

WMD-06 Motorized gate



+50
+1
temperature
range

24V
operating
voltage

105 W
power
consumption

2
passage
direction

12
persons/
min

anti-panic barrier
arms

M
motor drive

Application

WMD-06 gate is a normally open electromechanical gate designed for indoor operation. It is an elegant solution for entrance points of banks, administrative buildings, business centers and other sites with the highest requirements for design and comfort. WMD-06 gate can be used to arrange VIP entrances, emergency exits, access for people with limited mobility and for carrying bulky items.

WMD-06 swing gate can be installed both together with other PERCo turnstiles and also can operate as a standalone unit. 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 swing gate.



RC-panel

Operating modes

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

- passage denial
- single passage
- free passage

"Passage denial" is the initial state of the swing gate. When the gate is deenergized, the swing panel rotates freely 90° in both directions.

Main features

- operation from RC-panel, WRC, ACS
- motor drive integrated into the gate post swings 90° in the set direction and resets smoothly to the home position after the passage
- swing gate is equipped with encoder that allows registering correctly the fact of swing panel opening when the gate is operated as a part of ACS
- built into the swing gate housing control board
- safe voltage – max. 27 V
- power consumption – max. 105 W

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- Fire Alarm control input that allows connecting the emergency unlocking device
- when the emergency unlocking device gives a command, the gate drive opens the swing panel in the direction chosen by the user
- when the gate is de-energized, the swing panel rotates freely 90° in both directions
- after restoring the swing gate supply voltage or removing the Fire Alarm signal, the swing panel is moved to the "Closed" position.
- two control modes – pulse and potential
- outputs galvanic isolation
- relay outputs for connecting additional external indicators of the passage grant / denial
- for users' safety a matted stripe is applied on the upper part of the glass swing panel

Design

Gate post – polished stainless steel. Swing panel – 10 mm tempered glass.
The swing gate is available in two versions depending on the width of panels.

Swing panel	Description
AGG-650	650 mm swing panel
AGG-900	900 mm swing panel

Operating conditions

The swing gate, with regard to resistance to environmental exposure, complies with GOST 15150- 69 category U4 (operation in premises with climate control).

Operation of the swing gate is allowed at ambient temperature from +1 °C to +50°C and relative air humidity up to 70% at + 27°C.

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

Delivery set

Gate post	1
Glass swing panel	1
RC-panel (cable length of min. 6.6 m)	1
Mounting kit	1
Panels fasteners kit	1
Documentation set	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
Power supply (rated operating voltage 24 V DC, current - min. 4A)	1

Technical specifications

Operating voltage	24 – 2.4 V BC	
Current consumption	max. 4.4 A	
Power consumption	max. 105 W	
Overall dimensions (LxWxH)	with 650 mm swing panel	795x147x1012 mm
	with 900 mm swing panel	1045x147x1012 mm
Passageway width	with 650 mm swing panel	700 mm
	with 900 mm swing panel	950 mm

