

ADDRESSABLE FIRE ALARM SOUNDER S2000-OPZ

HCO 9001



INSTRUCTION MANUAL

1 TECHNICAL INFORMATION

1.1 General

S2000-OPZ Addressable Fire Alarm Sounder (hereinafter referred to as OPZ) is designed to emit fire and emergency sound signals in various facilities as well as to issue sound signals when the OPZ is used as a part of intrusion alarm systems within heated premises. OPZ is used with a polling loop controller S2000-KDL or S2000-KDL-2I (hereinafter referred to as PL controller) within an Orion integrated security system. Electric power is supplied and data of the addressable part of the OPZ are communicated via the polling loop (PL) of the PL controller. The OPZ supports the polling loop protocol DPLS_v2.xx and provides measuring of the addressable loop voltage at the point where it is connected. OPZ is equipped with a tamper switch. The audible announcement circuit is galvanically isolated from the addressable part of the OPZ and thus from the polling loop and provides connecting one or two external power supplies with monitoring their output voltage.

The version of OPZ firmware is v.1.00.

The OPZ is designed for round-the-clock operation and relates to repairable and periodically serviced products.

1.2 Specifications

- | | |
|--|----------------------|
| 1) Input Polling Loop Voltage | - 8 to 11 V |
| 2) Current Consumed From the Polling Loop | - 0.6 mA max |
| 3) Start-up Time | - 15 s max |
| 4) External Power Voltage | - 10 to 28.5 V |
| 5) Current Consumed from External Power Supply | - 60 to 20 mA |
| While powering from a 12 V dc power supply | - 45 mA |
| While powering from a 24 V dc power supply | - 23 mA |
| 6) Maximum galvanic insulation voltage | - 500 V max |
| 7) Sound Pressure Level at 1m (in front of the sounder) | - 97 dB min |
| 8) Ingress Protection Rating | - IP41 |
| 9) Operating Temperature | - Minus 20 to +55°C |
| 10) Relative Humidity | - Up to 93% at +40°C |
| 11) Transportation and Storage Temperature | - Minus 50 to +55°C |
| 12) Overall Dimensions | - 160×115×48 mm max |
| 13) Weight | - 0.35 kg max |
| 14) The content of precious material: does not require accounting for storage, retirement, and disposal. | |

1.3 Standard Delivery

For an *individual* delivery:

- | | |
|--------------------------------|-----------|
| - S2000-OPZ Sounder | - 1 pc.; |
| - Instruction Manual | - 1 pc.; |
| - 4.2x38 DIN7981 Tapping Screw | - 2 pcs.; |
| - Wall Plugs 6x30 | - 2 pcs.; |
| - Packing | - 1 pc. |

2 OPERATION INSTRUCTIONS

2.1 Connection Diagram

Figure 1 shows the schematic for connecting the OPZ to a polling loop controller.

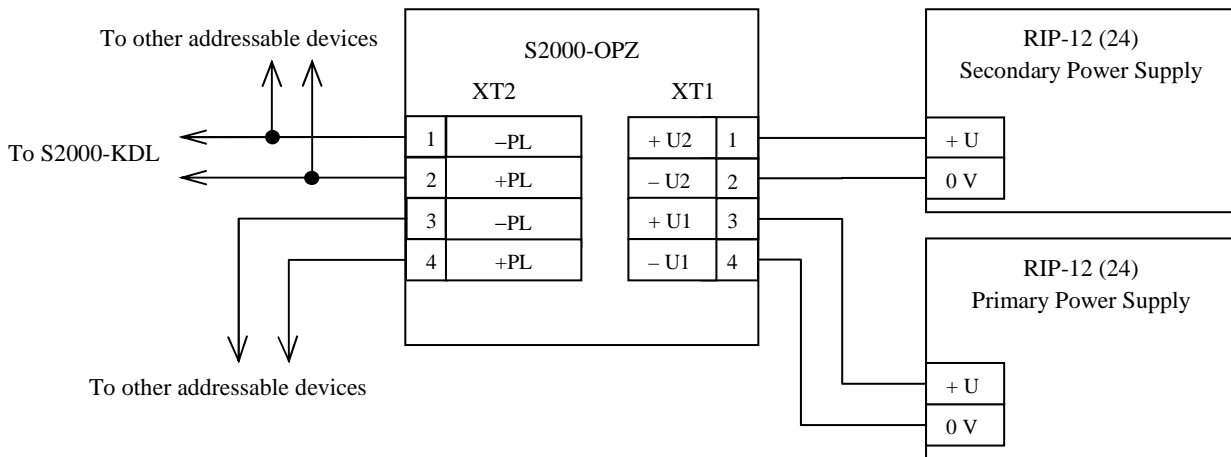


Figure 1

2.2 Mounting the OPZ

The OPZ is to be mounted on a wall with the help of two or three woodscrews in accordance with the requirements of construction rules and regulations.

