S2000-KDL-2I Galvanic Isolation
Polling Loop Controller

ИСО 9001   Data Sheet

1   GENERAL INFORMATION AND APPLICATIONS

This data sheet is applicable to the S2000-KDL-2I Multiplex Polling Loop Controller with Galvanic Isolation (hereinafter called the Controller) serving in the Orion Integrated Security System as a constituent part of a combined expansion addressable device designed for fire and intrusion protection at sites by: monitoring addressable inputs (Inputs) including addressable intrusion /fire detectors and/or supervised circuits (SC) of addressable expansion modules; control (via addressable outputs of actuation modules) and monitoring (via addressable inputs - addressable detectors and/or supervised circuits of addressable expansion modules) of fire protection systems (voice alarm, smoke removal, fire damper control, etc.).

The Polling Loop of the Controller supports up to 127 addressable devices.

The Controller works as an addressable device operated by the local security network controller in the Orion integrated security system. The network controller can be the S2000M Monitoring and Control Panel or the Orion Pro Suite.

To provide system stability, the Controller's design divides wire connections into two groups with galvanic isolation between them – power supply with RS-485 interface and Polling Loop.

Power supply for the Controller is provided with one or two (primary and backup) power supplies 12 or 24 V/DC.

The Controller is designed for indoor installation in unheated premises and meant for 24/7 continuous operation. It is not designed to be used in aggressive, dust, explosive and fire-hazardous environments.

2   SPECIFICATIONS

- Up to 127 address points on the Polling Loop.
- Power supply voltage: 10.2 V/DC to 28.4 V/DC.
- Power consumption: up to 4 W.
- Current consumption of the Controller, if powered from 12V power output:
  - Maximum value: up to 400mA;
  - Average value when no addressable devices connected: 80 mA
  - Average value when 127 addressable devices connected where each consumes 0.5 mA: 160 mA.
- Current consumption of the Controller powered from 24V power output:
  - Maximum value: up to 200 mA;
  - Average value when no addressable devices connected: 40 mA;
  - Average value when 127 addressable devices connected where each consumes 0.5 mA: 80 mA.
- The Controller provides power for all connected addressable devices where total current consumption for all of them is no more than 64mA.
- Maximum output current of the polling loop: 100mA.
- Supports one credential.
- Supports Touch Memory (1-Wire, μ-LAN), Wiegand or ABA-Track II interfaces.
- Supports two reader LEDs.
- Polling loop length (maximum load):
  - Up to **160** m if cable with **0.2** mm^2 conductor is used (conductor diameter is 0.5 mm at least)
  - Up to **400** m if cable with **0.5** mm^2 conductor is used (conductor diameter is 0.8 mm at least)
  - Up to **600** m if cable with **0.75** mm^2 conductor is used (conductor diameter is 0.9 mm at least)
  - Up to **1,200** m if cable with **1.5** mm^2 conductor is used (conductor diameter is 1.4 mm at least)
- IP protection according to GOST 14254-2015 (IEC 529-89): IP40 (if wall mounted).
- The weight of the Controller: 0.3 kg maximum.
- Dimensions: 156×107×39 mm maximum.
- Operating temperatures: - 30°C до +55 °C.
- Average lifetime: 10 years.
- The content of precious materials: does not require accountability for storage, retirement and disposal.
- The content of non-ferrous metals: does not require accountability for retirement and further disposal.

The detailed description of functional features, settings and configuration parameters, operation modes, specifications and application features is provided in the S2000-KDL-2I User's Manual.

The User's Manual and the UProg.exe configuration utility can be downloaded at <u>http://bolid.ru</u> in the section PRODUCTS at the page of S2000-KDL.

3   STANDARD DELIVERY

The standard delivery includes:
1) S2000-KDL-2I Controller;
2) Datasheet with an acceptance stamp and specified factory number of the product;
3) Installation Manual;
4) Spare parts and accessories:
   - Screw 1-3×25.016 GOST 1144-80   x3
   - Nailing plug 6×30 (for screw of 3×25)   x3
   - Tapping screw GOST R ISO 7049 – ST2,9x9,5-St-C-H-A1A   x2

4 OPERATION INSTRUCTIONS

Mounting and settings for the Controller shall be provided in accordance with the User's Manual and *RD 78.145-92 Installation and Commissioning Rules. Installation of Intrusion, Fire, and Intrusion and Fire Alarm Systems.*

The Controller does not have any circuits containing hazardous voltages.

The mounting, connection, and maintenance may not be provided until the Controller power is OFF.

5 MAINTENANCE

The maintenance service for the Controller shall be provided once per year to include the following:

- Inspection for physical damage and reliability of fastening, and terminals tightening;
- Cleaning of terminals and Controller enclosure from dust, grease and corrosion;
- Functionality tests according to the test methods described in the User's Manual for the product.

6 SHIPMENT AND STORAGE

6.1 The Controller must be shipped by covered vehicles in individual or multiple packages.

6.2 The shipment must be provided in accordance with requirements of shipping companies.

6.3 The Controller's storage in a consumer package must be provided in accordance with Storage Conditions of Category 1 as per GOST 15150.

6.4 The storage facilities must be free from acid and alkaline fumes, aggressive gases and other corrosive-hazardous substances.

7 WARRANTY

The manufacturer guaranties the product meets with technical requirements specified in the manuals if the user follows the instructions for shipment, storage, installation, and usage.

The warranty period is 18 months since the date of putting into the operation but no more than 24 months from the manufacturer's date of issue.

In case of any issues related to configuration and usage of the product, please contact with the technical support: +7 (495) 775-71-55 or e-mail: support@bolid.ru.

When submitting the product for repair, it shall be accompanied with possible faults descriptions.

8 MANUFACTURER

This Controller is manufactured by NVP Bolid, Russia.

Pionerskaya #4, Korolyov city, Moscow region, Russia, 141070.

Phone/Fax: +7 (495) 775-71-55 (multiline), 516-93-72. E-mail: info@bolid.ru; http://bolid.ru

9 CERTIFICATION INFORMATION

9.1 The S2000-KDL-2I Galvanic Isolation Polling Loop Controller complies with the requirements of Technical Regulations of Fire Safety Requirements (Federal Law No.123-FZ) and has Certificate of Conformity No. C-RU.ЧС13.В.00945.

9.2 The S2000-KDL-2I Polling Loop Controller complies with the requirements of the Technical Regulations of the Customs Union TR CU 020/2011 and has Declaration of Conformity: TR CU 020/2011 *Electromagnetic Compatibility of Technical Means* TC № RU Д-RU.ME61.B.00328.

9.3 The production of the Controllers is awarded with the Certificate of Conformity GOST R ISO 9001–2015 No РОСС RU.АБ66.К00003.

10 ACCEPTANCE CERTIFICATE

The S2000-KDL-2I Galvanic Isolation Polling Loop Controller, serial No. _____ manufactured and accepted in accordance with requirements of national standards and applicable technical documentation is approved as ready for use and packaged by the Bolid Company.

Responsible for the acceptance and package

QCD   _____   _____
                        Name   Date/month/year