | 157    | 397 |       |                    |     |    |   |      |     |     |                                      |    |     |     |
| 50         | 80                 | 101    | 309 | G 1/4 | G 2                | 150 | 24 | 26                                      | 60.3 | 175 | 2.0 | 26                                   | 53 | 175 | 1.5 |
|            | 100                | 127    | 370 |       |                    |     |    |   |      |     |     |                                      |    |     |     |
|            | 125                | 153    | 402 |       |                    |     |    |   |      |     |     |                                      |    |     |     |

**DN 65-100**  
With threaded port  
connection

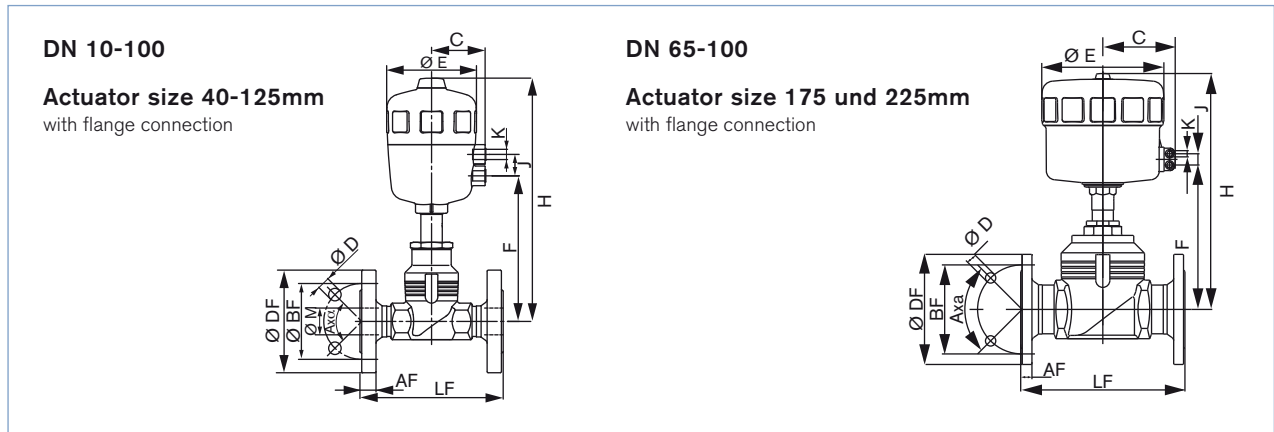


**DN 65-100**  
With weld end acc. to  
EN ISO 1127/ISO 4200 or  
DIN 11850 Series 2



| All bodies |                    |        |     |       | Threaded port body |     |    | Weld end bodies<br>EN ISO 1127/ISO 4200 |       |     |     | Weld end bodies<br>DIN11850 Series 2 |     |     |    |
|------------|--------------------|--------|-----|-------|--------------------|-----|----|---|-------|-----|-----|--------------------------------------|-----|-----|----|
| DN         | Actuator<br>size Ø | E<br>Ø | H   | K     | G                  | LM  | TM | As                                      | Ds    | Ls  | Ws  | As                                   | Ds  | Ls  | Ws |
| 65         | 125                | 157    | 430 | G 1/4 | G 2<br>1/2         | 185 | 26 | 26                                      | 76.1  | 210 | 2.3 | 26                                   | 70  | 210 | 2  |
|            | 175                | 211    | 491 |       |                    |     |    |   |       |     |     |                                      |     |     |    |
| 80         | 125                | 157    | 440 | G 1/4 | -                  | -   | -  | 26                                      | 88.9  | 230 | 2.3 | 26                                   | 85  | 230 | 2  |
|            | 175                | 211    | 498 |       |                    |     |    |   |       |     |     |                                      |     |     |    |
|            | 225                | 261    | 494 |       |                    |     |    |   |       |     |     |                                      |     |     |    |
| 100        | 125                | 157    | 450 | G 1/4 | -                  | -   | -  | 26                                      | 114.3 | 260 | 2.6 | 26                                   | 104 | 260 | 2  |
|            | 175                | 211    | 508 |       |                    |     |    |   |       |     |     |                                      |     |     |    |
|            | 225                | 261    | 504 |       |                    |     |    |   |       |     |     |                                      |     |     |    |

Dimensions [mm], cont.



