

Stainless steel globe valve, 3-way, Internal thread

- For open and closed water systems
- For modulating control of air-handling and heating systems on the water side



Picture may differ from product

### Type overview

| Type    | DN | Rp<br>["] | Kvs<br>[m³/h] | Stroke | PN | n(gl) | Sv min. |
|---------|----|-----------|---------------|--------|----|-------|---------|
| H315S-G | 15 | 1/2       | 1.6           | 10 mm  | 25 | 3     | 100     |
| H315S-J | 15 | 1/2       | 4.0           | 10 mm  | 25 | 3     | 100     |
| H320S-K | 20 | 3/4       | 6.3           | 10 mm  | 25 | 3     | 100     |
| H325S-L | 25 | 1         | 10            | 15 mm  | 25 | 3     | 100     |
| H332S-M | 32 | 1 1/4     | 16            | 20 mm  | 25 | 3     | 100     |
| H340S-N | 40 | 1 1/2     | 25            | 20 mm  | 25 | 3     | 100     |
| H350S-P | 50 | 2         | 40            | 20 mm  | 25 | 3     | 100     |

### Technical data

|                 |                          |                                                                                                                            |
|-----------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Functional data | Fluid                    | Water, water with glycol up to max. 50% vol.                                                                               |
|                 | Fluid temperature        | 0...130°C [32...266°F]                                                                                                     |
|                 | Flow characteristic      | Control path A – AB: equal percentage (VDI/VDE 2173), optimised in the opening range, Bypass B – AB: linear (VDI/VDE 2173) |
|                 | Leakage rate             | Control path A – AB: max. 0.02% of the Kvs value; Bypass B – AB: max. 0.02% of the Kvs value (EN 1349 and EN 60534-4)      |
|                 | Closing point            | Top (▲)                                                                                                                    |
|                 | Pipe connection          | Internal thread according to ISO 7-1                                                                                       |
|                 | Installation orientation | upright to horizontal (in relation to the spindle)                                                                         |
|                 | Servicing                | maintenance-free                                                                                                           |
| Materials       | Valve body               | Stainless steel AISI 304                                                                                                   |
|                 | Closing element          | Stainless steel AISI 304                                                                                                   |
|                 | Spindle                  | Stainless steel AISI 304                                                                                                   |
|                 | Spindle seal             | PTFE+FFKM                                                                                                                  |
|                 | Seat                     | Stainless steel AISI 304                                                                                                   |

## Safety notes



- The valve has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.
- The valve does not contain any parts that can be replaced or repaired by the user.
- The valve may not be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When determining the flow rate characteristic of controlled devices, the recognised directives must be observed.

## Product features

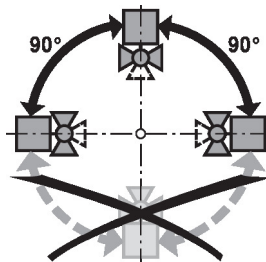
|                            |                                                                                                                                                                                                                                                                           |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operating mode</b>      | The globe valve is adjusted by a globe valve actuator. The actuators are connected by a commercially available modulating or 3-point control system and move the valve cone, which acts as a throttling device, into the opening position dictated by the control signal. |
| <b>Flow characteristic</b> | An equal percentage flow characteristic is produced by the profile of the valve cone.                                                                                                                                                                                     |
| <b>Fluid velocity</b>      | Standard values for low-noise operation in HVAC systems are fluid velocities of 1...2 m/s. At fluid velocities above 2 m/s, further flow effects like noise as well as cavitation can occur. This can reduce the service life of a valve depending on the situation.      |

## Accessories

| Electrical accessories | Description                               | Type     |
|------------------------|-------------------------------------------|----------|
|                        | Stem heater for LV.., NV.., SV.. actuator | ZH24-1-A |

## Installation notes

**Permissible installation orientation** The globe valve may be mounted upright to horizontal. It is not permissible to mount the globe valves with the stem pointing downwards.

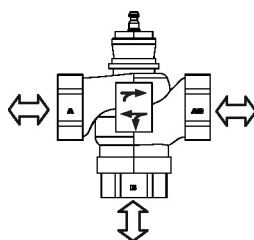


**Water quality requirements** The water quality requirements specified in VDI 2035 must be adhered to. Belimo valves are regulating devices. For the valves to function correctly in the long term, they must be kept free from particle debris (e.g. welding beads during installation work). The installation of a suitable strainer is recommended.

**Servicing** Globe valves and globe valve actuators are maintenance-free. Before any service work on the control element is carried out, it is essential to isolate the globe valve actuator from the power supply (by unplugging the electrical cables if necessary). Any pumps in the part of the piping system concerned must also be switched off and the appropriate slide valves closed (allow all components to cool down first if necessary and always reduce the system pressure to ambient pressure level). The system must not be returned to service until the globe valve and the globe valve actuator have been reassembled correctly in accordance with the instructions and the pipeline has been refilled by professionally trained personnel.

