

## OPERATING MANUAL

Technical description. Installation manual. Certificate.

## PATENT FOR INVENTION

No.2382861

## 1. PURPOSE

Electromechanical locks series Promix-SM112 with a ball locking mechanism and a built-in pusher are intended to restrict access to various retail-space furniture:

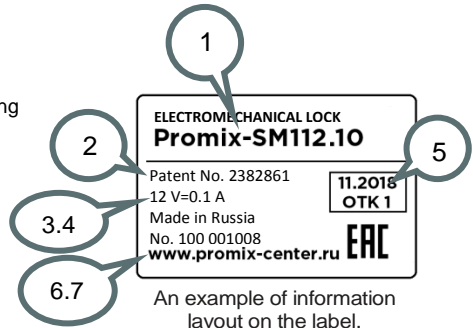
- show cases made of laminated chipboards or aluminum sections with one or two glass swing doors;
- cabinets and drawers of counters made of laminated chipboards.

The locks can be opened remotely by applying DC supply voltage by means of switches (buttons) or controllers of access control systems, audio and video intercoms, code panels and other devices. One lock makes it possible to close two swing doors at one fling and can be mounted on both right and left doors.

## 2. LABELING

The label stuck to the lock body contains the following information:

1. Lock model.
2. Patent number.
3. Nominal supply voltage.
4. Nominal consumed current.
5. Date of manufacture and QCD mark
6. Identification number.
7. Manufacturer's website.



### Promix-SM112.10

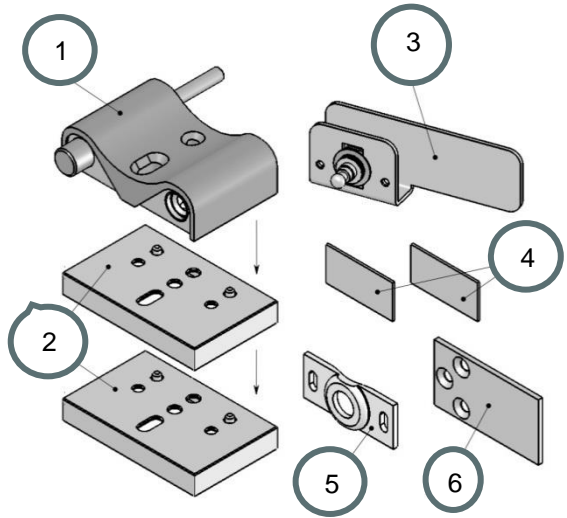
Supply voltage:	0 - 12V. 1 - 24V
Version:	1 - normally closed

For the list of lock modifications that can be ordered, see 5.2.

The color of the product is shown on the sticker stuck to the box, after the product name. Series colors: **Silver**. Other colors are provided optionally.

### 3. SET OF DELIVERY

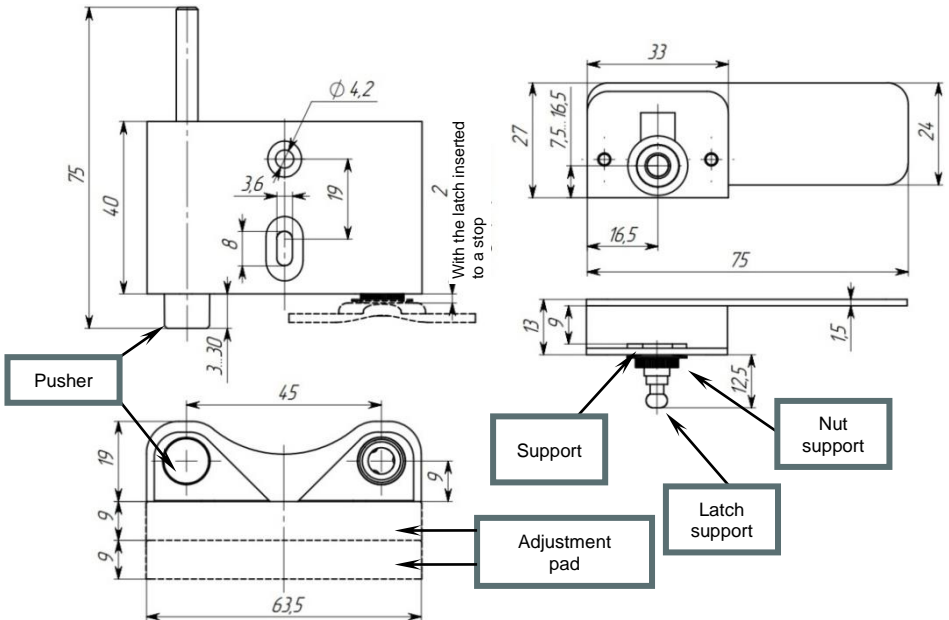
- |   |        |
|---|--------|
| 1 – Lock  | 1 pc.  |
| 2 – Adjustment pad  | 2 pcs. |
| 3 – Latch with fixing bracket (for fastening to 4-8-mm glass) | 1 pc.  |
| 4 – Thrust pad for glass                                      | 2 pcs. |
| 5 – Bracket for latch fastening (to chipboard)                | 1 pc.  |
| 6 – Locking plate (for chipboard)                             | 1 pc.  |
| 7 – Screw M3x6 (cup head)                                     | 2 pcs. |
| 8 – Self-tapping screw 3.5x15 (cup)                           | 2 pcs. |
| 9 – Self-tapping screw 3.5x15                                 | 3 pcs. |
| 10 – Self-tapping screw 3.5x30                                | 2 pcs. |
| 11 – Silicone damper  | 1 pc.  |
| 12 – Operating manual   | 1 pc.  |

