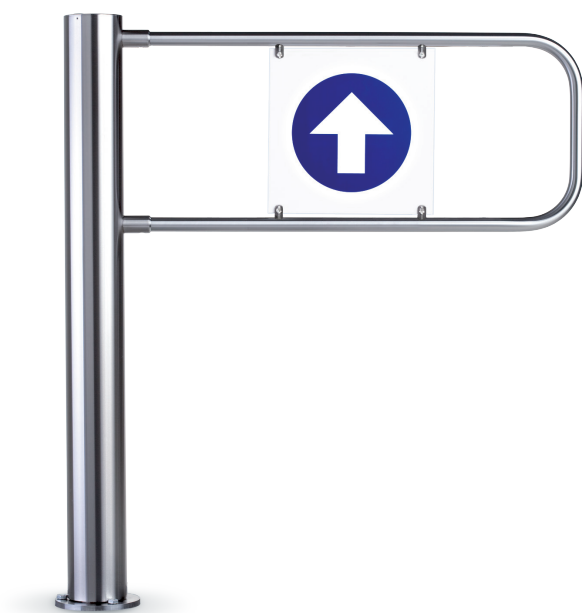


WMD-05S Motorized gate



+55
+1
temperature range

24V
operating voltage

60W
power consumption

2
passage direction

12
persons/min

mechanical unlocking

M
motor drive

Application

The WMD-05S swing gate is a normally closed electromechanical waist-high 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
- free passage

Main features

- operation from RC-panel, WRC, ACS
- motor drive integrated into the gate post swings by 90° in the set direction and resets smoothly to the home position after the passage
- built into the control unit reserve power supply
- Fire Alarm control input that allows connecting the emergency unlocking device (for example, fire alarm system)
- the gate can be powered both by 220V AC / 50Hz mains and by 24V DC external power supply
- two control modes – pulse and potential
- integrated mechanical release lock
- siren and intrusion detector can be connected to the gate



Mechanical unlocking with a key

WMD-05S Motorized gate

Design

Gate post – polished stainless steel.
Gate panel – stainless steel, filler – plastic panel with pictograms.

Gate panel	Description
AG-650	650 mm swing panel
AG-900	900 mm swing panel
AG-1100	1100 mm swing panel

Operating conditions

Gate post, with regard to resistance to environmental exposure, complies to the following requirements: WMD-05S – GOST 15150 category U4 (operation in premises). WMD-05S gate should be operated at ambient air temperature from +1 °C to + 55 °C and at relative air humidity of up to 70% at +27 °C.

The remote control unit, with regard to resistance to environmental exposure, complies with GOST 15150 category NF4 (operation in premises with climate control). Control unit should be operated at ambient air temperature from +1 °C to + 40 °C and at relative air humidity of up to 80% 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 fasteners kit, panel type (650, 900, 1100 mm) is chosen by the customer when ordering.	1
Filler panel	1
RC-panel (cable length of 6.6 m)	1
CU-05.1 control unit with two 7h-a / 12V batteries (network cable length of 1.5 m)	1
Mounting hardware for control unit	1
Key to mechanical release lock	2
Control cable (4 m*)	1
Power cable (4 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

* The maximum allowed cable length (upon request) is 30 m.

Technical specifications

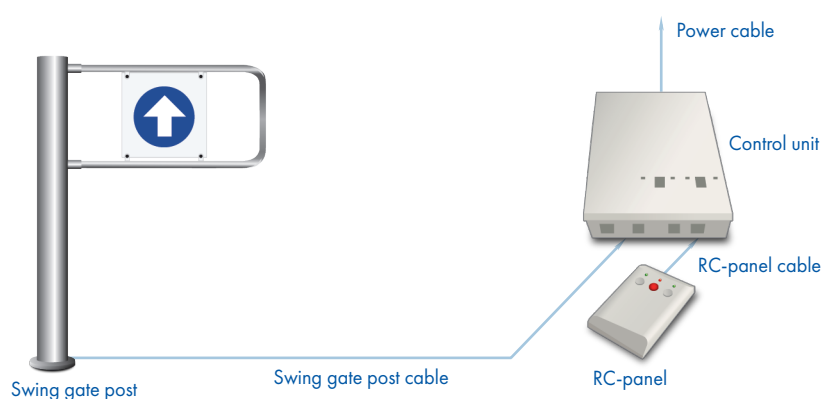
Powering by AC mains	Operating voltage	220±22 V, 50±1 Hz
	Power consumption	max. 60 W
Powering by external DC power supply	Admissible value of supply voltage	22 – 28 V
	Current consumption	MAX. 2.0 A
	Power consumption	max. 50 W
	Running time when powered by reserve power supply	min. 1.5 h
	Number of passages when powered by reserve power supply	min. 1200