| All bodies |          |     |     |     |     |      |      | DIN flange |     |     |    |    | JIS flange |     |     |     |     |    |    |       |     |
|------------|----------|-----|-----|-----|-----|------|------|------------|-----|-----|----|----|------------|-----|-----|-----|-----|----|----|-------|-----|
| DN         | Actuator | C   | ØE  | F   | H   | K    | J    | ØDF        | LF  | ØBF | AF | ØD | Axα        | ØM  | ØDF | LF  | ØBF | AF | ØD | Axα   | ØM  |
| 10         | 40       | 33  | 53  | 116 | 168 | G1/8 | 16.5 | 90         | 130 | 60  | 16 | 14 | 4x90°      | 14  | -   | -   | -   | -  | -  | -     | -   |
|            | 50       | 44  | 64  | 131 | 211 | G1/4 | 24   | 90         | 130 | 60  | 16 | 14 | 4x90°      | 14  | -   | -   | -   | -  | -  | -     | -   |
| 15         | 40       | 33  | 53  | 116 | 168 | G1/8 | 16.5 | 95         | 130 | 65  | 16 | 14 | 4x90°      | 18  | 95  | 108 | 70  | 12 | 15 | 4x90° | 18  |
|            | 50       | 44  | 64  | 131 | 211 | G1/4 | 24   | 95         | 130 | 65  | 16 | 14 | 4x90°      | 18  | 95  | 108 | 70  | 12 | 15 | 4x90° | 18  |
| 20         | 40       | 33  | 53  | 118 | 170 | G1/8 | 16.5 | 105        | 150 | 75  | 18 | 14 | 4x90°      | 24  | 100 | 117 | 75  | 14 | 15 | 4x90° | 24  |
|            | 50       | 44  | 64  | 135 | 213 | G1/4 | 24   | 105        | 150 | 75  | 18 | 14 | 4x90°      | 24  | 100 | 117 | 75  | 14 | 15 | 4x90° | 24  |
|            | 63       | 52  | 80  | 155 | 247 | G1/4 | 24   | 105        | 150 | 75  | 18 | 14 | 4x90°      | 24  | 100 | 117 | 75  | 14 | 15 | 4x90° | 24  |
| 25         | 50       | 44  | 64  | 140 | 220 | G1/4 | 24   | 115        | 160 | 85  | 18 | 14 | 4x90°      | 30  | 125 | 127 | 90  | 14 | 19 | 4x90° | 30  |
|            | 63       | 52  | 80  | 159 | 251 | G1/4 | 24   | 115        | 160 | 85  | 18 | 14 | 4x90°      | 30  | 125 | 127 | 90  | 14 | 19 | 4x90° | 30  |
|            | 80       | 60  | 101 | 164 | 273 | G1/4 | 24   | 115        | 160 | 85  | 18 | 14 | 4x90°      | 30  | 125 | 127 | 90  | 14 | 19 | 4x90° | 30  |
| 32         | 63       | 52  | 80  | 179 | 271 | G1/4 | 24   | 140        | 180 | 100 | 18 | 18 | 4x90°      | 38  | 135 | 140 | 100 | 16 | 19 | 4x90° | 38  |
|            | 80       | 60  | 101 | 184 | 294 | G1/4 | 24   | 140        | 180 | 100 | 18 | 18 | 4x90°      | 38  | 135 | 140 | 100 | 16 | 19 | 4x90° | 38  |
| 40         | 63       | 52  | 80  | 184 | 276 | G1/4 | 24   | 150        | 200 | 110 | 18 | 18 | 4x90°      | 44  | 140 | 165 | 105 | 16 | 19 | 4x90° | 44  |
|            | 80       | 60  | 101 | 189 | 299 | G1/4 | 24   | 150        | 200 | 110 | 18 | 18 | 4x90°      | 44  | 140 | 165 | 105 | 16 | 19 | 4x90° | 44  |
|            | 100      | 73  | 127 | 214 | 366 | G1/4 | 30   | 150        | 200 | 110 | 18 | 18 | 4x90°      | 44  | 140 | 165 | 105 | 16 | 19 | 4x90° | 44  |
|            | 125      | 86  | 157 | 220 | 397 | G1/4 | 30   | 150        | 200 | 110 | 18 | 18 | 4x90°      | 44  | 140 | 165 | 105 | 16 | 19 | 4x90° | 44  |
| 50         | 63       | 52  | 80  | 195 | 287 | G1/4 | 24   | 165        | 230 | 125 | 20 | 18 | 4x90°      | 56  | 155 | 203 | 120 | 16 | 19 | 4x90° | 56  |
|            | 80       | 60  | 101 | 199 | 309 | G1/4 | 24   | 165        | 230 | 125 | 20 | 18 | 4x90°      | 56  | 155 | 203 | 120 | 16 | 19 | 4x90° | 56  |
|            | 100      | 73  | 127 | 218 | 370 | G1/4 | 30   | 165        | 230 | 125 | 20 | 18 | 4x90°      | 56  | 155 | 203 | 120 | 16 | 19 | 4x90° | 56  |
|            | 125      | 86  | 157 | 225 | 402 | G1/4 | 30   | 165        | 230 | 125 | 20 | 18 | 4x90°      | 56  | 155 | 203 | 120 | 16 | 19 | 4x90° | 56  |
| 65         | 125      | 86  | 157 | 254 | 430 | G1/4 | 30   | 185        | 290 | 145 | 22 | 18 | 8x45°      | 66  | 175 | 216 | 140 | 18 | 19 | 4x90° | 72  |
|            | 175      | 130 | 211 | 289 | 491 | G1/4 | 24   | 185        | 290 | 145 | 22 | 18 | 8x45°      | 66  | 175 | 216 | 140 | 18 | 19 | 4x90° | 72  |
| 80         | 125      | 86  | 157 | 264 | 440 | G1/4 | 30   | 200        | 310 | 160 | 24 | 18 | 8x45°      | 81  | 185 | 241 | 150 | 18 | 19 | 8x45° | 84  |
|            | 175      | 130 | 211 | 296 | 498 | G1/4 | 24   | 200        | 310 | 160 | 24 | 18 | 8x45°      | 81  | 185 | 241 | 150 | 18 | 19 | 8x45° | 84  |
|            | 225      | 155 | 261 | 299 | 494 | G1/4 | 24   | 200        | 310 | 160 | 24 | 18 | 8x45°      | 81  | 185 | 241 | 150 | 18 | 19 | 8x45° | 84  |
| 100        | 125      | 86  | 157 | 274 | 450 | G1/4 | 30   | 235        | 350 | 190 | 24 | 22 | 8x45°      | 100 | 210 | 292 | 175 | 18 | 19 | 8x45° | 109 |
|            | 175      | 130 | 211 | 306 | 508 | G1/4 | 24   | 235        | 350 | 190 | 24 | 22 | 8x45°      | 100 | 210 | 292 | 175 | 18 | 19 | 8x45° | 109 |
|            | 225      | 155 | 261 | 309 | 504 | G1/4 | 24   | 235        | 350 | 190 | 24 | 22 | 8x45°      | 100 | 210 | 292 | 175 | 18 | 19 | 8x45° | 109 |



