

## Actuator for smoke control dampers 90°

- Torque motor 15 Nm
- Nominal voltage AC 230 V
- Control Open/close
- Mechanical interface Form fit 12x12 mm, continuous hollow shaft



## Technical data

|                             |   |   |
|-----------------------------|---|---|
| <b>Electrical data</b>      | Nominal voltage                                   | AC 230 V  |
|                             | Nominal voltage frequency                         | 50/60 Hz  |
|                             | Nominal voltage range                             | AC 198...264 V                                    |
|                             | Switching thresholds min. ON voltage              | AC 198 V  |
|                             | Switching thresholds max. OFF voltage             | AC 50 V   |
|                             | Power consumption in operation                    | 4 W   |
|                             | Power consumption in rest position                | 0.4 W   |
|                             | Power consumption for wire sizing                 | 7 VA  |
|                             | Power consumption for wire sizing note            | I <sub>max</sub> 4 A @ 5 ms                       |
|                             | Auxiliary switch                                  | 2x SPDT   |
|                             | Switching capacity auxiliary switch               | 1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V   |
|                             | Switching points auxiliary switch                 | 5° / 80°  |
|                             | Tolerance   | ±3°   |
|                             | Connection supply / control                       | Cable 1 m, 3x 0.75 mm <sup>2</sup> , halogen-free |
| Connection auxiliary switch | Cable 1 m, 6x 0.75 mm <sup>2</sup> , halogen-free |   |
| <b>Functional data</b>      | Torque motor                                      | 15 Nm   |
|                             | Direction of motion motor                         | selectable by mounting                            |
|                             | Manual override                                   | with hand crank                                   |
|                             | Angle of rotation                                 | Max. 95°  |
|                             | Running time motor                                | <30 s / 90°                                       |
|                             | Sound power level, motor                          | 58 dB(A)  |
|                             | Mechanical interface                              | Form fit 12x12 mm, continuous hollow shaft        |
|                             | Position indication                               | Mechanical, with pointer                          |
|                             | Service life                                      | Min. 10'000 cycles                                |
| <b>Safety data</b>          | Protection class IEC/EN                           | II, reinforced insulation                         |
|                             | Protection class auxiliary switch IEC/EN          | II, reinforced insulation                         |
|                             | Degree of protection IEC/EN                       | IP54  |
|                             | EMC   | CE according to 2014/30/EU                        |
|                             | Low voltage directive                             | CE according to 2014/35/EU                        |
|                             | Certification IEC/EN                              | IEC/EN 60730-1 and IEC/EN 60730-2-14              |
|                             | Type of action                                    | Type 1.B  |
|                             | Rated impulse voltage supply / control            | 4 kV  |
|                             | Rated impulse voltage auxiliary switch            | 4 kV  |
|                             | Pollution degree                                  | 3   |
|                             | Ambient humidity                                  | Max. 95% RH, non-condensing                       |

**Technical data**

|                    |                     |                          |
|--------------------|---------------------|--------------------------|
| <b>Safety data</b> | Ambient temperature | -30...55°C [-22...131°F] |
|                    | Storage temperature | -40...80°C [-40...176°F] |
|                    | Servicing           | maintenance-free         |
| <b>Weight</b>      | Weight              | 0.88 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.
- Caution: Power supply voltage!
- The actuator is adapted to and installed on the smoke control damper by the damper manufacturer. For this reason, the actuator is only supplied direct to safety damper manufacturers. The manufacturer then bears full responsibility for the proper functioning of the damper.
- The two switches integrated in the actuator are to be operated either on power supply voltage or at safety extra-low voltage. The combination power supply voltage/safety extra-low voltage is not permitted.
- Cables must not be removed from the device.
- 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 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**

**Operating mode** 2-wire open/close control. The actuator is overload-proof and can thus remain energised even at the end stops.

**Safety Position Lock™** The Safety Position Lock™ reliably holds the smoke control damper in the defined safety position in case of fire, thus ensuring maximum safety.

**Manual override** The hand crank included in the shipment can be used for manual operation of the actuator.

**Signalling** Two microswitches with fixed settings are installed in the actuator for indicating the damper end positions. It should be noted with this application however that the contacts can no longer be used in the milliampere range after larger currents have been applied to them, even if this has taken place only once.

The position of the damper blade can be read off on a mechanical position indication.

**Standards / Regulations** The design of the actuator is based on the specific requirements from the European standards:

- EN 12101-8: Smoke and heat control systems - Part 8: Smoke control dampers
- EN 1366-10: Fire resistance tests for service installations - Part 10: Smoke control dampers
- EN 13501-4: Fire classification of construction products and building elements - Part 4: Classification using data from fire resistance tests on components of smoke control systems

**Parts included**

Hand crank  
Pointer  
Protective bag

**Accessories**

| Electrical accessories | Description              | Type   |
|------------------------|--------------------------|--------|
|                        | Auxiliary switch 2x SPDT | SN2-C7 |

## Accessories

| Mechanical accessories | Description                                  | Type    |
|------------------------|--|---------|
|                        | Pointer 12x12 mm                             | ZZN12-B |
|                        | Hand crank 40 mm                             | ZKN1-B  |
|                        | Hand crank 63 mm                             | ZKN2-B  |
|                        | Protective bag with wire, Multipack 100 pcs. | ZSD-B.1 |
|                        | Bracket for SN2-C7 for BFN/BFL, BEN/BEE      | ZSN-B   |

## Electrical installation


**Caution: Power supply voltage!**

Parallel connection of other actuators possible. Observe the performance data and the switching thresholds.

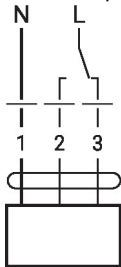
Combination of power supply voltage and safety extra-low voltage not permitted at the both auxiliary switches.

**Wire colours:**

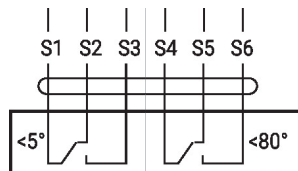
- 1 = blue
- 2 = brown
- 3 = white
- S1 = violet
- S2 = red
- S3 = white
- S4 = orange
- S5 = pink
- S6 = grey

**Wiring diagrams**

AC 230 V, open/close



Auxiliary switch



Dimensions

