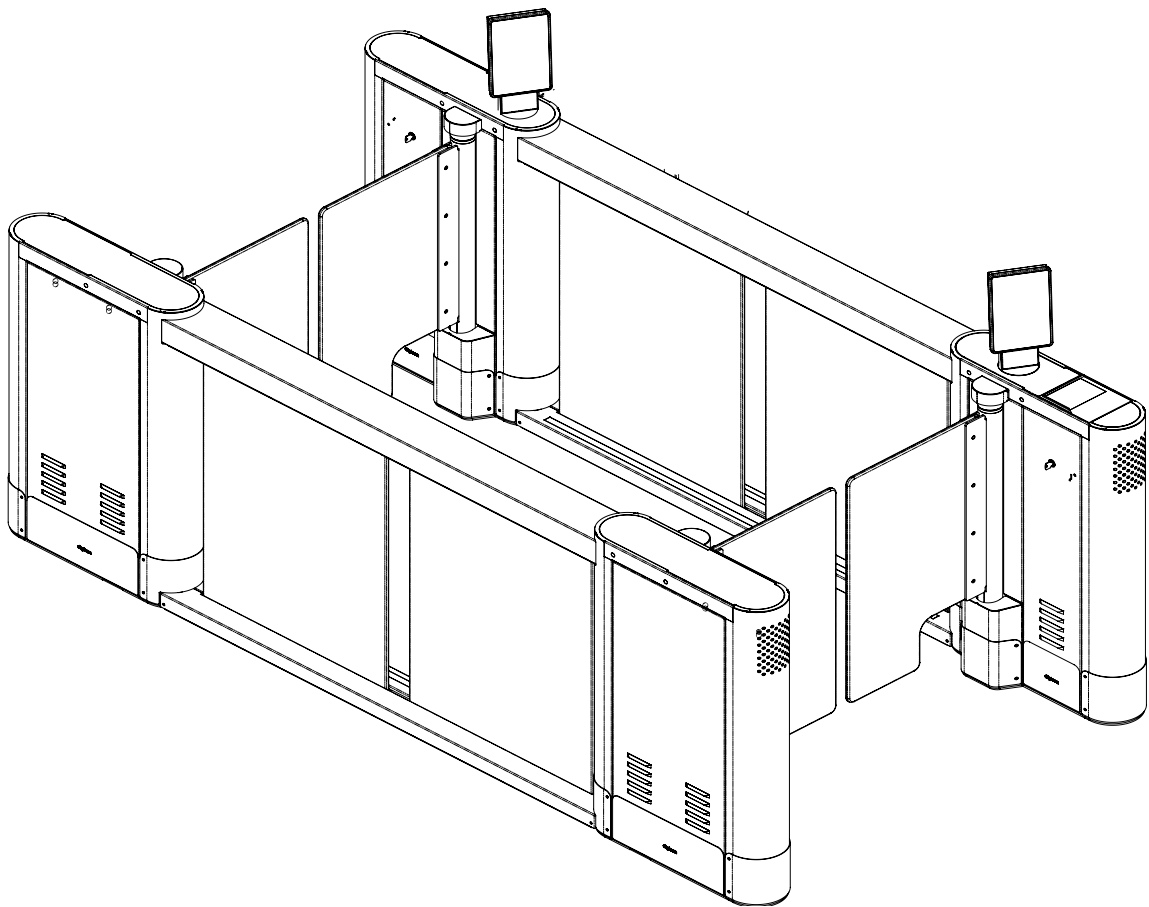




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Documentation Sector - EDS

Review	Date	Reviewer	History
01	05/07/2024	• Carlos Alberto • Alexandre Martins • Nicholas Reis	User manual

Note: If you wish to obtain the history of all versions of this manual, please contact your representative or Digicon directly.

 **ATTENTION!:** Digicon reserves the right to modify the characteristics of its products at any time to adapt them to the latest technological developments.

 **ATTENTION!:** Digicon reserves the right to change the information contained in this manual without prior notice.

 **ATTENTION!:** *After the product's useful life, dispose of it according to the National Waste Policy.*

- Disposal should not be in regular waste as it can cause harm to the environment and human health.
- You can send it to one of our addresses in Gravataí/RS or Barueri/SP, or dispose of it at a local selective collection site in your area.

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1. Presentation

The dPass is an access control device developed to meet the needs of airport areas and locations requiring stringent security levels, interacting with users to verify their documents.



2. Security Instructions

2.1 Symbols

You will find the symbols below in the Product Manual. They indicate important Caution and Warning notices regarding safety, installation, operation, and maintenance of the equipment(s).

 **ATTENTION!:** Describes something important that should be known by the **qualified technical professional** and the user

 **CAUTION - RISK OF INJURY/HARM!:** Describes situations of risk that can lead to injury and/or harm.

 **CAUTION - RISK OF DEATH!:** Describes high-risk situations that can lead to death. These cases are related to interaction with the internal parts of the equipment, and it is advisable to use a **qualified technical professional**.

Read and keep the instructions in this manual: Read and keep this Product Manual for future reference. Carefully read all safety, unpacking, installation, operation, and maintenance instructions before operating this equipment.

Follow the instructions and heed the caution and warning notices: Follow all installation, operation, and maintenance instructions. Pay attention to all caution, care, and precautionary warnings in the operating instructions, as well as those affixed to this equipment. Caution and care warnings are essential for the protection of the user and qualified technical professional, as well as for the longevity of equipment use.

2.2 Terminology

The terms defined below are used in this document. The definitions provided are based on those found in safety standards:

Qualified Technical Professional: The term **Qualified Technical Professional** applies to individuals trained and certified by Digicon who are authorized to install, replace, or provide technical support for their equipment. It is recommended that the qualified technical professional use their experience, technical skills, and best practices to prevent potential injuries to themselves and others in restricted access areas. This approach should be taken to mitigate risks and also to extend the equipment's lifespan.

 **ATTENTION!:** Installation and/or maintenance provided by a non-qualified technician may void the equipment's warranty terms.

User: The term "user" applies to individuals who are not qualified technical professionals and use the equipment.

2.3 Risks

The safety information and warnings provided below are intended to protect you from injury and prevent damage to the equipment.

Children and individuals needing assistance may be unable to assess the risks associated with using the equipment, which could result in injury or life-threatening situations. Special attention should also be given to animals near the equipment.

Below we will mention risks that should be noted in various situations;

2.3.1 Risk of unpacking the equipment:



ATTENTION!:

- Always use the appropriate tools.
- Always use the necessary PPE (Personal Protective Equipment) such as gloves, safety shoes, and goggles for protection.



CAUTION - RISK OF INJURY/HARM!

- Caution when handling equipment packaging, as it is made of wood and may splinter.
- The packaging is heavy; take care to prevent it from tipping over, as it could cause injuries and damage to the equipment.
- The packaging construction involves thin steel blades that can cause cuts and injuries.
- Be careful when removing the lid of the packaging, as it may fall and cause injuries or damage to the equipment.
- To remove the screws securing the equipment to the base of the packaging, the glass side doors must be removed. Handle them carefully and place them in a secure location.
- Be cautious with your hands and feet when removing the equipment from the base of the packaging and positioning it in the installation area.

2.3.2 Risks during equipment installation:



ATTENTION!:

- All installation steps must be performed by a qualified technical professional using appropriate tools and PPE (Personal Protective Equipment). Before connecting the electrical power, conduct a detailed inspection of the installation. Always perform handling/installation tasks with two people. Overweight items may cause damage or injury.

 CAUTION - RISK OF INJURY/HARM!:

- Be careful when positioning this equipment at the installation site, as its size and weight can cause injuries.
- During the initial operation phase, the doors may move. Keep the passage area clear to prevent them from colliding with objects and people.
- Risk of falling during sensor installation.

 CAUTION - RISK OF DEATH!:

- This equipment operates with dangerous electrical voltages. To prevent the risk of electric shock, installation must be carried out exclusively by a qualified technical professional.
- Before proceeding with any procedure, make sure that the electrical power is turned off.

2.3.3 Risks during equipment use:

 CAUTION - RISK OF INJURY/HARM!

- Caution, this is an access control equipment, the doors may close in certain situations. The impact of the doors with the human body can cause bruises and even fractures.

 CAUTION - RISK OF DEATH!:

- Children and individuals needing assistance should be constantly supervised, as they may be unable to assess the risks associated with using the equipment, which could lead to injury or life-threatening situations.

2.3.4 Risks during equipment maintenance



ATTENTION!:

- All maintenance steps must be performed by a qualified technical professional using appropriate tools and PPE (Personal Protective Equipment).



CAUTION - RISK OF INJURY/HARM!:

- Be careful with your hands and fingers during the maintenance process, as the door movement mechanisms can cause serious injuries.



CAUTION - RISK OF DEATH!:

- The equipment has several glass parts. Always wear protective glasses.
- Before carrying out any procedure, make sure that the electrical power is turned off.
- Failure to comply with the above recommendations can result in serious injuries and risk of death.

2.3.5 Risks during equipment cleaning process!:



ATTENTION!:

- Use the necessary PPE (Personal Protective Equipment) such as gloves and protective goggles throughout the cleaning process.



CAUTION - RISK OF INJURY/HARM!

- Be cautious during the cleaning process, as the doors may close in certain situations. The impact of the doors with the human body can cause bruises and even fractures.

3. Characteristics of the dPass

The equipment consists of a system with four doors and a sensor capable of detecting with high precision one or more users moving in any direction within the passage area. Indicative windows composed of LEDs accompany the user during the journey through dPass, with different colors for different user groups. The dPass imaging system is equivalent to a virtually unlimited number of traditional IR sensors, bringing a new level of precision in identifying unauthorized users. Algorithms developed by Digicon enable passage control based on this information. They can identify and track multiple users entering or exiting the passage area, resulting in a new, more precise and reliable level of identification of users, whether they are in front, behind, or even alongside authorized users.

