# ADDRESSABLE DOUBLE-INPUT MODULE S2000-AR2 Rev.02

# ИСО 9001



#### **OPERATIONS MANUAL**

#### 1. DESCRIPTION AND OPERATION

#### 1.1 **Product Designation**

- 1.1.1 S2000-AR2 Rev.02 Addressable Double-Input Module (hereinafter referred to as the module) is used with a polling loop controller such as S2000-KDL, S2000-KDL-2I, S2000-KDL-2I Rev.01, S2000-KDL-S in Orion integrated security systems. The module is designed to connect non-addressable dry contact detectors into the polling loop of a polling loop controller as well as to supervise fire protection systems (voice announcement systems, smoke control systems, fire protection dampers, etc.) and other control and auxiliary systems with dry contact outputs. The module is powered and communicates data over the polling loop of the polling loop controller. The module supports the polling loop protocol DPLS\_v2.xx providing getting polling loop voltage values at the point where it is connected and features a tamper switch.
- 1.1.2 The module is designed for round-the-clock operation.
- 1.1.3 The module is a reparable and regularly maintained product.
- 1.1.4 The design of the module doesn't provide its operation in aggressive and dusty environments and in ex-hazardous premises.

## 1.2 Specifications

**Table 1.2.1** 

№	Parameter	Value
1.2.1	Power supply voltage (PL voltage), V	- 8 through 11
1.2.2	Average consumed current, mA	- 1.0 max
1.2.3	Power input	- 1
1.2.4	Start-up time, s	- 15 max
1.2.5	Monitored circuits (device loops)	- 2
1.2.6	Ingress Protection Rating as per GOST 14254-2015	- IP41
1.2.7	Immunity to mechanical exposure as per OST 25 1099-83	- Arrangement Category III
1.2.8	Vibration exposure: - Frequency range, Hz - Max acceleration	- 1-35; - 0.5g
1.2.9	Climatic version as per OST 25 1099-83	- O3
1.2.10	Operating temperatures, °C	- Minus 30 to +55
1.2.11	Relative humidity, %	- Up to 93 at +40°C
1.2.12	Weight, kg	- 0.04 max
1.2.13	Overall dimensions, mm	$-56 \times 38 \times 20$
1.2.14	Non-stop operation	- 24/7
1.2.15	MTBF in quiescent mode, hours	- 80000
1.2.16	Survival probability	- 0.98758
1.2.17	Average service life, years	- 10

1.2.18 The module passes the standards of industrial radio disturbance prescribed for Class B equipment as per GOST 30805.22.

- 1.2.19 In terms of immunity to industrial radio disturbance, the module meets the requirements of Test Severity Level III as per GOST R 50009.
- 1.2.20 The module withstands radio-frequency electromagnetic field in 80 through 100 MHz range as per GOST 30804.4.3.
- 1.2.21 The module withstands electrostatic discharge of Test Severity Level III as per GOST 30804.4.2.

#### 1.3 Standard Delivery

Table 1.3.1 represents the content of S2000-AR2 Rev.02 standard delivery.

**Table 1.3.1** 

Item	Quantity, pc(s).
S2000-AR2 Rev.02 Addressable Double-Input Module	10
S2000-AR2 Rev.02 Operations Manual	1
Resistor MF 1/4W-10k-5%	20
Woodscrew 1-3x25.016 GOST 1144-80	20
Wall Plug 6x30	20
Individual packing	10
Group packing	1

#### 2 INTENDED USAGE

Detailed information on operational restrictions, design, mounting, wiring, setting, and operability / performance test procedures is contained in S2000-AR2 Rev.02 User's Manual, which can be found online at <u>bolid.ru</u> in the PRODUCTS section on the page of S2000-AR2 Rev.02.

#### 3 MAINTENANCE

- 3.1 The module shall be maintained by personnel with Safety Qualification Level II of higher.
- 3.2 The module shall be maintained according to a scheduled-preventive system which provides annual service.
- 3.3 Maintenance works are described in S2000-AR2 Rev.02 User's Manual, which can be found online at bolid.ru in the PRODUCTS section on the page of S2000-AR2 Rev.02.

#### 4 ROUTINE REPAIR

4.1 Routine repair of defective equipment is to be performed by the manufacturer or in authorized repair centers. The product shall be sent for repair in line with established procedures.

#### **ATTENTION**



The equipment shall be submitted for repair being assembled and clean and along with all the parts listed in the documentation.

Claims are accepted only if a reclamation report describing the failure is applied to the submitted equipment.

- 4.2 An equipment failure resulted from consumer's not observing rules of mounting and operation is not a reason for claims and warranty repair.
- 4.3 Claims shall be submitted to the following address:

NVP Bolid, #4 Pionerskaya Str., Korolyov, Moscow Region, 141070, Russia

Tel./fax: +7 (495) 775-71-55 (PBX), E-mail: info@bolid.ru.

4.4 In case of any issue related to use of the product, please contact the technical support: +7 (495) 775-71-55 or e-mail: <a href="mailto:support@bolid.ru">support@bolid.ru</a>.

#### 5 STORAGE

- 5.1 In a transport container the equipment can be stored at ambient temperatures -50°C through +50°C and relative humidity up to 95% at +35°C.
- 5.2 In the consumer package the equipment can be stored only in heated premises at temperatures  $+5^{\circ}$ C through  $+40^{\circ}$ C and relative humidity up to 80% at  $+20^{\circ}$ C.

## 6 TRANSPORTING

6.1 The equipment can be transported in a transport container at ambient temperatures -50°C to +50°C and relative humidity up to 95% at +35°C.

#### 7 DISPOSAL

- 7.1 The equipment is disposed of considering that it contains no toxic components.
- 7.2 The content of precious materials: does not require accountability for storage, retirement and disposal (Clause 1.2 of GOST 2.608-78).
- 7.3 The content of non-ferrous metals: does not require accountability for retirement and further disposal.

#### 8 MANUFACTURER WARRANTY

- 8.1 The manufacturer guaranties this product meets with technical requirements specified in the manuals if the user follows the instructions for transportation, storage, installation, and usage.
- 8.2 The warranty period is 18 months since the day of putting the product into operation but no more than 24 months from the manufacturer's date of production.

# 9 CERTIFICATION INFORMATION

To get information about module certificates please refer to S2000-AR2 Rev.02 User's Manual, which can be found online at <u>bolid.ru</u> in the PRODUCTS section on the page of S2000-AR2 Rev.02 on the *Download* tab.

#### 10 ACCEPTANCE AND PACKAGING CERTIFICATE

S2000-AR2 Rev.02 Addressable Double-Input Modules (serial numbers can be seen on their enclosures) are manufactured, accepted in line with requirements of national standards and applicable technical documentation, approved as ready for use, and packaged by the Bolid Company.

Responsible for acceptance and packaging

OCD	
QCDName	Date/Month/Year