

Smoke detector TSS8030R



Short description

TSS8030R smoke detector is designed for early warning of a fire condition responding to fixed threshold smoke concentration detected in the protected premises. The smoke sensitivity is factory preset.

The principle of functioning of the detector is based on infrared rays distraction caused by smoke particles entering the optic chamber. The fire detector is controlled by a microprocessor, operating on the basis of improved algorithm for self-compensation of the chamber contamination.

Technical parameters

Supply voltage range	10 to 30 VDC
Maximum supply current	18mA/10VDC 55mA/30VDC
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 diameter 15 m
Height of mounting	up to 11 m
Operating temperature range	-10 to +55 °C
Operating humidity resistance	(93 ± 3)% at 40°C
Dimensions	Ø100 mm, h 47mm
Weight	0,100 kg
Cross section of the connecting wire	0.8 to 1.5 mm ²
Relay output	NO&NC type

LED indicators

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.

Installation

The smoke detector consists of fire detector FD8000 and base with relay output 8000R. The fire detector (fig.1) consists of a printed circuit board and an optic chamber (pos.4), fixed in a plastic body (pos.5).

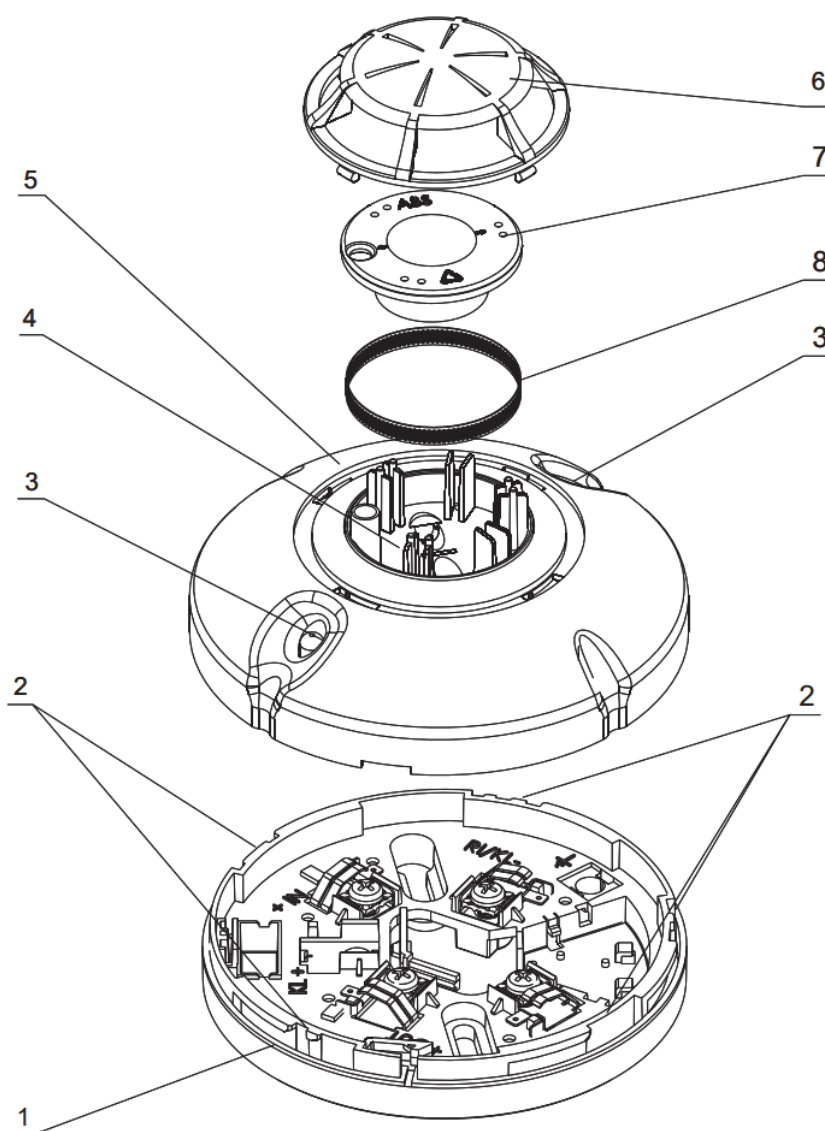
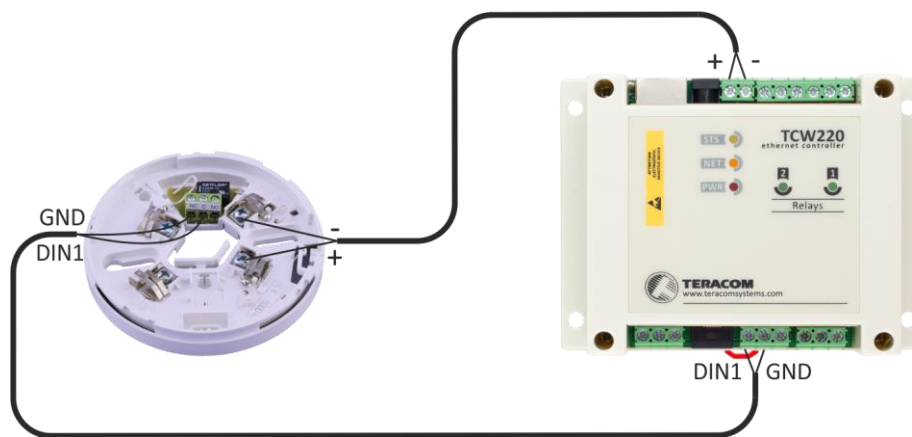


