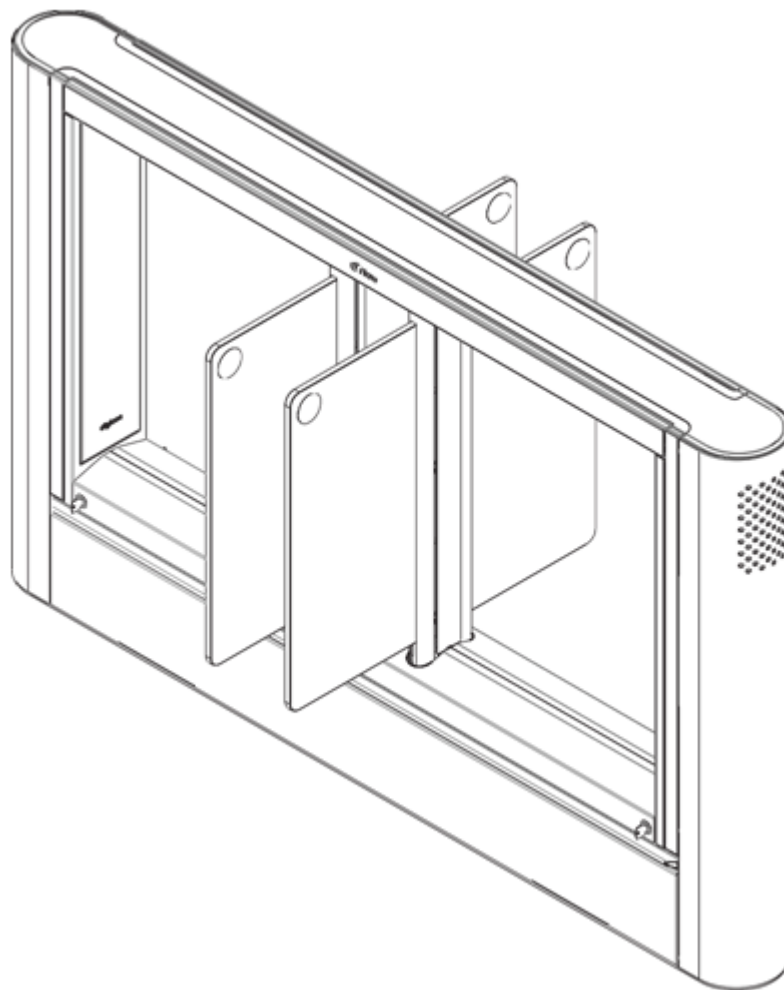

d'Flow G4



digicon

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Documentation Department - EDS

Revision	Date	Reviser	History
00	08/06/2023	Carlos Alberto	Document creation

 **ATTENTION!** Digicon reserves the right to modify the features 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!** If in doubt, consult your Digicon representative. If the consult is not carried out Digicon's interpretation will prevail

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1. Instructions:

Read the information carefully before using the product, as this will ensure the correct use of the equipment and the maximum utilization of its technical resources, as well as prolong its lifespan. This product does not provide protection against rain, meaning it is designed for use in covered environments. This product is not intended to be exposed to direct sunlight. Keep this manual for future reference. Digicon reserves the right to modify the features of its products at any time to adapt them to the latest technological developments. Digicon reserves the right to change the information contained in this manual without prior notice. Digicon does not provide any contractual warranty regarding the information contained in this manual and cannot be held responsible for errors it may contain or problems caused by its use. The information contained in this manual is the exclusive property of Digicon and is protected by copyright law. This manual may not be reproduced, photocopied, or translated, in whole or in part, in any media, without written authorization from Digicon. The equipment described in this manual is customizable, meaning all possible models are described in this manual and do not necessarily reflect the equipment acquired by the customer.

2. Environmental Issues:

The materials used to package the product are easily separable (screws, bubble wrap, wood, cardboard), making proper disposal of the items more accessible. The dFlow equipment is constructed with recyclable and/or reusable materials. In cases of parts or components replacement, seek specialized services for item separation. When disposing of the equipment, ensure it is being done in accordance with current local regulations.

3. Supplementary Manuals:

In addition to this manual, we have three more documents. They are:

- Integrator Manual
- Support and Maintenance Manual
- Product Manual

4. Responsibilities

4.1 Digicon

Digicon will provide::

- Tested and approved equipment;
- All necessary documentation for installation, operation, and equipment integration;
- Operation tests;
- Technical assistance before, during, and after installation;
- Technical operation training.

4.2 Client

The Client must provide:

- A completed checklist of compliance with installation requirements filled out and delivered to Digicon before the technician's departure;
- A clean, organized, and safe installation site;
- Infrastructure executed according to the provided instructions;
- The fastest possible communication with Digicon in case of any discrepancy or failure to comply with installation instructions in order to mitigate the problem or reschedule the installation;
- Independent and temporary electrical power supply (AC 100V~240V) during installation for tools and notebook;
- All equipment, components, and labor for anchoring the equipment to the ground.

4.3 Integrator

The integrator must provide:

- A technically trained team for installation, operation, and maintenance training of dFlow access controllers. General electronics technical training and technical assistant are the minimum requirements.
- All information, documentation, personnel, tools, and materials necessary to integrate the access control system with dFlow.
- Technical assistance during equipment installation and testing.

 **ATTENTION!** If there is no integrator in the project, the client must assume the integrator's responsibilities.

5. Schedule

The installation date must be determined by the client. For installation and training, a minimum of 5 days is required.

6. Checklist Completion Guide

- It is recommended that this form be reviewed by architects, builders, and installers so they can prepare the installation site in the best way to optimize the installation process.
- Digicon will only assign an accredited installer after receiving this fully completed form.
- It must be filled out in "UPPERCASE" block letters legibly.
- The Checklist must be fully completed and signed by the inspector.
- If the item assessed correctly matches the specifications of this document, then fill in "OK" in the designated field. If the item assessed does not match the specifications of this document, fill in "NOK" (Not OK).
- For items marked "NOK," comments or suggestions for changes must be made justifying the reason for not matching the specifications. All items marked "NOK" as well as comments and/or suggestions must be evaluated by Digicon.
- The Client/Integrator/Inspector must follow the instructions from the drawings in Chapter 8 of this document as a reference in planning and executing the infrastructure.
- If during the installation process this item is found to be non-compliant with the required specifications ("NOK"), installation may be halted, and the Integrator may request reimbursement for any additional work or downtime.

