

Installation guidelines and operational manual

K-15 two-way swing gate



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1. Product purpose

Two-way swing gate with electromechanical lock is designed for authorized passage of people at checkpoints (airports, railway stations, sea ports, etc.)

2. Delivery set

Table 1. Delivery set

| Item | Qty, pcs. |
|------------------------------------|-----------|
| K-15 two-way swing gate | 1 |
| Installation guidelines and manual | 1 |
| Datasheet | 1 |
| SORMAT PFGES10 (M10/60) anchor * | 3 |
| M10x50 DIN7991 hexagon screw * | 3 |

^{*-} optional



3. Basic specifications

Table 2. Basic specifications

| Specification | Value |
|---|-------------|
| Dimensions (WxHxL), mm depending of passage width | |
| 870 | 870x145x993 |
| Weight, kg * | 20 |
| Temperature range, °C: | |
| - Operation | +5+40 |
| - transportation and storage | +5+40 |
| Atmosphere relative humidity, no more than % | 80 |
| Lifetime, years | 5 |

^{* -} depends on arm length

Table 3 Electrical specifications

| Description | Swing gate |
|---------------------|------------|
| Supply voltage, V: | |
| - nominal | 12,0 |
| - working | 10,813,2 |
| Maximal current * A | 0,05 |

^{*-} values mentioned at a nominal supply voltage

The producer reserves the right to change the packaging, specifications and appearance without notice



4. Product design

The gate consists of a stationary stand (tube with flange), mounted on the floor with turnable arm (cylindrical head with the barrier arm). The barrier arm is equipped with a board, depicting an arrow symbol that shows the direction of passage. On the back side of the board there is a sign of non-authorized passage. Fig. 1 shows a general view of the gate.

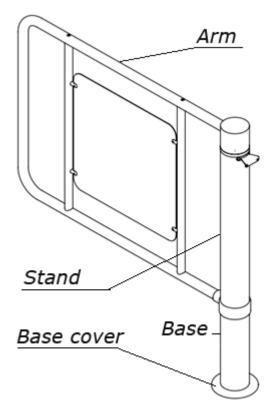


Fig. 1 General view

Fig. 2 shows the dimensions of the gate with 870 mm passage width.



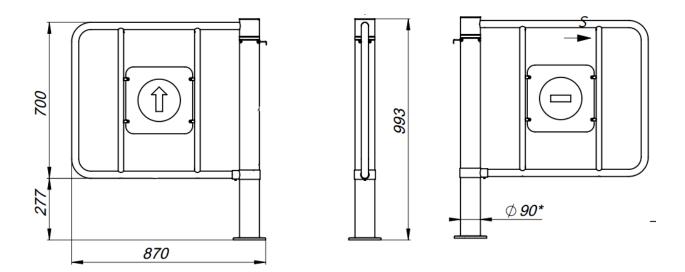


Fig. 2 Dimensions of the gate

Arm of the gate can be rotated at $180 \degree (+ 90 \degree -90 \degree)$. When the optional stopper is set the gate can be rotated only at $90 \degree$.

- The design of the gate provides a possibility to be fixed in a closed (initial) position by electromechanical lock.
- The arm is rotated into an "open" position manually by a passing person in the direction of passage.
- Arm returns to its initial position automatically.
- The gate has a two-color light indication:
- Green passage is authorized (arm unlocked)
- Red passage is non-authorized (arm locked by electromechanical lock)

5. Transportation and storage

Gate in its original packaging can be transported by air, covered by road and rail with protection from direct exposure to rain and dust without limitation range. Allow to stack boxes in 4 rows during transportation and Installation guidelines and operational manual



storage if Euro pallets are used. Keep the gate in dry (no moisture condensation) heated places at temperatures within +1 to + 40 °C temperature range. Avoid vapors of acids, alkalis, and corrosive gases at the storage place. Storage of turnstile in the original package in a dry unheated premises or closed transport containers is permitted for short periods, no more than 3 days.

