

Modulating rotary actuator with fail-safe for ball valves

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


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 | 3.5 W |
| | Power consumption in rest position | 2.5 W |
| | Power consumption for wire sizing | 6 VA |
| | Connection supply / control | Cable 1 m, 4 x 0.75 mm ² |
| | Parallel operation | Yes (note the performance data) |
| Functional data | Torque motor | 10 Nm |
| | Torque fail-safe | 10 Nm |
| | Operating range Y | 0.5...10 V |
| | Input Impedance | 100 kΩ |
| | Position feedback U | 0.5...10 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 / 90° |
| | Running time fail-safe note | @ -20...50 °C / <60 s @ -30 °C |
| | Sound power level, motor | 45 dB(A) |
| Position indication | Mechanical | |
| Service life | Min. 60'000 fail-safe positions | |
| Safety | Protection class IEC/EN | III Safety Extra-Low Voltage (SELV) |
| | Protection class UL | 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 |
| | Certification UL | cULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1:02 |
| | Certification UL note | 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 |
| Control pollution degree | 3 | |
| Ambient temperature | -30...50 °C | |
| Storage temperature | -40...80 °C | |
| Ambient humidity | Max. 95% r.H., non-condensing | |
| Servicing | maintenance-free | |
| Weight | Weight | 2.0 kg |

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.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or aggressive gases interfere directly with the actuator and that is ensured that the ambient conditions remain at any time within the thresholds according to the data sheet.
- 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.
- 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

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|-------------------------------------|---|
| Mode of operation | The actuator is connected with a standard modulating 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 ball valve with only one screw. The mounting orientation in relation to the ball valve 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

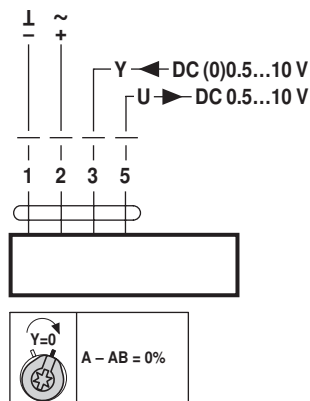


Notes

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

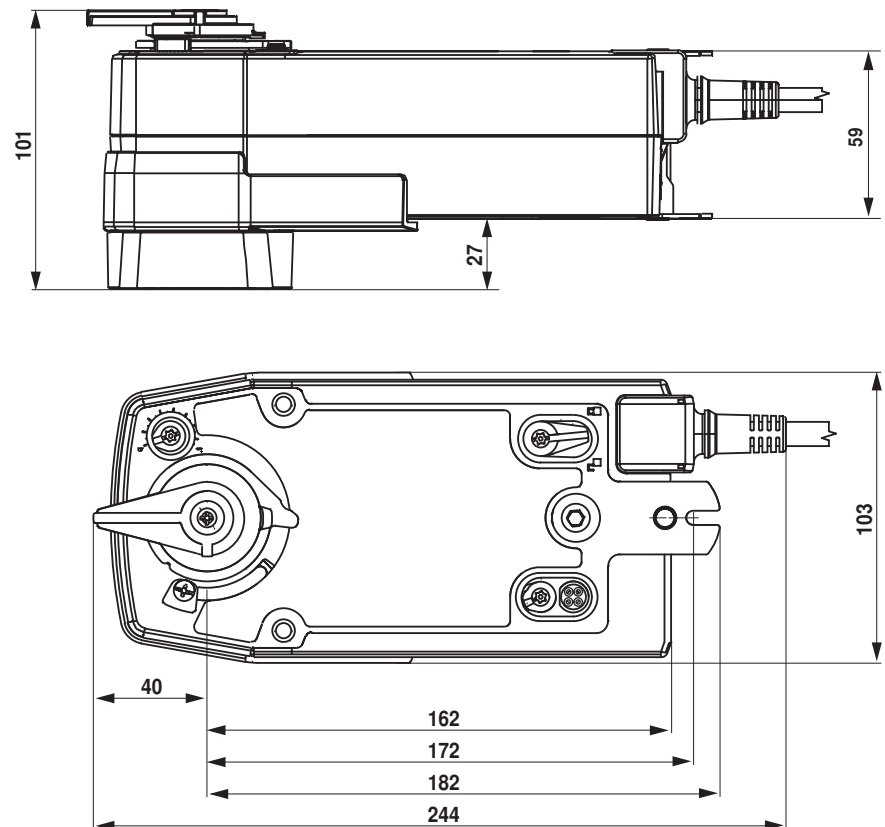
Wiring diagrams

AC/DC 24 V, modulating



Dimensions [mm]

Dimensional drawings



Further documentation

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