6.2 Site Information

Date: Insert the date and time the inspection was conducted;

Client/Integrator: Client's Name/Integrator's Name;

Installation Site: Enter the details of the location where the installation will take place. It should include complete address and additional identifying information;

Responsible Party: Name of the responsible individual and company.

7. Installation Requirements

All items mentioned below are the sole responsibility of the Client/Integrator.

7.1 Installation Location

7.1.1 Sunlight:

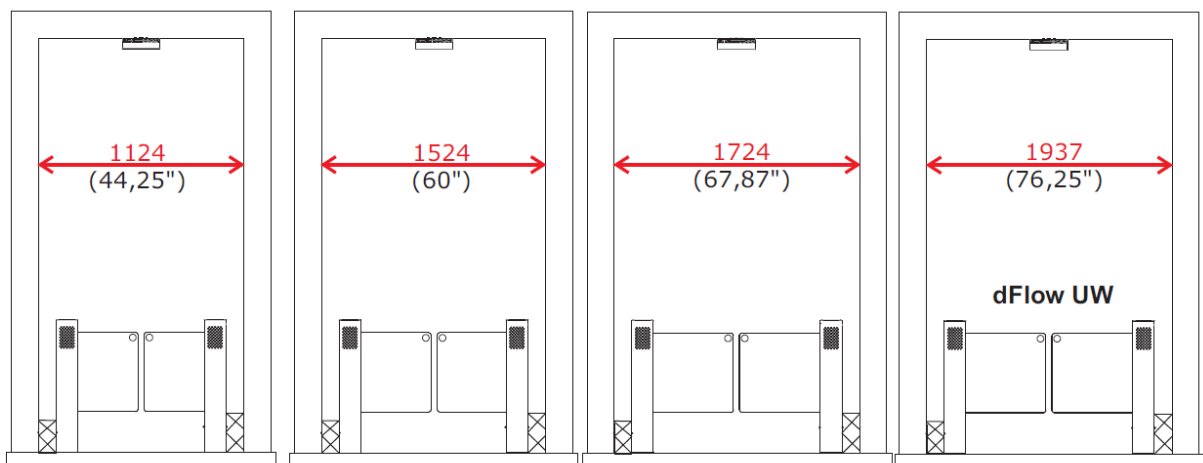
The installation location should not receive direct sunlight.

7.1.2 Open Environment:

The installation location must be covered, as the equipment is not waterproof.

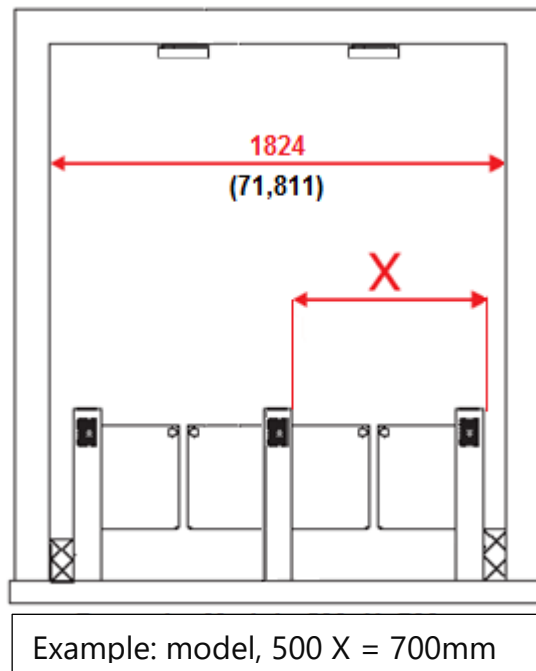
7.1.3 Minimum Width:

The minimum width for installation may vary depending on the quantity and model of the equipment. It is necessary to maintain a distance of 132mm on each side of the equipment for installation and maintenance purposes. Below are the fixed measurements for one unit of each model in millimeters [mm], already adding 2x 132mm.



For a line of equipment, we should add an additional measure X as shown in the table:

MODEL	VALUE OF X IN MILLIMETERS.
500	700
900	1100
1100	1300
1200 (dFlow UW)	1550



7.1.4 Packaging

After delivery, the equipment should be placed as close as possible to the installation site, or consideration should be given to the effort required to transport them to the installation location before the technician's arrival.

7.2 Module Positioning

7.2.1 Alignment:

The modules should be aligned according to the architecture of the environment and the tactile pavements (if present).

7. Sensor Positioning

7.3. Stable Structure:

The sensor should be installed directly on the ceiling, slab, or another stable structure that prevents swaying or vibrations. Provide for fastening and cable entry.

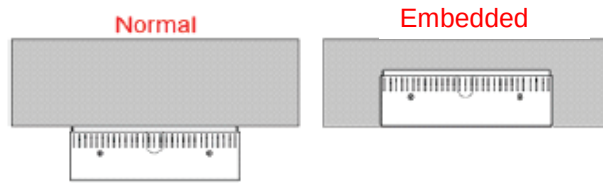
7.3.2 Parallelism:

The installation surface where the sensor will be placed must be parallel to the surface where the dFlow cabinets will be fixed.

