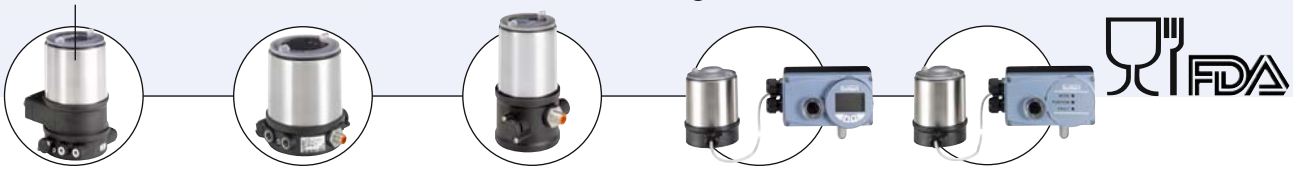
bürkert
FLUID CONTROL SYSTEMS

DTS 1000112693 EN Version: S Status: RL (released | freigegeben | validé) printed: 25.07.2017

# Pneumatic operated 2-way Globe Control Valve ELEMENT

- Excellent control characteristics
- High cycle life and maintenance-free operation
- Flow optimised body in stainless steel
- Several Kvs value per port size due to removable trim kit
- Control units can be mounted directly without external tubing

Type 2301 can be combined with...



**Type 8692/8693**
Positioner / Process Controller TopControl

**Type 8694**
Positioner Basic TopControl

**Type 8696**
Positioner Basic TopControl

**Type 8792/93**
Positioner / Process Controller SideControl Remote

**Type 8791**
Positioner Basic SideControl Remote

In line with Bürkert's philosophy the construction of the 2301 globe valve fulfils tough criteria for process environments. Unrivalled cycle life and sealing integrity is guaranteed by the proven self adjusting spindle packing with exchangeable V-seals.

Each globe valve body can be fitted with up to five sizes of trim sets. These parabolic trims provide a reliable and repeatable characteristic to vary the flow. The control cones are available in either stainless steel or with a durable PTFE seal or PEEK seal for tight shut-off. Leakage class III, IV or VI are available.

The design enables the easy integration of automation modules whether they are digital electropneumatic positioner or process controller.

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

| Technical data | |
|---|---|
| **Kvs values** | 0.1...140 m³/h |
| **Port size / Seat size (orifice)** | DN10...DN100 / 3...100 |
| **Pressure stage** | PN 25 |
| **Port connections** | |
| • Flange | • DIN EN 1092-1, ANSI B 16.5, JIS 10K |
| • Thread | • G, RC, NPT |
| • Weld ends | • EN ISO 1127 Series 1/ISO 4200/DIN 11866 Series B, DIN 11850 Series 2/DIN 11866 Series A/DIN EN 10357 Series A, ASME BPE/DIN 11866 Series C, BS 4825-1, SMS 3008 |
| • Clamp | • ISO 2852, DIN 32676 Series A and Series B, ASME BPE/DIN 32676 Series C, BS 4825-3 |
| **Medium** | Neutral gases, water, alcohol, oils, fuel, hydraulic mediums, salt solution, alkali solutions, organic solvents, steam, oxygen, optional fuel gas (EC Gas Appliances Directive 2009/142/EG) |
| **Viscosity** | max. 600 mm²/s |
| **Medium temperature** | -10...+185°C (Stainless Steel seal /Stainless Steel cone)<br>-10...+185°C (PEEK seal/Stainless Steel cone)<br>-10...+130°C (PTFE seal /Stainless Steel cone) |
| **Ambient temperature** | -10...+80°C (remote version)<br>-10...+55°C (when used with positioner or process controllers) |
| **Seat leakage acc. to DIN EN 60534-4:2006** | Shut-off class III and IV for Stainless steel<br>Shut-off class VI for PTFE/St.st. and PEEK/St. st.<br>(see details in ordering chart) |
| **Safety position** | A: normally closed by spring action (NC)<br>B: normally open by spring action (NO) |
| **Control medium** | neutral gases, air |
| **Approval and Conformity** | FDA, EGV 1935/2004; (ATEX, FDA and EC Gas Appliances Directive 2009/142/EG on request) |

## Content



## Technical data, continued

### Flow direction below the seat, Control function A (NC)

| Port size (tube) | | Seat size | | Actuator size ø | Operating pressure Seal/ control cone | | Pilot pressure | Leakage Class Seal/ control cone | | Kv values at stroke [m3/h] | | | | | | Kvs values |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | St. st. or PTFE/ St. st. | PEEK/ St. st. | | PTFE or PEEK/ St. st. | St. st./ St. st. | | | | | | | |
| [mm] | [inch] | [mm] | [inch] | [mm] | [bar] | [bar] | [bar] | | | 5% | 10% | 30% | 50% | 70% | 90% | [m³/h] |
| 10 | 3/8 | 3 | 0.12 | 50 | 16 | 10 | 5.5...7 | - | IV | 0.001 | 0.003 | 0.015 | 0.037 | 0.065 | 0.090 | 0.1 |
| | | | | 70 | | | | | | | | | | | | |
| | | 4[1)] | 0.16 | 50 | | | | | | 0.005 | 0.015 | 0.100 | 0.190 | 0.265 | 0.325 | 0.35 |
| | | | | 70 | | | | | | | | | | | | |
| | | 4 | 0.16 | 50 | | | | | | 0.04 | 0.05 | 0.16 | 0.27 | 0.36 | 0.44 | 0.5 |
| | | | | 70 | | | | | | | | | | | | |
| | | 6[2)] | 0.24 | 50 | | | | VI | | 0.05 | 0.12 | 0.48 | 0.76 | 0.98 | 1.13 | 1.2 |
| | | | | 70 | | | | | | | | | | | | |
| | | 6[3)] | 0.24 | 50 | | | | | | 0.005 | 0.007 | 0.045 | 0.160 | 0.410 | 1.080 | 1.25 |
| | | | | 70 | | | | | | | | | | | | |
| | | 8 | 0.31 | 50 | | | | | | 0.06 | 0.07 | 0.12 | 0.26 | 0.61 | 1.50 | 2.0 |
| | | | | 70 | | | | | | | | | | | | |
| | | 10 | 0.39 | 50 | | | | | | 0.09 | 0.11 | 0.19 | 0.48 | 1.00 | 2.30 | 2.7 |
| | | | | 70 | | | | | | | | | | | | |
| 15 | 1/2 | 3 | 0.12 | 50 | 16 | 10 | 5.5...7 | - | IV | 0.001 | 0.003 | 0.015 | 0.037 | 0.065 | 0.090 | 0.1 |
| | | | | 70 | | | | | | | | | | | | |
| | | 4[1)] | 0.16 | 50 | | | | | | 0.005 | 0.015 | 0.100 | 0.190 | 0.265 | 0.325 | 0.35 |
| | | | | 70 | | | | | | | | | | | | |
| | | 4 | 0.16 | 50 | | | | | | 0.04 | 0.05 | 0.16 | 0.27 | 0.36 | 0.44 | 0.5 |
| | | | | 70 | | | | | | | | | | | | |
| | | 6[2)] | 0.24 | 50 | | | | VI | | 0.05 | 0.12 | 0.48 | 0.76 | 0.98 | 1.13 | 1.2 |
| | | | | 70 | | | | | | | | | | | | |
| | | 6[3)] | 0.24 | 50 | | | | | | 0.005 | 0.007 | 0.045 | 0.160 | 0.410 | 1.080 | 1.25 |
| | | | | 70 | | | | | | | | | | | | |
| | | 8 | 0.31 | 50 | | | | | | 0.07 | 0.08 | 0.13 | 0.27 | 0.63 | 1.60 | 2.1 |
| | | | | 70 | | | | | | | | | | | | |
| | | 10 | 0.39 | 50 | | | | | | 0.09 | 0.11 | 0.19 | 0.49 | 1.10 | 2.50 | 3.1 |
| | | | | 70 | | | | | | | | | | | | |
| | | 15 | 0.59 | 50 | | | | | | 0.14 | 0.17 | 0.35 | 0.80 | 1.80 | 3.70 | 4.3 |
| | | | | 70 | | | | | | | | | | | | |
| 20 | 3/4 | 10 | 0.39 | 50 | 16 | 10 | 5.5...7 | VI | IV | 0.11 | 0.12 | 0.20 | 0.52 | 1.20 | 2.60 | 3.2 |
| | | | | 70 | | | | | | | | | | | | |
| | | 15 | 0.29 | 50 | | | | | | 0.14 | 0.17 | 0.35 | 0.80 | 1.80 | 4.00 | 5.2 |
| | | | | 70 | | | | | | | | | | | | |
| | | 20 | 0.79 | 50 | 10 | - | | | III | 0.20 | 0.25 | 0.45 | 1.10 | 2.40 | 5.20 | 7.1 |
| | | | | 70 | 16 | 10 | | | IV | | | | | | | |
| 25 | 1 | 15 | 0.29 | 50 | 16 | 10 | 5.5...7 | VI | IV | 0.14 | 0.17 | 0.35 | 0.80 | 1.80 | 4.10 | 5.3 |
| | | | | 70 | | | | | | | | | | | | |
| | | 20 | 0.79 | 50 | 10 | - | | | III | 0.20 | 0.25 | 0.47 | 1.10 | 2.50 | 5.40 | 7.2 |
| | | | | 70 | 16 | 10 | | | IV | | | | | | | |
| | | 25 | 0.98 | 50 | 5 | - | | | III | 0.35 | 0.38 | 1.00 | 2.20 | 5.10 | 9.40 | 12.0 |
| | | | | 70 | 12 | 7 | | | | | | | | | | |
| | | | | 90 | 16 | 10 | | | IV | | | | | | | |
| 32 | 1 1/4 | 20 | 0.79 | 90 | 16 | 10 | 5.5...7 | VI | IV | 0.21 | 0.24 | 0.45 | 0.85 | 1.75 | 3.75 | 5.5 |
| | | | | 130 | | | | | | 0.22 | 0.25 | 0.50 | 1.10 | 2.50 | 5.80 | 8.0 |
| | | 25 | 0.98 | 90 | | | | | | 0.38 | 0.45 | 0.95 | 1.95 | 4.00 | 7.40 | 9.9 |
| | | | | 130 | | | | | | 0.40 | 0.47 | 1.10 | 2.50 | 5.40 | 10.3 | 13.0 |
| | | 32 | 1.3 | 90 | | | | | | 0.45 | 0.58 | 1.10 | 2.50 | 4.90 | 10.1 | 13.4 |
| | | | | 130 | | | | | | 0.48 | 0.60 | 1.30 | 3.10 | 6.80 | 14.0 | 17.8 |
| 40 | 1 1/2 | 25 | 0.98 | 90 | 16 | 10 | 5.5...7 | VI | IV | 0.38 | 0.48 | 0.95 | 2.00 | 4.10 | 7.90 | 10.3 |
| | | | | 130 | | | | | | 0.40 | 0.50 | 1.10 | 2.60 | 5.60 | 10.7 | 13.6 |
| | | 32 | 1.3 | 90 | | | | | | 0.45 | 0.55 | 1.10 | 2.50 | 4.95 | 10.8 | 14.4 |
| | | | | 130 | | | | | | 0.48 | 0.60 | 1.30 | 3.20 | 6.90 | 15.0 | 20.2 |
| | | 40 | 1.6 | 90 | 12 | 7 | | | III | 0.55 | 0.67 | 1.50 | 3.15 | 6.50 | 13.6 | 17.5 |
| | | | | 130 | 16 | 10 | | | IV | 0.60 | 0.70 | 1.70 | 4.00 | 9.20 | 18.2 | 23.8 |
| 50 | 2 | 32 | 1.3 | 90 | 16 | 10 | 5.5...7 | VI | IV | 0.45 | 0.56 | 1.10 | 2.50 | 4.95 | 11.4 | 15.3 |
| | | | | 130 | | | | | | 0.48 | 0.60 | 1.30 | 3.20 | 6.90 | 16.0 | 21.0 |
| | | 40 | 1.6 | 90 | 12 | 7 | | | III | 0.57 | 0.68 | 1.45 | 3.15 | 6.40 | 13.8 | 18.0 |
| | | | | 130 | 16 | 10 | | | IV | 0.60 | 0.70 | 1.70 | 4.00 | 9.20 | 18.9 | 24.6 |
| | | 50 | 2.0 | 90 | 7 | - | | | III | 0.85 | 1.05 | 2.55 | 5.35 | 11.4 | 21.7 | 28.0 |
| | | | | 130 | 16 | 10 | | | IV | 0.90 | 1.10 | 2.90 | 6.80 | 15.5 | 29.3 | 37.0 |
| 65 | 2 1/2 | 40 | 1.6 | 130 | 16 (15*) | 10 | 5.5...7 | VI | IV | 0.65 | 0.75 | 1.8 | 4.3 | 10.4 | 22 | 29.0 |
| | | 50 | 2.0 | 130 | | | | | | 1.0 | 1.2 | 3.1 | 6.7 | 16.0 | 35.0 | 45.0 |
| | | 65 | 2.6 | 130 | | | 5.6...7 | | | 1.6 | 2.0 | 5.0 | 13.5 | 33.0 | 56.0 | 65.0 |

