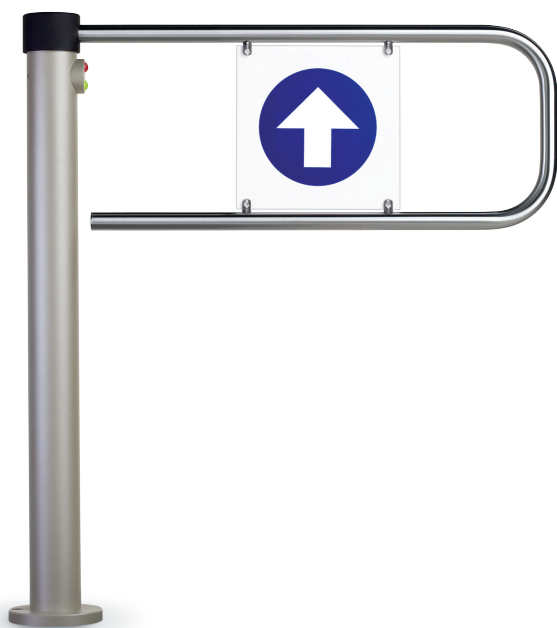


WHD-05 Electromechanical gate



+50
+1
temperature range

20
persons/min

12V
operating voltage

2
passage direction

Application

WHD-05 gate is a normally opened electromechanical gate designed for indoor operation.

The delivery set includes an RC-panel; the orientation of the RC-panel buttons relative to the directions of passage is set when connecting to the gate. It is recommended to install one gate based on a maximum working load of 12 persons/min. The gates can be equipped with matching railings.



RC-panel

Operating modes

Operating from the RC-panel, the gate supports three operating modes:

- passage denial
- single passage in any direction
- free passage in any direction

When the gate is de-energized, the free passage mode is provided.

Main features

- operation from RC-panel, WRC, ACS
- built-in LED indication block of "Open/Closed" gate status
- one of the directions can be locked by using a mechanical limiter included in the standard delivery set
- hydraulic damper provides a smooth reset of the panel wing to the home position
- siren and intrusion detector can be connected to the gate
- Fire Alarm control input that allows connecting the emergency unlocking device (for example, fire alarm system)



LED indication

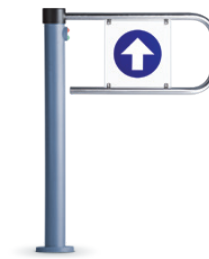
WHD-05 Electromechanical gate

Design

Gate post is made of powder-coated steel. Possible post finishes:



Light beige with pearl mica effect



dark grey with pearl mica effect

| Panel | Post design |
|---------|---|
| WHD-05R | Sandpaper powder coating with pearl mica effect; light beige colour |
| WHD-05G | Sandpaper powder coating with pearl mica effect; dark grey colour |

Powder coating to RAL colours is available on order. The panel is made of polished stainless steel. Filler – reinforced plastic, passage grant / denial pictograms are serigraphy made.

| Panel | Description |
|---------|--------------------|
| ASG-650 | 650 mm swing panel |
| ASG-900 | 900 mm swing panel |

Operating conditions

Gate post, with regard to resistance to environmental exposure, complies with GOST 15150-69 category O4 (operation in premises with climate control). The operation of the gate is allowed at Ambient temperature from +1 °C to +50°C and relative air humidity up to 98% at + 25°C.

It is a serially produced product certified for compliance with applicable Russian and European CE standards.

Delivery set

| Gate post | 1 |
|--|---|
| Swing panel with filler and fasteners kit, panel type (650 or 900 mm) is chosen by the customer when ordering. | 1 |
| RC-panel (cable length of 6,6 m) | 1 |
| Documentation set | 1 |
| Spare parts and accessories kit | 1 |
| Optional equipment (upon request) | |
| WRC (consisting of a receiver and two transmitters in the form of key fobs) with a range of up to 40 m | 1 |
| Intrusion detector (installed upon request at the manufacturing site) | 1 |
| Siren (for signalling that an unauthorized passage has been attempted) | 1 |
| PFG IH10 anchor, M10x70A2 bolt with internal hex (SORMAT) | 3 |

