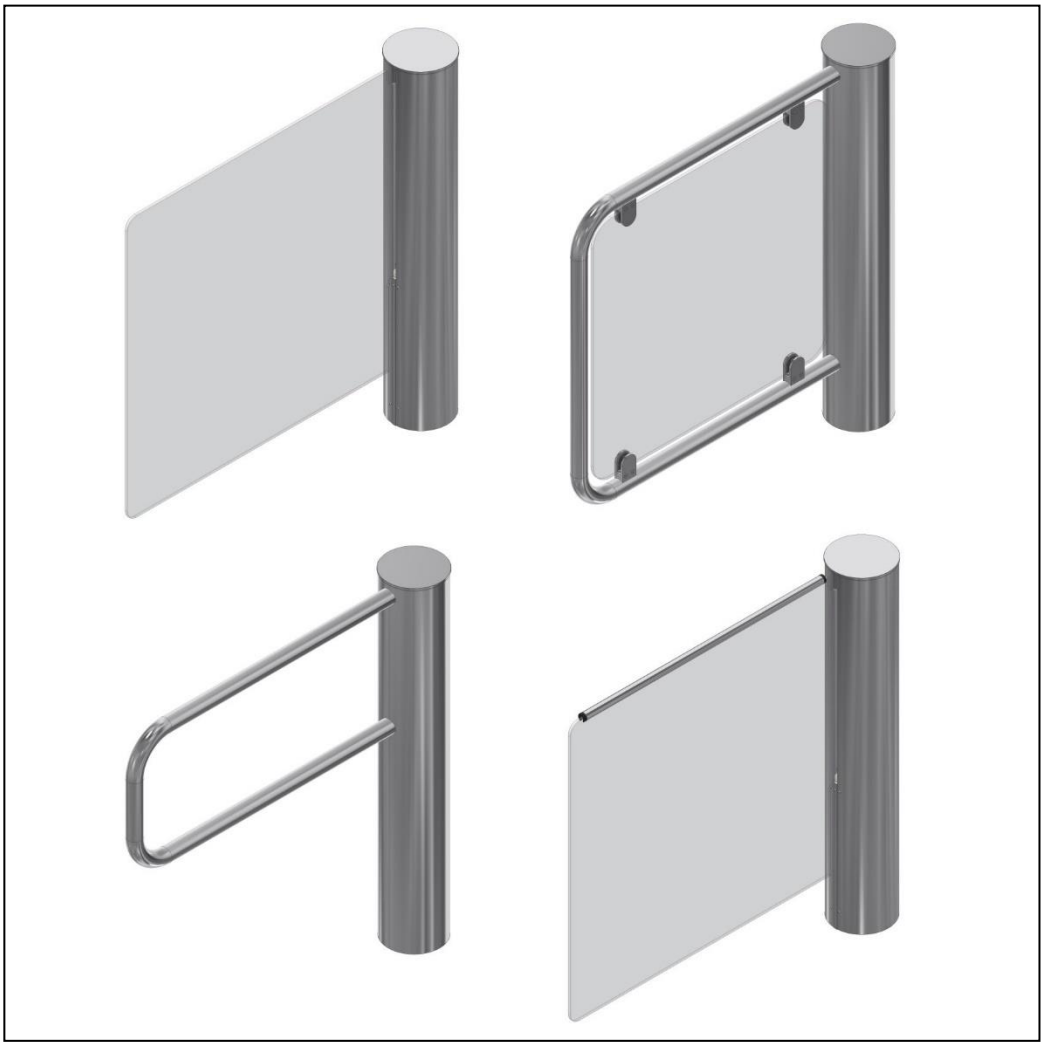


INSTRUCTIONS FOR USE OF MOTORIZED SWING GATE TYPE:

PEGAS

(PEGAS-GLE, PEGAS-GL, PEGAS-HG, PEGAS-SF, PEGAS-J)
With electronics MLU5

1. INTRODUCTION

This instruction guide is intended for the operating employees and contains all the necessary information to successfully run an installed and operational turnstile. It is very important that the operator is thoroughly acquainted with this instruction guide prior to the device usage.

The installation of the gate, connection to the mains supply or the connection of the electrical control circuits of the turnstile are not a subject of this guide.

A Troubleshooting chapter which serves to help you analyze malfunctions before contacting the service department at COMINFO a.s. is a part of this guide. Analyzing malfunctions with this chapter will help to quickly eliminate the problem and put the gate into operation.

The Instructions employ the following categories of safety instructions:

DANGER!
Mechanical danger. Omission of these instructions may cause personal injuries or device damage.

WARNING!
Important information or procedure.

NOTICE!
Information or procedure recommending how to use the device or its equipment optimally and thus prolong its lifetime, prevent potential damage and optimize work in relation to the safety standards.

2. PURPOSE - USE

- The **PEGAS** motorized swing gate is a device that enables to control the passage of persons and serves as a separation of areas with free movement of persons from areas accessible only to persons with defined access rights.
- It can be installed separately or together with other turnstile types in areas where the movement of persons through gates is monitored by an operator.
- It is the most suitable solution to ensure safe and easy passage for handicapped persons.
- The width of a passage of an opened single-wing gate may add up to 1200mm, depending on the gate type. Where there is a requirement for a wider passage, it is possible to place two gates opposite to each other, thus achieving a much larger free space (gates Double and Twin).
- The gates can be used for moving larger objects or for purposes of sudden evacuation. They serve to control the movement of persons in various facilities such as:
    - Industrial businesses
    - State offices
    - Schools
    - Transport systems
    - Airports
    - Sports and entertainment centres
    - Administration buildings and complexes
    - Chemical industries
    - Power plants

IT IS THE OPERATOR'S OBLIGATION TO ENSURE THAT PERSONS WHO WILL BE USING THIS GATE ARE WELL ACQUAINTED AND EDUCATED ABOUT USAGE OF THIS DEVICE ACCORDING TO THIS MANUAL.

This device may be used by children aged 8 years and older and persons with reduced physical, sensory or mental abilities or lack of experience and knowledge, provided they are under supervision or have been instructed in the safe use of the device and understand the potential dangers. Children must not play with the device. Cleaning and maintenance carried out by the user must not be carried out by unsupervised children. When a person under 8 years of age passes through the gate, it is necessary to be accompanied by a person over 18 years of age to ensure safe passage.

3. TECHNICAL DESCRIPTION OF THE GATE

The PEGAS swing gate consists of an inner supporting frame in which a motor drive unit with control electronics are placed and an outer rotating casing with the gate wing. The gate is an electromechanical device, its essential part is a compact motor drive unit consisting of an electric motor, planetary gearbox, electromechanical brake and speed sensor.

The PEGAS gates standardly come with a **FAIL-SAFE** drive unit - in case of power failure the gate is unblocked for free passage.

The gate is controlled by programmable control electronics that rotate the gate wing based on the input control signals. The electronics output signals provide information on the operating states for evaluation by the superior system and allows you to monitor the functional states of the gate via PC.

During maintenance or when replacing parts, the gate must be disconnected from the power supply.

All service works may be only carried out by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

Unprofessional manipulation can lead to damaging the gate or endangering people.

4. BASIC TECHNICAL PARAMETERS

4.1. COMMON TECHNICAL PARAMETERS

- Standard range of operating temperatures: **+10°C… +50°C**
- Range of operating temperatures: **-25°C… + 50°C** (when using heating - optional accessory).
- Range of storage temperatures: **0°C… +50°C**
- Maximum relative humidity: **80%** (non-aggressive environment).
- MCBF: **3 000 000** cycles (number of cycles prior to error).
- The level of sound pressure generated by the device shall not exceed **70 dB** (A).
- Materials the gate is made from:
  (stainless-steel materials are standardly of a brush type, AISI 304)
  - Inner steel parts are galvanized or blackened
  - Outer rotating casing: **ø168mm** stainless-steel tube (standard) or **ø204mm**
  - Upper lid: 6mm stainless-steel sheet (standard) or 6mm tempered glass
  - For materials of the gate wing, see the *Table of basic technical parameters*.

4.2. GATE POWER SUPPLY OPTIONS

The required gate input power supply must be defined in the gate order, including the required optional accessories.

Gate input voltage:	**13VDC [2])**	**24VAC [2,3])**
Supercapacitors [1])	✗	✓
Backup accumulator [4]):	✓	✗

[1]) For description, please see chapter *Optional Accessories*.
[2]) Powered by an external backup source that meets the SELV power supply network requirements.
[3]) 24VAC power supply cannot be used for PEGAS-GLE and PEGAS-GL gates.
[4]) Backup accumulator located in external power supply.

The operator shall ensure that the supply line is equipped with a safety device to disconnect all poles (circuit breaker, residual-current protective device). The choice of the circuit breaker value must comply with the circuit selectivity. Recommended residual-current protective device is for example HAGER CDA 216D, 16A/I_{Δ}N=0,03A.

Input power of the gate depends on the mode of operation and optional accessories used.

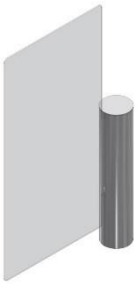
- 3W Minimum input power in standby (idle) mode for all types of gates without optional accessories with activated brake in the home position.

- 80W Maximum input power of PEGAS GL / GL-M / GLE / GLE-M / HG. With Edge Light and heating* when hitting an obstacle at a maximum speed of 5.

- 140W Maximum input power of PEGAS SF / SF-S / J. With Edge Light and heating* when hitting an obstacle at a maximum speed of 9.