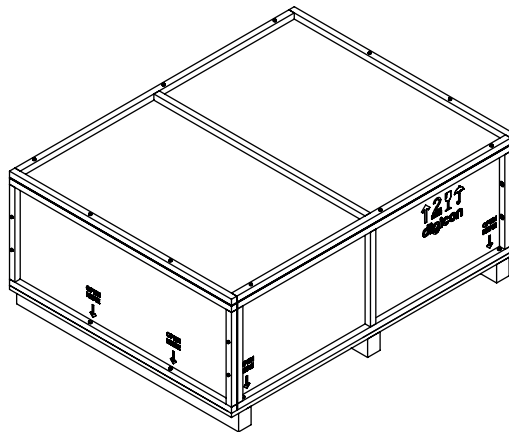
4.Unpacking, Fixing, and Electrical Connection

⚠ ATTENTION! - Allow only qualified technical professionals to install this equipment. Installation must comply with all local standards and regulations.

4.1 Opening the packaging

As the items in the packaging may vary (depending on customer requirements), it is extremely important to conduct a thorough visual inspection before starting the installation and assembly process. All Digicon packages come with a checklist that serves as a guide for this inspection.

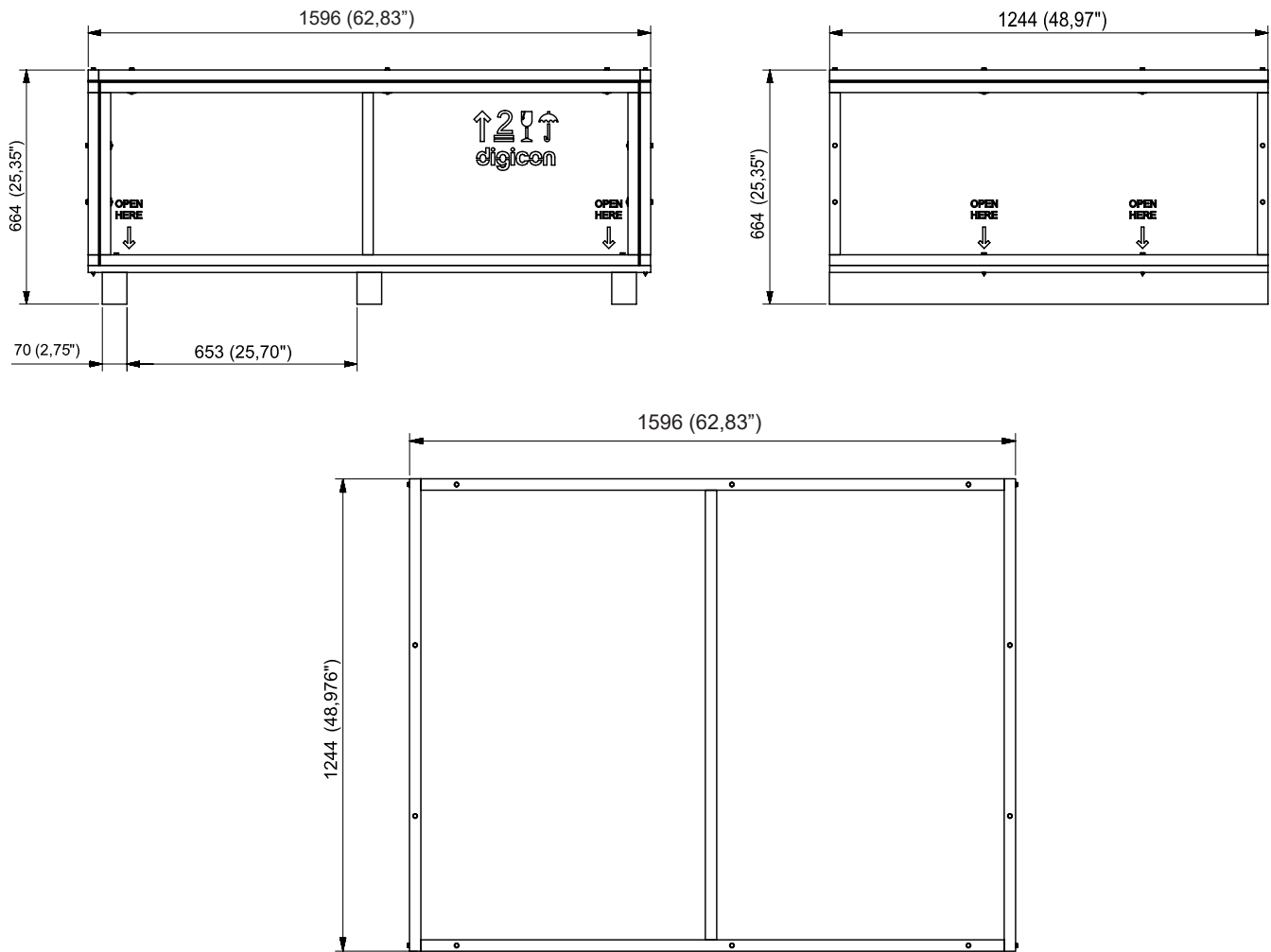
⚠ ATTENTION! - Upon receiving the equipment, check for any damage to the packaging. If damage is found, take photos and send them to the responsible carrier.



⚠ CAUTION - RISK OF INJURY/HARM! The packaging is heavy; to transport it, appropriate handling equipment such as a pallet jack is necessary.

⚠ CAUTION - RISK OF INJURY/HARM! Always use the necessary PPE (Personal Protective Equipment) such as gloves, shoes, and protective goggles.

4.1.1 Packaging Dimensions:



 **ATTENTION!** - The dimensions of the dPass are illustrated in millimeters.

4.1.2 Required Tools:

- Open-end wrench
- Protective gloves (PPE)
- Scissors or utility knife

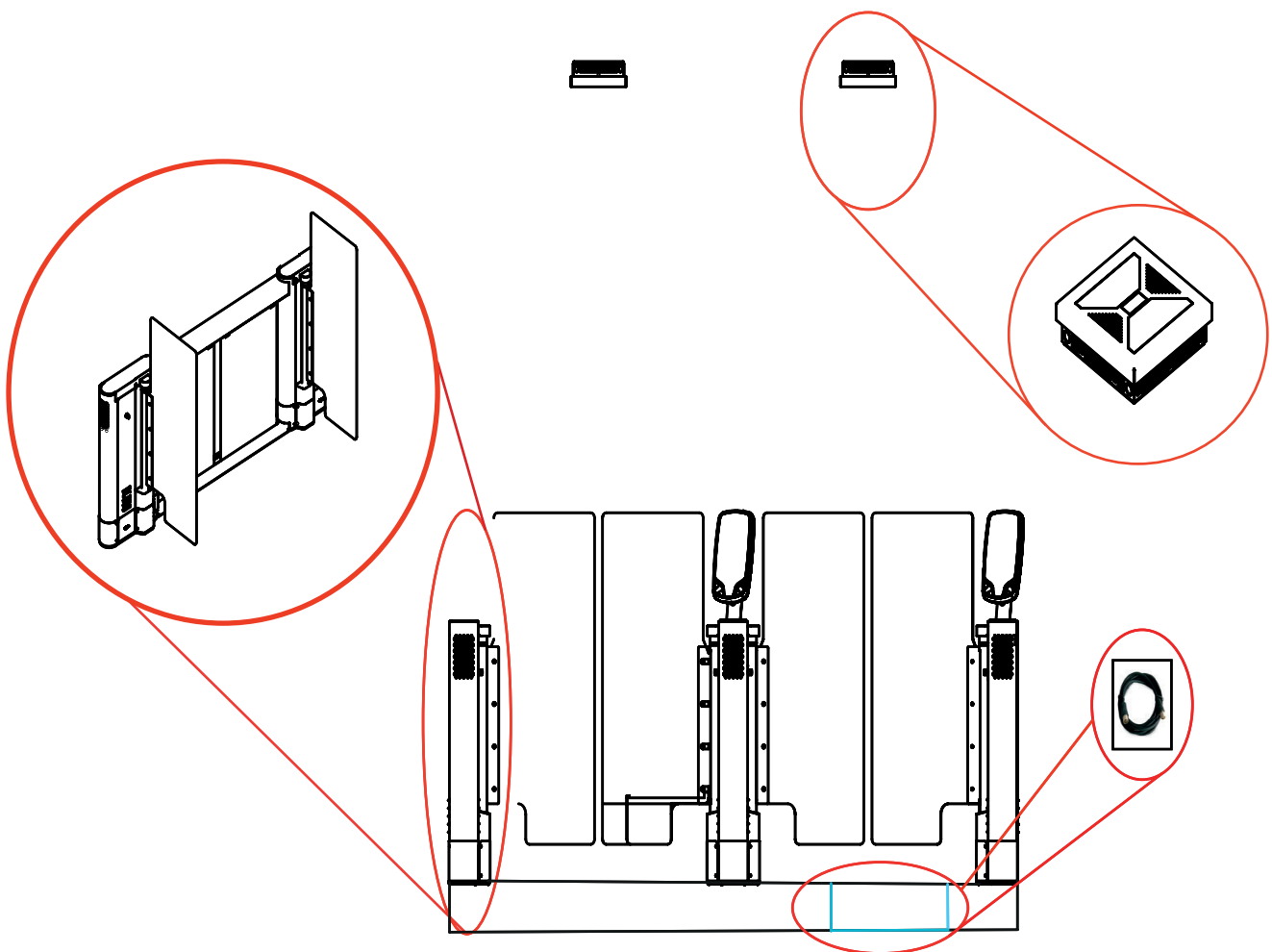
Open-end wrench:	Scissors or utility knife:	Protective gloves (PPE):
		

⚠ CAUTION - RISK OF INJURY/HARM! When handling the necessary cutting tools to open the packaging, they can pierce or cut the person unpacking the equipment.

