BELIMO

# Technical data sheet H7..N

**Globe valve, 3-way, Flange, PN 16**
- **For closed cold and warm water systems**
- **For water-side modulating control of air-handling and heating systems**

## Type overview

| Type | DN [ ] | kvs [ m³/h] | Stroke [ mm] | PN [ ] | Sv min. [ ] |
|---|---|---|---|---|---|
| **H711N** | 15 | 0.63 | 15 | 16 | 50 |
| **H712N** | 15 | 1 | 15 | 16 | 50 |
| **H713N** | 15 | 1.6 | 15 | 16 | 50 |
| **H714N** | 15 | 2.5 | 15 | 16 | 50 |
| **H715N** | 15 | 4 | 15 | 16 | 50 |
| **H720N** | 20 | 6.3 | 15 | 16 | 100 |
| **H725N** | 25 | 10 | 15 | 16 | 100 |
| **H732N** | 32 | 16 | 15 | 16 | 100 |
| **H740N** | 40 | 25 | 15 | 16 | 100 |
| **H750N** | 50 | 40 | 15 | 16 | 100 |
| **H764N** | 65 | 58 | 18 | 16 | 100 |
| **H765N** | 65 | 63 | 30 | 16 | 100 |
| **H779N** | 80 | 90 | 18 | 16 | 100 |
| **H780N** | 80 | 100 | 30 | 16 | 100 |
| **H7100N** | 100 | 145 | 30 | 16 | 100 |
| **H7125N** | 125 | 220 | 40 | 16 | 100 |
| **H7150N** | 150 | 320 | 40 | 16 | 100 |

## Technical data

| | | |
|---|---|---|
| **Functional data** | Media | Cold and warm water, water with glycol up to max. 50% vol. |
| | Medium temperature | 5...120°C |
| | Medium temperature note | -10°C with stem heating |
| | Permissible pressure ps | 1600 kPa |
| | Flow characteristic | Control path A – AB: equal percentage (VDI/VDE 2173) n(gl) = 3, optimised in the opening range, Bypass B – AB: linear (VDI/VDE 2173) |
| | Leakage rate | Control path A - AB: max. 0.05% of the kvs value, Bypass B - AB: max. 1% of the kvs value |
| | Pipe connectors | Flange according to ISO 7005-2 (PN 16) |
| | Closing point | Top (▲) |
| | Installation position | Upright to horizontal (in relation to the stem) |
| | Maintenance | Maintenance-free |
| **Materials** | Housing | EN-JL1040 (GG25), with protective paint |
| | Closing element | Stainless steel |
| | Stem | Stainless steel |
| | Stem seal | EPDM O-ring |
| | Seat | GG25 / Niro (Bypass) |

## Safety notes

- The valve has been designed for use in stationary heating, ventilation and air-conditioning systems and is not allowed to 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 during installation.

## Safety notes

- 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

**Mode of operation**

The globe valve is adjusted by a globe valve actuator. The actuators are controlled by a commercially available modulating or 3-point control system and move the valve cone, which acts as a mixing device, to the opening position dictated by the positioning signal.

**Flow characteristic**

An equal percentage flow characteristic in the flow direction is produced by the profile of the valve cone. The bypass exhibits a linear characteristic curve.

## Accessories

**Electrical accessories**

| Description | Type |
|---|---|
| Stem heating DN 15-50 (45W) | ZH24-1 |
| Stem heating DN 65-100 (60W) | ZH24-1-C |
| Stem heating DN 125-250 (60W) | ZH24-1-D |

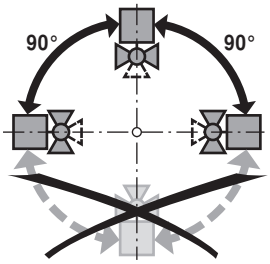
**Mechanical accessories**

| Description | Type |
|---|---|
| Blanked flange, to globe valve DN 15 with flange | ZH715 |
| Blanked flange, to globe valve DN 20 with flange | ZH720 |
| Blanked flange, to globe valve DN 25 with flange | ZH725 |
| Blanked flange, to globe valve DN 32 with flange | ZH732 |
| Blanked flange, to globe valve DN 40 with flange | ZH740 |
| Blanked flange, to globe valve DN 50 with flange | ZH750 |
| Blanked flange, to globe valve DN 65 with flange | ZH765 |
| Blanked flange, to globe valve DN 80 with flange | ZH780 |
| Blanked flange, to globe valve DN 100 with flange | ZH7100 |
| Blanked flange, to globe valve DN 125 with flange | ZH7125 |
| Blanked flange, to globe valve DN 150 with flange | ZH7150 |

## Installation notes

**Recommended installation positions**

The globe valve may be mounted upright to horizontal. It is not permissible to mount the globe valves with the spindle 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 suitable strainer is recommended.

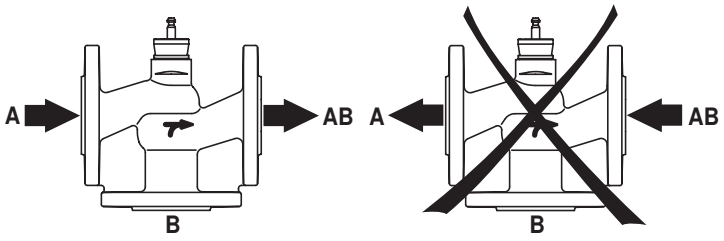
## Installation notes

**Maintenance**

Globe valves and globe valve actuators are maintenance-free.
Before any kind of service work is carried out on the actuator, it is essential to isolate the globe valve actuator from the power supply (by disconnecting the electrical cables if necessary). Any pumps in the part of the piping system concerned must also be switched off and the appropriate shut-off valves closed (allow everything to cool down first if necessary and 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 mounted properly in accordance with the instructions and the pipes have been refilled in the proper manner.

