



## USER'S MANUAL

### SPT-2B 12V HEAT DETECTORS

The detectors comply with EN 54-5:2000 A2 class.

The following abbreviations apply in the manual.

AL – alarm loop;

FACP – control panel.

## 1 PURPOSE

1.1 The SPT-2B heat detectors feature:

- fixed temperature detection,
- LED indication of standby mode,
- remote reset,
- 4-wire connection to FACP or fire intruder CP,
- indoor use.

1.2 When exceeding the threshold ambient temperature value the detector issues the alarm signal for FACP.

1.3 The Fire mode is indicated with the red LED indicator (steadily lit – DC AL, flashing – AC AL).

1.4 The red LED flashes every 1-2 sec in standby mode.

## 2 TECHNICAL SPECIFICATIONS

- 2.1 Static response temperature range, °C.....54 – 70
- 2.2 Supply voltage range, V.....10 - 14
- 2.3 Standby current consumption, mA.....≤0,1
- 2.4 Fire current consumption, mA.....22
- 2.5 Max current commutated by relay contacts, mA.....≤100
- 2.6 Max voltage commutated by relay contacts, V.....<36
- 2.7 Remote reset to standby mode, sec.....3
- 2.8 Dimensions, mm.....Ø100 × 48
- 2.9 Weight, g.....150
- 2.10 Average lifespan, years.....≥10

## 3 ITEMS SUPPLIED WITH THE DETECTOR

<i>Name</i>	<i>Quantity</i>	<i>Note</i>
SPT-2B 12V heat detector	Up to 25 pcs	B103-02 base included
Manual	1 pc.	Per a package
Package	1 pc.	Per 25 pcs

K-4 mounting rings for installation to suspended ceilings if ordered separately.

## 4 PLACEMENT AND INSTALLATION

4.1 You should site detectors in places with the following conditions:

- minimal construction vibrations;
- maximum distance from electromagnetic interferences sources (electric wires etc.), infrared radiation (heat devices);

- elimination of water ingress to the housing.

4.2. Detectors are connected to the loop with the help of bases. Bases are secured at the place of detectors' mounting using two dowels Ø6x25 mm and two self-tapping screws Ø3x30 mm. The center-to-center distance between base's mounting holes is  $70 \pm 0,2$  mm.

4.3 It is possible to connect up to  $0,2-0,5 \text{ mm}^2$  3 wires to one screw joint of the base.

4.4 You should provide protection against construction debris and dusts while conducting repair of lodgings.

4.5 The view and dimensions of the B103-02 base are shown in Figure 1.

4.6 The wiring diagrams for detectors to control panels with various loop types are shown in Figure 2,3.

## **5 PREPARATION FOR OPERATING AND SEQUENCE OF OPERATIONS**

5.1 Open the package after receiving detectors, check contents.

**ATTENTION! If detectors were in conditions of temperature below 0° C before opening the package, allow them to acclimatize inside the structure for at least 4 hours.**

5.2 Connect wires of loops to base's terminal blocks according to Figure 2 and Figure 3. Check the connection for security.

5.3 Install the detector head to the base.

5.4 Connect AL with the detector to FACP and test the loop circuit. After energizing check to see The LED flashing every 1-2 sec.

## **6 MAINTENANCE**

6.1 Vacuum at least every six months to keep unit working efficiently by firstly turning off the mains supply and vacuuming through the vents during one minute using a soft brush attachment or another compressor.

6.2 After maintenance check detectors for proper operation.

6.3 You can check detectors directing air flow with temperature by 5°C higher than activation threshold temperature onto the temperature element.

