

Rotary actuator for ball valves

- Nominal torque 2Nm
- Nominal voltage AC/DC 24V
- Control modulating DC (0)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 21.6...28.8V
	Power consumption in operation	0.5W
	Power consumption for wire sizing	1VA
	Connection supply / control	Cable 1m, 3 x 0.75mm ²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 2Nm
	Positioning signal Y	DC (0)2...10V
	Positioning signal Y note	Input impedance 100kΩ
	Operating range Y	DC 2...10V
	Control operating range Y note	for 0...100% (0...90°)
	Manual override	Gear disengagement with push-button
	Running time motor	90s / 90°
	Sound power level motor max.	35dB(A)
	Position indication	Mechanical
	Safety	Protection class IEC/EN
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		0.8kV
Control pollution degree		3
Ambient temperature		-7...50°C
Non-operating temperature		-40...80°C
Ambient humidity		95% r.h., non-condensing
Maintenance		Maintenance-free
Weight	Weight	Approx. 0.4kg

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 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 authorised specialists. The direction of rotation must not in particular be reversed in a frost protection circuit.

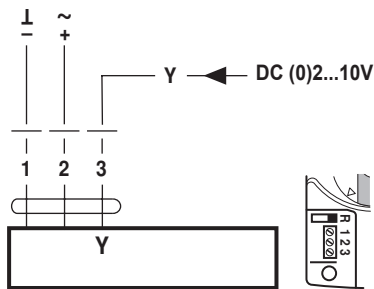
Product features

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.
Simple direct mounting	Simple direct mounting on the ball valve with only one screw. The mounting position in relation to the ball valve can be selected in 90° increments.
Manual override	Manual override possible with lever (the gearing is disengaged as long as the self-resetting lever is pressed).
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.
Combination valve/actuator	Refer to the valve documentation for suitable valves, their permitted medium temperatures and closing pressures.

Electrical installation

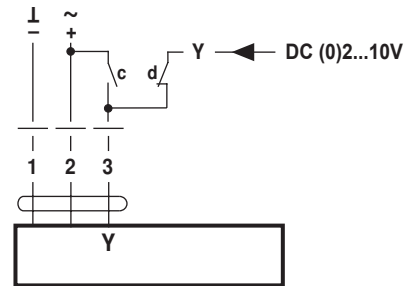
Notes

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

Wiring diagrams
AC/DC 24V, modulating


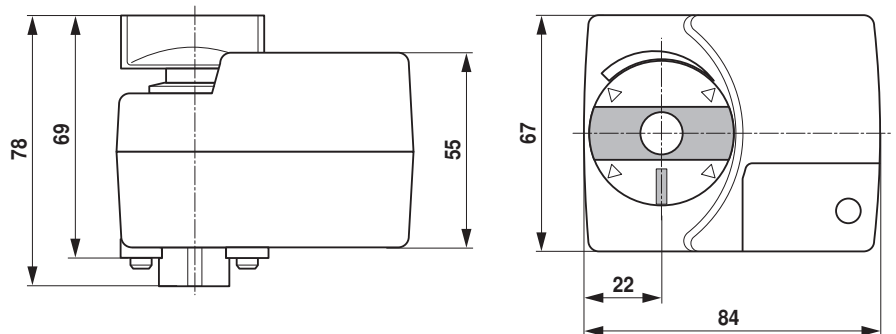
Cable colours:
1 = black
2 = red
3 = white

Direction of rotation R (standard)
when switch set to right position

AC/DC 24V, modulating, override control


c	d	Y		A - AB = 100%
			0	A - AB = 0%

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

Dimensions [mm]
Dimensional drawings


Rotary actuator for ball valves

- Nominal torque 2Nm
- Nominal voltage AC/DC 24V
- Control Open-close, 3-point


Technical data

Electrical data	Nominal voltage	AC/DC 24V
	Nominal voltage frequency	50/60Hz
	Nominal voltage range	AC 19.2...28.8V / DC 21.6...28.8V
	Power consumption in operation	0.5W
	Power consumption for wire sizing	0.5VA
	Connection supply / control	Cable 1m, 3 x 0.75mm ²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 2Nm
	Manual override	Gear disengagement with push-button
	Running time motor	100s / 90°
	Sound power level motor max.	35dB(A)
	Position indication	Mechanical
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	0.8kV
	Control pollution degree	3
	Ambient temperature	-7...50°C
	Non-operating temperature	-40...80°C
	Ambient humidity	95% r.h., non-condensing
Maintenance	Maintenance-free	
Weight	Weight	Approx. 0.4kg

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 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.