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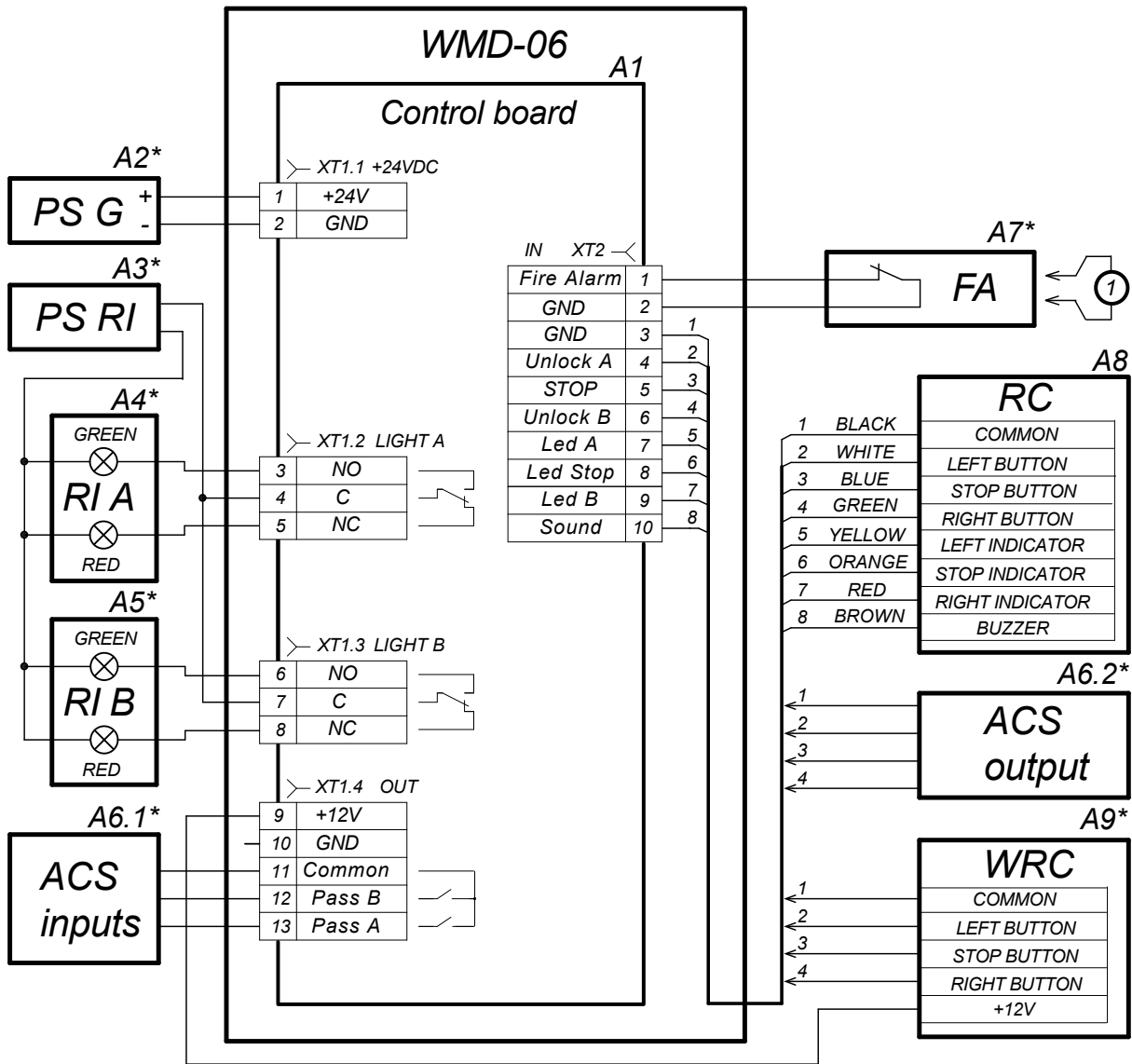
Swing gate weight	with 650 mm swing panel	max. 37 kg
	with 900 mm swing panel	max. 41 kg
Package dimensions (L×W×H)	Swing gate post with RC-panel	121x23x26 cm
	650 mm swing panel	96x12x90 cm
	900 mm swing panel	121x12x90 cm
Throughput rate	12 persons / min	
Mean time to failure	min. 500,000 passages	

Connection

The WMD-06 swing gate is equipped with a control board; all connections are made to the board contacts.

Control board contacts description by connectors			
Connector	Contact	Electrical circuit	Designation
XT1	1, 2	+24 V, GND	External power supply connection
	3, 4, 5	NO, C, NC	Light A relay contacts – connection of a remote indicator for direction A (not included in the standard delivery set)
	6, 7, 8	NO, C, NC	Light B relay contacts – connection of the remote indicator for direction B (not included in the standard delivery set)
	9	+12 V	WRC power supply positive terminal
	10	GND	Power supply negative terminal
	11	Common	Common contact for PASS A, PASS B signals
	12	PASS A	PASS A relay contact (passage in the direction A)
	13	PASS B	PASS B relay contact (passage in the direction B)
XT2	1, 2	Fire Alarm, GND	Emergency unlocking input
	3	GND	Power supply negative terminal
	4, 5, 6	Unlock A, Stop, Unlock B	Turnstile control inputs
	7, 8, 9	Led A, Led Stop, Led B	RC-panel indication outputs
	10	Led A, Led Stop, Led B	RC-panel sound signal output

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

Layout description	
Item	Description
A1	WMD-06 board
A2*	Power supply for the gate
A3*	Power supply for remote indicators
A4*, A5*	Remote indicator
A6*	Access control system
A7*	Device that gives an emergency unlocking command
A8	H-06/4.100 RC-panel
A9*	WRC

* The equipment is not included in the standard delivery set

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Operation algorithm

The swing gate can operate from the RC-panel (included in the delivery set), WRC, or ACS controller. Gate supports two control modes – pulse and potential. The Control mode is set by the jumper in the control board of the swing gate.

