

Actuator for smoke control dampers 90° $\triangleleft$ .

- Torque 40 Nm
- Nominal voltage AC 230 V
- Control: Open/close
- Damper rotation:
  - BE230: 14 mm form-fit
  - BE230-12: 12 mm form-fit



### Technical Data

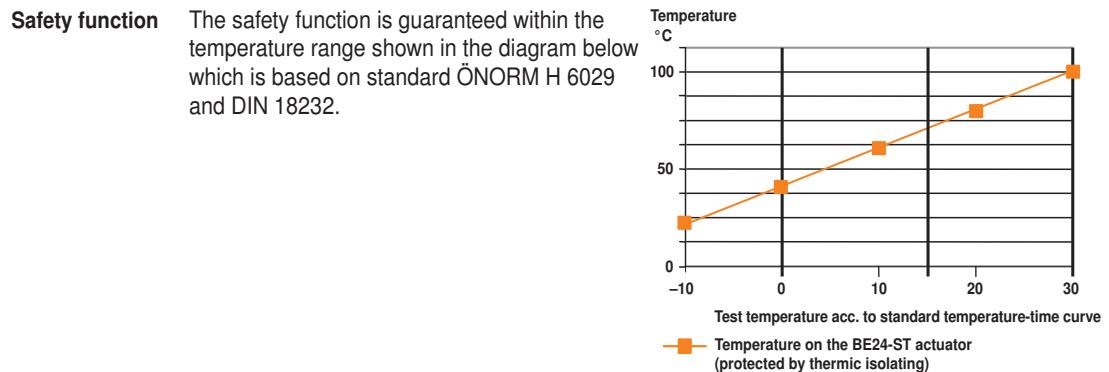
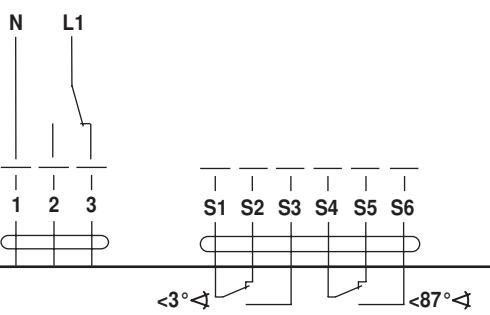
|                            |                           |   |
|----------------------------|---------------------------|---|
| <b>Electrical data</b>     |                           |   |
|                            | Nominal voltage           | AC 230 V, 50/60 Hz  |
|                            | Nominal voltage range     | AC 198 ... 264 V  |
|                            | Switching thresholds      | min. ON voltage<br>max. OFF voltage<br>AC 198 V<br>AC 100 V   |
|                            | Power consumption         | motoring<br>holding<br>for wire sizing<br>8 W @ nominal torque<br>0.5 W<br>15 VA / Imax. 7.9 A @ 5 ms   |
|                            | Auxiliary switch          | 2 x SPDT<br>Contact rating (contacts gold plate on silver)<br>1 mA ... 6 A, DC 5 V ... AC 250 V <input checked="" type="checkbox"/><br>Switching points<br>3° $\triangleleft$ / 87° $\triangleleft$ (referred to 0 ... 90° $\triangleleft$ )<br>Tolerance<br>±2 |
|                            | Connecting cable          | motor<br>auxiliary switch<br>1 m, 3 x 0.75 mm <sup>2</sup> (halogen-free)<br>1 m, 6 x 0.75 mm <sup>2</sup> (halogen-free)   |
| <b>Functional data</b>     |                           |   |
|                            | Torque (nominal torque)   | Min. 40 Nm @ nominal voltage  |
|                            | Blocking torque           | dynamic<br>steady-state<br>40 Nm<br>50 Nm   |
|                            | Direction of rotation     | Selected by mounting L/R  |
|                            | Angle of rotation         | Max. 100° $\triangleleft$<br>(incl. 5° $\triangleleft$ mechanical overrun on each side)   |
|                            | Running time              | <60 s for 90° $\triangleleft$   |
|                            | Sound power level         | Max. 62 dB (A)  |
|                            | Damper rotation           | Form-fit 14 mm<br>Form-fit 12 mm  |
|                            | Position indication       | Mechanical with pointer   |
|                            | Service life              | At least 10'000 cycles  |
| <b>Safety</b>              |                           |   |
|                            | Protection class          | II totally insulated <input checked="" type="checkbox"/>  |
|                            | Degree of protection      | IP54 in any mounting position   |
|                            | EMC                       | CE according to 2004/108/EC   |
|                            | low-voltage directive     | CE according to 2006/95/EC  |
|                            | Mode of operation         | Type 1.B (EN60730-1)  |
|                            | Rated impulse voltage     | 4 kV (EN60730-1)  |
|                            | Control pollution degree  | 3 (EN60730-1)   |
|                            | Ambient temperature range | normal duty<br>safety duty<br>-30 ... +50°C<br>See «Safety function» on page 2  |
|                            | Non-operating temperature | -40 ... +80°C   |
|                            | Ambient humidity range    | According to EN 60730-1   |
|                            | Maintenance               | Maintenance-free  |
| <b>Dimensions / weight</b> |                           |   |
|                            | Dimensions                | See «Dimensions» on page 3  |
|                            | Weight                    | Approx. 2.7 kg  |