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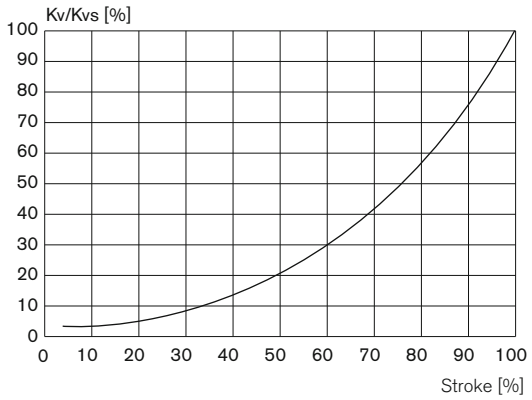
## Technical data, continued

### Flow direction below the seat, Control function A (NC)

| Port size (tube) | | Seat size | | Actuator size ø | Operating pressure Seal/ control cone | | Pilot pressure | Leakage Class Seal/ control cone | | Kv values at stroke [m3/h] | | | | | | Kvs values |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | St. st. or PTFE/ St. st. | PEEK/ St. st. | | PTFE or PEEK/ St. st. | St. st./ St. st. | | | | | | | |
| [mm] | [inch] | [mm] | [inch] | [mm] | [bar] | [bar] | [bar] | | | 5% | 10% | 30% | 50% | 70% | 90% | [m³/h] |
| 80 | 3 | 50 | 2.0 | 130 | 16 (12.5*) | 10 | 5.5...7 | VI | IV | 1.0 | 1.2 | 3.4 | 8.3 | 19.0 | 35.0 | 45.0 |
| | | 65 | 2.6 | 130 | | | 5.6...7 | | | 1.6 | 2.0 | 5.0 | 13.0 | 35.0 | 61.0 | 73.0 |
| | | 80 | 3.2 | 130 | 10 | 6 | | | III | 2.5 | 3.4 | 10.7 | 27.0 | 58.0 | 87.0 | 100.0 |
| 100 | 4 | 65 | 2.6 | 130 | 16 (10*) | 10 | 5.6...7 | VI | IV | 1.4 | 1.8 | 5.0 | 15.0 | 37.0 | 64.0 | 77.0 |
| | | 80 | 3.2 | 130 | 10 | 6 | | | III | 2.2 | 3.1 | 10.3 | 30.0 | 66.0 | 97.0 | 110.0 |
| | | 100 | 3.9 | 130 | 6 | - | | | | 3.8 | 5.2 | 15.0 | 46.5 | 90.0 | 128.0 | 140.0 |

[1] low flow cone
[2] linear flow curve
[3] equal percentage flow curve
* acc. to the Pressure Equipment Directive 97/23/EC for compressible mediums in Group 1 (hazardous gases and vapours in accordance with Article 3, Section 1.3, letter a, first dash)

### Flow curve and description




Equal percentage flow curve - detailed values please see table above

**Remarks on the flow characteristic**

- Linear cone for seat size 3 to 6
- Equal percentage cone for seat size 8 to 100

(seat size 6 optional with equal percentage cone)

- Flow characteristic runs within DIN EN 60534-2-4
- Theoretical control ratio (Kvs/Kvo) for drive size 70/90/130:
  50:1 for the seat size 8 to 100
  25:1 for the seat size 6
  10:1 for the seat size 3 to 4
- KVR value at 5% of stroke for DN > 10 mm
  KVR value at 10% of stroke for DN ≤ 10 mm
- The drive size 70 has relative to the drive size 50 better control quality and is therefore preferable to use

(KVR value = smallest Kv value at which the gradient tolerance to DIN EN 60534-2-4 is still complied with)

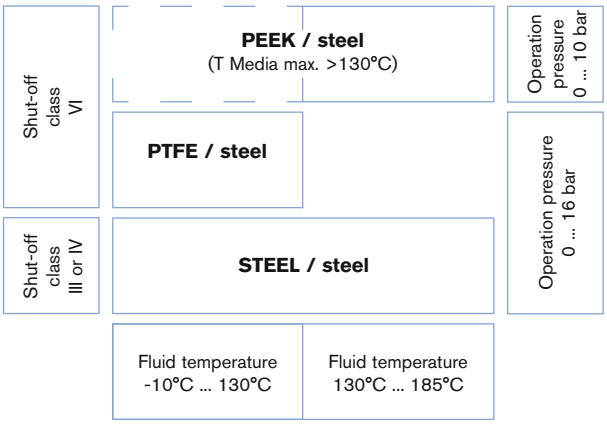
### Control pressure

| Control pressure | min. | max. |
|---|---|---|
| **Control function A (NC),** normally closed by spring force | 5.6 bar<br>560 kPa<br>81 PSI | 7 bar<br>700 kPa<br>102 PSI |
| **Control function B (NO),** normally open by spring force | see pressure charts | 7 bar<br>700 kPa<br>102 PSI |

### Selection chart for seat sealing

Seat sealing type steel / steel is recommended for shut-off class III and IV.

Seat sealing with PTFE is used for shut-off class VI, if fluid temperature is <130 °C. If the maximum fluid temperature exceeds 130°C temporarily or permanently, then PEEK is used for seat sealing.

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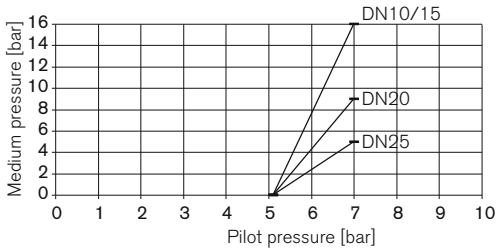
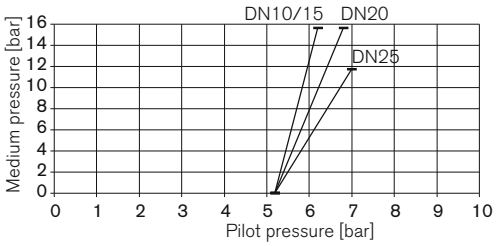
## Pressure Charts with control function B (normally open, NO)

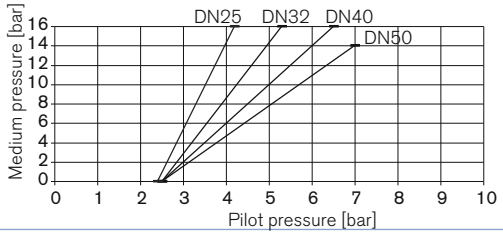
**Actuator Ø 50**



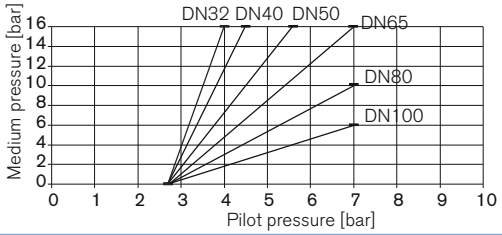

**Actuator Ø 70**




**Actuator Ø 90**




**Actuator Ø 130**

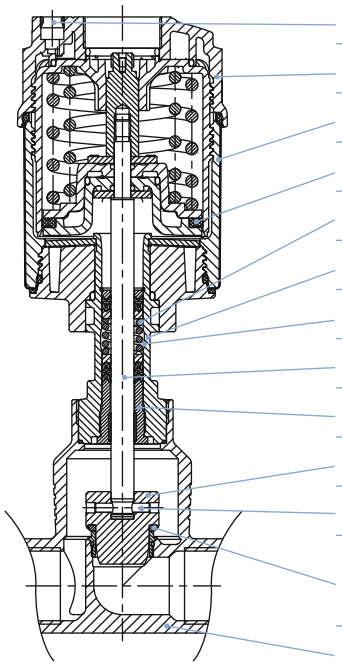



## Design and materials view

The detailed parts and materials are displayed in the following picture:

Note: as the **globe control valve Type 2301** could be delivered with miscellaneous port connection (flange, thread, weld ends and clamp), there will not be represented on the picture, but are made with same material as the valve body.

