S2000-IK Rev.04

Addressable Curtain PIR Motion Detector

INSTRUCTION MANUAL

GENERAL

S2000-IK Revision 04 Addressable Curtain 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.04 has a two-dimensional coverage pattern ("vertical curtain").

The detector provides increased immunity against lighting and radio frequency interference.

KEY FEATURES

- ✓ Dual-element pyro-electric infrared sensor
- ✓ High-density coverage offering high probability of detecting an intruder
- ✓ Protected against insects entering to the pyro-electric infrared sensors
- ✓ Arranging sabotage-resistant zones just beneath the detector prevents unauthorized access to the detector.
- ✓ Digital signal processing
- ✓ Powered via the multiplex addressable polling loop of the S2000-KDL
- ✓ Supports DPLS_v2.xx protocol

SPECIFICATIONS

Detection Range	10 m
Coverage Pattern	Curtain (two-dimensional)
Input Voltage (from a S2000-KDL)	8 ÷ 10 VDC
Current Consumption (via the loop of the S2000-KDL)	0.5 mA max when indication is off
Horizontal Angle of Sight	6°
Operating Temperatures	–30 to +50℃
Humidity	95% at 25℃, non-condensing
Overall Dimensions (H x W x D)	105 mm × 75 mm × 56 mm max
Weight	0.1 kg max
Mounting Height	2.3 meters

MOUNTING LOCATION CONSIDERATIONS

The detector is intended to be used indoors. Considering a location to mount the detector, please take into account that the detection zone must not be obscured by any non-transparent objects such as curtains, houseplants, cabinets, room dividers, etc. as well as by glass or mesh partitions.

Do not locate the detector where it can be exposed to false alarm sources such as windows, air conditioners, heaters, radiators, etc.

Wires of the multiplex addressable polling loop should be located away from high-voltage electric cables.

The detector allows wall or corner mounting at a height of 2.3 m above the floor. This provides the detection range at least 10 meters. The detection pattern is shown in Figure 1.

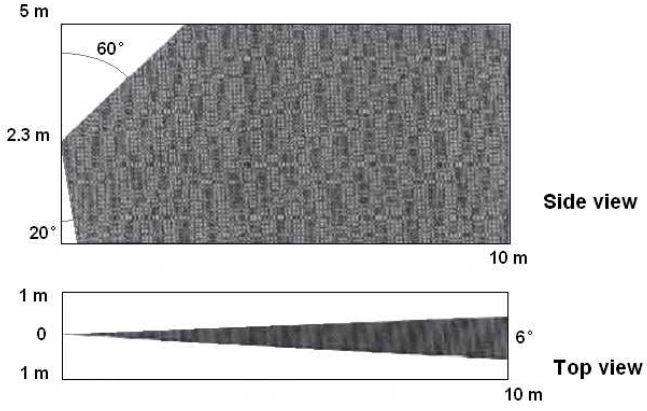


Figure 1: S2000-IK Rev.04 Detection Pattern

INSTALLING THE DETECTOR

1. Using a screwdriver remove the cover screw at the bottom of the detector (see Figure 2) and separate the detector cover.
2. Using a screwdriver remove the PCB screw (see Figure 2) and lift the PCB out of the detector base.
3. Drill out the required mount and wiring holes in the base (see Figure 2).
4. Having selected the mounting location, mark the positions of the fixing holes taking into account mounting holes in the base, and drill holes at the marked places
5. Slide the wire into the wire holes leaving some centimeters for connecting wires to the terminal blocks
6. Finally, replace the PCB and tighten the PCB screw

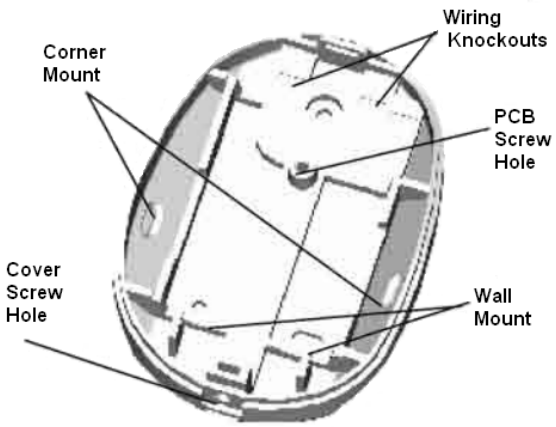
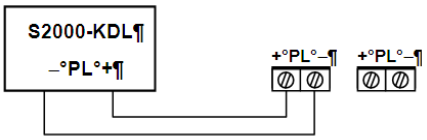