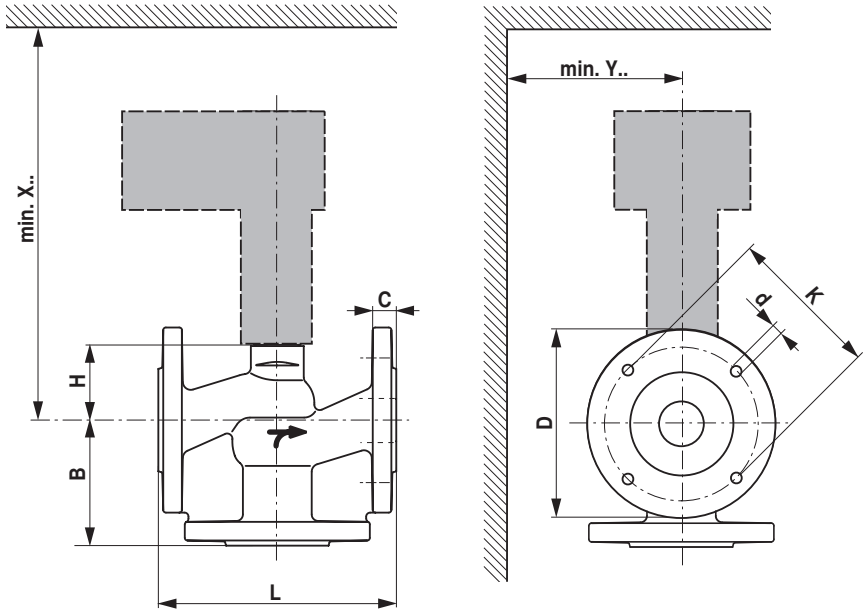
**Flow direction**

The direction of flow, specified by an arrow on the housing, is to be complied with, since otherwise the valve could become damaged.




## Dimensions / Weight

**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 [ ] | L [ mm] | B [ mm] | H [ mm] | C [ mm] | D [ mm] | d [ mm] | K [ mm] | X [ mm] | Y [ mm] | Weight approx. [ kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **H711N** | 15 | 130 | 65 | 46 | 14 | 95 | 4 x 14 | 65 | 290 | 100 | 2.6 |
| **H712N** | 15 | 130 | 65 | 46 | 14 | 95 | 4 x 14 | 65 | 290 | 100 | 2.6 |
| **H713N** | 15 | 130 | 65 | 46 | 14 | 95 | 4 x 14 | 65 | 290 | 100 | 2.6 |
| **H714N** | 15 | 130 | 65 | 46 | 14 | 95 | 4 x 14 | 65 | 290 | 100 | 2.6 |
| **H715N** | 15 | 130 | 65 | 46 | 14 | 95 | 4 x 14 | 65 | 290 | 100 | 2.6 |
| **H720N** | 20 | 150 | 70 | 46 | 16 | 105 | 4 x 14 | 75 | 290 | 100 | 4 |
| **H725N** | 25 | 160 | 75 | 52 | 16 | 115 | 4 x 14 | 85 | 300 | 100 | 5 |
| **H732N** | 32 | 180 | 95 | 56 | 18 | 140 | 4 x 18 | 100 | 300 | 100 | 7.5 |
| **H740N** | 40 | 200 | 100 | 64 | 18 | 150 | 4 x 18 | 110 | 310 | 100 | 9.5 |
| **H750N** | 50 | 230 | 100 | 64 | 20 | 165 | 4 x 18 | 125 | 310 | 100 | 12.4 |
| **H764N** | 65 | 290 | 120 | 100 | 20 | 185 | 4 x 18 | 145 | 350 | 100 | 19.1 |
| **H765N** | 65 | 290 | 120 | 100 | 20 | 185 | 4 x 18 | 145 | 450 | 150 | 19.2 |
| **H779N** | 80 | 310 | 130 | 110 | 22 | 200 | 8 x 18 | 160 | 360 | 150 | 24 |
| **H780N** | 80 | 310 | 130 | 110 | 22 | 200 | 8 x 18 | 160 | 460 | 150 | 24 |

## Dimensions / Weight

| Type | DN [ ] | L [ mm] | B [ mm] | H [ mm] | C [ mm] | D [ mm] | d [ mm] | K [ mm] | X [ mm] | Y [ mm] | Weight approx. [ kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **H7100N** | 100 | 350 | 150 | 125 | 24 | 220 | 8 x 18 | 180 | 480 | 150 | 34 |
| **H7125N** | 125 | 400 | 200 | 154 | 26 | 250 | 8 x 18 | 210 | 530 | 150 | 57 |
| **H7150N** | 150 | 480 | 210 | 178 | 26 | 285 | 8 x 22 | 240 | 550 | 150 | 88 |

## Further documentation

- Overview Valve-actuator combinations
- 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