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044-502-39-31

Rotary actuator for ball valves

- Nominal torque 2 Nm
- Nominal voltage AC/DC 24 V
- Control modulating (0) 2...10 V



## 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 21.6...28.8 V  |
|                 | Power consumption in operation         | 0.5 W                                |
|                 | Power consumption for wire sizing      | 1 VA                                 |
|                 | Connection supply / control            | Cable 1 m, 3 x 0.75 mm <sup>2</sup>  |
|                 | Parallel operation                     | Yes (note the performance data)      |
| Functional data | Torque motor                           | Min. 2 Nm                            |
|                 | Positioning signal Y                   | DC 0...10 V                          |
|                 | Positioning signal Y note              | Input impedance 100 kΩ               |
|                 | Operating range Y                      | DC 2...10 V                          |
|                 | Control operating range Y note         | for 0...100% (0...90°)               |
|                 | Manual override                        | Gear disengagement with push-button  |
|                 | Running time motor                     | 35 s / 90°                           |
|                 | Sound power level motor max.           | 45 dB(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 | 0.8 kV                               |
|                 | Control pollution degree               | 3                                    |
|                 | Ambient temperature                    | -7...50 °C                           |
|                 | Non-operating temperature              | -40...80 °C                          |
|                 | Ambient humidity                       | 95% r.h., non-condensing             |
| Weight          | Maintenance                            | Maintenance-free                     |
|                 | Weight approx.                         | 0.4 kg                               |

## 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

|                                    |                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mode of operation</b>           | The actuator is connected with a standard modulating signal of DC 0 ... 10V and travels to the position defined by the positioning signal.                                                                                                                                                                                                            |
| <b>Direct mounting</b>             | 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° increments.                                                                                                                                                                                               |
| <b>Manual override</b>             | Manual override possible with lever (the gearing is disengaged as long as the self-resetting lever is pressed).                                                                                                                                                                                                                                       |
| <b>High functional reliability</b> | The actuator is overload protected and automatically stops when the end stop is reached.<br>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. |
| <b>Combination valve/actuator</b>  | Refer to the valve documentation for suitable valves, their permitted medium temperatures and closing pressures.                                                                                                                                                                                                                                      |

## Electrical installation

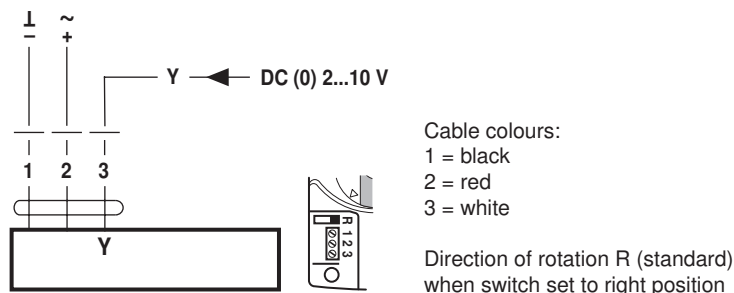


### Notes

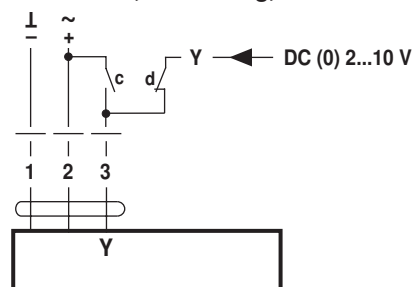
- Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Observe the performance data.

## Wiring diagrams

### AC/DC 24 V, modulating



### AC/DC 24 V, modulating, override control



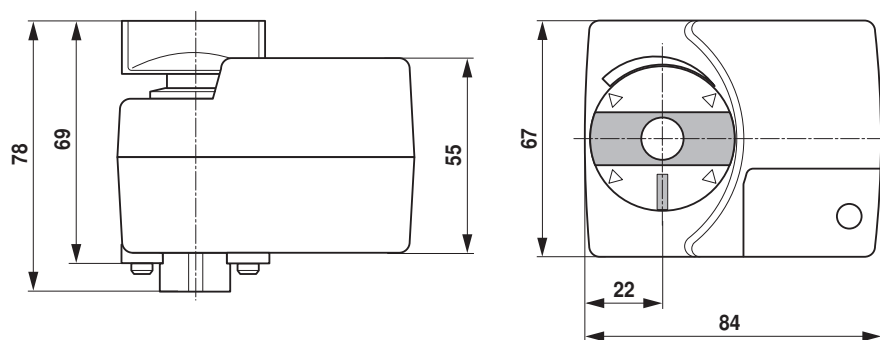
| c | d | Y |               |
|---|---|---|---------------|
|   |   |   | A - AB = 100% |
|   |   |   | A - AB = 0%   |

### Cable colours:

- 1 = black
- 2 = red
- 3 = white

## Dimensions [mm]

## Dimensional drawings



## Further documentation

- Overview Valve-actuator combinations
- Data sheets for ball valves
- Installation instructions for actuators and/or ball valves
- General notes for project planning