RIELTA Ochrana

EAC

PASSIVE INFRARED DETECTOR

«FOTON-SH»

Installation Guide

1 General Information

Passive infrared detector «Foton-SH» (hereinafter, the Detector) is designed for detecting intrusion into the protected closed area of a room through door and window openings, for generating and transmitting alarm messages by the relay contacts opening.

The Detector provides tamper protection by the relevant message generation.

The Detector has pet immunity to small animals movement interference.

2 Features of the Detector

- Dual-element pyrodetector;
- «Vertical curtain» detection zone;
- Microprocessor-based signal processing;
- Alarm memory;
- Supply voltage and temperature control;
- Temperature compensation of the detection sensitivity;
- Wide range of mounting height from 2,5 to 5 m;
- Possibility of LED indication disabling;
- Ability of detection zone repositioning;
- The Detector is intended for hooking up to the power supply unit with output voltage (9...15) V
- High resistance to ambient light – 12000 lx.

3 Scope of Delivery

Each Detector unit package contains the items listed in Table 1.

Table 1

Name	Qnt
Passive infrared detector «Foton-SH»	1 pc.
Swivel bracket	1 pc.
Screw 3x10.01.016	2 pcs.
Woodscrew 3-3x30.016	2 pcs.
Passive infrared detector «Foton-SH».Installation Guide	1 copy

4 Choosing an Installation Place for the Detector

The Detector is designed fir using in closed premises (shops, offices, museums, flats, etc.). 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 loop wiring should be conveyed far enough from high-energy electrical power cables.

5 LED Indication

LED indicator located on the front side of the Detector cover. For LED indicator disabling, remove IND jumper

Table 2

Message	LED indication	Relay state
Warm-up time	Continuous lighting during 45 s	Opened during 45 s
Norm	OFF	Closed
Alarm	ON	Opened
Alarm memory	Blinking during 15 min with 5 Hz frequency in 5 min after «Alarm» message generation	Closed
Voltage drop failure	Single blinks with 2 s repetition cycle during 15 min after voltage recovery	Opened under power supply reduction during 15 min after voltage recovery
Temperature exceeding failure	Double blinks with 2 s repetition cycle during 15 min after temperature recovery	Opened under high temperature during 15 min after temperature recovery

6 Specifications

Table 3

Parameter	Value
Installation height, m, max	5
Alarm message duration, s, not less	2
Power supply, V, DC	9 ...15
Consumption current, mA, not more	15
Operating temperature, °C	minus 30 ...50
Relative humidity under 25 °C without water condensation, %, up to	98
Detection zone type	Vertical curtain
Dimensions, mm, max	91x52x56
Weight, g, not more	112 g

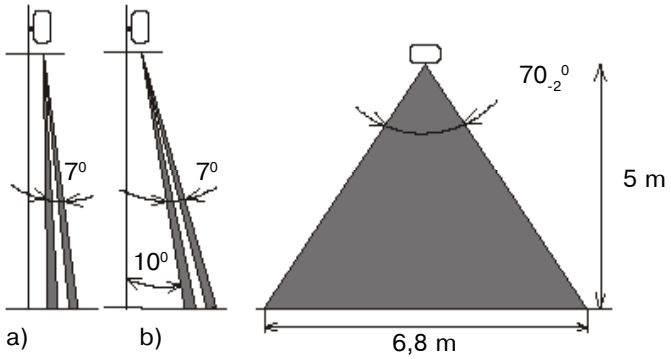

Figure 1

7 Installing the Detector

Attention! During the Detector mounting be careful with the optical filter located on pyrodetector.

1 Insert a flat screwdriver into the clip slit trench in the lower part of the Detector case and depress the clip (See Figure 2).

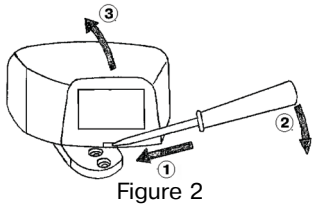

Figure 2

2 Remove port plugs for wire installation at the swivel bracket. Run the wires through the swivel bracket openings and fasten the swivel bracket at the chosen place on the wall (See Figure 3).