⚠ ATTENTION! - Evidence of compliance with installation requirements should be sent for the technician's analysis. This can be done through photos and videos to provide clear information.

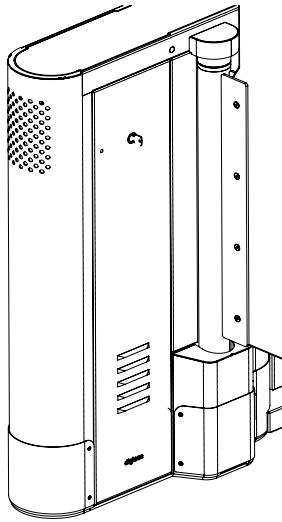
4.2 Packaging Contents

Before starting the installation, it is crucial to perform a checklist of the received items. This helps prevent future delays during installation due to missing materials. If any item is found to be missing, contact the company responsible for the sale.



4.3 Access to the dPass

Each module of the equipment has one covers accessible via key, providing access to the circuit breaker, motors, motor board power supplies, control board, CPU, terminal blocks, and integrator area.

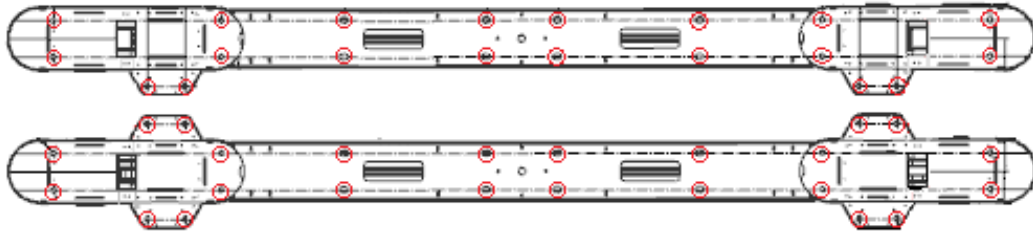


 CAUTION - RISK OF DEATH!:

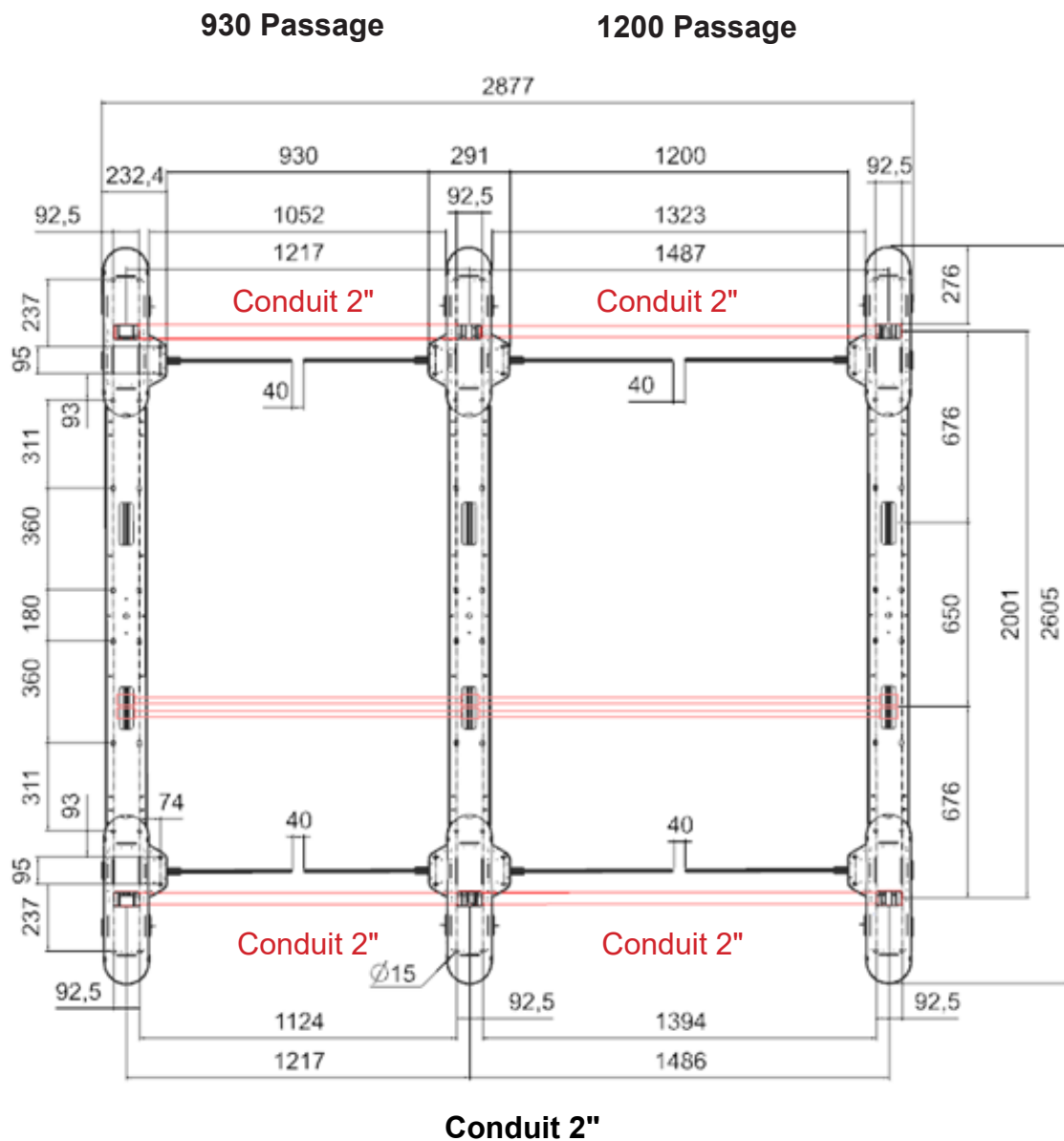
- This equipment operates with dangerous electrical voltages. To avoid the risk of electrical shock, installation must be exclusively performed by a **qualified technical professional**.
- Before carrying out any procedure, make sure that the electrical power is turned off.

4.4 Drilling and Anchoring

To secure the equipment to the floor, we must prepare the necessary holes according to the measurements shown below:

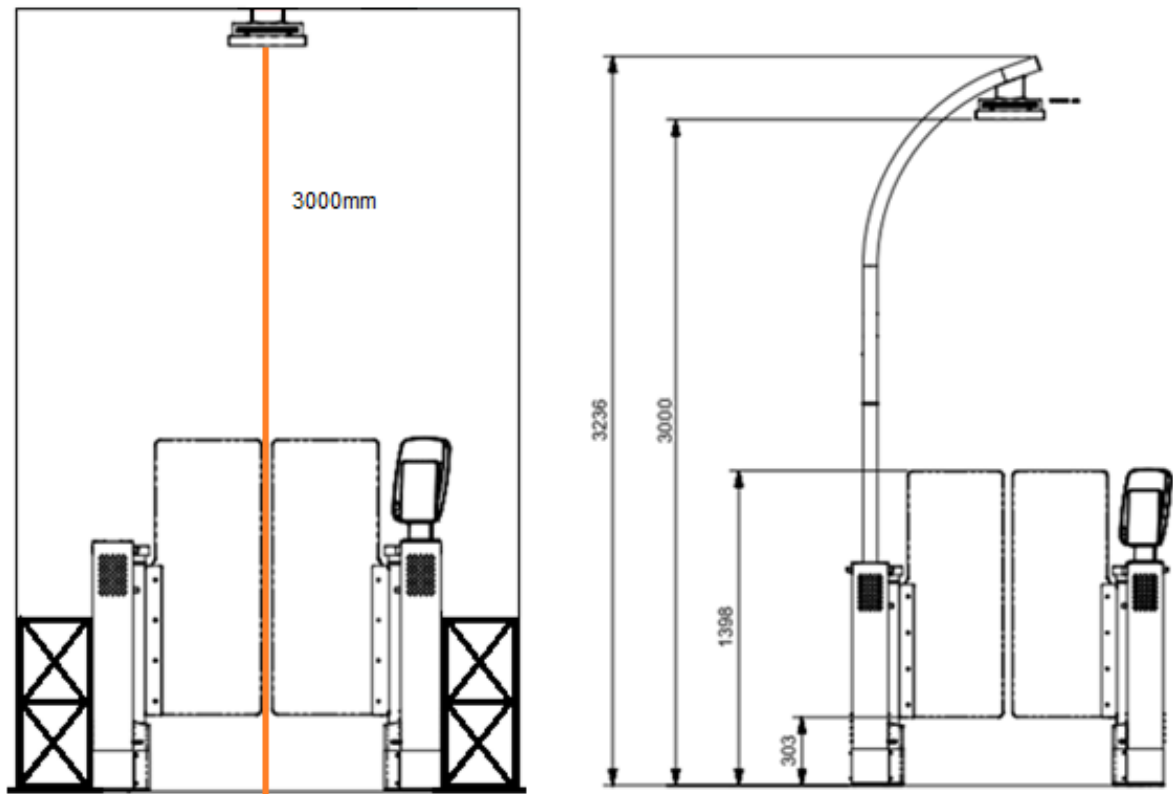


○ Mounting points

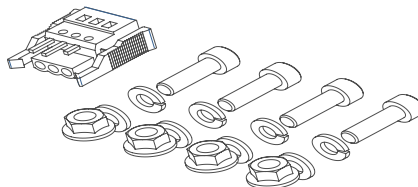


4.5 Fixing and Powering the Sensor

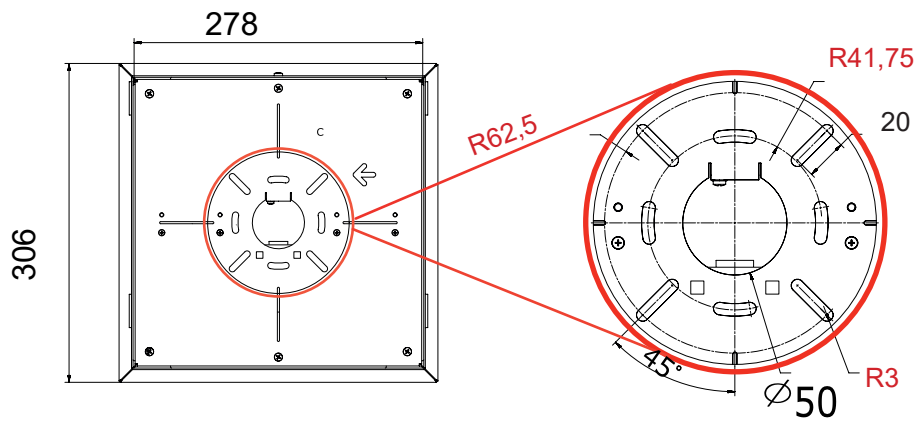
To properly fix the sensor, check if the installation references comply with the specifications below:



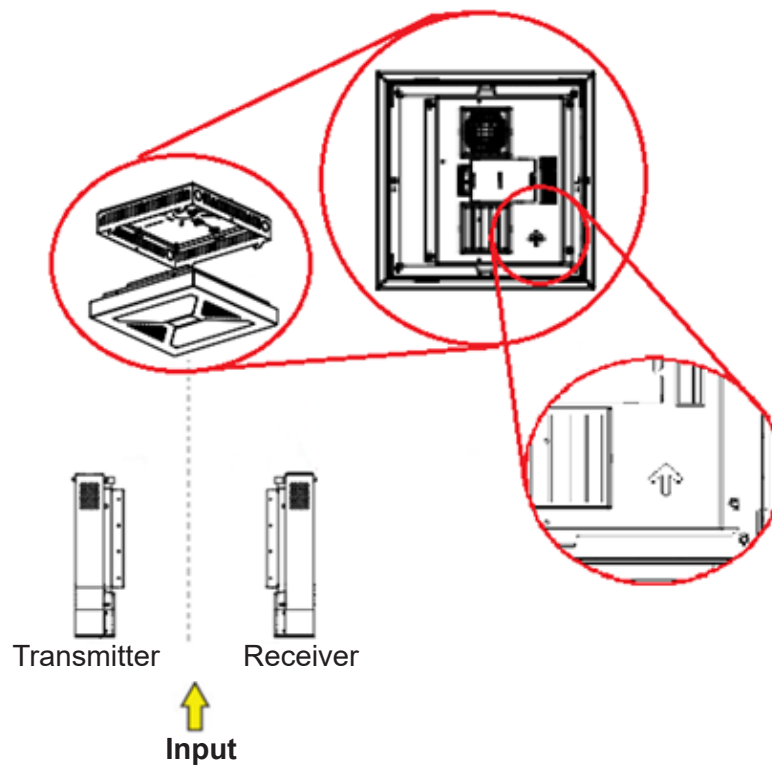
Within the assembly, a kit containing screws and the connector used to power the sensor is provided. Use these items to securely attach the sensor to the infrastructure organized by the client.



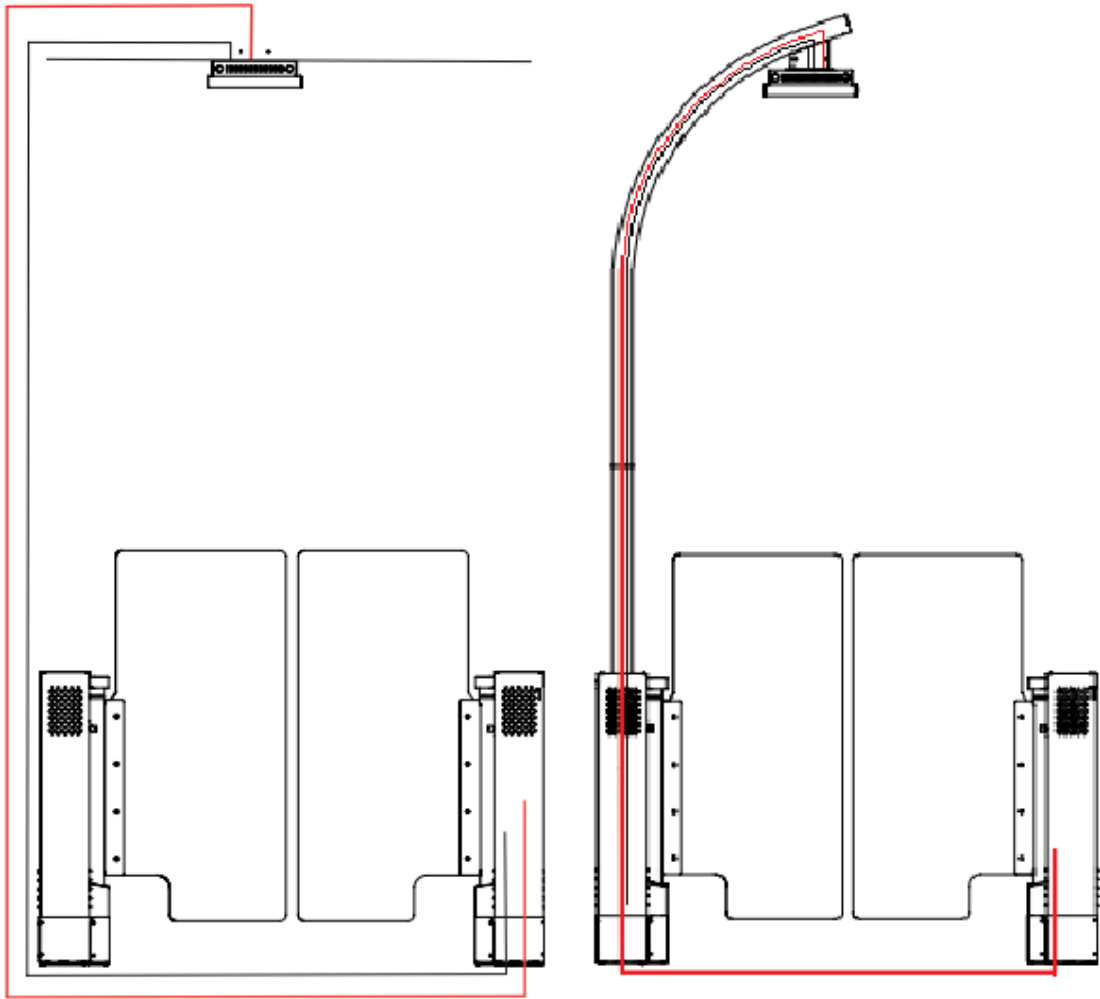
⚠ ATTENTION! If the provided mounting system does not meet the site's requirements, it can be replaced with another as long as it does not interfere mechanically with the sensor.



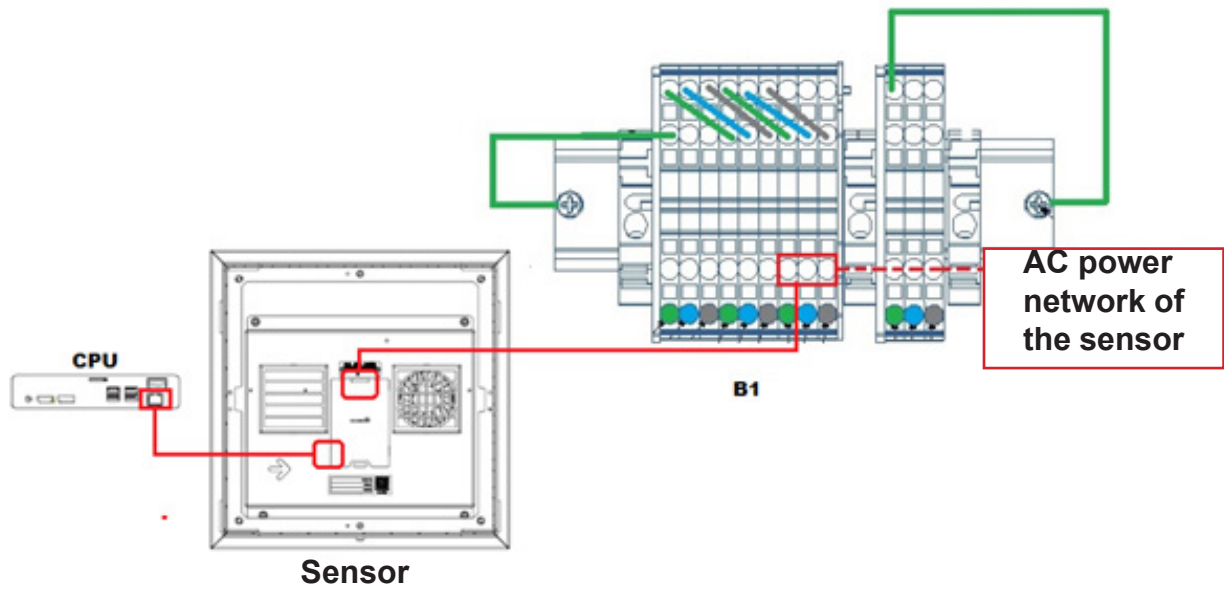
During installation, it is important to respect the correct positioning of the sensor. The arrow indicates the direction of entry for the equipment.



With the sensor properly mounted, connect the cables that interconnect the sensor with the respective associated passage.



