

Modulating damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 0.4 m²
- Torque motor 2 Nm
- Nominal voltage AC/DC 24 V
- Control modulating 2...10 V
- Position feedback 2...10 V
- with connecting terminals



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 | 1 W |
| | Power consumption in rest position | 0.5 W |
| | Power consumption for wire sizing | 1.5 VA |
| | Connection supply / control | Terminals 1.5 mm ² Cu wire or 1.0 mm ² Cu strands (4-wire) |
| | Parallel operation | Yes (note the performance data) |
| Functional data | Torque motor | 2 Nm |
| | Operating range Y | 2...10 V |
| | Input Impedance | 100 kΩ |
| | Position feedback U | 2...10 V |
| | Position feedback U note | Max. 1 mA |
| | Position accuracy | ±5% |
| | Direction of motion motor | counter-clockwise rotation |
| | Direction of motion note | Y = 0 V: left end stop, position 0 |
| | Manual override | with magnet |
| | Angle of rotation | 95°, fixed setting |
| | Running time motor | 75 s / 90° |
| | Sound power level, motor | 35 dB(A) |
| | Mechanical interface | Universal shaft clamp 6...12.7 mm |
| | Position indication | Mechanically, pluggable (with integrated magnet for gear disengagement) |
| Safety data | Protection class IEC/EN | III Safety Extra-Low Voltage (SELV) |
| | Protection class UL | UL Class 2 Supply |
| | Degree of protection IEC/EN | IP20 |
| | Degree of protection NEMA/UL | NEMA 1 UL Enclosure Type 1 |
| | 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 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case |
| | Mode of operation | Type 1 |
| | Rated impulse voltage supply / control | 0.8 kV |
| | Control pollution degree | 2 |
| | Ambient temperature | -30...50°C |
| | Storage temperature | -40...80°C |

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|------------------|-------------------------------|
| Ambient humidity | Max. 95% r.H., non-condensing |
| Servicing | maintenance-free |
| Weight | Weight 0.21 kg |

Safety notes


- The device must not be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insulation 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 mechanical end stops for limiting the angle of rotation may only be removed for adjustment. They must always be mounted during operation.
- 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.
- To calculate the torque required, the specifications supplied by the damper manufacturers concerning the cross-section, the design, the installation site and the ventilation conditions must be observed.
- 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 of 0...10 V and drives to the position defined by the positioning signal. Measuring voltage U serves for the electrical display of the damper position 0.5...100% and as slave control signal for other actuators. |
| Simple direct mounting | The actuator is mounted directly on the damper shaft (Ø 6...12.7 mm) with a universal shaft clamp and then secured with the anti-rotation clip, to prevent it from rotating. The anti-rotation clip Z-ARCM is included in the scope of delivery. |
| Manual override | Manual override with magnet possible (the gear is disengaged as long as the magnet adheres to the magnet symbol). The magnet for gear disengagement is integrated in the position indication. |
| 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. |
| Hidden synchronisation | If the actuator drives to the lower end stop during ongoing operation, then it performs a synchronisation of the positioning signal at DC 2 V. This ensures that the signal range also corresponds to the effective functional range in ongoing operation. The bottom end stop is actively approached as soon as the positioning signal is DC 2.3 V. |

Accessories

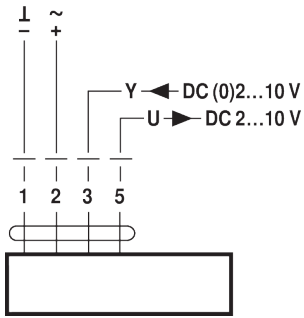
| Mechanical accessories | Description | Type |
|------------------------|--|--------|
| | Shaft extension 170 mm Ø10 mm for damper shaft Ø 6...16 mm | AV6-20 |
| | Anti-rotation clip, Multipack 20 pcs. | Z-ARCM |
| | End stop clip, Multipack 20 pcs. | Z-ESCM |
| | Gear disengagement magnet, Multipack 20 pcs. | Z-MA |
| | Position indicator, Multipack 20 pcs. | Z-PICM |

Electrical installation


- Supply from isolating transformer.**
- Parallel connection of other actuators possible. Observe the performance data.**

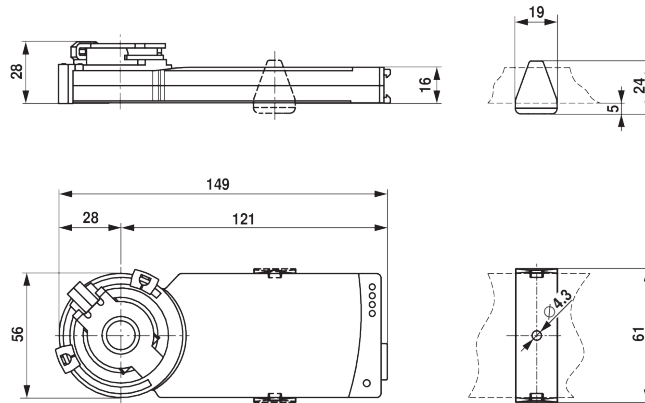
Wiring diagrams

AC/DC 24 V, modulating






Dimensions

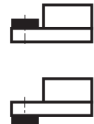
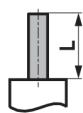
Dimensional drawings



Clamping range

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|---|---|---|
|  |  |  |
| 6...12.7 | 6 / 8 / 10 | 6...12.7 |

Shaft length



Min. 32