The OPZ should be attached to the wall as shown in Figure 2 with the printed circuit board (specified in dotted line) on the top.

Figure 3 represents the coverage pattern of the OPZ (top view) mounted on the wall as shown in Figure 2. The cross sign in Figure 2 is the center relatively which the values of sound pressure levels in the coverage pattern are specified.

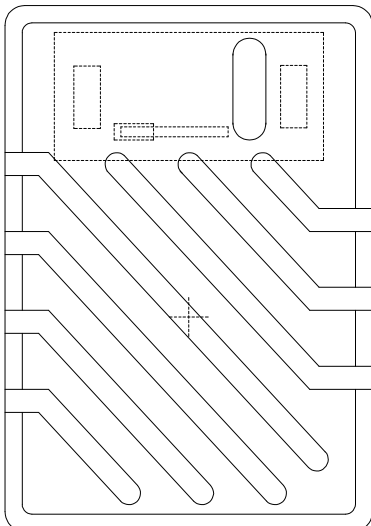


Figure 2

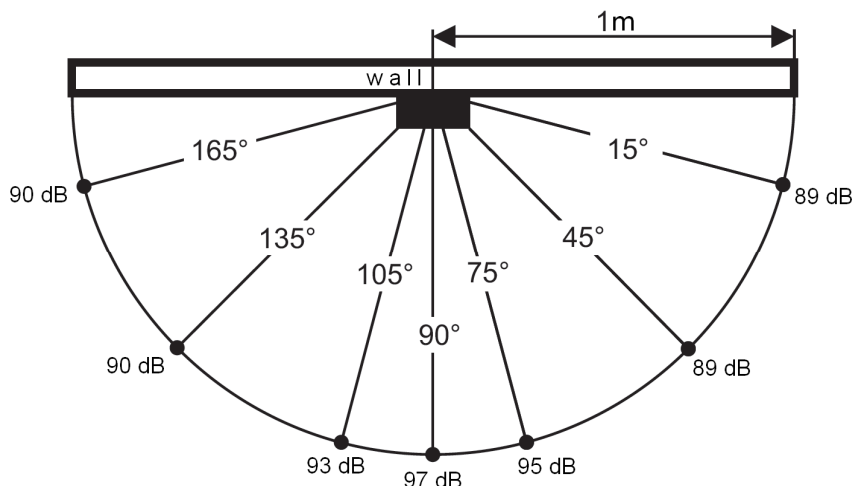


Figure 3

2.3 Indication

Table 1 shows the performance of the OPZ light-emitting diode located inside its housing at the PCB.

Table 1. Operation Mode Indication

LED Performance	Condition (Event)
Flashes once per four seconds	Norm
Flashes doubly once per four seconds	Sounding is activated
Flashes triply once per four seconds	Trouble
Flashes four times once per four seconds	Programming

2.4 Operating OPZ

The OPZ is controlled by the polling loop controller as a system output and provides switching sounding on (switching off, pulsing) in accordance with the given control program by control commands received via the polling loop. Also the OPZ provides monitoring external power supplies. Setting and controlling outputs of the polling loop are described in manuals for the PL controller, S2000M control panel, and Orion Pro Workstation software.

If the OPZ is in the Trouble mode then no program controlling announcement (Switch On / Off) can be changed by the PL controller. When there is no voltage from external power supplies it is considered as Trouble. If a single power supply is in use then the contact 1, "+U2" and the contact 3, "+U1" of the XT1 terminal should be coupled by the jumper (see Figure 1).

The OPZ features single-tone and dual-tone sounding modes which are defined by the position of the XP1 jumper located on the OPZ printed circuit board. Opening the jumper causes the OPZ to operate with single-tone sounding mode.

