




# Addressable Eight-Input Module S2000-AR8

## Installation Manual

This Installation Manual provides instructions on how to mount the S2000-AR8 Addressable Eight-Input Module (hereinafter referred to as the module) and get it ready for operation.

To get information on module's description and rules of settings and operation please refer to its User's Manual, which can be found online at <http://bolid.ru> in the section PRODUCTS.

### 1 SAFETY PRECAUTIONS

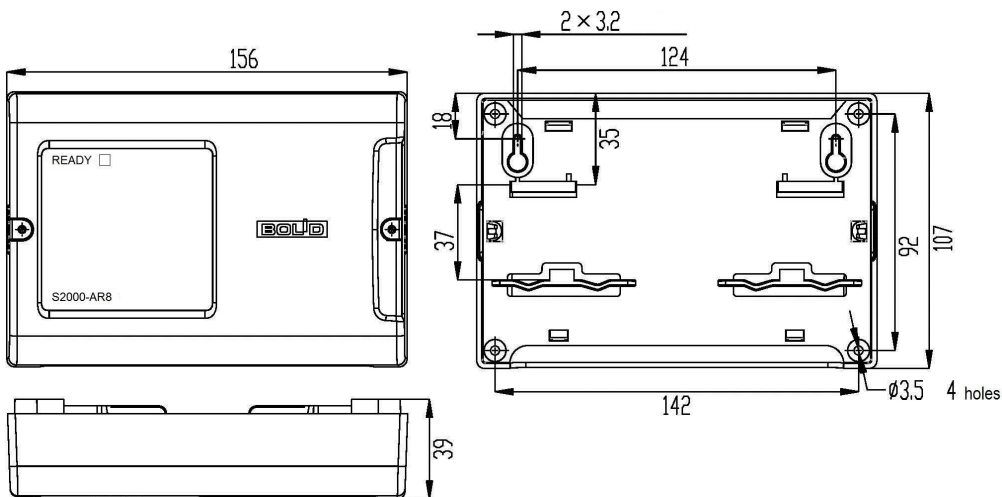
- *The module contains no circuits under hazardous voltages.*
- *The design of the module meets the requirements of electric and fire safety in accordance with Russian standards GOST 12.2.007.0-75 and GOST 12.1.004-91.*
-  - *The design of the module provides its fire safety in case of emergency operation and on violations of operation rules as per GOST 12.1.004-91.*
- ***Do shut off power from the polling loop controller prior to mounting, installing, and maintaining the module.***
- *Installation and maintenance shall be carried out by personnel qualified for the Electrical Safety of Level II or higher.*

### 2 MOUNTING THE MODULE

2.1 The S2000-AR8 is to be installed on a wall or within a cabinet at a place protected against atmospheric precipitations, mechanical damages, and unauthorized access.

2.2 The S2000-AR8 should be mounted in line with Regulatory Document ПД 78.145-92 "Rules for Performance and Acceptance of Works. Fire and Intrusion Alarm Installations". If the S2000-AR8 is housed in unwatched premises it should be located at least 2.2 m higher than the floor level.

2.3 The module is to be wired as shown in Figure 6.



**Figure 1.** Overall and Mounting Dimensions of S2000-AR8

### 3 MOUNTING THE MODULE

3.1 Please read this manual through before using the drilling template.

#### 3.2 Mounting onto a Wall

3.2.1 Please make sure that the wall the S2000-AR8 is to be mounted onto is solid, flat, clean, and dry.

3.2.2 Attach the S2000-AR8 to the wall as per Variant 1 or Variant 2 below.

3.2.3 **Variant 1.** Apply the drilling template (page 6) to the wall. Drill three holes (A, B and C or D at your choice).

3.2.4 Insert wall plugs to the holes and screw provided woodscrews to the two upper holes so that a distance between a screw head and the wall to be about 7 mm.

