

Change-over ball valve, 3-way, Flange, PN 6

- For closed cold and warm water systems
- For switching functions on the water side and 2-point controls in air handling units and heating systems
- Air bubble-tight (control path A - AB)


**Type overview**

Type	kvs [ m <sup>3</sup> /h]	DN [ ]	PN [ ]
R7015R-B1	15	15	6
R7020R-B1	32	20	6
R7025R-B2	26	25	6
R7032R-B3	32	32	6
R7040R-B3	31	40	6
R7050R-B3	49	50	6

**Technical data**

<b>Functional data</b>	Media	Cold and warm water, water with glycol up to max. 50% vol.	
	Medium temperature	-10...100°C	
	Medium temperature note	The allowed media temperature can be limited, depending on the type of actuator. Limitations can be found in the respective data sheets of the actuators.	
	Rated pressure ps	600 kPa	
	Closing pressure Δps	600 kPa	
	Differential pressure Δpmax	100 kPa	
	Flow rate	Bypass B – AB: Approx. 50% of kvs value	
	Leakage rate	Port A - AB: Leakage rate A, air-bubble-tight (EN 12266-1), Bypass B - AB: Leakage class I (EN 1349 and EN 60534-4) max. 1% of the kvs value	
	Pipe connectors	Flange PN 6 according to EN 1092-1	
	Angle of rotation	90°	
	Installation position	Upright to horizontal (in relation to the stem)	
	Maintenance	Maintenance-free	
	<b>Materials</b>	Housing	Brass body nickel-plated
		Closing element	Chrome-plated brass
Stem		Nickel-plated brass	
Stem seal		O-ring EPDM	
Valve seat		PTFE, O-ring EPDM (DN 20: Viton)	
Flange		DN 15/20: Galvanised steel, DN 25...50: Aluminium	
Flange sealing surface	Nickel-plated brass		

**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.
- 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.

## Safety notes

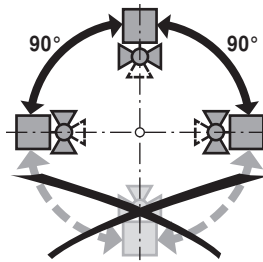
- When determining the flow rate characteristic of controlled devices, the recognised directives must be observed.

## Product features

- Mode of operation** The open-close ball valve is adjusted by a rotary actuator. The rotary actuator is connected by an open-close signal. Open the ball valve counterclockwise and close it clockwise.

## Installation notes

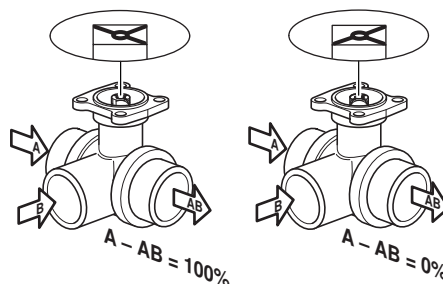
- Recommended installation positions** The ball valve can be installed upright to horizontal. The ball valve may not be installed in a hanging position, i.e. with the stem pointing downwards.



- 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 suitable strainer is recommended.

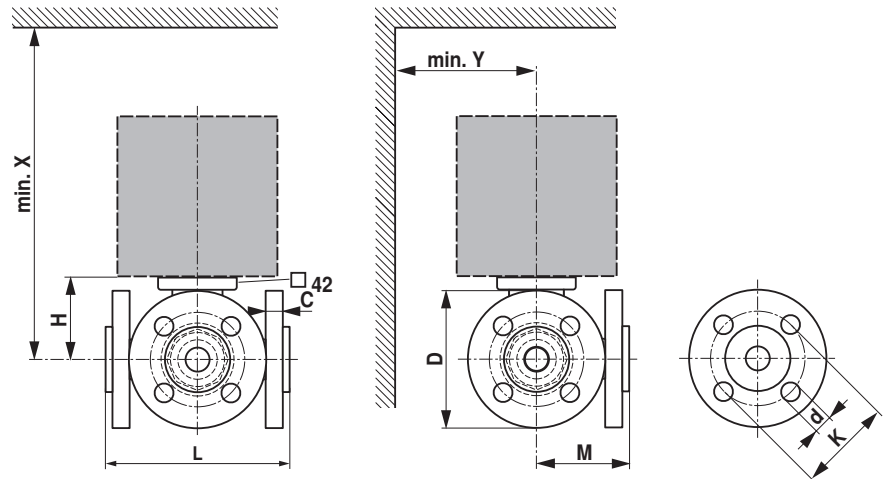
- Maintenance** Ball valves and rotary actuators are maintenance-free. Before any kind of service work is carried out on the actuator, it is essential to isolate the rotary actuator from the power supply (by unplugging the electrical cable). Any pumps in the part of the piping system concerned must also be switched off and the appropriate slide 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 ball valve and the rotary actuator have been properly reassembled in accordance with the instructions and the pipeline has 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 ball valve could become damaged. Please ensure that the ball is in the correct position (marking on the spindle).