WARNING: If for any reason the external power supplies have shut down when announcement is active (and thus announcement shuts down too) then recovering (reconnecting) at least one of the power supplies will result in activating sound alarms suddenly.

2.5 Setting OPZ Address

The OPZ provides storing its polling loop address in its non-volatile memory. The PL addresses range from 1 to 127. The OPZ comes with the factory address of 127.

In order to set the polling loop address, send one of the following commands from the S2000M or PC to the polling loop controller:

- *Set Device Address;*
- *Change Device Address.*

The command *Set Device Address* is used when the OPZ should be assigned with an address regardless of which address is given to it currently. This way is suitable when, for example, the same address is assigned with two or more devices. If so, issue a command to set the required address from the PC or the control panel. The OPZ LED shall start flashing four times once per four seconds. Then, within 5 minutes max open the OPZ housing and press the tamper switch three times for a quite long time (from 1 s to 3 s) and once for a short time (shorter than 0.5 s). The panel / PC shall display the events of loss of communication with the device assigned with an old address and finding a device with the new address. If several devices were assigned with equal addresses then there will be no messages about loss of communications for old addresses.

If however it is necessary to change the OPZ address which is known in advance then the *Change Device Address* command shall be used. Send this command specifying the old address and the new address from the panel / PC. The panel / PC shall display events about loss of communication with the OPZ with the old address and establishing communications with the OPZ with the new address.

2.6 Testing OPZ

2.6.1 Before testing the S2000-OPZ, please disconnect executive outputs of the system units and actuators that can release extinguishing agent. Notify the proper authorities that the system is undergoing maintenance.

2.6.2 Remove the cover from the OPZ and observe S2000M or Orion Workstation receiving a Tamper Alarm message from the address of the OPZ. Close the OPZ housing and ensure the S2000M or Orion Workstation receives a Tamper Restored message not earlier than in 15 seconds after closing the device.

2.6.3 Activate the sounder sending OPZ the relevant command and ensure that the sound pattern corresponds to the used control program. Then issue a command to switch the sounder off.

2.6.4 After testing, verify that the OPZ is ready for normal operation. Then restore operability of all the system components disconnected before. Finally, notify the proper authorities that the system is back in operation.

Prior to testing ensure that all the equipment in use is known as good!

3 MAINTENANCE

3.1 The S2000-OPZ shall be maintained by specialists with at least third electrical safety qualification level. Maintenance works shall include:

- Checking whether the sounder is mounted securely, its housing is undamaged, and wire terminals are fastened properly;
- Eliminating dust, debris, and traces of corrosion from the contact joints and the housing of the OPZ;
- Testing operability of the OPZ as discussed in Section 2.6 of this manual.

3.2 The S2000-OPZ should be maintained annually and on its sending a Trouble message.

4 MANUFACTURER (VENDOR) WARRANTY

4.1 The average lifetime of the S2000-OPZ is at least 10 years.

4.2 Warranty period is 18 months since putting the S2000-OPZ into operation but no more than 24 months from the manufacturer's date of issue.

4.3 In case of any issue related to programming and operating the product please contact with the technical support: +7 (495) 775-71-55 or e-mail:

support@bolid.ru.

4.4 While sending the product for repair, please apply a report describing the potential failure.

Claims shall be submitted to the following address:

NVP BOLID CJSC, 4 Pionerskaya Str., Korolyov city, Moscow region, 141070, Russia

Phone/Fax: +7 (495) 775-71-55 (PBX), +7 (495) 777-40-20, +7 (495) 516-93-72.

E-mail: info@bolid.ru, Technical Support: support@bolid.ru, <http://bolid.ru>

5 CERTIFICATES

5.1 S2000-OPZ is approved by Conformity Certificate № C-RU.4C13.B.00515.

5.2 S2000-OPZ is a part of Orion Addressable Fire Alarm System which is approved by Conformity Certificate № BY/112 02.01.033 00573.

6 ACCEPTANCE AND PACKAGING CERTIFICATE

S2000-OPZ addressable fire alarm sounders (serial numbers are inside the housings of every OPZ) are accepted in accordance with mandatory requirements of state standards and actual engineering documentation and approved as ready for operation.

Responsible for acceptance and packaging

ACCEPTED



QCD

Date, Month, Year