WHD-05 Electromechanical gate

Technical specifications

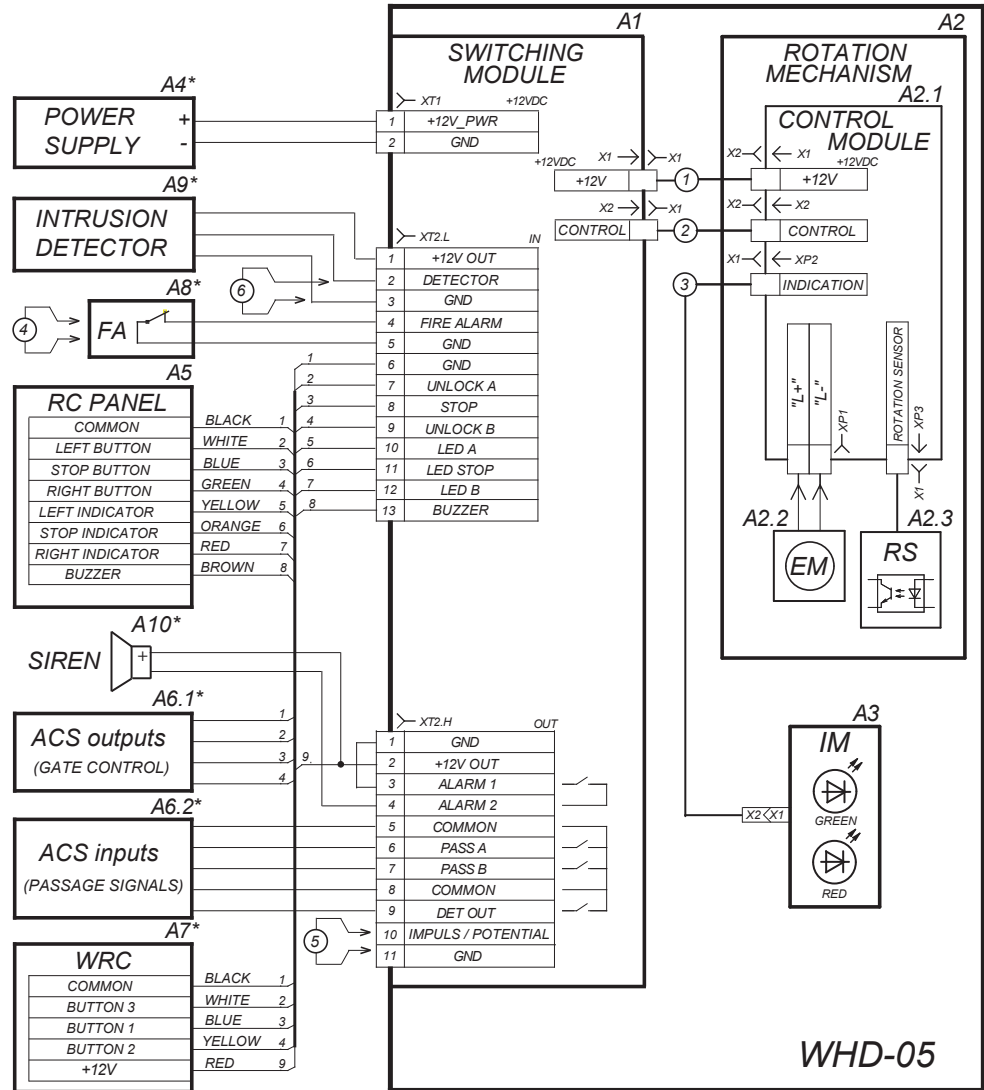
| | | |
|--|-----------------------|-------------------|
| Operating voltage | 10.8 – 13.2 V | |
| Current consumption | max. 1.2 A | |
| Power consumption | max. 14 W | |
| Passageway width | for 650 mm panel | 700 mm |
| | for 900 mm panel | 950 mm |
| Throughput rate in the single passage mode | with 650 mm panel | 22 passages / min |
| | with 900 mm panel | 20 passages / min |
| Mean time to failure | 1,500,000 passages | |
| Daily average throughput rate in the single passage mode | 3000 passages | |
| Overall dimensions (LxWxH) | with 650 mm panel | 1040x780x160 mm |
| | with 900 mm panel | 1040x1030x160 mm |
| Package dimensions (LxWxH) | Gate post | 110x22x23 cm |
| | Gate post with filler | 97x39x7 cm |

