

### Product Overview

The AX-RAF-20 spring-return damper actuators are designed for fire and smoke dampers in ventilation and air-conditioning systems. These 24Vac/dc & 230Vac operated actuators come with two auxiliary SPDT switches and an optional thermal switch which operates at 72°C.



### Products Features

- Square shaft : Max 12x12 mm
- Control: On/Off
- Two auxiliary switches
- Optional thermal switch

### Product Specifications

Torque:	20Nm
Damper size:	4m <sup>2</sup>
Running time	Less than 180s . Spring reset time <30s
Power supply:	AC/DC 24V 50/60Hz OR AC 100-240V 50/60Hz
Nominal voltage range:	24Vac (AC/DC 19.2V-28.8V), 230Vac (AC 85V-265V)
Power consumption:	Runtime: 7W, Idle:2W
Thermal switch (optional):	Cut-off at 72°C
Angle of rotation:	95° max
Wire Size:	0.5m <sup>2</sup>
Direction:	Selectable by mounting L/R
Position indication:	Machine Instruction
Manual override available:	Yes
Auxiliary switch:	2x SPDT
Auxiliary switch rating:	1mA...3(1.5)A, AC220V
Sound power level, motor:	45dB (A)
Sound power level, spring return:	62dB (A)
Ingress protection:	IP54
Ambient temperature:	-20°C to 50°C
Ambient humidity:	95 % RH, Non Condensing
Storage temperature:	-30 to 80°C
Weight:	<2.6 Kg
Compliance:	CE
Country Of Origin:	UK

### Order Codes

Part number	Description
AX-RAF-20DS	Fire damper actuator, spring return, 20Nm, 2x SPDT Aux switches
AX-RAF-20DST	Fire damper actuator, spring return, 20Nm, 2x SPDT Aux switches , Thermal switch

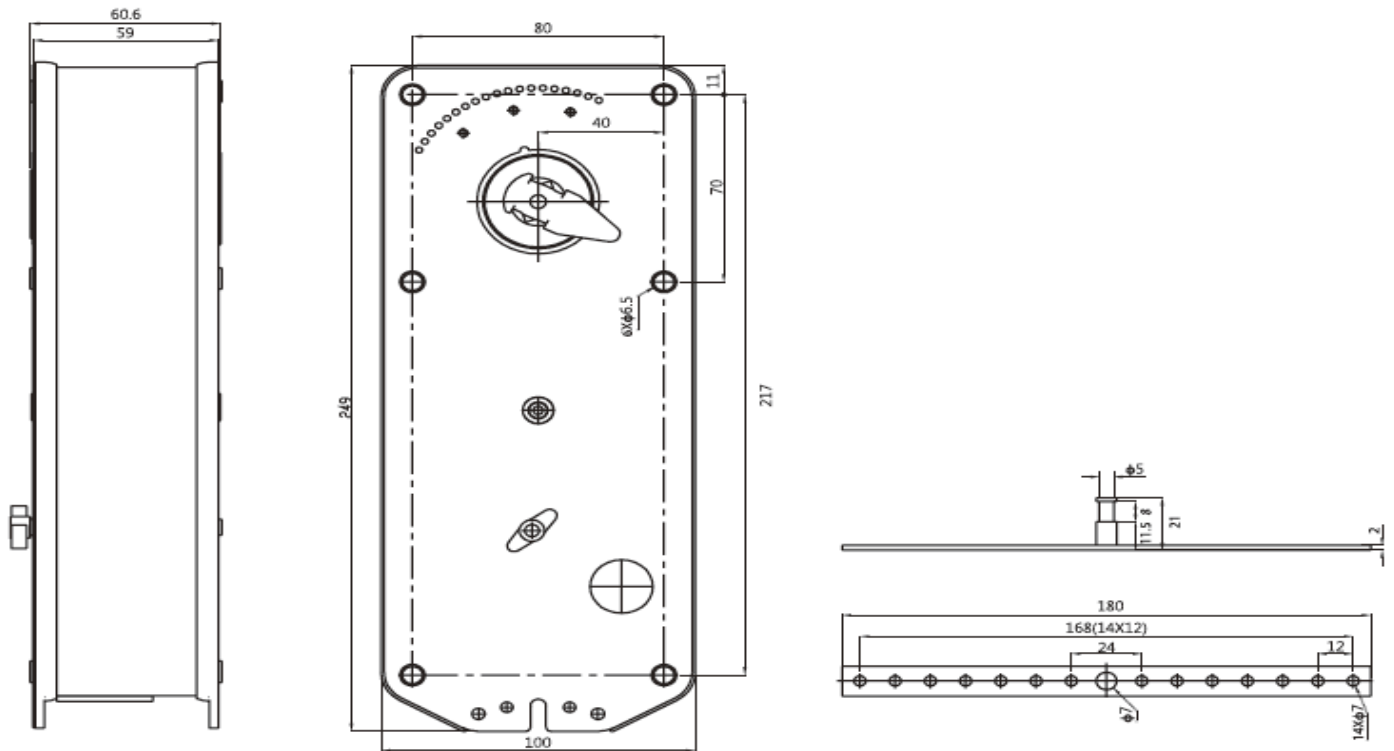
\* Add suffix “-230” for 230Vac versions