WMD-05S Motorized gate

Passageway width	for 650 mm panel	700 mm
	for 900 mm panel	950 mm
	for 1100 mm panel	1150 mm
Gate overall dimensions (LxWxH)	with 650 mm panel	773x145x1012 mm
	with 900 mm panel	1023x145x1012 mm
	with 1100 mm panel	1223x145x1012 mm
gate post weight	max. 23.5 kg	
Control unit overall dimensions (LxWxH)	295x290x75,5 mm	
Control unit weight	max. 9.6 kg	
Package dimensions	Gate post with control unit	108x36x31 cm
	650 mm swing panel	84x38x7 cm
	900, 1100 mm swing panel	125x38x7 cm
Throughput rate	12 passages / min	
Mean time to failure	500,000 passages	

Connection

- Standalone operation – gate is operated from the RC-panel



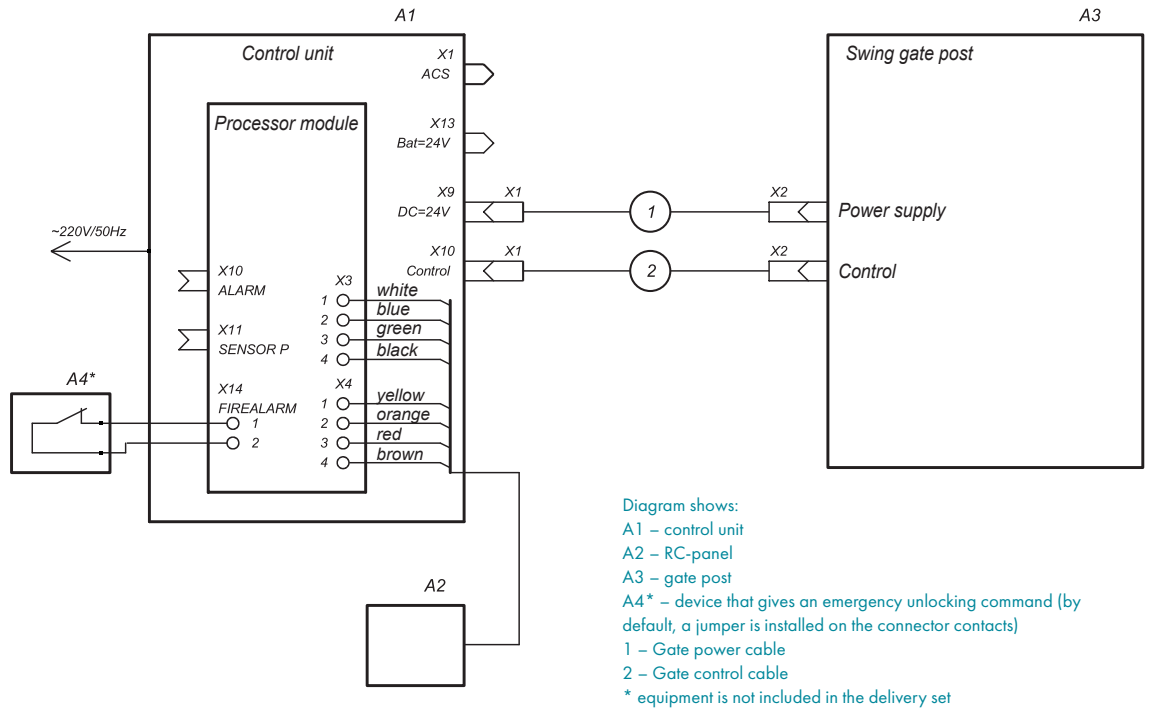
WMD-05S wiring diagram

RC-panel is connected through the cable entry zone of the control unit to the processor module. The buttons orientation relative to the gate can be changed by swapping the RC-panel wires connected to the X3.1 and X3.3, and also X4.1 processor module contacts (see the wiring diagram).

When pressing the left or right button, the gate opens in the corresponding direction. The gate will automatically close either in 5 seconds or upon pressing the STOP button (the middle button).

When the "Passage waiting time" jumper of the processor module is removed, a 5-second countdown is not applied and the gates close only upon pressing the STOP button. The jumper is installed by default.