**2301 globe control valve**



| Description | Material |
|---|---|
| **Pilot air ports** | Push-in connector PP |
| **Actuator** | PPS |
| **Cover** | Stainless steel 1.4561 (316Ti) |
| **Piston seal** | FKM |
| **Spring** | Stainless steel 1.4310 |
| **Tube** | Stainless steel 1.4401 (316) |
| **Spindle packing** | PTFE |
| **Spindle** | Stainless steel 1.4401 (316) / 1.4404 (316L) |
| **Spindle guidance** | Stainless steel 1.4404 (316L) |
| **Control cone** | Stainless steel 1.4571 |
| **Spring straight pin** | Stainless steel 1.4310 |
| **Control cone seal** | Stainless steel 1.4571 / PTFE or PEEK disc for soft seat sealing |
| **Valve body** | Cast stainless steel 316L |

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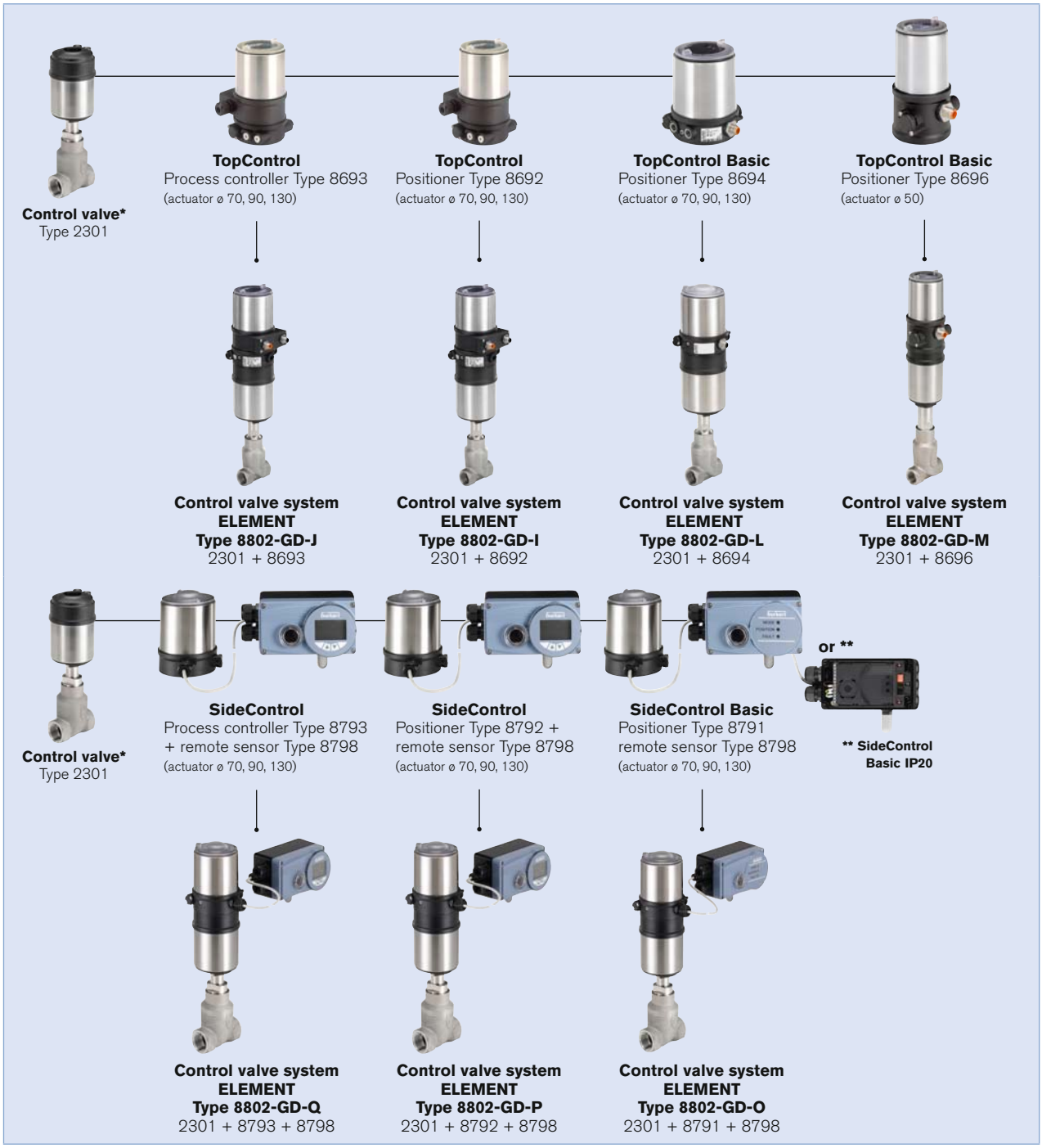
## Decentralised automation - valve system Continuous ELEMENT Type 8802-GD

The **globe control valve Type 2301** can be combined with our comprehensive range of positioners and controllers, specially optimised for the decentralised automation of pneumatically controlled valve, to lead a **valve system Continuous ELEMENT Type 8802-GD**.

The range of control unit consists of:

- a digital electropneumatic Positioner/Process Controller **Type 8692/8693** (for valve actuator sizes ø 70/90/130 mm)
- a digital electropneumatic Positioner Basic **Type 8694** (for valve actuator sizes ø 70/90/130 mm)
- a digital electropneumatic Positioner Basic **Type 8696** (for valve actuator size ø 50 mm).
- an electropneumatic Positioner SideControl **Type 8792** or an electropneumatic Process Controller **Type 8793** (for valve actuator sizes ø 70/90/130 mm) and a remote sensor **Type 8798**
- an electropneumatic Positioner SideControl Basic **Type 8791** (for valve actuator sizes ø 70/90/130 mm) and a remote sensor **Type 8798**

For the configuration of further valve systems please use the "Request for quotation" on p. 17
You order two components and receive a complete assembled and certified valve.




* Example with thread port connection

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## Decentralised automation - valve system Continuous ELEMENT Type 8802-GD, continued.

### Positioners and controllers information

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.

**Process Controller TopControl Type 8693**
(actuator size: 70/90/130)

More info.

PROFIBUS DeviceNet™

The intelligent process controller Type 8693 is designed for integrated mounting on pneumatic actuators from the process control valve series Type 23xx/2103 and specifically for the requirements of hygienic process environments. The initialisation of the process controller and positionners can be automatically performed using Tune-Functions. The easy handling and the selection of additional software functions and parameterisation are done either on a big graphic display and keypad. Device configuration and parameterisation can be carried out easily by the Bürkert-COMMUNICATOR software tool via a PC interface.

**Features:**
- Hygienic stainless steel design according to EHEDG guidelines
- Contact and wearless analog position sensor
- Universal positioning system for single and double-acting actuators
- Highly dynamic positioning system without internal control air consumption
- Integrated diagnostic functions for valve monitoring
- Ensuring failure of the electrical or pneumatic power supply
- Profibus DPV1 or DeviceNet Field bus communication (optional)

**Customer Benefits:**
- Intuitive and easy operation via the large graphic display with backlight and keypad
- Automatic initialisation of positioners and process controllers using TUNE function
- High plant availability through increased drive life by spring chamber ventilation
- Garantiente reliability and services can be scheduled through valve monitoring and diagnosis
- Outstanding price/performance ratio

**Positioner TopControl Type 8692**
(actuator size: 70/90/130)

More info.

PROFIBUS DeviceNet™

The intelligent electro-pneumatic positioner Type 8692 is designed for integrated mounting on pneumatic actuators from the process control valve series Type 23xx/2103 and specifically for the requirements of hygienic process environments. The initialisation of the positionners can be automatically performed using Tune-Functions. The easy handling and the selection of additional software functions and parameterisation are done either on a big graphic display and keypad. Device configuration and parameterisation can be carried out easily by the Bürkert-COMMUNICATOR software tool via a PC interface.

**Features:**
- Hygienic stainless steel design according to EHEDG guidelines
- Contact and wearless analog position sensor
- Universal positioning system for single and double-acting actuators
- Highly dynamic positioning system without internal control air consumption
- Integrated diagnostic functions for valve monitoring
- Ensuring failure of the electrical or pneumatic power supply
- Profibus DPV1 or DeviceNet Field bus communication (optional)

**Customer Benefits:**
- Intuitive and easy operation via the large graphic display with backlight and keypad
- Automatic initialisation of positioners and process controllers using TUNE function
- High plant availability through increased drive life by spring chamber ventilation
- Garantiente reliability and services can be scheduled through valve monitoring and diagnosis

**Positioner TopControl Basic Type 8694**
(actuator size: 70/90/130)

More info.

AS-i

The compact positioner Type 8694 is designed for integrated mounting on pneumatic actuators from the process control valve series Type 23xx/2103 and specifically for the requirements of hygienic process environments. The operation and parameterisation are done via push buttons and DIP switches. Device configuration and parameterisation can be carried out easily by the Bürkert-COMMUNICATOR software tool via a PC interface.

**Features:**
- Hygienic stainless steel design according to EHEDG guidelines
- Contact and wearless analog position sensor
- Universal positioning system for single and double-acting actuators
- AS-Interface Field bus communication

**Customer Benefits:**
- Simple design
- Simple and safe start-up by teach function
- High plant availability through increased drive life by spring chamber ventilation
- Little space requirement in the plant piping

**Positioner TopControl Basic Type 8696**
(actuator size: 50)

More info.

AS-i

The compact positioner Type 8696 is designed for integrated mounting on pneumatic actuators from the process control valve series Type 23xx/2103 and specifically for the requirements of hygienic process environments. The operation and parameterisation are done via push buttons and DIP switches. Device configuration and parameterisation can be carried out easily by the Bürkert-COMMUNICATOR software tool via a PC interface.

