

**ADDRESSABLE LED EMERGENCY SIGN BOARD
S2000-OST**

ICO 9001

INSTRUCTION MANUAL



- | | | |
|---|--|---|
| <input type="checkbox"/> mod. 00 "FIRE" | <input type="checkbox"/> mod. 04 "GAS KEEP OUT" | <input type="checkbox"/> mod. 08 Arrow Right Sign |
| <input type="checkbox"/> mod. 01 "EXIT" | <input type="checkbox"/> mod. 05 "POWDER ESCAPE" | <input type="checkbox"/> mod. 09 Man / Arrow Left Down |
| <input type="checkbox"/> mod. 02 "AUTO OFF" | <input type="checkbox"/> mod. 06 "POWDER KEEP OUT" | <input type="checkbox"/> mod. 10 Man / Arrow Right Down |
| <input type="checkbox"/> mod. 03 "GAS ESCAPE" | <input type="checkbox"/> mod. 07 Arrow Left Sign | <input type="checkbox"/> mod. 11 "ESCAPE EXIT" |

1 TECHNICAL DATA

1.1 General

S2000-OST Addressable LED Emergency Sign Board (hereinafter referred to as the S2000-OST) is used to display alarm messages of fire alarm systems, to identify escape routes and to display information.

The S2000-OST operates under a polling loop controller S2000-KDL (of version 2.15 and higher) or S2000-KDL-2I (of version 1.15 and higher) (hereinafter referred to as KDL) as part of an Orion integrated security system. The S2000-OST supports DPLS_v2.00 Multiplex Addressable Polling Loop Protocol. A part of the lighting circuit with a power supply is galvanically isolated from the control circuit of the polling loop. Electromagnetic compatibility of the S2000-OST meets the requirements of the third immunity level accordingly to Russian standards. The version of S2000-OST firmware is v.1.00.

S2000-OST is available with one of the following signs: "EXIT", "FIRE", "AUTO OFF", "GAS ESCAPE", "GAS KEEP OUT", "POWDER ESCAPE", "POWDER KEEP OUT", Arrow Left Sign, Arrow Right Sign, Man / Arrow Left Down Sign, Man / Arrow Right Down Sign, "ESCAPE EXIT" or any customizable lettering/pictogram.

1.2 Specifications

- | | |
|---|-------------------------------|
| 1) Ingress Protection Rating | - IP41 |
| 2) Climatic Category (Russian Industry Standard OCT 25 1099-83) | - O3 |
| 3) Polling Loop Voltage | - 8 to 11 V |
| 4) Current Consumed from the Polling Loop | - 0.5 mA |
| 5) Lighting Circuit Power Voltage | - 12 to 24 V |
| 6) Current Consumed from Lighting Power Supply | |
| - 12 V | - 25 mA max |
| - 24 V | - 13 mA max |
| 7) Galvanic Isolation between the PL and Lighting Circuit | - Up to 4 kV |
| 8) Operating Temperatures | - Minus 30°C to +55°C |
| 9) Relative Humidity | - Up to 93% at +40°C |
| 10) Transportation and Storage Temperature | - Minus 50°C to +55°C |
| 11) Overall Dimensions | - 303.3 mm × 112.5 mm × 36 mm |
| 12) Weight | - 240 gram |
| 13) The content of precious materials: no need to account for the storage, disposal and recycling. (Clause 1.2 of ГOCT 2.608-78). | |

1.3 Standard Delivery

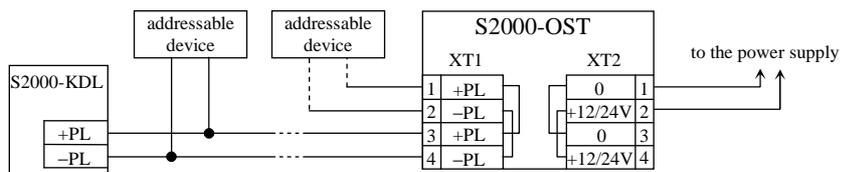
- | | |
|----------------------------------|-----------|
| - S2000-OST LED Sign Board | - 1 pc.; |
| - Instruction Manual | - 1 pc.; |
| - Woodscrew 3×25 | - 2 pcs.; |
| - Wall Plug (for 3x25 woodscrew) | - 2 pcs.; |
| - Woodscrew 4×40 | - 2 pcs.; |
| - Wall Plug (for 4x40 woodscrew) | - 2 pcs.; |
| - Packing | - 1 pc. |

2 OPERATION DIRECTIVES

2.1 External Connection Diagram and Mounting

The figure shows the typical connection diagram for the S2000-OST. The S2000-OST is designed to operate within premises. The power supply for lighting circuit must be battery backed.