Pulse control mode is when a low-level input signal is sent or Unlock A, Stop and Unlock B contacts close with GND contact on the control board. Meanwhile, the duration of the control signal should not be less than 100 ms.

After applying a control signal at Unlock A (B), the swing gate will open in the selected direction and remain open for a period of time, called passage waiting time (4 seconds). When the passage waiting time expires, the motor drive resets the swing panel to its home position, and the swing gate switches to the "Passage denial" mode. Passage waiting time starts when the swing panels move more than 85 degrees.

Sending pulse to the Stop input places the swing gate in the "Passage denial" mode moving the swing panel to the home position.

Simultaneous sending of pulses to Unlock A (B) and Stop inputs places the swing gate in the "Free passage" mode in the selected direction.

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

The potential control mode is when operating modes are set by holding the signal at Unlock (B) input of the XT2 connector on the control board with regard to the selected direction.

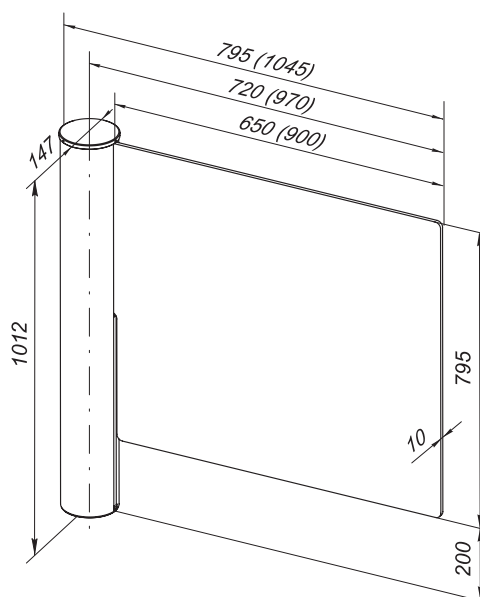
When sending a signal, the swing gate opens and remains open for the whole signal sending period; once the signal is removed, the swing gate closes. When pressing and holding the STOP button on the RC-panel, the swing gate closes even if a signal is applied to the Unlock A (B) input of the X2 connector on the control board.

The potential mode is used when operating as a part of ACS.

When the emergency unlocking device opens the contacts 1, 2 of the XT2 terminal block (Fire Alarm) regardless of the set operating mode, the swing panels unlock and gate drive opens the swing gate in the direction selected by the user (J2 jumper).

When closing the contacts 1, 2 of the XT2 terminal block (Fire Alarm), the swing gate performs the same actions as when powering up and switches to the "Passage denial" mode.

Overall dimensions

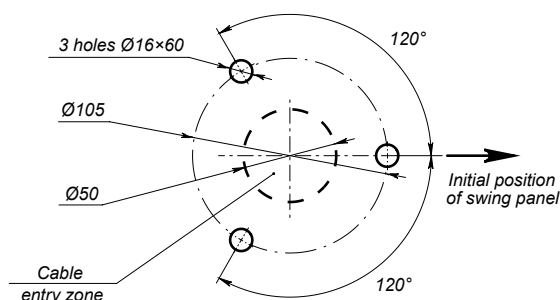


WMD-06 overall dimensions; dimensions are shown for 650 mm and 900 mm panels (in brackets)

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Mounting

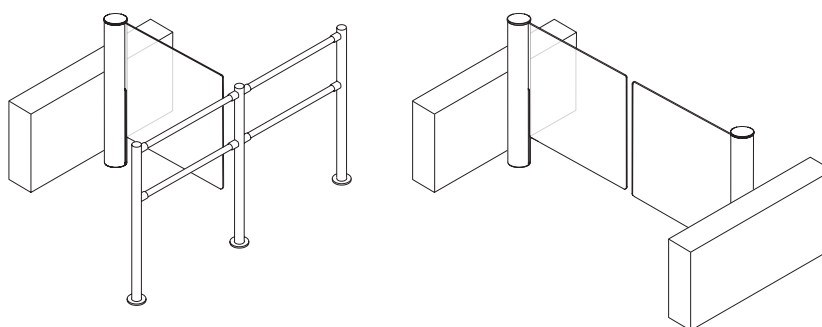
Foundation requirements: concrete (grade 400 or higher), stone or similar foundations of at least 150 mm thick. For the installation on a less steady foundation it is recommended to apply reinforcing elements (300×300×300 mm).



Hole marking for mounting the swing gate post

Passage zone modeling

When the swing 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.



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.