

PI flow limiter valve, 2-way, Internal thread

- For closed cold water systems
- For water-side on/off control of fan coil and cooling ceilings


Type overview

Type	DN []	Rp ["]	Vnom [l/s]	Vnom [l/h]	PN []
C215QFL-C	15	1/2	0.08	290	25
C215QFL-D	15	1/2	0.13	470	25
C215QFL-E	15	1/2	0.18	650	25
C215QFL-F	15	1/2	0.36	1300	25
C220QFL-F6	20	3/4	0.33	1200	25
C220QFL-G0	20	3/4	0.42	1500	25
C220QFL-G	20	3/4	0.52	1900	25
C220QFL-H0	20	3/4	0.65	2350	25
C220QFL-H	20	3/4	0.81	2900	25
R225FL-J	25	1	1.00	3600	25

Technical data

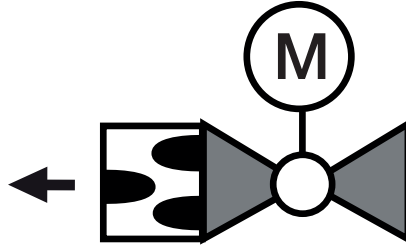
Functional data	Media	Cold water
	Medium temperature	2...60°C
	Pressure value	20...280 kPa
	Permissible pressure ps	1600 kPa
	Closing pressure Δps	520 kPa
	Pressure stability	±5% (with a pressure value of 100...280 kPa)
	Leakage rate	Leakage rate A, tight (EN 12266-1)
	Flow setting	see Installation instructions
	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		Brass (DN 15...20) Nickel-plated brass (DN 25)
Stem seal		O-ring EPDM
Ball seat		PTFE, O-ring EPDM
Terms		Abbreviations

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 during installation.
- The valve does not contain any parts that can be replaced or repaired by the user.
- When back flushing the valve, the differential pressure should not exceed 150 kPa.
- 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 open-close ball valve is adjusted by a rotary actuator. The actuator is connected by an open-close signal. The ball valve opens counterclockwise and closes clockwise.
Constant flow volume	With a differential pressure of 20...280 kPa, a constant flow volume is achieved thanks to the integrated flow limiter. Even with pressure variations, the flow rate remains constant when open to an angle of 90° and ensures a steady control.



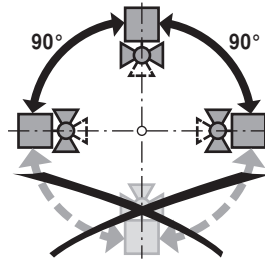
Accessories

	Description	Type
Mechanical accessories	Pipe connector to ball valve DN 15 Rp 1/2"	ZR2315
	Pipe connector to ball valve DN 20 Rp 3/4"	ZR2320
	Spindle extension CQ, for cooling applications only	ZCQ-E
	Pipe connector to ball valve DN 25 Rp 1"	ZR2325

ZCQ-E fits only on valve C2..QFL-.. (DN15/20). For valve R225FL-.. no spindle extension is needed.