7.3.3 Centering:

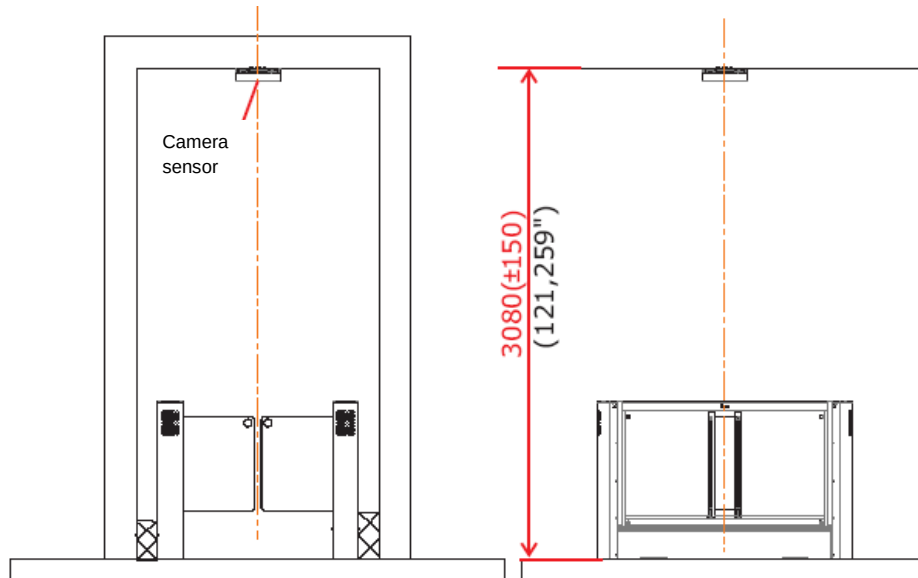
The center of the sensor should align with the center of the passage on both axes.

⚠ ATTENTION - If the sensor is installed in a recessed manner, air vents for internal cooling and strategic access points for maintenance are required.

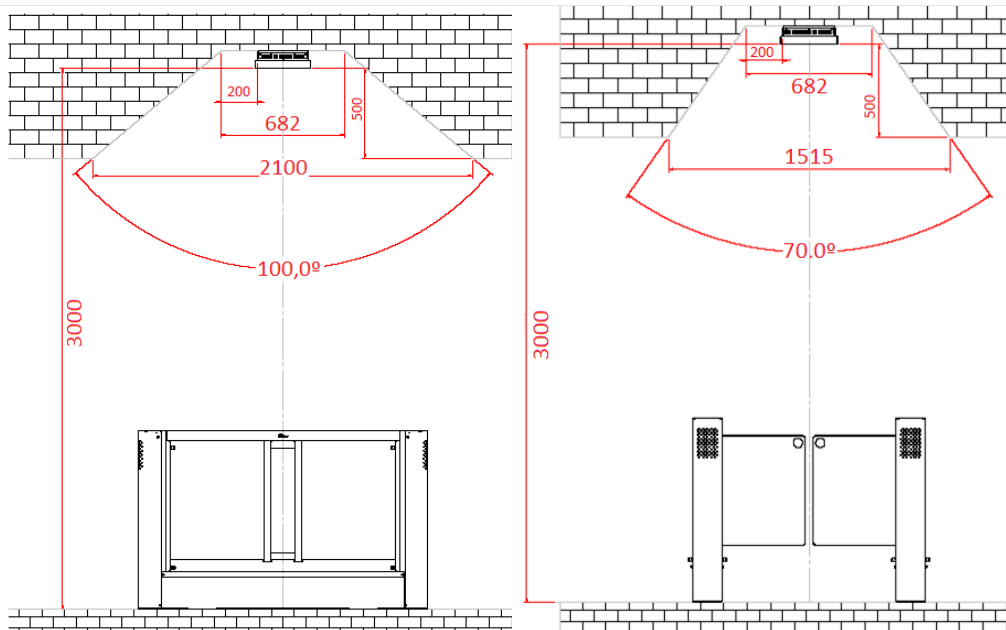


7.3.4 Height:

The installation surface of the sensor should be at a height of 3080 (with a tolerance of ± 150 mm) relative to the installation surface of the modules.



"In places where there is a dropped ceiling, an opening should be maintained as shown in the next image."



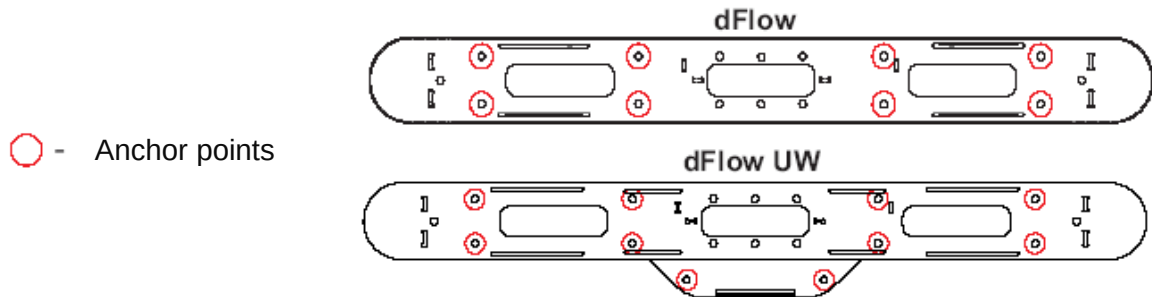
7.4 Floor Fixation

7.4.1 Concrete Specifications:

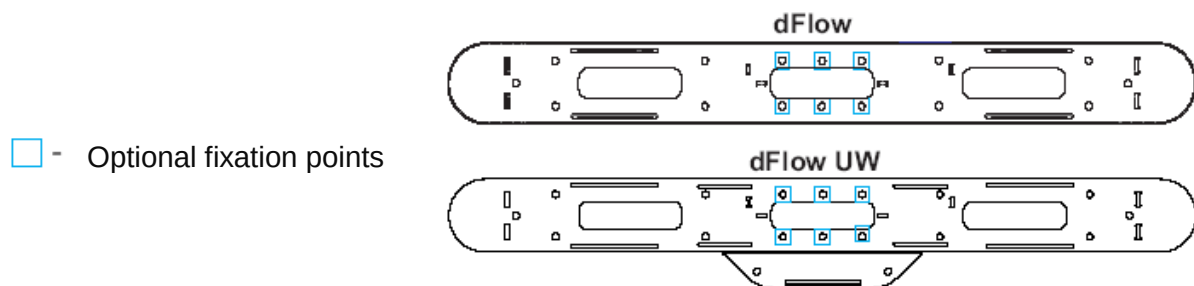
The minimum thickness and strength of the slab concrete must be respected. These parameters depend on the chosen anchoring system, which can be mechanical or chemical.

7.4.2 Anchoring System:

For each module, at least eight sets of anchors should be provided for fixation.



If needed, add two more sets of anchors for the optional fixation points of each module.



