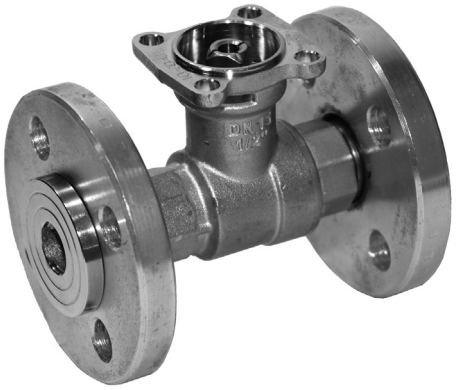
BELIMO

Technical data sheet R6..Rxx-B..

Characterised control valve, 2-way, Flange, PN 6

- **For open and closed cold and warm water systems**
- **For modulating water-side control of air handling units and heating systems**
- **Air bubble tight**



Type overview

Type	kvs [m³/h]	DN [ ]	PN [ ]	n(gl) [ ]	Sv min. [ ]
R6015RP63-B1	0.63	15	6	3.2	50
R6015R1-B1	1	15	6	3.2	50
R6015R1P6-B1	1.6	15	6	3.2	50
R6015R2P5-B1	2.5	15	6	3.2	50
R6015R4-B1	4	15	6	3.2	100
R6020R6P3-B1	6.3	20	6	3.2	100
R6025R10-B2	10	25	6	3.2	100
R6032R16-B3	16	32	6	3.2	100
R6040R25-B3	25	40	6	3.2	100
R6050R40-B3	40	50	6	3.2	100

Technical data

Functional data	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 characteristic	Equal percentage (VDI/VDE 2178), optimised in the opening range
	Leakage rate	Leakage rate A, air-bubble-tight (EN 12266-1)
	Pipe connectors	Flange PN 6 according to EN 1092-1
	Angle of rotation	90° (Operating range 15...90°)
	Installation position	Upright to horizontal (in relation to the stem)
	Maintenance	Maintenance-free
Materials	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)
	Characterising disc	TEFZEL
	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.

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 characterised control valve is adjusted by a rotary actuator. The actuator is controlled by a commercially available modulating or 3-point control system and moves the ball of the valve – the throttling device – to the position dictated by the positioning signal. Open the characterised control valve counterclockwise and close it clockwise.

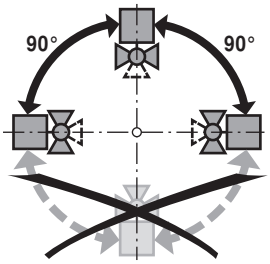
Flow characteristic

Equal percentage flow control is ensured by the integrated characterising disc.

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

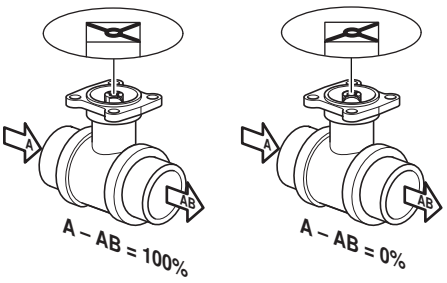
The water quality requirements specified in VDI 2035 must be adhered to.
Belimo valves are regulating devices. For the valves to function correctly in the long term, they must be kept free from particle debris (e.g. welding beads during installation work).
The installation of suitable strainer is recommended.

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.