Figure 2: Detector Base

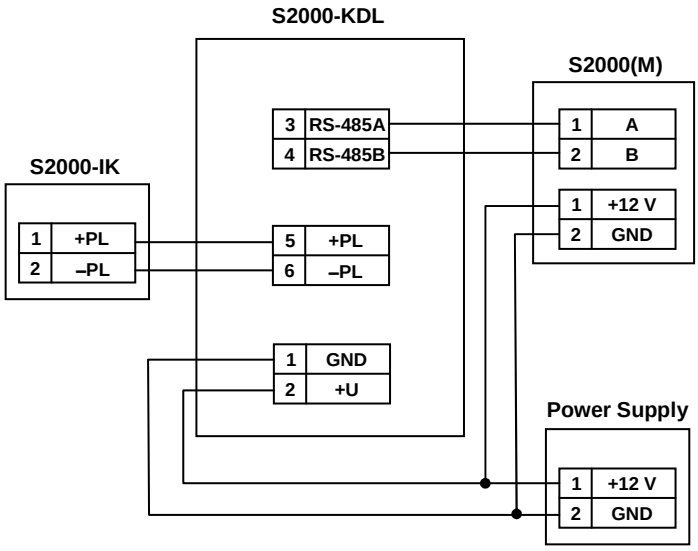
WIRING

Figure 3a shows the way to connect detector's PL contacts which are situated at the top of its PCB to the relevant contacts of the S2000-KDL.

Figure 3b shows the wiring diagram for connecting the detector to the multiplex addressable loop of the S2000-KDL controller which is in turns connected to the network controller and the power supply.



a) Connection Terminals



b) Detector's Wiring Diagram

Figure 3 Connecting the Detector

PROGRAMMING

The S2000-IK rev.04 to operate properly within two-wire addressable polling loop of the S2000-KDL controller, it must be assigned to a unique number 1 to 127 within the loop – the address which is stored in the S2000-IK rev.04 non-volatile memory (EEPROM). This address provides identifying the detector by the S2000-KDL controller. Moreover, the monitoring strategy must be defined which will be used by the S2000-KDL controller while processing signals received from the S2000-IK rev.04.

Programming the S2000-IK Rev.04 Address within the S2000-KDL Addressable Loop

An S2000-IK rev.04 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.04 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.

Program the Device Address	If the device 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 (longer than 0.5 s) while S stands for short pressings (shorter than 0.5 s), pauses between pressings not exceeding 1s 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). If you failed to assign the address, wait for 2 s and repeat programming.

Programming the S2000-KDL to Operate the S2000-IK Rev.04

To handle signals from an S2000-IK rev.04 correctly, the S2000-KDL controller which the detector is connected to must be programmed with the *Zone Type* parameter for this S2000-IK rev.04 being set to value 4 (*Intrusion*), or 5 (*Intrusion with Tamper Check*), or 7 (*Entrance*), or 11 (*Panic*), or 6 (*Auxiliary*). To program the S2000-KDL, connect it to a PC under UProg Configuration Tool and follow the relevant programming instructions in accordance with the S2000-KDL User's Manual.

WALK TEST

Connect the detector to the multiplex addressable polling loop as shown in Figure 3b. Then power on the controller and wait for about two minutes. Next, walk through the detection zone. The detector shall issue an alarm after your three or four steps, with its LED being flashing. Wait until the LED finishes flashing, and then continue crossing the detection zone. The detector should issue an alarm. If nobody is moving within the detection zone, no alarms shall be issued.

WARNING

To ensure proper operation, walk test the S2000-IK rev.04 annually as described above.

ENABLING/DISABLING LED INDICATION

LED indication can be controlled either *via a PC* or by means of the *detector tamper switch*.

If LED indication is to be controlled via a PC, by the connected S2000-KDL, the S2000-KDL should be specifically configured from the PC using the UProg Configuration Tool. The parameter *Device Indication Control* of the S2000-KDL polling loop input zone which is assigned to the S2000-IK rev.04 should be set to a proper value. By default, Device Indication Control is set to the value of 1, providing LED indication in accordance with the detector's own pre-determined algorithm. To disable indication, set this parameter to zero.

If LED indication is to be controlled by the tamper switch, the algorithm is as follows. On detector's switching on the LED indication is enabled (unless the input S2000-KDL zone assigned to the detector is configured with disabled indication). 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.

BOLID SECURITY SYSTEMS

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