

Damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 2 m<sup>2</sup>
- Torque motor 10 Nm
- Nominal voltage AC/DC 24 V
- Control Open/close, 3-point
- with connecting terminals


**Technical data**

|  |                                    |   |
|--|------------------------------------|---|
| <b>Electrical data</b>                 | 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     | 1.5 W   |
|  | Power consumption in rest position | 0.2 W   |
|  | Power consumption for wire sizing  | 3.5 VA  |
|  | Connection supply / control        | Terminals 4 mm <sup>2</sup> (cable Ø4...10 mm, 3-wire)  |
|  | Parallel operation                 | Yes (note the performance data)   |
| <b>Functional data</b>                 | Torque motor                       | 10 Nm   |
|  | Direction of motion motor          | selectable with switch 0 (ccw rotation) / 1 (cw rotation)   |
|  | Manual override                    | with push-button, can be locked   |
|  | Angle of rotation                  | Max. 95°  |
|  | Angle of rotation note             | can be limited on both sides with adjustable mechanical end stops                                     |
|  | Running time motor                 | 150 s / 90°   |
|  | Sound power level, motor           | 35 dB(A)  |
|  | Mechanical interface               | Universal shaft clamp 8...26.7 mm   |
|  | Position indication                | Mechanically, pluggable   |
|  | <b>Safety</b>                      | Protection class IEC/EN   |
| 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  |
| 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                   |   |
| <b>Weight</b>                          | Weight                             | 0.78 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, 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.
- 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**

|                                     |   |
|-------------------------------------|---|
| <b>Simple direct mounting</b>       | Simple direct mounting on the damper shaft with a universal shaft clamp, supplied with an anti-rotation device to prevent the actuator from rotating. |
| <b>Manual override</b>              | Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).                            |
| <b>Adjustable angle of rotation</b> | Adjustable angle of rotation with mechanical end stops.   |
| <b>High functional reliability</b>  | The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.                                  |

**Accessories**

|   | Description   | Type      |
|---|---|-----------|
| <b>Electrical accessories</b>             | Auxiliary switch 1 x SPDT add-on  | S1A       |
|   | Auxiliary switch 2 x SPDT add-on  | S2A       |
|   | Feedback potentiometer 140 Ω add-on   | P140A     |
|   | Feedback potentiometer 140 Ω add-on, grau                                       | P140A GR  |
|   | Feedback potentiometer 200 Ω add-on   | P200A     |
|   | Feedback potentiometer 500 Ω add-on   | P500A     |
|   | Feedback potentiometer 500 Ω add-on, grau                                       | P500A GR  |
|   | Feedback potentiometer 1 kΩ add-on  | P1000A    |
|   | Feedback potentiometer 1 kΩ add-on, grau  | P1000A GR |
|   | Feedback potentiometer 2.8 kΩ add-on  | P2800A    |
|   | Feedback potentiometer 2.8 kΩ add-on, grau                                      | P2800A GR |
|   | Feedback potentiometer 5 kΩ add-on  | P5000A    |
|   | Feedback potentiometer 5 kΩ add-on, grau  | P5000A GR |
|   | Feedback potentiometer 10 kΩ add-on   | P10000A   |
| Feedback potentiometer 10 kΩ add-on, grau | P10000A GR  |           |
| <b>Mechanical accessories</b>             | Description   | Type      |
|   | Actuator arm for standard shaft clamp (one-sided)                               | AH-25     |
|   | Shaft extension 240 mm Ø20 mm for damper shaft Ø 8...22.7 mm                    | AV8-25    |
|   | Ball joint suitable for damper crank arm KH8                                    | KG8       |
|   | Ball joint suitable for damper crank arm KH8 / KH10                             | KG10A     |
|   | Damper crank arm Slot width 8.2 mm, clamping range Ø10...18 mm                  | KH8       |
|   | Shaft clamp one-sided, clamping range Ø8...26 mm with insert, Multipack 20 pcs. | K-ENMA    |
|   | Shaft clamp one-sided, clamping range Ø8...26 mm, Multipack 20 pcs.             | K-ENSA    |
|   | Shaft clamp reversible, clamping range Ø8...20 mm, Multipack 20 pcs.            | K-NA      |
| Form fit insert 8x8 mm, Multipack 20 pcs. | ZF8-NMA   |           |

Accessories

Description

- Form fit insert 10x10 mm, Multipack 20 pcs.
- Form fit insert 12x12 mm, Multipack 20 pcs.
- Form fit insert 15x15 mm, Multipack 20 pcs.
- Form fit insert 16x16 mm, Multipack 20 pcs.
- Mounting kit for linkage operation for flat installation
- Anti-rotation mechanism 180 mm, Multipack 20 pcs.
- Base plate extension for NM..A to NM.., Multipack 20 pcs.
- Position indicator, Multipack 20 pcs.
- Terminal protection IP54, Multipack 20 pcs.

Type

- ZF10-NSA
- ZF12-NSA
- ZF15-NSA
- ZF16-NSA
- ZG-NMA
- Z-ARS180
- Z-NMA
- Z-PI
- Z-TP

Electrical installation



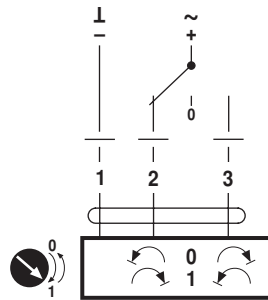
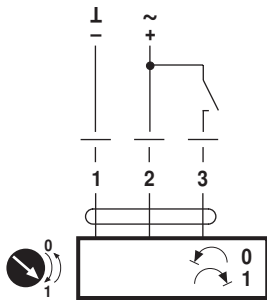
Notes

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

Wiring diagrams

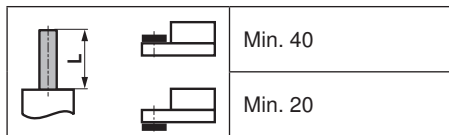
AC/DC 24 V, open/close

AC/DC 24 V, 3-point



Dimensions [mm]

Spindle length



Clamping range

|  | 8...26.7 | ≥8 | ≤26.7 |
|--|----------|----|-------|
|  | 8...20   | ≥8 | ≤20   |

\*Option: Shaft clamp mounted below (accessories K-NA needed)

Dimensional drawings

