BELIMO

Technical data sheet TRY24-SR

Rotary actuator for 2-way and 3-way characterised control valves
- **Torque 2 Nm**
- **Nominal voltage AC/DC 24 V**
- **Control modulating DC 0 ... 10 V**

Technical data

Electrical data	Nominal voltage		AC 24 V, 50/60 Hz DC 24 V
	Nominal voltage range		AC 19.2 ... 28.8 V DC 21.6 ... 28.8 V
	Power consumption	Operation For wire sizing	0.5 W @ nominal torque 1 VA
	Connection		Cable 1 m, 3 x 0.75 mm^2
	Parallel operation		Yes (note performance data for supply!)
Functional data	Torque (nominal torque)		Min. 2 Nm @ nominal voltage
	Control	Control signal Y Operating range	DC 0 ... 10 V, Input impedance 100 kΩ DC 2 ... 10 V for 0 ... 100% ◁ (0 ... 90° ◁)
	Manual override		Temporary gear latch
	Running time		35 s / 90° ◁
	Noise level		Max. 45 dB (A)
	Position indication		Mechanical
Safety	Protection class		**III** Extra-low voltage
	Degree of protection		IP40
	EMC		CE acc. to 89/336/EEC
	Mode of operation		Type 1 (acc. to EN 60730-1)
	Rated impulse voltage		0.8 kV (acc. to EN 60730-1)
	Control pollution degree		3 (acc. to EN 60730-1)
	Ambient temperature		–7 ... +50°C
	Medium temperature		+5 ... +100°C (in ball valve)
	Medium temperature with R4..DK ball valve		+5 ... +130°C (in ball valve)
	Non-operating temperature		–40 ... +80°C
	Ambient humidity range		95% r.h., non-condensating (EN 60730-1)
	Maintenance		Maintenance-free
Dimensions / Weight	Dimensions		See «Dimensions» on page 2
	Weight		Approx. 400 g (without ball valve)

Safety notes

⚠

- **The actuator 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.**
- **It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.**
- **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 is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.**
- **The switch for changing the direction of rotation may only be operated by trained personnel. The direction of rotation may not be changed with frost protection circuit.**

Product features

Mode of operation

The actuator is controlled with a standard modulating signal of DC 0 ... 10 V and travels to the position defined by the control signal.

Simple direct mounting

Straightforward direct mounting on the ball valve with only one screw. The mounting position in relation to the ball valve can be selected in 90° steps.

Manual override

Manual operation with lever possible (the gearing is disengaged for as long as the self-resetting lever is pressed).

High functional reliability

The actuator is overload-proof and automatically stops when the end stop is reached.
The actuator switches off for seven seconds in the case of blocking, then attempts to restart. If the blocked condition persists, the actuator attempts to restart once every two minutes a total of 15 times and subsequently once every two hours.

Combination valve actuators

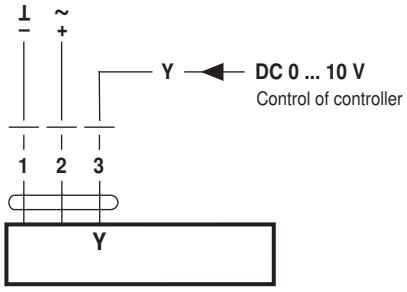
Refer to the valve documentation for suitable valves, their permitted media temperatures and closing pressures.

Electrical installation

Wiring diagrams

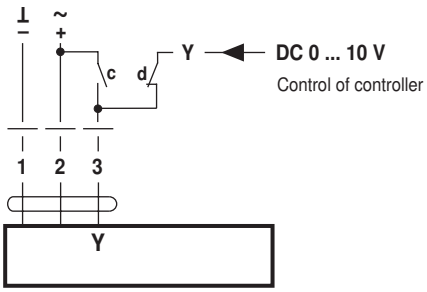
Information
- Connect via safety isolation transformer.
- Parallel connection of other actuators possible. Note performance data for supply.

Standard



Direction of rotation R (standard) with switch position on the right

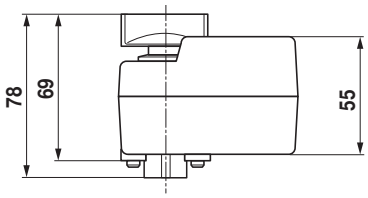
Override control (frost protection circuit)

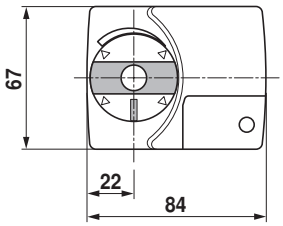


c	d	Rotary actuator	Rotary valve
⊥	–	1	A – AB = 100%
–	–	0	A – AB = 0%

Dimensions [mm]