Connection

For easy connection the electronics is divided into control and switching modules. The control module is securely fastened inside the post. The switching module is fastened on the removable bracket inside the bottom part of the post. All external connections are made to the switching module contacts.

| Gate switching module terminal block contacts description | | | |
|---|---------|--------------------|------------------------------------|
| Connector | Contact | Electrical circuit | Designation |
| XT1 | 1 | +12 V | +12 V of the external power supply |
| | 2 | GND | Common |
| XT2L | 1 | +12VOut | Intrusion detector input |
| | 2 | Detector | |
| | 3 | GND | |
| | 4 | FA | Fire Alarm device input |
| | 5 | GND | |
| | 6 | GND | Common |
| | 7 | Unlock A | Gate control inputs |
| | 8 | Stop | |
| | 9 | Unlock B | |
| | 10 | Led A | RC-panel indication outputs |
| | 11 | Led Stop | |
| | 12 | Led B | |
| | 13 | ZUM | RC-panel sound signal output |
| XT2H | 1 | GND | Common |
| | 2 | +12VOut | Siren |
| | 3 | Alarm 1 | |
| | 4 | Alarm 2 | |
| | 5 | Com | PASS A relay output |
| | 6 | Pass A | PASS B relay output |
| | 7 | Pass B | |
| | 8 | Com | |
| | 9 | Def Out | Intrusion detector status output |
| | 10 | Imp/Pot | "Pulse mode/Potential mode" jumper |
| | 11 | GND | |

WHD-05 Electromechanical gate



WHD-05 wiring diagram

| Layout description | |
|--------------------|---|
| Item | Description |
| A1 | Switching module |
| A2 | Rotation mechanism |
| A2.1 | Control module |
| A2.2 | Electromagnet assembly |
| A2.3 | Rotation sensor |
| A3 | Indication module |
| A4* | Power supply |
| A5 | RC-panel |
| A6* | ACS controller |
| A7* | WRC |
| A8* | Device that gives an emergency unlocking command (Fire Alarm) |
| A9* | Intrusion detector |
| A10* | 12V DC siren |
| 1 | Patch cable for control module power supply |
| 2 | Patch cable for control module control |
| 3 | Indication cable |
| 4** | Jumper wire if there is no FA device (A8) |
| 5** | Imp/Pot jumper wire for selecting the gate operating mode |
| 6** | Jumper wire if there is no intrusion detector (A9) |

* The equipment is not included in the standard delivery set

** Jumper wires installed by default

WHD-05 Electromechanical gate

Operation algorithm

The gate can operate from the RC-panel (included in the delivery set), WRC, ACS controller and intrusion detector.

Operation is performed by applying a low-level signal to Unlock A, Stop and Unlock B contacts relative to the GND contact. The response to these signals depends on the control mode selected by the 5 jumper wire.

Pulse control mode is when a pulse is applied to the Unlock A (B) input, the gate will automatically open for a single passage in any direction. The waiting time for the passage being completed does not depend on the duration of the control pulse and lasts 5 seconds.

Sending a pulse to the Stop input locks both passage directions. Simultaneous sending of pulses to Unlock A (B) and Stop inputs places the gate in the "Free passage" mode.

It is recommended to use pulse mode during operation from RC-panel or WRC.

Potential control mode is when the control signal is applied to the Unlock A (B) input, the gate remains unlocked in any direction during the entire holding signal time. Sending control signal to the Stop input locks both passage directions regardless of the signals at the Unlock A (B) inputs. The potential mode is recommended during operation from the ACS controller or intrusion detector.

Regardless of the selected control mode, PASS A or PASS B signals are generated when moving the gate in one direction or the other. These signals can inform the ACS controller of the fact of passage. Emergency passage opening is performed by removing a low-level signal from the Fire Alarm contact relative to the GND contact.