6. Safety requirements

CAUTION! Failure to comply with the safety requirements specified in this section may result in damage to human life and health, total or partial loss of workability of products and (or) auxiliary equipment.

CAUTION! The producer disclaims any liability for damage to human life and health, total or partial loss of workability of products and (or) auxiliary equipment for non-compliance of the safety requirements specified in this section, as well as terminate the product warranty.

IT IS NOT ALLOWED TO:

- Set the gate other than in dry and heated places;
- Apply chemically aggressive cleaning detergents (as pastes and liquids) to the materials of the housing.



7. Installation of swing gate

CAUTION: The gate should be installed securely to avoid swinging and (or) overthrow during operation. In case of installation on the low strength floors - take action to strengthen the floor at the installation site.

Before checking operability of the gate carefully read this section of the Guidelines.

7.1. Required equipment

Tools used for gate mounting:

- electric perforator
- 16mm diameter carbide drill for drilling holes in the floor for anchors (recommended anchor SORMATPFGES10 (M10/60))
- S6 hexagon wrench
- crosshead screwdriver
- plumb line or level;
- steel liner to align the gate



7.2. Installation of swing gate

CAUTION! We recommend that you mark the mounting holes corresponding to flange holes when the arm is already installed.

- 7.2.1. Prepare a horizontal surface at the installation site of gate.
- 7.2.2. Open the box, unpack the product and check for completeness.
 - 7.2.3. Install the arm of the gate with a set of screws. Make sure that the arm is securely attached to the stand.
 - 7.2.4. Follow the layout and drill 3 holes of 16 mm diameter in the floor for anchors. Depth of the hole should exceed the length of the anchor for more than 5mm. Put the anchors into the holes.
 - 7.2.5. Set the stand on prepared area (Fig. 3).
 - 7.2.6. Align together the holes in the gate's base and anchors in the floor. Check the vertical installation in 2 planes, if necessary, use appropriate steel underlayers for proper installation of the gate. Fix the stand with three M10 screws, tightening them to corresponding anchors by using S6 hexagon wrench.



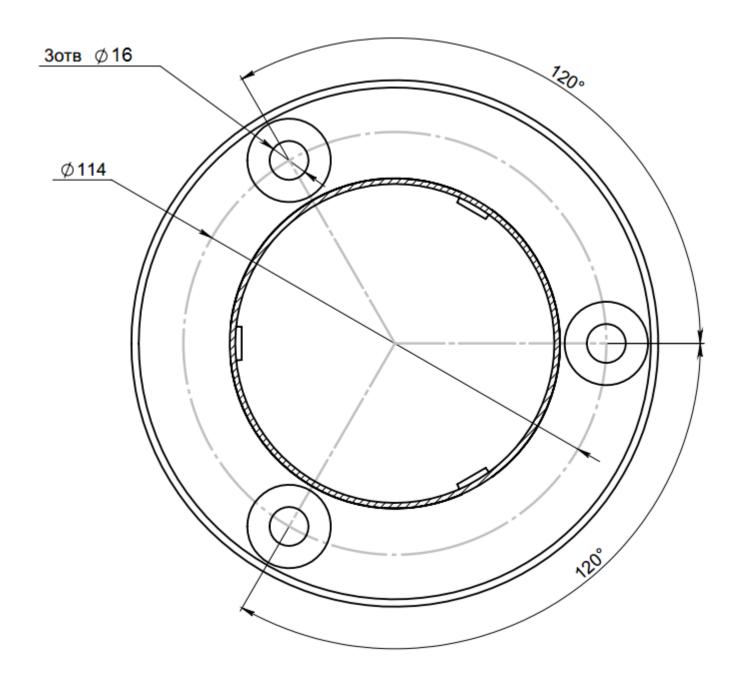


Fig. 3 Linkage dimension

8. Connecting swing gate

Connection scheme of power supply unit, control button and indicators (HL1, HL2) to the motherboard is shown in Fig. 4. The motherboard is

