

# SAFA...20S (T) SERIES

FIRE & SMOKE DAMPER ACTUATOR 2 POINT SPRING RETURN CONTROL



## SAFA...20S (T) SERIES

SAFA series Spring Return damper actuators are designed specifically for fire and smoke application. During normal operation, the actuator motorized the damper. In the event of fire emergency, the actuator springs back to its original position when there is a power outage or trip by thermal sensor.

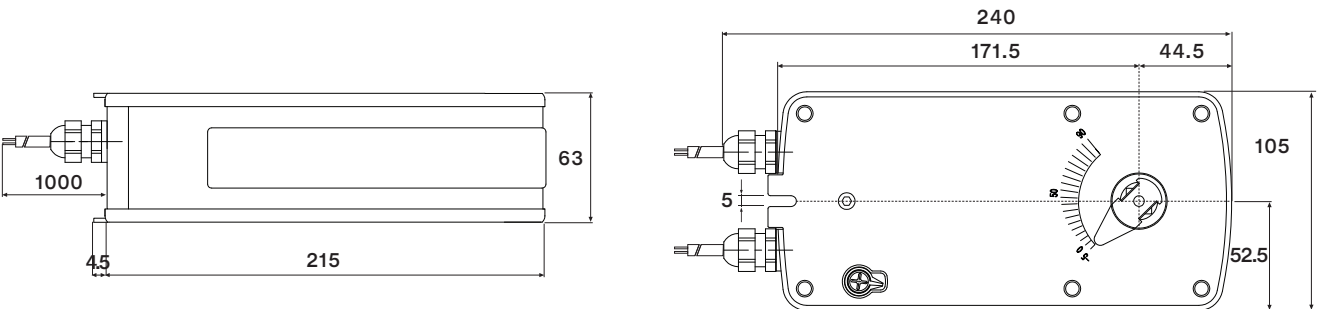
## PRODUCT FEATURE

- Torque 20 Nm
- Damper size 4.0 m<sup>2</sup>
- Power supply AC/DC 24V and AC 230 V
- Shaft dimensions - □ 12 mm
- Selectable direction of rotation of reversing actuator
- 2 fixed SPDT auxiliary switches
- Manual over-ride by crank handle when required
- Thermal sensor option available

## MODEL SELECTION TABLE

MODEL / TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	AUXILIARY SWITCH	THERMAL SENSOR
SAFA 1-20S	20 Nm	AC/DC 24 V ± 10%	50...70 sec (Spring Back <35 sec)	2 x SPDT (Fixed)	-
SAFA 1-20ST	20 Nm	AC/DC 24 V ± 10%	50...70 sec (Spring Back <35 sec)	2 x SPDT (Fixed)	Yes
SAFA 2-20S	20 Nm	AC 230 V ± 10%	50...70 sec (Spring Back <35 sec)	2 x SPDT (Fixed)	-
SAFA 2-20ST	20 Nm	AC 230 V ± 10%	50...70 sec (Spring Back <35 sec)	2 x SPDT (Fixed)	Yes

## DIMENSION (mm)



## TECHNICAL SPECIFICATION

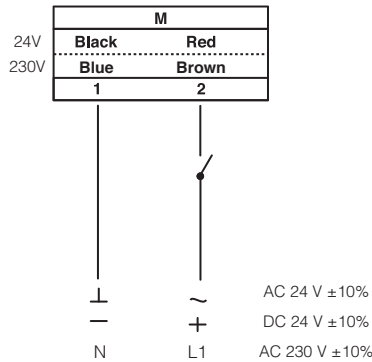
<b>MODEL NUMBER</b>	SAFA 1-20S (T)	SAFA 2-20S (T)
<b>TORQUE</b>	20 Nm	20 Nm
<b>DAMPER SIZE</b>	4.0 m <sup>2</sup>	4.0 m <sup>2</sup>
<b>SHAFT DIMENSION</b>	□ 12 mm*	□ 12 mm*
<b>POWER SUPPLY</b>	AC/DC 24 V ± 10%	AC 230 V ± 10%
<b>FREQUENCY</b>	50...60 Hz	50...60 Hz
<b>CONTROL SIGNAL</b>	2 point control	2 point control
<b>POWER CONSUMPTION</b>		
• <b>OPERATING</b>	12.0 W	12.0 W
• <b>END POSITION</b>	8.0 W	8.0 W
<b>FOR WIRE SIZING</b>	14.0 VA	14.0 VA
<b>ELECTRICAL CONNECTION</b>	1 m Cable	1 m Cable
<b>AUXILIARY SWITCH RATING</b>	2 (1.5) A, AC 250 V	2 (1.5) A, AC 250 V
<b>PROTECTION CLASS</b>	Class III ⚡	Class II ⚡
<b>ANGLE OF ROTATION</b>	90° (95° mechanical)	90° (95° mechanical)
<b>THERMAL TEMPERATURE TRIP</b>	> 72°C	> 72°C
<b>WEIGHT</b>	2.8 Kg	2.8 Kg
<b>LIFE CYCLE</b>	60,000 Rotation	60,000 Rotation
<b>SOUND LEVEL</b>	75 dB	75 dB
<b>IP PROTECTION</b>	IP54	IP54
<b>OPERATING TEMPERATURE</b>	-30°...50° as per IEC 721-3-3	-30°...50° as per IEC 721-3-3
<b>NON-OPERATING TEMPERATURE</b>	-30°...+60° C / IEC 721-3-2	-30°...+60° C / IEC 721-3-2
<b>AMBIENT HUMIDITY</b>	5%...95% rH non condensing / EN	5%...95% rH non condensing / EN
<b>MAINTENANCE</b>	Maintenance Free	Maintenance Free
<b>MODE OF OPERATION</b>	Type I / EN 60730-1	Type I / EN 60730-1
<b>EMC</b>	CE & ISO 9000 EN / EEC	CE & ISO 9000 EN / EEC

\*Note that shaft dimension has a tolerance offset of ± 0.2mm.