fig.1

TSS8030R can be used with controllers of series TCW1xx, TCW2XX and TCG1xx which have digital inputs in “dry contact” mode. Fore mode details see user manuals.

The electrical connection is done according to the schematic below:



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).

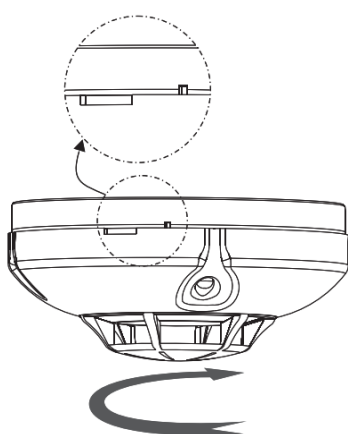


fig.3.1

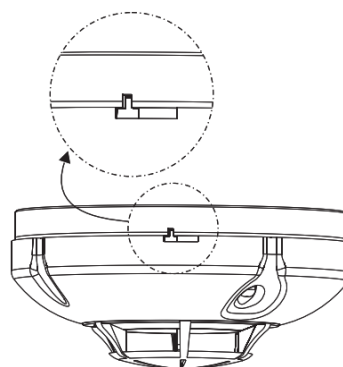


fig.3.2

Locking of the fire detector (fig.4).

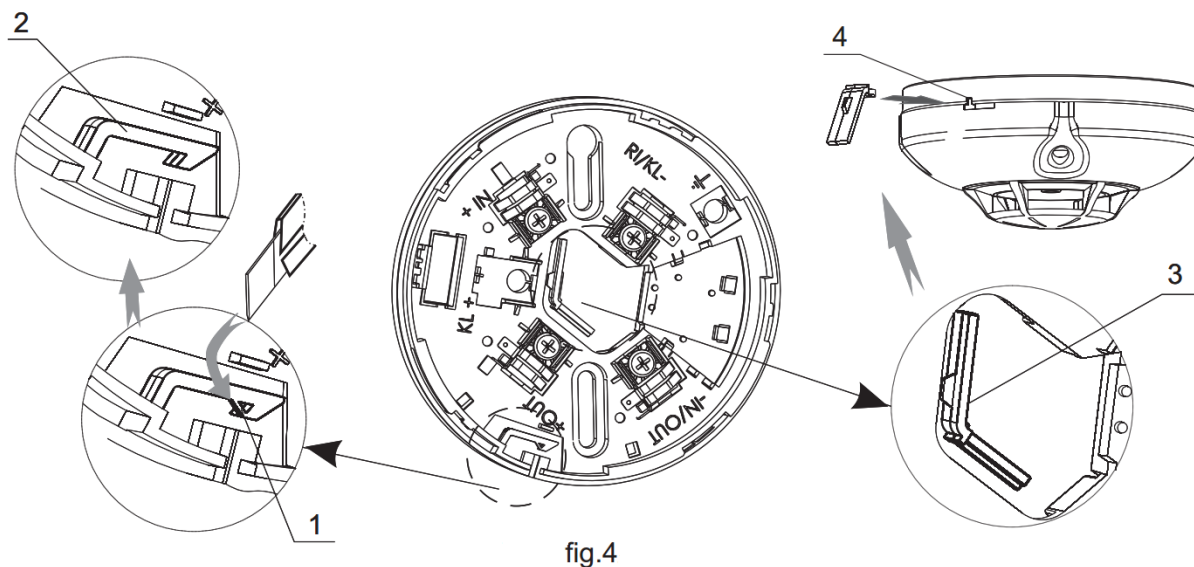


fig.4

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 smoke detector is tested after installation, following this order:

1. Voltage is to the detector from controller or auxiliary power supply unit 24V DC/0,1A.
2. After one minute smoke detector should be activated using a Smoke Detector Tester. It should enter fire condition within 40s.
3. The supply voltage to the detector is interrupted within 2s. Smoke 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 cleaning of the optic chamber - 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 is 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

FD8030 and 8000R are manufactured by Unipos Ltd.

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.