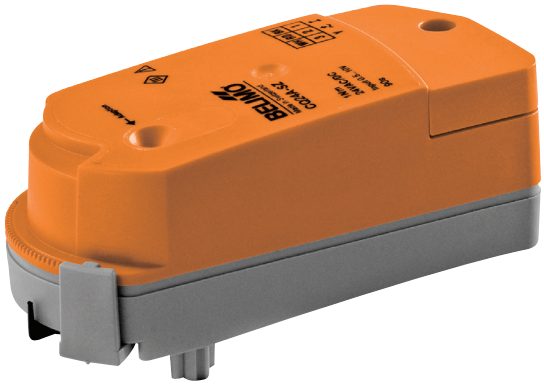
BELIMO

Technical data sheet CQ24A-SZ-T

Rotary actuator for zone valves
- **Nominal voltage AC/DC 24 V**
- **Control Modulating**
- **Snap-assembly of the actuator**
- **Flow setting variable**



Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 21.6...28.8 V
	Power consumption in operation	0.3 W
	Power consumption in rest position	0.2 W
	Power consumption for wire sizing	0.6 VA
	Connection supply / control	Terminals 2.5 mm² (cable Ø 6.3...6.8 mm, 3-wire)
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	1 Nm
	Positioning signal Y	DC 0...10 V
	Positioning signal Y note	Input impedance 100 kΩ
	Operating range Y	DC 0.5...10 V
	Manual override	With actuator (clicked out) adjustable
	Actuating time	75 s / 90°
	Sound power level motor	35 dB(A)
	Position indication	Yes
	Flow setting	see product features
Safety	Protection class IEC/EN	III Safety extra-low voltage
	Degree of protection IEC/EN	IP40
	EMC	CE according to 2004/108/EC
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
	Mode of operation	Type 1
	Rated impulse voltage supply / control	0.8 kV
	Control pollution degree	3
	Ambient temperature	5...40°C
	Non-operating temperature	-7...50°C
	Ambient humidity	95% r.h., non-condensing
	Maintenance	Maintenance-free
Weight	Weight approx.	0.15 kg

Safety notes

- This device 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 device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product features

Mode of operation
The actuator is connected with a standard modulating signal of DC 0...10V and drives to the position defined by the positioning signal.

Simple direct mounting
Tool-free snap assembly.
The actuator can be plugged on the valve by hand (Caution! Just vertical movements). Pins must match the holes on the flange.
The mounting orientation in relation to the valve can be selected in 180° increments. (Possible two times)

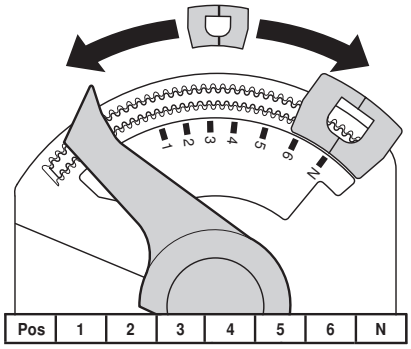
Manual override
Click out the actuator and rotate the valve stem with the help of the actuator.

High functional reliability
The actuator is overload protected, requires no limit switches in intermediate positions and automatically stops when the end stop is reached (at rest).

Adjustable angle of rotation
The angle of rotation of the actuator can be changed by clip in 2.5° increments. This is used to set the maximum flow rate of the valve.

kv setting
Adjustable kv-values (C2..Q- ..) / V̇max-values (C2..QP (T) - ..) are given in the respective zone valve data sheets.

2-way valve: Remove end stop clip and place at desired position.
3-way valve: Remove end stop clip (change-over application).



Accessories

Mechanical accessories

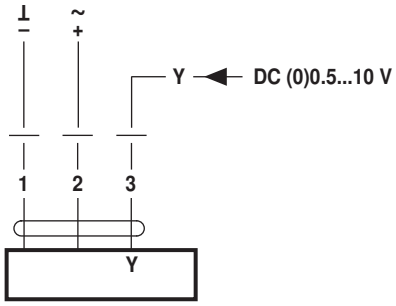
Description	Type
Spindle extension CQ, for cooling applications only	ZCQ-E
Housing cover white	ZCQ-W

Electrical installation

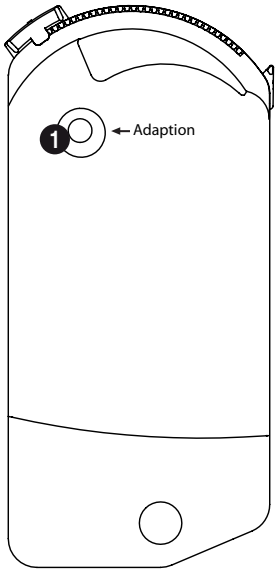
Notes
- Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

AC/DC 24 V, modulating



Operating controls and indicators



1 Push-button

Press button: Triggers angle of rotation adaptation, followed by standard mode

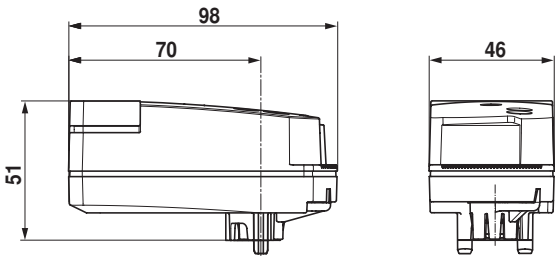
Installation notes

Maintenance

Ball valves and rotary actuators are maintenance-free.
In the event of any service work on the final controlling device, 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.

Dimensions [mm]

Dimensional drawings



Further documentation

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