The S2000-OST operates under a KDL and all operation conditions (a control program, activation time, activation delay) are defined in the KDL configuration by means of UProg. To use the S2000-OST, the relevant addressable device type for the S2000-OST address must be selected by means of UProg and, if necessary, the relevant links between inputs and outputs of the KDL must be defined. To get more information about addressable device types and configuration parameters, please refer to user's manuals for KDL, S2000M, and Orion Pro software.



2.2 Auxiliary LED Performance

There is an auxiliary green LED on the PCB which indicates the S2000-OST status as shown in table below.

Flashes once per four seconds	Norm
Flashes four times once per four seconds	The S2000-OST is being programmed with an address
Solid light	The S2000-OST is waiting for establishing communication with the KDL. A proper combination of presses on the button to change address has been performed
Others	Trouble

2.3 Assigning an Address

The S2000-OST stores its polling loop address in its non-volatile memory. The factory value of the loop address of the S2000-OST is 127. To assign a new polling loop address to the S2000-OST, one of the following commands should be given to the KDL from the S2000M panel or PC:

- *Program Device with Address;*
- *Change Device Address.*

The command Program Device with Address provides assigning a polling loop address to an S2000-OST without regards to which address is assigned to it at the time. It can be required when the same address is assigned to two or more addressable devices. Give a command for assigning the specific address from the S2000M panel or PC. Then within no more than 5 minutes perform on the S2000-OST PCB a combination of three long presses (between 1 s and 3 s) and one short press (less than 0.5 s) on the button – (long-long-long-short). In this case the panel or PC displays events about missing the device with an old address and connecting the device with the new address. If several devices had the same address before assigning then no messages about missing devices with the old address is displayed.

If it is necessary to change address of a device which address is known then the Change Device Address command should be selected. Give a command to change address specifying the old and new addresses as parameters from the S2000M panel or PC. The panel or PC shall display events of loss of communication with the device with the old address and connecting the device with the given address.

2.4 Testing

2.4.1 Before testing notify the proper authorities that the equipment 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 Apply power to the KDL and to the S2000M panel or PC. Remove the front cover from the S2000-OST and ensure the auxiliary LED on the PCB shows solid light. When communication with the KDL has been established the auxiliary LED starts flashing once per four seconds indicating normal conditions.

2.4.3 Simplified testing is carried out by pressing on the button on the S2000-OST PCB three times for a short time (shorter than 0.5 s) and then for a longer time (between 1 s and 3 s) – (short-short-short-long). After that the auxiliary LED shall flash 10 times.

2.4.4 Then test operation of the S2000-OST as part of the system by giving the S2000-OST output control commands. The system shall integrate an S2000M control panel or a PC with Orion Pro software installed and a KDL polling loop controller.

2.4.5 When testing has been completed ensure that the S2000-OST is ready for operation. Restore all binds between system executive outputs and automated fire-fighting systems and notify the proper authorities that the system is back in operation.

When testing, please be sure all the equipment is known to be operable.

3 MANUFACTURER DATA

The Bolid Company, Russia

Address: 4 Pionerskaya Str., Korolev 141070, Moscow Region, Russia

Tel./fax: +7 (495) 775-71-55 (multi-channel), +7 (495) 777-40-20, +7 (495) 516-93-72

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

4 CERTIFICATES

4.1 S2000-OST Addressable LED Emergency Sign Board is approved by Conformity Certificate No. C-RU.ЧС13.В.00516.

4.2 Conformity Certificate TC № RU Д-РУ.МЕ61.В.00610 certifies that S2000-OST Addressable LED Emergency Sign Board meets the requirements of Technical Regulations of Custom Union TR CU 020/2011.

4.3 Production of S2000-OST Addressable LED Emergency Sign Board is certified according to ГОСТ ISO 9001-2011 by a conformity certificate No.ПССС RU.ИК32.К00153.

5 PRODUCT ACCEPTANCE CERTIFICATE

The S2000-OST Addressable LED Emergency Sign Board (marked with its serial number on its case) is qualified as proper for operation and is packaged by CJSC NVP “Bolid”.

Responsible for acceptance and packaging

QCD

Full Name

Date, Month, Year

BOLID®