Installation notes

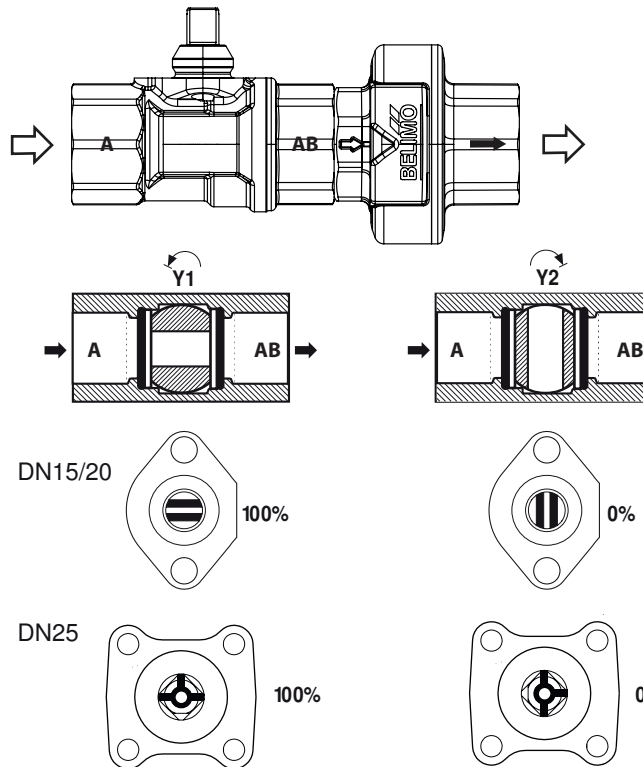
Recommended installation positions	The ball valve can be installed upright to horizontal. The ball valve may not be installed in a hanging position, i.e. with the stem pointing downwards.
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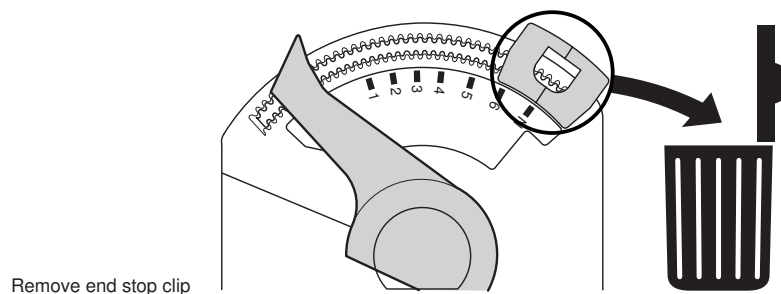
Mounting position in the return	Installation in the return is recommended.
Water quality requirements	The water quality requirements specified in VDI 2035 must be adhered to. Belimo valves are regulating devices. For the valves to function correctly in the long term, they must be kept free from particle debris (e.g. welding beads during installation work). The installation of suitable strainer is recommended.
Maintenance	<p>Ball valves and rotary actuators are maintenance-free.</p> <p>Before any service work on the final controlling device is carried out, it is essential to isolate the rotary actuator from the power supply (by unplugging the electrical cable 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).</p> <p>The system must not be returned to service until the ball valve and the rotary actuator have been correctly reassembled in accordance with the instructions and the pipeline has been refilled by professionally trained personnel.</p>

Installation notes

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).

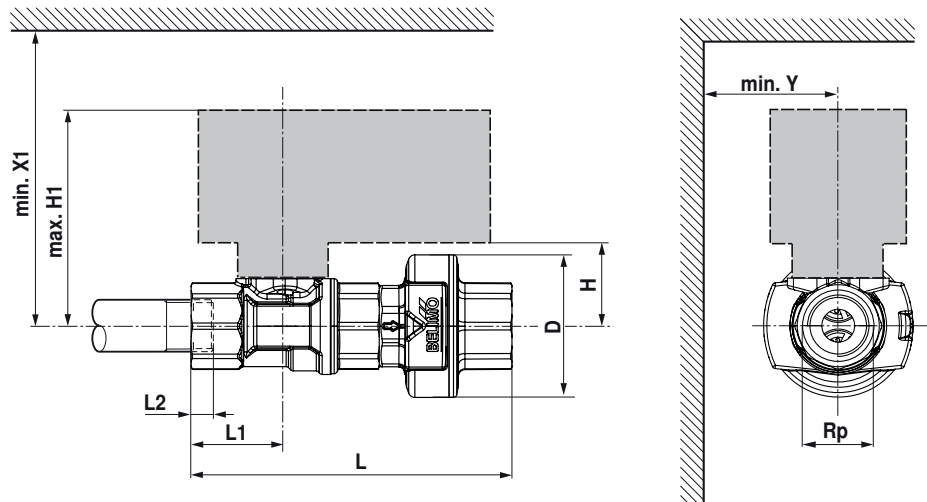


Flow setting At the CQ-actuator the end stop clip has to be removed. This in order to get the angle of rotation of 90°, which is needed for the open-close functionality.



Dimensions / Weight

Dimensional drawings



L2: Maximum screwing depth.

Type	DN []	Rp ["]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	D [mm]	Y [mm]	X1 [mm]	Weight
C215QFL-C	15	1/2	100	29	13	24.5	69	44	35	110	0.40 kg
C215QFL-D	15	1/2	100	29	13	24.5	69	44	35	110	0.40 kg
C215QFL-E	15	1/2	100	29	13	24.5	69	44	35	110	0.40 kg
C215QFL-F	15	1/2	100	29	13	24.5	69	44	35	110	0.40 kg
C220QFL-F6	20	3/4	111	35	14	26.5	71	46	35	110	0.50 kg
C220QFL-G0	20	3/4	111	35	14	26.5	71	46	35	110	0.50 kg
C220QFL-G	20	3/4	111	35	14	26.5	71	46	35	110	0.50 kg
C220QFL-H0	20	3/4	111	35	14	26.5	71	46	35	110	0.50 kg
C220QFL-H	20	3/4	111	35	14	26.5	71	46	35	110	0.50 kg
R225FL-J	25	1	128	44	16	46	130	49	75	200	0.80 kg