

S2000-IK Rev.03

Addressable Volumetric PIR Motion Detector

INSTRUCTION MANUAL



GENERAL

S2000-IK Revision 03 Addressable Volumetric Passive Infrared (PIR) Motion Detector (hereinafter referred to as the detector) is designed to be used indoors. It detects intrusion into protected areas and sends an alarm message to the connected S2000-KDL controller via the two-wire multiplex addressable polling loop.

The S2000-IK rev.03 supports DPLS_v2.xx protocol.

The detector features:

- ✓ A red LED to indicate detector's operability
- ✓ Programming the address and communicating data with the connected S2000-KDL
- ✓ A tamper switch to provide detection of unauthorized access as well as to adjust the detector

The detector is intended for round-the-clock operation.

SPECIFICATIONS

Input Voltage (via the polling loop of an S2000-KDL)	8 ÷ 10 VDC
Current Consumption (via the loop of the S2000-KDL)	0.65 mA max when indication is off
Pre-Operation Time	15 s max
Detection Range	0.3 m to 12 m
Target Speed	0.3 m/s to 3 m/s
White Light Immunity	Better than 6500 Lux
Sabotage-Resistant Zone	Yes
Operating Temperatures	–30 to +50°C
Humidity	Up to 95% at 25°C, non-condensing
Overall Dimensions (H x W x D)	68 mm × 93mm × 41 mm max
Weight	125 gram max

STANDARD DELIVERY

Find the following unpacking the S2000-IK rev.03:

- ✓ S2000-IK rev.03 detector
- ✓ This Instruction Manual
- ✓ Two woodscrews 3.5×30
- ✓ Two wall plugs 6×30
- ✓ Two tapping screws 2.2×6.5
- ✓ Bracket (to be ordered separately)
- ✓ Package

MOUNTING LOCATION CONSIDERATIONS

The detector is intended to be used indoors. Considering a location to mount the detector, please take into account the following:

1. Do not locate the detector above heaters, radiators, etc. or close to vent openings.
2. Do not locate the detector in places where it can be exposed to direct sun rays.
3. In capital facilities the detector should be mounted on a wall or in a corner.
4. Within light metal structures the detector should be mounted on structural frames (columns, trusses) rather than on a wall or a corner.
5. To avoid condensation on the lens and case of the detector, do not attach the detector just over the entrance opening.
6. There should not be any waving things like curtains and incandescent lamps in the detection area.

7. In the premises where the detector is to be installed, for the time of protection all the windows, air-vents, balcony doors, etc. must be closed; all ventilators, heaters, air conditioners must be switched off; and there should not be any birds or animals.
8. Non-transparent objects in the detection area (such as cabinets, room dividers, etc.) as well as glass or mesh partitions obscure the detection and result in forming of dead zones through which human's moving can be not detected.

The recommended mounting height for the detector is 2.1 meters above the floor.

WIRING THE DETECTOR

ATTENTION!!!

Summarized current consumption of all the addressable devices connected to an S2000-KDL must not exceed 65 milliamperes. If, for example, the polling loop of the S2000-KDL comprises only S2000-IK rev.03 detectors, their maximum number will be equal to:

$$n = \frac{65 \text{ mA}}{0.65 \text{ mA}} = 100 \text{ pcs.}$$

Parameters of the polling loop must correlate with parameters described in the manual of the S2000-KDL.

You can check the correctness of the mounting and the correctness of the estimated number of the detectors to be connected to the polling loop by requesting for the value of the polling loop voltage at the location of the detector by means of UProg Configuration Tool. This value must be above 7 V.

Figure 1 shows the typical schematic of wiring the detector to the multiplex addressable polling loop of an S2000-KDL. In the S2000-KDL configuration the detector's type should be specified as 5 (*Intrusion with Tamper Check*) or 7 (*Entrance*) – please see S2000-KDL User's Manual.

