



Addressable Two Output Relay Module S2000-SP2 (ver.1.01)

INSTRUCTION MANUAL

1 TECHNICAL DATA

1.1 General

S2000-SP2 Addressable Two Output Relay Module is designed to be used with S2000-KDL Multiplex Addressable Loop (MAL) controller in Orion integrated security systems. It controls connected executive devices such as lamps, sirens, video cameras, electric strikes and magnetic locks as well as transmits alarms to a centralized guard station by means of relay contacts opening. Moreover it can be used for cooperation with other devices and systems at the relay level.

Both S2000-SP2 power supplying and communication between the detector and the S2000-KDL controller are accomplished over the two wire Multiplex Addressable Loop controlled by S2000-KDL.

S2000-SP2 is designed for round the clock operation.

1.2 Specification

1) Power Input Voltage	- 8 to 12V from S2000-KDL
2) Consumed Current	- 0.5mA max
3) Outputs	- Two relay outputs
4) Commuting Power	- 30VA max
5) Commuting Voltage	- 100V max
6) Commuting Current	- 2A max
7) Technical Readiness Time	- 15s max
8) Operating Temperatures	- from -30 to +50°C
9) Relative Humidity	- up to 93 % at +40°C
10) Overall Dimensions	- 150x103x35mm
11) Weight	- 0.3 kgmax

1.3 Standard Delivery

Find the following unpacking S2000-SP2:

- S2000-SP2 Addressable Relay Module	- 1 pc.
- Instruction Manual	- 1 pc.
- Woodscrews	- 3 pcs..
- Wall Plugs 6x30	- 3 pcs.

2 OPERATION INSTRUCTIONS

2.1 External Connection Diagram

Figure 1 demonstrates the standard wiring diagram for S2000-SP2 connection with the S2000-KDL controller. Terminals 3 (-MAL) and 4 (+MAL) of XT1 terminal block duplicate terminals 1 (-MAL) and 2 (+MAL) respectively.

2.2 Mounting

S2000-SP2 can be mounted on walls, behind suspended ceilings or on other constructions at the places protected from atmospheric fallouts, mechanical damage and unauthorized access.

Installation procedure is as follows. Attach the S2000-SP2 to the required surface and wire it in accordance with the connection diagram shown in Figure 1.

Overall and mounting dimensions are shown in Figure 2.

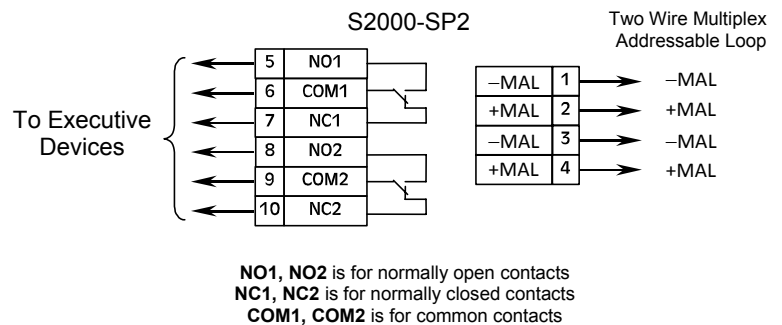


Figure 1 Connection Diagram

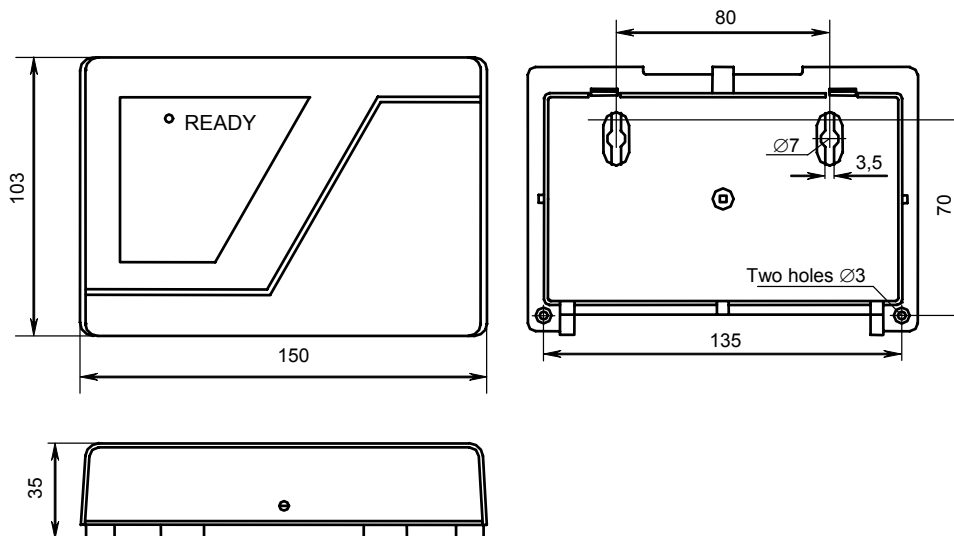


Рисунок 2 S2000-SP2 Overall and Mounting Dimensions

2.3 DIP-Switch Settings

S2000-SP2 can operate in two modes:

- As two relay output module (using two addresses in MAL)
- As single relay output module (using a single address in MAL)

DIP-switches # 2...# 8 (see Figure 3) provide setting the address of the first relay (the relay whose contacts are designated as NO1, COM1, NC1). Setting a DIP-switch ON is equivalent to setting the address equal to a number pointed above this DIP-switch. If more than one DIP-switch is set ON the address will be equal to the sum of the numbers above the relevant DIP-switches. For example, the fifth and seventh DIP-switches being set ON gives the address $8+2=10$ (see Figure 3).

When the DIP-switch #1 is set ON, S2000-SP2 operates in two-relay mode. In such a case the DIP-switches #2 – #8 defines the address of the first relay, the address of the second relay being assigned automatically to the address of the first relay plus one. For example, if the first relay is assigned to 10 by DIP-switches, the second relay will have the address 11 automatically.

If the DIP-switch #1 is set to OFF position the second relay is disabled and its address is free.

2.4 How to Operate S2000-SP2

As S2000-SP2 operates under the S2000-KDL controller, all its operation conditions such as an executive program, activation time and activation delay are to be defined while S2000-KDL programming by means of the UProg Configuration Tool.

Programming S2000-KDL it is necessary to assign the address of the S2000-SP2 set by DIP-switches with the addressable device type S2000-SP2 and to assign the S2000-SP2 relay zone(s) with such monitored zones of the S2000-KDL whose condition changing will cause the relay(s) to be activated. The procedures of setting addressable device types and other configuration parameters are described in maintenance documentation for S2000-KDL controller and used network controller (S2000/S2000M control console or ARM Orion Workstation).

Upon the MAL power shut off the relays of S2000-SP2 are deactivated, namely contacts NO1, COM1, NO2, COM2 are opened, while contacts NC1, COM1, NC2, COM2 are closed.

2.5 S2000-SP2 Testing

WARNING! Detach all the executive devices from the S2000-SP2 contacts before testing.

2.5.1 Set the required S2000-SP2 address by DIP-switches.

2.5.2 By means of UProg Configuration Tool change the S2000-KDL configuration by setting for the S2000-SP2 the same-name addressable device type.

2.5.3 Connect the S2000-SP2 to the S2000-KDL.

2.5.4 When the S2000-SP2 is powered on its LED begins light steady until S2000-KDL polls the device with given address. Then the LED begins flashing slowly.

2.5.5 Open the S2000-SP2 top cover and ensure that the tamper alarm has been received by the network controller.

2.5.6 Inspect S2000-SP2 operation in self-diagnostic mode. To do this, make short-short-short-long pressing on the relay module tamper switch. The term 'short' implies pressing the tamper switch for less than 0.5s, while the term 'long' implies pressing for more than 1.5s. The pauses between pressings are to be from 0.1 s to 0.7 s.

2.5.7 In self-diagnostic mode the relay module LED begins periodically flashing quaternary. Within 2s the relay 1 first is opened, then it is closed and finally it is opened again. Then the relay 2 implements the said procedure. Then the S2000-SP2 enters the quiescent operation mode.

2.5.8 Close the S2000-SP2 top cover. Ensure that the message about enclosure restoring from the device with the address of S2000-SP2 has been displayed by a network controller within 20 seconds.

2.5.9 If the behavior of the S2000-SP2 is inconsistent with that mentioned above the S2000-SP2 seems to be wrong and must be replaced.

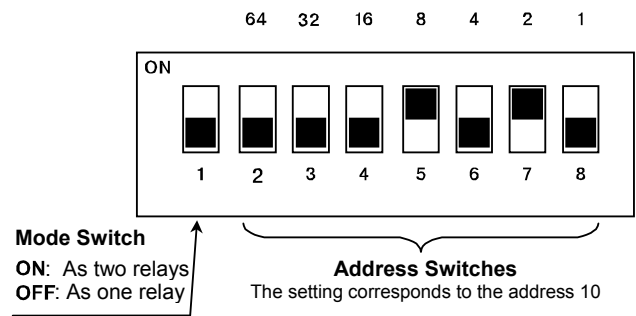


Figure 3 S2000-SP2 DIP-Switches

3 WARRANTY

3.1 The average lifetime of the S2000-IP detector is at least 10 years.

3.2 The manufacturers warrants its product to be free from defects in materials and workmanship under normal use and service for 18 months since putting it into operation, but no more since 24 months since the acceptance date.

3.3 In the event of in-warranty failure forward your claims to the address:

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