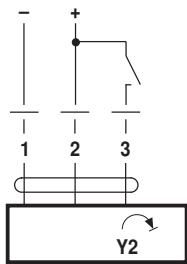
Product features

Simple direct mounting	Simple direct mounting on the ball valve with only one screw. The mounting position in relation to the ball valve can be selected in 90° increments.
Manual override	Manual override possible with lever (the gearing is disengaged as long as the self-resetting lever is pressed).
Combination valve/actuator	Refer to the valve documentation for suitable valves, their permitted medium temperatures and closing pressures.

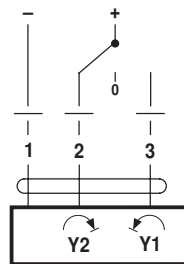
Electrical installation

Notes

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

Wiring diagrams
AC/DC 24V, open-close


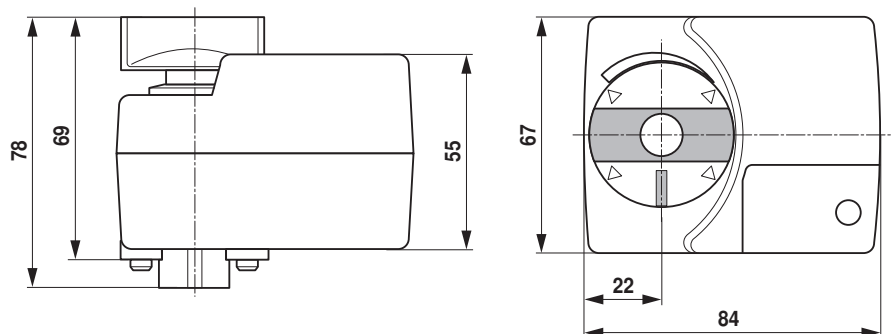
Cable colours:
1 = black
2 = red
3 = white

AC/DC 24V, 3-point


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

General notes

- Functional reliability** Continuous pulsating into the end stop with pulsating 3-point control results in damage to the actuator. Steps must be taken to ensure that pulsating 3-point controllers stop in the end position.
- 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.
- Actuators for 3-point control in parallel operation must be synchronised once every week (by setting the controller signal to 0 or 100%) in order to guarantee position accuracy.
- Pulse duration $\geq 0.5s$

Dimensions [mm]
Dimensional drawings


Rotary actuator for ball valves

- Nominal torque 2Nm
- Nominal voltage AC 230V
- Control 3-point


Technical data

Electrical data	Nominal voltage	AC 230V
	Nominal voltage frequency	50Hz
	Nominal voltage range	AC 207...253V
	Power consumption in operation	1W
	Power consumption for wire sizing	1VA
	Connection supply / control	Cable 1m, 3 x 0.75mm ²
	Parallel operation	No
Functional data	Torque motor	Min. 2Nm
	Manual override	Gear disengagement with push-button
	Running time motor	105s / 90°
	Sound power level motor max.	35dB(A)
	Position indication	Mechanical
Safety	Protection class IEC/EN	II Protective insulated
	Degree of protection IEC/EN	IP40
	EMC	CE according to 2004/108/EC
	Low voltage directive	CE according to 2006/95/EC
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
	Mode of operation	Type 1
	Rated impulse voltage supply / control	4kV
	Control pollution degree	3
	Ambient temperature	-7...50°C
	Non-operating temperature	-40...80°C
	Ambient humidity	95% r.h., non-condensing
	Maintenance	Maintenance-free
	Weight	Weight

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.
- Caution: Power supply voltage!
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The actuator is to be protected against moisture. It is not suitable for outdoor applications.
- The correct functioning of the strain relief for the cable in the actuator housing is to be checked.
- The installer must check for correct principle of operation after 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 is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

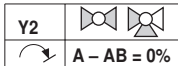
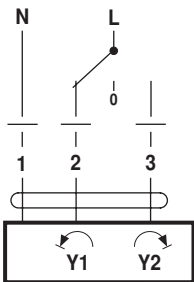
Product features

Simple direct mounting	Simple direct mounting on the ball valve with only one screw. The mounting position in relation to the ball valve can be selected in 90° increments.
Manual override	Manual override possible with lever (the gearing is disengaged as long as the self-resetting lever is pressed).
High functional reliability	The actuator switches off automatically when the end stops are reached. Pulse duration ≥ 0.5 s
Combination valve/actuator	Refer to the valve documentation for suitable valves, their permitted medium temperatures and closing pressures.

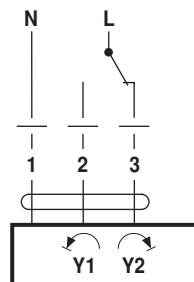
Electrical installation

Notes

- Caution: Power supply voltage!

Wiring diagrams
AC 230V, 3-point


Cable colours:
 1 = blue
 2 = brown
 3 = white

AC 230V, open-close


Cable colours:
 1 = blue
 2 = brown
 3 = white

Dimensions [mm]
Dimensional drawings