**Features:**
- Hygienic stainless steel design according to EHEDG guidelines
- Contact and wearless analog position sensor
- Universal positioning system for single and double-acting actuators

**Customer Benefits:**
- Simple design
- Simple and safe start-up by teach function
- High plant availability through increased drive life by spring chamber ventilation
- Little space requirement in the plant piping

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## Decentralised automation - valve system Continuous ELEMENT Type 8802-GD, continued.

### Positioners and controllers information

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.

**Process Controller SideControl Type 8793**
**with remote sensor Type 8798**
(actuator size: 70/90/130)

The intelligent digital positioner/process controller Type 8793 is designed for mounting on lift or swivel drives with standardization in accordance with IEC 534-6 or VDI/VDE 3845 designed for demanding control tasks. The variant with the remote sensor Type 8798 is used to control Bürkert process control valves. The operation is done on a graphic display with backlight. The initialization of the process controller and positioners can be automatically performed using Tune-Function. Here, the type of control system is automatically detected and determines the appropriate controller structure with the corresponding optimal parameter set.

**Features:**
- Backlit graphic display with keypad
- Compact and robust design
- Adaption acc. to IEC534-6 and VDI/VDE 3845 for lift and swivel drives or as remote version togehter with Bürkert Process valves
- Universal positioning system for single and double-acting actuators
- Integrated diagnostic functions for valve monitoring
- Profibus DPV1 or DeviceNet Field bus communication (optional)

**Customer Benefits:**
- Automatic initialization of positioners and process controllers using TUNE function
- Valve monitoring and diagnosis through integrated diagnostic functions
- No air consumption in steady state condition
- Intuitive and easy operation via the large graphic display with backlight and keypad (Intuitive and simple operating concept)

**Positioner SideControl Type 8792**
**with remote sensor Type 8798**
(actuator size: 70/90/130)

The intelligent digital positioner Type 8793 is designed for mounting on lift or swivel drives with standardization in accordance with IEC 534-6 or VDI/VDE 3845 designed for demanding control tasks. The variant with the remote sensor Type 8798 is used to control Bürkert process control valves. The operation is done on a graphic display with backlight. The initialisation of the process controller and positionners can be automatically performed using Tune-Function. Here, the type of control system is automatically detected and determines the appropriate controller structure with the corresponding optimal parameter set.

**Features:**
- Backlit graphic display with keypad
- Compact and robust design
- daption acc. to IEC534-6 and VDI/VDE 3845 for lift and swivel drives or as remote version togehter with Bürkert Process valves
- Universal positioning system for single and double-acting actuators
- Integrated diagnostic functions for valve monitoring
- Profibus DPV1 or DeviceNet Field bus communication (optional)

**Customer Benefits:**
- Automatic initialization of positioners and process controllers using TUNE function
- Valve monitoring and diagnosis through integrated diagnostic functions
- No air consumption in steady state condition
- Intuitive and easy operation via the large graphic display with backlight and keypad (Intuitive and simple operating concept)

**Positioner SideControl Basic Type 8791**
**with remote sensor Type 8798**
(actuator size: 70/90/130)

The positioner Type 8791 is designed for mounting on lift or swivel drives with standardization in accordance with IEC 534-6 or VDI/VDE 3845 designed for simple control tasks. The variant with the remote sensor Type 8798 is used to control Bürkert process control valves. All operating elements are located inside the housing.

**Features:**
- Simple design
- Adaption acc. to IEC534-6 and VDI/VDE 3845 for lift and swivel drives or as remote version togehter with Bürkert Process valves
- Universal positioning system for single and double-acting actuators for valve monitoring
- AS-Interface Field bus communication

**Customer Benefits:**
- Easy commissioning
- No air consumption in steady state condition
- Simple device for simple control tasks

**Positioner SideControl Basic IP20 Type 8791**
**mit remote sensor Type 8798**
(actuator size: 70/90/130)

The positioner Type 8791 is designed for mounting on lift or swivel drives with standardization in accordance with IEC 534-6 or VDI/VDE 3845 designed for simple control tasks. The variant with the remote sensor Type 8798 is used to control Bürkert process control valves. All operating elements are located inside the housing.

**Features:**
- Simple design
- Adaption acc. to IEC534-6 and VDI/VDE 3845 for lift and swivel drives or as remote version togehter with Bürkert Process valves
- Universal positioning system for single and double-acting actuators for valve monitoring
- AS-Interface Field bus communication

**Customer Benefits:**
- Easy commissioning
- No air consumption in steady state condition
- Simple device for simple control tasks

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## Dimensions [mm] - Valve Continuous ELEMENT Type 2301 and valve system Cont. ELEMENT

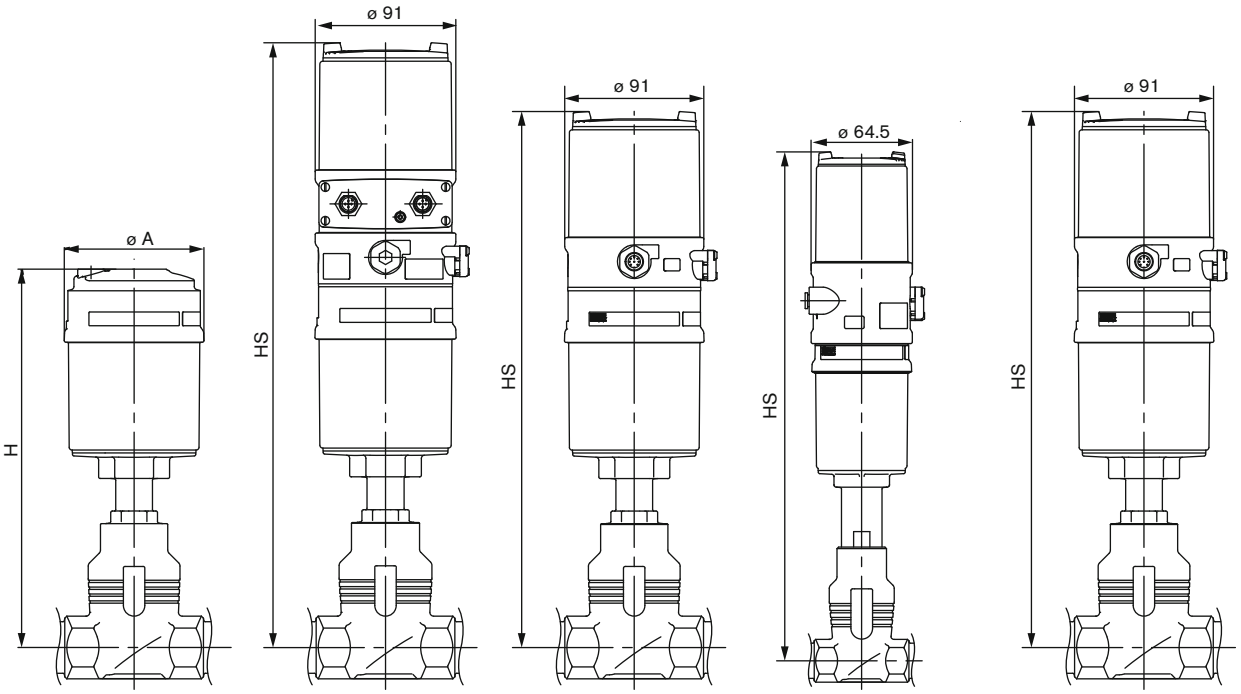
without TopControl and SideControl

with positioner TopControl **Type 8692** or with process controller TopControl **Type 8693**

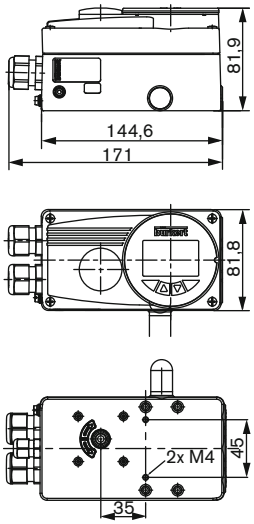
with positioner TopControl Basic **Type 8694**

with positioner TopControl Basic **Type 8696**

with positioner SideControl Remote **Type 8792** or with Process Controller SideControl Remote **Type 8793**




| Port size (tube) [mm] | Actuator size [mm] | ø A | H | HS with 8692 or 8693 | HS with 8694 | HS with 8696 | HS with 8792 or 8793 |
|---|---|---|---|---|---|---|---|
| 10 | 50 | 64.5 | 226 | - | - | 329 | 329 |
| | 70 | 91 | 239 | 383 | 383 | | |
| 15 | 50 | 64.2 | 226 | - | - | 329 | |
| | 70 | 91 | 239 | 383 | 342 | | 342 |
| 20 | 50 | 64.5 | 232 | - | - | 335 | |
| | 70 | 91 | 245 | 389 | 348 | | 348 |
| 25 | 50 | 64.5 | 235 | - | - | 342 | |
| | 70 | 91 | 248 | 392 | 351 | | 351 |
| | 90 | 120 | 301 | 445 | 404 | | 404 |
| 32 | 90 | 120 | 329 | 473 | 432 | | 432 |
| | 130 | 159 | 381 | 525 | 484 | | 484 |
| 40 | 90 | 120 | 334 | 478 | 437 | | 437 |
| | 130 | 159 | 386 | 530 | 489 | | 489 |
| 50 | 90 | 120 | 340 | 484 | 443 | | 443 |
| | 130 | 159 | 392 | 536 | 495 | | 495 |
| 65 | 130 | 159 | 446 | 590 | 549 | | 549 |
| 80 | 130 | 159 | 454 | 598 | - | | |
| 100 | 130 | 159 | 464 | 608 | - | | |

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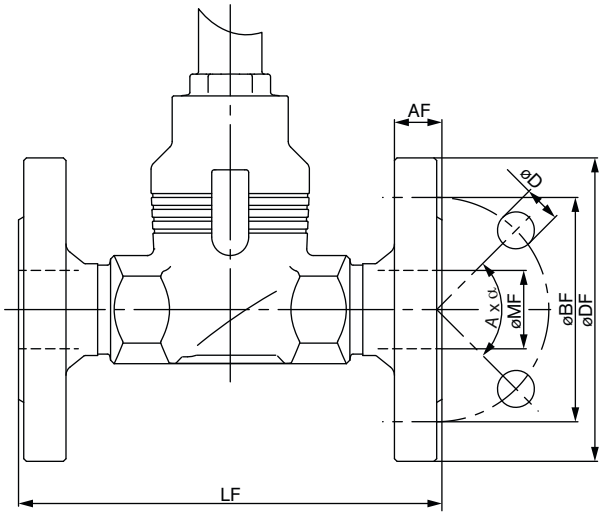
## Dimensions [mm] - Body valve Continuous ELEMENT Type 2301

