

Spring-return actuator, combined with thermoelectric tripping device BAE (72 °C), for fire and smoke dampers 90° in ventilation and air-conditioning systems.

- Nominal torque 18 Nm /
- Nominal voltage AC 230 V
- Control Open-close
- Spindle driver Form fit 12 mm (10 mm with enclosed adapter)


Technical data

Electrical data	Nominal voltage	AC 230 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 198...264 V
	Power consumption in operation	8 W
	Power consumption in rest position	3 W
	Power consumption for wire sizing	12.5 VA
	Power consumption for wire sizing note	I _{max} 8.3 A @ 5 ms
	Auxiliary switch	2 x SPDT
	Switching capacity auxiliary switch	1 mA...6 (3) A, DC 5 V...AC 250 V (II reinforced insulation)
	Switching points auxiliary switch	5° / 80°
	Connection supply	Cable 1 m, 2 x 0.75 mm ² (halogen-free)
	Connection auxiliary switch	Cable 1 m, 6 x 0.75 mm ² (halogen-free)
	Cable length thermoelectric tripping device	1 m
	Functional data	Nominal torque
Torque spring return		12 Nm
Direction of rotation motor		Can be selected by mounting L/R
Angle of rotation		Max. 95° incl. 5° initial spring tension
Angle of rotation note		incl. 5° initial spring tension
Running time motor		<120 s 90°
Running time spring-return		~16 s (t _{amb} = 20 °C)
Sound power level, motor		45 dB(A)
Sound power level, spring-return		63 dB(A)
Spindle driver		Form fit 12 mm (10 mm with enclosed adapter)
Position indication		Mechanically, with pointer
Service life	Min. 60,000 safety positions	
Safety	Response temperature thermal fuse	Tf1: Duct outside temperature 72 °C Tf2 and Tf3: Duct inside temperature 72 °C
	Protection class IEC/EN	II reinforced insulation
	Degree of protection IEC/EN	IP54 in all mounting positions
	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
	Mode of operation	Type 1.AA.B
	Rated impulse voltage supply	4 kV
	Control pollution degree	3
	Ambient temperature normal operation	-30...50 °C
	Ambient temperature safety operation	1606
	Non-operating temperature	-40...50 °C
	Ambient humidity	Max. 95% r.h., non-condensing
	Maintenance	Maintenance-free
Weight	Weight	3.2 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.
- Caution: Power supply voltage!
- The actuator is adapted and installed on the fire and smoke damper by the damper manufacturer. For this reason, the actuator is only supplied directly to safety damper manufacturers. The manufacturer then bears full responsibility for the proper functioning of the damper.
- 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

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.
Thermoelectric tripping device	<p>If the ambient temperature of 72°C is exceeded, the thermal fuse Tf1 responds. If the internal duct temperature of 72°C is exceeded, the exchangeable thermal fuse Tf2/Tf3 will respond.</p> <p>When the thermal fuses Tf1, Tf2 or Tf3 respond, the supply voltage is interrupted permanently and irreversibly.</p> <p>The LED lights up when</p> <ul style="list-style-type: none"> – supply voltage is available – the thermal fuses are OK and – the test switch is not pressed. <p>Note: The function of the thermal fuses and the control key is only warranted if the actuator is connected to the supply voltage (LED on).</p>
External thermal fuse	<p>If the ambient temperature of 72°C is exceeded, the thermal fuse Tf1 responds. If the internal duct temperature of 72°C is exceeded, the exchangeable thermal fuse Tf2/Tf3 will respond.</p> <p>When the thermal fuses Tf1, Tf2 or Tf3 respond, the supply voltage is interrupted permanently and irreversibly.</p> <p>The LED lights up when</p> <ul style="list-style-type: none"> – supply voltage is available – the thermal fuses are OK and – the test switch is not pressed.
Signalling	<p>Two microswitches with fixed settings are installed in the actuator for indicating the damper end positions. The electrical contacts of these microswitches are equipped with a gold/silver coating that permits integration both in circuits with low currents (mA range) and in ones with larger-sized currents (A range) in accordance with the specifications in the data sheet. It should be noted with this application however that the contacts can no longer be used in the milliamperere range after larger currents have been applied to them, even if this has taken place only once.</p> <p>The position of the damper blade can be read off on a mechanical position indication.</p>
Manual operation	Without power supply, the actuator can be operated manually and fixed in any required position. It can be unlocked manually or automatically by applying the supply voltage.

Accessories

	Description	Type
Mechanical accessories	Adapter for form fit with clamp for round spindle 10...20 mm / square 10...16 mm for BF	ZK-BF
	Adapter for form fit 12 mm with round spindle 18 mm, L = 33 mm for BF	ZA18-BF
	Bracket for auxiliary switch (SN2-C7) for BF, BR	ZSN-BF

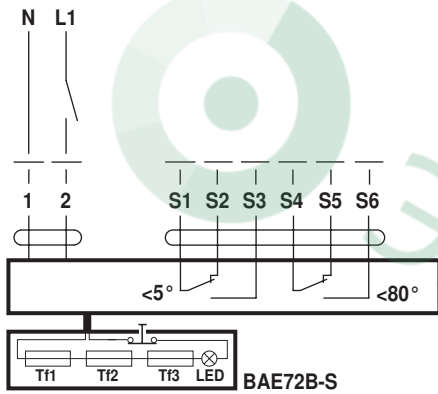
Electrical installation

Notes

- Caution: Power supply voltage!
- Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

AC 230 V, open-close



Cable colours:

- 1 = blue
- 2 = brown
- S1 = white
- S2 = white
- S3 = white
- S4 = white
- S5 = white
- S6 = white

Dimensions [mm]

Dimensional drawings

