

Modulating rotary actuator for ball valves

- Nominal torque 5Nm
- Nominal voltage AC/DC 24V
- Control Modulating DC (0)2...10V
- Position feedback DC 2...10V


Technical data

Electrical data	Nominal voltage	AC/DC 24V	
	Nominal voltage frequency	50/60Hz	
	Nominal voltage range	AC 19.2...28.8V / DC 19.2...28.8V	
	Power consumption in operation	1.5W	
	Power consumption in rest position	0.4W	
	Power consumption for wire sizing	3VA	
	Connection supply / control	Cable 1m, 4 x 0.75mm ²	
	Parallel operation	Yes (note the performance data)	
	Functional data	Torque motor	Min. 5Nm
		Positioning signal Y	DC (0)2...10V
Positioning signal Y note		Input impedance 100kΩ	
Operating range Y		DC 2...10V	
Position feedback U		DC 2...10V	
Position feedback U note		Max. 1mA	
Position accuracy		±5%	
Manual override		Gear disengagement with push-button, can be locked	
Running time motor		90s / 90°	
Sound power level motor max.		35dB(A)	
Position indication	Mechanically, pluggable		
Safety	Protection class IEC/EN	III Safety extra-low voltage	
	Protection class UL	UL Class 2 Supply	
	Degree of protection IEC/EN	IP54	
	Degree of protection NEMA/UL	NEMA 2, UL Enclosure Type 2	
	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	0.8kV	
	Control pollution degree	3	
	Ambient temperature	-30...50°C	
Non-operating temperature	-40...80°C		
Ambient humidity	95% r.h., non-condensing		
Maintenance	Maintenance-free		
Weight	Weight	Approx. 0.55kg	

Safety notes


- This device 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 switch for changing the direction of rotation may only be operated by authorised specialists. The direction of rotation must not in particular be reversed in a frost protection circuit.
- 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 cables must not be removed from the device.
- 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.

Product features

Mode of operation	The actuator is connected with a standard modulating signal of DC (0)2...10V and travels to the position defined by the positioning signal. Measuring voltage U serves for the electrical display of the valve position 0...100% and as slave control signal for other actuators.
Simple direct mounting	Straightforward direct mounting on the ball valve with only one central screw. The assembly tool is integrated in the plug-in position indication. The mounting position in relation to the ball valve can be selected in 90° steps.
Manual override	Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).
High functional reliability	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.
Adjustable angle of rotation	Adjustable angle of rotation with mechanical end stops.

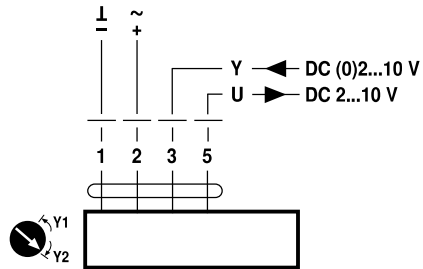
Accessories

Electrical accessories	Description	Type
	Auxiliary switch, add-on, 1 x SPDT	S1A
	Auxiliary switch, add-on, 2 x SPDT	S2A
	Feedback potentiometer 140 Ohm, add-on	P140A
	Feedback potentiometer 200 Ohm, add-on	P200A
	Feedback potentiometer 500 Ohm, add-on	P500A
	Feedback potentiometer 1 kOhm, add-on	P1000A
	Feedback potentiometer 2.8 kOhm, add-on	P2800A
	Feedback potentiometer 5 kOhm, add-on	P5000A
	Feedback potentiometer 10 kOhm, add-on	P10000A

Electrical installation

Notes

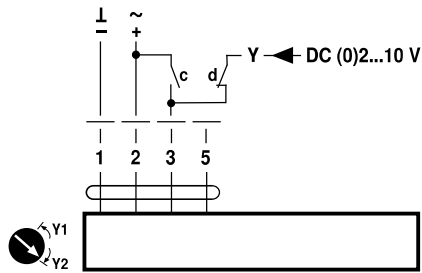
- Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Observe the performance data.
- Direction of rotation switch is covered. Factory setting: Direction of rotation Y2.

Wiring diagrams
AC/DC 24V, modulating


Cable colours:
 1 = black
 2 = red
 3 = white
 5 = orange

Electrical installation

Override control (frost protection circuit)



c	d	Y1 / Y2	
		Y1	A - AB = 100%
		Y2	A - AB = 0%
DC (0)2...10 V			

Cable colours:
 1 = black
 2 = red
 3 = white
 5 = orange

Dimensions [mm]

Dimensional drawings