**Flange port connection**




**DIN EN 1092, JIS 10K**

| Port size (tube) | Actuator size | DIN EN 1092 FTF Series 1 acc. to DIN EN 558-1 | | | | | | JIS 10K FTF Series 10 acc. to DIN EN 558-2 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | ø DF | LF | ø BF | AF | ø D | ø MF | ø DF | LF | ø BF | AF | ø D | ø MF |
| 10 | 50 | 90 | 130 | 60 | 16 | 14 | 13.6 | – | – | – | – | – | – |
| | 70 | 90 | 130 | 60 | 16 | 14 | 13.6 | – | – | – | – | – | – |
| 15 | 50 | 95 | 130 | 65 | 16 | 14 | 18.1 | 95 | 108 | 70 | 12 | 15 | 18.1 |
| | 70 | 95 | 130 | 65 | 16 | 14 | 18.1 | 95 | 108 | 70 | 12 | 15 | 18.1 |
| 20 | 50 | 105 | 150 | 75 | 18 | 14 | 23.7 | 100 | 117 | 75 | 14 | 15 | 23.7 |
| | 70 | 105 | 150 | 75 | 18 | 14 | 23.7 | 100 | 117 | 75 | 14 | 15 | 23.7 |
| 25 | 50 | 115 | 160 | 85 | 18 | 14 | 29.7 | 125 | 127 | 90 | 14 | 19 | 29.7 |
| | 70 | 115 | 160 | 85 | 18 | 14 | 29.7 | 125 | 127 | 90 | 14 | 19 | 29.7 |
| | 90 | 115 | 160 | 85 | 18 | 14 | 29.7 | 125 | 127 | 90 | 14 | 19 | 29.7 |
| 32 | 90 | 140 | 180 | 100 | 18 | 18 | 38.4 | 135 | 140 | 100 | 16 | 19 | 38.4 |
| | 130 | 140 | 180 | 100 | 18 | 18 | 38.4 | 135 | 140 | 100 | 16 | 19 | 38.4 |
| 40 | 90 | 150 | 200 | 110 | 18 | 18 | 44.3 | 140 | 165 | 105 | 16 | 19 | 44.3 |
| | 130 | 150 | 200 | 110 | 18 | 18 | 44.3 | 140 | 165 | 105 | 16 | 19 | 44.3 |
| 50 | 90 | 165 | 230 | 125 | 20 | 18 | 56.3 | 155 | 203 | 120 | 16 | 19 | 56.3 |
| | 130 | 165 | 230 | 125 | 20 | 18 | 56.3 | 155 | 203 | 120 | 16 | 19 | 56.3 |
| 65 | 130 | 185 | 290 | 145 | 22 | 18 | 66 | 175 | 216 | 140 | 18 | 19 | 72 |
| 80 | 130 | 200 | 310 | 160 | 24 | 18 | 81 | 185 | 241 | 150 | 18 | 19 | 84 |
| 100 | 130 | 235 | 350 | 190 | 24 | 22 | 100 | 210 | 292 | 175 | 18 | 19 | 109 |

**ANSI B 16.5**

| Port size (tube) | Actuator size | ANSI B 16.5 Class 150 FTF Series 37 acc. to DIN EN 558-2 | | | | | |
|---|---|---|---|---|---|---|---|
| [inch] | [mm] | ø DF | LF | ø BF | AF | ø D | ø MF |
| 1/2 | 50 | 89 | 184 | 60.5 | 11.2 | 15.7 | 15.7 |
| | 70 | 89 | 184 | 60.5 | 11.2 | 15.7 | 15.7 |
| 3/4 | 50 | 99 | 184 | 69.9 | 12.7 | 15.7 | 20.8 |
| | 70 | 99 | 184 | 69.9 | 12.7 | 15.7 | 20.8 |
| 1 | 50 | 108 | 184 | 79.2 | 14.2 | 15.7 | 26.7 |
| | 70 | 108 | 184 | 79.2 | 14.2 | 15.7 | 26.7 |
| | 90 | 108 | 184 | 79.2 | 14.2 | 15.7 | 26.7 |
| 1 1/2 | 90 | 127 | 222 | 98.6 | 17.5 | 15.7 | 40.9 |
| | 130 | 127 | 222 | 98.6 | 17.5 | 15.7 | 40.9 |
| 2 | 90 | 152 | 254 | 120.7 | 19.1 | 19.1 | 52.6 |
| | 130 | 152 | 254 | 120.7 | 19.1 | 19.1 | 52.6 |
| 2 1/2 | 130 | 178 | 276 | 139.7 | 22.3 | 19.1 | 63 |
| 3 | 130 | 190 | 298 | 152.5 | 23.9 | 19.1 | 78 |
| 4 | 130 | 229 | 352 | 190.5 | 23.9 | 19.1 | 102 |

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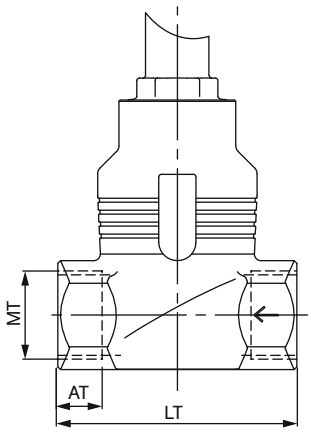
## Dimensions [mm] - Body valve Continuous ELEMENT Type 2301

**Thread port connection**



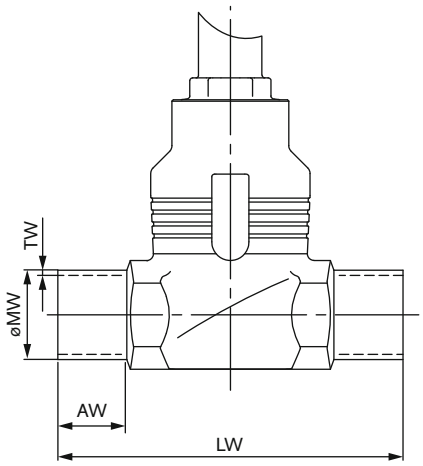

**G, RC, NPT (EN ISO 228-1, ISO 7/1 /DIN EN 10226-2, ASME B 1.20.1)**

| Port size (tube) | MT G / NPT / RC | Actuator size | LT | AT | | |
|---|---|---|---|---|---|---|
| [mm] | [inch] | [mm] | | G | NPT | RC |
| 10 | 3/8 | 50 | 65 | 12 | 10.3 | 10.1 |
| | | 70 | 65 | 12 | 10.3 | 10.1 |
| 15 | 1/2 | 50 | 65 | 14 | 13.7 | 13.2 |
| | | 70 | 65 | 14 | 13.7 | 13.2 |
| 20 | 3/4 | 50 | 75 | 16 | 14 | 14.5 |
| | | 70 | 75 | 16 | 14 | 14.5 |
| 25 | 1 | 50 | 90 | 18 | 16.8 | 16.8 |
| | | 70 | 90 | 18 | 16.8 | 16.8 |
| | | 90 | 90 | 18 | 16.8 | 16.8 |
| 32 | 1 1/4 | 90 | 110 | 20 | 17.3 | 19.1 |
| | | 130 | 110 | 20 | 17.3 | 19.1 |
| 40 | 1 1/2 | 90 | 120 | 22 | 17.3 | 19.1 |
| | | 130 | 120 | 22 | 17.3 | 19.1 |
| 50 | 2 | 90 | 150 | 24 | 17.6 | 23.4 |
| | | 130 | 150 | 24 | 17.6 | 23.4 |
| 65 | 2 1/2 | 130 | 185 | 26 | 23.7 | 26.7 |

DTS 1000112693 EN Version: S Status: RL (released | freigegeben | validé) printed: 25.07.2017

## Dimensions [mm] - Body valve Continuous ELEMENT Type 2301

**Weld ends port connection**




**EN ISO 1127 series 1/ISO 4200/DIN 11866 series B, DIN 11850 series 2/DIN 11866 series A/DIN EN 10357 series A**

| Port size (tube) | Actuator size | AW | LW | EN ISO 1127 series 1/ ISO 4200/DIN 11866 series B | | DIN 11850 series 2/DIN 11866 series A/ DIN EN 10357 series A | |
|---|---|---|---|---|---|---|---|
| [mm] | [mm] | | | ø MW | TW | ø MW | TW |
| 10 | 50 | 20 | 90 | 17.2 | 1.6 | 13 | 1.5 |
| | 70 | | 90 | 17.2 | 1.6 | 13 | 1.5 |
| 15 | 50 | 20 | 90 | 21.3 | 1.6 | 19 | 1.5 |
| | 70 | | 90 | 21.3 | 1.6 | 19 | 1.5 |
| 20 | 50 | 20 | 100 | 26.9 | 1.6 | 23 | 1.5 |
| | 70 | | 100 | 26.9 | 1.6 | 23 | 1.5 |
| 25 | 50 | 26 | 130 | 33.7 | 2.0 | 29 | 1.5 |
| | 70 | | 130 | 33.7 | 2.0 | 29 | 1.5 |
| | 90 | | 130 | 33.7 | 2.0 | 29 | 1.5 |
| 32 | 90 | 26 | 140 | 42.4 | 2.0 | 35 | 1.5 |
| | 130 | | 140 | 42.4 | 2.0 | 35 | 1.5 |
| 40 | 90 | 26 | 150 | 48.3 | 2.0 | 41 | 1.5 |
| | 130 | | 150 | 48.3 | 2.0 | 41 | 1.5 |
| 50 | 90 | 26 | 175 | 60.3 | 2.0 | 53 | 1.5 |
| | 130 | | 175 | 60.3 | 2.0 | 53 | 1.5 |
| 65 | 130 | 26 | 210 | 76.1 | 2.3 | 70 | 2 |
| 80 | 130 | 26 | 230 | 88.9 | 2.3 | 85 | 2 |
| 100 | 130 | 26 | 260 | 114.3 | 2.6 | 104 | 2 |