- Electrical wiring for sensor
- Ethernet for sensor



4.6 Cable Interconnection

After securing the sensor and modules, interconnect the modules using the cables provided with the product. The interconnection cables connect the input and output modules, while the interlinking cables connect the R and T modules, coded as follows:

Interconnection Cables R:

- 037.13.809-R INTERCONNECTION CABLE INPUT AND OUTPUT – DPASS
- 037.13.835-R INTERCONNECTION PICTOGRAM CABLE – DPASS
- 037.13.836-R SERIAL INTERCONNECTION CABLE – DPASS
- 037.13.837-R SELECTOR SWITCH INTERCONNECTION CABLE – DPASS

Interconnection Cables T:

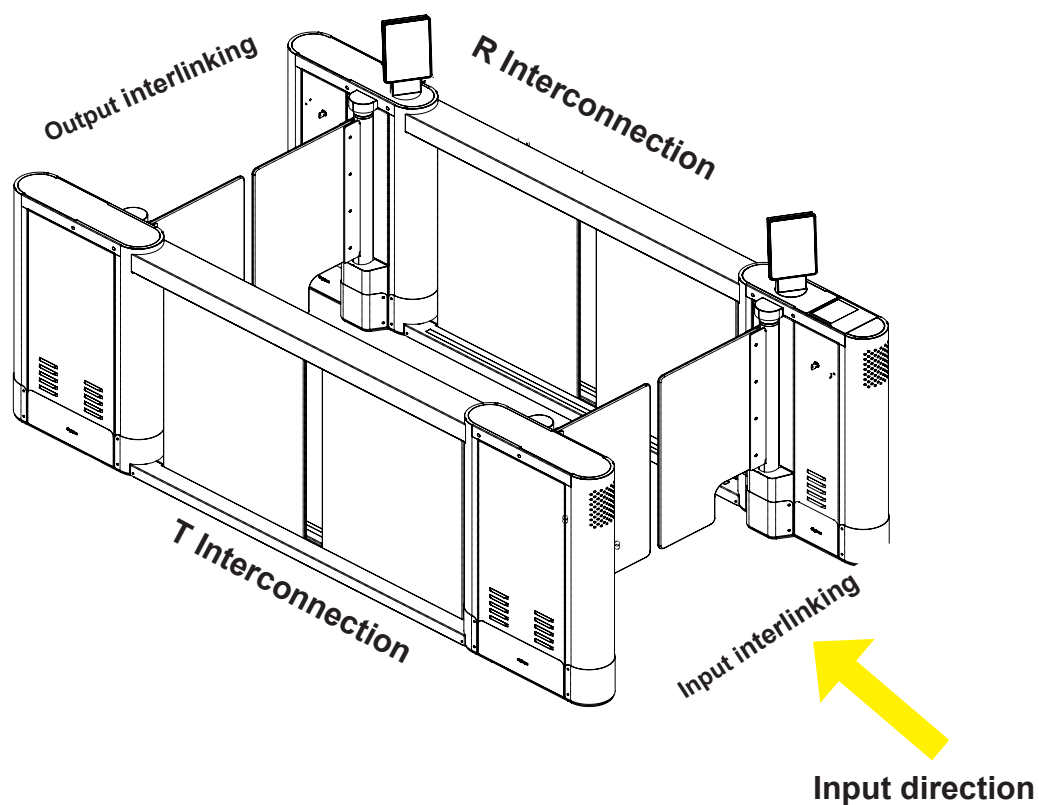
- 037.13.810-T INTERCONNECTION CABLE INPUT AND OUTPUT – DPASS
- 037.13.832-T AC INTERCONNECTION CABLE – DPASS
- 037.13.833-T DC INTERCONNECTION CABLE – DPASS

Input Interlinking Cables:

- 037.13.808-R AND T INTERLINKING CABLE – DPASS
- 037.13.817-DC INTERCONNECTION CABLE – DPASS

Output Interlinking Cables:

- 037.13.808-R AND T INTERLINKING CABLE – DPASS
- 037.13.817-DC INTERLINKING CABLE – DPASS
- 037.13.813-PICTOGRAM IINTERLINKING CABLE – DPASS



Interconnection must be made according to the identification located on the cables.

⚠ ATTENTION! - Digicon provides interconnection cables with a length of 4 meters. The depth of the ducts must be dimensioned so that the cables are sufficient.

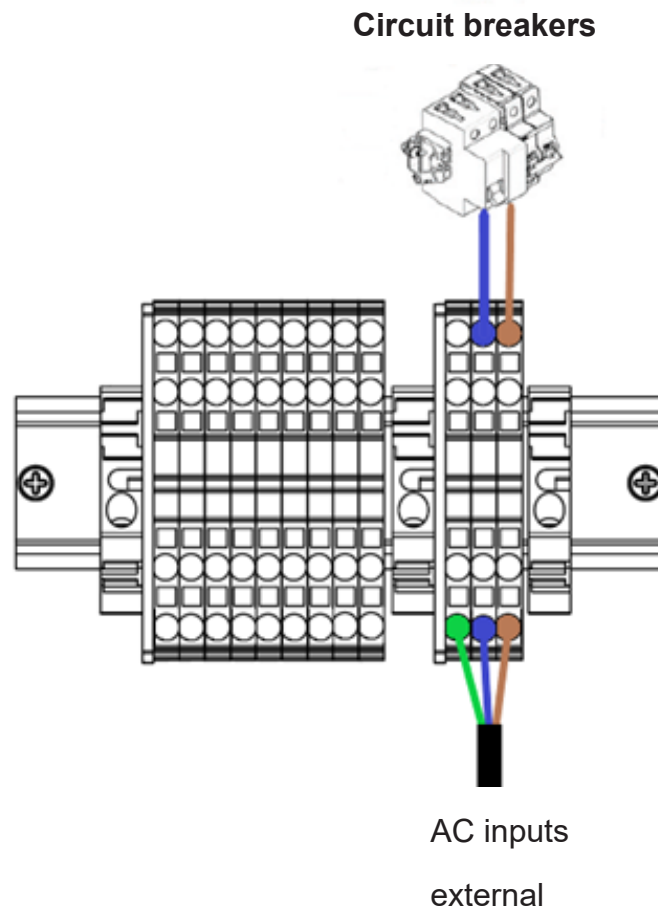
⚠ ATTENTION! - Pay attention to the identifiers of each cable's pathways. Reversed connections can impair the functioning of the equipment.

4.7 Power and External Network Connection

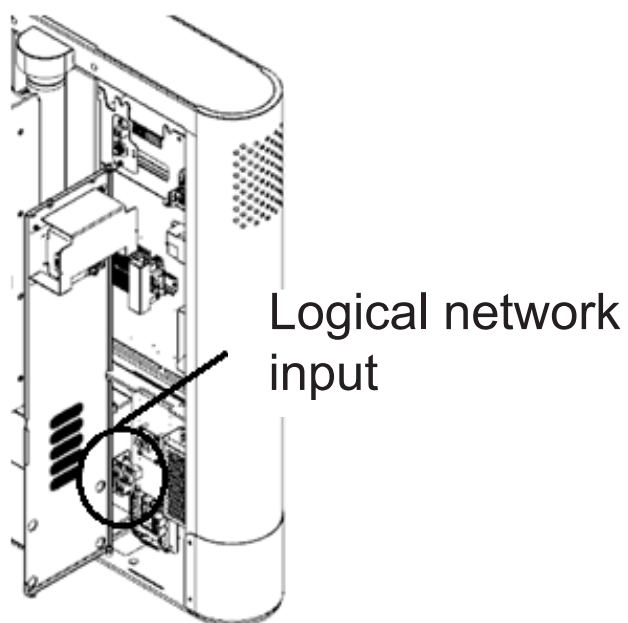
To power the equipment, the external AC power supply should be connected to the specific terminals 1, 3, and 5 of terminal block B1.

⚠ ATTENTION! - Ensure that the cables provided for the connections meet the specifications in the Installation Manual.

⚠ ATTENTION! - The green terminal is reserved exclusively for grounding, so do not insert alternating signals into these connections.



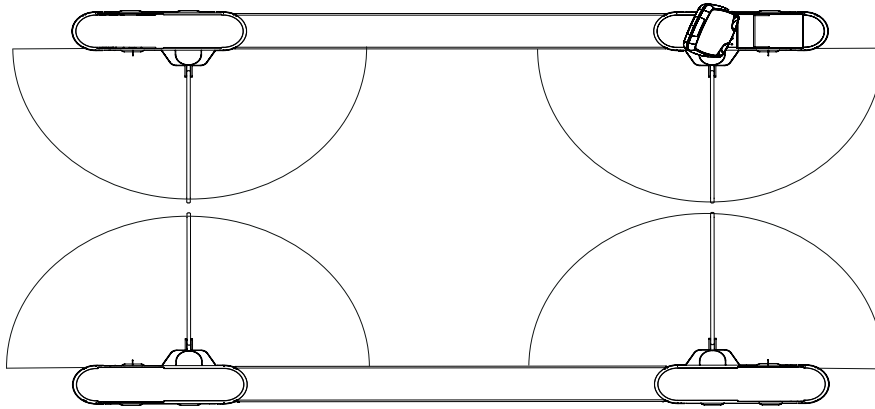
For the logical network, the network cable should be inserted into the port located on the internal panel of the dPass, as shown in the image below:



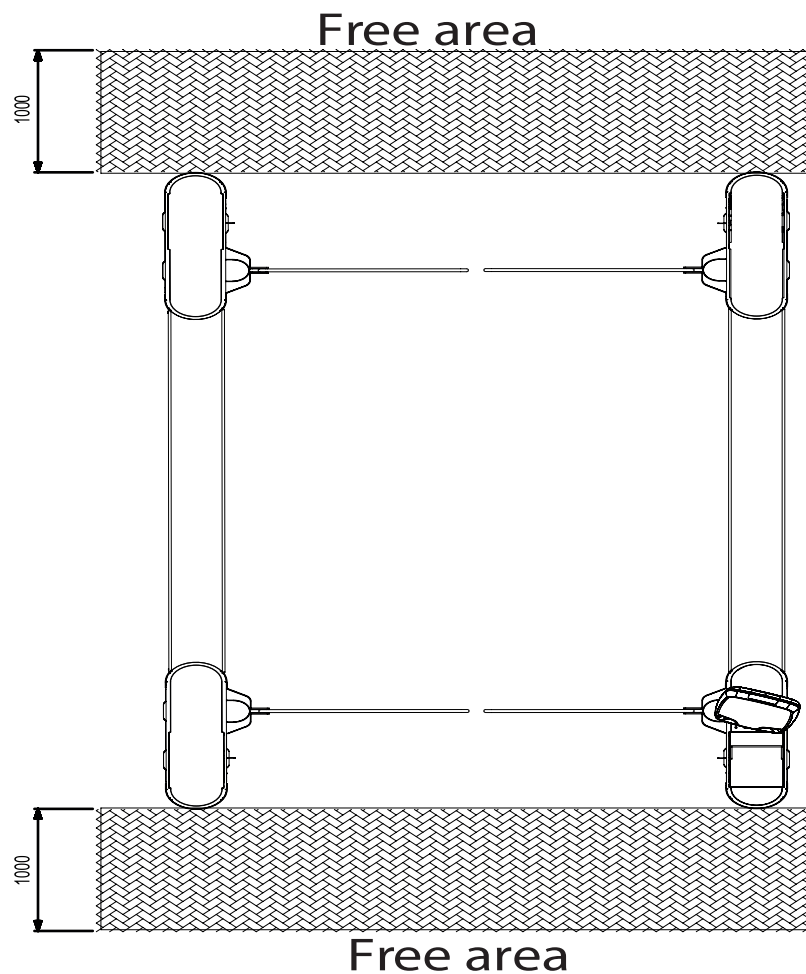
5. To power up the equipment.

5.1 Important Checks

1. Check if the doors are free to move along their path.

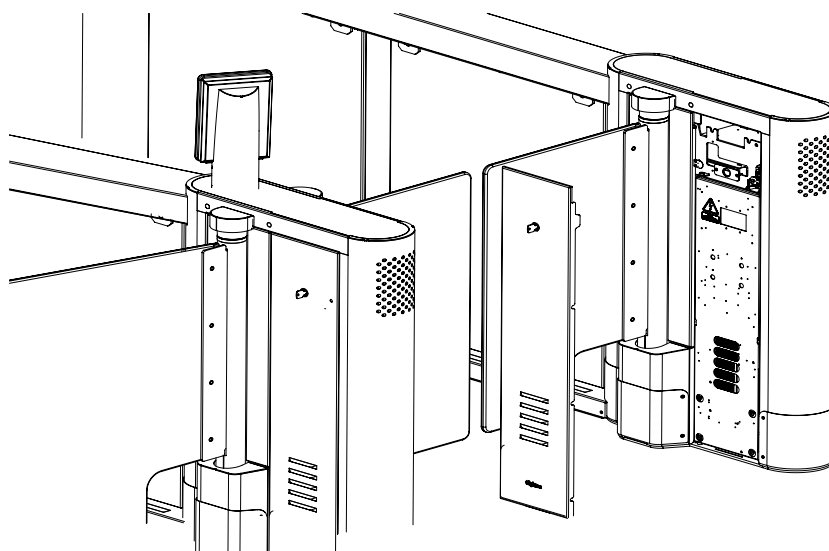


2. With a multimeter set to continuity mode, check if the internal AC power supply of the equipment does not have a short circuit.
3. Ensure that the required free space is being respected.



5.2 Arming the Circuit Breaker

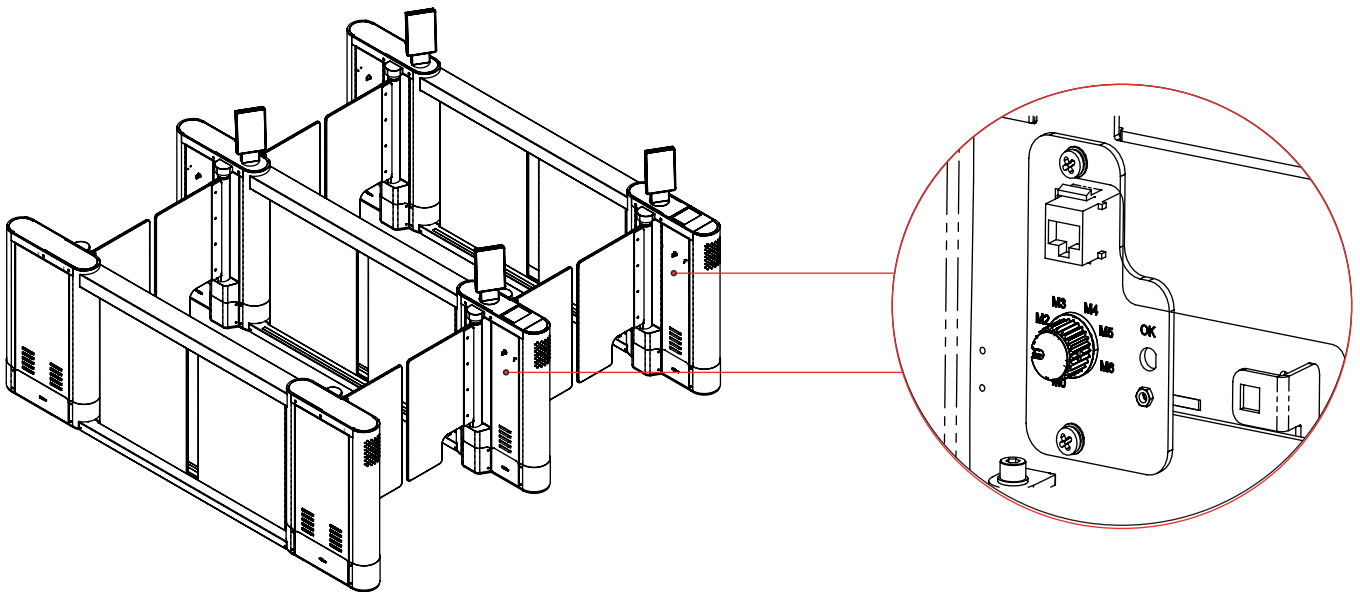
After the check is performed, the equipment can be energized for the first time. Access the side panel that provides access to the circuit breakers and arm them.



After powering on the equipment, wait a few minutes for the application to start running on the device. When the doors open and the front pictogram indicates an open passage (<), the equipment is ready to receive initial configurations.

6. Configuration via selector switch

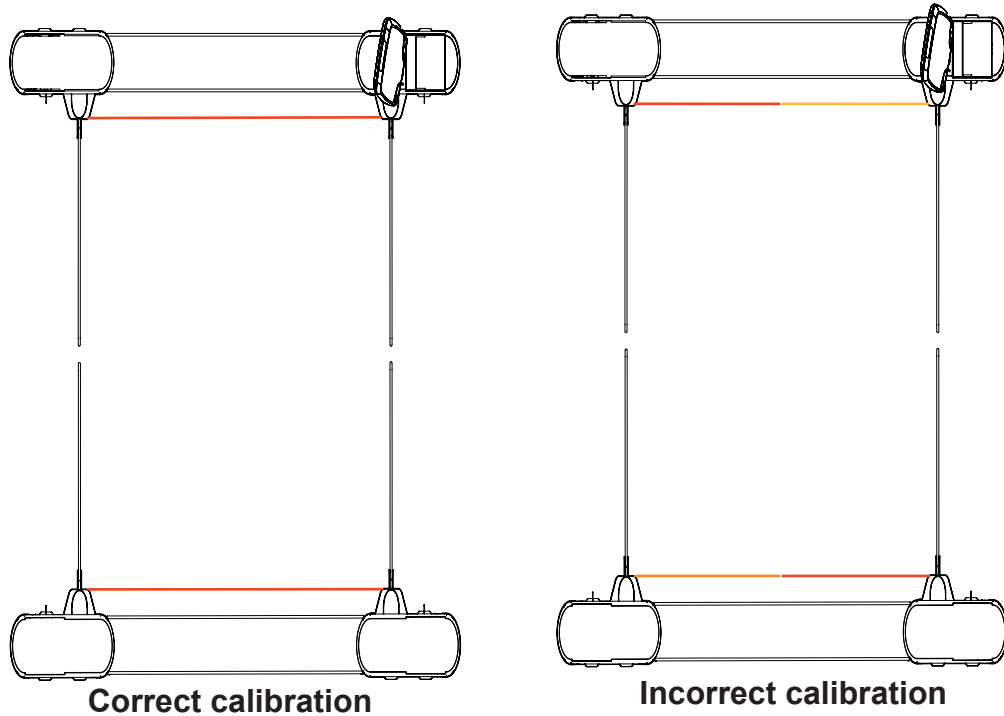
Many of the adjustments and settings of dPass are conveniently and easily accessible. Through the selector switch located at the entrance of modules R and RT, functions such as validation and calibration of the upper sensor, centering of doors, changing operational states of input and output, and altering the color of upper LEDs can be performed. To activate these functionalities, rotate the switch and press the OK button.



- **Position M0 - Normal operation:** By briefly pressing the OK button, the equipment will return to its normal state.
- **Position M1 - Sensor calibration validation.** This function is important to verify the quality of the calibration being used. By briefly pressing the OK button, all LEDs light up in red. Step away from the barrier and ensure that there are no objects in the blocked region as per specifications.