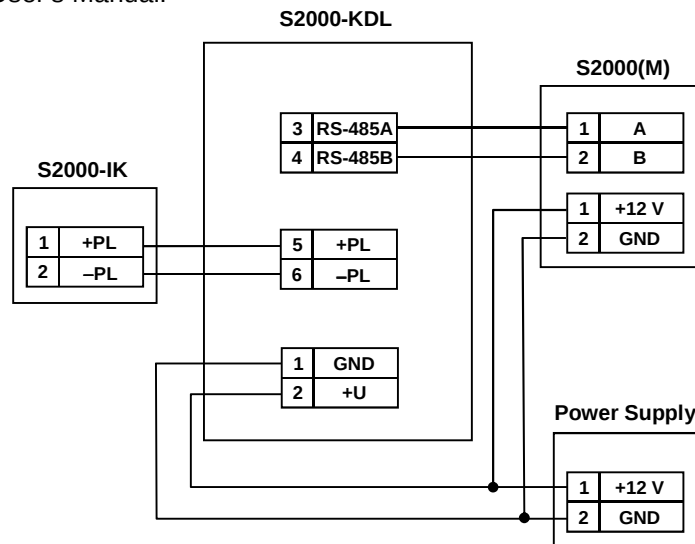


Figure 1. Detector's Wiring Diagram

PROGRAMMING

The S2000-IK rev.03 to operate properly within two-wire addressable polling loop of the S2000-KDL controller, it must be assigned to a unique number in the range of 1 to 127 within the loop – the address which is stored in the S2000-IK rev.03 non-volatile memory (EEPROM). An S2000-IK rev.03 is supplied with the default address of 127. This address value can be changed using either S2000(M) console tools or PC tools such as UProg Configuration Tool.

In order to program the unique S2000-IK rev.03 loop address, connect it to a S2000-KDL controller which is in turns connected to a network controller (an S2000(M) console or PC under UProg software). Then send one of the following commands to the S2000-KDL controller (for getting more information see the relevant User's Manual):

Change the Device Address

Use the *Change Device Address* command specifying the old detector address and the new detector address as the parameters (see more information in the referred Manuals). The network controller will display the messages about disconnecting the device with the old address and then detecting the device with newly programmed address. Mark down the assigned address on the marking field of the detector.

If the detector address is unknown or two devices have the same address then use the *Program Device Address* command specifying a required address as the parameter. Then remove the detector cover and ensure the LED is flashing indicating the programming mode (frequent short flashes every 2 s). Next, press the tamper switch in LLLS pattern, where L stands for long pressings (between 0.5 s and 2 s) while S stands for short pressings (shorter than 0.5 s), pauses between pressings not exceeding 3 s each.

If the address has changed successfully, the LED will be lit steady and a message about detecting the device with the newly assigned address shall be displayed by a network controller (S2000(M) or UProg Configuration Tool). Mark down the assigned address on the marking field of the detector. If you've failed to assign the address, wait for 3 s and repeat programming.

ENABLING/DISABLING LED INDICATION

On detector's switching on the LED indication is enabled. To disable indication, press the tamper switch in LLSL pattern; otherwise, to enable indication, press the tamper switch in LLSS pattern, where L stands for a long pressing (longer than 0.5 s) while S stands for a short pressing (shorter than 0.5 s). Pauses between pressings must not exceed 1 s each.

WALK TEST

The detector having been connected to the polling loop, its LED lights up indicating its start self-testing procedure. After self-testing being completed successfully the LED switches off. To check the correctness of detector's mounting, walk through the detection zone several times. The detector is to be armed by the relevant command issued from the network controller (the S2000 console). When an intrusion into the protected area is detected, the detector sends an alarm to the network controller and its LED flashes triply. After issuing the alarm the detector will be ready to operate in two seconds. If the detector's case has been open, the detector sends the network controller a tamper alarm. The Tamper Restored message will be issued to the network controller in 15 seconds since closing the case.

