

OPERATING MANUAL

Technical description. Installation manual. Certificate.

1. PURPOSE

Remote control system Promix-RDS is designed for radio remote control of various actuators (electromagnetic, electromechanical locks, latches; turnstiles, etc.).

The system includes: actuator, power supply unit, receiver, controller unit, remote controls. The power supply unit, receiver, and controller unit are designed as a single unit (controller [Promix-CR.RX.03](#), hereinafter – the controller). The receiver of the controller receives control signals of remote controls [Promix-CR.TX.01](#). The power supply unit of the controller is used to control the connected actuators.

2. DELIVERY SET

Controller Promix-CR.RX.03	1 pc.
Remote control Promix-CR.TX.01 with a battery	2 pcs.
Operating manual	1 pc.

Check the completeness of the product upon purchase! The manufacturer will not accept any further claims for completeness.

3. CLIMATIC OPERATING CONDITIONS OF THE CONTROLLER

- resistance to climatic factors according to GOST15150-69
- ambient air temperature: from -30 to +50 °C;
- relative air humidity not more than 80% at +25 °C at lower temperatures without condensation and frost formation.

4. TECHNICAL DATA

4.1 TECHNICAL DATA OF THE POWER SUPPLY UNIT

The power supply unit of the controller powers the receiver, controller unit, and actuator. The power supply unit is a pulse type, with galvanic isolation of primary and secondary circuits. The power supply unit has a built-in overcurrent and short-circuit protection for the load circuit.

Supply voltage (50 Hz), V	180-230
Output voltage (direct current), V	12
Rated output current, A	1.0
Maximum output current during 1 minute, A, not more than	1.5
Maximum load current (tripping current), A, not more than	2.0

4.2 TECHNICAL DATA OF THE CONTROLLER UNIT

The controller unit is designed on the same board as the receiver. The controller unit performs the following functions:

- programming of remote controls and control time of the actuator;
- applying or removing supply voltage to/from the actuator for a specified time on the signals of the programmed remote controls;
- disconnecting the actuator from the power supply unit (protection) when the current consumption by the actuator exceeds the preset level;
- audible signaling of the controller current operations.

Supply voltage (direct current), V	12
Current consumption, mA	5
Protection tripping current (disconnection of the actuator), A	2.0
Memory capacity of the remote controls, pcs.	7
Range of programmed open lock time, s	1-15

4.3 TECHNICAL DATA OF THE RECEIVER

Supply voltage (direct current), V	12
Current consumption, mA	2
Operating frequency, MHz	433.92
Sensitivity, μ V	7
Reception range of signals from the remote control Promix-CR.TX.01 (in direct visibility and absence of interference), m, not less than	30

4.4 TECHNICAL DATA OF THE REMOTE CONTROL PROMIX-CR.TX.01

Output power, mW, not more than	10
The length of the code, byte	4
Number of code combinations	16777216
Battery supply voltage (type 23A), V	12
Current consumption with pressed button, mA, not more than	5

5. DESIGN AND PRINCIPLE OF OPERATION

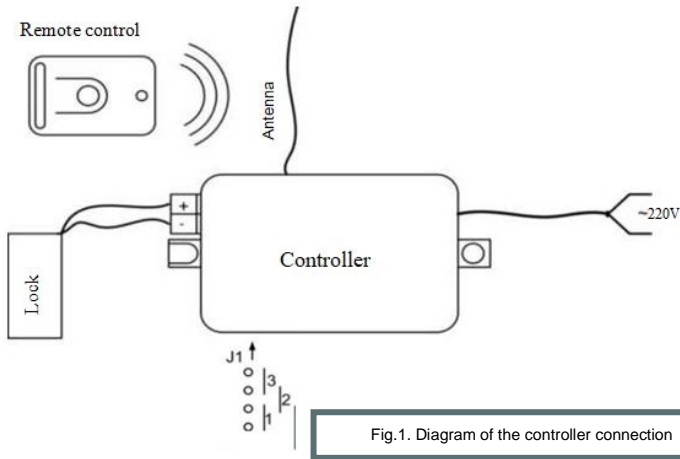
The controller Promix-CR.RX.03 contains: a connector for connection of the actuator, a mode jumper J1, a power cord for connection to 220V power grid (1.4 m long), an antenna wire. The overall dimensions of the controller Promix-CR.RX.03: 111x58x50 mm (LxWxH).

