

Actuator for smoke control dampers 90°

- Torque motor 40 Nm
- Nominal voltage AC/DC 24 V
- Control Open/close
- Mechanical interface Form fit 14x14 mm, continuous hollow shaft



Technical data

Electrical data

Nominal voltage	AC/DC 24 V
Nominal voltage frequency	50/60 Hz
Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
Switching thresholds min. ON voltage	AC 19.2 V / DC 21.6 V
Switching thresholds max. OFF voltage	AC 6.5 V / DC 6.5 V
Power consumption in operation	12 W
Power consumption in rest position	0.5 W
Power consumption for wire sizing	18 VA
Power consumption for wire sizing note	Imax 8.2 A @ 5 ms
Auxiliary switch	2 x SPDT
Switching capacity auxiliary switch	1 mA6 A (3 A inductive), DC 5 VAC 250 V
Switching points auxiliary switch	3° / 87°
Tolerance	±2°
Connection supply / control	Cable 1 m, 3 x 0.75 mm², halogen-free
Connection auxiliary switch	Cable 1 m, 6 x 0.75 mm², halogen-free
Torque motor	40 Nm

Functional data

Torque motor	40 Nm
Inhibiting torque dynamic	40 Nm
Inhibiting torque static (voltage-free)	50 Nm
Direction of motion motor	selectable by mounting L/R
Manual override	with hand crank
Angle of rotation	Max. 100°
Angle of rotation note	Including 5° mechanical overrun at both sides
Running time motor	<60 s / 90°
Sound power level, motor	62 dB(A)
Mechanical interface	Form fit 14x14 mm, continuous hollow shaft
Position indication	Mechanically, with pointer
Service life	Min. 10'000 cycles

Safety data

Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)
Protection class auxiliary switch IEC/EN	II, reinforced insulation
Degree of protection IEC/EN	IP54
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.B
Rated impulse voltage supply / control	0.8 kV
	0.0 KV
Rated impulse voltage auxiliary switch	2.5 kV
Rated impulse voltage auxiliary switch Pollution degree	0.0
	2.5 kV
Pollution degree	2.5 kV 3



Technical data sheet	BE24
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Max. 95% RH, non-condensing

Safety data Ambient humidity

Servicing maintenance-free

Weight Weight 2.7 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.
- The actuator is adapted to and installed on the smoke control 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 two switches integrated in the actuator are to be operated either on power supply voltage
 or at safety extra-low voltage. The combination power supply voltage/safety extra-low voltage
 is not permitted.
- Because of the fact that very high torques are applied to the damper shaft, the use of St50 (as a minimum) is recommended.
- 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

2-wire open/close control. The actuator is overload-proof and can thus remain energised even at the end stops.

Manual override

The hand crank included in the shipment can be used for manual operation of the actuator.

Signalling

Two microswitches with fixed settings are installed in the actuator for indicating the damper end positions. It should be noted with this application however that the contacts can no longer be used in the milliampere range after larger currents have been applied to them, even if this has taken place only once.

The position of the damper blade can be read off on a mechanical position indication.

Standards / Regulations

The design of the actuator is based on the specific requirements from the European standards:

- EN 12101-8: Smoke and heat control systems Part 8: Smoke control dampers
- EN 1366-10: Fire resistance tests for service installations Part 10: Smoke control dampers
- EN 13501-4: Fire classification of construction products and building elements Part 4: Classification using data from fire resistance tests on components of smoke control systems

Delivery notes

Incl. Hand crank, Pointer, Protective bag

Accessories

Electrical accessories	Description	Туре
	Cable set with plug 0.5 m for communication and power supply unit	ZST-BS
Mechanical accessories	Description	Туре
	Hand crank 40 mm	ZK1-B
	Hand crank 70 mm	ZK2-B
	Protective bag with wire, Multipack 100 pcs.	ZSD-B.1

Electrical installation



Supply from isolating transformer.

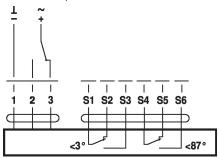
Parallel connection of other actuators possible. Observe the performance data and the switching thresholds.

Combination of power supply voltage and safety extra-low voltage not permitted at the both auxiliary switches.



Wiring diagrams

AC/DC 24 V, open/close



Dimensions

