BELIMO

Rotary actuator for ball valves

Technical data sheet HR24-SR

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 19.2...28.8 V
	Power consumption in operation	1.5 W
	Power consumption for wire sizing	2.5 VA
	Connection supply / control	Cable 1 m, 4 x 0.75 mm²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	10 Nm
	Operating range Y	2...10 V
	Operating range Y note	Operating range selectable 0...10 V or 2...10 V
	Position feedback U	2...10 V
	Position accuracy	±5%
	Manual override	temporary and permanent gear train disengagement with rotary knob on the housing
	Running time motor	140 s / 90°
	Duty cycle value	75% (= active time 140 s / operating time 187 s)
	Sound power level, motor	37 dB(A)
	Position indication	Reversible scale plate
	Service life	Full cycles: 60'000
Safety data	Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)
	Degree of protection IEC/EN	IP40
	EMC	CE according to 2014/30/EU
	Type of action	Type 1
	Rated impulse voltage supply / control	0.8 kV
	Pollution degree	3
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	0...50°C [32...122°F]
	Storage temperature	-30...80°C [-22...176°F]
	Servicing	maintenance-free
Weight	Weight	0.48 kg
Housing colours	Housing cover	orange
	Housing base	orange

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.
- The actuator is to be protected against moisture. It is not suitable for outdoor applications.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The switch for changing the direction of rotation and operating range may only be adjusted by authorised specialists. The direction of rotation may not be changed when frost protection control is applied.
- The device 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 control signal of 0...10 V and drives to the position defined by the control signal.

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

Manual override
Manual override with lever possible. Temporary gear train disengagement by pushing the rotary knob. Permanent disengagement by pushing and simultaneous rotating the rotary knob clockwise 90°.

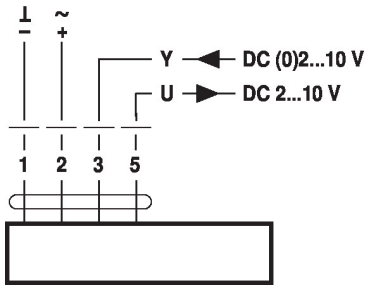
High functional reliability
The actuator is overload protected and automatically stops when the end stop is reached.
The actuator switches off for seven seconds in the case of blocking, then attempts to restart. If the blocked condition persists, the actuator attempts to restart once every two minutes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

Electrical installation

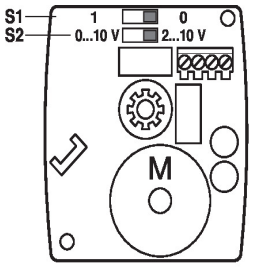
Supply from isolating transformer.

Wiring diagrams

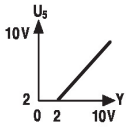
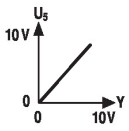
AC/DC 24 V, modulating



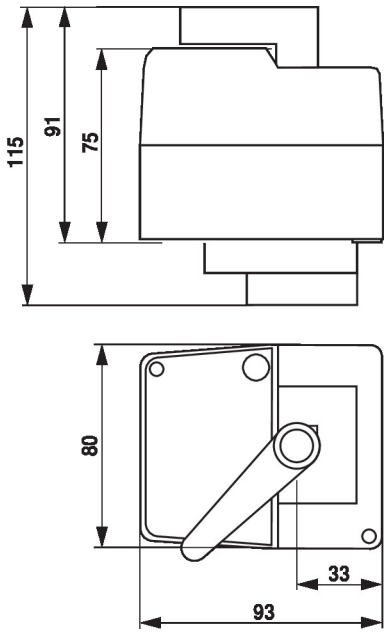
Operating controls and indicators



S1		
0 *	1 0	Y = 0%
1	1 0	Y = 0%

S2	
2 ... 10 V *	
0 ... 10 V	

Dimensions



Further documentation

- Installation instructions for actuators and/or ball valves
- General notes for project planning