WMD-05S Motorized gate



WMD-05S wiring diagram

- Operation of the gate as a part of ACS – control lines are connected to the "ACS" connector of the control unit (mating connector is included in the delivery set)

Control unit "ACS" connector contacts description			
Connector	Contact	Electrical circuit	Designation
"ACS"	1	RIGHT	Control of the direction R
	2	STOP	Locking both directions
	3	LEFT	Control of the direction L
	5	GND	Common
	7	PASS R1	Passage signal in direction R (relay contacts open when a passage in direction R takes place).
	10	PASS R2	
	6	PASS L1	Passage signal in direction L (relay contacts open when a passage in direction L takes place).
	9	PASS L2	
	8	Pwr failure C	Mains supply failure
	4	Pwr failure E	
	11	Pass Sensor1	Intrusion detector status, if installed (relay contacts)
	14	Pass Sensor2	
	12	Bat failure C	Reserve power supply failure
13	Bat failure E		

Operation algorithm

Gate supports two control modes – pulse and potential. The mode is set by applying the wire jumper on the control unit processor module.

Pulse control mode.

The operation is performed by closing RIGHT, STOP, LEFT contacts with GND contact, or by sending a low-level signal. A normally open relay contact or a circuit with open collector output (duration of the control signal is min, 100 ms) can be the control element of the ACS.

After applying a control signal to RIGHT or LEFT lines, the gate remains open in the selected direction and will remain open until one of the events (which happens earlier):

- low-level signal at the STOP line

WMD-05S Motorized gate

- after 5 sec. expiration. (when the "Passage waiting time" jumper located on the processor module is removed, unlocking time control is not performed)

Pulse mode is recommended during operation from the RC-panel.

Potential control mode is when the control signal is applied to the RIGHT or LEFT input, the gate opens in the selected direction remains open during the entire holding signal time; STOP input is not active in this mode.

Potential mode is recommended during operation from the ACS controller.

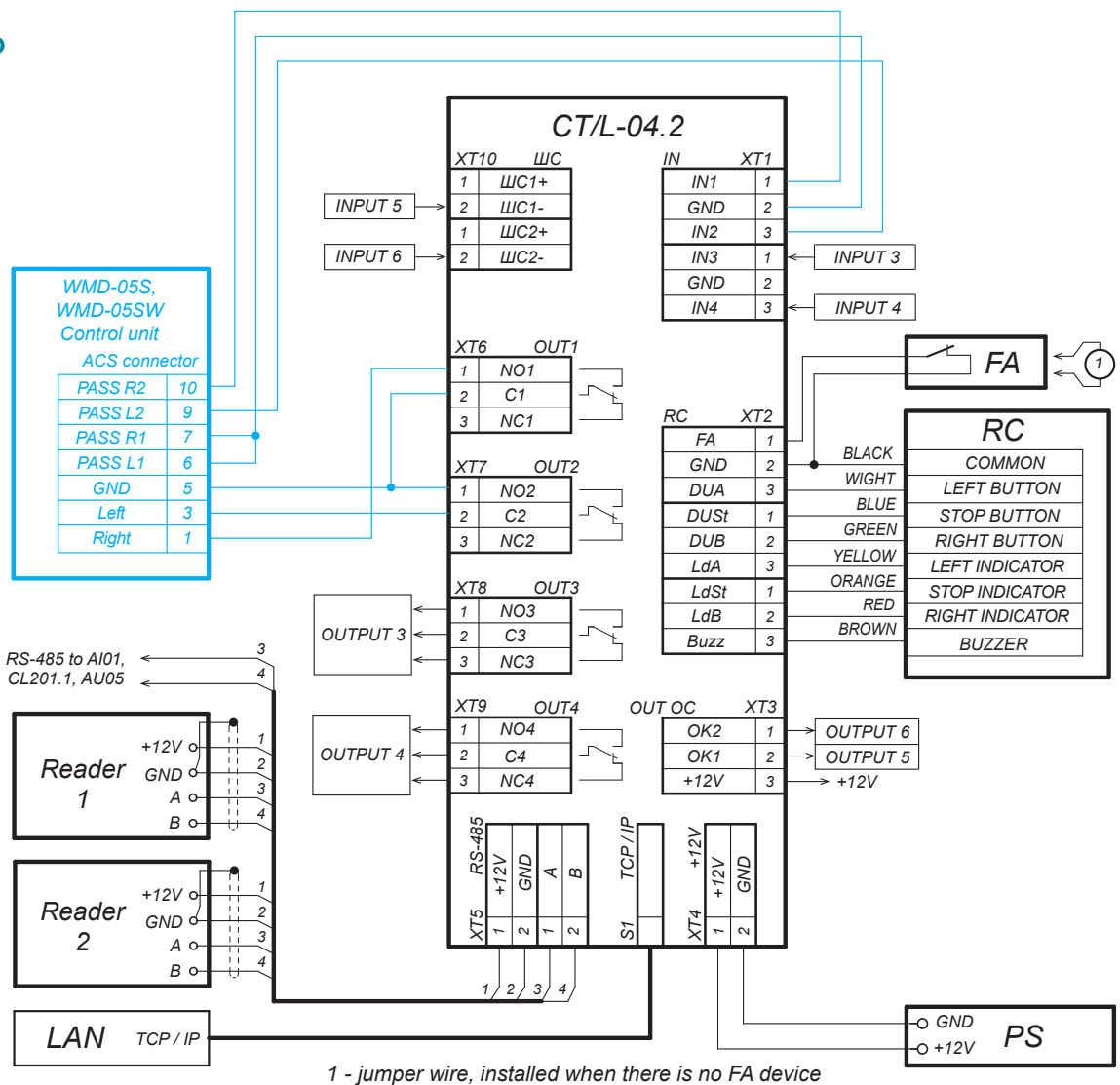
Regardless of the selected control mode, PASS R or PASS L signals are generated when moving the gate in one direction or the other. The length of generated signals depends on the period of time the gate remains open for.