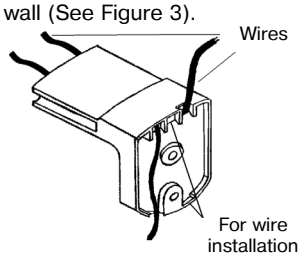

Figure 3

3 Install the base with the printed circuit board (PCB) on the swivel bracket at such a distance from the wall, where curtain-rods would not shut in the detection zone.

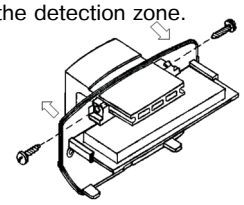

Figure 4

Fix the base on the swivel bracket by means of tap screws (See Figure 4).

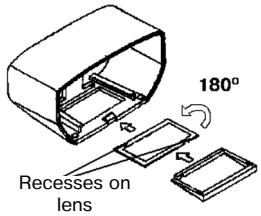

Figure 5

Run the wires above the PCB. Fulfill connections in accordance with Figure 6a (for hooking up to a single alarm loop (AL) or Figure 6b (for hooking up to independent tamper control AL). Install the Detector cover on its place.

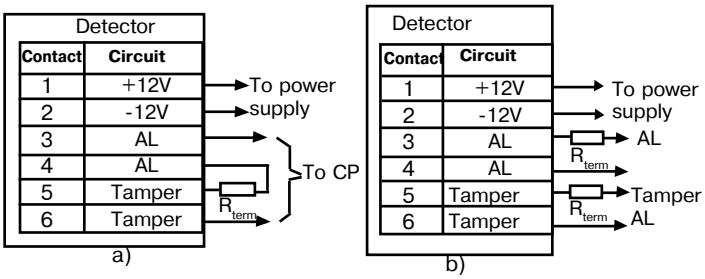

Figure 6

8 Functional Testing

In the process of the detection zone location alighnment (Figure 1a) «IND» jumper should be installed (LED indicator is ON).

Energize the Detector and wait for 1 min.

Start walking through the detection zone at a speed rate 0,5 - 1 m/s. When two zone lines are crossed, the Detector transmits an alarm message (LED indicator is switched on). Cross the detection zone on the other side and define its other border. When there is no motion in the detection zone, alarm messages should not be generated. In case the detection zone is impaired by some objects (curtain holders, curtains, door trims), the position of the Detector should be changed (see cl.9). After repeated detection zone alignment, install «IND» jumper to the mode required for chosen protection tactics.

9 Changing the Detection Zone Location

The Detector design provides possibility of the detection zone removal from the wall by the base displacement along the swivel bracket. It is also possible to change the detection zone position in vertical plane by the lens overturn. The Detector design provides the detection zone turn in vertical plane up to 10˚ (see Figure 1b). To fulfill the turn act as follows:

- put off the cover;
- pull out the frame rising it slightly;

ATTENTION! Pull out the lens, turn it through 180˚ (See Figure 5), install cover in such a way as to the single recess should be directed inside the case and the lens smooth side should be directed outside;

- put the frame on its place until it goes click and close the cover.

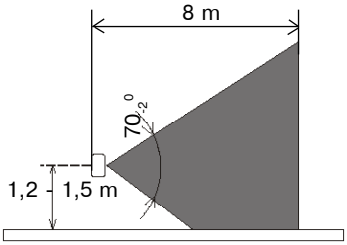

Figure 7

The detector turnover through 90˚ is possible as well as Detector installation at a height of 1,2 – 3 m. In this case the detection zone is directed horizontally, detection range is 8 m. (see Figure 7)

10 Alarm Memory

Upon the application of «MEM» jumper, the LED indicator is blinking during 15 min with 5 Hz frequency after 5 min after «ALARM» message generation.

11 Failure Indication

The Detector is generating «FAILURE» message during 15 min under the following conditions:

- power supply voltage drop lower than 8,9 V - by opening relay contacts, duplicated by single-shot LED indicator periodical blinking;
- temperature exceeding value 60^{+5} ˚ C - by opening relay contacts, duplicated by doubled LED indicator periodical blinking.

After elimination, the cause of failure the Detector turns to switching mode in 15 min automatically.

12 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.

13 Manufacturer's Guarantees

The Manufacturer guarantees conformity of the Detector to its 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 its Technical Requirements shall be repaired by the Manufacturer, provided the installation and operation rules have been complied with.

Made in Russia

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