  *While using heating of the drive unit in temperatures below +10°C

4.3. TABLE OF BASIC TECHNICAL PARAMETERS

		Material of the wing	Wing width [mm]	Upper edge of the wing [mm]	Lower edge of the wing [mm]	Opening angle	Intended environment
PEGAS-GLE		8mm tempered safety glass (standard – clear)	max 1050	990	Standard 160 max 410	max 90°	Interior Exterior (with roof)
		8mm tempered safety glass (standard – clear)	max 950 [3])	max 1800	Standard 160 max 410	max 90°	Interior Exterior (with roof)
PEGAS-GLE-M		8mm tempered safety glass (standard – clear) Straight handle from stainless-steel tube ø22 mm	max 1050	990	Standard 160 max 410	max 90°	Interior Exterior (with roof)
PEGAS-GL		8mm tempered safety glass (standard – clear)	max 1150	990	Standard 160 max 455	> 90° [1])	Interior Exterior (with roof)
		8mm tempered safety glass (standard – clear)	max 1100 [3])	max 1800	Standard 160 max 455	> 90° [1])	Interior Exterior (with roof)
PEGAS-GL-M		8mm tempered safety glass (standard – clear) Straight handle from stainless-steel tube ø22 mm	max 1150	990	Standard 160 max 455	> 90° [1])	Interior Exterior (with roof)
PEGAS-HG		8mm tempered safety glass (standard – clear) This gate is only available with outer rotating casing with diameter of **204mm**.	max 1150 [3])	max 1800	Standard 160 max 410	max 90°	Interior Exterior (with roof)

		Material of the wing	Wing width [mm]	Upper edge of the wing [mm]	Lower edge of the wing [mm]	Opening angle	Intended environment
PEGAS-SF-S		ø42.4mm stainless-steel tube with 6mm laminated safety glass filling (standard - clear)	max 950	1020	Standard 160 min 130	> 90° [1])	Interior Exterior [2])
PEGAS-SF		ø42.4mm stainless-steel tube	max 1200	1020	Standard 610 min 130	> 90° [1])	Interior Exterior [2])
PEGAS-J		ø30mm stainless-steel tube	max 900	1010	280	> 90° [1])	Interior Exterior [2])
PEGAS-J-S		ø30mm stainless-steel tube	max 900	1010	290	> 90° [1])	Interior Exterior [2])

[1]) Standard opening angle of the gate is 90° to both directions. On a special request, it is possible to open this type of gate at any angle.

[2]) The construction design of this type of gate ensures its increased resistance to the weather conditions and splashing water up to a height of 1 m with the exception of pressure water.

[3]) For wings with upper edge higher than 990mm from the floor, the maximum width of the wing depends on the height of the wing. Maximum wing dimensions according to the chapter *General description and basic dimensions*.

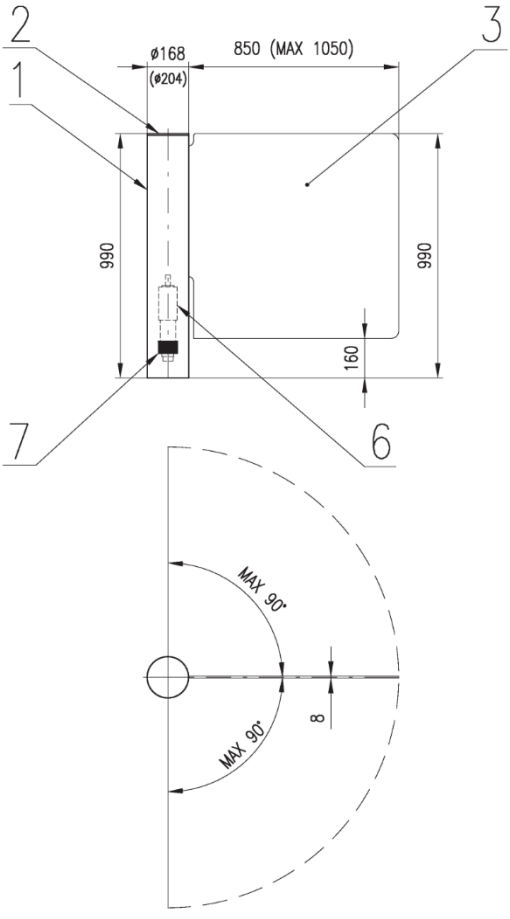
5. GENERAL DESCRIPTION AND BASIC DIMENSIONS

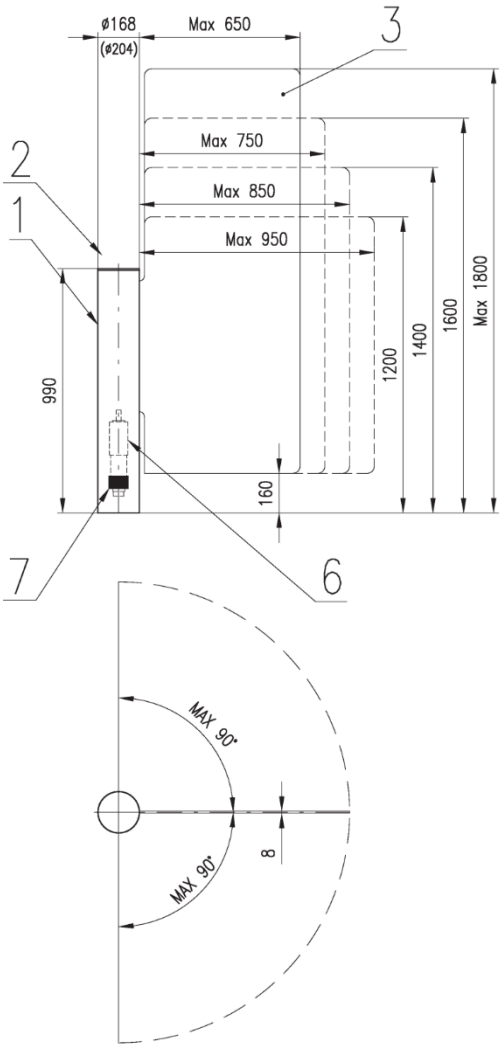
The dimensions and shape of the wings of individual gates depend on the required passage gate and are adapted to the required architectural design of the installation.

CAPTIONS FOR THE FIGURES:

1. Outer rotating casing
2. Upper lid
3. The gate wing
4. Handle
5. Filling of the wing
6. Motor drive unit with control electronics
7. Product label location (inside the gate)

5.1. PEGAS-GLE


2
1
ø168
(ø204)
850 (MAX 1050)
3
990
990
160
7
6
MAX 90°
MAX 90°
8


ø168
(ø204)
Max 650
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Max 750
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Max 950
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MAX 90°
MAX 90°
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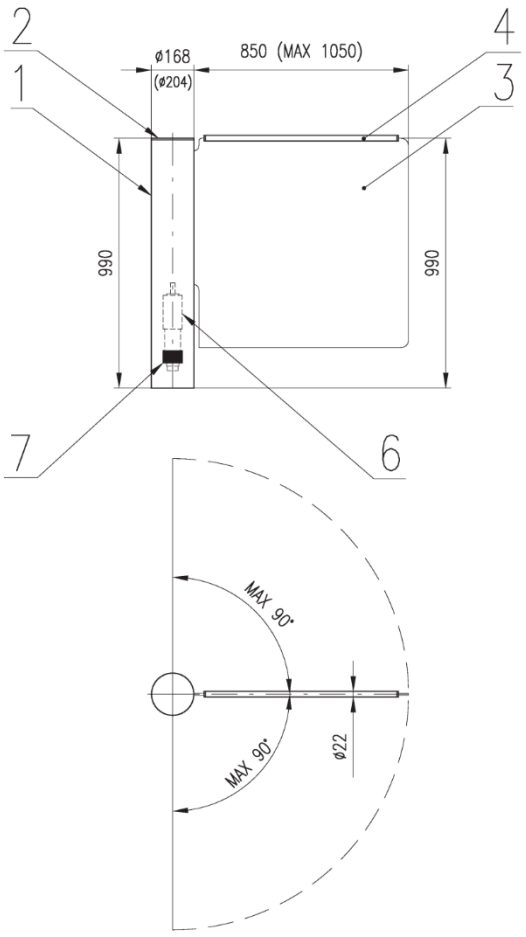
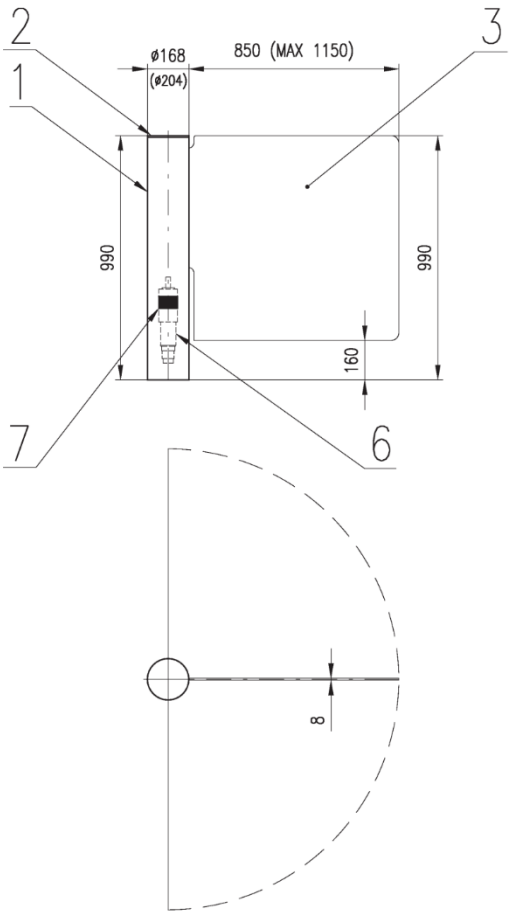
5.2. PEGAS-GLE-M