## Dimensions [mm], cont.

| All bodies |          |     |     |     |     |      |      | ANSI flange |     |       |      |      |             |     |  |
|------------|----------|-----|-----|-----|-----|------|------|-------------|-----|-------|------|------|-------------|-----|--|
| DN         | Actuator | C   | ØE  | F   | H   | K    | J    | ØDF         | LF  | ØBF   | AF   | ØD   | Ax $\alpha$ | ØM  |  |
| 1/2"       | 40       | 33  | 53  | 116 | 168 | G1/8 | 16.5 | 89          | 184 | 60.5  | 11.2 | 15.7 | 4x90°       | 16  |  |
|            | 50       | 44  | 64  | 131 | 211 | G1/4 | 24   | 89          | 184 | 60.5  | 11.2 | 15.7 | 4x90°       | 16  |  |
| 3/4"       | 40       | 33  | 53  | 118 | 170 | G1/8 | 16.5 | 99          | 184 | 69.9  | 12.7 | 15.7 | 4x90°       | 21  |  |
|            | 50       | 44  | 64  | 135 | 213 | G1/4 | 24   | 99          | 184 | 69.9  | 12.7 | 15.7 | 4x90°       | 21  |  |
|            | 63       | 52  | 80  | 155 | 247 | G1/4 | 24   | 99          | 184 | 69.9  | 12.7 | 15.7 | 4x90°       | 21  |  |
| 1"         | 50       | 44  | 64  | 140 | 220 | G1/4 | 24   | 108         | 184 | 79.2  | 14.2 | 15.7 | 4x90°       | 27  |  |
|            | 63       | 52  | 80  | 159 | 251 | G1/4 | 24   | 108         | 184 | 79.2  | 14.2 | 15.7 | 4x90°       | 27  |  |
|            | 80       | 60  | 101 | 164 | 273 | G1/4 | 24   | 108         | 184 | 79.2  | 14.2 | 15.7 | 4x90°       | 27  |  |
| 1 1/2"     | 63       | 52  | 80  | 184 | 276 | G1/4 | 24   | 127         | 222 | 98.6  | 17.5 | 15.7 | 4x90°       | 41  |  |
|            | 80       | 60  | 101 | 189 | 299 | G1/4 | 24   | 127         | 222 | 98.6  | 17.5 | 15.7 | 4x90°       | 41  |  |
|            | 100      | 73  | 127 | 214 | 366 | G1/4 | 30   | 127         | 222 | 98.6  | 17.5 | 15.7 | 4x90°       | 41  |  |
|            | 125      | 86  | 157 | 220 | 397 | G1/4 | 30   | 127         | 222 | 98.6  | 17.5 | 15.7 | 4x90°       | 41  |  |
| 2"         | 63       | 52  | 80  | 195 | 287 | G1/4 | 24   | 152         | 254 | 120.7 | 19.1 | 19.1 | 4x90°       | 53  |  |
|            | 80       | 60  | 101 | 199 | 309 | G1/4 | 24   | 152         | 254 | 120.7 | 19.1 | 19.1 | 4x90°       | 53  |  |
|            | 100      | 73  | 127 | 218 | 370 | G1/4 | 30   | 152         | 254 | 120.7 | 19.1 | 19.1 | 4x90°       | 53  |  |
|            | 125      | 86  | 157 | 225 | 402 | G1/4 | 30   | 152         | 254 | 120.7 | 19.1 | 19.1 | 4x90°       | 53  |  |
| 2 1/2"     | 125      | 86  | 157 | 254 | 430 | G1/4 | 30   | 178         | 276 | 139.7 | 22.3 | 19.1 | 4x90°       | 63  |  |
|            | 175      | 130 | 211 | 289 | 491 | G1/4 | 24   | 178         | 276 | 139.7 | 22.3 | 19.1 | 4x90°       | 63  |  |
| 3"         | 125      | 86  | 157 | 264 | 440 | G1/4 | 30   | 190         | 298 | 152.4 | 23.9 | 19.1 | 4x90°       | 78  |  |
|            | 175      | 130 | 211 | 296 | 498 | G1/4 | 24   | 190         | 298 | 152.4 | 23.9 | 19.1 | 4x90°       | 78  |  |
|            | 225      | 155 | 261 | 299 | 494 | G1/4 | 24   | 190         | 298 | 152.4 | 23.9 | 19.1 | 4x90°       | 78  |  |
| 4"         | 125      | 86  | 157 | 274 | 450 | G1/4 | 30   | 229         | 352 | 190.5 | 23.9 | 19.1 | 8x45°       | 102 |  |
|            | 175      | 130 | 211 | 306 | 508 | G1/4 | 24   | 229         | 352 | 190.5 | 23.9 | 19.1 | 8x45°       | 102 |  |
|            | 225      | 155 | 261 | 309 | 504 | G1/4 | 24   | 229         | 352 | 190.5 | 23.9 | 19.1 | 8x45°       | 102 |  |

