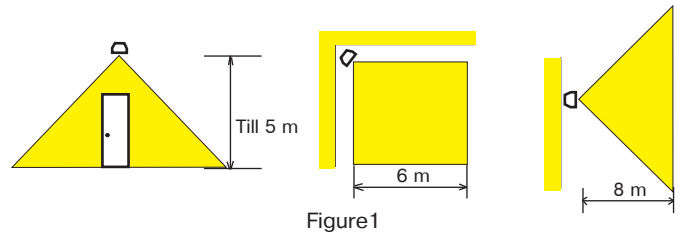
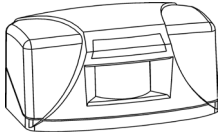




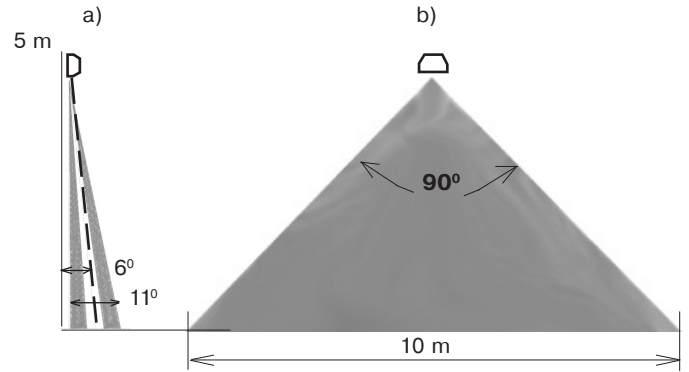
PASSIVE INFRARED DETECTOR

«FOTON-SH2»

Installation Guide



7 Detection Zone Pattern



1 General Information

Passive infrared detector «Foton-SH2» (hereinafter, the Detector) is intended for detecting intrusion into a protected premises through door or window openings and generating an alarm message by output relay contacts opening. The Detector generates «Sabotage» message by microswitch contacts opening.

The Detector has immunity to interference caused by small animals and ambient light.

2 Features of the Detector

- Dual-element pyrodetector.
- «Vertical curtain» detection zone.
- Microprocessor-based signal processing.
- Temperature compensation of the detection sensitivity.
- The maximum Detector installation height is up to 5 m.
- Possibility of LED indication disabling.
- Two-way installation using four fastening surfaces of the Detector base: either above the protected opening, or in the corners of window openings, door cases, etc.
- High resistance to ambient light – 12000 lx.
- Immunity to electromagnetic interference.
- Case tamper protection.
- High immunity to the ambient light (up to 12 000 lx).
- High immunity to electromagnetic interferences.
- Tamper protection.

3 Specifications

Table 1

Parameter	Value
Voltage supply	9 ... 15 V DC
Alarm message duration	3 sec
Consumption current, max	10 mA
Detection zone type	Vertical curtain
Operating temperature	minus 30 °C ... +55 °C
Relative humidity at +25 °C without moisture condensation	up to 98 %
Dimensions, maximum	80 x 47 x 40 mm
Weight, not more than	60 g
IP rating	IP41

4 Scope of Delivery

Each Detector unit package contains the items listed in Table 2.

Table 2

Name	QNT
Passive infrared detector «Foton-SH2»	1 pc.
Screw nail 3-3x30.016	2 pcs.
Passive infrared detector «Foton-SH2». Installation Guide	1 copy

5 LED Indication

LED indicator is used for the Detector status displaying. For LED indication disabling remove jumper IND. Set the jumper on one of the male pins for the further usage during testing.

Table 3

Message	LED indicator	Duration
«Warm-up time»	ON	Maximum 60 sec
«Norm»	OFF	-
«Alarm»	ON	3 sec
«Failure»	Blinking at 1 Hz frequency	10 sec after failure cause elimination

6 Choosing Place of Installation

When choosing locations for the Detector installation, it is advisable to take note of the fact that the detection zone may be limited by non-transparent objects (curtains, curtain holders, door trims, etc), as well as glass partitions. There must be no air conditioners, space heaters or heating radiators in the Detectors' detection zone.

Maximum installation height of the Detector is 5 m. Alarm loops should be wired far enough from power supply cables. Variants of installation are shown in Figure 1.

8 Installation

- Remove the Detector cover by pressing on the back wall of the Detector base (Figure 3) and pressing the edges of the cover by the fingers of the other hands at the points shown in Figure 4, put off the cover.