When pressing the control button on the remote control Promix-CR.TX.01, it sends a unique code via a radio channel. The controller Promix-CR.RX.03 receives the sent code and, if this code is recorded in the controller memory (see Section 7), activates its output contact for the programmed time (the supply voltage is applied to or removed from the actuator), what is accompanied by a continuous beep signal.

If the current in the circuit of the actuator exceeds the value of the tripping current, the power supply will switch off. It can be restored by reconnecting the controller to the power grid. The state of the controller after the current protection trips is indicated by short intermittent sound signals.

When holding down the remote control button for more than 7 seconds, the controller switches into the permanently open actuator mode. The controller emits a short trill and then produces single beeps. To close the actuator, press the remote control button. The controller will close the actuator and emit a beep signal.

Since the controller can stay in this mode for an indefinite time, make sure that actuator connected to the controller can be supplied with power for a long time.



6. CONNECTION

Connect the actuator to the controller terminals, observing the polarity of the supply voltage: the left terminal is positive, and the right one is negative. To do so, press the orange lever of the terminal block with a screwdriver and, holding it pressed, insert the wire into the hole. To disconnect the wire, perform the same procedure.

Connect the controller to 220V power grid.

Jumper J1 (see Fig. 1 in Section 5) on the side wall of the controller is to change its operating modes:

Position 1 or 2 – control of normally open or normally closed actuator;

A normally open actuator is in the open state when there is no supply voltage and in the closed state when the supply voltage is applied.

A normally closed actuator is in the closed state when there is no supply voltage and in the open state when supply voltage is applied.

Position 3 – programming of the controller.

Avoid applying excessive supply voltage. Ensure reliable electrical contact. Insulate connections to prevent short circuits.

7. PROGRAMMING THE CONTROLLER

The supplied remote controls are already recorded in the controller memory. The factory setting of the controller parameters: control time is 5 seconds, control of the normally closed actuator.

There are two ways of programming the controller: remote - carried out with the master remote control Promix-CR.TX.01 M (supplied separately), non-remote - carried out by placing the jumper J1 to position 3.

Non-remote programming:

1. Place the jumper J1 to position 3 (see the figure in Section 5).
2. Connect the power cord to the power grid.
3. After a trill and then single beeps, proceed to programming

4. Press the remote control button, wait for a sound signal, confirming recording of the remote control number into the controller memory.

After entering the programming mode all the previously recorded remote controls will be deleted from the controller memory. The programmed time of the open lock time remains saved.

While the controller is in the programming mode, the lock is turned off.

5. Program next remote control by repeating step 4. When 7 remote controls are recorded you will hear a trill. If fewer remote controls are to be programmed, wait until the end of single beeps and confirmation of the end of remote controls programming.
6. Wait for 5 seconds. In 5 seconds the controller switches into the actuator control time programming mode what is confirmed by two beeps. Then the controller emits double short beeps, during which the programming is carried out.
7. Pressing the button of the programmed remote control increases the open lock time by 1 second. The set time (in seconds) corresponds to the number of beeps.
8. If no action is performed during 5 seconds, the controller switches from the programming mode into the operating mode, confirming it with three beeps.
9. Determine the type of the connected actuator (normally open or normally closed) (see Section 6).

To avoid accidental reprogramming of the controller and deleting of the database of programmed remote controls, make sure you move the jumper J1 from position 3 to position 1 or 2 after programming is complete.

Remote programming:

1. Connect the power cord to the power grid.
2. Press the button of the master remote control Promix-CR.TX.01 M (supplied separately) within 5 seconds.
3. After a trill and then single beep sounds, proceed to programming according to the aforementioned algorithm, starting from step 4.

8. FUNCTIONAL CHECK USING THE EXAMPLE OF ELECTRICALLY-CONTROLLED LOCK

Connect the controller to 220V power grid and close the door with an installed electrically-controlled lock.