**BS4825 Part 1, ASME BPE/DIN 11866 series C**

| Port size (tube) | Actuator size | AW | LW | BS 4825 Part 1 | | ASME BPE/ DIN 11866 series C | |
|---|---|---|---|---|---|---|---|
| [inch] | [mm] | | | ø MW | TW | ø MW | TW |
| 1/2 | 50 | 20 | 90 | 12.7 | 1.2 | 12.7 | 1.65 |
| | 70 | | 90 | 12.7 | 1.2 | 12.7 | 1.65 |
| 3/4 | 50 | 20 | 90 | 19.05 | 1.2 | 19.05 | 1.65 |
| | 70 | | 90 | 19.05 | 1.2 | 19.05 | 1.65 |
| 1 | 50 | 20 | 100 | 25.4 | 1.6 | 25.4 | 1.65 |
| | 70 | | 100 | 25.4 | 1.6 | 25.4 | 1.65 |
| | 90 | | 100 | 25.4 | 1.6 | 25.4 | 1.65 |
| 1 1/2 | 90 | 26 | 140 | 38.1 | 1.6 | 38.1 | 1.65 |
| | 130 | | 140 | 38.1 | 1.6 | 38.1 | 1.65 |
| 2 | 90 | 26 | 150 | 50.8 | 1.6 | 50.8 | 1.65 |
| | 130 | | 150 | 50.8 | 1.6 | 50.8 | 1.65 |
| 2 1/2 | 90 | 26 | 175 | 63.5 | 1.6 | 63.5 | 1.65 |
| | 130 | | 175 | 63.5 | 1.6 | 63.5 | 1.65 |
| 3 | 130 | 26 | 210 | 76.2 | 1.6 | 76.2 | 1.65 |
| 4 | 130 | 26 | 260 | 101.6 | 2.0 | 101.6 | 2 |

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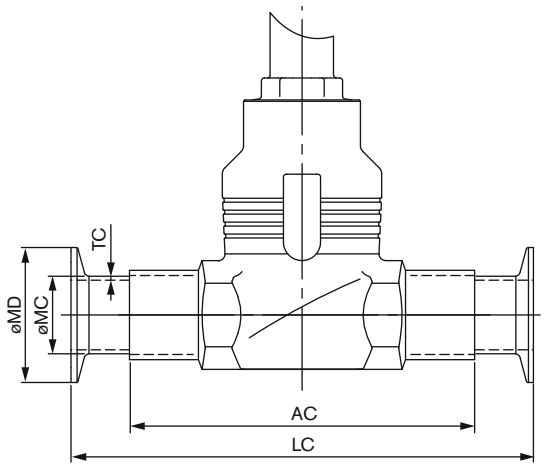
## Dimensions [mm] - Body valve Continuous ELEMENT Type 2301

**Clamp port connection**




**DIN 32676 series A, ASME BPE/DIN 32676 series C or BS4825-3**

| Port size (tube) | Actuator size | AC | LC | Clamp: DIN 32676 series A, Rohr: DIN 11850 series 2/ DIN 11866 series A/ DIN EN 10357 series A | | | Clamp: ASME BPE/ DIN 32676 series C, Rohr: ASME BPE/ DIN 11866 series C | | | Clamp: BS4825-3, Rohr: BS4825-1 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | | | ø MC | ø MD | TC | ø MC | ø MD | TC | ø MC | ø MD | TC |
| 15 | 70 | 90 | 126 | 19 | 34.0 | 1.5 | 12.7 | 25.0 | 1.65 | 12.7 | 25.0 | 1.2 |
| 20 | 70 | 100 | 136 | 23 | 34.0 | 1.5 | 19.05 | 25.0 | 1.65 | 19.05 | 25.0 | 1.2 |
| 25 | 90 | 10 | 173 | 29 | 50.5 | 1.5 | 25.4 | 50.5 | 1.65 | 25.4 | 50.5 | 1.6 |
| 32 | 90 | 140 | 179 | 35 | 50.5 | 1.5 | - | - | - | - | - | - |
| 40 | 130 | 150 | 193 | 41 | 50.5 | 1.5 | 38.1 | 50.5 | 1.65 | 38.1 | 50.5 | 1.6 |
| 50 | 130 | 175 | 218 | 53 | 64.0 | 1.5 | 50.8 | 64.0 | 1.65 | 50.8 | 64.0 | 1.6 |

**DIN 32676 series B**

| Port size (tube) | Actuator size | AC | LC | Clamp: DIN 32676 series B, Rohr: EN ISO 1127 series 1/ ISO 4200/DIN 11866 series B | | |
|---|---|---|---|---|---|---|
| [mm] | [mm] | | | ø MC | ø MD | TC |
| 15 | 70 | 90 | 146 | 21.3 | 50.5 | 1.6 |
| 20 | 70 | 100 | 136 | 26.9 | 50.5 | 1.6 |
| 25 | 90 | 130 | 164 | 33.7 | 50.5 | 2.0 |
| 32 | 90 | 140 | 178 | - | - | - |
| 40 | 130 | 150 | 193 | 48.3 | 64.0 | 2.0 |
| 50 | 130 | 175 | 218 | 60.3 | 77.5 | 2.0 |

DTS 1000112693 EN Version: S Status: RL (released | freigegeben | validé) printed: 25.07.2017

## Ordering chart Globe Control Valve Type 2301

### Flange connection

Flow direction below the seat, Control function A (NC)

| Port size (tube) | | Seat size | | Actuator size ø | Kvs-value | Item no. DIN EN 1092-1 Seal/cone | | Item no. ANSI B 16.5 Seal/cone | | Item no. JIS 10K Seal/cone | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [inch] | [mm] | [inch] | [mm] | [m³/h] | PTFE/St. St. | St. St./St. St. | PTFE/St. St. | St. St./St. St. | PTFE/St. St. | St. St./St. St. |
| 10 | 3/8 | 3 | 0.12 | 70 | 0.1 | - | On request | - | - | - | - |
| | | 4 | 0.16 | 70 | 0.5 | - | 215 207 | - | - | - | - |
| | | 6 | 0.24 | 70 | 1.25 | - | 215 209 | - | - | - | - |
| | | 8 | 0.31 | 70 | 2.0 | 213 985 | 215 212 | - | - | - | - |
| | | 10 | 0.39 | 70 | 2.7 | 213 989 | 215 215 | - | - | - | - |
| 15 | 1/2 | 3 | 0.12 | 70 | 0.1 | - | 233 165 | - | On request | - | On request |
| | | 4 | 0.16 | 70 | 0.5 | - | 210 529 | - | 215 219 | - | 215 226 |
| | | 6 | 0.24 | 70 | 1.25 | - | 215 211 | - | 215 220 | - | 215 227 |
| | | 8 | 0.31 | 70 | 2.1 | 213 987 | 215 214 | 215 198 | 215 221 | 215 203 | 215 228 |
| | | 10 | 0.39 | 70 | 3.1 | 213 991 | 215 217 | 215 199 | 215 222 | 213 913 | 213 911 |
| | | 15 | 0.59 | 70 | 4.3 | 204 932 | 205 010 | 204 944 | 205 021 | 204 953 | 205 030 |
| 20 | 3/4 | 10 | 0.39 | 70 | 3.2 | 210 530 | 215 218 | 215 200 | 215 223 | 215 204 | 215 229 |
| | | 15 | 0.59 | 70 | 5.2 | 213 993 | 214 030 | 214 009 | 214 046 | 213 936 | 213 933 |
| | | 20 | 0.79 | 70 | 7.1 | 204 935 | 205 012 | 204 946 | 205 023 | 204 955 | 205 032 |
| 25 | 1 | 15 | 0.59 | 70 | 5.3 | 213 994 | 214 031 | 214 010 | 214 047 | 214 020 | 214 059 |
| | | 20 | 0.79 | 70 | 7.2 | 213 995 | 214 032 | 214 011 | 214 048 | 213 930 | 213 914 |
| | | 25 | 0.98 | 70 | 12.0 | 204 937 | 205 014 | 204 948 | 205 025 | 204 957 | 205 034 |
| | | | | 90 | 12.0 | 242 054 | 229 421 | 464 851 | 464 367 | 242 165 | 242 199 |
| 32 | 1 1/4 | 25 | 0.98 | 90 | 9.9 | 213 997 | 210 446 | - | - | 213 939 | 213 937 |
| | | | | 130 | 13.0 | 222 634 | 222 655 | - | - | 222 643 | 222 665 |
| | | 32 | 1.3 | 90 | 13.4 | 204 939 | 205 016 | - | - | 213 177 | 213 178 |
| | | | | 130 | 17.8 | 223 597 | 223 598 | - | - | 222 645 | 222 667 |
| 40 | 1 1/2 | 32 | 1.3 | 90 | 14.4 | 213 999 | 214 035 | 215 201 | 215 224 | 213 932 | 213 931 |
| | | | | 130 | 20.2 | 222 636 | 222 657 | 463 905 | 463 913 | 222 647 | 222 668 |
| | | 40 | 1.6 | 90 | 17.5 | 204 941 | 205 018 | 204 950 | 205 027 | 204 959 | 205 037 |
| | | | | 130 | 23.8 | 219 791 | 222 659 | 463 907 | 463 915 | 222 649 | 222 670 |
| 50 | 2 | 40 | 1.6 | 90 | 18.0 | 214 001 | 214 037 | 214 013 | 214 050 | 213 941 | 213 940 |
| | | | | 130 | 24.6 | 222 638 | 222 660 | 463 908 | 463 916 | 222 650 | 222 671 |
| | | 50 | 2.0 | 90 | 28.0 | 204 942 | 205 019 | 204 951 | 205 028 | 204 960 | 205 038 |
| | | | | 130 | 37.0 | 214 003 | 214 039 | 214 015 | 214 052 | 214 023 | 214 062 |
| 65 | 2 1/2 | 50 | 2.0 | 130 | 45.0 | 214 005 | 214 040 | 239 537 | 239 573 | 214 024 | 214 063 |
| | | 65 | 2.6 | 130 | 65.0 | 217 772 | 219 618 | 239 535 | 239 572 | 219 617 | 219 620 |
| 80 | 3 | 65 | 2.6 | 130 | 73.0 | 239 545 | 239 581 | 239 546 | 239 582 | 239 547 | 239 584 |
| | | 80 | 3.2 | 130 | 100.0 | 239 540 | 239 576 | 239 541 | 239 577 | 239 542 | 239 578 |
| 100 | 4 | 80 | 3.2 | 130 | 110.0 | 239 561 | 239 597 | 239 562 | 239 598 | 239 563 | 239 599 |
| | | 100 | 3.9 | 130 | 140.0 | 239 556 | 239 592 | 239 557 | 239 593 | 239 558 | 239 594 |

