KODOS ES-201, KODOS ES-202 Access controllers

Manual

■ Basic Item Information and Technical Data

KODOS ES-201, KODOS ES-202 access controllers (hereinafter referred to as controllers) are used to control the System users access to the guarded premises through a controlled door (doors). The controllers are used as components of the KODOS access control systems operating in both centralized (PC-controlled) and autonomous modes.

The functions executed in the course of the operation are as follows:
a) storing and processing information acquired from the readers;
b) issuing control signals to the executive devices;
c) receiving/transmitting data through the KODOS SK-E or KODOS SK-232 network controller communication line;
d) monitoring the security loops' status.

Table 1 – Performance Data

	ES-201	ES-202
Power supply voltage, *V*	9.5 … 15.0	
Consumption current (apart from external loads), *mA,* maximum	400	
Nonvolatile memory, *Kb*	ES-201	ES-202
	32	64
Maximum number of users	5000	10000
Maximum number of events	3000	7000
Number of access levels supported	32	
Number of time zones supported	8	
Number of inputs	4	
Loop length, *m,* maximum	150	
Loop resistance when closed, *Ohm,* maximum	150	
Number of control outputs	2	
Number of controlled doors, *pcs*.	ES-201	ES-202
	1	for 2
Range for adjusting the maximum time for the lock to stay open, *sec*	1 .. 30	
Characteristics of the network controller communication line: communication line length, *m*, maximum	2000	
input resistance of the receiver, *kOhm*	120	
sign-inverse signals amplitude, *V*	24	
Number of readers connected*,* maximum	ES-201	ES-202
	1	2
Reader connection cable length, *m,* maximum	50	
Operating environment: ambient temperature, °C	+5…+35	
relative humidity at 25 °C, %*,* maximum	80	
Overall dimensions, *mm*	195x95x30	
Weight, *g,* maximum	270	

1	KODOS ES-201/ KODOS ES-202 access controller	–	1	pc
2	MJ-0-6 jumper	–	1	pc
3	Self-tapping Screw 3.5x25	–	4	pcs
4	Plastic Nailing Plug	–	4	pcs
5	Manual	–	1	copy
6	Package	–	1	pc

■ **Notes on Operation**

1 Assembly, installation, and maintenance of the controller should be carried out in accordance with the document "KODOS ES 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 controller body to the relevant position.

3 The setting of the controller's control outputs for operating the direct or inverse type executive devices can be executed by switching the switch jumper (located next to the terminals, Figure 1) to the necessary position.

4 To configure the KODOS ES-202 controller for control over one or two doors use PC and special software.

5 The LEDs (Figure 1) are used to indicate the access controller power supply (Power) and data exchange with the network controller (Reception, Transmission).

6 The warranty is void if the seal is broken.

7 Assigning KODOS ES-201 and KODOS ES-202 Controller Terminals are produced in the tables 2, 3 and 4.
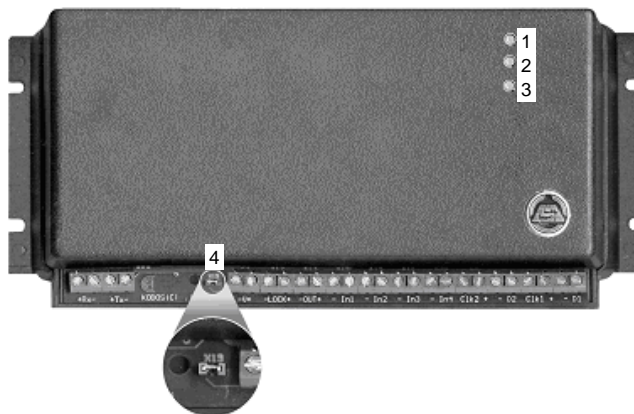
1 – LED Power; 2 – LED Transmission; 3 – LED Reception; 4 – jumper

Figure 1 – Access controller (front)

Table 2 – **Marking and assignment KODOS ES-201 controller's terminals**

Terminals	Assignment
+Rx	«+» network controller transmission line
Rx–	«–» network controller transmission line
+Tx	«+» network controller reception line
Tx–	«–» network controller reception line
–12V	«–»12 V power supply
12V+	«+»12 V power supply
–Lock	«–» executive device №1 (lock)
Lock +	«+» executive device №1 (lock)
–OUT	«–» executive device №1 (sound alarm)
OUT+	«+» executive device №1 (sound alarm)
–	«–» terminal of hermetic contact
IN1	«+» terminal of hermetic contact
–	«–» lock opening button
IN2	«+» lock opening button
–	«–» terminal of the sensor №1
IN3	«+» terminal of the sensor №1
–	«–» terminal of the sensor №2
IN4	«+» terminal of the sensor №2
Clk2	signal of the CLK reader
+	«+» terminal of the reader power supply
–	«–» terminal of the reader power supply
D2	signal of the DATA reader
Clk1	not used
+	not used
–	not used
D1	not used

Table 3 – Marking and assignment KODOS ES-202 controller's terminals when connecting one door and two readers to it

Terminals	Assignment
+Rx	«+» network controller transmission line
Rx–	«–» network controller transmission line
+Tx	«+» network controller reception line
Tx–	«–» network controller reception line
–12V	«–»12 V power supply
12V+	«+»12 V power supply
–Lock	«–» executive device №1 (lock)
Lock +	«+» executive device №1 (lock)
–OUT	«–» executive device №1 (sound alarm)
OUT+	«+» executive device №1 (sound alarm)
–	«–» terminal of hermetic contact
IN1	«+» terminal of hermetic contact
–	«–» terminal of the sensor №1
IN2	«+» terminal of the sensor №1
–	«–» terminal of the sensor №2
IN3	«+» terminal of the sensor №2
–	«–» terminal of the sensor №3
IN4	«+» terminal of the sensor №3
Clk2	signal of the CLK reader "Entrance"
+	«+» terminal of the reader "Entrance" power supply

–	«–»terminal of the reader "Entrance" power supply
D2	signal of the DATA reader "Entrance"
Clk1	signal of the CLK reader "Exit"
+	«+» terminal of the reader "Exit" power supply
–	«–» terminal of the reader "Exit" power supply
D1	signal of the DATA reader "Exit"

Table 4 – Marking and assignment KODOS ES-202 controller's terminals when connecting two doors and two readers to it

Terminals	Assignment
+Rx	«+» network controller transmission line
Rx–	«–» network controller transmission line
+Tx	«+» network controller reception line
Tx–	«–» network controller reception line
–12V	«–» 12 V power supply
12V+	«+» 12 V power supply
–Lock	«–» executive device №1 (lock 1)
Lock +	«+» executive device №1 (lock 1)
–OUT	«–» executive device №2 (lock 2)
OUT+	«+» executive device №2 (lock 2)
–	«–» terminal of hermetic contact №1
IN1	«+» terminal of hermetic contact №1
–	«–» lock №1 opening button
IN2	«+» lock №1 opening button
–	«–» terminal of hermetic contact №2
IN3	«+» terminal of hermetic contact №2
–	«–» lock №2 opening button
IN4	«+» lock №2 opening button
Clk2	signal of the CLK reader 1
+	«+» terminal of the reader 1 power supply
–	«–» terminal of the reader 1 power supply
D2	signal of the DATA reader 1
Clk1	signal of the CLK reader 2
+	«+» terminal of the reader 2 power supply
–	«–» terminal of the reader 2 power supply
D1	signal of the DATA reader 2