5.3. PEGAS-GL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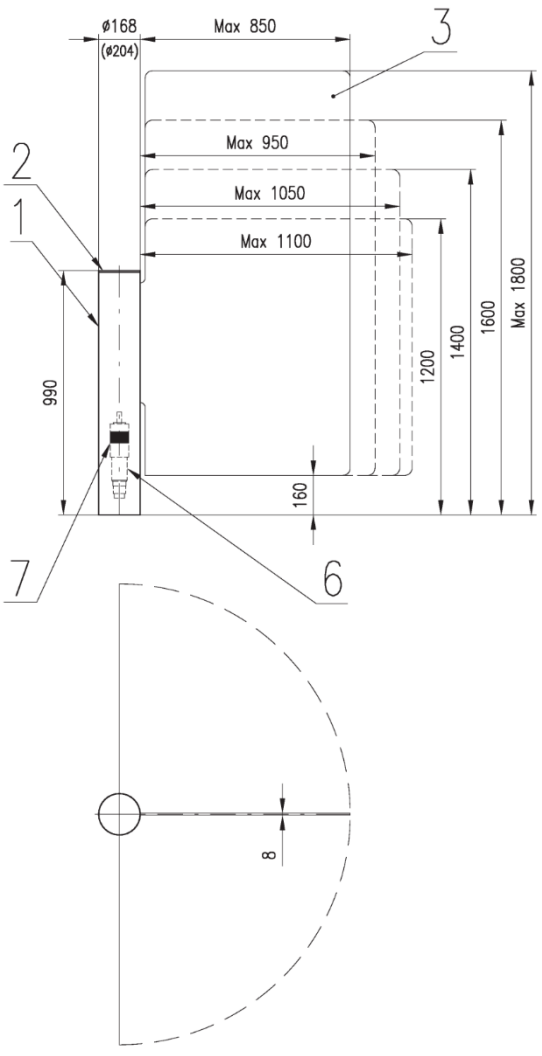
ø168
(ø204)
Max 850
3
Max 950
Max 1050
Max 1100
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990
1200
1400
1600
Max 1800
160
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6
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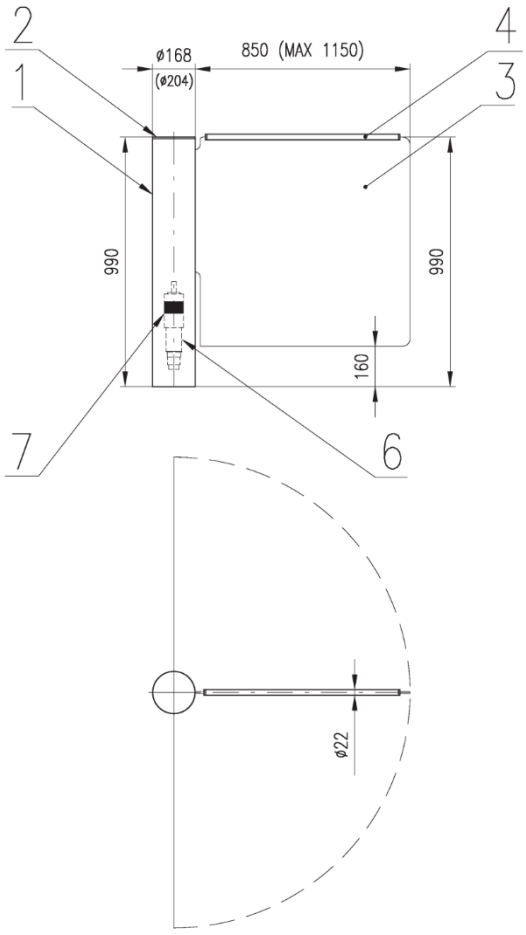
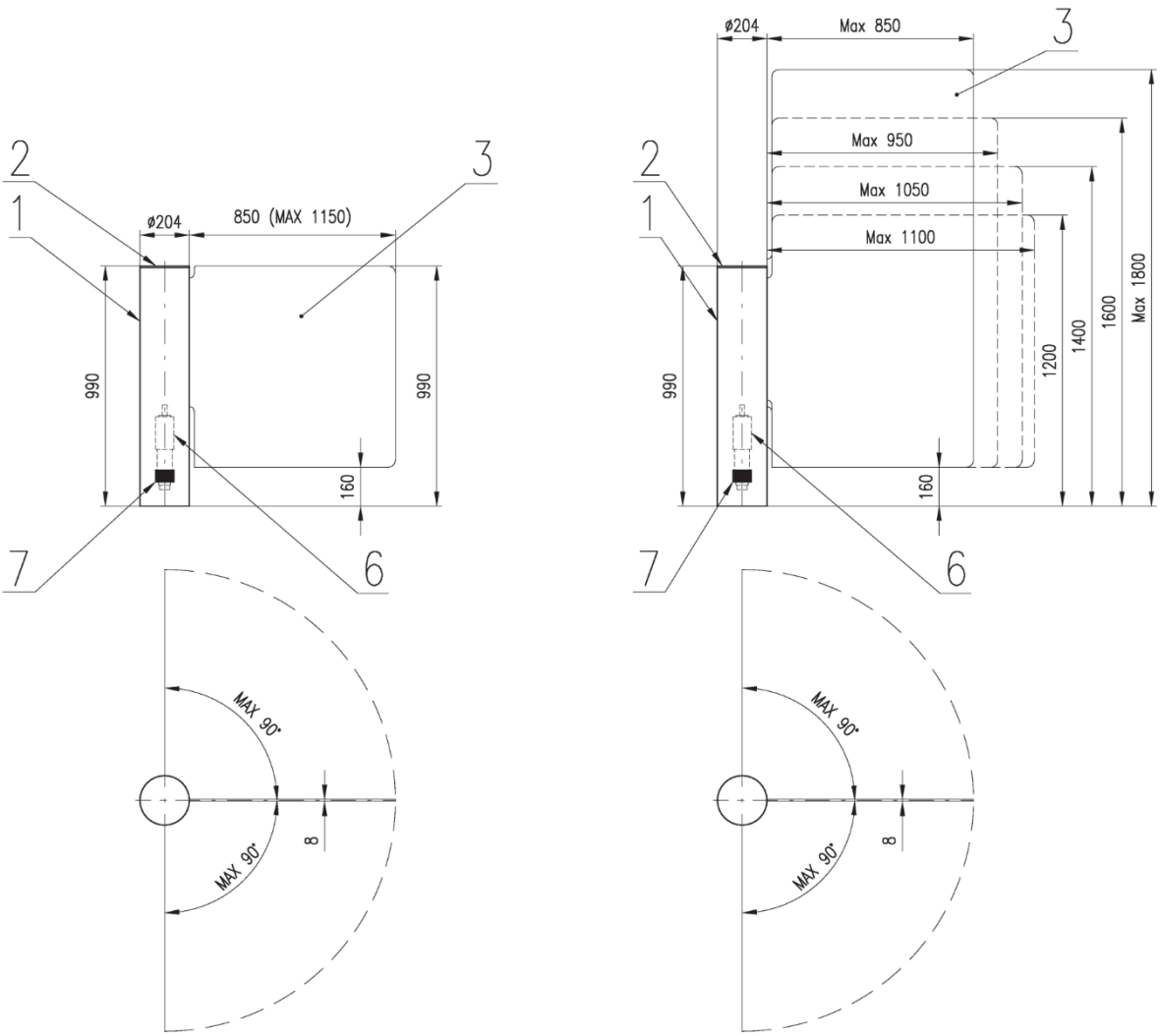
5.4. PEGAS-GL-M



5.5. PEGAS-HG


2
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MAX 90°
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Max 850
3
Max 950
Max 1050
Max 1100
2
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1200
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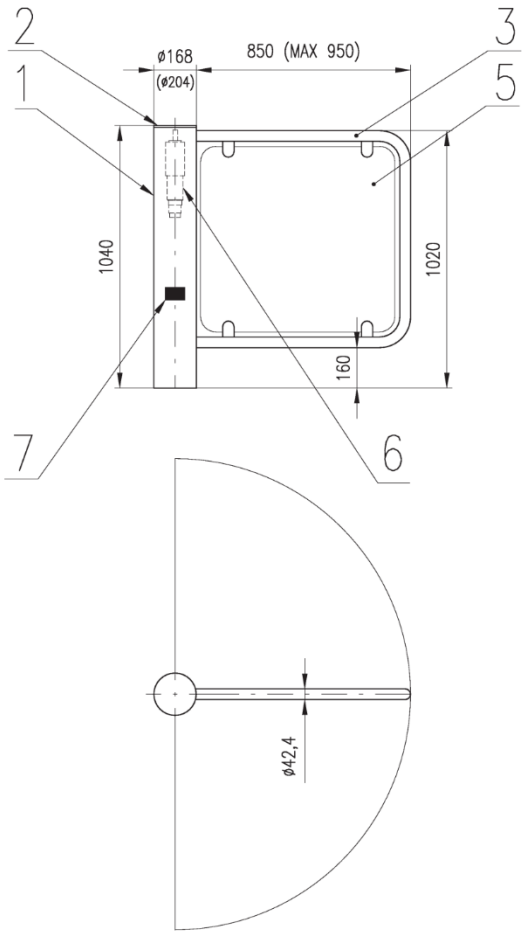
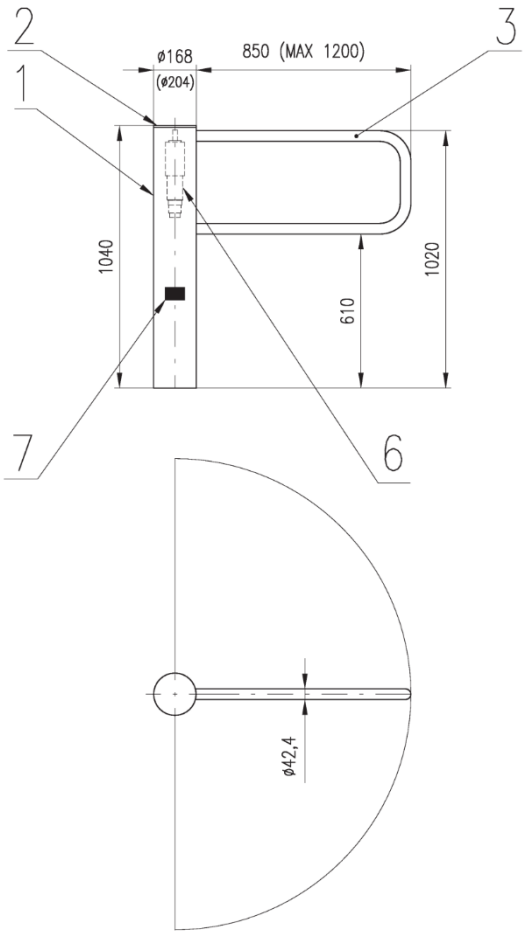
MAX 90°
MAX 90°
8