Cable for connecting the emergency unlocking device is led to the processor module through the ALARM cable entry zone of the control unit and is connected to the corresponding processor module contacts (see the wiring diagram).

Note

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

Example of connection to the ACS



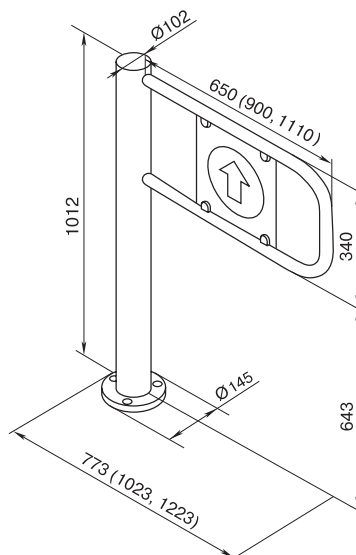
Example of gate connection to the ACS controller (using CT/L04.2 controller as an example)

WMD-05S Motorized gate

The maximum allowed cable length from the RC-panel / WRC / ACS controller to the control unit is 30 meters.

The maximum allowed power and control cable length from the control unit to the gate post is 30 meters.

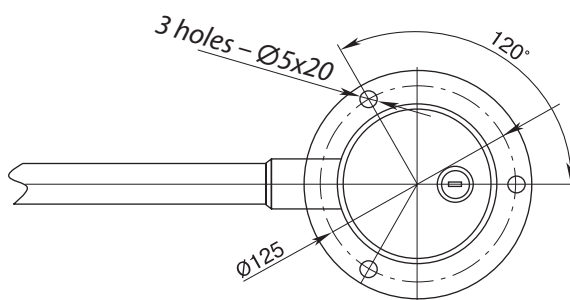
Overall dimensions



Overall dimensions

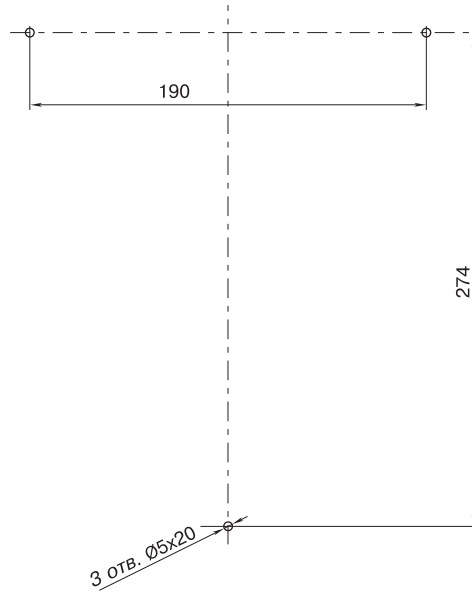
Mounting

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).



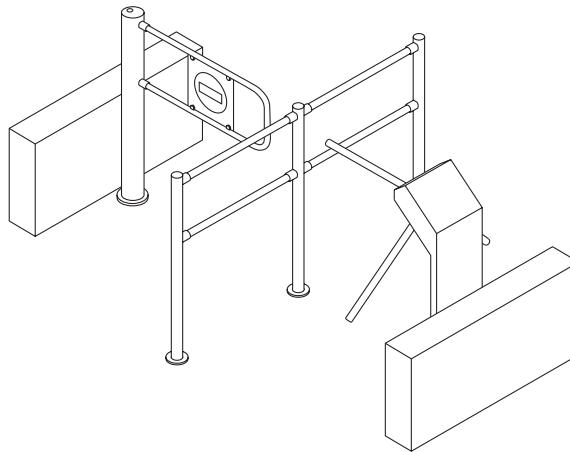
Hole marking for the gate

WMD-05S Motorized gate



Example of an entrance project

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, the 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.