⚠ ATTENTION - Digicon recommends the use of the chemical anchor bolt system as it expedites the fixation process.

7.5 Cable routing to the modules

7.5.1 Conduit Lines:

At least three conduit lines must be installed beneath the floor. They can be made of PVC or aluminum to prevent corrosion and must comply with local electrical standards.

7.5.2 Individual Lines:

Each conduit line serves a specific purpose, divided as follows: electrical network cables, logical network, and interconnection between modules.

7.5.3 Conduit lines for integrator:

It is necessary to assess the need to add a conduit line for the access control

system cables of the integrator.

7.5.4 Cable length:

Digicon provides interconnection cables with a length of four meters; therefore, the pathway between modules must be compatible.

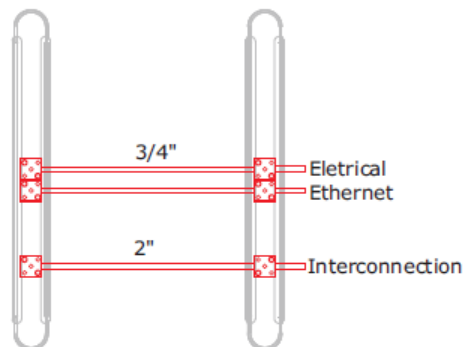
7.5.5 Conduit Diameter:

The diameter should be sized according to the table below:

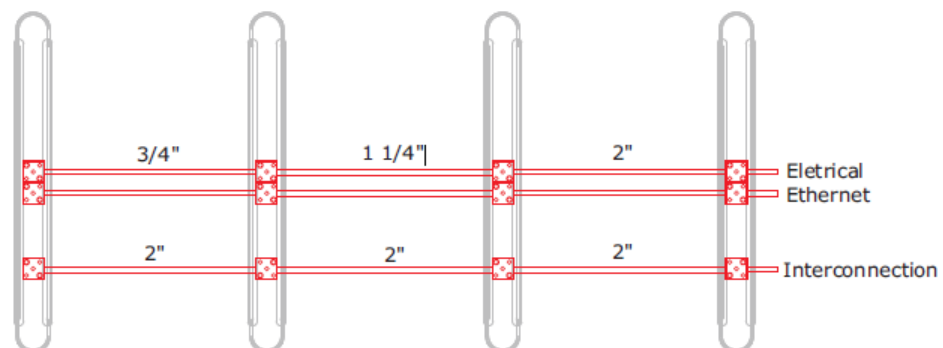
APPLICATION	DIAMETER FOR A FIRST PASSAGE	ADDITIONAL DIAMETER FOR EACH INLINE PASSAGE
ELECTRICAL NETWORK	3/4"	1/2"
LOGICAL NETWORK	3/4"	1/2"
INTERCONNECTION	2"	DOES NOT CHANGE

⚠ ATTENTION! In cases of rounding, always use a value above.

One passage:



Three passages:

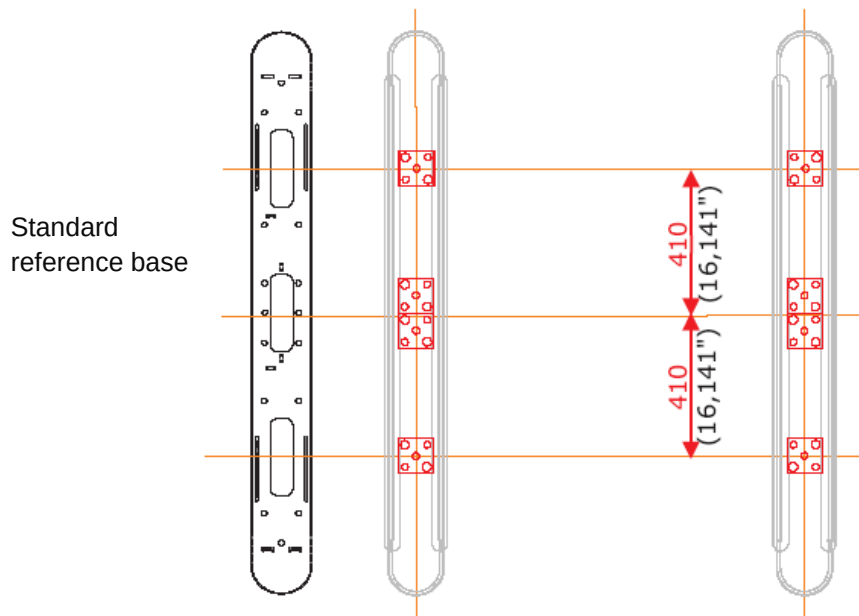


7.5.6 Junction Boxes:

For each conduit line installed, a 4"x4" junction box should be provided below each module. These boxes can be made of PVC or aluminum to prevent corrosion.

7.5.7 Position of the junction boxes:

The positions of the junction boxes must adhere to the parameters of the drawing below:



7.6 Cable Routing for the Sensor

7.6.1 Conduit Lines:

At least two conduit lines should be installed between the modules and the sensor, made of PVC or aluminum to prevent corrosion, and must comply with local electrical standards.

7.6.2 Individual lines:

Each conduit line serves a specific purpose, divided as follows: electrical network cables and logical network.

7.6.3 Interconnection between dFlow and sensor:

The conduits above the ceiling must be interconnected with the conduits under the floor with the shortest distance possible.