**Further versions on request**

**Control function**
B (normally open: NO)

**Process connection**
Further port connections

**Approvals**
FDA, ATEX, (EC Gas Appliances Directive 2009/142/EG)

DTS 1000112693 EN Version: S Status: RL (released | freigegeben | validé) printed: 25.07.2017

## Ordering chart Globe Control Valve Type 2301, continued

### Thread connection

Flow direction below the seat, Control function A (NC)

| Port size (tube) | | Seat size | | Actuator size ø | Kvs-value | Item no. G (EN ISO 228-1) Seal/cone | | Item no. NPT (ISO 7/1 / DIN EN 10226-2) Seal/cone | | Item no. RC (ASME B 1:20.1) Seal/cone | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [inch] | [mm] | [inch] | [mm] | [m³/h] | PTFE/St. St. | St. St./St. St. | PTFE/St. St. | St. St./St. St. | PTFE/St. St. | St. St./St. St. |
| 10 | 3/8 | 3 | 0.12 | 70 | 0.1 | - | 284 168 | - | On request | - | On request |
| | | 4 | 0.16 | 70 | 0.5 | - | 215 238 | - | 220 447 | - | 220 513 |
| | | 6 | 0.24 | 70 | 1.25 | - | 215 240 | - | 220 450 | - | 220 516 |
| | | 8 | 0.31 | 70 | 2.0 | 215 233 | 215 242 | 220 418 | 220 453 | 220 484 | 220 519 |
| | | 10 | 0.39 | 70 | 2.7 | 215 235 | 215 245 | 220 421 | 220 457 | 220 487 | 220 523 |
| 15 | 1/2 | 3 | 0.12 | 70 | 0.1 | - | 227 784 | - | 466 159 | - | 233 369 |
| | | 4 | 0.16 | 70 | 0.5 | - | 208 843 | - | 220 884 | - | 220 891 |
| | | 6 | 0.24 | 70 | 1.25 | - | 215 241 | - | 220 452 | - | 220 518 |
| | | 8 | 0.31 | 70 | 2.1 | 212 964 | 215 243 | 220 881 | 220 455 | 220 888 | 220 521 |
| | | 10 | 0.39 | 70 | 3.1 | 215 236 | 215 246 | 220 423 | 220 459 | 220 489 | 220 525 |
| | | 15 | 0.59 | 70 | 4.3 | 206 432 | 213 955 | 220 882 | 220 886 | 220 889 | 220 894 |
| 20 | 3/4 | 10 | 0.39 | 70 | 3.2 | 215 237 | 215 247 | 220 425 | 220 461 | 220 491 | 220 527 |
| | | 15 | 0.59 | 70 | 5.2 | 214 067 | 215 248 | 220 427 | 220 463 | 220 493 | 220 529 |
| | | 20 | 0.79 | 70 | 7.1 | 206 584 | 211 239 | 220 430 | 220 466 | 220 496 | 220 532 |
| 25 | 1 | 15 | 0.59 | 70 | 5.3 | 206 588 | 210 460 | 220 428 | 220 464 | 220 494 | 220 530 |
| | | 20 | 0.79 | 70 | 7.2 | 206 586 | 210 721 | 220 431 | 220 467 | 220 497 | 220 533 |
| | | 25 | 0.98 | 70 | 12.0 | 189 145 | 210 485 | 220 434 | 220 470 | 220 500 | 220 536 |
| | | | | 90 | 12.0 | 242 203 | 242 207 | 464 864 | 464 867 | 242 257 | 242 380 |
| 32 | 1 1/4 | 25 | 0.98 | 90 | 9.9 | 214 070 | 210 407 | 220 435 | 220 471 | 220 501 | 220 537 |
| | | | | 130 | 13.0 | 222 677 | 222 687 | 463 921 | 463 931 | 222 740 | 222 777 |
| | | 32 | 1.3 | 90 | 13.4 | 210 097 | 210 458 | 220 437 | 220 473 | 220 503 | 220 539 |
| | | | | 130 | 17.8 | 223 599 | 223 600 | 463 956 | 463 957 | 223 605 | 223 606 |
| 40 | 1 1/2 | 32 | 1.3 | 90 | 14.4 | 214 072 | 214 084 | 220 438 | 220 474 | 220 504 | 220 540 |
| | | | | 130 | 20.2 | 222 679 | 222 689 | 463 923 | 463 933 | 222 742 | 222 763 |
| | | 40 | 1.6 | 90 | 17.5 | 210 098 | 207 800 | 220 440 | 220 476 | 220 506 | 220 542 |
| | | | | 130 | 23.8 | 222 681 | 222 691 | 463 925 | 463 935 | 222 767 | 222 765 |
| 50 | 2 | 40 | 1.6 | 90 | 18.0 | 214 074 | 214 086 | 220 441 | 220 477 | 220 507 | 220 543 |
| | | | | 130 | 24.6 | 222 682 | 222 692 | 463 926 | 463 936 | 222 768 | 222 766 |
| | | 50 | 2.0 | 90 | 28.0 | 210 099 | 203 693 | 220 443 | 220 479 | 220 509 | 220 545 |
| | | | | 130 | 37.0 | 214 076 | 214 088 | 220 444 | 220 480 | 220 510 | 220 546 |
| 65 | 2 1/2 | 50 | 2.0 | 130 | 45.0 | 214 077 | 214 089 | 239 536 | 239 620 | 220 511 | 220 547 |
| | | 65 | 2.6 | 130 | 65.0 | 219 621 | 219 622 | 239 534 | 239 571 | 220 512 | 220 548 |

### Further versions on request

**Control function**
B (normally open: NO)

**Process connection**
Further port connections

**Approvals**
FDA, ATEX, FDA, ATEX, (EC Gas Appliances Directive 2009/142/EG)

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## Ordering chart Globe Control Valve Type 2301, continued

### Weld ends connection

Flow direction below the seat, Control function A (NC)

| Port size (tube) | | Seat size | | Actuator size ø | Kvs-value | Item no. EN ISO 1127 series 1 / ISO 4200 / DIN 11866 Series B Seal/cone | | Item no. DIN 11850 Series 2 / DIN 11866 Series A / DIN EN 10357 Series A Seal/cone | | Item no. ASME BPE / DIN 11866 Series C Seal/cone | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PTFE/St. St. | St. St./St. St. | PTFE/St. St. | St. St./St. St. | PTFE/St. St. | St. St./St. St. |
| [mm] | [inch] | [mm] | [inch] | [mm] | [m³/h] | Connection MW x TW | | Connection MW x TW | | Connection MW x TW | |
| 10 | 3/8 | | | | | 17.2 x 1.6 | | 13.0 x 1.5 | | - | |
| | | 3 | 0.12 | 70 | 0.1 | - | On request | - | 250 658 | - | - |
| | | 4 | 0.16 | 70 | 0.5 | - | On request | - | 284 171 | - | - |
| | | 6 | 0.24 | 70 | 1.25 | - | On request | - | 284 177 | - | - |
| | | 8 | 0.31 | 70 | 2.0 | On request | On request | On request | 284 179 | - | - |
| | | 10 | 0.39 | 70 | 2.7 | On request | On request | 257 412 | 208 553 | - | - |
| 15 | 1/2 | | | | | 21.3 x 1.6 | | 19.0 x 1.5 | | 12.7 x 1.65 | |
| | | 3 | 0.12 | 70 | 0.1 | - | 259 240 | - | 225 130 | - | 466 160 |
| | | 4 | 0.16 | 70 | 0.5 | - | 215 254 | - | 215 257 | - | 464905 |
| | | 6 | 0.24 | 70 | 1.25 | - | 215 255 | - | 215 258 | - | 464907 |
| | | 8 | 0.31 | 70 | 2.1 | 212 392 | 215 872 | 215 250 | 215 911 | 464 878 | 464909 |
| | | 10 | 0.39 | 70 | 3.1 | 212 393 | 215 873 | 215 251 | 215 913 | 464 882 | 222997 |
| | | 15 | 0.59 | 70 | 4.3 | 209 571 | 215 909 | 215 253 | 209 173 | - | - |
| 20 | 3/4 | | | | | 26.9 x 1.6 | | 23.0 x 1.5 | | 19.05 x 1.65 | |
| | | 15 | 0.59 | 70 | 5.2 | 214 094 | 214 132 | 214 113 | 208 555 | 464 455 | 211017 |
| | | 20 | 0.79 | 70 | 7.1 | 214 096 | 210 696 | 211 937 | 211 953 | - | - |
| 25 | 1 | | | | | 33.7 x 2.0 | | 29.0 x 1.5 | | 25.4 x 1.65 | |
| | | 20 | 0.79 | 70 | 7.2 | 214 097 | 214 135 | 214 116 | 214 154 | 464 891 | 464920 |
| | | 25 | 0.98 | 70 | 12.0 | 209 572 | 214 138 | 209 384 | 209 089 | - | - |
| 32 | 1 1/4 | | | | | 42.4 x 2.0 | | 35.0 x 1.5 | | - | |
| | | 25 | 0.98 | 90 | 9.9 | 214 101 | 214 139 | 214 119 | 214 156 | - | - |
| | | 32 | 1.3 | 90 | 13.4 | 214 103 | 214 141 | 211 965 | 209 181 | - | - |
| 40 | 1 1/2 | | | | | 48.3 x 2.0 | | 41.0 x 1.5 | | 38.1 x 1.65 | |
| | | 32 | 1.3 | 90 | 14.4 | 214 104 | 214 142 | 214 121 | 213 487 | 464 898 | 464927 |
| | | | | 130 | 20.2 | 222 700 | 222 721 | 222 711 | 222 732 | 464 899 | 464928 |
| | | 40 | 1.6 | 90 | 17.5 | 209 440 | 214 144 | 211 967 | 209 110 | - | - |
| | | | | 130 | 23.8 | 222 702 | 222 723 | 222 713 | 222 734 | - | - |
| 50 | 2 | | | | | 60.3 x 2.0 | | 53.0 x 1.5 | | 50.8 x 1.65 | |
| | | 40 | 1.6 | 90 | 18.0 | 210 756 | 213 561 | 214 123 | 213 411 | 464 902 | 464931 |
| | | | | 130 | 24.6 | 222 703 | 222 724 | 222 714 | 222 735 | 464 903 | 464932 |
| | | 50 | 2.0 | 90 | 28.0 | 214 107 | 214 146 | 211 968 | 209 185 | - | - |
| | | | | 130 | 37.0 | 214 108 | 214 147 | 214 125 | 214 159 | - | - |
| 65 | 2 1/2 | | | | | 76.1 x 2.3 | | 70.0 x 2.0 | | - | |
| | | 65 | 2.6 | 130 | 65.0 | 219 623 | 219 626 | 219 625 | 219 628 | - | - |
| 80 | 3 | | | | | 88.9 x 2.3 | | 85.0 x 2.0 | | - | |
| | | 80 | 3.2 | 130 | 100.0 | 239 543 | 239 579 | 239 544 | 239 580 | - | - |
| 100 | 4 | | | | | 114.3 x 2.6 | | 104.0 x 2.0 | | - | |
| | | 100 | 3.9 | 130 | 140.0 | 239 559 | 239 595 | 239 560 | 239 596 | - | - |

