

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

- Torque 18/12 Nm
- Nominal voltage AC/DC 24 V
- Control: Open-close
- Damper rotation: 12 mm form-fit



Technical Data

Electrical data	Nominal voltage	AC 24 V, 50/60 Hz / DC 24 V
	Nominal voltage range	AC 19.2 ... 28.8 V / DC 21.6 ... 28.8 V
	Power consumption	7 W @ nominal torque
	Motoring	2 W
	Holding	10 VA / I _{max} : 8.3 A @ 5 ms
	For wire sizing	
	Auxiliary switch	2 x SPDT
	Contact rating (contacts gold plate on silver)	1 mA ... 6 A (3 A), DC 5 V ... AC 250 V □
	Switching points	5° / 80°
	Thermal trips	Tf1: duct outside temperature 72°C Tf2 + Tf3: duct inside temperature 72°C
Functional data	Connecting Motor	Cable, 1 m, 2 x 0.75 mm ² (halogen-free)
	Auxiliary switch	Cable, 1 m, 6 x 0.75 mm ² (halogen-free)
	Torque Motor	Min. 18 Nm
	Spring return	Min. 12 Nm
	Direction of rotation	Selected by mounting L / R
	Angle of rotation	Max. 95° (incl. 5° spring pretensioning)
	Running time Motor	140 s
	Spring return	~16 s (t _{amb} = 20°C)
	Sound power level Motor	Max. 45 dB (A)
	Spring return	~62 dB (A)
Safety	Damper rotation	Form-fit 12 mm (10 mm with adapter supplied)
	Position indication	Mechanical with pointer
	Service life	Min. 60'000 safe positions
	Protection class	III Safety extra-low voltage
	Degree of protection	IP54 in all mounting positions
	EMC	CE according to 2004/108/EC
	Low voltage directive	CE according to 2006/95/EC
	Mode of operation	Type 1.AA.B (EN60730-1)
	Rated impulse voltage	0.8 kV (EN60730-1)
	Control pollution degree	3 (EN60730-1)
Dimensions / weight	Ambient temperature Normal duty	-30 ... +50°C
	Safety duty	The safe position will be attained up to max. 75°C
	Non-operating temperature	-40 ... +50°C
	Ambient humidity	95% r.H., non-condensating (EN 60730-1)
	Maintenance	Maintenance-free
	Dimensions	See «Dimensions» on page 3
	Weight	Approx. 2.8 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.
- 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.
- 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

Mode of operation

The actuator moves the damper to its normal working position while tensioning the return spring at the same time. If the power supply is interrupted, the energy stored in the spring moves the damper back to its safe position.

Thermo-electric tripping device
BAE72B-S

Thermal trip Tf1 operates if the ambient temperature exceeds 72°C.

Replaceable thermal trip Tf2/Tf3 operates if the temperature inside the duct exceeds 72°C.

Tf1, Tf2 or Tf3 trips cause the power supply to be interrupted permanently so that it cannot be uncanceled.

The LED is lit when

- there is a supply voltage,
- the temperature fuses are OK and
- the test switch is not pressed.

Note

The function of the thermal trip and the test switch is only warranted if the actuator is connected to the power supply and has reached its operating position.

Signalling

Two microswitches with fixed settings are installed in the actuator for indicating the damper end positions. The position of the damper blade can be read off on a mechanical position indicator.

Manual operation

Without power supply, the damper can be operated manually and fixed in any required position. Release of the locking mechanism can be achieved manually or automatically by applying the supply voltage.

Accessories

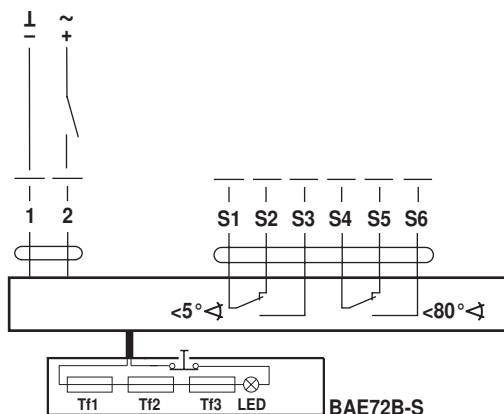
	Description	Type
Electrical accessories	Auxiliary switch, 1 x SPDT 6 A (2.5 A), AC 250 V	SN1
	Auxiliary switch, 2 x SPDT 6 A (2.5 A), AC 250 V	SN2
	Cable set with plug (L = 0.5 m) for BF.. and BLF.. on communication and power supply units	ZST-BS
	Blanking cover (without canal sensor function)	ZBAE0
	Spare thermoelectric tripping device Duct inside temperature 72°C	ZBAE72
	Spare thermoelectric tripping device Duct inside temperature 95°C, colour green	ZBAE95
	Adapter with clamp for rotary axes up to 20 mm for BF.. and BLF..	ZK-BF
Mechanical accessories	Adapter with DM18 rotary axis, L = 33 mm, for BF.. and BLF..	ZA18-BF
	Adapter 12/8 mm for BF.. and BLF..	ZA8-BF
	Adapter 12/11 mm for BF.. and BLF..	ZA11-BF
	Bracket for SN1 and SN2 auxiliary switches for BF..	ZSN-BF

Electrical installation

Wiring diagram

Note

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



Dimensions [mm]

Dimensional drawings