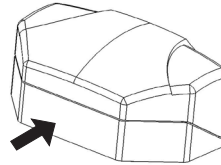


Figure 3

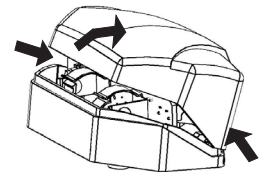


Figure 4

- Insert a screwdriver with a flat drive blade between the printed circuit board (PCB) and the back wall of the base, depress the base wall and remove the PCB (Figure 5).

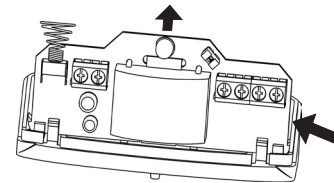


Figure 5

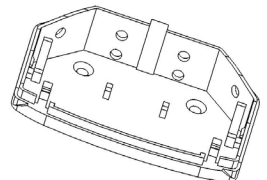


Figure 6

- Depending on the chosen location of the Detector, determine the Detector base sides for fastening to the installation place and drill fastening holes or press them out with a screwdriver (Figure 6).

- Insert wires through the openings for wiring. Leave several centimeters of the wire for plugging to the terminal boards.
- Fasten the base on the chosen place.
- Install the PCB in the base and latch it on both sides.
- Fulfill connections in accordance with Figure 7.

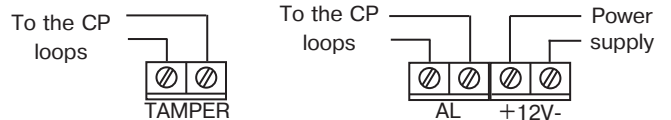


Figure 7

- Reinstall the Detector cover by engaging it over the latch on the front wall of the base (Figure 8) and latch the cover onto the base.

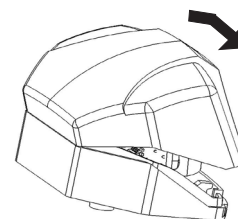


Figure 8

9 Functional Testing

Detection zone alignment (see Figure 2) should be checked as follows:

- set jumper IND (LED is ON);
- energize the Detector and wait for 1 minute;
- start walking through the detection zone at a speed rate 0.5 – 1 m/sec. When two zone lines are crossed, the Detector transmits an alarm message (LED indicator switches ON and the relay contacts open);
- cross the detection zone on the other side and define it's other border. When there is no motion in the detection zone, alarm messages should not be generated.

In case the detection zone is screened by some objects (curtain holders, curtains, door trims), then position of the Detector should be changed.

If additional alignment of the detection zone is needed, you may use a universal swivel bracket (available optionally).

After retesting install the IND jumper to the required mode position depending on protection tactics.

10 Self-Test Mode

The Detector provides self-testing automatically. During this mode input voltage and ambient temperature values are checked.

In temperature range near to 36 °C (human body temperature), the sensitivity threshold shift takes place, resulting in detectability level increase.

In case of voltage drop lower than 9₁ V, «Failure» message is generated by opening the relay output contacts repeated by periodical LED indicator blinking during failure and 10 sec after it's elimination.

ATTENTION! The Detector must be checked at least annually in order to test their performance.

11 Storage and Transportation

The Detectors in their original packing may be shipped by any transport means in covered vehicles (in railway, cars, trucks, sealed heated compartments of aircraft, ship cargo holds, etc). The storage room should be free from current-conducting dust, acid vapors, alkali and gases that cause corrosion and destroy insulation.

The Detectors in their original packing may be stored not more than 3 months. During this period the Detector package should not have bloodshot spots and impurities.

Upon the expiry of 3 months, the Detector should be released from the package.

12 Manufacturer's Guarantees

The Manufacturer guarantees conformity of the Detector to it's Technical Specifications if conditions of transportation, storage, assembling and operation are observed. The guaranteed storage period is 63 months since the date of manufacturing the Detector.

The guaranteed period of operation is 60 months since the date of commissioning within the storage period guaranteed.

The Detectors that are found to non-conforming to it's Technical Requirements shall be repaired by the Manufacturer, provided the installation and operation rules have been complied with.

13 Packing Certificate

Passive infrared detector «Foton-SH2» has been manufactured in compliance with the active technical documentation and classified as fit for operation and packed by «RIELTA» JSC.

Packing date _____
month, year