5.6. PEGAS-SF-S, PEGAS-SF

PEGAS-SF-S

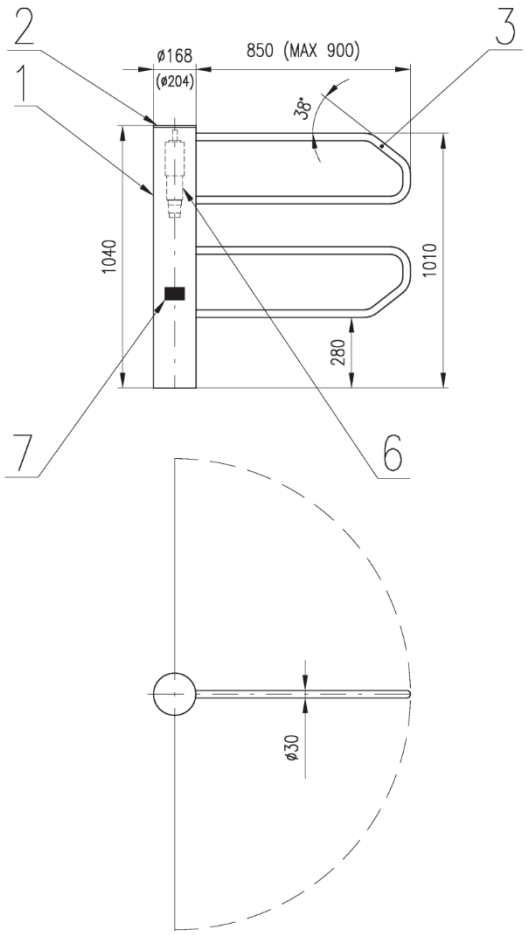


PEGAS-SF

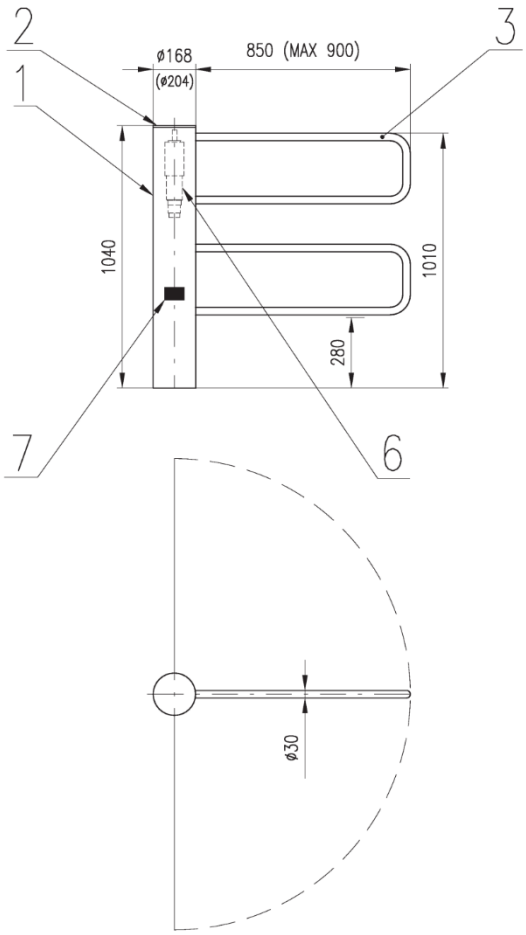


5.7. PEGAS-J, PEGAS-J-S

PEGAS-J



PEGAS-J-S



6. OPTIONAL ACCESSORIES

- **Heating:**
  Automatic heating of the drive unit for installations with operating temperature below +10°C.

- **Touch Panel:**
  - Remote cable control and display of statuses of three to four gates from one control panel
  - Activation of the following functions:
  Passage / Permanent Passage / Blocking / On / Off / EMERGENCY

- **Easy Touch:**
  - Remote cable control and display of statuses of any number of gates from one control panel
  - Activation of the following functions:
  Passage / Permanent Passage / Blocking / On / Off / EMERGENCY

- **Supercapacitors:**
  Supercapacitors ensure transition of the gate to the EMERGENCY state in case of power failure (automatic opening of the gate wings in the exit direction).

- **Backup accumulator:**
  The accumulator will ensure operation of the gate for a minimum of 6 hours of continuous operation in the event of a power failure.

- **Columns and holders for accessories**
  Columns and holders for placement of identification system sensors or other accessories

- **Identification systems:**
  Any type of identification terminal with relay / OC outputs can be connected to the gates for the purpose of identification of a passing person.

- **Card collector:**
  A separate Ø168mm post with integrated visitor card collector.

- **Upper add-on module of the gate:**
  For integration of the RFID sensor or a radar directly to the gate.

- **Edge Light** [1]) (top signaling LED):
  Displays information on the gate passage mode in the given direction.

- **TCONF:**
  Configuration SW for setting the parameters and diagnostics of the gate.
  – see manual: *Instructions for the TCONF application*

- **TMON:**
  SW application for controlling and monitoring of the gate's activity.
  - see manual: *Instructions for the TMON application*

- **Anchoring bases:**
  For anchoring into interlocking paving or sandwich floor or uneven surfaces.

1) In course of LED diodes lifespan in lighting devices, slight changes in colour shade of individual LEDs may occur. This is a standard feature of LEDs and therefore cannot be considered a defect.

7. UPPER ADD-ON MODULE OF THE GATE

The upper add-on module of the gate may contain RFID sensors, QR code reader, radar for automatic opening of the gate or combination of RFID sensor and radar. The upper add-on module may be complemented with Edge Light.

Add-on top modules may be placed on all types of gates except for PEGAS-GL and PEGAS-GL-M. Gates with add-on top module can be opened in ±90° angle.

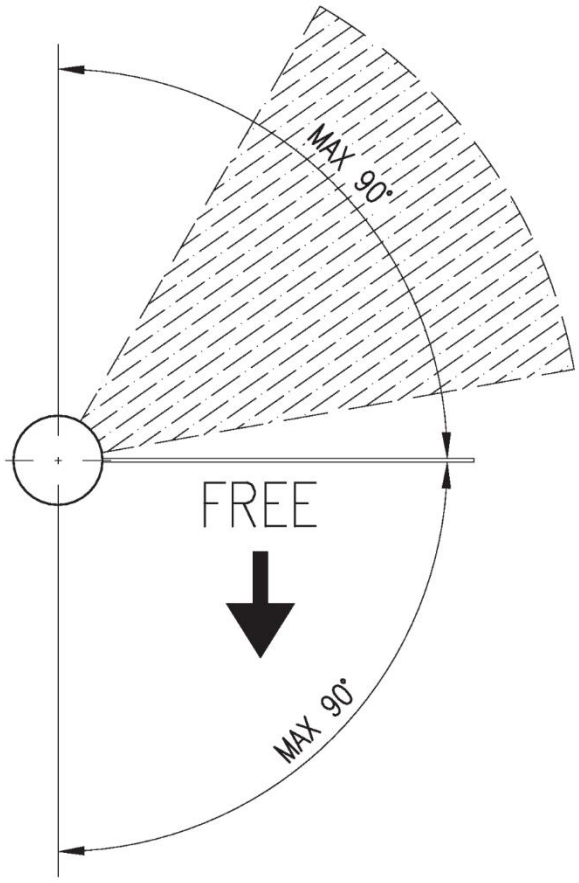
7.1. ADD-ON MODULE FOR A RADAR

Radar is used for automatic opening of the gate.

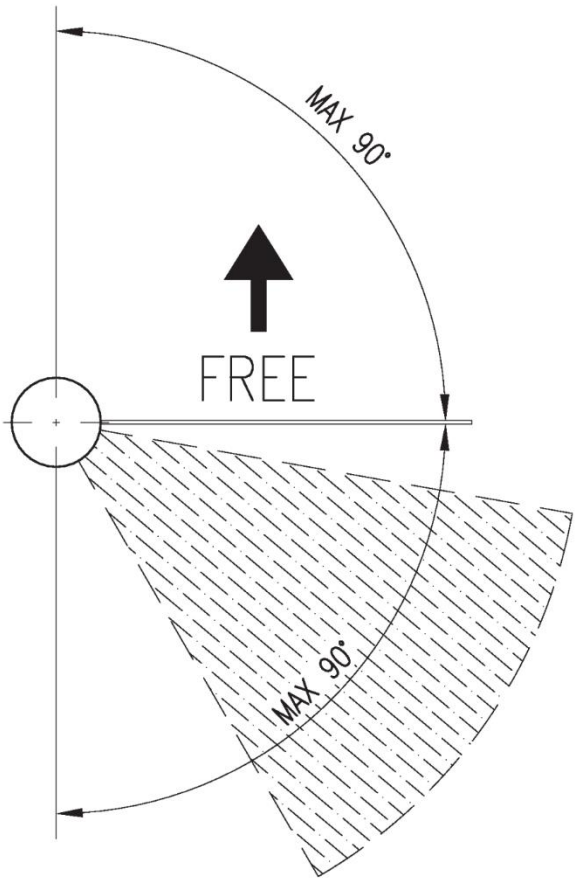
Radar may be placed on any opening direction, which must be specified when ordering the gate:

SINGLE gates:

Radar for the INR direction:

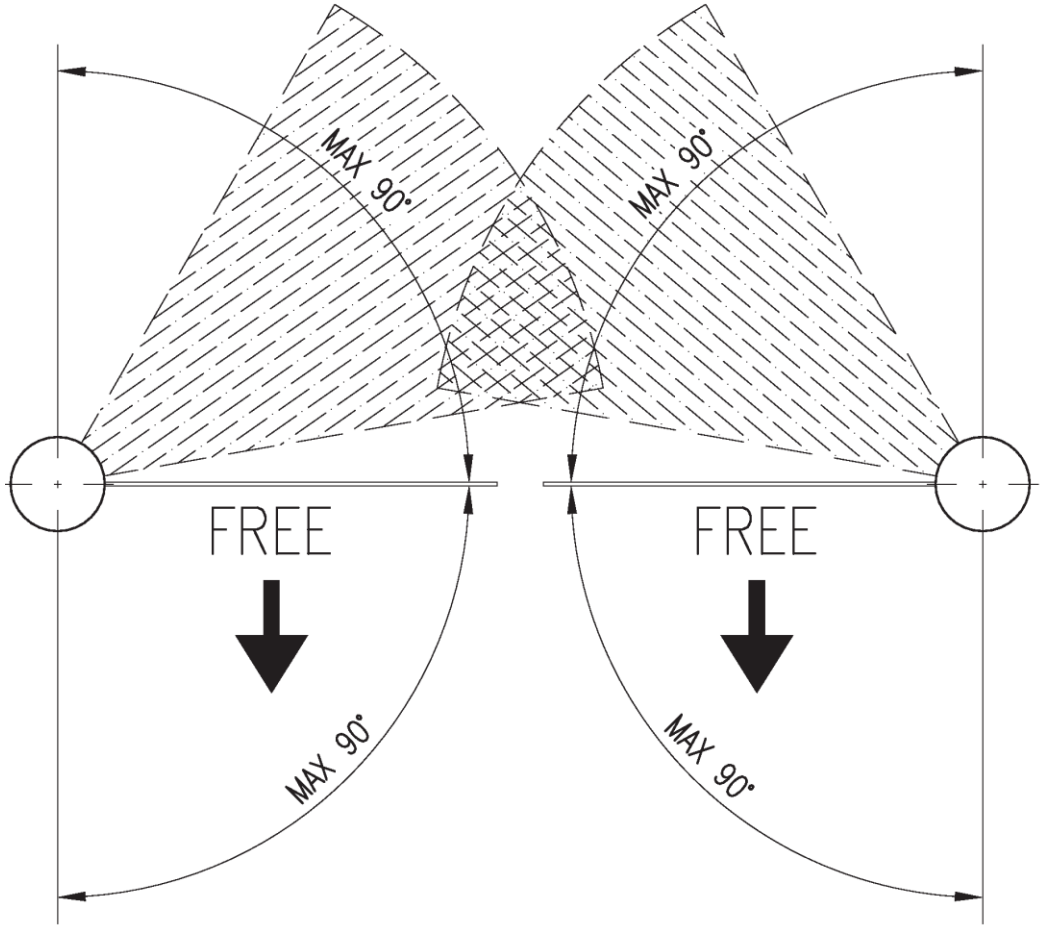


Radar for the INL direction:



DOUBLE or TWIN gates:

Radar for the INR direction: **Radar for the INL direction:**

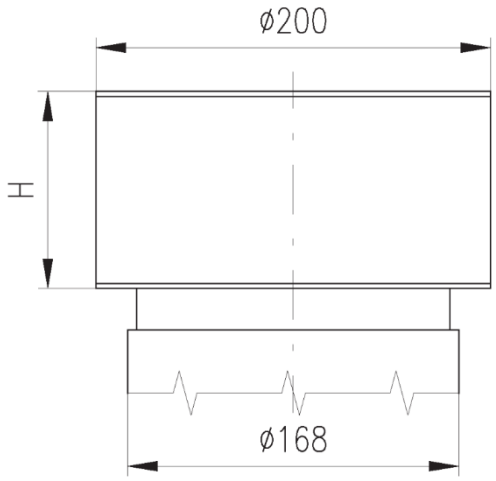


7.2. DIMENSIONS OF THE ADD-ON MODULE

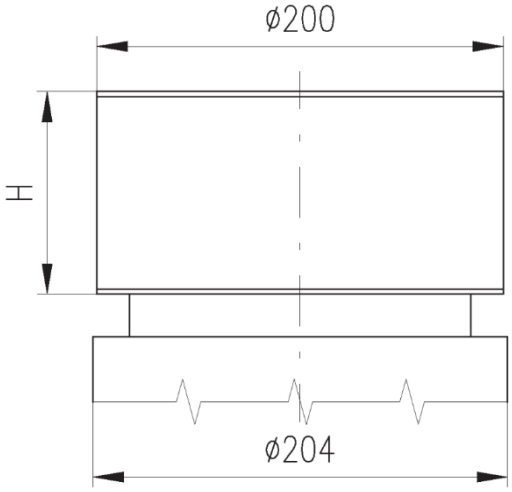
7.2.1. Add-on module with a plexiglass cover

The upper add-on module consists of an opal plexiglass cover and upper and lower stainless-steel covers. It is used to integrate a radar or RFID sensor from the side of the gate. This add-on module is always **ø200mm**. The height of the upper add-on module **H** is adapted to the size of the integrated device, which must be specified when ordering the gate. In case you are only integrating a radar, the height H is 100mm.

PEGAS-168



PEGAS-204

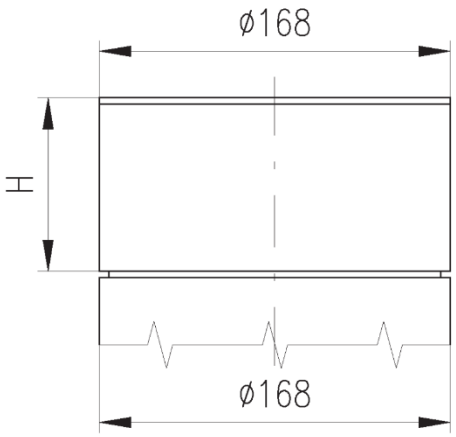


To access the device inside the add-on module, remove the upper stainless-steel cover by turning it counterclockwise.

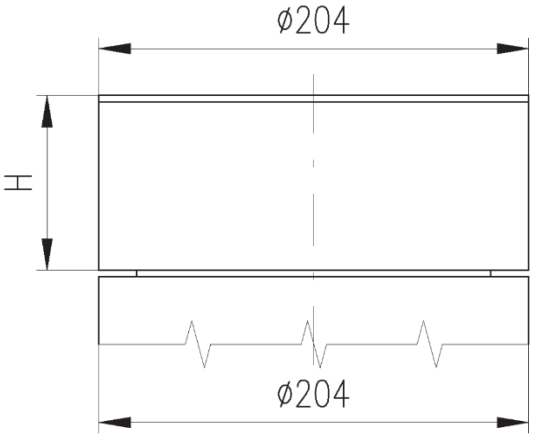
7.2.2. Stainless-steel add-on module

The upper add-on module consists of a stainless-steel tube and a stainless-steel cap with glass, under which an RFID or QR code scanner is located. The diameter of the add-on module is 168 or 204mm depending on the type of gate. The height of the upper add-on module **H** is adapted to the size of the integrated device, which must be specified when ordering the gate.

PEGAS-168



PEGAS-204



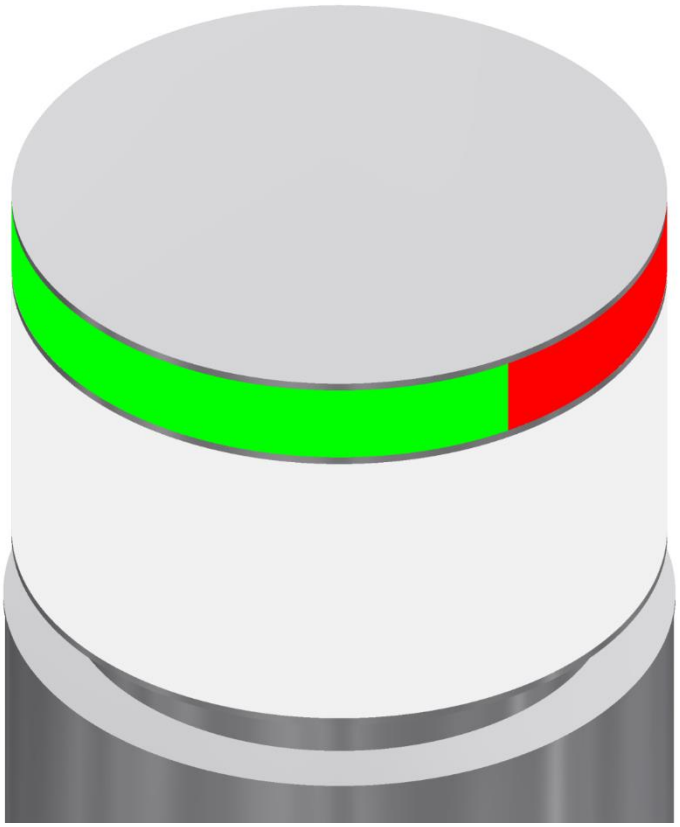
To access the device inside the add-on module, remove the upper stainless-steel cover by removing the M4 bolts.

