

OPERATING MANUAL

Technical Description. Installation Manual. Certificate.

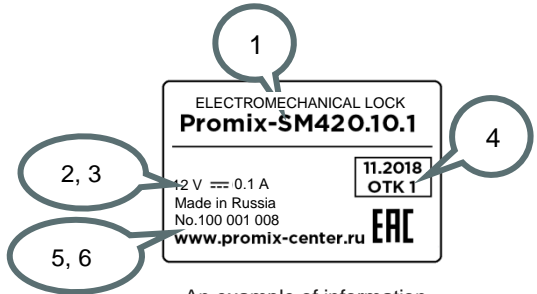
1. PURPOSE

Promix-SM420 series electromechanical rim locks with a pin locking mechanism (hereinafter referred to as locks) are intended for locking retail space and office furniture which can be opened remotely by supplying DC power voltage by means of switches (buttons) or controllers of access monitoring and control systems, audio and video intercoms, code panels or other devices.

2. LABELING

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

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



An example of information layout on the label

Promix-SM420. 10.1

Availability of built-in sensors: 1 – door position sensor
Supply voltage: 0–12 V
Design: 1 – normally closed

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

3. SCOPE OF DELIVERY

- | | |
|---|--------|
| 1 – Promix-SM420 lock | 1 pc. |
| 2 – Promix-AD.DB.19 latch | 1 pc. |
| 3 – Bracket | 1 pc. |
| 4 – Lock power supply wire | 1 pc. |
| 5 – Self-tapping screw 4.2x30 (countersunk) | 4 pcs. |
| 6 – Self-tapping screw 3.5x14 (cup head) | 2 pcs. |
| 7 – Operating manual | 1 pc. |

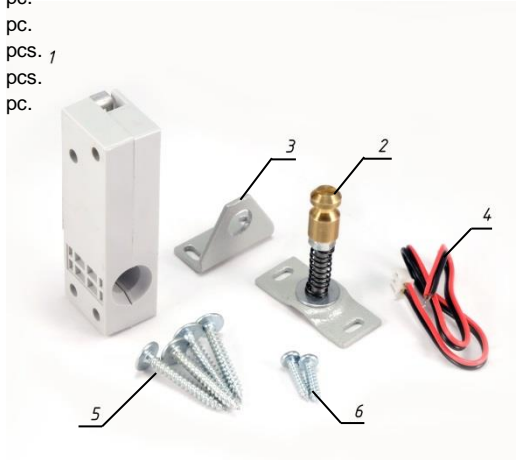


Fig. 1. Promix-SM.420 Delivery Package

Check scope of delivery of the product when buying! After buying, the manufacturer will not accept claims related to incomplete scope of delivery.

4. DESIGN AND PRINCIPLE OF OPERATION

Locks are manufactured with a normally-closed design (hereinafter referred to as NC). NC lock is in the closed state when no voltage is supplied, and in the open state when power is supplied to the lock.

When closing the door, the latch enters the lock groove and is fixed once it has overcome the pin force. When voltage is supplied, the pin will be drawn into the lock housing and the latch will be unlocked.

The possibility of emergency opening of the lock is provided with the help of the unlocking lever (see cl. 7.1).

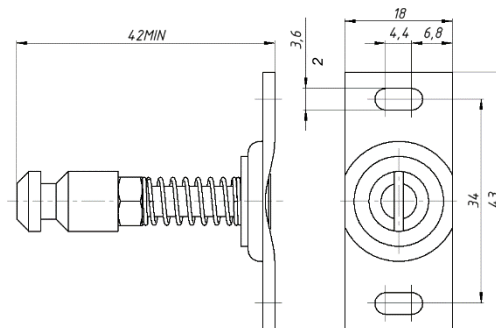


Fig. 2. Promix-AD.DB.19 latch overall and mounting dimensions

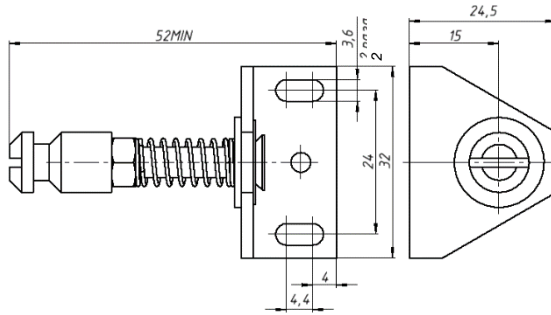


Fig. 3. Version of latch installation on the bracket from the delivery package. Overall and mounting dimensions