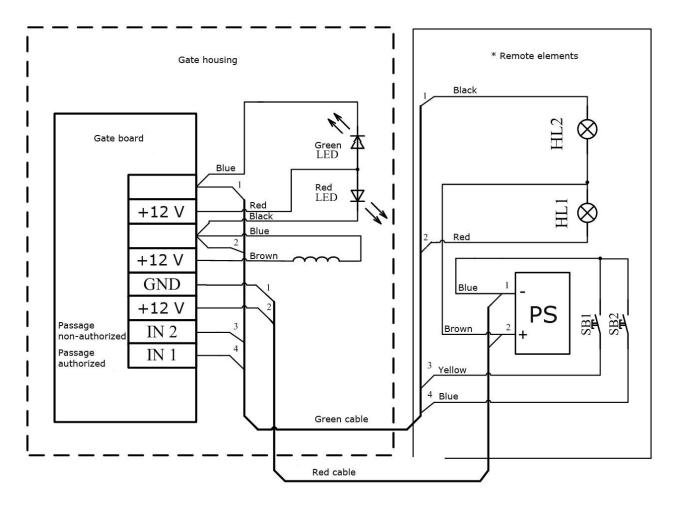
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located inside the stand. Cables are routed out from stand. General view of motherboard is shown on Fig. 5.

During the use of the gate indicators can be connected, that shall be appropriate for 12V (6W) voltage. When indicators with higher power are used, decoupling relays shall be applied.

To connect the power supply, 2x0,75 flexible cord with parallel wires (connection colors are shown in Fig. 4) is used. For the connection of remote elements using a four-wire cable, its labeling and connecting are shown in Fig. 4



^{*} Remote elements are not included in delivery set

Fig. 4 Connection diagram



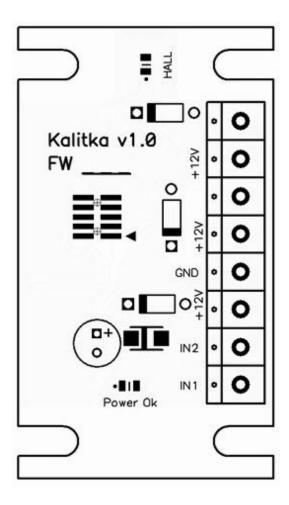


Fig. 5 General view of motherboard.

8.1. Power connection

CAUTION! We do not recommend the use of pulse power supplies.

Swing gate is powered with 12V DC power supply. Power supply unit should be selected on the basis that the increase in the length of the supplied cable results in increase of the voltage drop.

Install the power supply unit and control button (SB1, SB2) in a place with easy access for operator. Connect the cables according to scheme (Fig. 4). Make sure the cables are securely connected. (Control button is not included in the delivery set. For example, a doorbell button can be used).

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9. Operation of the swing gate

Connect PS of swing gate to ~220V power network. Swing gate is ready for operation.

9.1 Operational modes

The gate is normally open (fail-safe) device. In case of power loss the gate remains open.

When the gate is powered, it is controlled with control buttons.

In order to unlock the arm press the "passage authorized" button. Green indicator lights up on the stand. The arm is rotated into an "open" position manually by a passing person in the direction of passage.

Arm returns to its initial position automatically after the passage. Red indicator lights up on the stand.

By the "passage authorized" signal the gate allows the passage in both directions.

By the "passage non-authorized" signal the gate is blocked in both directions.

10. Troubleshooting

Table 4. Troubleshooting

| Probable cause: | Remedy: |
|--------------------------|------------------------------------|
| Power supply unit is | Check the connection cable |
| connected, but the swing | |
| gate does not work | |
| Control button does not | Check the connection cable and its |



| work | integrity |
|------|-----------|
|------|-----------|



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