Ordering information for valve system On/Off Classic Type 8801-GA/8803-GA

A valve system On/Off Classic Type 8801-GA/8803-GA consists of an globe valve Type 2012 and a valve actuation system control head Type 8691, a pneumatic control unit Type 8690 or an electrical position feedback Type 1062 (see separate datasheets).

For the configuration of further valve systems please use the "Request for quotation" on p. 19 [go to page](#)

You order two components and receive a complete assembled and certified valve.

Ordering the valve system On/Off Classic Type 8801-GA/8803-GA

Globe valve Type 2012 with required port connection



Control units



Globe valve with desired control unit



When you click on the orange box "More info." below, you will come to our website for the resp. product where you can download the datasheet.

Control head Type 8691



More info.

The new generation of integrated control heads for combination with actuators from the process valve series Type 20xx/21xx is specially designed for the requirements of hygienic process environments. The intelligent control head, Type 8691, detects the valve position by means of a contact-free analog position sensor circumventing excessive wear of mechanical parts. Single or double-acting actuators are controlled via the integral pilot valve. Communication interfaces AS-Interface and DeviceNet are available as options.

Main customer benefits:

- Automatic setting of the control head at the push of a button
- Even under dirty or dark environments, a clearly visible status display due to powerful LEDs
- Monitoring and diagnosis: Process valve systems with field bus interface used in modern plant processes
- Integrated pilot valve with manual actuation
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaptations allowing additional actuators of the process valve series, Type 20xx or actuators from other manufacturers to be used

Pneumatic control unit Type 8690



More info.

The new generation of integrated controllers for combination with actuators from the process valve series Type 20xx/21xx is specially designed for the requirements of hygienic process environments.

The pneumatic control unit Type 8690 combines electrical position feedback and pneumatic control for single or double-acting actuators, and is also optionally available as an intrinsically safe model to ATEX.

Main customer benefits:

- Integrated pilot valve with manual actuation
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaptations allowing additional actuators of the process valve series, Type 20xx or actuators from other manufacturers to be used

Electrical position feedback Type 1062



More info.

