



# CONVENTIONAL FIXED TEMPERATURE HEAT DETECTOR TYPE LF-F50 INSTRUCTION MANUAL LF-F50\_REV0100



## GENERAL DESCRIPTION

The fire detector is designed for early warning of a fire condition when the fixed temperature threshold in the protected premises is reached. The principle of functioning of the fire detector is based on the ohmic resistance alteration in the thermistor as a result of the ambient temperature change. LF-F50 is fitted on a 50 series base.

The fire detector (fig.1) consists of a printed circuit board and a chamber with thermistor (pos.4), fixed in a plastic body (pos.5).

Both LED indicators (pos.3) allow range of visibility 360° and provide information for the status:

- Standby mode** - the LEDs are off;
- Alarm condition** - the LEDs are on.

## TECHNICAL DATA

Nominal operating voltage	24V DC
Minimum operating voltage	10V DC
Maximum operating voltage	30V DC
Current consumption in Standby mode	80µA/22.5V DC
Current consumption in Alarm mode	8mA/10V DC; 25mA/30V DC
Temperature category	A2S (complies with EN54-5:2017 + A1:2018)
Protected area	circle with diameter 10m (complies with EN54-14)
Height of mounting	up to 8m (complies with EN54-14)
Output in Alarm condition (RI/KL terminal)	for RI 31
Degree of protection	IP43 (not verified by UL)
Operational temperature range	minus 10°C - plus 50°C
Relative humidity resistance	(93±3)% at 40°C
Dimensions, base included	Ø100mm, h=47mm
Weight, base 8000 included	0.100kg
Type of the connecting line to the base	two-wire, a single-core or multi-core insulated wire
Cross section of the connecting wire	(0.8-1.5)mm <sup>2</sup>

## INSTALLATION

The fire detector operates with base type **LF-DB50**. They are delivered separately and installed on ceiling through relevant screw with plastic-dowel. The connection diagram of the installation is on fig.2. Cable shoes is recommended in the wiring installation.

The fire detector is placed on the base (fig.1, pos.1). It is rotated clockwise until reaching the guiding grooves (fig.1, pos.2). It is rotated until rest (fig.3.1). The slots of the base and the body should match (fig.3.2).

**Locking of the fire detector (fig.4).** Before installation, the key (pos.3) is detached from the base and the rib (pos.1) of the locking click (pos.2) is cut out. **Removing of a fire detector locked to the base.** Insert the key into the slot (pos.4) push in as in the same time the fire detector is rotated anticlockwise. Remove the key and continue to rotate the fire detector in the same direction until it is released from the base.

## TESTING

The fire detector is tested after installation as a part of the site's fire alarm system or with the following maintenance procedure:

1. The conventional line of the fire detector is power supplied from the Fire Control panel's zone or from auxiliary power supply unit;
2. One minute after the fire detector has been power supplied, then it is triggered with heat tester. It should enter to fire alarm condition within 40 sec.
3. In order to reset the LF-F50 fire detector, then the conventional line must be power down for at least 2 sec. or a reset command should be handled from the Fire Control Panel;

## SERVICE SCHEDULE

The service procedures are done on the following maintenance periods from authorized personnel:

1. Inspection for visible physical damage - monthly
2. Testing in real conditions - monthly
3. \*Preventive dusting - every 6 months

\*The fire detector is removed from the base. The body cover (fig.1, pos.6) is removed. The chamber and the thermistor are dusted with a small brush.

## WARRANTY

The warranty period is 36 months from the date of sale.

The manufacturer guarantees the normal operation of the fire detector providing that the requirements set herein have been observed.

The manufacturer does not bear warranty liabilities for damages caused through accidental mechanical damage, misuse, adaptation or modification after production. The manufacturer bears warranty liabilities for damages in the fire detector caused through manufacturer's fault only.

Essential characteristics	Performance
Nominal activation conditions/Sensitivity, Response delay (response time) and Performance under fire conditions	Pass
Operational reliability	Pass
Tolerance to supply voltage	Pass
Durability of operational reliability and response delay, Temperature resistance	Pass
Durability of operational reliability, Vibration resistance	Pass
Durability of operational reliability, Humidity resistance	Pass
Durability of operational reliability, Corrosion resistance	Pass
Durability of operational reliability, Electrical stability	Pass

Declaration of Performance No: DOP\_23\_002LF\_REV0100

EN54-5:2017 + A1:2018, category A2S  
LF-F50  
Fire detection and fire alarm systems  
installed in buildings.  
Point type heat detector category A2S