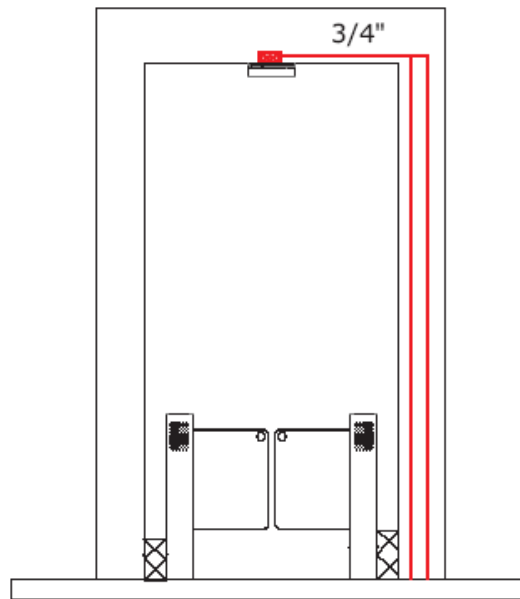
7.6.4 Conduit Diameter:

The diameter should be sized according to the table below:

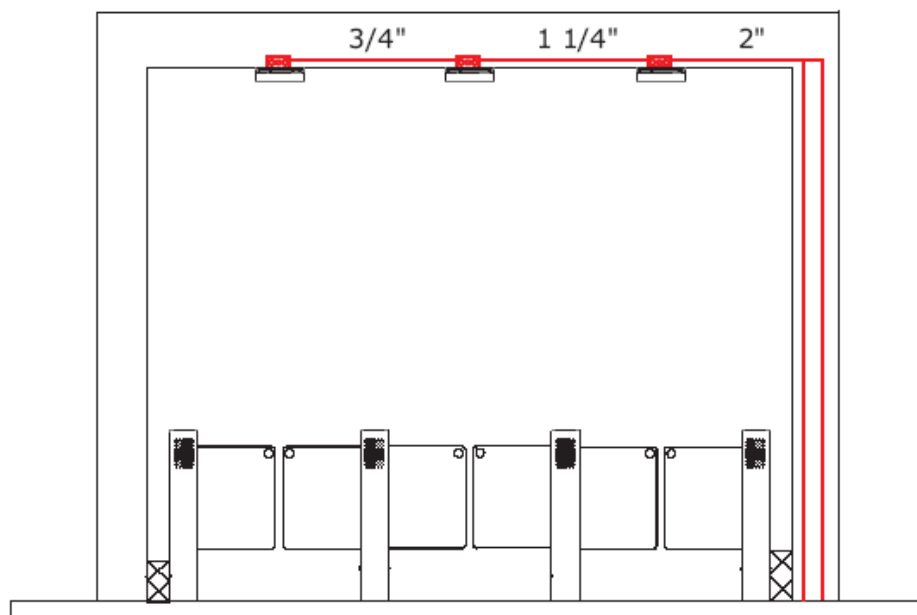
APPLICATION	DIAMETER FOR A FIRST PASSAGE	ADDITIONAL DIAMETER FOR EACH INLINE PASSAGE
ELECTRICAL NETWORK	3/4"	1/2"
LOGICAL NETWORK	3/4"	1/2"

⚠ ATTENTION! In cases of rounding, always use a value above.

One passage:



Three passages:

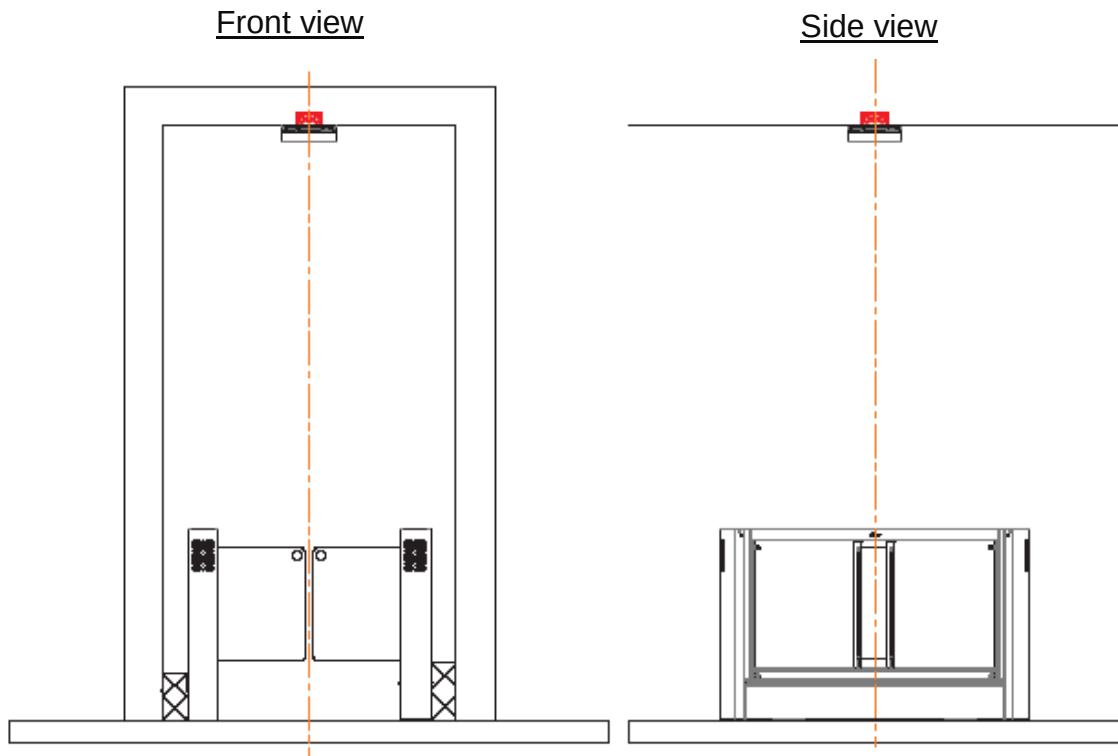


7.6.5 Junction Boxes:

For each installed sensor, a 4"x4" junction box should be provided above for cable routing. These boxes can be made of PVC or aluminum to prevent corrosion and must comply with local electrical standards.