### Further versions on request

**Control function**
B (normally open: NO)

**Process connection**
Further port connections

**Approvals**
FDA, ATEX, FDA, ATEX, (EC Gas Appliances Directive 2009/142/EG)

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## Ordering chart Globe Control Valve Type 2301, continued

### Clamp connection

Flow direction below the seat, Control function A (NC)

| Port size (tube) | | Seat size | | Actuator size ø | Kvs-value | Item no. DIN 32676 series A Seal/cone | | Item no. DIN 32676 series B Seal/cone | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PTFE/St. St. | St. St./St. St. | PTFE/St. St. | St. St./St. St. |
| [mm] | [inch] | [mm] | [inch] | [mm] | [m³/h] | Connection MC x TC, TC | | Connection MC x TC, TC | |
| 15 | 1/2 | | | | | 19 x 1.5, 34 | | 21.3 x 1.6, 50.5 | |
| | | 15 | 0.59 | 70 | 4.3 | 222 593 | 282 208 | 273 974 | 282 213 |
| 20 | 3/4 | | | | | 23 x 1.5, 34 | | 26.9 x 1.6, 50.5 | |
| | | 20 | 0.79 | 70 | 7.1 | 225 647 | 282 209 | 209 438 | 282 214 |
| 25 | 1 | | | | | 29 x 1.5, 50.5 | | 33.7 x 2.0, 50.5 | |
| | | 25 | 0.98 | 90 | 12.0 | 222 594 | 282 210 | 241 115 | 282 215 |
| 32 | 1 1/4 | | | | | 35 x 1.5, 50.5 | | - | |
| | | 32 | 1.3 | 90 | 13.4 | 240 415 | 282 211 | - | - |
| 40 | 1 1/2 | | | | | 41 x 1.5, 50.5 | | 48.3 x 2.0, 64.0 | |
| | | 40 | 1.6 | 130 | 23.8 | 240 351 | 282 212 | 209 880 | 284 181 |
| 50 | 2 | | | | | 53 x 1.5, 64 | | 60.3 x 2.0, 77.5 | |
| | | 50 | 2.0 | 130 | 37.0 | 282 258 | 282 259 | 282 261 | 282 263 |

### Further versions on request

**Control function**
B (normally open: NO)

**Process connection**
Further port connections

**Approvals**
FDA, ATEX, FDA, ATEX, (EC Gas Appliances Directive 2009/142/EG)

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bürkert

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

# Valve system Continuous ELEMENT– request for quotation

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

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

■ = mandatory fields to fill out  **Quantity:**  **Required delivery date:**

## Operating data

Pipe line  DN  PN

Pipe Material

■ Process medium

■ Type of medium  ☐ Liquid  ☐ Steam  ☐ Gas

| | min. | standard | max. | Unit |
|---|---|---|---|---|
| ■ Flow rate ($Q$, $Q_N$, $W$) [1] | | | | |
| ■ Temperature at valve inlet T1 | | | | |
| ■ Absolute pressure at valve inlet P1 | | | | |
| ■ Absolute pressure at valve outlet P2 | | | | |
| Steam Pressure Pv | | | | |

Kinematic viscosity ($\nu$)  $mm^2/s$ or cSt

Dynamic viscosity ($\eta$)  mPa.s or cP

Standard density  $Kg/m^3$

Max. sound level accepted  dB (A)

[1] standard unit:
Liquid Q = $m^3/h$;
Steam W = kg/h;
Gas $Q_N$ = $Nm^3/h$

## Valves features

Cone seal material  ☐ PTFE/Stainless steel  ☐ Stainless st./Stainless st.  ☐ PEEK/Stainless steel

Nominal pressure  PN

Seat size

Type of connection  ☐ Flanged  ☐ Threaded  ☐ Welded  ☐ Clamp

Standard connection  ☐ ISO  ☐ DIN  ☐ Other

Control function  ☐ NC[1]  ☐ NO[1]

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

**Please specify item no.** (if known)**:**

## Comments

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*continued on next page* →

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## Valve system Continuous ELEMENT– request for quotation, continued

### 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 data sheet.

#### For actuator sizes ø70/ø90/ø130 mm

☐ **Process Controller TopControl Type 8693** More info.

- Intelligent digital positioners and process controllers with integrated PID controller for accurate process control
- Lighted graphic display with membrane keypad
- Tune function for automatic start-up
- Field bus communication
- Diagnostic functions

☐ **Positioner TopControl Type 8692** More info.

- Digital positioner without sensor input
- Lighted graphic display with membrane keypad
- Tune function for automatic start-up
- Field bus communication
- Diagnostic functions

**Pneumatic function**
- ☐ Single-acting
- ☐ Double-acting

**Analogue feedback**
- ☐ 0/4...20 mA
- ☐ 0/4...20 mA + 2 binary outputs

**Approvals**
- ☐ ATEX Cat. 3GD, IECEx
- ☐ None

**Communication**
- ☐ Profibus
- ☐ DeviceNet
- ☐ None

**Electrical connection**
- ☐ Cable gland
- ☐ Multipol connection
- ☐ None

**Diagnostic function**[*)]
- ☐ Yes
- ☐ No

**Proximity switches** (optional)
- ☐ Yes (Request an end position)
- ☐ No

*) In combination with digital outputs

#### For actuator sizes ø70/ø90/ø130 mm

☐ **Positioner TopControl Type 8694** More info.

- Status LED and DIP switches
- Tune-function for automatic start-up
- Positioning system for single-acting actuators
- With AS-Interface fieldbus

**Pneumatic function**
- ☐ Single-acting

**Analogue feedback**
- ☐ Yes
- ☐ No

**Approvals**
- ☐ ATEX Cat. 3GD, IECEx
- ☐ None

**Communication**
- ☐ AS-Interface (only 8694)
- ☐ None

**Electrical connection**
- ☐ Cable gland (only 8694)
- ☐ M12 Multipol connection
- ☐ None

#### For actuator size ø50 mm

☐ **Positioner TopControl Type 8696** More info.

- Status LED and DIP switches
- Tune-function for automatic start-up
- Positioning system for single-acting actuators
- With AS-Interface fieldbus

**Approvals**
- ☐ ATEX Cat. 3GD, IECEx
- ☐ None

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*continued on next page* →

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## Valve system Continuous ELEMENT– request for quotation, continued

### 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 data sheet.

#### For actuator sizes ø70/ø90/ø130 mm

☐ **Process Controller SideControl Type 8793 with remote sensor Type 8798** More info. More info.

- Intelligent digital positioners and process controllers with integrated PID controller
- Lighted graphic display with membrane keypad
- Tune-function for automatic start-up, linearization and optimization of process characteristics
- Field bus communication
- Diagnostic functions

☐ **Positioner SideControl Type 8792 with remote sensor Type 8798** More info. More info.

- Digital positioner without sensor input
- Lighted graphic display with membrane keypad
- Tune function for automatic start-up
- Field bus communication
- Diagnostic functions

**Pneumatic function**

☐ Single-acting (actuator size ø70/90)

☐ Single and Double-acting (actuator size ø130)

**Communication**

☐ Profibus

☐ DeviceNet

☐ None

**Diagnostic function**[*)]

☐ Yes

☐ No

**Analogue feedback**

☐ 0/4...20 mA

☐ 0/4...20 mA + 2 binary outputs

☐ 0...5/10 V

☐ 0...5/10 V + 2 binary outputs

**Electrical connection**

☐ Cable gland (without Bus)

☐ Multipol connection

**Approvals**

☐ ATEX Cat. 3GD

☐ None

*) In combination with digital outputs

#### For actuator sizes ø70/ø90/ø130 mm

☐ **Positioner SideControl Basic Type 8791 with remote sensor Type 8798** More info. More info.

- „simple positioner“
- Universal positioning system for single and double acting actuators
- Tune function for automatic start-up
- Feldbuskommunikation

☐ **Positioner SideControl Basic IP20 Type 8791 with remote sensor Type 8798** More info. More info.

- „simple positioner“
- Universal positioning system for single and double acting actuators
- Tune function for automatic start-up

**Pneumatic function**

☐ Single-acting (actuator size ø70/90)

☐ Single and Double-acting (actuator size ø130)

**Communication**

AS-Interface (not by Basic IP20)

☐ Analogue-Profile S-7.3.4 (Only setpoint)

☐ Analogue-Profile S-7.A.5 (Only setpoint and Feedback)

☐ None

**Analogue feedback**

☐ 0/4...20 mA

☐ No

**Electrical connection**

☐ Cable gland (without Bus)

☐ Multipol connection

**Approvals**

☐ ATEX Cat. 3GD (not by Basic IP20)

☐ None

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Reset form

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In case of special application conditions, please consult for advice.

Subject to alteration.
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