NENUTEC®

INNOVATIVE MEMBER OF SWISTEC

SAFA – FIRE & SMOKE DAMPER ACTUATOR

5 Nm | 2-POINT CONTROL | SPRING RETURN



The appearance of the product may differ from the illustration. Technical specifications are subject to change.

SAFA...05S (T) SERIES

SAFA series Spring Return damper actuators are designed specifically for fire and smoke application. During normal operation, the actuator positions a damper according to the control signal. In the event of fire emergency, the spring return drives back actuator to its original position when there is power outage or thermal sensor is tripped.

- Torque: 5 Nm
- Damper size 1.0 m^2
- Power supply 24 $V_{AC/DC}$ and 230 V_{AC}
- Shaft dimensions – form fit 12 mm square
- Adapter supplied for from fit 8 or 10 mm square
- Selectable direction of rotation
- Actuator with 1 m connection cable.
- 2 Fixed auxiliary switches (SPDT)
- Manual override by crank handle when required
- Thermal sensor option available
- Anti-rotation bracket provided for stability

MODEL SELECTION TABLE

Model/type	Torque motor / spring return	Power supply	Running time	Auxiliary switches	Thermoelectrical tripping device
SAFA 1-05S	5 Nm	24 $V_{AC/DC}$ ± 10%	50...70 s (spring return <20 s)	2 x SPDT (fixed)	-
SAFA 1-05ST	5 Nm	24 $V_{AC/DC}$ ± 10%	50...70 s (spring return <20 s)	2 x SPDT (Fixed)	Yes
SAFA 2-05S	5 Nm	230 V_{AC} ± 10%	50...70 s (spring return <20 s)	2 x SPDT (Fixed)	-
SAFA 2-05ST	5 Nm	230 V_{AC} ± 10%	50...70 s (spring return <20 s)	2 x SPDT (Fixed)	Yes

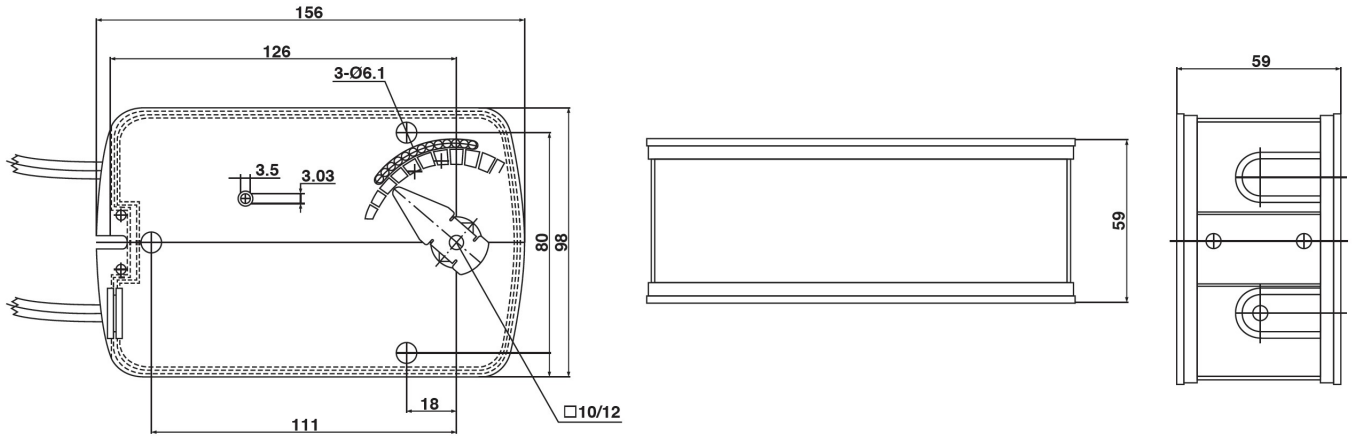
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ACTUATOR DIMENSIONS [mm]