7.6.6 Position of the junction boxes:

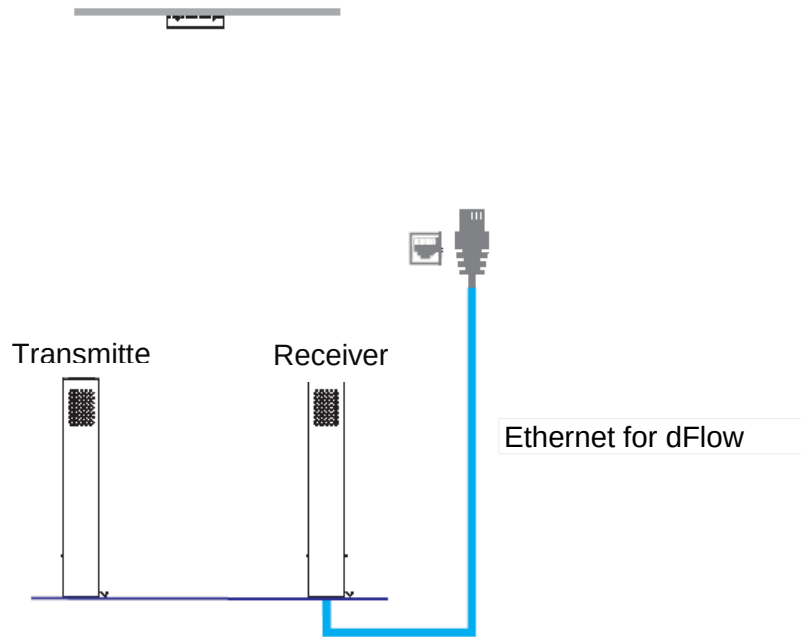
The positions of the junction boxes must adhere to the parameters of the drawing below:



7.7 Wiring for the equipment's logical network

7.7.1 Individuality:

For each dFlow, there should be an Ethernet cable (without splices) connected to the local network.

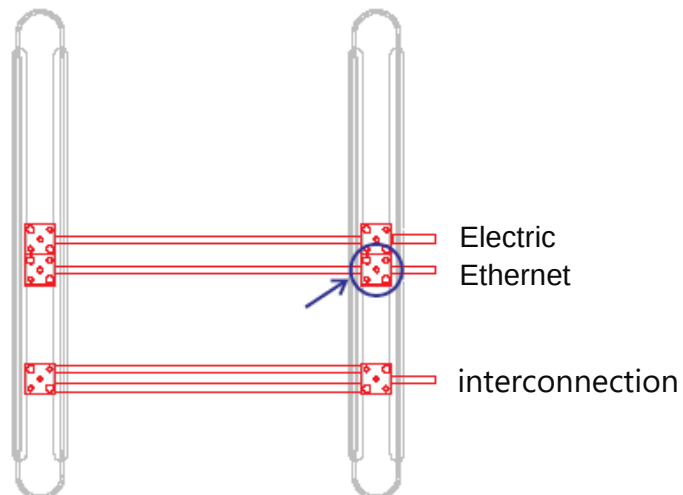


7.7.2 Cable Category:

The Ethernet cable must be either Cat5e or Cat6.

7.7.3 Exit position:

The cable should be available in the junction box corresponding to the logical network line, always on the right side of the passage.



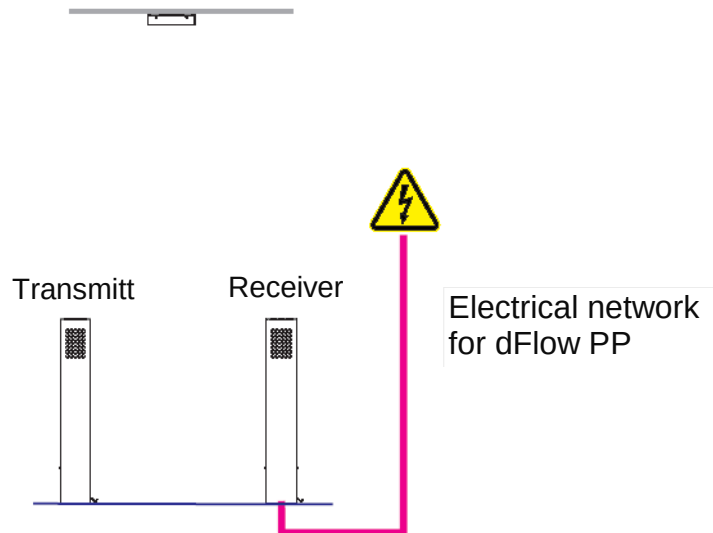
7.7.4 Waiting Length:

From the junction box, leave 1700 mm of crimped cable with RJ-45 connector for internal connection to the equipment.

7.8 Wiring for equipment's electrical network:

7.8.1 Individuality:

For each dFlow, there should be one cable providing electrical power to the equipment.

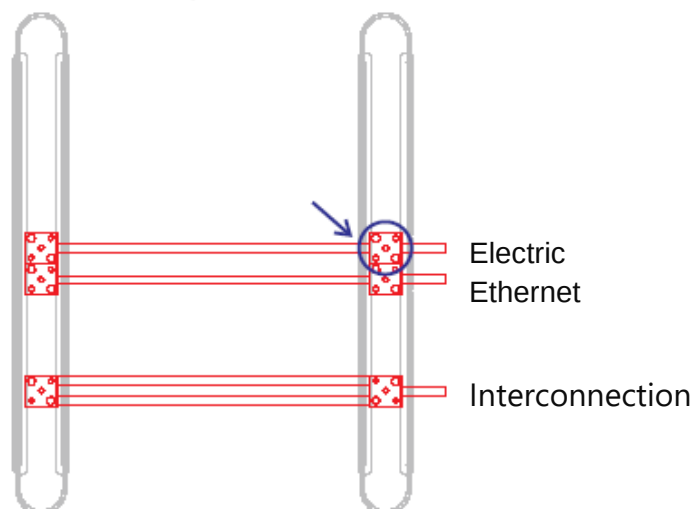


7.8.1 Cable Specification:

It must be flexible and of the type PP 3x2.5 mm² or single cables (2P+T) of 2.5 mm² (13AWG).

7.8.2 Exit position:

The cable should be available in the junction box corresponding to the electrical network line, always on the right side.



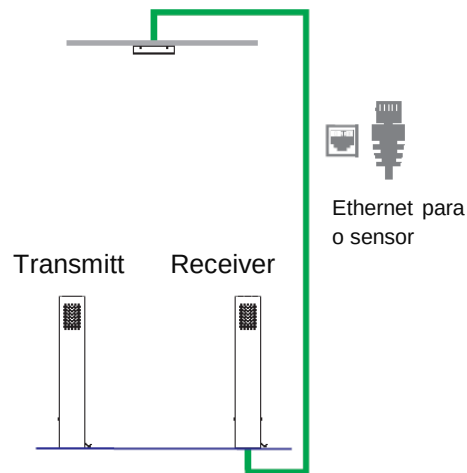
7.8.3 Waiting Length:

From the junction box, leave 1700 mm of cable for connection to the equipment.