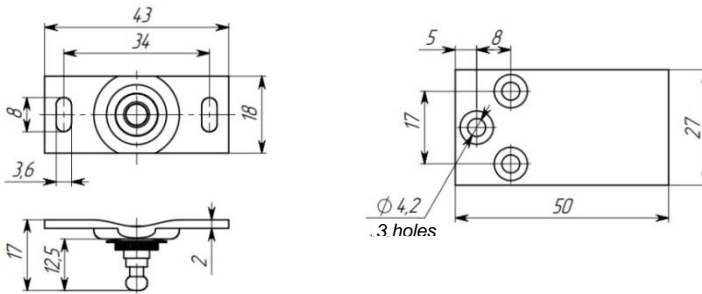


**Check completeness of the lock set when buying! After buying, the manufacturer will not accept claims related to incomplete set.**

### 4. DESIGN AND PRINCIPLE OF OPERATION

**Lock and latch overall and mounting dimensions.**





The pusher is located in the same casing as the lock, which allows not to mount a handle on the door. If necessary, positions of the lock and the pusher inside the casing can be interchanged; to do this, screw out the screw on the back side of the lock (may be hidden under the sticker) and remove the metal base of the lock.

As voltage is applied, the lock will become unlocked, but the door will remain closed. To open the door, press on it, then the lock, with its built-in pusher, will push and open the door slightly. If the door was not pressed upon, then, after de-energizing, the lock will become blocked and the door will remain locked.

## 5. TECHNICAL DATA

### 5.1 TECHNICAL DATA

Modification	Promix-SM112.10
Version	normally closed
DC supply voltage U, V	12±2
Current consumed, A	0.1 (at 12V)
Supply pulse duration (not more than), s	not rated.
Minimum pause between pulses, s	not rated.
Lock weight (not more than), kg	0.17
Holding force (not less than), kg	150
Power wire length, m	0.1
Allowable thickness of door glass, mm	4-8

## 5.2 OPERATING CONDITIONS

The lock operation environment must be explosion-safe, free of current-conducting dust or gases that cause metal corrosion and destroying insulation of current conductors and electric elements, free of current-carrying dust or water vapor, and preventing ingress of water, steam, fuel and lubricants.

Climatic conditions of operation – Y3.1 as per GOST 15150-69 with extended temperature range:

- ambient temperature: from -30 to +50 °C;
- Relative air humidity: not higher than 98% at 25°C or lower temperatures without moisture condensation and hoar-frost formation;
- installation indoors or outdoors excluding ingress of moisture, dust, dirt, etc. inside the lock.

## 6. INSTALLATION AND CONNECTION

### 6.1 LOCK AND LATCH MOUNTING

1. Mount the latch on the door (see Fig.1 or 2).



Fig. 1

Fig. 2

2. Leave one door opened, insert the latch in the lock **1** and fix the lock on the base so that the latch is inserted up to the stop.
3. To adjust the height of the lock **1** position, use adjustment pads **2** – put one or two pads under the lock (see Figs. in sections 3 and 4)
4. Connect the lock(see6.3) and test its operability by applying supply voltage. Press on the door to make the latch enter the lock up to the stop. The lock must unlock the latch. Pull the latch out of the lock.
5. If, on application of supply voltage, the latch does not become unlocked, adjust position of the lock to ensure alignment.

