



# ADDRESSABLE RATE OF RISE HEAT DETECTOR

## TYPE FD 7120

### INSTRUCTION MANUAL 01-7120-11-05



#### GENERAL DESCRIPTION

FD7120 addressable rate of rise heat detector is designed provide early warning of a fire condition reacting upon a sensitive rate of rise in temperature or upon reaching a fixed temperature threshold.

The principle of function of FD7120 is based on the ohmic resistance alteration in the thermistor as a result of the ambient temperature change. The heat class (A1R, A2R, BR) is programmable via Fire Control Panel IFS 7002 through a specialized communication protocol UniTALK.

A built-in short circuit isolator is available.

The circuit board and a chamber containing thermosensitive element (Fig.1, position 6) are mounted within the plastic body (Fig.1, position 5). Two LEDs, (Fig.1, position 4), offering 360° visibility, illuminate to indicate the following:

- In service - both LEDs flash repeatedly every 16 seconds.
- Fire condition - both LEDs illuminate constantly.
- Activated isolator - both LEDs flash repeatedly with 1Hz frequency .
- Short circuit at the remote indicator output - both LEDs flash repeatedly with 2Hz frequency.

#### TECHNICAL DATA

Supply voltage $U_L$	(15-30)V DC
Current in Duty Mode	< 310 $\mu$ A
Current in Fire Condition	(2 $\pm$ 1) mA
Sensitivity	in accordance with EN 54-5:2000
Protected area	circle with diameter 10m
Installation height	up to 11 m
Degree of protection	IP 43
Operational temperature range	minus 10°C / plus 55°C
Relative humidity resistance	(93 $\pm$ 3) % at 40°C
Dimensions (incl. base)	$\varnothing$ 100 mm, h 47 mm
Weight (incl. base)	0,100 kg
Wires	two-wire, shielded
Cross section of the wires	up to 2.5 mm <sup>2</sup>

#### INSTALLATION

The fire detector type FD7120 operates with bases type 7100. To install the fire detector and its base follow the sequence:

1. Fix the base on the ceiling of the protected premises using appropriate fixings.
2. Complete the wiring as shown on fig. 2 and in accordance with the construction projects of the site.
3. Replace the detector head on the base and rotate it in a clockwise direction to reach the base's leading channels (Fig.1, position 2). Continue rotating in a clockwise direction to complete location (Fig.3.1). The bench marks of the head and the base should fully coincide (Fig. 3.2).
4. To lock the detector head to the base separate the key from the base (Fig. 4, position 3) and keep it in a safe place, cut the technological edge (Fig. 4, position 1) of the click (Fig. 4, position 2) and complete the instructions described above.
5. To unlock the detector head insert the key into the slot, according to Fig.4, rotate the fire detector anticlockwise until rest, take the key out and continue rotating to release the head.

#### TESTING THE FIRE DETECTOR

Test the fire detector after installation, as a part of the site's fire alarm system or after maintenance, in accordance with the requirements set in section Service schedule.

To test the fire detector follow the sequence:

1. Apply power to the fire detector from the fire alarm control panel IFS 7002 via the fire alarm loop.
2. Wait until the fire detector is set to Duty Mode and from a 20 cm distance influence the device using a heat tester. Within 40 seconds the fire detector shall enter fire condition and the LEDs (Fig. 1, position 3) shall illuminate continuously.
3. Send a reset command from the fire control panel to the fire detector under testing. The fire detector shall restore the Duty Mode.

#### SERVICE SCHEDULE

Table 1

No	Task description	Periodicity
1.	Inspection for visible physical damage	weekly
2.	Satisfactory operation test in real conditions	monthly
3*	Check and clean dust contamination	every 6 months
4.	Check and clean base and head contacts and connections	Annually

\* To complete task №3, remove the detector's upper part (Fig. 1, position 6). Clean using a small brush. The upper part is removed by rotating it anticlockwise until rest.

#### WARRANTY

The warrant period is 36 months from the date of purchase. The manufacturer guarantees the normal operation of the unit 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.

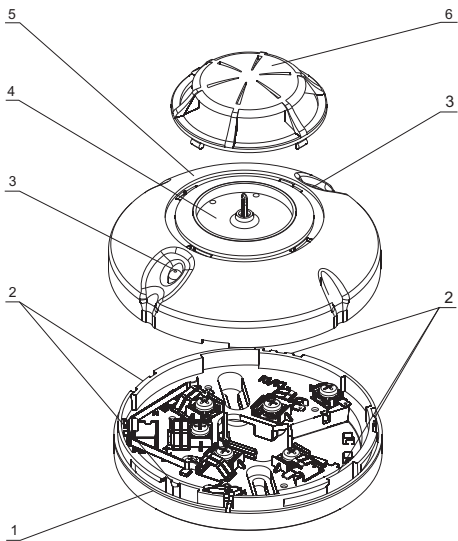


Fig.1

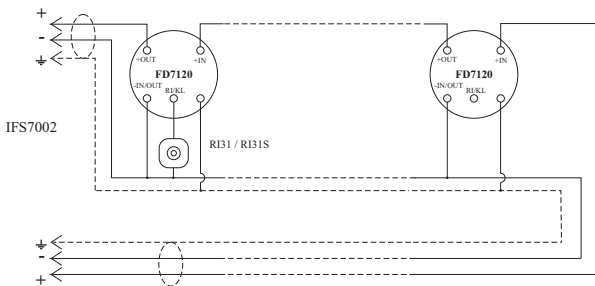


Fig.2

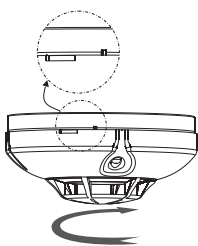


Fig.3.1

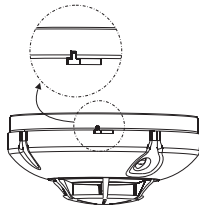


Fig.3.2

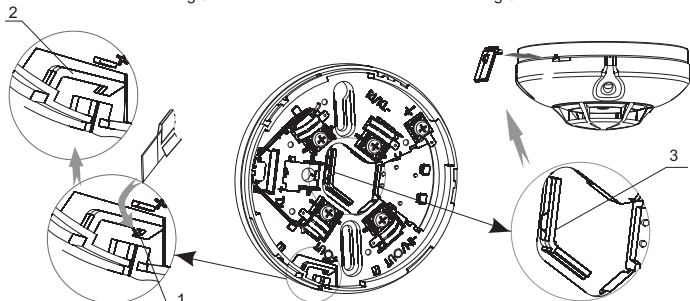


Fig.4