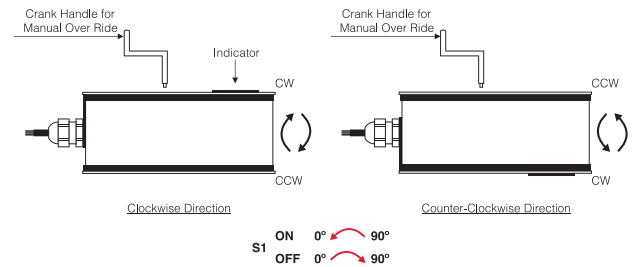
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FIRE & SMOKE DAMPER ACTUATOR 2 POINT SPRING RETURN CONTROL

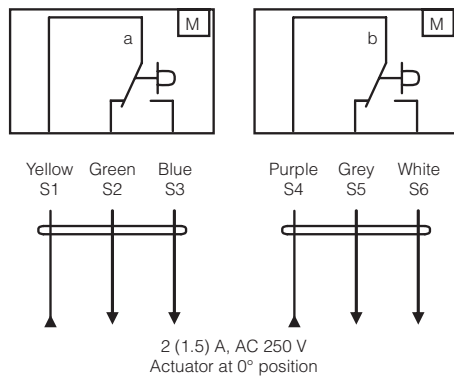
## WIRING DIAGRAM SAFA...20S (T) POWER SUPPLY AC/DC 24V OR AC 230V



## CHANGING DIRECTION OF ROTATION SAFA...20S (T)



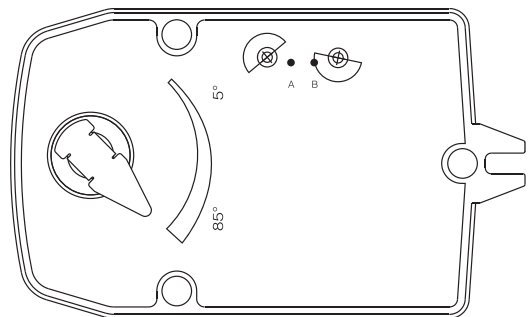
## WIRING DIAGRAM SAFA...20S (T) AUXILIARY SWITCH



## AUXILIARY SWITCH SAFA...20S (T)

Auxiliary switches are fixed at 5° for switch (a) and 85° for switch (b)

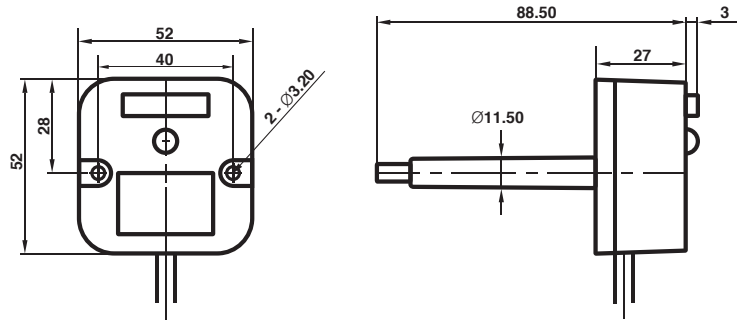
Both the auxiliary switches are non adjustable.



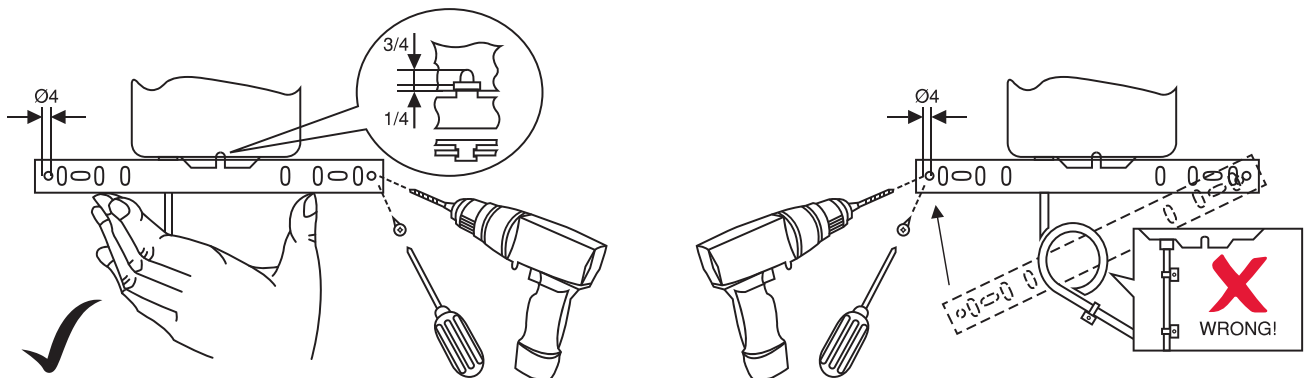
## THERMAL SENSOR NTS72

Thermal Sensor NTS 72 consist of both Ambient (TS1) and Duct sensor (TS2).

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



## INSTALLATION / MOUNTING INSTRUCTION



## IMPORTANT REMARK

For special requirement, consult your local Nenutec's representative.



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



AC / DC 24 V: Connect via safety isolating transformer.  
AC 230 V: 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.)

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.