

Modulating rotary actuator with fail-safe for ball valves and butterfly valves

- Torque motor 20 Nm
- Nominal voltage AC/DC 24 V
- Control modulating 0.5...10 V
- Position feedback 0.5...10 V
- Deenergised open (NO)



Technical data

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Nominal voltage	AC/DC 24 V		
Nominal voltage frequency	50/60 Hz		
Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V		
Power consumption in operation	5.5 W		
Power consumption in rest position	3 W		
Power consumption for wire sizing	8.5 VA		
Connection supply / control	Cable 1 m, 4 x 0.75 mm ²		
Parallel operation	Yes (note the performance data)		

Functional data

Torque motor	20 Nm
Torque fail-safe	20 Nm
Operating range Y	0.510 V
Input Impedance	100 kΩ
Position feedback U	0.510 V
Position feedback U note	Max. 0.5 mA
Position accuracy	±5%
Direction of motion motor	Y = 0 (0 V = A – AB = 0%)
Direction of motion fail-safe	Deenergised NO, valve open (A – AB = 100%)
Manual override	by means of hand crank and locking switch
Running time motor	90 s / 90°
Running time fail-safe	<20 s @ -2050°C / <60 s @ -30°C
Sound power level, motor	45 dB(A)
Position indication	Mechanical
Service life	Min. 60'000 fail-safe positions

Safety data

Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)		
Power source UL	Class 2 Supply		
Degree of protection IEC/EN	IP54		
Degree of protection NEMA/UL	NEMA 2		
Enclosure	UL Enclosure Type 2		
EMC	CE according to 2014/30/EU		
Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14		
UL Approval	cULus according to UL60730-1A, UL60730-2-14		
	and CAN/CSA E60730-1		
	The UL marking on the actuator depends on		
	the production site, the device is UL-compliant		
	in any case		
Mode of operation	Type 1.AA		
Rated impulse voltage supply / control	0.8 kV		
Pollution degree	3		
Ambient humidity	Max. 95% RH, non-condensing		
Ambient temperature	-3050°C [-22122°F]		



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Safety data	Storage temperature	-4080°C [-40176°F]	
	Servicing	maintenance-free	
Mechanical data	Connection flange	F05	

Safety notes



Weight

Weight

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.

2.2 kg

- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or
 aggressive gases interfere directly with the device and that it is ensured that the ambient
 conditions remain within the thresholds according to the data sheet at any time.
- 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.
- · Cables must not be removed from the device.

Technical data sheet

• 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 0...10 V. The actuator moves the valve to the operating position at the same time as tensioning the return spring. The valve is turned

back to the fail-safe position by spring force when the supply voltage is interrupted.

Simple direct mounting Simple direct mounting on the rotary valve or butterfly valve with mounting flange. The

mounting orientation in relation to the fitting can be selected in 90° steps.

Manual override By using the hand crank the valve can be operated manually and engaged with the locking

switch at any position. Unlocking is carried out manually or automatically by applying the

operating voltage.

Adjustable angle of rotation Adjustable angle of rotation with mechanical end stops.

High functional reliability The actuator is overload protected, requires no limit switches and automatically stops when the

end stop is reached.

Electrical installation

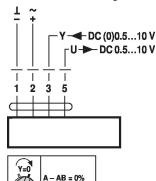


Supply from isolating transformer.

Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

AC/DC 24 V, modulating



Cable colours:

1 = black

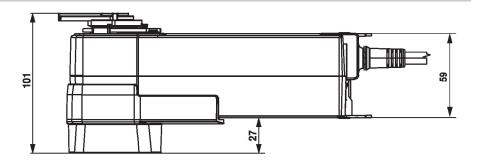
2 = red

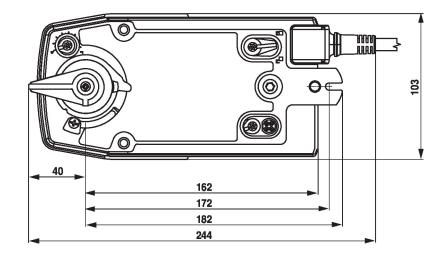
3 = white

5 = orange



Dimensions





Further documentation

- The complete product range for water applications
- Data sheets for rotary valves and butterfly valves
- Installation instructions for actuators and/or rotary valves and butterfly valves
- General notes for project planning