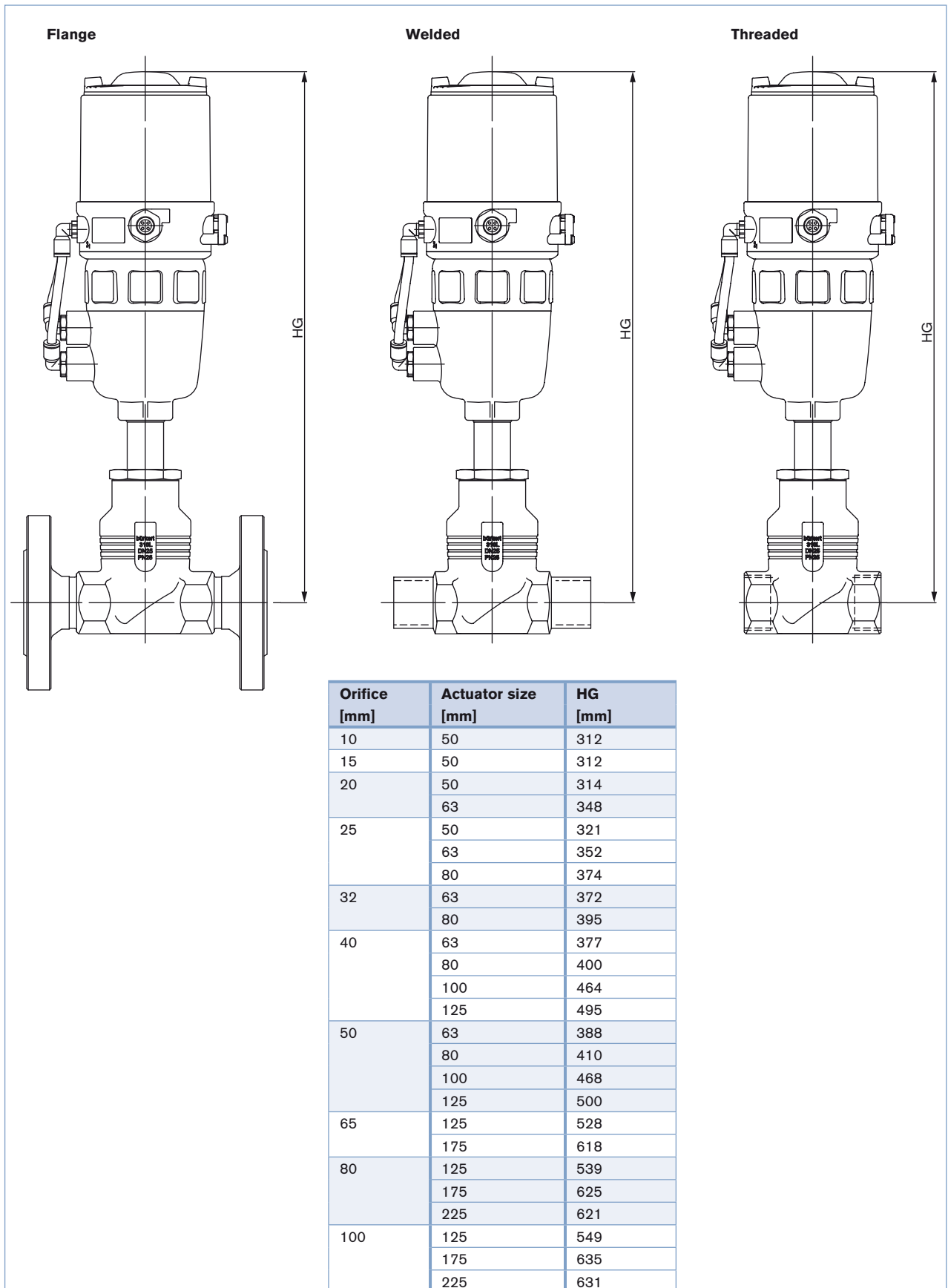
Positions are electrically signalized according to switch type:

- open,
- closed or
- open and closed.

LEDs provide optical position indication (except for Namur Ex-version). Mechanical or inductive switches are housed in a compact splash-proof enclosure. The position indicator can be rotated 360° and is easily fitted to the valve. Trip cams do not require adjustment. The unit only needs to be screwed on and connected to be ready for operation.

