

Spring-return actuator for fire and smoke dampers 90° in ventilation and air-conditioning systems

- Nominal torque 6 Nm / 4 Nm
- Nominal voltage AC/DC 24 V
- · Control open-close
- Damper rotation form fit 12 mm (10 mm with enclosed adapter)





Technical data

Electrical data



Nominal voltage	AC/DC 24 V
Nominal voltage frequency	50/60 Hz
Nominal voltage range	AC 19.2 V 28.8 V / DC 21.6 V 28.8 V
Power consumption in operation	5 W
Power consumption at rest	2.5 W
Power consumption for wire sizing	7 VA
Power consumption for wire sizing note	Imax 5.8 A @ 5 ms
Auxiliary switch	2 x SPDT
Switching capacity auxiliary switch	Contact gold-plated silver: 1 mA 3 (0.5) A, DC 5 V AC 250 V (II Totally insulated)
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)
Torque motor	Min. 6 Nm
Torque spring-return	Min. 4 Nm

Functional data

Connection auxiliary switch	Cable 1 m, 6 x 0.75 mm ² (halogen-free)	
Torque motor	Min. 6 Nm	
Torque spring-return	Min. 4 Nm	
Direction of rotation motor	Can be selected by mounting L / R	
Angle of rotation	Max. 95° (incl. 5° initial spring tension)	
Running time motor	40 75 s (0 6 Nm) / 90°	
Running time spring-return	~20 s @ -20 50 °C / max. 60 s @ -30 °C	
Sound power level motor max.	45 dB (A)	
Sound power level spring-return max.	63 dB (A)	
Damper rotation	Form fit 12 mm (10 mm with enclosed adapter)	
Position indication	Mechanically, with pointer	
Service life	Min. 60,000 safety positions	
Protection class IEC/EN	III Safety extra-low voltage	
Degree of protection IEC/EN	IP54 in all mounting positions	
EMC	CE according to 2004/109/EC	

Safety

Service life	Min. 60,000 safety positions	
Protection class IEC/EN	III Safety extra-low voltage	
Degree of protection IEC/EN	IP54 in all mounting positions	
EMC	CE according to 2004/108/EC	
Low-voltage directive	CE according to 2006/95/EC	
Certification IEC/EN	Certified according to IEC/EN 60730-1 and IEC/EN 60730-2-14	
Mode of operation	Type 1.AA.B	
Rated impulse voltage supply / control	0.8 kV	
Control pollution degree	3	
Ambient temperature normal duty	-30°C 50°C	
Ambient temperature safety duty	The safety position will be attained up to max. 75°C when triggered by a thermal fuse	
Non-operating temperature	-40°C 80°C	
Ambient humidity	95% r.h., non-condensing	
Maintenance	Maintenance-free	
Weight approx.	1.6 kg	

Weight



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 electrical and electronic components and is not allowed to 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.

Signalling

Two microswitches with fixed settings are installed in the actuator for indicating the damper end positions.

Manual operation

The position of the damper blade can be read off on a mechanical position indicator. Without power supply, the damper can be operated manually and fixed in any required position. It can be unlocked manually or automatically by applying the supply voltage.

Accessories

	Description	Data sheet name
Electrical accessories	Thermoelectric tripping devices	BAE72
		BAE72-F-ST
	Thermoelectric tripping devices with test button	BAE72-S
		BAE72-S-F-ST
	Auxiliary switch, 2 x SPDT, 6 A (2.5 A), AC 250 V	SN2-C7
	Cable set with plug, L = 0.5 m for BF and BLF on communication and	ZST-BS
	power supply units	
Mechanical accessories	Adapter with clamp for rotary axes up to 20 mm for BF and BLF	ZK-BF
	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 SN2-C7 auxiliary switch for BF and BR	ZSN-BF

Electrical installation



Notes

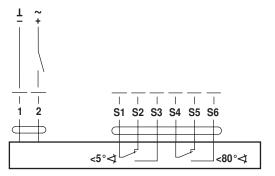
- · Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Note the performance data.



Electrical installation

Wiring diagrams

AC/DC 24, open-close



Cable colours:

1 = black

2 = white

S1 = white

S2 = white

S3 = white

S4 = white S5 = white S6 = white

Dimensions [mm]

Dimensional drawings