1. Try to open the door. It should not open.
2. Press the button of the remote control Promix-CR.TX.01 programmed in the controller, after a beep sound the lock will be open for the programmed time. The door should open. After the beep ends, the lock will be closed again.

9. MAINTENANCE

The controller: special maintenance is not required.

The remote control: if the LED does not light up or glows dimly it is necessary to replace the battery of the remote control. To replace the battery, unscrew the screw on the back of the remote control and disassemble the body.

10. REQUIREMENTS OF SAFETY AND ENVIRONMENTAL ENGINEERING

Promix-RDS set meets the safety requirements as per GOST R IEC 60065-2009.

Installation and operation of the controller Promix-CR.RX.03 must meet the safety requirements as per GOST 12.2.003-91.

The controller Promix-CR.RX.02 meets the fire safety requirements as per GOST 12.1.004-91.

Promix-RDS.01 set is not hazardous for life and health of people and for environment. After the expiration of the service life, the set can be disposed of without any special environmental protection measures.

10.1 ELECTRICAL SAFETY REQUIREMENTS

Due to low supply voltage the remote control Promix-CR.TX.01 is electrically safe.

Electrical safety requirements for the controllers Promix-CR.RX.02 meet the requirements of protection against electric shock according to class II as per GOST R IEC 60065-2009.

The insulation strength between the current-carrying circuits of the mains supply and the secondary circuits with a low-voltage complete device must withstand an AC voltage of 3750V of practically sinusoidal form with a frequency of 50 ± 1 Hz. The electrical insulation resistance between the current-carrying circuits of the mains supply and the secondary circuits, depending on the climatic operating conditions, must be at least of the following values:

- with a low-voltage complete device - 10 MOhm;
- at the highest value of temperature - 4 MOhm;
- at the highest value of relative humidity (98% at 25°C) - 1 MOhm.

The residual voltage between the pole contacts of the power cord must not exceed 31V one second after disconnecting from the power grid.

In the controller Promix-CR.RX.02 there are no circuits that lead to leakage currents.

11. STORAGE AND TRANSPORTATION

Prior to putting into operation, the products must be stored in the manufacturer's packing, in rooms with ambient air temperature of -30 to +50 °C and relative humidity not higher than 98% at 25 °C according to the storage conditions as per GOST 15150-69.

The products transportation conditions must comply with group C under GOST 23216-78 in terms of exposure to mechanical factors, and Ж2 under GOST 15150-69 in terms of exposure to climatic factors.

12. WARRANTY LIABILITIES

The manufacturer, ETC PROMIX LLC, warrants conformity of the products to requirements of current technical specifications provided that the transportation, storage, installation and operation rules established in this Manual are followed.

Within the period of warranty, ETC PROMIX LLC undertakes to eliminate defects of the system components, caused by the Manufacturer's fault, or to replace defective components and units free of charge. Costs of delivery to and from the place of repair shall be borne by the Buyer.

The warranted operation period of the products is 12 months from the date of sale but not longer than 18 months from the day of acceptance by the manufacturer's QCD.

The warranty does not cover the batteries included in the set.

Warranty liabilities do not cover any defects and damages caused by:

- Improper maintenance by the Buyer;
- Use of the products under conditions that do not comply with the operation requirements;
- Mechanical damages or disassembly of the products by the Buyer;
- Non-observance of the transportation and storage rules.

Faulty products are accepted for repair only complete, with the compulsory preservation of the factory labels on the body of the products.

After the expiration of the warranty service period, the manufacturer provides post-warranty service of the product on a contractual basis.

To improve the quality of the product, the manufacturer reserves the right to make changes in the design of products without prior notice.

13. ACCEPTANCE AND PACKING CERTIFICATE

The remote control system PROMIX-RDS.01 in quantity of ___ pieces (1 peace by default) bearing the manufacturing date and QCD mark on the body is manufactured and accepted according to

TY, meets the obligatory requirements of state standards and current technical documentation, is recognized fit for operation and packed by ETC PROMIX LLC.

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