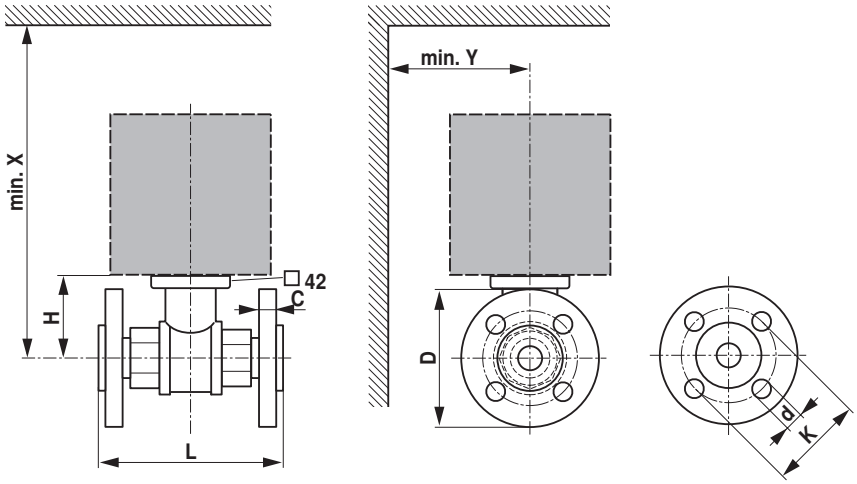
Flow direction

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]	H [mm]	C [mm]	D [mm]	d [mm]	K [mm]	X [mm]	Y [mm]	Weight approx. [kg]
R6015RP63-B1	15	101	35	10	80	4 x 11	55	230	90	1.3
R6015R1-B1	15	101	35	10	80	4 x 11	55	230	90	1.3
R6015R1P6-B1	15	101	35	10	80	4 x 11	55	230	90	1.3
R6015R2P5-B1	15	101	44	10	80	4 x 11	55	230	90	1.3
R6015R4-B1	15	101	44	10	80	4 x 11	55	230	90	1.3
R6020R6P3-B1	20	112	46	10	90	4 x 11	65	235	95	1.7
R6025R10-B2	25	132	46	15	100	4 x 11	75	235	100	1.7
R6032R16-B3	32	143	50.5	12	120	4 x 14	90	240	105	2.3
R6040R25-B3	40	151	50.5	12	130	4 x 14	100	240	110	2.7
R6050R40-B3	50	165	56	12	140	4 x 14	110	245	115	3.7

Further documentation

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

BELIMO

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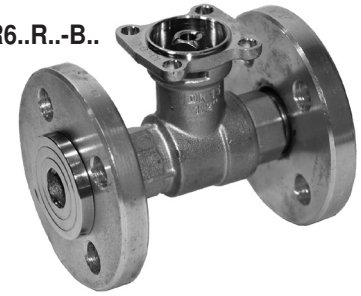

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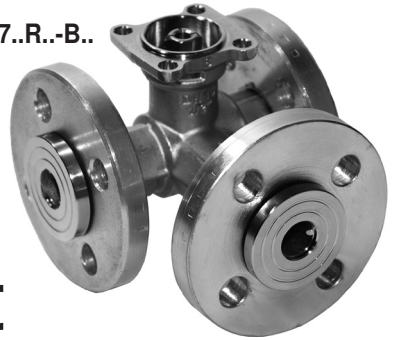

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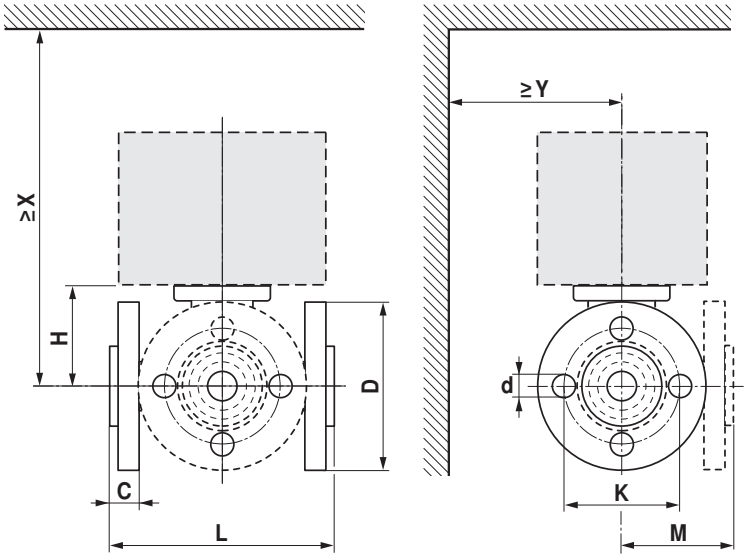
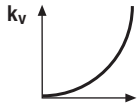
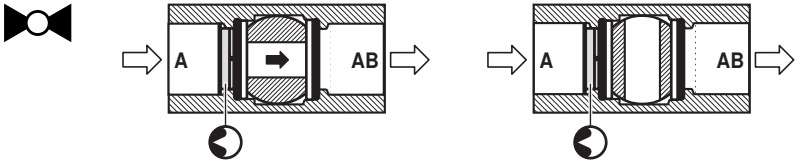