7.9 Wiring for the equipment's logical network

7.9.1 Individuality:

Between each dFlow and its respective sensor, there must be an Ethernet cable (without splices) connecting them.

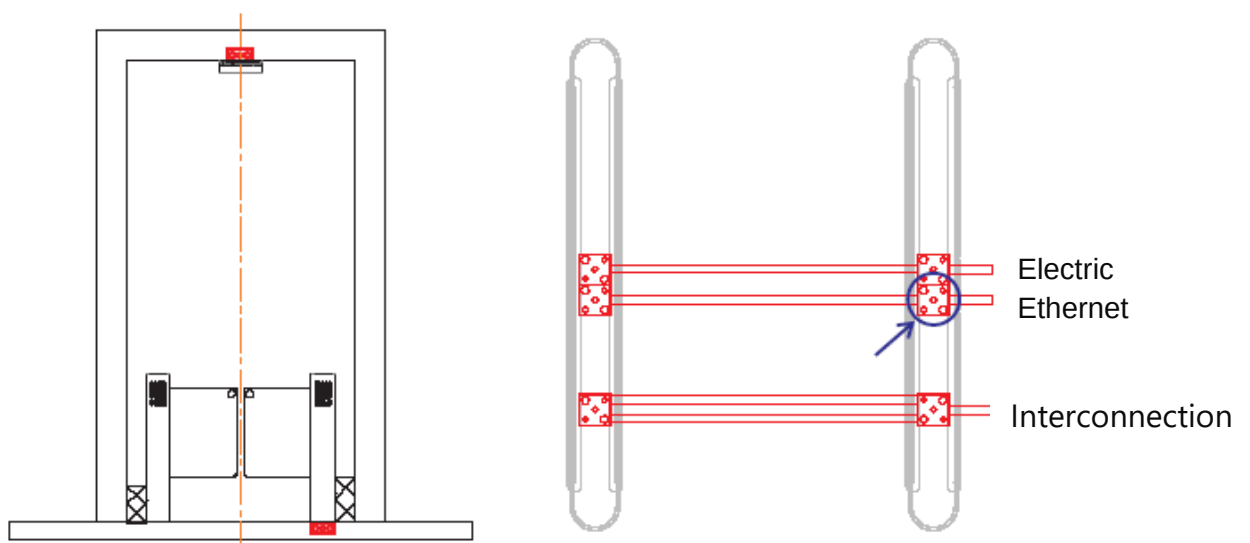


7.9.2 Cable Category:

The Ethernet cable must be either Cat5e or Cat6.

7.9.3 Exit position:

The cable should be available in the junction box corresponding to the logical network line, always on the right side of the passage, and in the box corresponding to the sensor.



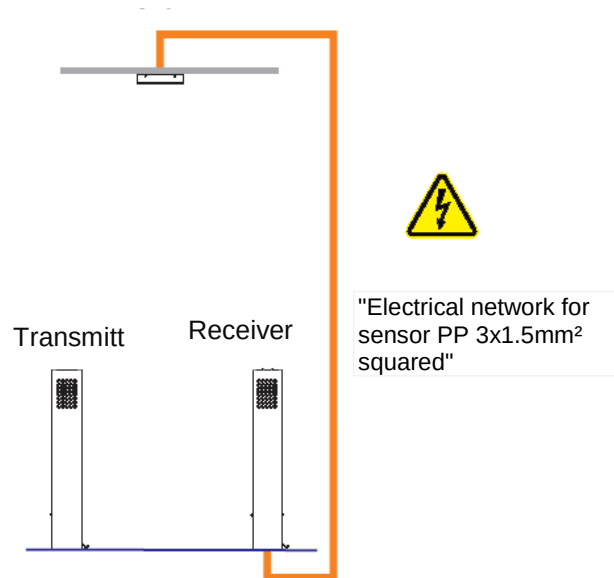
7.9.4 Waiting length:

From each junction box, leave 800 mm of crimped cable with RJ-45 connector for connection to the equipment.

7.10 Wiring for the sensor's electrical network

7.10.1 Individuality:

Between each dFlow and its respective sensor, there must be an electrical network cable connecting them.

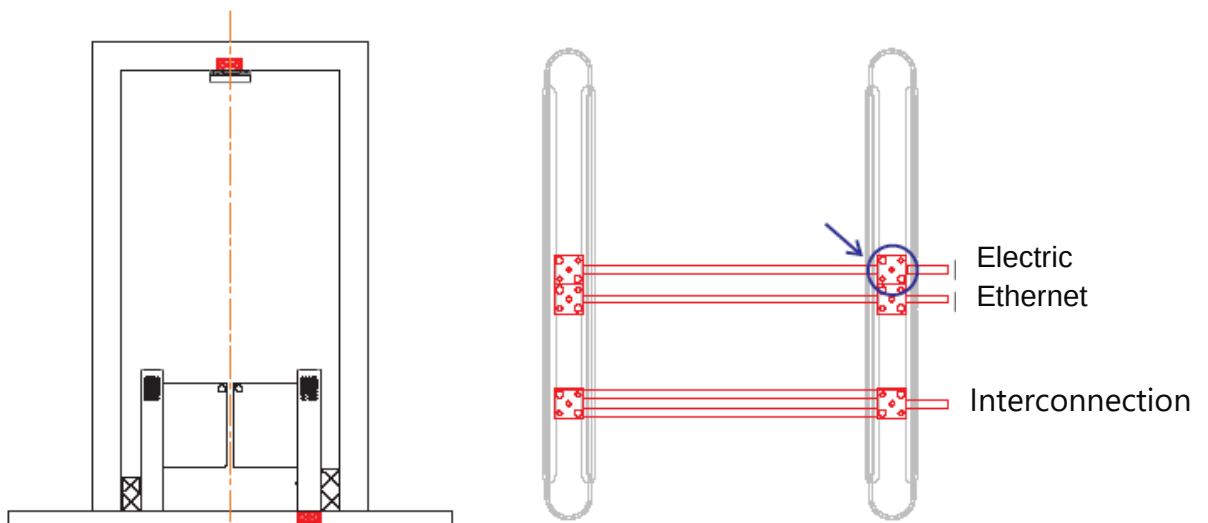


7.10.2 Cable Specification:

It must be flexible and of the type PP 3x1.5 mm² or single cables (2P+T) of 1.5 mm² (15AWG).