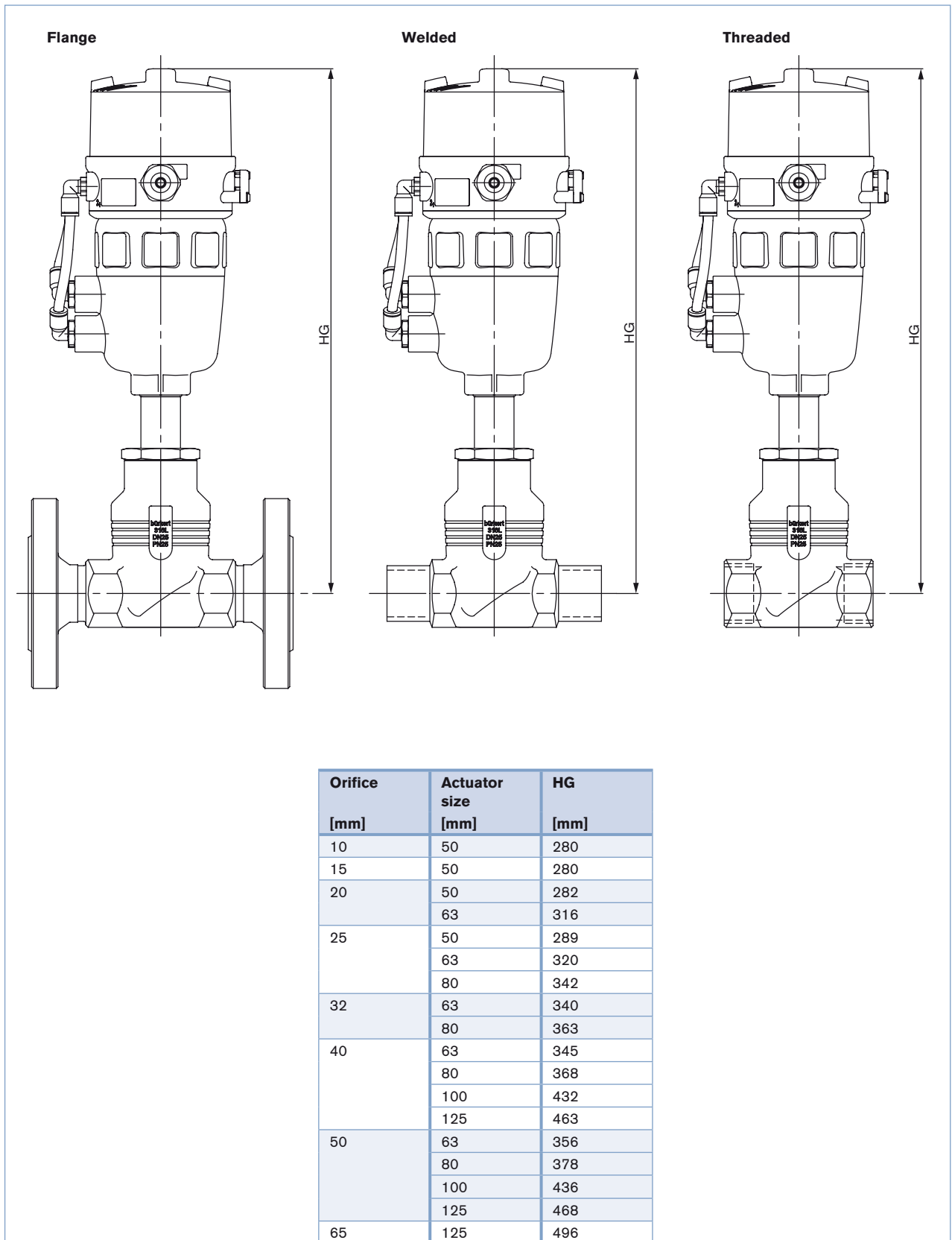
Dimensions for valve system On/Off Classic Type 8801-GA-H [mm]

Dimensions valve system On/Off Classic Type 8801-GA-H with control head Type 8691



