

KODOS RC-102 Access controller

Manual

Basic Item Information and Technical Data

KODOS RC-102 controller (hereinafter referred to as controller) is used to control the System users' access to the guarded premises through a controlled door (doors), and to read the code carriers' codes, which are used as the System's users IDs. The controller incorporates a built-in reader and can identify code carriers of the EM-Marin standard (KODOS RC-102E version) and the HID standard (KODOS RC-102 version). The controller is used as a component of the KODOS access control system.

The functions executed in the course of the operation are as follows:

- a) storing and processing information acquired from the readers (either external or built-in);
- b) issuing control signals to the executive devices;
- c) receiving/transmitting data through the KODOS AD-01 communication line;
- d) monitoring the security loops' status;
- e) sending messages on the controller body opening to the control program;
- f) receiving and processing a code from the code carrier placed near the controller;
- g) indicating data exchange with personal computer (PC) and various statuses of the device when making a decision on granting (denying) access.

Table 1 – Performance Data

Power supply voltage, V	9.5 ... 15.0
Consumption current (apart from external loads), mA , maximum	400
Maximum reading distance (between the code carrier and the controller with built-in reader), mm , minimum: code carriers of the EM-Marin code carriers of the HID	90 40
Number of controllers on one communication line with the KODOS AD-01 adapter, pcs. , maximum	64
Communication line length, m , maximum	1200
Nonvolatile memory, Kb	32
Number of access levels supported	32
Number of time zones supported	8
Number of controlled doors, pcs.	2
Number of inputs	4
Loop length, m , maximum	150
Loop resistance when closed, Ohm , maximum	150
Range for adjusting the maximum time for the lock to stay open, sec	1 .. 30
Number of readers connected, maximum	2
Reader connection cable length, m , maximum	50
Operating environment: ambient temperature, °C relative humidity at 25 °C, %, maximum	-40...+65 80
Overall dimensions, mm	117x78x20
Weight, g , maximum	80

Standard Equipment

1	KODOS RC-102E (RC-102H) access controller	- 1 pc
2	Self-tapping Screw 3.5x25	- 4 pcs
3	MJ-0-6 jumper	- 2 pcs
4	Controller cable	- 1 pc
5	Plastic Nailing Plug	- 4 pcs
6	Manual	- 1 copy
7	Package	- 1 pc

Notes on Operation

1 Assembly, installation, and maintenance of the controller should be carried out in accordance with the document "KODOS RC series controller-based access control system. Installation Guide".

2 The controller's hardware address is set by switching DIP-switches 1-6, located on the back side of the unit body to a relevant position.

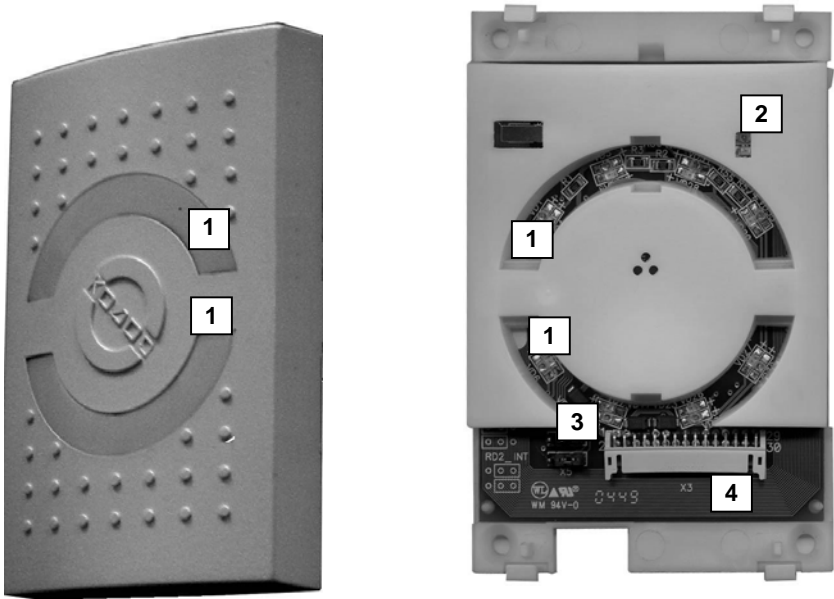
3 The setting of the controller's control outputs for operating the direct or inverse type executive devices (if necessary) can be made by switching DIP-switches 7, 8 to a relevant position.

4 To switch between the operation modes of the controller (with the built-in reader on or off) set the jumpers of two switches located under the removable device cover next to the X3 connector to the necessary position (Figure 1).

5 The controller status indication LEDs are used to indicate the controller power supply and status, LEDs Transmission and Reception indicate data exchange with the KODOS AD-01 adapter and the PC.

6 The warranty is void if the seal is broken.]

7 The controller's connector X3 contacts and their assignment are shown in the Figure2 and in the table 2.



1 – The controller status indication LEDs; 2 – LEDs Transmission and Reception indicate data exchange; 3 – Jumpers; 4 – Connector X3

Figure 1 – Access controller (front) and view of the Controller with Body Cover Removed

1	3	5	7	9	11	13	15	17	19	21	23	25	27	29
+12V	+12V	+12V	+OUT1	+OUT2	IN1	IN2	IN3	IN4	+RD1	D1	+RD2	D2	S	A
GND	GND	GND	-OUT1	-OUT2	GND	GND	GND	GND	GND	CLK1	GND	CLK2	GND	B
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30

Figure2 – The controller's X3 contacts

Table 2 – Marking and assignment the controller X3 connector contacts

№	Contact	Assignment
1	«+12V»	«+» terminal of the controller power supply
2	«GND»	Common cable
3	«+12V»	«+» terminal of the controller power supply
4	«GND»	Common cable
5	«+12V»	«+» terminal of the controller power supply
6	«GND»	Common cable
7	«+OUT1»	«+» executive device №1 (lock)
8	«-OUT1»	«-» executive device №1 (lock)
9	«+OUT2»	«+» executive device №2 (lock or sound alarm)
10	«-OUT2»	«- » executive device №2 (lock or sound alarm)
11	«IN1»	hermetic contact 1
12	«GND»	Common cable
13	«IN2»	REX 1
14	«GND»	Common cable
15	«IN3»	hermetic contact 2
16	«GND»	Common cable
17	«IN4»	REX 2
18	«GND»	Common cable
19	«+RD1»	«+»terminal of the reader 1 power supply
20	«GND»	Common cable
21	«D1»	signal of the DATA reader 1
22	«CLK1»	signal of the CLK reader 1
23	«+RD2»	«+»terminal of the reader 2 power supply
24	«GND»	Common cable
25	«D2»	signal of the DATA reader 2
26	«CLK2»	signal of the CLK reader 2
27	«S»	Synchronization signal
28	«GND»	Common cable
29	«A»	A output of the RS-485 reception and transmission device
30	«B»	B output of the RS-485 reception and transmission device