## Installation notes

**Flow direction** Direction of flow in both directions possible.



## Differential and close-off pressure

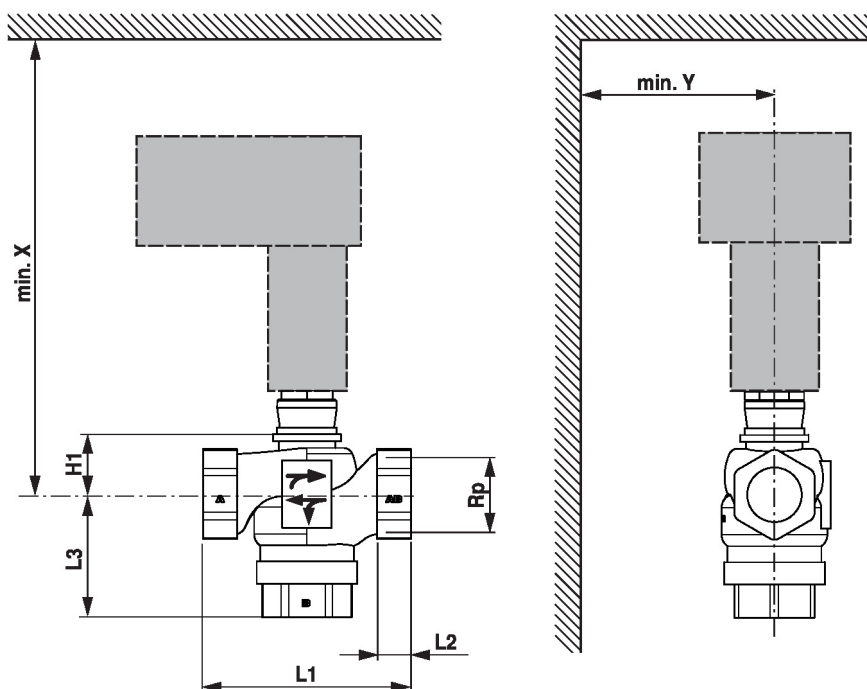
The maximum differential and close-off pressure of globe valves depends on the mounted globe valve actuator. To ensure optimum operation and maximum service life, the maximum differential and close-off pressure in the table below must not be exceeded.

Mixing

| ps <2500 kPa (PN25)<br>t= 0... 130°C                                              |    | LV..A..<br>500N       |                           | NV..A..<br>1000N      |                           | SV..A..<br>1500N      |                           |
|-----------------------------------------------------------------------------------|----|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|
|  | DN | $\Delta p_s$<br>[kPa] | $\Delta p_{max}$<br>[kPa] | $\Delta p_s$<br>[kPa] | $\Delta p_{max}$<br>[kPa] | $\Delta p_s$<br>[kPa] | $\Delta p_{max}$<br>[kPa] |
| H315S-G                                                                           | 15 | 650                   | 650                       | 800                   | 800                       |                       |                           |
| H315S-J                                                                           | 15 | 650                   | 650                       | 800                   | 800                       |                       |                           |
| H320S-K                                                                           | 20 | 650                   | 650                       | 800                   | 800                       |                       |                           |
| H325S-L                                                                           | 25 | 380                   | 380                       | 600                   | 600                       |                       |                           |
| H332S-M                                                                           | 32 |                       |                           | 550                   | 550                       |                       |                           |
| H340S-N                                                                           | 40 |                       |                           | 450                   | 450                       | 700                   | 700                       |
| H350S-P                                                                           | 50 |                       |                           | 300                   | 300                       | 500                   | 500                       |

Diverting

| ps <2500 kPa (PN25)<br>t= 0... 130°C                                                |    | LV..A..<br>500N       |                           | NV..A..<br>1000N      |                           | SV..A..<br>1500N      |                           |
|-------------------------------------------------------------------------------------|----|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|
|  | DN | $\Delta p_s$<br>[kPa] | $\Delta p_{max}$<br>[kPa] | $\Delta p_s$<br>[kPa] | $\Delta p_{max}$<br>[kPa] | $\Delta p_s$<br>[kPa] | $\Delta p_{max}$<br>[kPa] |
| H315S-G                                                                             | 15 | 325                   | 325                       | 400                   | 400                       |                       |                           |
| H315S-J                                                                             | 15 | 325                   | 325                       | 400                   | 400                       |                       |                           |
| H320S-K                                                                             | 20 | 325                   | 325                       | 400                   | 400                       |                       |                           |
| H325S-L                                                                             | 25 | 190                   | 190                       | 300                   | 300                       |                       |                           |
| H332S-M                                                                             | 32 |                       |                           | 270                   | 270                       |                       |                           |
| H340S-N                                                                             | 40 |                       |                           | 220                   | 220                       | 350                   | 350                       |
| H350S-P                                                                             | 50 |                       |                           | 150                   | 150                       | 250                   | 250                       |

**Dimensions**
**Dimensional drawings**


X/Y: Minimum distance with respect to the valve centre.

The actuator dimensions can be found on the respective actuator data sheet.

| Type    | DN | Rp<br>["] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | H1<br>[mm] | X<br>[mm] | Y<br>[mm] | <br>kg |
|---------|----|-----------|------------|------------|------------|------------|-----------|-----------|---------------------------------------------------------------------------------------------|
| H315S-G | 15 | 1/2       | 81         | 15         | 56         | 29         | 296       | 100       | 0.80                                                                                        |
| H315S-J | 15 | 1/2       | 81         | 15         | 56         | 29         | 296       | 100       | 0.82                                                                                        |
| H320S-K | 20 | 3/4       | 86         | 15         | 56         | 28         | 299       | 100       | 0.96                                                                                        |
| H325S-L | 25 | 1         | 115        | 17         | 64         | 34.5       | 303       | 100       | 1.33                                                                                        |
| H332S-M | 32 | 1 1/4     | 122        | 19         | 76.5       | 35         | 306       | 100       | 1.72                                                                                        |
| H340S-N | 40 | 1 1/2     | 140        | 23         | 83.5       | 43         | 311       | 100       | 2.29                                                                                        |
| H350S-P | 50 | 2         | 158        | 25         | 95         | 56.5       | 318       | 100       | 3.15                                                                                        |

**Further documentation**

- Data sheets for globe valve actuators
- Installation instructions for valves and/or globe valve actuators
- Notes for project planning 2-way and 3-way globe valves