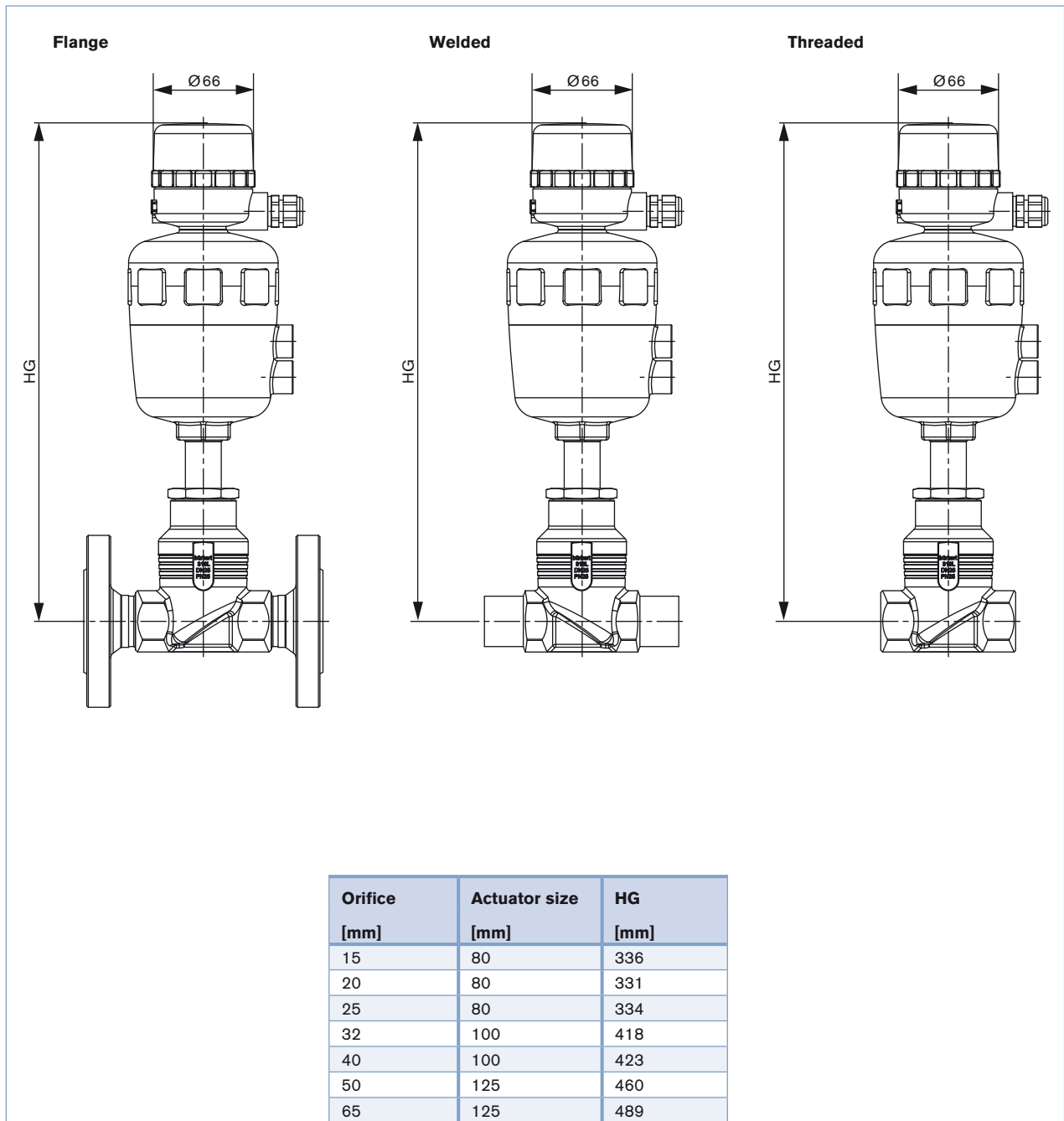
Dimensions for valve system On/Off Classic Type 8801-GA-K [mm]

Dimensions valve system On/Off Classic Type 8801-GA-K with pneumatic control unit Type 8690



Dimensions for valve system On/Off Classic Type 8803-GA [mm]

Dimensions valve system On/Off Classic Type 8803-GA with electrical position feedback Type 1062



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

**Valve system On/Off Classic Type 8801-GA/8803-GA – 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**

|   |                                 |                                |                              |                      |
|---|---------------------------------|--------------------------------|------------------------------|----------------------|
| Pipeline  | DN                              | <input type="text"/>           | PN                           | <input type="text"/> |
| Pipe material                                   | <input type="text"/>            |                                |                              |                      |
| Process medium                                  | <input type="text"/>            |                                |                              |                      |
| Type of medium                                  | <input type="checkbox"/> Liquid | <input type="checkbox"/> Steam | <input type="checkbox"/> Gas |                      |
| Flow rate (Q, Q <sub>N</sub> , W) <sup>1)</sup> | standard                        | <input type="text"/>           | unit                         | <input type="text"/> |
| Temperature at valve inlet                      | <input type="text"/>            |                                |                              |                      |
| Absolute pressure at valve inlet                | <input type="text"/>            |                                |                              |                      |

<sup>1)</sup> standard unit: Liquid Q = m<sup>3</sup>/h; Steam W = kg/h; Gas Q<sub>N</sub> = Nm<sup>3</sup>/h