# AX-RAF-20D



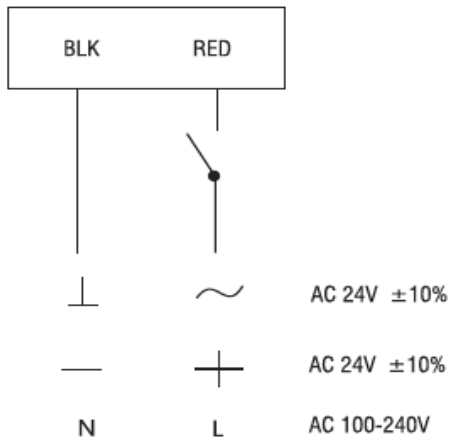
Fire Damper Actuator, Spring Return & Aux Sw, 20Nm

## Dimensions (mm)

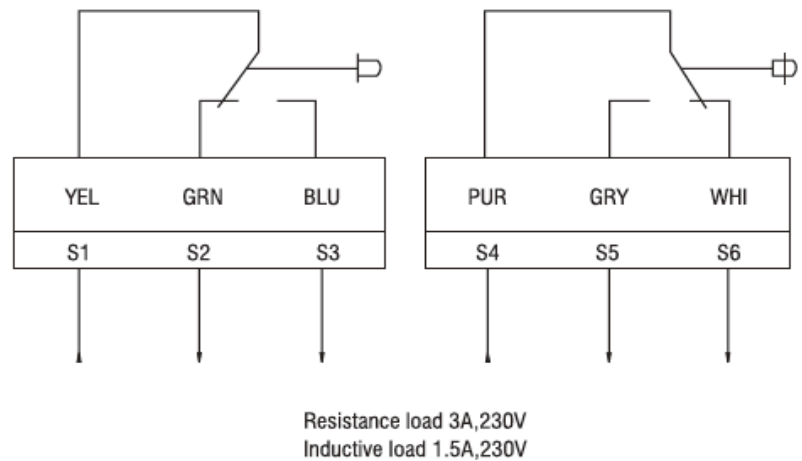


## Wiring Diagram

### Actuator

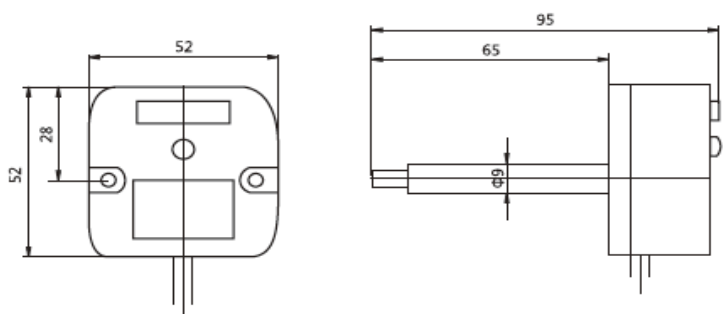


### Auxiliary switch



## Thermal Sensor

Thermal Sensor SAF72 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°.



### Operation

When power is applied, the actuator moves the damper at the same time as tensioning the return spring. It returns to the safety position by spring energy when the supply voltage is interrupted.

Plug the handle into the hexagonal hole. Move the handle in the direction of the arrow icon slowly. The output shaft and pointer will start rotating. After moving to the required position, rotate the lock knob towards the lock icon to lock the output shaft. To unlock, rotate the lock knob in the opposite direction.

DO NOT operate it manually when the spring is returning. It could cause mechanical damage.

### Datasheet Contents

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