# SPRING RETURN ACTUATORS FOR FIRE DAMPERS (5 Nm)    AF..SE

## FUNCTION

On / Off spring return for fire and smoke damper control.
The actuator opens the damper loading the return spring: when current is cut-off the spring moves the damper in a safe position. The actuator can be controlled manually by a suitable crank. The actuator have a thermic device calibrated at 72 °C. When temparature reaches 72 °C the damper is closed.

## APPLICATIONS

Well-suited for applications with security dampers used as antifreeze, antismoke or for sealing in the hygienic-sanitary field.

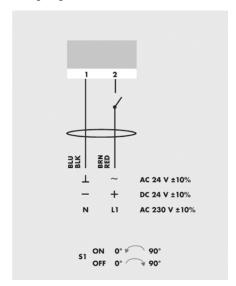| TYPE | POWER SUPPLY | THERMAL PROTECTION |
|------|--------------|--------------------|
| AF24SE | 24 Vac/dc | duct 72 °C |
| AF230SE | 230 Vac | duct 72 °C |

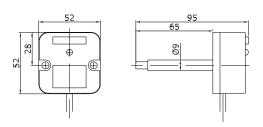| Actuator | | AF24SE | AF230SE |
|----------|---|--------|---------|
| Damper area (*) | m$^2$ | 1 | 1 |
| Torque | Nm | 5 | 5 |
| Power supply | V | 24 Vac/dc | 230 Vac ±10% |
| Frequency | Hz | 50...60 | 50...60 |
| Power comsumption | | | |
| - operating | W | 7,2 | 4,2 |
| - at the end stops | W | 2,5 | 2,5 |
| For wire sizing | VA | 10 | 10 |
| Running time | | | |
| - motor | s | 50...70 | 50...70 |
| - spring | s | < 20 | < 20 |
| Weight | g | 1800 | 1900 |
| Control signal | | 2- point | 2- point |
| Rotation angle: | | | |
| - working range | | 90° (95° mechanical) | 90° (95° mechanical) |
| Auxiliary switches (2 SPDT fixed) | | 3(1.5) A / 24-230 VCA | 3(1.5) A / 24-230 VCA |
| Direction of rotation | | bidirectional | bidirectional |
| Protection class | | II | II |
| Degree of protection | | IP54 | IP54 |
| Room temperature | | -30 ... +50°C | -30 ... +50°C |
| Room humidity | | 5...95% r.h. | 5...95% r.h. |
| Sensor action | | 72°C | 72°C |
| Noise level | | max 45 dB | max 45 dB |
| Standards | | CE | CE |

(*)   the indication of the damper area is not significant, the data that must be taken into account is the value of the torque in Nm.

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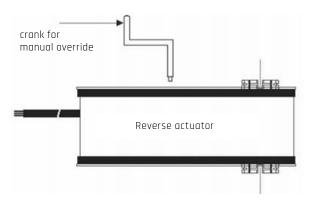
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## Wiring diagram



**1  2**

BLU / BLK    BRN / RED

| ⊥ | ~ | AC 24 V ±10% |
| − | + | DC 24 V ±10% |
| N | L1 | AC 230 V ±10% |

S1  ON   0° ↙ 90°
    OFF  0° ↘ 90°

## Direction of rotation setting



crank for
manual override

Reverse actuator

## Auxiliary switches setting

Factory setting:
switch a fixed at 5°.
switch b fixed at 80°.
The switches are not adjustable



auxiliary switches

a          b

| S1 | S2 | S3 | S4 | S5 | S6 |

YEL  GRN  BLU    PUR  GRY  WHI

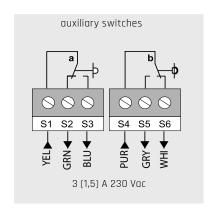3 (1,5) A 230 Vac

## Thermal sensor



52
28
52

95
65
Ø9

The thermal sensor consists of both ambient (TS1) and duct sensor (TS2).
TS1 will trip open when the ambient temperature rises above 72°C.
TS 2 will trip open when the duct temperature rises above 72°C.

## DIMENSIONS (mm)



59

10  2
10
Ø5  Ø4  Ø5
4
1,5
12 12
68  140
12 12

156
126
3-Ø6.1
3.5
3.03
3.03
80
98
111
18
□12

59

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