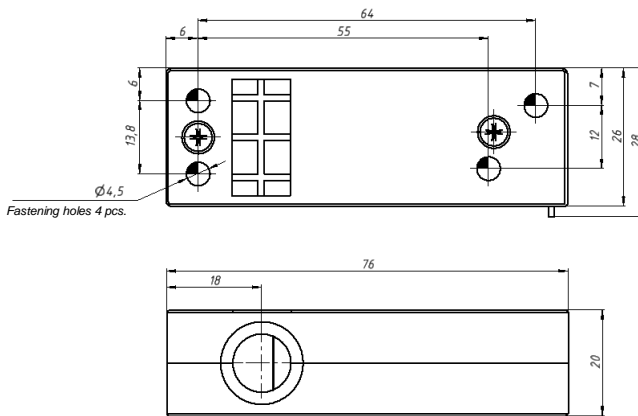


Fig. 4. Promix-SM.420.10 lock overall and mounting dimensions

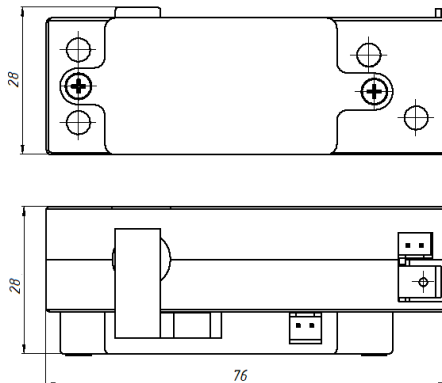


Fig. 5. Promix-SM.420.10.1 lock overall dimensions (see mounting dimensions on Fig.4)

5. TECHNICAL DATA

5.1 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 operating conditions: Y3.1 as per GOST 15150-69 with extended temperature range:

- ambient temperature: -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.

5.2 TECHNICAL DATA

Modification	Promix-SM420.10	Promix-SM420.10.1
Design	normally closed	
DC supply voltage U, V	12±2	
Current consumed, A	0.15 (at 12V)	
Availability of sensors	-	door position sensor
Supply pulse width (max), s	not rated	
Minimum pause between pulses, s	not rated	
Lock weight (max), kg	0.08	
Latch holding force (min), kg	150	

6. INSTALLATION AND CONNECTION

6.1 LOCK AND LATCH MOUNTING

1. Install the latch in the area designed for installation.
2. Insert the latch into the lock and fix the lock so that the latch enters it until click.
3. Connect the lock (see cl. 6.2) and function test by applying supply voltage. The lock must unlock the latch. Open the door so that the latch disengages with the lock.
4. If the latch is not unlocked when power is supplied, push the door in the area of lock fixation and apply voltage. Then adjust the latch length providing for the necessary free play and alignment.

6.2 CONNECTING PROCEDURE

The lock operation is controlled by supplying and blocking power. 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:

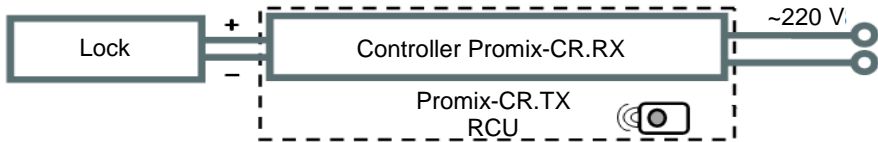
White – positive pole of the power supply;

Black – negative pole of the power supply;

Reverse voltage supply does not ensure lock operability, but it does not cause its failure.

See operating voltage range in cl. 5.2. Avoid supply of increased voltage.

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



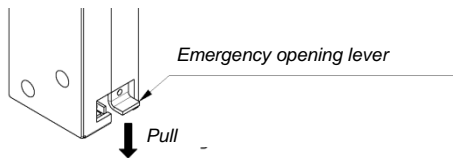
Ensure a reliable electric contact. To prevent short-circuit, insulate places of connection.

7. FEATURES OF INSTALLATION AND OPERATION

- 1) The possibility of using the locks for access restriction to retail and office furniture and the place of installation are determined by **the installation organization** on the basis of the design features and the mounting method, furniture criticality level, the purpose of the access restriction regime and other factors (the presence of security providers, video surveillance, etc.).
- 2) To prevent door deformation, it is recommended to install the lock in the area of the handle.
- 3) When mounting the lock and the latch, it is necessary to ensure their coaxial alignment within the latch free movement allowance.
- 4) When the door is closed, the latch must be inserted all the way into the lock. The lock may fail to open when the door is in "tension" condition, i.e., an external force for opening is applied.

7.1 EMERGENCY OPENING

There is an emergency opening lever next to the power supply wire output. For mechanical unlocking of the lock, pull the lever and then open the door.



8. POTENTIAL MALFUNCTIONS

Malfunctions and problems	Remedies
The lock does not open when supply voltage is applied.	Check polarity and conformity of the lock supply voltage to the required value. Close the door tightly and press on it at the latch fastening place, and apply voltage to the lock. After opening of the lock, adjust the latch length.
The lock does not block the latch.	Check the distance between the latch and the lock; if necessary, increase the latch length.

9. MAINTENANCE

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

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

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 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-SM420 locks to requirements of current Technical Specifications provided that transportation, storage, installation and operation rules established in this Manual are followed.

The operation warranty 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 warranty period 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

Promix-SM420 Electromechanical lock 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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