Note:

When operating the gate from the ACS controller, it is recommended to connect the RC-panel to the ACS controller.

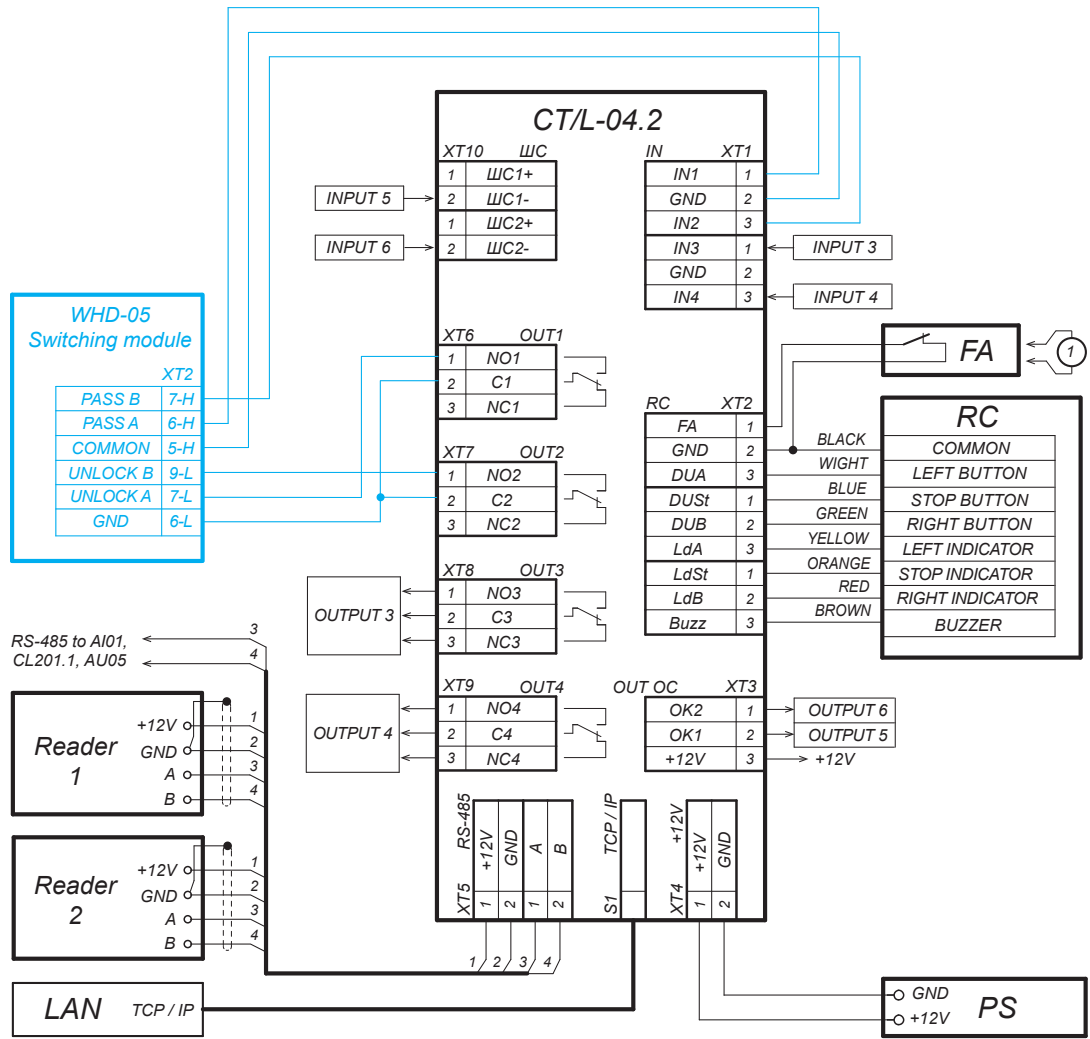
The maximum allowed cable length of the RC-panel (ACS controller) is 40 meters. Recommended cable type: CQR CABS8 8x0.22c.

