ISO 9001

ANALOGUE ADDRESSABLE
RATE-OF-RISE AND FIXED TEMPERATURE DETECTOR

S2000-IP rev.02 (version 2.02)

INSTRUCTION MANUAL

1 TECHNICAL DATA

1.1 General

S2000-IP rev.02 is a combination Rate-of-Rise and Fixed Temperature Heat Detector. It is designed to provide fire protection and to be used with S2000-KDL Multiplex Addressable Loop (MAL) controller in Orion integrated security systems. In standard usage mode both sudden temperature increases that match the predetermined alarm criteria and fixed ambient temperature point exceeding cause the detector to issue fire alarms. In analogue mode S2000-IP returns the S2000-KDL measured temperature values, the S2000-2 making its own decisions to issue fire alarms or fire prealarms in accordance with user programmable temperature thresholds.

Moreover, S2000-IP responds with the measured ambient temperature values in degrees Centigrade upon the relevant request of the network controller (either S2000/S2000-M console or ARM Orion).

Both detector power and communication between the detector and the S2000-KDL controller are accomplished over the two wire Multiplex Addressable Loop controlled by S2000-KDL. The detector supports MAL_v2.xx protocol and provides measuring of the addressable loop voltage at its location.

The detector is designed for round the clock operation.

1.2 Specification

1) Fixed Temperature - from +54 to +65°C
2) Current Consumption - 0.5 mA max
3) Input Voltage - from 8 to 10V
4) Technical Readiness Time - 60s max
5) Measurement Accuracy - ± 1°C
6) Operating Temperatures - from −30 to +55°C
7) Relative Humidity - up to 93% at +40°C
8) Ingress Protection Rating - IP 41
9) Weight - 0.2 kg max
10) Storage Temperature - from −50 to +50°C
11) Overall Dimensions: Diameter - 100 mm max
　　　　　　　　　　　　Height - 52 mm max

1.3 Standard Delivery

Single-piece delivery:
- S2000-IP rev.02 Detector　　- 1 pc.
- Address Label　　- 1 pc.
- Instruction Manual　　- 1 pc.

Group delivery:
- S2000-IP rev.02 Detector　　- 10 pcs.
- Address Label　　- 1 pc.
- Instruction Manual a　　- 1 pc.

2 OPERATION INSTRUCTIONS

2.1 S2000-IP Wiring Diagram.

Figure 1 shows the standard diagram to wire S2000-IP detectors into a two wire Multiplex Addressable Loop controlled by S2000-KDL.

If an S2000-IP is used to detect fire the S2000-KDL is programmed to monitor for the S2000-IP with zone type 3, Heat (in the standard mode) or 9, Heat Analog Addressable With Programmable Threshold (in the analogue mode).

If, otherwise, an S2000-IP is used in thermostatic systems the S2000-KDL is programmed to monitor for the S2000-IP with zone type 10, Thermal. To get information about zone types and S2000-KDL programming, please refer to the S2000-KDL User's Manual as well as used network controller description.
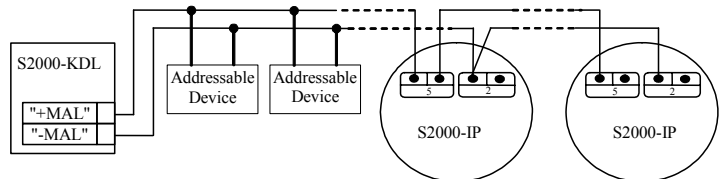

Figure 1. Wiring Diagram

2.2 Mounting
Heat detectors are installed on ceilings at distances at least 15cm from relevant walls.

There are three ways to attach S2000-IP detectors (see Figure 2). To attach a detector to solid surface (Variant A) the detector base plate provided is used. Optionally, Suspended Ceiling Mounting Kit MK-1 (Variant B) or MK-2 (Variant C) can be purchased to install a S2000-IP detector into a suspended ceiling.
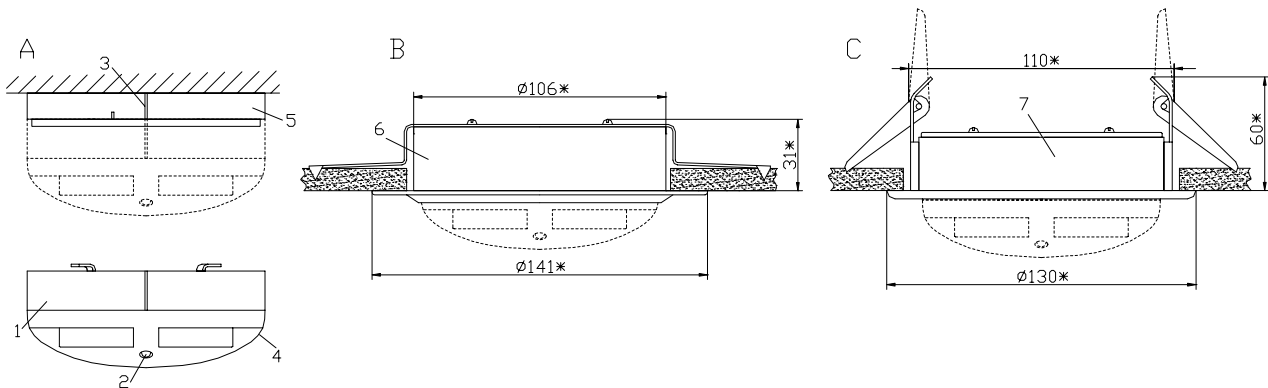

