

## SECURITY FIRE

## 2-POINT Spring-return actuator for Fire Dampers

**3.20**

### Application

The JOVENTA **SECURITY FIRE** electric, spring return damper-actuator series has been specially developed for the motorized operation of safety dampers e.g. fire and smoke protection dampers. When the control signal is applied the actuator drives the damper to the operational position, while evenly tensioning the integrated spring. After a power failure the stored energy in the spring immediately brings the damper to the safety position. Manual operation is automatically cancelled when the actuator is in electrical operation.

### Key features

- 2-point control
- 2 auxiliary switches  
See back page for settings
- 10/11/12/14 mm steel adapter for square shaft
- Plug in terminal block connection
- Direct connection of ST1.72N or ST1.90N temperature sensor to monitor shaft internal temp. Switch point of temperature sensor ca. 72°C or ca. 90°C
- Actuator temperature sensor to monitor ambient temperature, switch point of temperature sensor ca. 72°C
- Low noise level
- Manual operation with crank handle
- Energy saving at end positions
- Actuators available with 1m halogen-free cable
- Customized versions available
- Devices meet CE requirements

### Nomenclature/Specification/Technical data

|   |   |   |   |   |        |   |   |    |   |
|---|---|---|---|---|--------|---|---|----|---|
| S | F | L | 1 | . | 90     | T | / | 10 | 2-Point actuator with 2 auxiliary switches        |
|   |   |   |   |   |        |   |   |    | 10/11/12/14 mm square shaft adapter               |
|   |   |   |   |   |        | T |   |    | T = with actuator thermosensor                    |
|   |   |   |   |   | 90/180 |   |   |    | 90/180 = Angle of rotation 90°< or 180°<          |
|   |   |   |   |   |        | 1 |   |    | 1 = AC/DC24V or 2 = AC230V supply voltage         |
|   |   |   |   |   |        | L |   |    | L = Left or R = Right for spring return direction |
|   |   |   |   |   |        | F |   |    | F = Spring return model                           |
|   |   |   |   |   |        | S |   |    | S = Safety actuator                               |

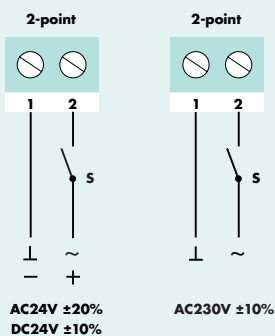
| Actuator                          | SF..1.90..                          | SF..1.180..                        | SF..2.90..            | SF..2.180.. |
|-----------------------------------|-------------------------------------|------------------------------------|-----------------------|-------------|
| Torque                            | 16 Nm                               | 10 Nm                              | 16 Nm                 | 10 Nm       |
| Damper area*                      | (m²) Per manufacturer's information |                                    |                       |             |
| Running time Motor                | 90...120 s                          | 120...150 s                        | 90...120 s            | 120...150 s |
| Running time Spring return        | 10 s                                | 10 s                               | 10 s                  | 10 s        |
| Supply voltage                    | 24 VAC/DC                           | 24 VAC/DC                          | AC230V                | AC230V      |
| Frequency                         | 50-60 Hz                            | 50-60 Hz                           | 50-60 Hz              | 50-60 Hz    |
| Power consumption                 |                                     |                                    |                       |             |
| - Running                         | 10.0 W                              | 10.0 W                             | 8.0 W                 | 8.0         |
| - At end position                 | 4.0 W                               | 4.0 W                              | 4.5 W                 | 4.5         |
| Dimensioning                      | 18.0 / 4 A @ 2 msec                 |                                    | 13.0 / 0.3 A @ 2 msec |             |
| Weight                            | 2.7                                 | 2.7                                | 2.9                   | 2.9         |
| Control signal                    | 2-point                             | 2-point                            | 2-point               | 2-point     |
| Position signal                   | None                                | None                               | None                  | None        |
| Angle of rotation / working range | 90°                                 | 180°                               | 90°                   | 180°        |
| Angle of rotation / limitation    | None                                | None                               | None                  | None        |
| Service lifetime                  | 60,000 rotations                    |                                    |                       |             |
| Auxiliary switches                | 3(1.5)A, AC230V                     |                                    |                       |             |
| Noise level                       | 50 dB (A)                           |                                    |                       |             |
| Protection class                  | II                                  |                                    |                       |             |
| Degree of protection              | IP 54                               |                                    |                       |             |
| Cable aperture connection         | PG11                                |                                    |                       |             |
| Mode of action                    | Type 1                              |                                    |                       |             |
| Ambient conditions:               |                                     |                                    |                       |             |
| - Operating temperature           | -20...+50°C / IEC 721-3-3           |                                    |                       |             |
| - Storage temperature             | -30...+60°C / IEC 721-3-2           |                                    |                       |             |
| - Humidity                        | 5...95% r.F.                        |                                    |                       |             |
| Service                           | Maintenance free                    |                                    |                       |             |
| Standards                         | Mechanics                           | EN 60 529 / EN 60 730-2-14         |                       |             |
|                                   | Electronics                         | EN 60 730-2-14                     |                       |             |
|                                   | EMC Emissions                       | EN 50 081-1:92 / IEC 61 000-6-3:96 |                       |             |
|                                   | EMC Immunity                        | EN 50 082-2:95 / IEC 61 000-6-2:99 |                       |             |