**Valve features**

|                       |  |   |  |
|-----------------------|--|---|--|
| Actuator material     | <input type="checkbox"/> PA                                | <input type="checkbox"/> PPS                        |  |
| Body material         | <input type="checkbox"/> Stainless steel                   | <input type="checkbox"/> Gunmetal                   |  |
| Seat sealing material | <input type="checkbox"/> PTFE <input type="checkbox"/> NBR | <input type="checkbox"/> Other <input type="text"/> |  |
| Nominal pressure      | PN   | <input type="text"/>                                |  |
| Nominal size          | DN   | <input type="text"/>                                |  |
| Type of connection    | <input type="checkbox"/> Welded                            | <input type="checkbox"/> Internal thread            | <input type="checkbox"/> Clamp   |
| Standard connection   | <input type="checkbox"/> ISO                               | <input type="checkbox"/> DIN                        | <input type="checkbox"/> ANSI <input type="checkbox"/> JIS <input type="checkbox"/> Other <input type="text"/> |
| Function              | <input type="checkbox"/> NC <sup>2)</sup>                  | <input type="checkbox"/> NO <sup>2)</sup>           | <input type="checkbox"/> Double-acting   |
| Pilot pressure        | <input type="text"/>                                       | min.  | <input type="text"/>   |

<sup>2)</sup> NC: normally closed by spring action; NO: normally open by spring action

**Control unit features**

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

| Pneumatic Control Unit  | Control Head  | Electrical position feedback  |
|---|---|---|
| <input type="checkbox"/> Type 8691 <span style="background-color: #f4a460; padding: 2px;">More info.</span>   | <input type="checkbox"/> Type 8690 <span style="background-color: #f4a460; padding: 2px;">More info.</span>   | <input type="checkbox"/> Type 1062 <span style="background-color: #f4a460; padding: 2px;">More info.</span>   |
| <b>Pneumatic function</b><br><input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting<br><br><b>Pilot air ports</b><br><input type="checkbox"/> Push-in connector external ø 6 mm or 1/4"<br><input type="checkbox"/> Thread G 1/8"<br><br><b>Communication</b><br><input type="checkbox"/> ASI<br><input type="checkbox"/> Multipol M12<br><input type="checkbox"/> Flat cable clip, 1 m cable<br><br><input type="checkbox"/> DeviceNet<br><br>Please specify item no. if known:<br><input type="text"/> | <b>Pneumatic function</b><br><input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting<br><input type="checkbox"/> Without pilot valve<br><br><b>Position feedback</b><br><input type="checkbox"/> 1x inductive <input type="checkbox"/> 2x inductive<br><input type="checkbox"/> 1x inductive (NAMUR) <input type="checkbox"/> 2x inductive (NAMUR)<br><input type="checkbox"/> 1x mechanical <input type="checkbox"/> 2x mechanical<br><br><b>Supply voltage</b><br><input type="checkbox"/> 24 V / DC (ATEX Zone 2/22)<br><input type="checkbox"/> Ex ia IIC T6 (ATEX Zone 1)<br><br><b>Pilot air ports</b><br><input type="checkbox"/> Push-in connector <input type="checkbox"/> Thread G 1/8"<br>external ø 6 mm or 1/4"<br><br>Please specify item no. if known:<br><input type="text"/> | <b>Limit switches</b><br><input type="checkbox"/> mechanical<br><input type="checkbox"/> Voltage 12-48 V<br><input type="checkbox"/> Voltage 110-250 V<br><br><input type="checkbox"/> inductive<br><input type="checkbox"/> NAMUR EExi<br><br><b>Status</b><br><input type="checkbox"/> closed<br><input type="checkbox"/> open<br><input type="checkbox"/> open/closed<br><br>Please specify item no. if known:<br><input type="text"/> |

continued on next page →

DTS 1000010970 EN Version: M validé) printed: 22.04.2010 Status: RL (released | freigegeben |

\* To find your nearest Bürkert facility, click on the orange box → www.burkert.com



Valve system On/Off Classic Type 8801-GA/8803-GA – request for quotation, *continued*

| Control unit features                                     |  |
|---|--|
| <b>Pilot valve</b>  | <b>Stroke limitation</b>   |
| <input type="checkbox"/> Pilot valve                      | <input type="checkbox"/> Stroke limitation   |
| Power supply <input type="text"/>                         | <input type="checkbox"/> <b>Min./max. stroke limitation</b> , with visual position indicator |
|   | <input type="checkbox"/> <b>Max. stroke limitation</b> , without visual position indicator   |
| Please specify item no. if known:<br><input type="text"/> | Please specify item no. if known:<br><input type="text"/>                                    |

| Certifications   |
|--|
| <input type="checkbox"/> Attestation of compliance with the order EN-ISO 10204 2.1     |
| <input type="checkbox"/> Test report EN-ISO 10204 2.2                                  |
| <input type="checkbox"/> Certification of Conformity for Raw Material EN-ISO 10204 3.1 |
| <input type="checkbox"/> EN161 (EC Gas Appliances Directive)                           |

| Comment / sketch |
|------------------|
|                  |
|                  |
|                  |
|                  |
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