Dimensional drawings



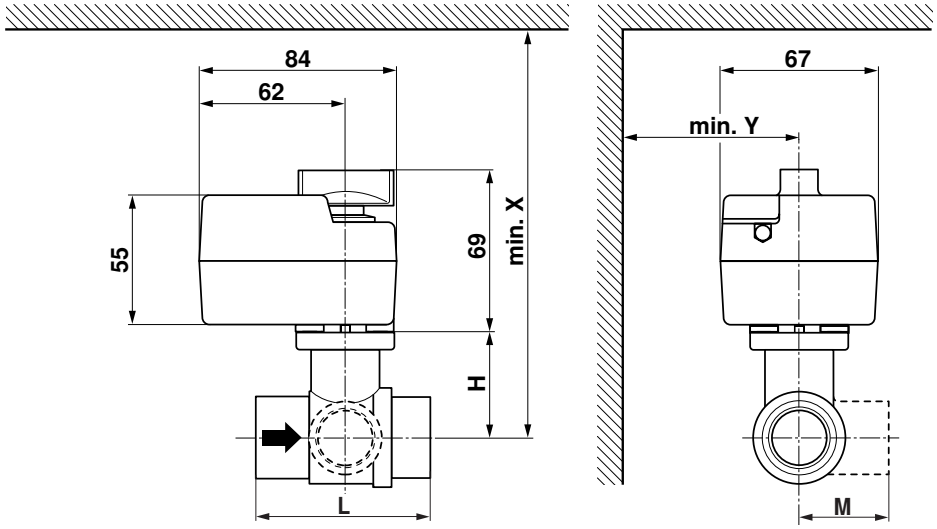


Further documentation

- The complete range of water solutions
- Data sheets for ball valves
- Installation instructions for actuators or ball valves, respectively
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance, etc.)

BELIMO

TRD24-SR (-T)
TR24-SR (-T)
TRY24-SR



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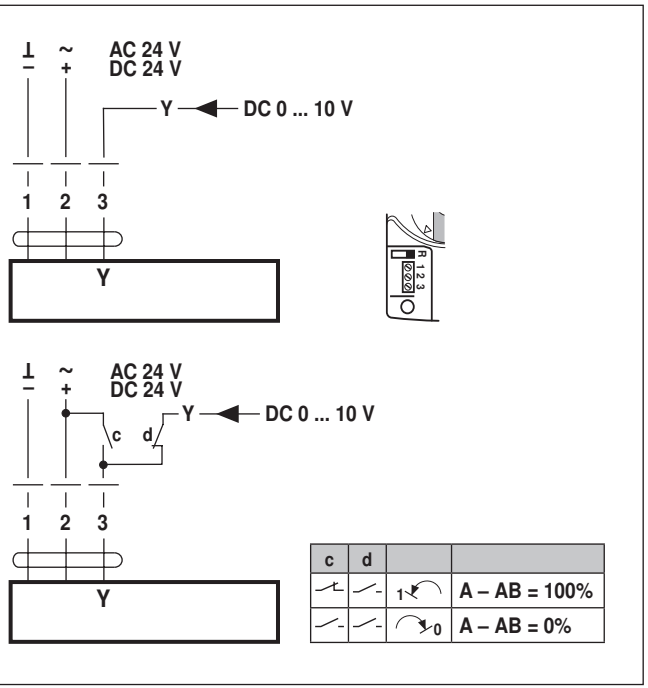
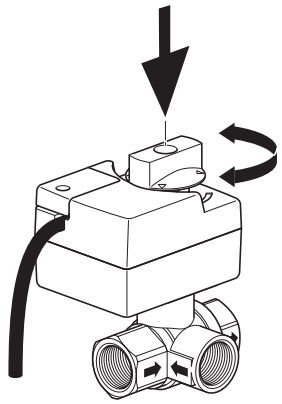
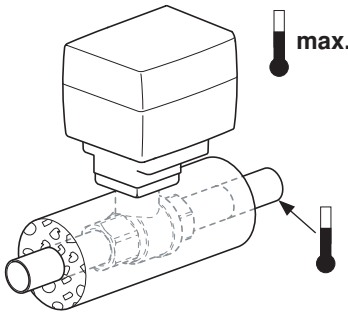
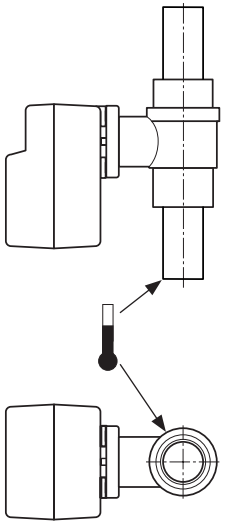


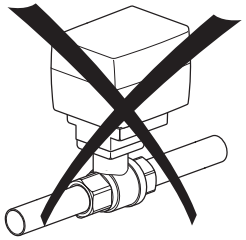
c	d		
	-	1	A – AB = 100%
-		0	A – AB = 0%

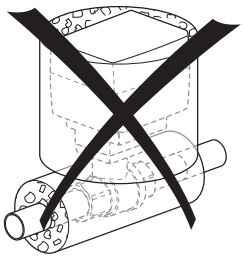
		°C	DN		Rp	G	PN	mm						
											TRD24-SR(-T)		TR(Y)24-SR(-T)	
		max.	mm	”	”	”		L	H	M	X	Y	X	Y
R2..K	R3..K	100	10	3/8	3/8			52	35	28	174	75		
R4..K	R5..K	100	10	3/8		3/4		69	31.5	34	171	75		
R2..	R3..	100	15	1/2	1/2			67	45	39			184	75
R4..	R5..	100	15	1/2		1		74	44	38			183	75
R6..R	R7..R	100	15	1/2			6	101.5	45	73			184	80
R4..DK		130	10	3/8		3/4		65	38	13			177	75











	R2..K	R3..K	max. 100°C
	R4..K	R5..K	max. 100°C
	R2..	R3..	max. 100°C
	R4..	R5..	max. 100°C
	R6..R	R7..R	max. 100°C
	R4..DK		max. 130°C