**Safety notes**

- The actuator is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Caution: Power supply voltage!
- The actuator is adapted and mounted to the fire and smoke 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.
- Since very high values of torque are exerted on the damper spindle it is advisable to use steel of at least grade St50.
- 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 electronic and electrical components and may not be disposed of with the household waste. Observe local regulations and valid laws.

**Product features**

|                                     |   |
|-------------------------------------|---|
| <b>Mode of operation</b>            | Open/Close control is effected by means of a 2-wire system. The actuator is overload-proof and therefore remain energized while stationary at the end-stops.  |
| <b>Signalling</b>                   | Two microswitches with fixed settings are installed in the actuator for indicating the damper end positions.<br>The position of the damper blade can be read off on a mechanical position indicator.  |
| <b>Manual operation</b>             | The crank handle supplied with the actuator allows it to be operated manually. It also allows a functional test of the damper to be performed very easily.  |
| <b>Standards and specifications</b> | The design of the actuator is based on the following standards and specifications: <ul style="list-style-type: none"> <li>• Draft DIN 18232, Part 6, Sept. 1992               <ul style="list-style-type: none"> <li>– Fire protection in industrial buildings</li> <li>– Smoke and heat extraction systems</li> </ul> </li> <li>• Preliminary standard ÖNORM H 6029, May 1997               <ul style="list-style-type: none"> <li>– Ventilation systems</li> <li>– Fire smoke extraction systems</li> </ul> </li> <li>• Extracts from:               <ul style="list-style-type: none"> <li>– CEN/TC191, 1996</li> <li>– prEN12101-8 (Smoke and heat control systems – Specifications for smoke control dampers)</li> </ul> </li> </ul> |

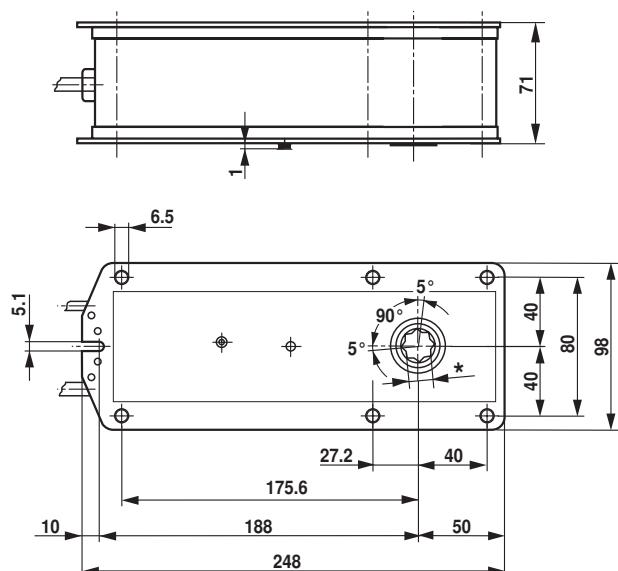
**Electrical installation****Wiring diagram****Note**

- Supply via safety isolation transformer
- Parallel connection of several actuators possible. Power consumption and switching thresholds must be observed!



## Dimensions [mm]

## Dimensional diagrams



| Type     | Damper driver    |
|----------|------------------|
| BE230    | Form-fit 14.2 mm |
| BE230-12 | Form-fit 12.2 mm |