TECHNICAL SPECIFICATION

	SAFA 1-05S (T)	SAFA 2-05S (T)
Torque	5 Nm	5 Nm
Damper size	1.0 m^2	1.0 m^2
Shaft dimensions	Form fit 12 mm square	Form fit 12 mm square
Control signal	2 point control	2 point control
Power supply	24 $V_{AC/DC}$ ± 10%	230 V_{AC} ± 10%
Frequency	50...60 Hz	50...60 Hz
Power consumption		
• In operation	7.0 W	7.0 W
• End position	2.5 W	2.5 W
Rated power	10.0 VA	10.0 VA
Electrical Connection	1 m Cable	1 m Cable
Auxiliary switches rating	3(1.5) A / 250 V_{AC}	3(1.5) A / 250 V_{AC}
Protection class	Class III	Class II
Angle of rotation	90° (95° mechanical limitation)	90° (95° mechanical limitation)
Trigger temperature of thermal sensor	> 72°C	> 72°C
Weight	1.8 kg	1.9 kg
Durability	60,000 rotations	60,000 rotations
Sound Level	40 dB	40 dB
IP protection class	IP54	IP54
Working temperature range	-20°C...50°C as per IEC 721-3-3	-20°C...50°C as per IEC 721-3-3
Storage temperature	-30°C...+60°C / IEC 721-3-2	-30°C...+60°C / IEC 721-3-2
Ambient humidity	5...95% rH (non condensing) / EN	5...95% rH (non condensing) / EN
Maintenance	Maintenance free	Maintenance free
Principle of operation	Type 1 (acc. to EN 60730-1)	Type 1 (acc. to EN 60730-1)
Electromagnetic compatibility	CE, UL 873 & ISO 9000 EN / EEC	CE, UL 873 & ISO 9000 EN / EEC

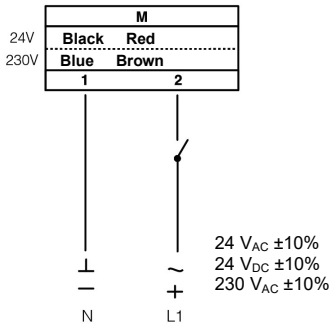
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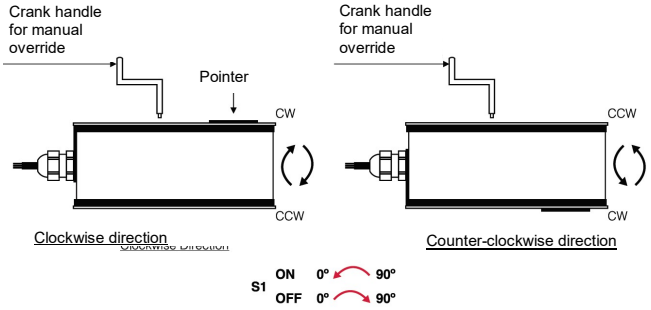
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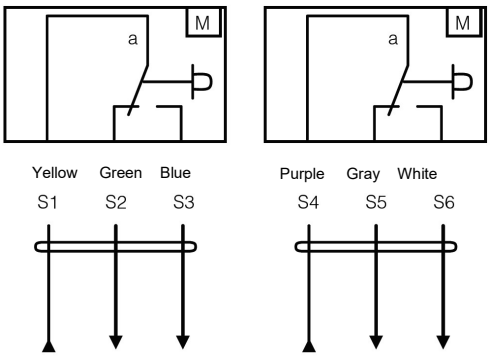
WIRING DIAGRAM SAFA...05S (T)
POWER SUPPLY AC/DC 24 V / AC 230V