## **7 GUARANTEE**

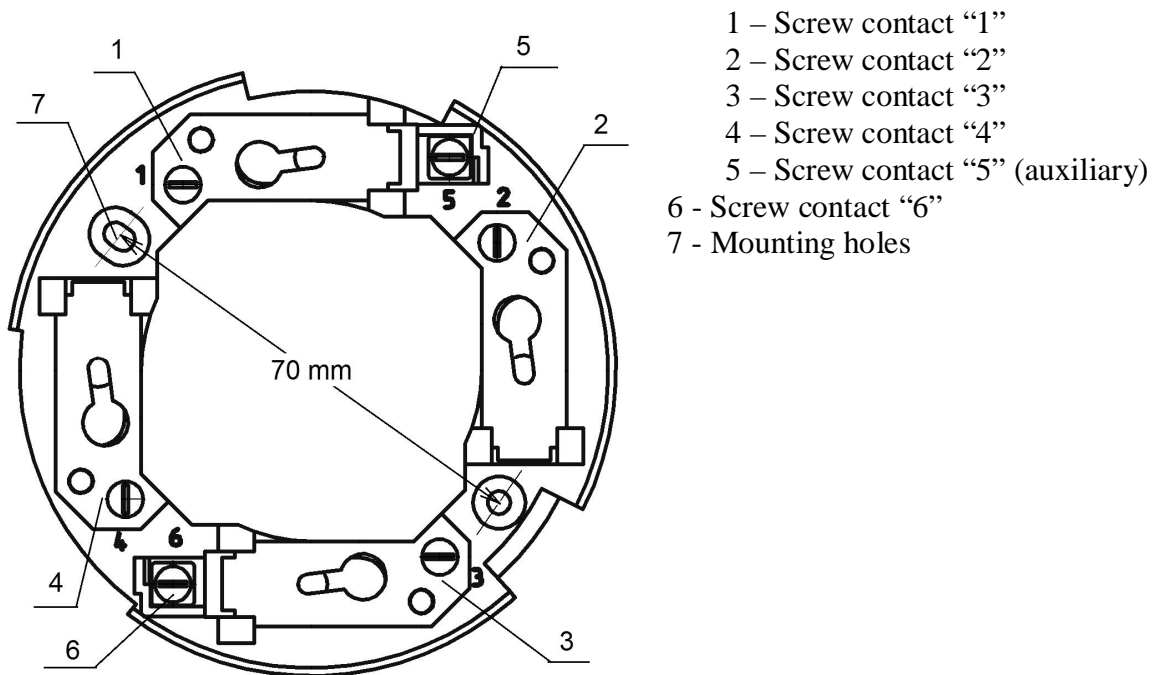
7.1 The detector is warranted by the manufacturer for 18 months upon the date of the detector's commissioning but not more than for 30 months from the date of acceptance by a representative of the quality control service of the manufacturer.

7.2 The manufacturer repairs or replaces detectors within the guarantee term provided the rules of installation, timely maintenance, transportation and storage of detectors have been kept.

7.3 In the case that faults according to the reclamation have been removed the guarantee term is prolonged for the while detectors were not in use because of faults.

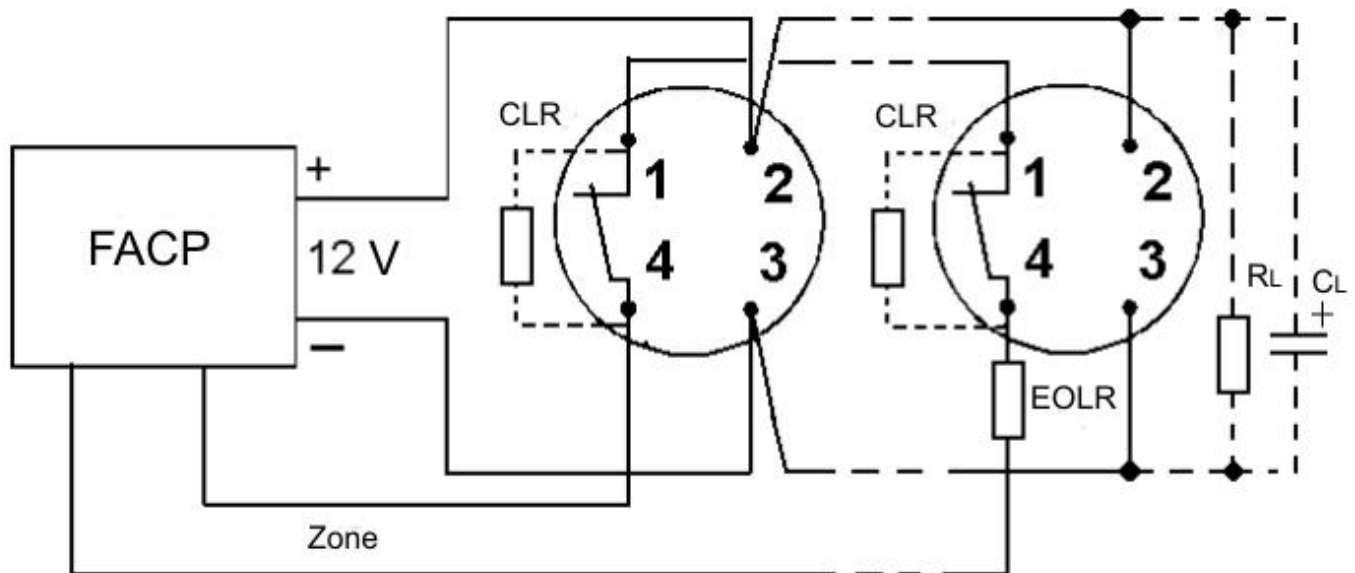
**Figure 1**

**VIEW AND DIMENSIONS**



**Figure 2**

**WIRING DIAGRAM TO DC CONTROL PANEL**



Resistors' values are specified by control panel manufacturer.  
To increase false alarm immunity it's recommended to put  $R_L$  (load resistor) 3kOhm,  
and  $C_L$  capacitor = 22 $\mu$ Fx16V