7.3. ADD-ON MODULE EXAMPLES

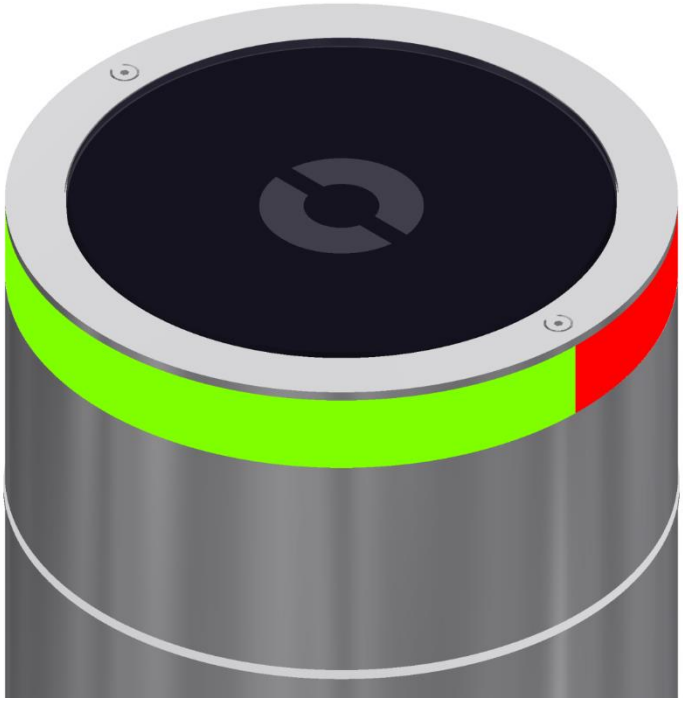
Add-on module for a radar or RFID sensor:

Add-on module for RFID sensor

Add-on module for a radar or RFID and Edge Light sensors:



Add-on module for RFID and Edge Light sensor:



8. INSTALLATION OF THE GATE

Gates with glass wing or glass filling are supplied partially disassembled. Installation of the glass and the gate requires technical knowledge, knowledge of technological assembly procedure and skillfulness.

Gate can only be installed by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

Connection to the mains power supply may only be performed by an authorized person with the appropriate qualifications.

9. PUTTING THE GATE INTO OPERATION

Gate can only be put into operation by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

When putting the gate into operation, initialization of the gate takes place after each connection or loss of power supply. During the initialization the gate moves to the stop end positions. It must not be interfered in any way with the gate during the initialization procedure.

10. DESCRIPTION OF THE GATE OPERATION

The PEGAS gate is a device meant for identification and separation of persons at the entrance/exit to/from a secured area using a moving wing. Passage of a person is enabled based on the identification (verification) of the person by the superior system.

Behavior of the gate may be adjusted using configurable parameters, which are divided into several groups:

- Dynamic functions (drive unit)
- Passage functions
- Signaling functions
- Functions of input and output signals

Gate is controlled by the following control signals:

- INL / INR – signal used for opening of the gate in the required direction
- EMERGENCY – signal used for permanent emergency opening of the gate
- ON / OFF – signal for gate activation / deactivation

10.1. DESCRIPTION OF OPERATION IN FACTORY SETTING

- The following text contains description of operation in the factory configuration of the gate.
- Based on the experience, the factory settings suit most standard installations.
- The tables describe the state of the Edge Light, which is an optional accessory and does not have to be fitted.
- Chapters are listed in order of probability that described situations will occur.

Turning on the power supply:

- In case of power supply connection or failure, the gate wing moves to the home position.
- The wing moves to the home position at slow speed where it is locked by the electromagnetic brake.
- The gate does not respond to control signals when moving to the home position.
- The gate wing should not be manipulated during moving to the home position.
- The gate is ready for operation only after it stops and the wing is locked in the home position.

Deactivation of the gate by ON/OFF signal:

- If the ON / OFF control signal is deactivated, the gate wing is locked in the home position.
- The INL / INR opening function is deactivated.
- The EMERGENCY function is enabled.

Optional accessories	entry side	exit side
Edge Light	red	red

Activation of the gate by ON / OFF signal:

- If the control signal ON / OFF is activated, the turnstile wings are locked in the home position.
- The INL / INR opening function is enabled.
- The EMERGENCY function is enabled.

Optional accessories	entry side	exit side
Edge Light	white	white

Single gate opening:

- The wing will open at an angle of 90° and lock after receiving the INL / INR control signal.
- When the INL signal is activated, the gate wing opens counterclockwise.
- When the INR signal is activated, the gate wing opens clockwise.
- From the moment of opening, the preset Timeout of **10s** for realizing the passage starts to count down.
- After a timeout of **10s**, the gate wing automatically closes and locks in the home position
- An open gate can be closed at any time regardless of this time by an opposite control signal.
- The audio signaling is active during the opening of the gate.

Optional accessories	entry side	exit side
Edge Light	green red during closing	red

Permanently opening of the gate in the desired direction:

- Permanently opening of the gate is activated by means of a permanent control signal brought to the INL / INR input using the Touch Panel, Easy Touch or the TMON application.
- The wing will open at an angle of 90° and lock after receiving the INL / INR control signal.
- When the INL signal is activated, the gate wing opens counterclockwise.
- When the INR signal is activated, the gate wing opens clockwise.
- The gate wing closes and locks in the home position immediately after deactivation of the control signal.
- The audio signaling is active during the entire time of opening of the gate.

Optional accessories	entry side	exit side
Edge Light	green	red

Activation of the control signal during closing of the gate:

- If a signal is received from the direction of previous passage, wings are always opened in the passage direction and the optical signalization Edge Light remains unchanged.
- If signal is received from the opposite direction when the turnstile wings are closing, they will open:

  a) in the direction of the previous opening if the wings are within the angle interval <45°; 90°>

  b) in the direction of the received signal if the wings are within the angle interval <0°; 44°>

  In both cases, the Edge Light optical signalization changes to the signal status from the opposite direction.

Wings of PEGAS GL / GL-M / GLE / GLE-M /HG hitting an obstacle:

- Wings are factory set to **REVERSE** when hitting an obstacle.
- If the gate wing stops against an obstacle during the impact during opening, the control electronics will evaluate the obstacle impact condition after **1s** and the gate will close automatically.
- If the obstacle that is in the way, can be pushed away or it is a person who will step back, then the gate will complete the opening.
- When an obstacle is hit during closing, the wing will open and tries to close again at a slow speed within **60s**. If the wing hits an obstacle again, the cycle repeats until the obstacle is removed.
- When hitting an obstacle during opening based on a continuous control signal, the wing will keep hitting the obstacle.

For safety reasons, the continuous control signal during remote control can only be used together with visual inspection of the gate area.

Wings of PEGAS SF / SF-S / J hitting an obstacle:

- Wings are factory set to **CONTINUE** when hitting an obstacle.
- When hitting an obstacle during opening, the wing stops against the obstacle and then pushes the obstacle with a small force not exceeding **10N**. After the Timeout has elapsed, the gate will automatically close.
- When hitting an obstacle during closing, the wing keeps pushing into the obstacle with a small force and tries to close until the obstacle is removed.
- When hitting an obstacle during opening based on a continuous control signal, the wing will keep pushing the obstacle with a small force.

For safety reasons, the continuous control signal during remote control can only be used together with visual inspection of the gate area.

Attempt to forcibly open the gate wings:

- In the home position, the gate is locked by an electromagnetic brake.
- To overcome the brake force, a torque of 250-280Nm is required, which represents a force of approx. 30-35Kg when pushing at the end of the wing with length of 850mm.
- When this force is exceeded, the brake slips and the gate wing will rotate. At this point, an ALARM unauthorized access attempt output signal is generated, which can be used to signal the Reception desk.
- This state can only be reset by the INL or INR control signal or the EMERGENCY signal. In this case, the gate opens in the desired direction and the ALARM output signal is cancelled.
- The ALARM output signal is not generated if the gate is deactivated by the ON/OFF signal.

Forced attempts to open the gate may result in deformation of the gate wing, mechanical parts of the gate or damage to the drive gearbox.

Activation of the EMERGENCY function (emergency state):

- Upon activation of the EMERGENCY signal, the gate wing is immediately opened in the exit direction at a safe speed and is locked.
- The EMERGENCY function is superior to all other turnstile modes.
- If the gate is in the process of opening or is opened in the opposite direction, the opening will stop immediately and the gate wing will open in the exit direction.

Optional accessories	entry side	exit side
Edge Light	flashing: red / green	flashing: red / green

THEREFORE, TO USE THE EMERGENCY FUNCTION COMBINED WITH THE EPS SYSTEM, THE GATE MUST BE EQUIPPED WITH A BACKUP POWER SUPPLY

THE BACKUP POWER SUPPLY FUNCTION MUST BE REGULARLY CHECKED IN ACCORDANCE WITH LOCAL FIRE AND ALARM REGULATIONS.

FOR THE PEGAS SF / SF-S / J / HG GATES, IT IS POSSIBLE TO USE A SUPERCAPACITOR, WHICH IS INSTALLED DIRECTLY INTO THE GATE, INSTEAD OF A BACKUP POWER SUPPLY.

Description of operation of a DOUBLE gate:

- DOUBLE gate consists of two gates placed opposite each other.
- Both gates are controlled synchronously by one MLU5 electronics.
- When opening and closing, the wings of both gates move completely synchronously.
- In case of a wing hitting an obstacle, the wing of the second gate will stop in the same position.

DOUBLE gate wings cannot be opened separately, but only simultaneously.

Description of operation of a TWIN gate:

- TWIN gate consists of two gates placed opposite each other.
- Each gate is controlled independently by its own MLU5 electronics.
- The gates can be controlled simultaneously or independently.
- The movement of the wings is not synchronized when controlled simultaneously. The movement of certain wing is delayed due to different mechanical properties when opening and closing.
- When hitting an obstacle, the gates behave completely independently.

Description of operation of a gate with radar:

- The radar is used to automatically open the gate in front of an incoming person in case of authorized passage or when free exit is allowed.
- It can be installed on SINGLE gates as well as on TWIN and DOUBLE gates.
- If a person enters the area scanned by the radar, the gate will automatically open. The gate then automatically closes after a time of **6s** which is adjustable, has elapsed.
- The area scanned by the radar can be adjusted by adjusting the radar antenna. The adjustment can only be done by a person qualified according to the introduction of the following chapter.