3.2.5 Remove the cover from the S2000-AR8 as shown in Figure 2.

3.2.6 Hang the S2000-AR8 base on the two screws. Screw the third screw into the bottom mounting hole and fasten the S2000-AR8 to the wall.

3.2.7 **Variant 2.** Apply the drilling template (page 6) to the wall. Drill three holes (E, F and C or D at your choice).

3.2.8 Insert the wall plugs to the holes.

3.2.9 Remove the cover from the module as shown in Figure 2.

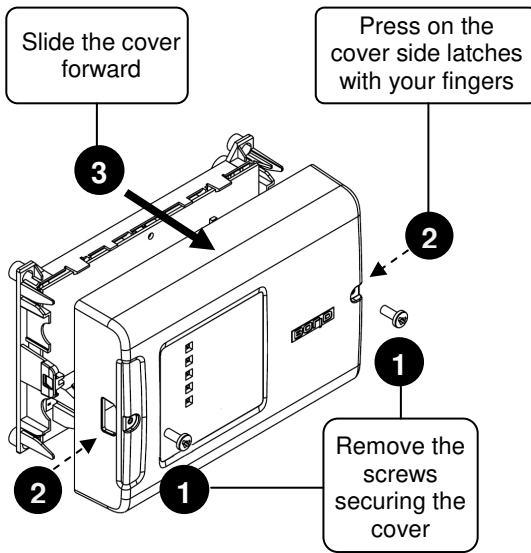
3.2.10 Apply the S2000-AR8 base to the wall so that the mounting holes align with the wall plugs.