The maximum allowed cable length of the power supply depends on its cross section and must be:

- 0.2 mm² cable cross-section – 10 m
- 0.75 mm² cable cross-section – 25 m
- 1.5 mm² cable cross-section – 50 m

Recommended cable type: Power cable (2x0.75).

WHD-05 Electromechanical gate

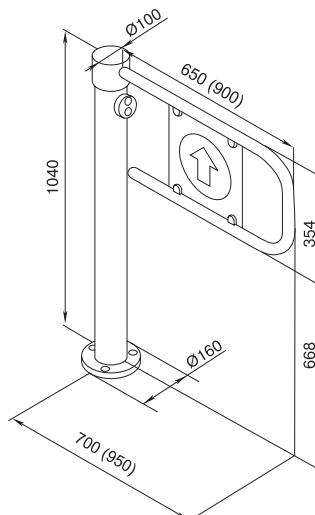


1 - jumper wire, installed when there is no FA device

Example of gate connection to the ACS controller

The maximum allowed cable length of the RC-panel / WRC / ACS controller is 30 meters.

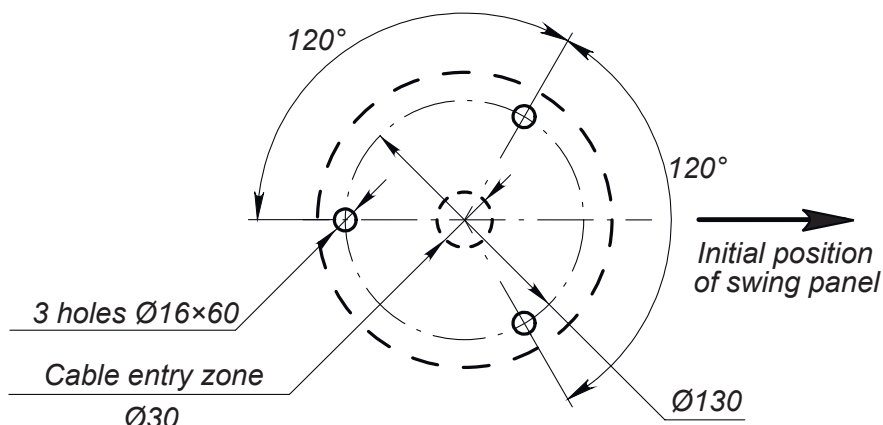
Overall dimensions



Overall dimensions

WHD-05 Electromechanical gate

Foundation requirements: concrete (grade 400 or higher), stone or similar foundations of at least 150 mm thick; when installing on a less steady foundation, use reinforcement element (450x450x200 mm).

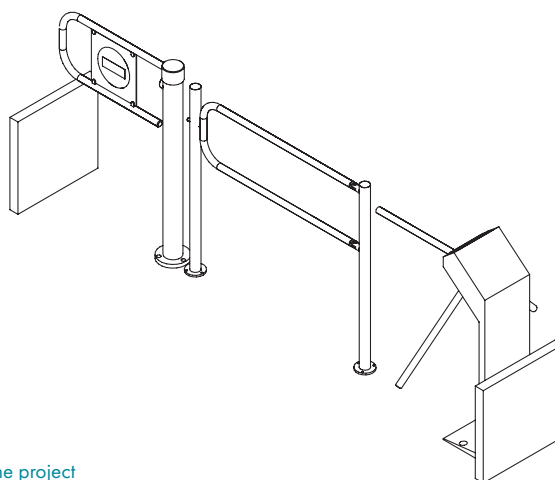


Hole marking

Before installing the gate, prepare the cable channel from the post center to the control unit (gate control and power cables).

When the gate is operated from ACS, it is recommended to place card readers in the turnstile housing or on the railings that form the passage zone. BH01 0-03 bracket is used for mounting readers on the BH02 series railings.

Passage zone modeling



Example of an entrance zone project

Warranty

The warranty period is 5 (five) years commencing from the date of sale, unless otherwise determined in the delivery contract of the Product. In case of sale and installation of the equipment by authorized PERCo dealers and service centers, warranty starts from the date of commissioning.

Should there be no date of sale on the warranty card, the warranty period shall commence from the date of manufacture specified in the Certificate and on the Product label.