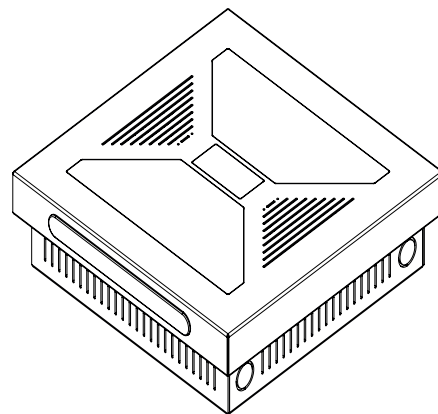
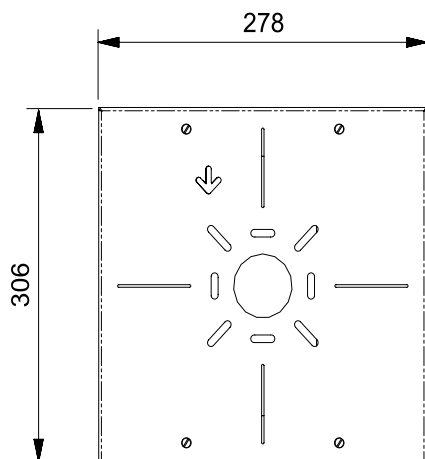
⚠ ATTENTION! This functionality has a time limit for execution. After approximately 1 minute, the equipment will return to its normal state. If you do not want to wait for the time limit, you can exit the function by returning to position M0 and briefly pressing the OK button.

If the color orange is identified on the LEDs, it means that the calibration is not correct. An ideal calibration is indicated by a steady red color, meaning the orange color is not activated during the calibration validation process.



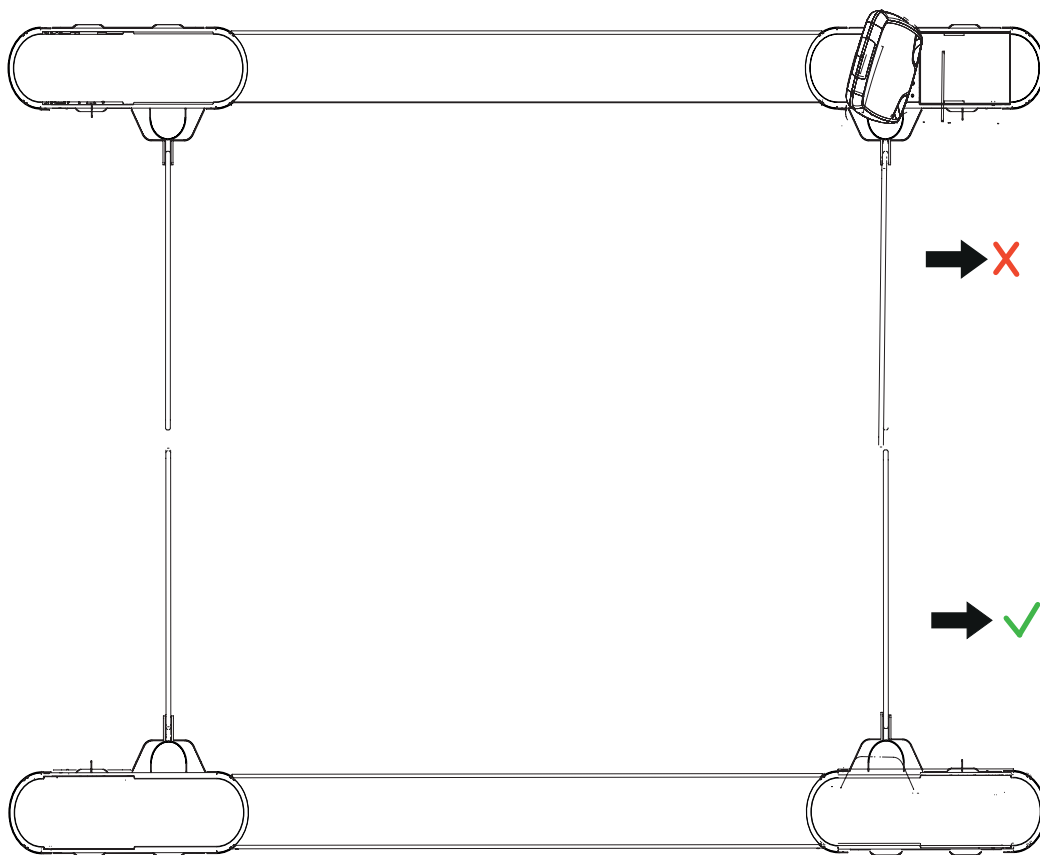
In cases of incorrect calibration, perform the sensor calibration procedure.

- **Position M1 - Sensor calibration**



Sensor calibration is an important feature for the proper functioning of the equipment. This procedure is applied when there are changes in the installation environment and/or when incorrect calibration is identified. By pressing the OK button for three seconds, the equipment will start the calibration process. Remember to step away from the equipment to avoid affecting the process. The progress of this stage can be seen on the LEDs by the red color. After completion, the equipment will return to its normal operation.

- **Position M2 - Door calibration:** The door calibration procedure is applied when it is identified that the doors are not orthogonal to the barrier, meaning they do not form a 90° angle with the module.



This procedure is divided into two stages: verification of the opening extremes and door centering. By briefly pressing the OK button, the equipment will start the process of verifying the extremes. After completing the first stage, adjust the doors to the orthogonal position relative to the module and press the OK button again. The progress of both stages can be seen on the LEDs by the purple color.

After completion, the equipment will return to its normal operation.

- **Position M3 and M4 - Input and output operational state?** The operational states can be configured in three ways, which are:

Controlled = It only accepts passages with the presentation of a valid credential. It is represented by the color chosen in the procedure of position M5 and with a '<' symbol on the corresponding pictogram.

Unrestricted = State that bypasses the use of credentials for access. It is represented by the color green.

Closed = The state that prevents passage in the indicated direction. It is represented by red color on the side LEDs and an 'x' symbol on the corresponding pictogram.

Pressing the OK button in position M3 changes the operational state of the entrance. Similarly, performing the same procedure in position M4 changes the operational state of the exit.

Press the OK button until you reach the desired state.



ATTENTION!!! If the equipment is configured in unidirectional mode, changing states in the exit direction will have no effect.

- **Position M5 - Operation colors:** It is possible to choose the color used to be displayed in controlled mode. The color options are: yellow, blue, orange, turquoise, white, purple, pink, olive, and brown. Press the OK button until you reach the desired color.

- **Position M6** – Protection levels

The equipment's safety levels aim to prevent collisions between door leaves and users. This control is achieved through delimited regions that govern the door activation according to the rules of the selected level. The upper LEDs indicate the selection corresponding to the level.

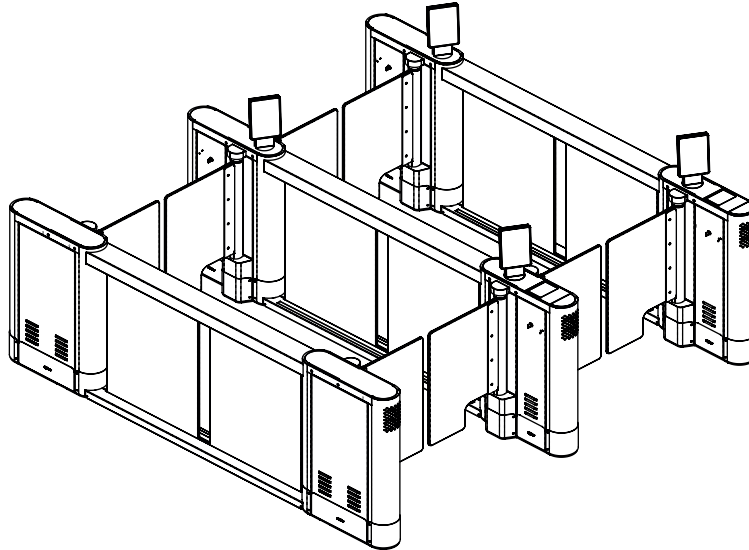
- **Red (Level 0):** No protection
- **Orange (Level 1):** Only valid users
- **Yellow (Level 2):** Any user
- **Green (Level 3):** Any object



Press the OK button until you reach the desired security level.

7. Selector switch for door mode control

The dPass allows for manual opening of equipment doors with a selector switch located at the output of modules R and RT. The doors can be changed according to the following positions:



- **Position D0 - Standard operation**

When the switch is in position D0, dPass maintains standard operation.

- **Position D1 - Opening of entrance doors**

When you switch to position D1, after 3 seconds in this position, the entrance doors will open.

- **Position D2 - Opening of exit doors**

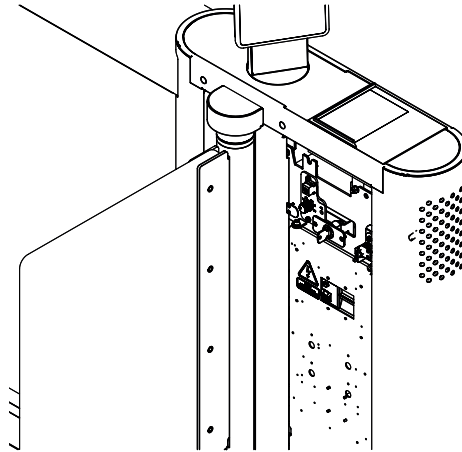
When you switch to position D2, after 3 seconds in this position, the exit doors will open.

- **Position D3 - Opening of entrance and exit doors**

When you switch to position D3, after 3 seconds, all four doors of the equipment will open.

8. Ethernet port

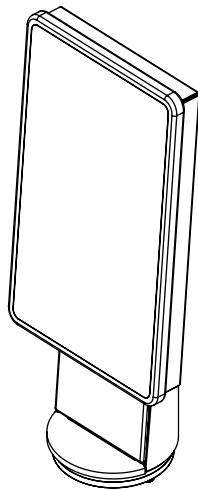
The dPass has an Ethernet point dedicated to equipment maintenance, located at the entrance of the equipment, in modules R and RT.