### 6.2 RE-INSTALLATION OF THE LATCH AND ADJUSTMENT OF THE LATCH BAR LENGTH

To take the latch off the bracket (or to adjust the latch bar length,) fix the latch support using a 12-mm wrench (not included in the delivered set) and unscrew the latch nut (see Fig. in section 4). After re-installation of the latch (and provision of the necessary latch bar length), **the latch nut must be screwed on up to the stop and tightened reliably.**

### 6.3 CONNECTING PROCEDURE

The lock operation is controlled by means of energizing and de-energizing. For this purpose, a controller (control board) or a switch (button) is generally used. The controller is mounted in accordance with its certificate.

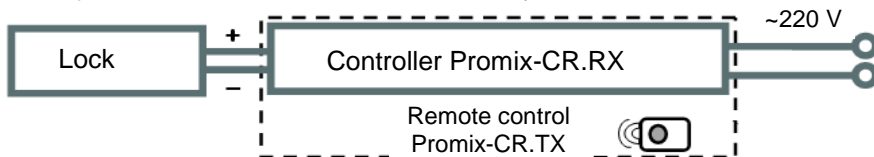
Connect the lock power wires adhering to the following polarity:

- Red – positive pole of the power supply;**
- Blue – negative pole of the power supply;**

**See operating voltage range in 5.1. Avoid supply of overvoltage.**

Application of voltage of reverse polarity does not provide the lock operability but does cause its failure.

Example of the lock connection to the remote control system Promix-RDS.



**Provide a reliable electriccontact. To prevent short-circuit, insulate places of connection.**

## 7. SPECIAL ASPECTS OF INSTALLATION AND OPERATION

- 1) The possibility of using of the locks for restriction of access to the premises and the place of installation (outdoors or indoors) are determined by the **installation organization** on the basis of the design features and the mounting method, room criticality level, the purpose of the access restriction regime and other factors (the presence of security providers, video surveillance, etc.).
- 2) During mounting the snap and the latch, it is necessary to ensure their coaxial alignment within the latch free movement allowance.
- 3) Operation of an installed lock should be tested only if the supply voltage can be applied thereto.
- 4) The properly mounted lock provides the necessary free motion (play) of the door of 1-2 mm. If the free play distance is shorter, the lock may remain closed when energized.

## 8. TROUBLE-SHOOTING

Troubles and problems	Remedies
<p>The lock does not open when supply voltage is applied.</p>	<p>Check polarity and conformity of the lock supply voltage to the required value.</p> <p>Close the door tightly and press on it at the latch fastening place, and apply voltage to the lock. If the lock has not opened, apply elevated DC voltage of 20-30 V for a short time (e.g., connect two 12-V batteries in series).</p>

The lock does not block the latch

Check the distance between the latch and the lock; if necessary, shift the lock closer to the door.

## 9. MAINTENANCE

Maintenance of the lock is performed at least once every two months and includes:

- Visual inspection of the lock to check reliability of fastening. If necessary, tighten fasteners of the lock and the latch.
- Checking of the latch bar length. If the latch bar abuts against the snap and this leads to non-tight door closing, or if the latch is not fixed by the snap when the door is closed, adjust the latch bar length (see 6.2).

**The lock does not need lubrication!**

## 10. STORAGE AND TRANSPORTATION

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

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

## 11. SAFETY REQUIREMENTS

The design of the locks ensures safety of personnel involved in mounting and maintenance.

Due to low DC supply voltage, the products correspond to class III as per GOST 12.2.007.0-75 and are electrically safe.

Fire safety of the locks is ensured by use of non-combustible or hardly combustible materials, and low supply voltage.

## 12. DISPOSAL

The product is not hazardous for human life and health or for the environment; disposal after its service life is performed without taking any special measures for environment protection.

## 13. WARRANTY LIABILITIES

The manufacturer, ETC PROMIX LLC, warrants conformity of Promix-SM112 locks to requirements of current Technical Specifications provided that transportation, storage, installation and operation rules established in this Manual are followed.

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

Within the period of warranty, ETC PROMIX LLC undertakes to repair defective products free of charge. Expenses for transporting the product to the place of repair and back will be borne by the Buyer.

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

- Improper maintenance by the Buyer;
- Use of the product 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 together with the latch, on the obligatory condition that factory labels are retained on the product body.**

On expiration of the warranty service period, the manufacturer provides after-warranty service on a contractual basis.

**To improve product quality the manufacturing plant reserves the right to make modifications to the product design without prior notice.**

## **14. ACCEPTANCE AND PACKING CERTIFICATE**

Electromechanical lock Promix-SM112 in quantity of \_\_\_\_ pieces (1 pc. by default) bearing the manufacturing date and QCD mark on the body, was manufactured and accepted in compliance with Specifications, obligatory requirements of state standards and current technical documentation, recognized as fit for operation and packed by ETC PROMIX LLC.

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