3.2.11 Screw the woodscrews into the mounting holes and secure the S2000-AR8 to the wall.

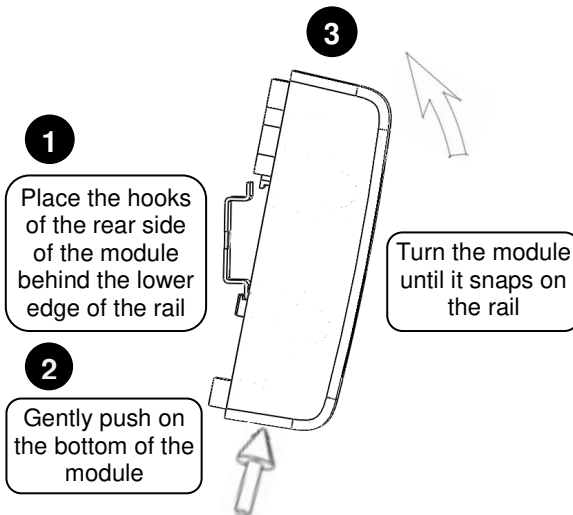
#### 3.3 Mounting onto a DIN Rail

3.3.1 Mount the S2000-AR8 on the DIN rail as shown in Figure 3.

3.3.2 Remove the S2000-AR8 cover as shown in Figure 2.

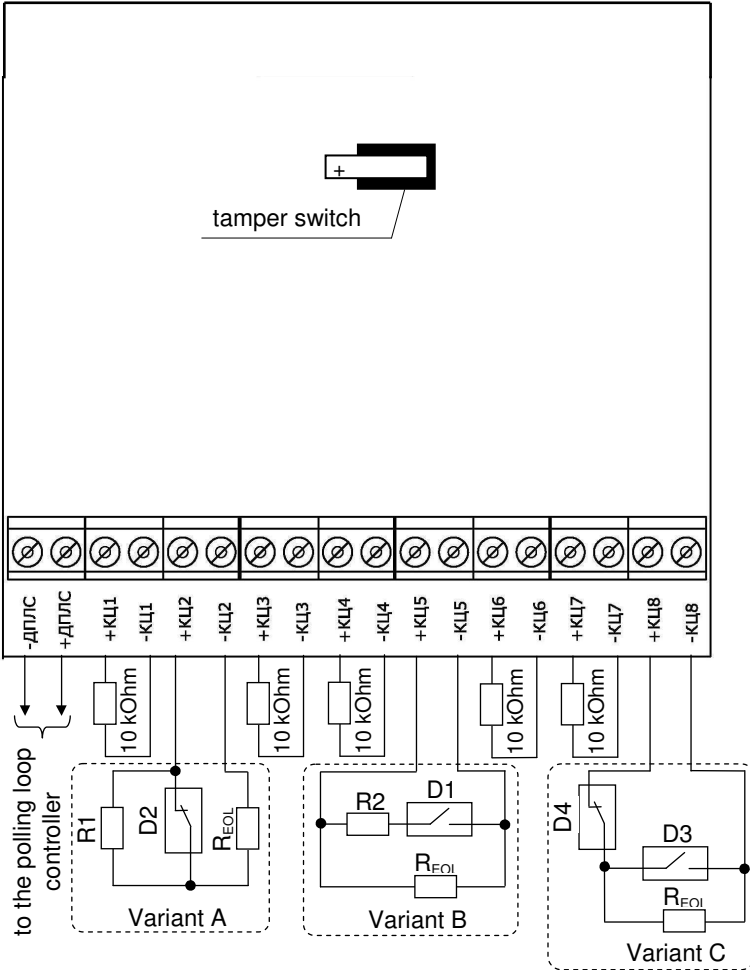


**Figure 2.** Removing the S2000-AR8 Cover



**Figure 3.** Mounting the S2000-AR8 on a DIN rail

## 4 WIRING



- D1 : A normally open fire detector
- D2 : A normally closed fire detector
- D3 : A normally open intrusion detector
- D4 : A normally closed intrusion detector
- R1 : An additional resistor C2-33H-0.25-20k±5%
- R2 : An additional resistor C2-33H-0.25-4.7k±5%
- R<sub>EOL</sub> : A termination resistor C2-33H-0.25-10k±5%

**Figure 4.** Schematic for External Wiring of S2000-AR8

## 4.1 Polling Loop Wiring

4.1.1 Connect the polling loop wires to the module contacts marked as “+ДПЛС” and “-ДПЛС” (the left-most ones in Figure 4), observing contact polarity. Incorrect polarity would result in non-operability of the polling loop.

4.1.2 For the polling loop it is advised to use twin twisted-pair wires.

## 4.2 Detector Wiring

4.2.1 Connect contacts marked as “КЦ1”...”КЦ8” on the module PCB with the alarm contacts of non-addressable dry contact detectors as shown in Figure 4.

4.2.2 The wire resistance for a monitored circuit without the termination resistor shall not exceed 100 Ohm.

4.2.3 If a monitored circuit is not in use, connect a 10 kOhm termination resistor to its contacts.

4.2.4 Close the S2000-AR8 cover until it clicks into place and secure it with fastening screws (if necessary).

## 5 TESTING THE MODULE

5.1 Testing the module shall be carried out by personnel qualified for the Electrical Safety of Level II or higher.

5.2 Testing the module shall be carried out under normal climatic conditions as per GOST 15150-69:

- Relative air humidity:  $(45 \div 80)$  %;
- Ambient temperature:  $(25 \pm 10)$  °C;
- Atmospheric pressure:  $(630 \div 800)$  mm Hg,  $(84 \div 106,7)$  kPa.

5.3 Do shut off power from the polling loop controller while connecting and disconnecting external circuits.

## 5.4 Performance Testing

5.4.1 Apply power to the polling loop controller.

5.4.2 The module's READY LED shall start illuminating within 15 s. The LED shall keep illuminating steadily till the polling loop controller starts polling the address assigned with the S2000-AR8.

5.4.3 The module being polled, its LED is blinking rarely if all the monitored circuits are in norm. If at least one monitored circuit is out of norm, the LED flashes with short pair flashes.

## 6 GETTING STARTED

In order the S2000-AR8 to operate under a polling loop controller in an Orion ISS, it should be assigned to a polling loop address and the relevant settings should be carried out (see User's Manual).

