

Rotary actuator fail-safe for adjusting dampers in technical building installations

- Air damper size up to approx. 6 m²
- Torque motor 30 Nm
- Nominal voltage AC/DC 24 V
- Control Open/close


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 | 9.5 W |
| | Power consumption in rest position | 4.5 W |
| | Power consumption for wire sizing | 16 VA |
| | Connection supply / control | Cable 1 m, 2 x 0.75 mm ² (halogen-free) |
| | Parallel operation | Yes (note the performance data) |
| Functional data | Torque motor | 30 Nm |
| | Torque fail-safe | 30 Nm |
| | Direction of motion motor | selectable by mounting L/R |
| | Direction of motion fail-safe | selectable by mounting L/R |
| | Manual override | by means of hand crank and locking switch |
| | Angle of rotation | Max. 95° |
| | Angle of rotation note | adjustable starting at 33% in 5% steps (with mechanical end stop) |
| | Running time motor | 75 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 | 56 dB(A) |
| | Sound power level, fail-safe | 71 dB(A) |
| | Safety | Mechanical interface |
| Position indication | | Mechanical |
| Service life | | Min. 60'000 fail-safe positions |
| Protection class IEC/EN | | III Safety Extra-Low Voltage (SELV) |
| Degree of protection IEC/EN | | IP54 |
| EMC | | CE according to 2014/30/EU |
| Certification IEC/EN | | IEC/EN 60730-1 and IEC/EN 60730-2-14 |
| Mode of operation | | Type 1.AA |
| Rated impulse voltage supply / control | | 0.8 kV |
| Control pollution degree | | 3 |
| Weight | Ambient temperature | -30...50°C |
| | Storage temperature | -40...80°C |
| | Ambient humidity | Max. 95% r.H., non-condensing |
| | Servicing | maintenance-free |
| Weight | Weight | 5.2 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.
- Cables must not be removed from the device.
- 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 moves the damper to the operating position at the same time as tensioning the return spring. The damper is turned back to the safety position by spring energy when the supply voltage is interrupted. |
| Simple direct mounting | Simple direct mounting on the damper shaft with a universal shaft clamp, supplied with an anti-rotation device to prevent the actuator from rotating. |
| Spindle stabiliser | The shaft clamp of the spring-return actuator is factory-equipped with an axis stabiliser for the stabilisation of the combination of damper, damper shaft and actuator. This is comprised of two plastic support rings and must be left in place, partially, or completely removed, depending on the installation situation and the axis diameter. |
| Manual override | By using the hand crank the damper can be actuated 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. |

Accessories

| | Description | Type |
|-------------------------------|--|------------|
| Mechanical accessories | Shaft clamp reversible, for central mounting, for damper shafts Ø12.7 / 19.0 / 25.4 mm | K7-2 |
| | End stop indicator | IND-EFB |
| | Ball joint suitable for damper crank arm KH8 | KG8 |
| | Ball joint suitable for damper crank arm KH8 / KH10 | KG10A |
| | End stop indicator | IND-AFB |
| | Form fit insert 15x15 mm, Multipack 20 pcs. | ZF15-NSA-F |
| | Damper crank arm Slot width 8.2 mm, clamping range Ø10...18 mm | KH8 |
| | Form fit insert 15x15 mm, Multipack 20 pcs. | ZF15-NSA |
| | Shaft clamp reversible, clamping range Ø12...26.7 mm | K9-2 |
| | Damper crank arm Slot width 8.2 mm, clamping range Ø14...25 mm | KH10 |
| | Actuator arm Slot width 8.2 mm | KH-EFB |
| | Mounting kit for linkage operation for flat and side installation | ZG-EFB |
| | Anti-rotation mechanism 230 mm, Multipack 20 pcs. | Z-ARS230 |
| | Hand crank 63 mm | ZKN2-B |

Electrical installation

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



Cable colours:

- 1 = black
- 2 = red

Installation notes



Notes

- The shaft stabiliser must nevertheless be used with installation of the anti-rotation device on the opposite side of the shaft clamp and a shaft diameter <math><20\text{ mm}</math>.

Spindle stabiliser long spindle mounting

In the case of long shaft installation the use of the shaft stabiliser at a shaft diameter of

- 12...20 mm is necessary
- 21...26.7 mm is not necessary and can be removed

Spindle stabiliser short spindle mounting

In the case of short spindle installation, the necessity of the shaft stabiliser is dispensed with. It can be removed or – if the spindle length permits this – left in the clamp.

Dimensions [mm]

Spindle length

| | |
|--|----------|
| | Min. 117 |
| | Min. 20 |

Clamping range

| | | |
|--|-----------|---------|
| | | |
| | 12...22 | 12...18 |
| | | |
| | 22...26.7 | 12...18 |

Dimensional drawings

