

Change-over ball valve, 3-way, Internal thread

- For open and 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


Type overview

Type	kvs [m ³ /h]	DN []	Rp ["]	PN []
R3015-BL1	5.5	15	1/2	16
R3020-BL2	11	20	3/4	16
R3025-BL2	10	25	1	16
R3032-BL2	9	32	1 1/4	16
R3032-BL3	15	32	1 1/4	16
R3040-BL3	14	40	1 1/2	16
R3040-BL4	47	40	1 1/2	16
R3050-BL3	24	50	2	16
R3050-BL4	75	50	2	16

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	1600 kPa
	Closing pressure Δps	500 kPa
	Differential pressure Δpmax	350 kPa
	Differential pressure note	200 kPa for low-noise operation
	Leakage rate	Leakage rate A, air-bubble-tight (EN 12266-1)
	Pipe connectors	Internal thread according to ISO 7-1
	Angle of rotation	90°
	Installation position	Upright to horizontal (in relation to the stem)
	Maintenance	Maintenance-free
	Materials	Housing
Closing element		Chrome-plated brass
Stem		Nickel-plated brass
Stem seal		O-ring EPDM
Valve seat		PTFE, O-ring EPDM

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

Product features

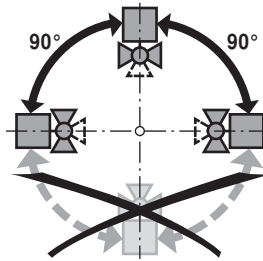
Mode of operation The change-over ball valve is adjusted by a rotary actuator. The rotary actuator is connected by an open-close signal.

Accessories

	Description	Type
Mechanical accessories	Pipe connector to ballvalves DN 15 Rp 1/2"	ZR2315
	Pipe connector to ballvalves DN 20 Rp 3/4"	ZR2320
	Pipe connector to ballvalves DN 25 Rp 1"	ZR2325
	Pipe connector to ballvalves DN 32 Rp 1 1/4"	ZR2332
	Pipe connector to ballvalves DN 40 Rp 1 1/2"	ZR2340
	Pipe connector to ballvalves DN 50 Rp 2"	ZR2350

Installation notes

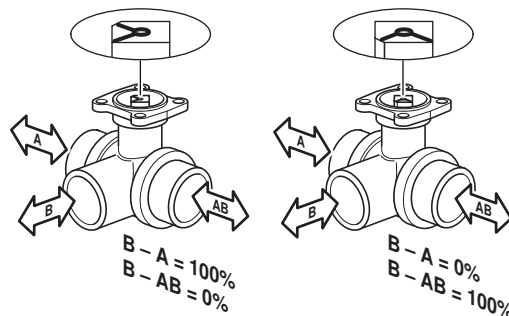
Recommended installation positions The ball valve can be installed upright to horizontal. The ball valve may not be installed in a hanging position, i.e. with the stem pointing downwards.



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.

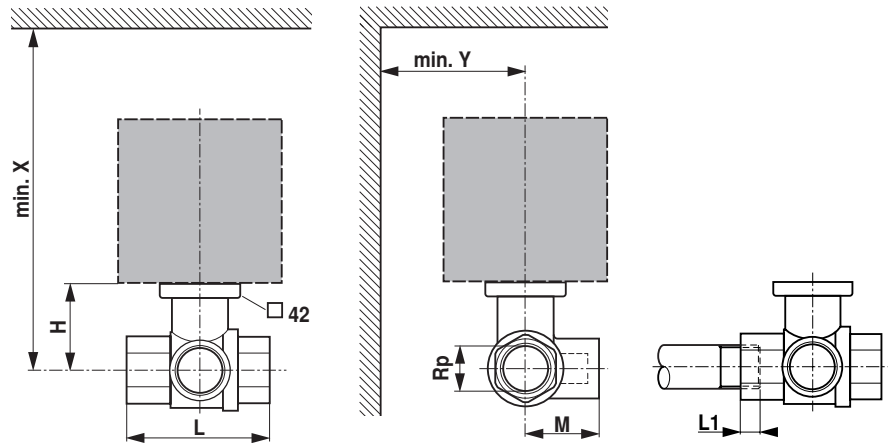
Maintenance Ball valves and rotary actuators are maintenance-free. Before any kind of service work is carried out on the actuator, it is essential to isolate the rotary actuator from the power supply (by unplugging the electrical cable). Any pumps in the part of the piping system concerned must also 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 Please also ensure that the balls are in the correct position (marking on the spindle). Normally, the port designation AB is the quantity constant with 3-way valves. In the case of the BL versions, port B is designated the quantity constant.



Dimensions / Weight

Dimensional drawings



L1: Maximum screwing depth.

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 ["]	L [mm]	L1 [mm]	M [mm]	H [mm]	X [mm]	Y [mm]	Weight approx. [kg]
R3015-BL1	15	1/2	67	13	36	44	230	90	0.45
R3020-BL2	20	3/4	78	14	41.5	46	235	90	0.6
R3025-BL2	25	1	87	16	45	46	235	90	0.9
R3032-BL2	32	1 1/4	105	19	55.5	46	240	90	1.2
R3032-BL3	32	1 1/4	105	19	55.5	50.5	240	90	1.3
R3040-BL3	40	1 1/2	111	19	56	50.5	240	90	1.5
R3040-BL4	40	1 1/2	122	19	66.5	62	250	90	1.8
R3050-BL3	50	2	125	22	68	56	245	90	2.4
R3050-BL4	50	2	142	22	79	68	262	90	2.8

Further documentation

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