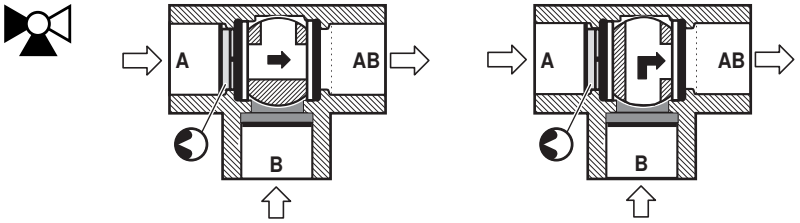
t	–10 ... +100°C
p_s	600 kPa

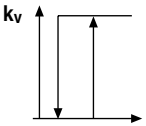
		DN	mm							100°C													
										TR..		LR..A		NR..A		SR..A		TRF..		LRF..		NRF..A		SRF..A	
		mm	L	H	M	D	C	K	d	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
R6015R..-B1	R7015R..-B1	15	101.5	45	73	80	15	55	4 x 11	185	75	195	75	230	80	230	80	190	80	200	90	220	90	220	90
R6020R..-B1	R7020R..-B1	20	112	47.5	79	90	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



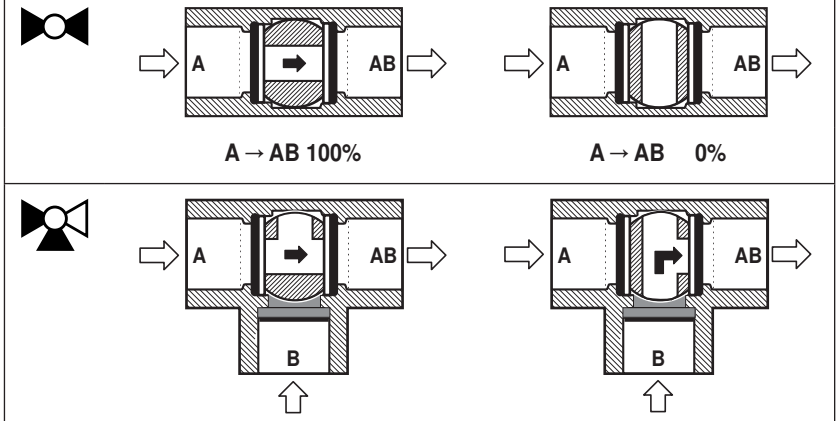
Δp_{vmax} <350 kPa

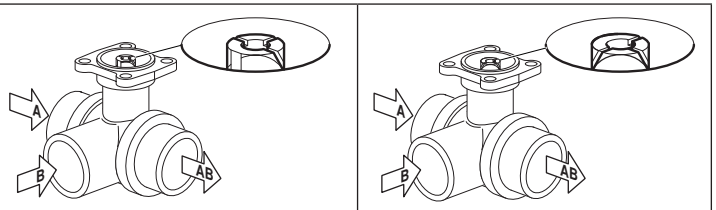






Δp_{vmax} <1000 kPa





	A → AB 100%	A → AB 0%
	B → AB 0%	B → AB 100%