



POINT FIRE DETECTOR OPTICAL-SMOKE AND HEAT

TYPE **FD 8060**

INSTRUCTION MANUAL 02-8060



GENERAL DESCRIPTION

The fire detector is designed for early warning of a fire condition responding to fixed threshold smoke concentration or rate of rise temperature or fixed temperature threshold detected in the protected premises. The principle of functioning of the optical part is based on infrared rays distraction caused by smoke particles entering the optic chamber. The principle of functioning of the heat part is based on the ohmic resistance alteration in the thermistor as a result of the ambience temperature change. The smoke sensitivity and the temperature class are factory preset. The fire detector is controlled by a microprocessor, operating on the basis of improved algorithm for self-compensation of the chamber contamination.

The fire detector (**fig.1**) consists of a printed circuit board, an optic chamber (pos.4), and a thermistor (pos.9). They are fixed in a plastic body (nos.5).

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

- Duty mode** – the LEDs are not lit;
- Fire condition** – the LEDs produce continuous light;
- Contaminated chamber** – the LEDs flash briefly every 1s.

TECHNICAL DATA

Power supply	(10-30)V DC
Current consumption in Duty Mode	not more than 120 µA
Current consumption in Fire Condition	
- with base type 8000 or 8000D	8mA/10VDC; 25mA/30VDC
- with base type 8000R, 8000DR or 8000L	18mA/10VDC; 55mA/30VDC
Temperature class	A1R (complies with EN 54-5:2000)
Smoke sensitivity	complies with EN 54-7:2000 + A1:2002
Time to enter Duty mode after power supply is on	up to 40s
Reset time	2s
Time to enter Duty mode after reset	up to 40s
Protected area	circle with 10 m diameter
Height of mounting	up to 8 m
Output in Fire Condition (RI/KL terminal)	for RI 31 or RI 31S
Degree of protection	IP 43
Operational temperature range	minus 10°C - plus 55°C
Relative humidity resistance	(93±3)% at 40°C
Dimensions, base included	Ø100 mm, h 52mm
Weight, base included	0,100 kg
Type of connecting cable	two-wire
Cross section of the connecting wires	(0,8-2,5) mm ²

INSTALLATION

The fire detector operates with bases type **8000** (standard), **8000D** (with Schottki diode), **8000R** (with relay output), **8000DR** (with Schottki diode and resistor 510 Ω) or **8000L** (with resistor 510 Ω). They are delivered separately and are fixed on the desired place in advance by means of pins and screws. The electrical connection of the components necessary for the installation is done according to the schematic diagram on **fig.2**. It is recommended cable shoes to be used.

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 maintenance activities, following this order:

1. Voltage is supplied to the fire alarm line, to which the tested fire detector is connected from the Fire Control Panel or auxiliary power supply unit 24V DC/0,1A.
2. After one minute is activated the fire detector using a Smoke Detector Tester for the optical part or heat tester for the heat part. It should enter Fire condition within 40s.
3. Within 2s is interrupted the supply voltage to the fire alarm line, to which the tested fire detector is connected or a reset command is sent from the Fire Control Panel. Fire detector should enter Duty mode and is ready for a new activation within 40s.

SERVICE SCHEDULE

It is done by authorized personnel and includes the following activities:

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

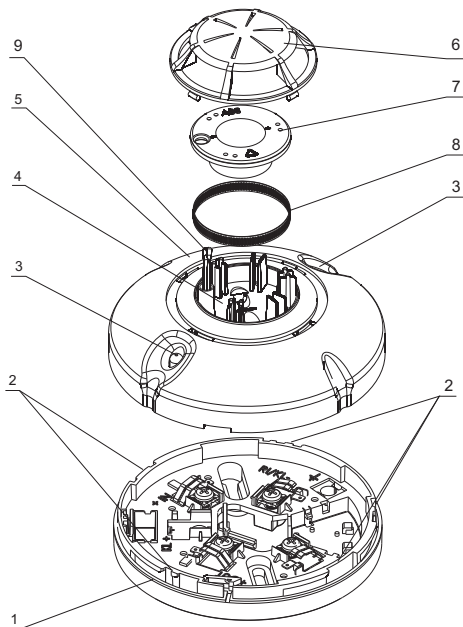
*The fire detector is removed from the base. The body cover (**fig.1, pos.6**) is removed by rotating to rest anticlockwise. The optic chamber cover (**fig.1, pos.7**) and the screen (**fig.1, pos.8**) are removed. For the optic chamber cover and the screen it is permitted washing liquid to be used. Then they should be rinsed out and dried. The optic chamber and the thermistor are dusted with a small brush. **The optic chamber is compulsory dusted when the fire detector enters Contaminated Chamber Mode.** If it is not cleaned in due time it will get contaminated to such an extent that it would not allow the proper functioning of the fire detector which will be signaled as Fire Condition.

WARRANTY

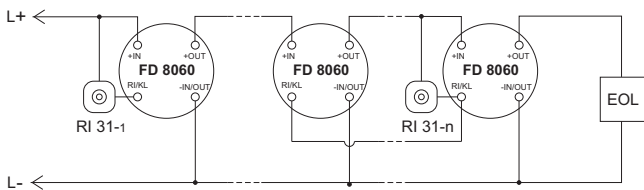
The warranty period is 36 months from the date of sale.

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

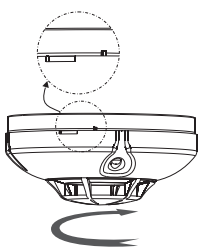
The manufacturer does not bear warranty liabilities for damages caused through accidental mechanical damage, misuse, adaptation or modification after production. The manufacturer bears warranty liabilities for damages in the fire detector caused through manufacturer's fault only.



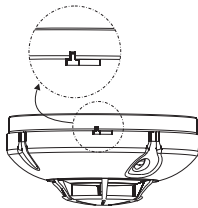
фиг.1/fig.1/рис.1



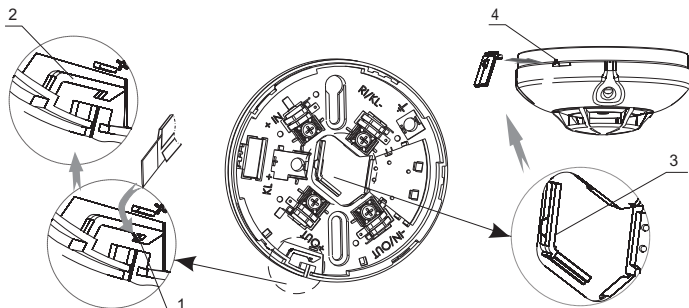
фиг.2/fig.2/рис.2



фиг.3.1/fig.3.1/рис.3.1



фиг.3.2/fig.3.2/рис.3.2



фиг.4/fig.4/рис.4