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 19.2...28.8 V / DC 21.6...28.8 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	2x SPDT
	Switching capacity auxiliary switch	1 mA...6 A (3 A inductive), DC 5 V...AC 250 V
	Switching points auxiliary switch	3° / 87°
	Tolerance	±2°
	Connection supply / control	Cable 1 m, 3x 0.75 mm², halogen-free
	Connection auxiliary switch	Cable 1 m, 6x 0.75 mm², halogen-free
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	Mechanical, 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
	Type of action	Type 1.B
	Rated impulse voltage supply / control	0.8 kV
	Rated impulse voltage auxiliary switch	2.5 kV

Technical data

Safety data

Pollution degree	3
Ambient humidity	Max. 95% RH, non-condensing
Ambient temperature	-30...50°C [-22...122°F]
Storage temperature	-40...80°C [-40...176°F]
Servicing	maintenance-free

Weight

Weight	2.6 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

Operating mode

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

Parts included

Hand crank
Pointer
Protective bag

Accessories

Electrical accessories

Description	Type
Cable set with plug 0.5 m for communication and power supply unit	ZST-BS

Accessories

Mechanical accessories	Description	Type
	Hand crank 40 mm	ZK1-B
	Hand crank 70 mm	ZK2-B
	Protective bag with wire, Multipack 100 pcs.	ZSD-B.1

Electrical installation

Caution: Power supply voltage!

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

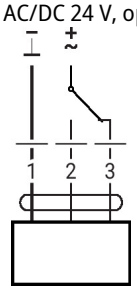
Combination of power supply voltage and safety extra-low voltage not permitted at the both auxiliary switches.

Wire colours:

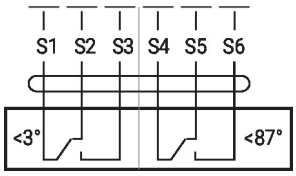
1 = black
2 = white
3 = white
S1 = white
S2 = white
S3 = white
S4 = white
S5 = white
S6 = white

Wiring diagrams

AC/DC 24 V, open/close



Auxiliary switch



Dimensions