THE RADAR IS NOT MEANT AS A SAFETY FUNCTION FOR PREVENTING THE GATE WING FROM HITTING A PERSON.

TECHNICALLY, THE RADAR CAN ONLY DETECT MOVING PERSONS. (standing person is not detected and cannot be protected from being hit by the wing).

Loss of supply power:

- In the event of a power supply failure, the gate wing is released and can be moved freely.

Operation of the gate on the backup power supply accumulator:

- After a mains power supply failure, the supply voltage drops because the device is running on accumulator.
- In this case, the speed of gate wing movement is reduced.
- All the other functions of the gate are preserved.

11. DESCRIPTION OF ADJUSTABLE GATE FUNCTIONS

It is possible to adjust the behavior of the gate to the customer's requirements during the installation by setting different configuration using a computer. These settings can be made only by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

11.1. DYNAMIC FUNCTIONS

11.1.1. Type of motor unit

Parameter name in the TCONF configuration application:
Type of motor unit

- For PEGAS type gates, the parameter must always be set to **Dunker GR 63x25**

11.1.2. Speed of gate wings opening and closing

Parameter name in the TCONF configuration application:
Opening speed

- Common parameter for setting the opening and closing speed of the wings
- Adjustable range for PEGAS gates type SF/SF-S/J **1-9**
- Adjustable range for PEGAS gates type GL/GL-M/GLE/GLE-M/HG **1-5**
- At the speed setting of 1, the gate opens in approx. **2s**
- At the speed setting of 9, the gate opens in approx. **0.75s**
- Gate opening times at other speed settings are between these two times

Standard factory setting	PEGAS GL/GL-M/GLE/GLE-M	Opening speed – **5**
	PEGAS SF/SF-S/J	Opening speed – **3**
	PEGAS HG	Opening speed – **1**

- The listed factory setting speeds may vary depending on the size and weight of the wing.

In case of a higher speed setting than the factory preset by the manufacturer, there is a risk of injury when the gate wing hits a person.

Setting a higher speed may damage the drive gearbox.

When setting higher speeds, the lifespan of the electric motor decreases.

The speed setting also affects the current consumption, which at higher speeds can exceed the power supply rating and cause the gate to become inoperative after the protection is triggered.

For the above reasons, the factory setting of the gate opening speed can only be increased after consultation with the manufacturer.

11.1.3. Activation of the brake in the home position

Name of parameters in the TCONF configuration application:
Brakes activation in the basic position
Motor brake activation in basic position

- To **activate** the brake in the home position, both parameters must be set to **ON**.
- When the brakes are activated in the home position, the gate wing cannot be moved.
- To **deactivate** the brake in the home position, both parameters must be set to **OFF**.
- When the brake is deactivated in the home position, the gate wing is braked by the motor countercurrent and can be moved after overcoming the adjustable force according to chapter *Braking intensity setting*.
- When using the Impact emergency function, the brake must be deactivated in the home position.
- Adjustable range of both parameters: **OFF, ON.**

Factory setting: *Brakes activation in the basic position* – **ON**
Factory setting: *Motor brake activation in basic position* – **ON**

When using the Impact emergency function, the brake must be deactivated in the home position.

11.1.4. Braking intensity setting (by motor)

Parameter name in the TCONF configuration application:
Brake intensity in the basic position

- The Braking intensity setting parameter can only be used when the brake is deactivated in the home position.
- The motor braking can be set in four different intensity levels.
- Torque and force at the end of the 850mm long wing for individual levels of braking intensity:

Intensity level	Torque [Nm]	Force at the end of the wing [N]
Low	18	20
Medium	27	30
High	45	50
Maximum	54	60

- During the motor braking, it is possible to manually open the gate wing with the above-mentioned force while the wing is still trying to return to its home position with the same force.
- If the wing is turned by more than **10°**, the ALARM signal - **attempt for unauthorized passage** is activated.
- If the person stops pushing the gate wing, the wing returns to the home position and the ALARM signal is deactivated.

Factory setting – **Maximum intensity**

When using the Impact emergency function, the braking intensity must be set in accordance with local fire and alarm regulations.

11.1.5. The gate wing opening angle

The gate wing opening angle
Parameter name in the TCONF configuration application:
Opening angle - R direction
Opening angle - L direction

- Different wing opening angles can be set independently for both directions.
- For the PEGAS GLE / GLE-M / HG, only an angle smaller than **90°** can be set.
- For PEGAS GL / GL-M / SF / SF-S / J it is possible to set an opening angle larger than **90°**.
- With the TWIN gate it is possible to adjust the opening angle in both directions for each wing independently
- With the DOUBLE gate it is possible to adjust the opening angle in both directions for both wings equally.
- When the EMERGENCY function is activated, the gate wing opens to the angle set in the given direction.
- Adjustable range: **0-270°.**

Factory setting – **90°** (for both directions)

11.1.6. The gate wing hitting an obstacle

Parameter name in the TCONF configuration application:
Action after impact on the barrier

- Two modes after hitting an obstacle can be set:
  Reverse - the gate wing reverses the direction of movement after hitting an obstacle
  Continue - the gate wing pushes the obstacle after the impact

- Both modes are described in detail in chapter DESCRIPTION OF OPERATION IN FACTORY SETTING.

- The **Reverse** mode can be adjusted with the parameter: *Timeout of return to the basic position when setting REVERSE*.
  - The time after which the gate wing attempts to close when opened after hitting an obstacle during closing.

Factory settings vary depending on the type of gate:
PEGAS GL / GL-M / GLE / GLE-M / HG **Reverse**
PEGAS SF / SF-S / J **Continue**

11.1. PASSAGE FUNCTIONS

11.1.1. Timeout to pass through

Parameter name in the TCONF configuration application:
Timeout of automatic closing

- The gate opening time during which a passage can be made.
- The countdown starts when the control signal is received.
- After the time has elapsed, the gate wing closes automatically.
- Adjustable range: **1-1000s**

Factory setting – **10s**

11.1.2. EMERGENCY

Parameter name in the TCONF configuration application:
Emergency

- Enabling or disabling EMERGENCY function.
- **ON** - the EMERGENCY function can be activated by all control systems including power supply failure.
- **OFF** - the EMERGENCY function cannot be activated by any control system.
- Adjustable range: **OFF, ON**

Factory setting – **ON**

11.1.3. Impact emergency

Parameter name in the TCONF configuration application:
Impact emergency

- When using the Impact emergency function, the EMERGENCY function must be activated.
- the brake in the home position must be deactivated according to chapter *Deactivating the brake in the home position*.
- The braking intensity must be set according to chapter *Braking intensity setting (by motor)*.
- After exceeding the set force, wings will open in given direction and remain in open position.
- Reset of the pressure panic function may be performed only by activating and deactivating the EMERGENCY control signal, or by cancelling the EMERGENCY state using Touch panel, Easy Touch or T-MON application.
- Adjustable range: **OFF, ON**

Factory setting – **OFF**

11.1.4. Direction of gate wing opening in EMERGENCY mode

Parameter name in the TCONF configuration application:
Opening direction in the EMERGENCY mode

- The gate wing which is used as a fire escape must open in the direction of escape.
- **CCW** – the gate wing opens counterclockwise
- **CW** – the gate wing opens clockwise
- Adjustable range: **CCW, CW**

Factory setting – **CCW** (if not specified when ordering the gate)

11.2. SIGNALING FUNCTIONS

11.2.1. BUZZER Acoustic signaling

Parameter name in the TCONF configuration application:
Type of standard acoustic signalization
Type of warning acoustic signalization

- Turnstile is equipped with two buzzers with different levels of volume.
- This parameter enables separate setting of acoustic signaling during passage and during alarm.
- Setting range and tone types:

Type of signalization	Type of tone	Tone frequency
Off	deactivated	X
1.25Hz	intermittent	1.25Hz
1.75Hz	intermittent	1.75Hz
2.5Hz	intermittent	2.5Hz
5Hz	intermittent	5Hz
Continuous tone	permanent - uninterrupted	X

- Both buzzers are factory equipped with a stick-on foil, which reduces their volume. If it's necessary to increase the volume, you must remove the foil.

Factory setting - Type of standard acoustic signalization – **1.75Hz**
Factory setting - Type of warning acoustic signalization – **Continuous tone**

11.2.2. Edge Light optical signaling

Edge Light is electrically divided into two parts (two semicircles).
The colour and brightness for all operating states of both parts can be adjusted independently.

11.3. FUNCTIONS OF INPUT AND OUTPUT SIGNALS

11.3.1. Setting of control inputs

Parameter name in the TCONF configuration application:
IN L input
IN R input
ON / OFF input
EMERGENCY input

- This parameter sets the level for activation of INL, INR, ON/OFF, EMERGENCY inputs.

Normally open
Input is activated by connecting the GND level.

Normally closed
Input is activated by disconnecting the GND level.

Factory setting – All input signals are in the **Normally open** state

11.3.2. Setting of relay outputs

Parameter name in the TCONF configuration application:
ROT L (relay 1)
ROT R (relay 2)
BUSY (relay 3)
ALARM (relay 4)

- This parameter sets the NO (normally open) or NC (normally closed) output type.

Off
Output is inactive

Normally open
When the output is activated, the relay contact is switched

Normally closed
When the output is activated, the relay contact is opened

Factory setting – All output signals are in the **Normally open** state

12. MAINTENANCE

12.1. GATE MAINTENANCE

In terms of comfort of the gate, it is necessary to maintain general cleanliness of the whole device with cleaning agents intended for this purpose.