DETECTION PATTERN

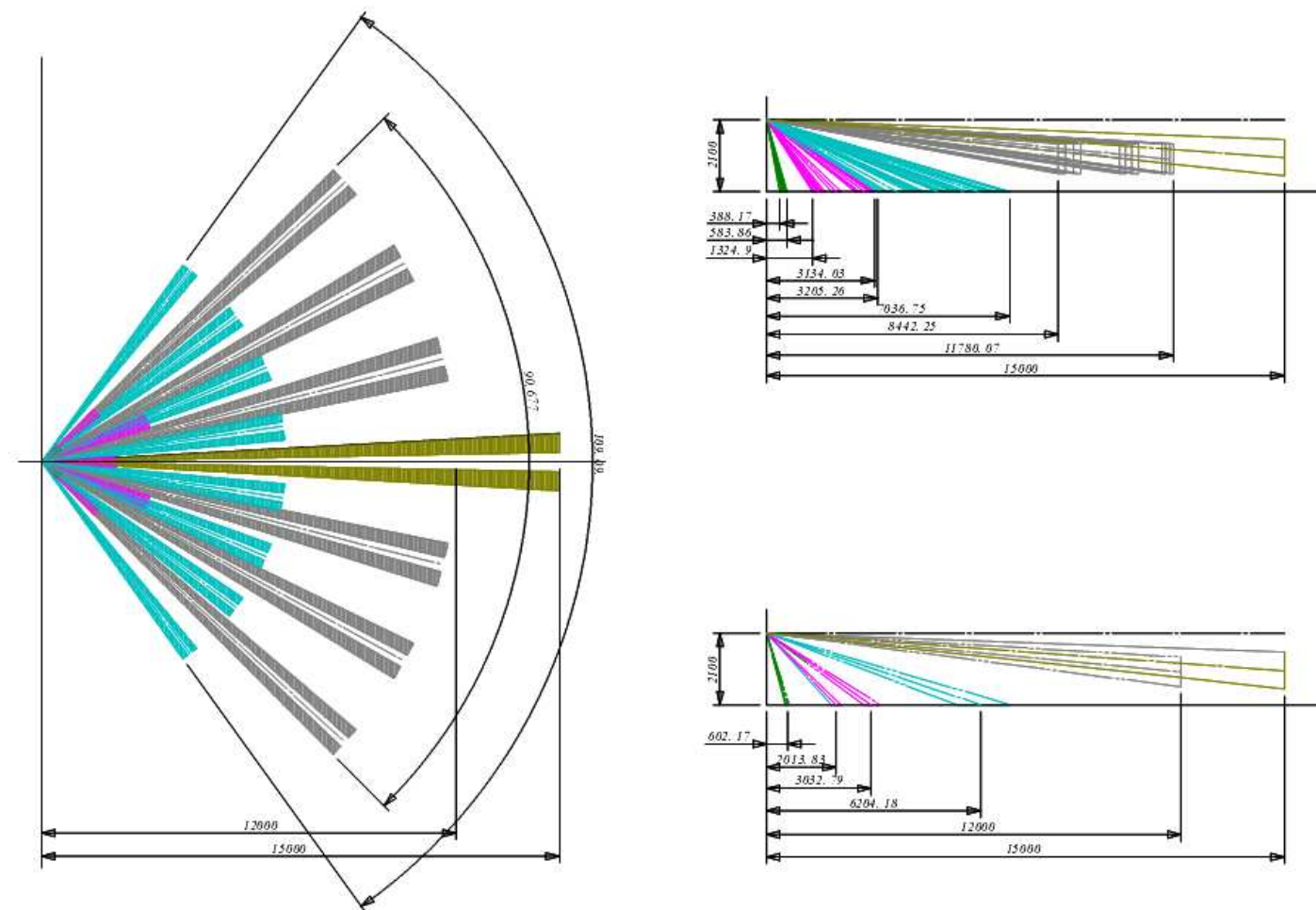


Figure 2: S2000-IK Rev.03 Detection Pattern

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