

KODOS RC-103 Access controller

Manual

Basic Item Information and Technical Data

KODOS RC-103 controller (hereinafter referred to as controller) is used to control the System users' access to the guarded territory through the controlled turnstile, and to read the code carriers' codes, which are used as the System users' IDs. The controller incorporates a built-in reader and can identify code carriers of the EM-Marin standard (KODOS RC-103E version) and the HID standard (KODOS RC-103H version). The controller is used as a component of the KODOS access control systems and is purposed to control the turnstiles by RostEvroStroy (types T2, T4, T6, T83, and T283) and PERCo (TTR-04B/L/P and RTD-01B/L types).

The functions executed in the course of 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) sending messages on the controller body opening to the control program;
- e) receiving and processing a code from a code carrier placed near the controller;
- f) 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	90
code carriers of the HID	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 turnstiles, pcs.	1
Number of inputs	4
Length of loop (turnstile reed switch), m , maximum	150
Loop resistance when (turnstile reed switch) closed, Ohm , maximum	150
Adjustment range of the turnstile kept opened maximum time, s	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-103E (RC-103H) access controller	- 1 pc
2	MJ-0-6 jumper	- 2 pcs
3	Controller cable	- 1 pc
4	Self-tapping Screw 3.5x25	- 4 pcs
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.

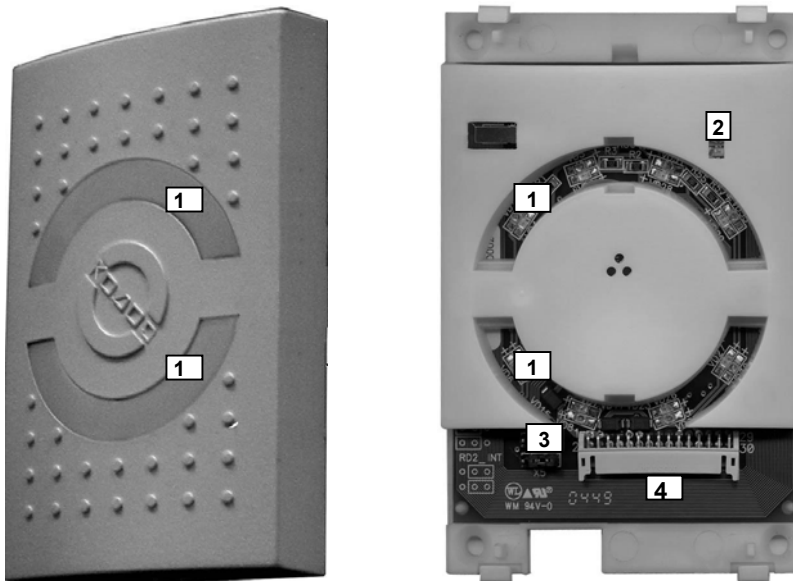
3 The setting of the controller's control outputs for operating the direct or inverse type executive devices (if necessary) can be made by switching DIP-switches 7, 8 to a relevant position.

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 2).

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 (Figure 1).

6 The warranty is void if the seal is broken.

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

Figure 1 – 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 turnstile power supply
6	«GND»	Common cable
7	«+OUT1»	not used
8	«-OUT1»	Entrance turnstile control
9	«+OUT2»	not used
10	«-OUT2»	EXIT turnstile control
11	«IN1»	Access sensor (hermetic contact)
12	«GND»	Common cable
13	«IN2»	EXIT button
14	«GND»	Common cable
15	«IN3»	not used
16	«GND»	Common cable
17	«IN4»	Entrance button
18	«GND»	Common cable
19	«+RD1»	«+» terminal of the reader Entrance power supply
20	«GND»	Common cable
21	«D1»	signal of the DATA reader Entrance
22	«CLK1»	signal of the CLK reader Entrance
23	«+RD2»	«+»terminal of the reader EXIT power supply
24	«GND»	Common cable
25	«D2»	signal of the DATA reader EXIT
26	«CLK2»	signal of the CLK reader EXIT
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