## Dimensions / Weight

### Dimensional drawings



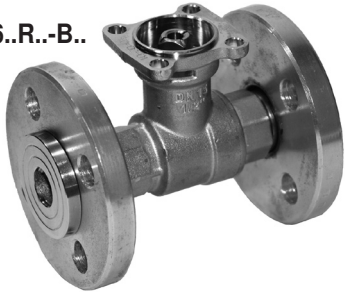
X/Y: Minimum distance with respect to the valve centre.  
The actuator dimensions can be found on the respective actuator data sheet.

Type	DN [ ]	L [ mm]	M [ mm]	H [ mm]	C [ mm]	D [ mm]	d [ mm]	K [ mm]	X [ mm]	Y [ mm]	Weight approx. [ kg]
R7015R-B1	15	101	73	44	10	80	4 x 11	55	230	90	1.8
R7020R-B1	20	112	80	46	10	90	4 x 11	65	235	95	2.4
R7025R-B2	25	132	92	46	15	100	4 x 11	75	235	100	2.5
R7032R-B3	32	143	102.5	50.5	12	120	4 x 14	90	240	105	3.4
R7040R-B3	40	151	105	50.5	12	130	4 x 14	100	240	110	4
R7050R-B3	50	165	121	56	12	140	4 x 14	110	245	115	5.6

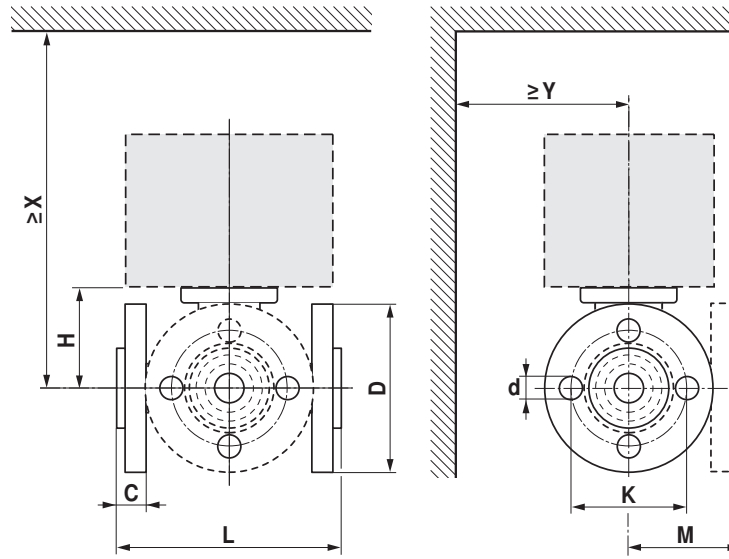
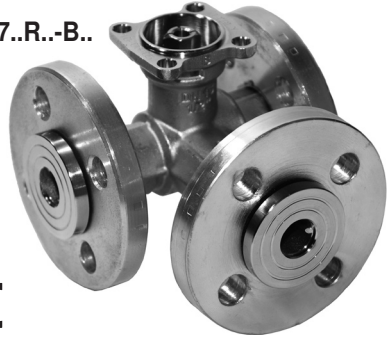
### Further documentation

- Overview Valve-actuator combinations
- Data sheets for actuators
- Installation instructions for actuators and/or ball valves
- General notes for project planning

R6..R..-B..



R7..R..-B..



71332-00001.B



t -10 ... +100°C		p <sub>s</sub> 600 kPa		100°C																							
		DN	mm								TR..		LR..A		NR..A		SR..A		TRF..		LRF..		NRF..A		SRF..A		
		mm	L	H	M	D	C	K	d	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y		
R6015R..-B1	R7015R..-B1	15	101.5	45	73	80	15	55	4 x 11	185	75	195	75	230	80	230	80	190	80	200	90	220	90	220	90		
R6020R..-B1	R7020R..-B1	20	112	47.5	79	90	15	65	4 x 11	185	75	200	75	235	80	235	80	190	80	205	90	225	90	225	90		
R6025R..-B2	R7025R..-B2	25	132	47.5	92	100	20	75	4 x 11			200	75	235	80	235	80			205	90	225	90	225	90		
R6032R..-B3	R7032R..-B3	32	143.5	52	102.5	120	17	90	4 x 14					240	80	240	80					230	90	230	90		
R6040R..-B3	R7040R..-B3	40	149.5	52	105	130	18	100	4 x 14					240	80	240	80					230	90	230	90		
R6050R..-B3	R7050R..-B3	50	165	58	121	140	18	110	4 x 14							245	80							235	90		

