

**Zone valve, 2-way, Internal thread**

- For closed cold and warm water systems
- For water-side modulating control or shut-off functions in heating and air handling systems
- Snap-assembly of the actuator
- kv setting variable


**Type overview**

Type	DN [ ]	Rp ["]	kvs [ m <sup>3</sup> /h]	PN [ ]
C215Q	15	1/2	4.8	16
C220Q-K	20	3/4	8	16

**Technical data**

<b>Functional data</b>	Media	Cold and warm water, water with glycol up to max. 50% vol.
	Medium temperature	2...90 °C
	Permissible pressure ps	1600 kPa
	Closing pressure Δps	350 kPa
	Differential pressure Δpmax	280 kPa
	Differential pressure note	50 kPa for low-noise operation
	Flow characteristic	equal percentage, optimised in the opening range
	Leakage rate	Leakage rate A, tight (EN 12266-1)
	Flow setting	see Installation instructions
	Pipe connectors	Internal thread according to ISO 7-1
	Angle of rotation	90° (Operating range 15...90°)
	Installation position	Upright to horizontal (in relation to the stem)
	Maintenance	Maintenance-free
	<b>Materials</b>	Housing
Closing element		Chrome-plated brass
Stem		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

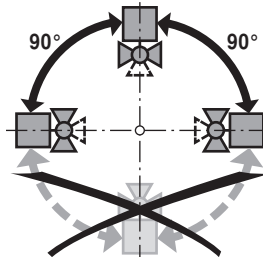
- Principle of operation** The ball valve is operated by a rotary actuator. The rotary actuator is controlled by an open-close signal or by a standard modulating or 3-point control system and moves the ball of the valve – the throttling device – to the position dictated by the control signal. Open the ball valve counterclockwise and close it clockwise.
- Simple direct mounting** Tool-free snap-assembly  
The actuator can be plugged to the valve with hand pressure (Caution! vertical movement only). Pins must match the holes on the flange.  
The mounting orientation in relation to the valve can be selected in 180° increments. (possible 2 x)

## Accessories

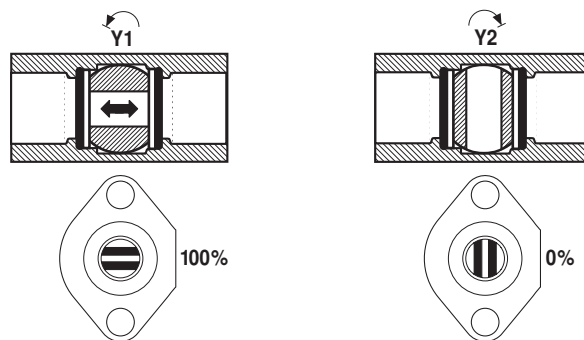
	Description	Type
Mechanical accessories	Spindle extension CQ	ZCQ-E

## 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.



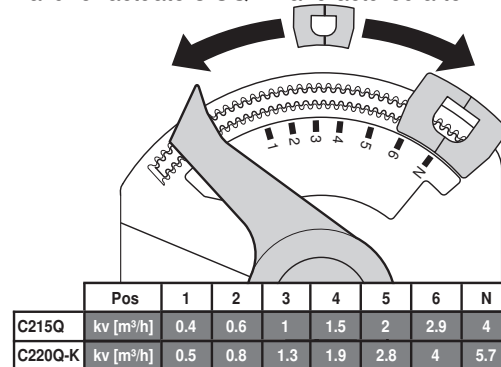
- Water quality requirements** The water quality requirements specified in VDI 2035 must be adhered to. Belimo valves are regulating devices. For the valves to function correctly in the long term, they must be kept free from particle debris (e.g. welding beads during installation work).  
The installation 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** Flow possible in both directions.



## Installation notes

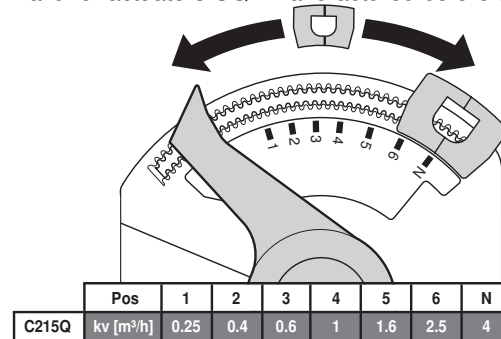
**kv setting** The angle of rotation of the actuator can be changed by clip in 2.5° increments. This is used to set the kv value (maximum flow rate of the valve). Remove end stop clip and place at desired position.

Valid for actuators CQ.. manufactured after 1.1.2015



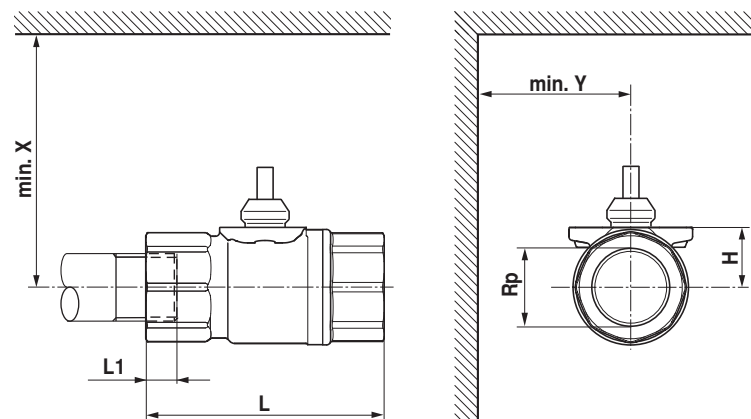
without end stop clip, kvs see type overview

Valid for actuators CQ.. manufactured before 31.12.2014



## 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	L1	H	X	Y	Weight approx.
	[ ]	["]	[ mm]	[ mm]	[ mm]	[ mm]	[ mm]	[ kg]
C215Q	15	1/2	58	13	14.5	110	35	0.17
C220Q-K	20	3/4	70	14	16.5	110	35	0.24

## Further documentation

- Overview Valve-actuator combinations
- Data sheets for actuators CQ..
- Installation instruction for zone valves and actuators
- General notes for project planning