

Spring-return actuator, combined with thermoelectric tripping device (72°C), for fire and smoke dampers 180° in ventilation and air-conditioning systems.

- Nominal torque 11 Nm / 8.5 Nm
- Nominal voltage AC 230 V
- Control open-close
- Damper rotation form fit 10 mm



		PROTECT LIFE FAIL-SAFE SOLUTIONS BY BELIMO
Technical data		
Electrical data	Nominal voltage	AC 230 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 198 V 264 V
	Power consumption in operation	9.5 W
	Power consumption at rest	3.5 W
	Power consumption for wire sizing	11 VA
	Power consumption for wire sizing note	Imax 0.5 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	25° / 145° (5° / 80° relating to damper angle of rotation)
	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	Torque motor	Min. 11 Nm
	Torque spring-return	Min. 8.5 Nm
	Direction of rotation motor	Can be selected by mounting L / R
	Angle of rotation	Max. 180°
	Running time motor	<120 s / 180°
	Running time spring-return	~20 s (tamb = 20 °C)
	Sound power level motor max.	45 dB (A)
	Sound power level spring-return max.	63 dB (A)
	Damper rotation	Form fit 10 mm
	Position indication	Mechanically, with pointer
	Service life	Min. 50,000 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 Totally insulated
	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	4 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
	Non-operating temperature	-40°C 50°C
	Ambient humidity	95% r.h., non-condensing
	Maintenance	Maintenance-free
Weight	Weight approx.	3.1 kg

Spring-return actuator 180 $^{\circ},$ AC 230 V, 11 Nm / 8.5 Nm, with BAE..



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.
- 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.

Thermoelectric tripping device

If the ambient temperature of 72°C is exceeded, the thermal fuse Tf1 responds. If the duct inside temperature of 72°C is exceeded, the exchangeable thermal fuse Tf2/Tf3 will respond.

When the thermal fuses Tf1, Tf2 or Tf3 respond, the supply voltage is interrupted permanently and irreversibly.

The LED is lit when

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

Blind cover (has no duct sensor function)

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. It can be unlocked manually or automatically by applying the supply voltage.

Accessories

Electrical accessories

Description	Data sheet name
Blanking cover (has no duct sensor function) for BAE	ZBAE0
Spare thermoelectric tripping device for BAE, duct inside temperature 72°C	ZBAE72
Spare thermoelectric tripping device for BAE, duct inside temperature 95°C, colour green	ZBAE95

Electrical installation



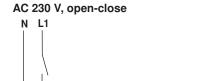
Notes

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



Electrical installation

Wiring diagrams



<25°∢

Tf3 LED

S1 S2 S3 S4 S5 S6

BAE72B-S

<145°∢

Cable colours:

1 = blue

2 = brown

S1 = white

S2 = white

S3 = white

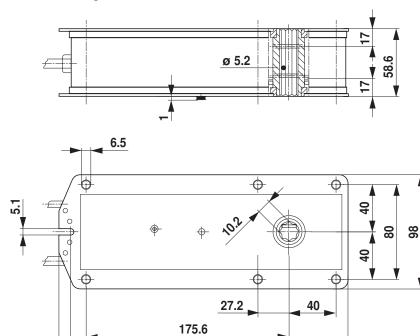
S4 = white S5 = white

S6 = white

Dimensions [mm]

Dimensional drawings

10



188

248

50