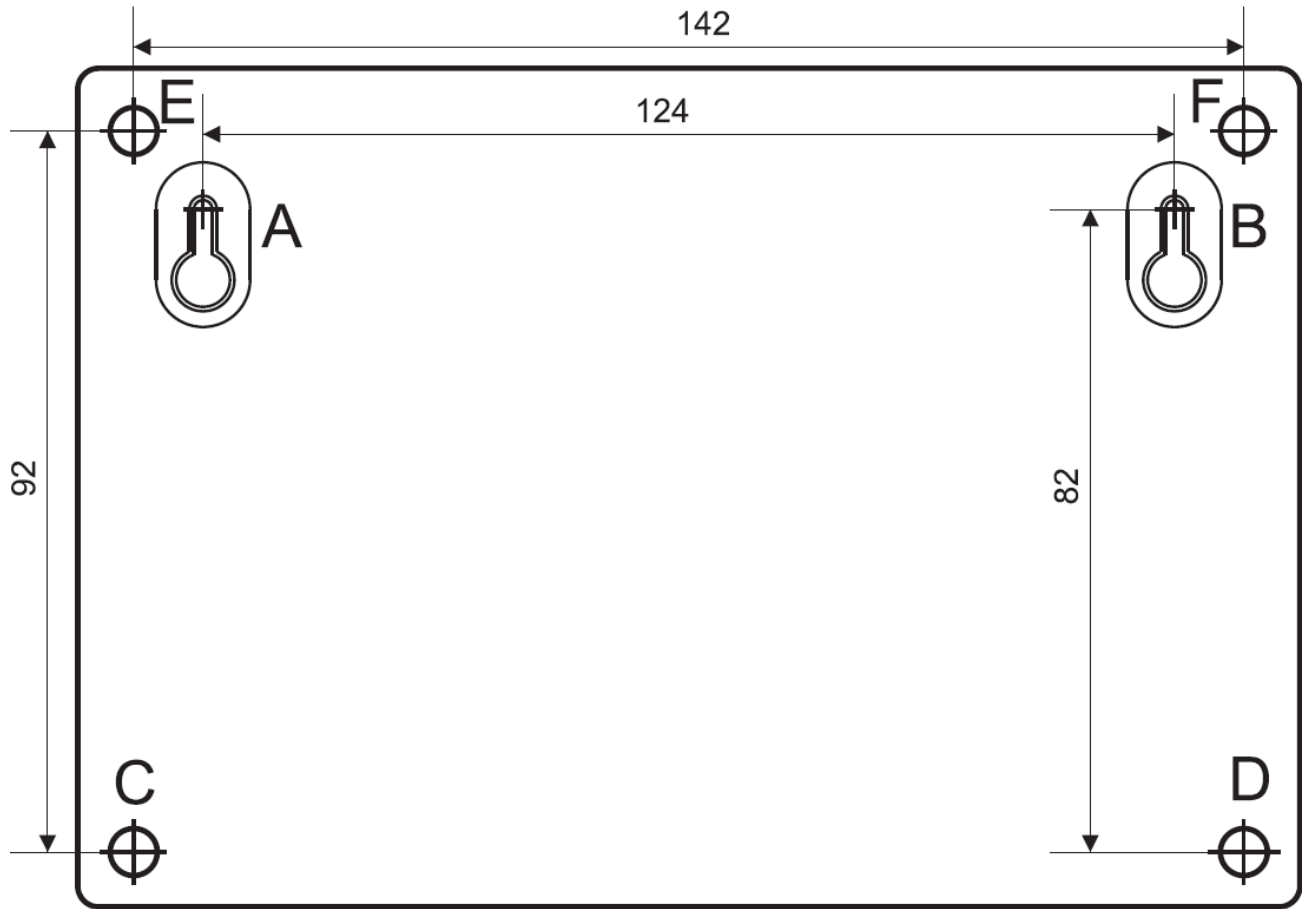


Figure 5. Drilling Template