Figure 2

1:　S2000-IP Detector
2:　LED
3:　Alignment Guides
4:　The Mark and the Bar, **OPEN HERE**
5:　Base Plate
6*:　S2000-IP Suspended Ceiling Mounting Kit MK-1
7*:　S2000-IP Suspended Ceiling Mounting Kit MK-2
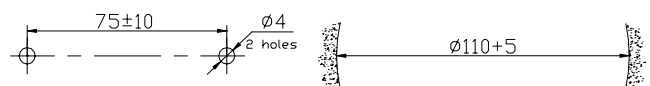
　　* : ordered separately

Figure 3

Figure 3 shows the drilling pattern to install the detector for Variant A as well as the diameter of a hole in a suspended ceiling for Variants B and C.

ATTENTION!

To install the detector on the base plate, align the guide on the detector with the short guide of the base plate. Then turn the detector clockwise until the detector guide will be aligned with guide 3 as shown in Figure 2 (A).

2.3 Address Setting

The address of an S2000-IP which is used to identify the detector within the MAL controlled by a S2000-KDL is storied in non-volatile memory of the S2000-IP. The address values ranges from 1 to 127. The factory address value of any S2000-IP detector is 127.

There are two ways to give an address to an S2000-IP, namely to set a required address and to change the known address value to the required value. Each of these commands can be sent from a network controller or by means of the UProg configuration tool.

If the command of setting an address is used (for example, in a case when the same address is incorrectly assigned to two different devices included into a MAL), together with sending the command a magnet must be applied to the detector top cover opposite to the detector LED. The network controller should indicate a message about connecting a device with the address being programmed.

After programming the address by one of the ways said above, write the address on the address label provided and stick this label to the detector base.

To read how to set addresses of addressable devices being included into MAL, please refer to the S2000-KDL User's Manual as well as used network controller description.

2.4 Testing

2.4.1 Before testing notify the proper authorities that the detector is undergoing maintenance and will be temporarily out of service. Disconnect all outputs of control devices and executive modules that can run an automated fire-fighting system.

2.4.2 Power on the S2000-KDL controller and observe the steady lighting of the detector LED. When communication between S2000-IP and S2000-KDL having been established the detector LED begins flashing with 4s period which indicates the standby condition (while double flashing indicates an alarm and triple flashing indicates a trouble).

2.4.3 Arm the detector.

2.4.4 Apply a magnet to the detector top cover opposite to its LED for partial inspection or blow the sensor with a hot air (70 C to 100°C) for full inspection (for example, by a hair dryer). The LED should flashes doubly with 4s period and FIRE message should be displayed by a network controller (S2000/S2000M console or ARM Orion).

2.4.5 When the impact has no longer existed the detector should enter normal condition within 5 minutes.

2.4.6 If the network controller has registered no FIRE message from a device with the address of S2000-IP or the detector LED operation does not match to that described above, the detectors appears to be inoperable and must be replaced.

2.4.7 When finishing testing, restore all binds between system executive outputs and automated fire-fighting systems and notify the proper authorities that the system is back in operation.

The light indication of the detector when using with S2000-KDL of versions 1.30 and above is described in User's Manuals for the S2000-KDL and the network controller.

3 WARRANTY

3.1 The average lifetime of the S2000-IP detector is at least 10 years.

3.2 The manufacturers warrants its product to be free from defects in materials and workmanship under normal use and service for 18 months since putting it into operation, but no more since 24 months since the acceptance date.

3.3 In the event of in-warranty failure forward your claims to the address:

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4 Pionerskaya Str., Korolev 141070, Moscow Region, Russia
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E-mail: info@bolid.ru   http://www.bolid.com