## SECURITY FIRE

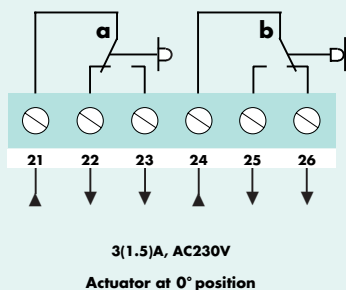
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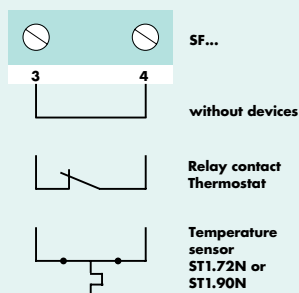
### Wiring Diagram



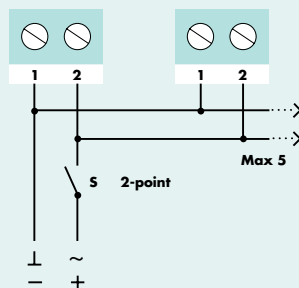
### Auxiliary switches (S)



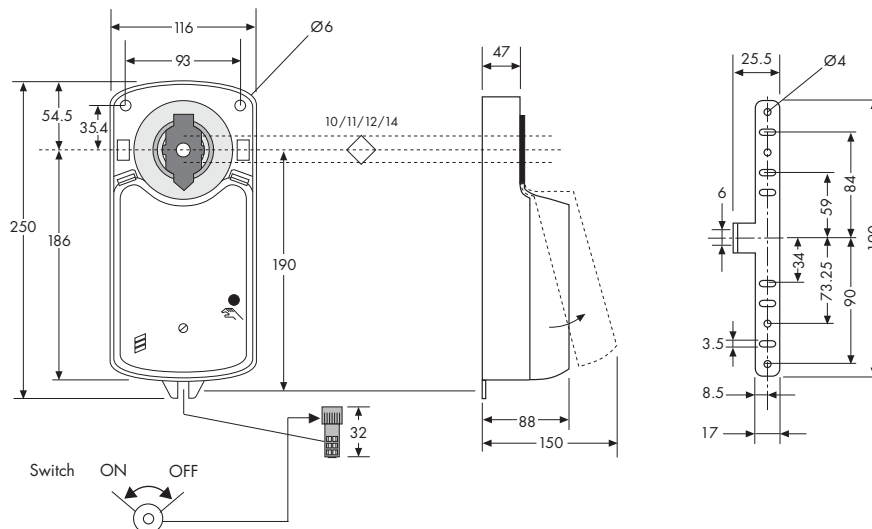
### Temperature sensor/ Thermostat



### Parallel connection



### Dimensions in mm

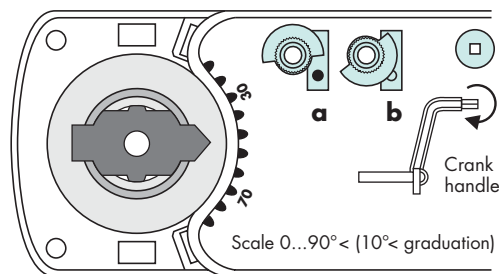


### Auxiliary switches

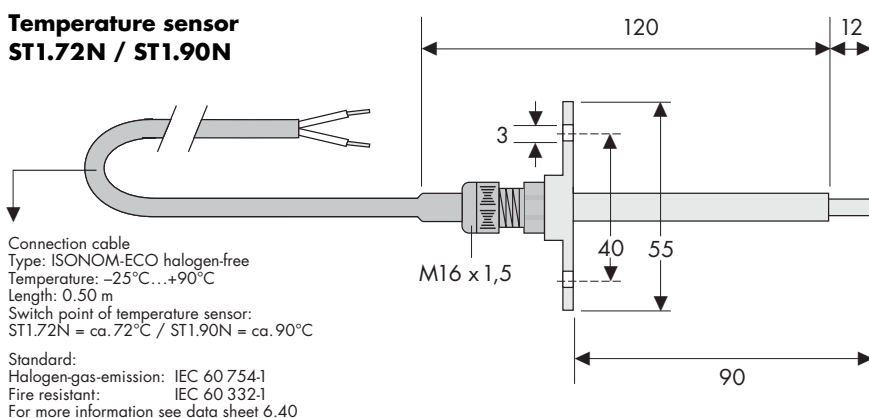
Factory setting fixed:

**SF..90**  
Switch **a** at 5°  
Switch **b** at 85°

**SF..180**  
Switch **a** at 10°  
Switch **b** at 170°



### Temperature sensor ST1.72N / ST1.90N



### Symbols for damper positions