- It is necessary to treat the glass parts of the gate with general window cleaning products.
- Stainless surfaces should be treated with cleaning agents intended for this purpose. These products are recommended by the manufacturer:
    - RAPELLE - GLASS & STAINLESS-STEEL SEAL & PROTECT
    - KIM-TEC – EDELSTAHLREINIGERSPRAY (850001)
    - WÜRTH – EDELSTAHLPFLEGESPRAY (0893121)
    - WÜRTH – EDELSTAHLREINIGUNGSTUCH (089312130)

In case the gate is installed outdoors or in a very wet conditions, it is necessary to clean the gate every day. In order to maintain the product warranty, it is necessary to carry out a prophylactic inspection of the device at least once a year by a COMINFO service department employee or workers, who possess the certificate of installation schooling from the COMINFO Company. The manufacturer grants a 24-month warranty.

No solvents, lyes and caustics must be used to clean any dirt. The gate must not come into contact with detergents containing chlorine.

The gate cannot be cleaned with pressure cleaners (pressure water)

12.2. MAINTENANCE OF THE MOTOR DRIVE UNIT

The technical solution of the motor drive unit requires no special care during operation due to its method of lubrication.

Manufacturer recommends to perform initialization (see *Putting the gate into operation*) after running-in of the drive unit or in case the gate does not operate correctly.

This can only be done by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

12.3. PROPHYLACTIC CHECK

It is necessary to perform a prophylactic check of the gate once a year to maintain the warranty, it consists of following procedures:

- Complete diagnostics of all electronic systems
- Inspection of the wiring and connection of all devices
- Inspection and tightening of all bolted connections
- Inspection and adjustment of drive mechanisms and checking the alignment
- Cleaning the interior of the gate
- Testing all the gate functions

Prophylactic check can only be done by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

13. TROUBLESHOOTING

For quick removal of the gate malfunction, it is necessary to fill out the *Claim Report Form* **when contacting the Service Department of the COMINFO Company. The report should indicate serial number of the gate in compliance with the production label, and a description of the malfunction. Along with the completed form, send a video which clearly shows the occurring malfunction. The** *CLAIM REPORT FORM* **can be found at the end of these Instructions.**

The following table shows the malfunction analysis of the gate with factory set **90°** opening angle on both sides.

MALFUNCTION	POSSIBLE CAUSE	REMEDY	Difficulty level
Gate does not respond to control signals. The gate wing can be freely moved.	Gate without supply voltage.	Check the supply voltage input (power supply circuit breaker, backup power supply signalization if used)	**Customer**
Gate does not respond to control signals. The gate wing is locked and cannot be moved.	The gate control electronics error.	Reset the gate by turning the power supply off and on	**Customer**
	Malfunction of the superior identification system.	Contact the supplier of the superior system.	Supplier of the superior system
PEGAS GL / GL-M / SF/SF-S / J The gate can be controlled by control signals. The gate wing stops outside the home position but opens in both directions to an angle of 90°.	The gate column is slightly out of position due to insufficient anchoring.	Adjust the home position of the gate. Tighten or replace the anchors.	COMINFO Service Department
PEGAS GLE / GLE-M / HG The gate can be controlled by control signals. The gate wing stops outside the home position and hits the end stopper in the direction of deflection from the home position.	Loss of magnetic encoder step after a strong impact on the wing during movement.	Reset the gate by turning the power supply off and on	**Customer**
PEGAS GLE / GLE-M / HG The gate can be controlled by control signals. The gate wing stops outside the home position but opens in both directions to an angle of 90°.	The gate column is slightly out of position due to insufficient anchoring.	Adjust the home position of the gate. Tighten or replace the anchors.	COMINFO Service Department
The gate can be controlled by control signals. The gate wing does not reach the home or open position and remains stopped in the in-between position.	The rotating casing of the gate grinds the floor or the floor covering.	Adjust the gate anchoring by underlaying it.	COMINFO Service Department
	Stuck bearing.	Replace the bearing.	
	Gearbox malfunction.	Replace the entire drive unit.	
	Mechanical brake malfunction.		
The gate can be controlled by control signals. The gate wing can be deflected from the home position, to which it will return only after opening by a control signal.	Electrical brake or control electronics malfunction.	Replace the entire drive unit or electronics.	COMINFO Service Department
The gate does not respond to control signals. The gate wing does not stop in the home position but in the open position after switching the power supply voltage off and on.	The home position sensor malfunction.	Clean the sensor optics or replace the sensor.	COMINFO Service Department
Turnstile does not respond to control signals. After turning the power supply off and on, the gate wing will not reach the home position. The gate wing can be moved freely and when manually turned, it locks in the home position.	Motor or control electronics malfunction.	Replace the entire drive unit or electronics.	COMINFO Service Department
The gate may respond to control signals but behaves illogically. The wing hits the end stoppers or an obstacle, does not return to the home position and remains open. It does not open at the desired angle or moves alternately left and right.	Magnetic encoder malfunction.	Replace the encoder.	COMINFO Service Department

In case of a persisting malfunction, it is necessary to fill out the *CLAIM REPORT FORM* and send it to the address of the manufacturer. For quick removal of the gate malfunction, please describe it thoroughly as per the following example.

EXAMPLE - CLAIM REPORT FORM

Product label information:

Name – type:	*PEGAS-GLE-168*
Serial number:	*0 9 0 0 1 2 3 4 5 6*

Information on the control electronics (MLU 5):

Serial number:	*5 4 3 0 0 0 4 6 7*

Your request:

Wing of the gate is opening and closing during passage, but it is possible to freely move it.
We checked the power supply voltage.
After turning off and on the supply voltage initialization of the gate takes place, but the malfunction persists.
We are guessing an electrical malfunction of the brake as per the previous table.
We are attaching a video of initialization a malfunction simulation.

Customer:	*Company Ltd*		
Address:	*11 Business Park, London SW12 9RT, United Kingdom*		
Contact person:	*Jack Smith*	Telephone:	*4420 7777 7777*
E-mail:	*jack@company.com*	Date:	*7. 2. 2022*

CLAIM REPORT FORM

Product label information:

Name – type:

Serial number:

Information on the control electronics (MLU 5):

Serial number:

Your request:

Customer:

Address:

Contact person:

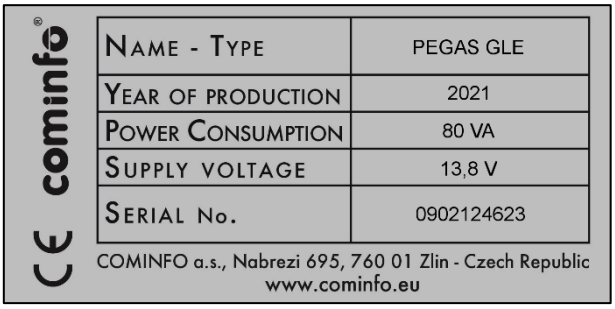
Telephone:

E-mail:

Date:

14. PRODUCT LABEL LOCATION

The product label is always placed in the interior side of the gate. Its placement is shown in the chapter *General description and basic dimensions*. To access the product label, we must remove the outer rotating casing of the gate. This can only be done by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.



Description of the access to the product label for individual PEGAS gates:

If an add-on module is part of the gate, it must be removed before removing the casing.

PEGAS-GLE, PEGAS-GLE-M, PEGAS-HG:

Remove the upper lid by turning it counterclockwise. After removing the 4pcs of M4 bolts at the bottom of the casing, slide the outer rotating casing upwards.

PEGAS-GL, PEGAS-GL-M:

Remove the upper lid by turning it counterclockwise. After removing the 2pcs of M4 bolts at the bottom of the casing, slide the outer rotating casing upwards.

PEGAS-SF-S, PEGAS-SF, PEGAS-J:

Remove the upper lid by turning it counterclockwise. After removing 3 pcs of M8 bolts in the top casing flange, slide the outer rotating casing with the wing upwards.

15. DEVICE DIPOSAL

Entrust the device disposal to an expert company in compliance with the legislation effective at the time of the device disposal. Materials that are subject to regulations on handling hazardous materials were also used in the course of construction of the device.

Brief list of used materials:

- Steel of the class 11,12,14,17
- light alloys
- safety toughened glass
- tin bronze, copper, silver, zinc, lead
- plastics PA, PE, PVC
- surface finish by galvanization in alkaline bath, blackening, powder spraying with DRYLAC paints
- lubricating greases
- electric devices (motor drive unit and control electronics)

Electric devices (hereinafter referred to as "ED") also contain precious metals in low amounts. Production labels of EDs stated in this Instruction Manual contain, in accordance with the Act No. 185/2001 Coll. as amended, name of the producer and date of the ED launching. The producer (COMINFO a.s.) is registered in the list of manufacturers of electric devices kept by the Ministry of Environment via the Retela collective scheme where the user of any electric device may turn to dispose this electric device.

The turnstile is RoHS compliant. RoHS stands for Restriction of Hazardous Substances and affects the entire electronics industry as well as many electronic products.

16. PROHIBITED MANIPULATIONS

1. It is prohibited to anyhow interfere in the control electronics and self-perform a disassembly of the motor drive unit. These activities have to be entrusted exclusively to the technicians of the provider. All service reparations are performed within the warranty and post-warranty service exclusively by service technicians of the COMINFO a.s. company or workers, who possess the certificate of installation schooling from the COMINFO Company. In case of a breach of this condition in the course of the warranty period, the device operator loses the right for warranty service.

2. It is prohibited to use violence when manipulating the gate wing in its blocked position in an effort to enter the area with defined access rights.

3. It is prohibited to hang on the gate wings.

4. Device cannot be cleaned or treated with acids, lyes and other dangerous chemicals.

17. CERTIFICATIONS

The COMINFO a.s. company acquired a type certificate for the PEGAS motor driven gates from the TÜV SÜD Czech s.r.o. certifying authority.

COMINFO a.s. holds a management system certificate according to the ISO 9001:2000 certification.

It is possible to send CE–Declaration of Conformity on request.

The Declaration can be found also on the following link:
http://www.cominfo-trade.com/cz/produkty/certifikaty-a-pos/

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