

Modulating rotary actuator for butterfly valves with ISO 5211-F07 mounting flange

- Nominal torque 40 Nm
- Nominal voltage AC/DC 24 V
- Control Modulating DC (0) 2...10 V
- Position feedback DC 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 19.2...28.8 V |
| | Power consumption in operation | 4.5 W |
| | Power consumption in rest position | 1.5 W |
| | Power consumption for wire sizing | 6.5 VA |
| | Connection supply / control | Cable 1 m, 4 x 0.75 mm ² |
| | Parallel operation | Yes (note the performance data) |
| Functional data | Torque motor | Min. 40 Nm |
| | Positioning signal Y | DC 0...10 V |
| | Positioning signal Y note | Input impedance 100 kΩ |
| | Operating range Y | DC 2...10 V |
| | Position feedback U | DC 2...10 V |
| | Position feedback U note | Max. 1 mA |
| | Position accuracy | ±5% |
| | Manual override | Gear disengagement with push-button, can be locked |
| | Running time motor | 150 s / 90° |
| | Sound power level motor max. | 45 dB(A) |
| Position indication | Mechanically (integrated) | |
| 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 |
| | Certification UL | cULus according to UL 60730-1A, UL 60730-2-14 and CAN/CSA E60730-1:02 |
| | Mode of operation | Type 1 |
| | Rated impulse voltage supply / control | 0.8 kV |
| | 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 | |
| Mechanical data | Connection flange | F07 |
| Weight | Weight approx. | 2.5 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 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.

Safety notes

- 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...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. |
| Direct mounting | Simple direct mounting on the butterfly valve. The mounting orientation in relation to the butterfly valve can be selected in 90° (angle) increments. |
| 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. |
| Combination valve/actuator | For valves with the following mechanical specifications in accordance with ISO 5211 F07: - Square stem head SW = 17 mm for form fit coupling of the rotary actuator. - Hole circle d = 70 mm |

Accessories

| | Description | Type |
|-------------------------------|---|---------|
| Electrical accessories | 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

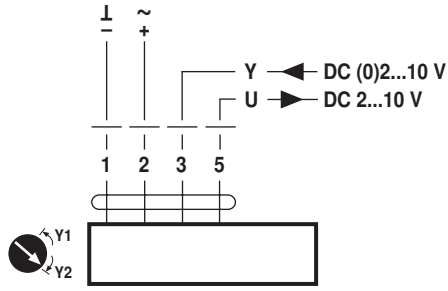


Notes

- 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.

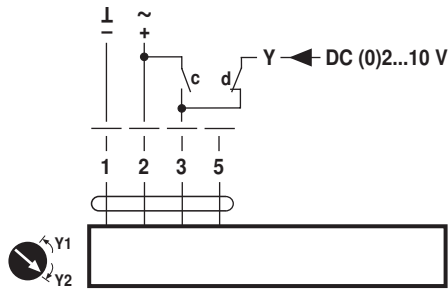
Wiring diagrams

AC/DC 24 V, modulating



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

Override control (frost protection circuit)

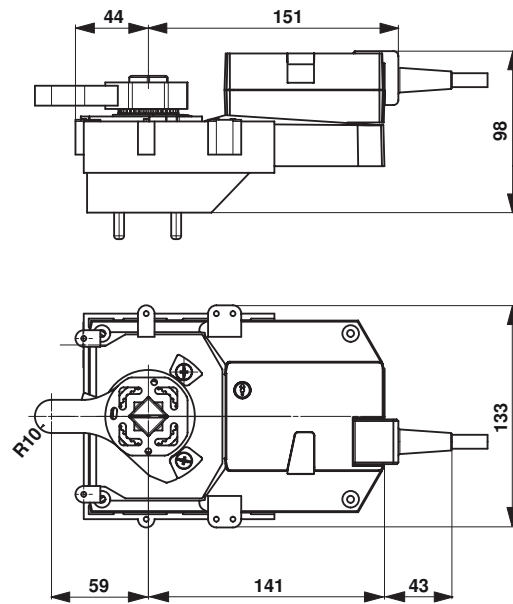


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| c | d | Y1 / Y2 | |
|---|---|----------------|---------------|
| | | Y1 | A - AB = 100% |
| | | Y2 | A - AB = 0% |
| | | DC (0)2...10 V | |

Dimensions [mm]

Dimensional drawings



Further documentation

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