9. Optional items

In addition to being compatible with most access control technologies, Digicon also offers a range of optional items that enhance and customize the operation of dPass to meet customer needs. The description of each item can be viewed below:

9.1 Display



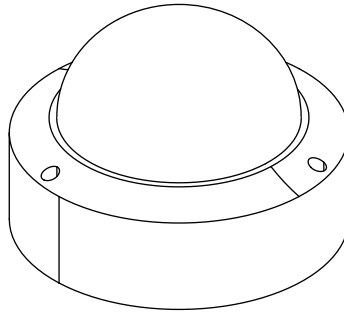
The LCD display features Full HD resolution and presents informative images of equipment actions and operations. These images are configurable, meaning they can be personalized according to customer needs.

Below are some existing standards:



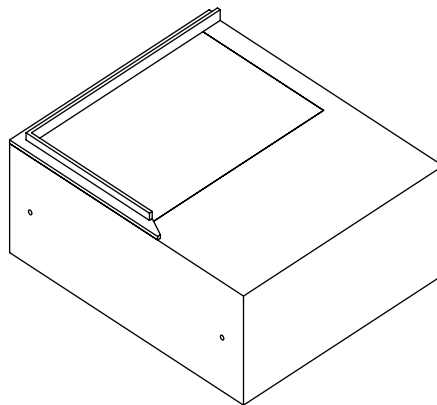
9.2 CCTV Camera

The CCTV camera assists in monitoring users inside the dPass, enhancing security in the environment..



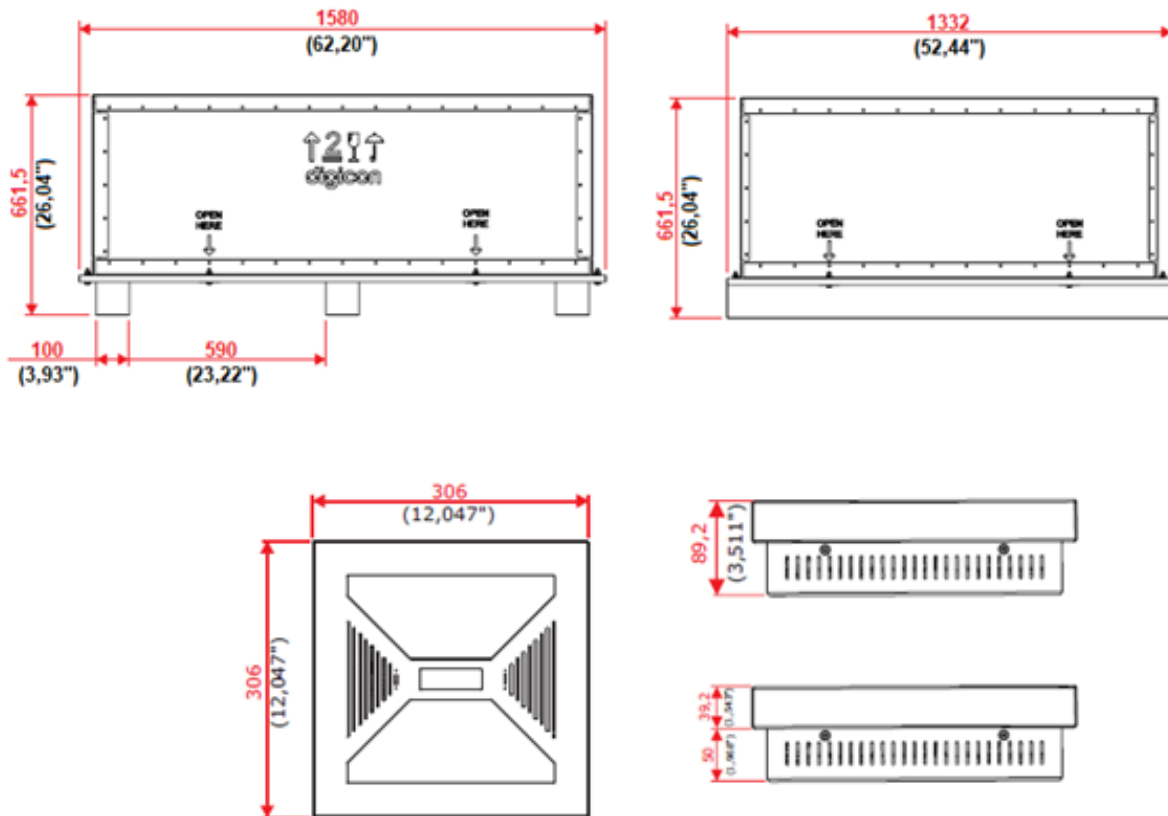
9.3 Passport reader

The passport reader is a device designed for identifying individuals by scanning their passport.



10. Technical Specifications

10.1 Dimensions



10.2 Other Information

Technical data	Characteristics
Power supply	100 - 240 VAC (Automatic selection)
Frequency	50 - 60 Hz
Average door open/close time	1 second
Operating temperature	10°C e 40°C
Approximate weight	190kg per module

Consumption:

Initialization	140 ~ 150 W
Operation (idle)	100 ~ 140 W
Operation (two doors in motion)	120 ~ 160 W
Operation (two doors obstructed)	210 ~ 275 W
Operation (four doors obstructed)	410 ~ 420 W

11.Preventive Maintenance

Reserve all maintenance services for qualified technical professionals only.

Action	frequency
Check the operation of the 3D sensor by analyzing the generated video files.	1x / 6 months
Calibrate the lock.	1x / 3 months
Calibrate the doors.	1x / 3 months
Analyze the operation of the doors to identify noises, heavy mechanisms, and deviations from standard operation.	1x / 6 months
Analyze the activation of the equipment's LEDs.	1x / 6 months
Analyze the activation of the entry and exit pictogram.	1x / 6 months
Check the operation of the coolers ventilating the CPU.	1x / 6 months

Check the 5V and 12V voltages at the terminal block.	1x / 6 months
Check the 24V voltage in the power supplies that feed the motor.	1x / 6 months
Verify the emergency activation of the equipment.	1x / 6 months
Check the operation of the mechanical brake for the doors.	1x / 6 months
Verify the operation of the passport reader(s).	1x / 6 months
Verify the operation of the facial recognition reader(s).	1x / 6 months
Verify the operation of the card collector and ballot box (*).	1x / 6 months
Verify the operation of the barcode reader(s) (*).	1x / 6 months
Verify the operation of the display (*).	1x / 6 months

(*) = If installed on the equipment

- On the next page follows the document template for recording all maintenance performed on the product..

Manufacturer	
Company: Digicon S/A	Contacts: +55 51 3489 7000 www.digicon.com.br

	Product	
Model: Dpass	Code: 069.31.291	Serial Number:

	Installation	
Company:	Contracts:	Date:

[illegible]

12. Cleaning

12.1 Maintenance and conservation of the Doors

Fingerprints: Use a soft cloth dampened with water, soap, or neutral detergent, then lightly polish with a soft dry cloth. Stains that may appear after drying water with impurities: Use a soft cloth dampened with distilled or ionized water, and dry thoroughly with a soft dry cloth. Greases and oils: Use a soft cloth dampened with isopropyl alcohol. Be careful not to spread the stain. Every six months, check the door support brackets for tightness.

12.2 Maintenance and Conservation of the Passage Control Sensor

Clean the lenses at least once a month, adjusting the cleaning frequency based on environmental conditions and application needs. For regular cleaning, water alone is sufficient. Avoid using chemicals, bleach, or household cleaning products. Use neutral soap when and if necessary. For heavier cleaning, use isopropyl alcohol with a soft cloth. Ensure to clean the lenses thoroughly; soap or alcohol residues can stain them.

12.3 Maintenance of glass doors and stainless steel.

Clean the equipment at least once a month, adjusting the cleaning frequency based on environmental conditions and application needs. For regular cleaning, a dry cloth is sufficient to remove dust.

Do not use chemicals, bleach, or household cleaning products. If there is significant dirt buildup or stains from user handling, use isopropyl alcohol with a soft cloth to clean.

Brushed stainless steel and glass are sensitive to abrasion, so keep this in mind when cleaning them. Ensure to clean the plates thoroughly; soap or alcohol residues can stain the equipment.

13.Warranty and Technical Assistance

Digicon is responsible for the design, good quality of workmanship, and materials used in the manufacturing of its products, ensuring that the equipment and all its parts are free from defects or flaws in material and workmanship. Digicon commits to replace or repair any part or equipment that shows manufacturing defects, at no cost to the buyer, under the stipulated conditions below:

The buyer is responsible for the round-trip transportation expenses of the product.

The warranty period starts from the issuance of the sales invoice and covers: 12 (twelve) months for the equipment, accessories, parts, and components, including a statutory warranty period of 90 (ninety) days.

Legal Warranty:

'The consumer has a period of 90 (ninety) days from the date of issuance of the purchase invoice to complain about apparent irregularities (defects) that are easily and immediately observable in the product, such as items that constitute the external parts and any others accessible to the user, as well as parts of appearance and general accessories.

The warranty will be provided to the buyer only upon presentation of the sales invoice (original or copy). Service is provided by opening a ticket through the following emails:

- **Access Control and Time Attendance Area:** sac.vca@digicon.com.br
- **Urban Mobility Area:** sac.mobilidadeurbana@digicon.com.br
- **Information required to open a ticket:**

Company Name:
Tax Identification Number (CNPJ):
Address:
Name of the Responsible Person:
Contact Phone Number:

NOTES:

Matriz/RS

Development, Factory, Technical Assistance, and Sales

Rua Nissin Castiel, 640 - Distrito Industrial.

Gravataí/RS CEP 94045-420

E-mail: vendas.acesso@digicon.com.br

Home page: www.digicon.com.br