WIRING DIAGRAM SAFA...05S (T)
POWER SUPPLY AC/DC 24 V / AC 230V



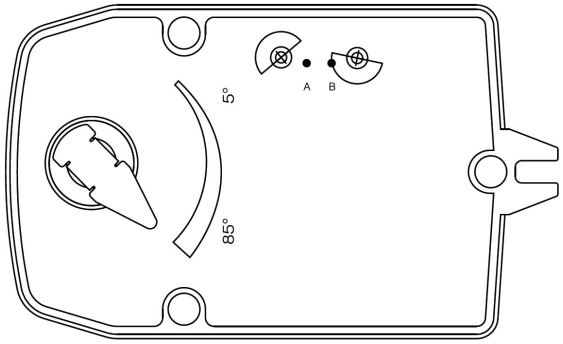
WIRING DIAGRAM SAFA...05S (T)
AUXILIARY SWITCHES



3(1.5) A / 250 VAC
Actuator at 0° position

AUXILIARY SWITCHES SAFA...05S (T)

Auxiliary are fixed at 5° for switch **a** and 85° for switch **b**. Auxiliary switches are non adjustable.



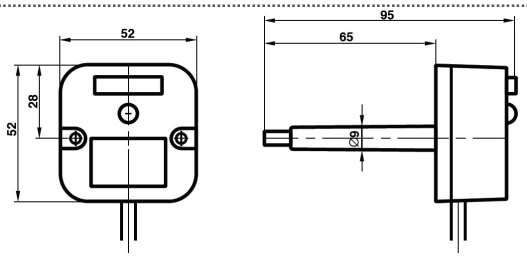
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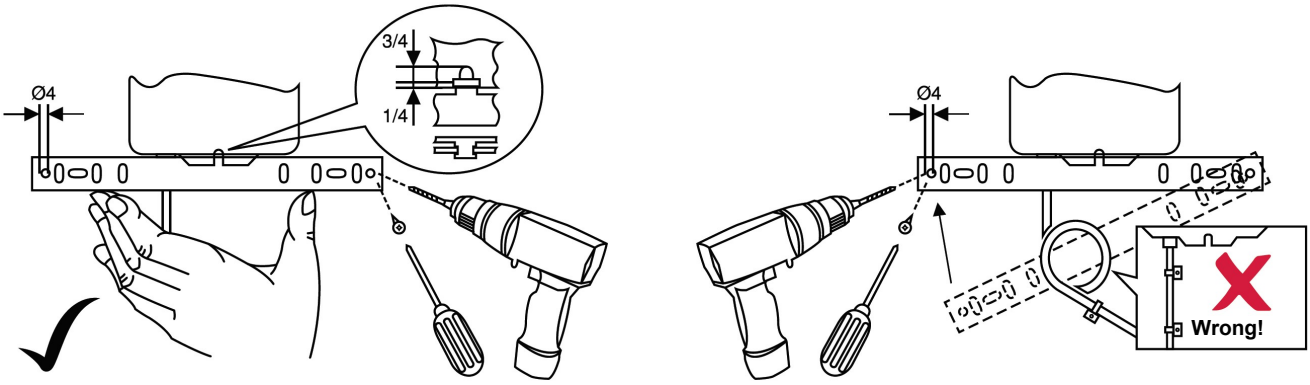
NTS72 thermal sensor

NTS 72 thermal sensor consist of both ambient and duct sensor (TS1 and TS2, respectively).

- TS1 will trip open when the ambient temperature rise above 72°C.
- TS2 will trip open when the duct temperature rise above 72°C.



Installation instruction



IMPORTANT REMARKS

This actuator includes electrical and electronic components and may not be disposed as household garbage. Please consider the local valid legislation.

24 $V_{AC/DC}$:	Connect via safety isolating transformer.
230 V_{AC}:	To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least a 3mm contact gap.)

Consult NENUTEC representatives for specific requirements and material selections for your intended application.

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The performance specifications are nominal and conform to acceptable industry standards. Nenutec shall not be liable for damages resulting from misapplication or misuse of its products.

CUSTOMISED VERSION

NENUTEC offers you actuators in customised versions, e.g. with your own brand name, with colour-coordinated applications and with your particular demand on request.

For further information please contact us or our local representative.

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