7.10.3 Output position:

The cable must be available in the junction box corresponding to the power line, always on the right side of the junction box, and in the box corresponding to the sensor."



7.10.4 Waiting length:

From each junction box, leave 800mm of cable for connection to the equipment.

7.11 Specifications:

7.11.1 IP (Internet Protocol):

The client/integrator must provide an IP address for each dFlow equipment.

7.11.2 Power supply:

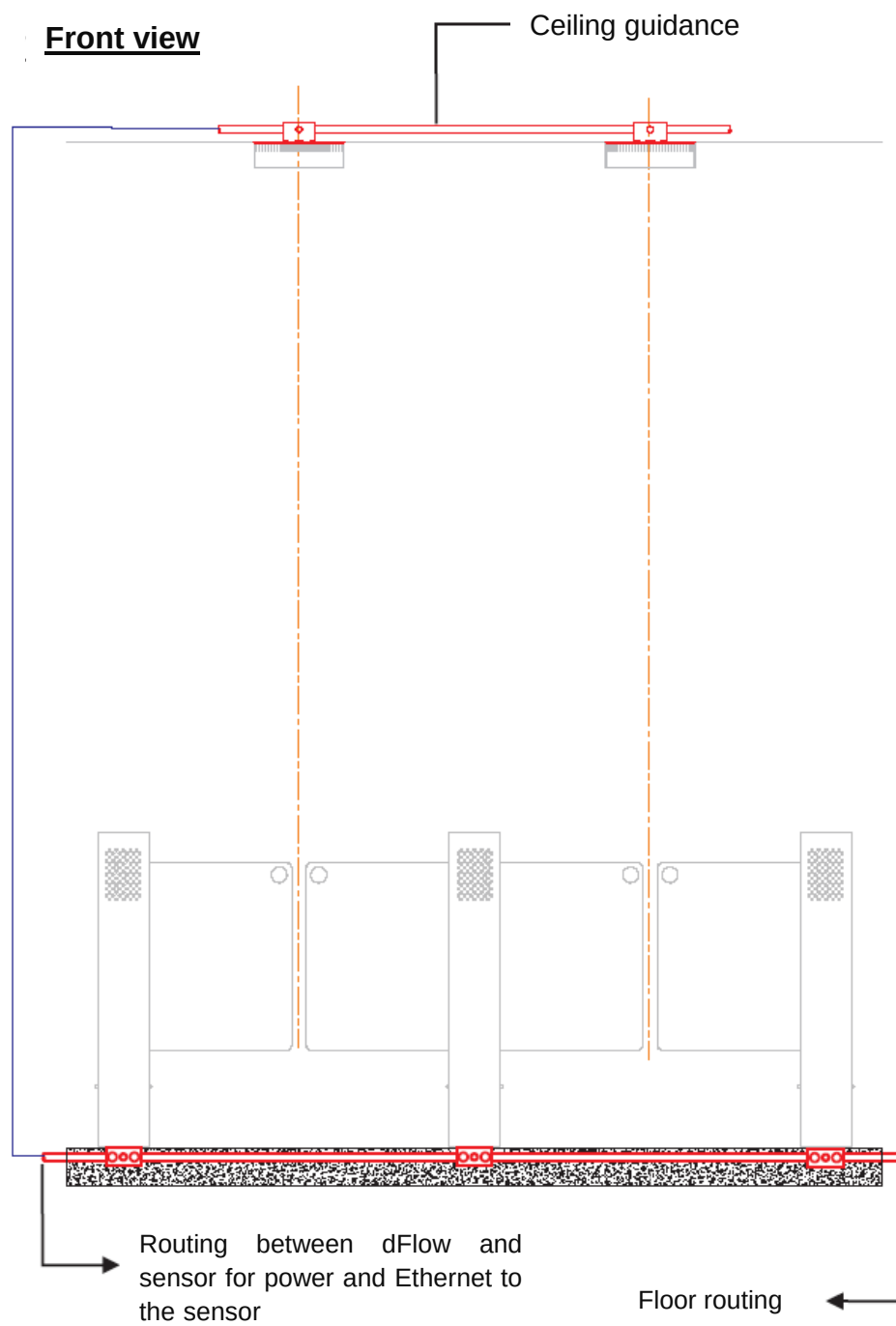
The dFlow equipment must be powered according to the specification: 100-240V~ - 50/60 Hz.

7.12 Installation Evidences

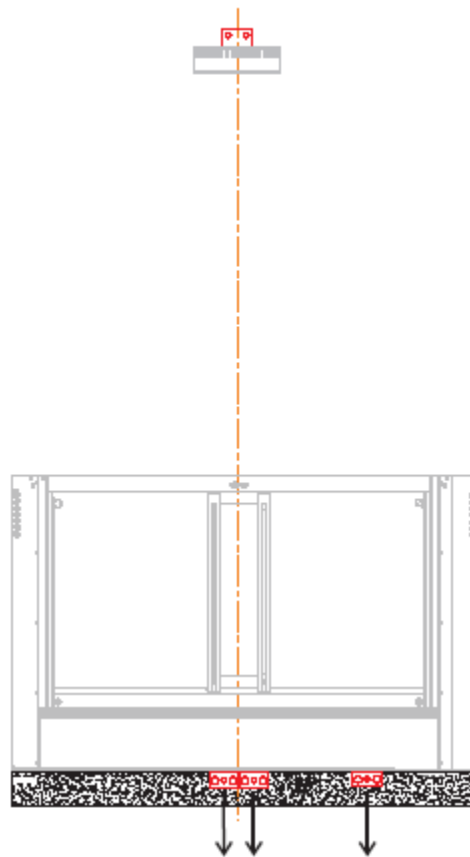
7.12.1 Photos and vídeos:

Indications that all installation requirements have been properly fulfilled must be provided. These evidences should be sent via photos or videos for the installation manager to review and authorize the technician's departure."

8. Drawings:

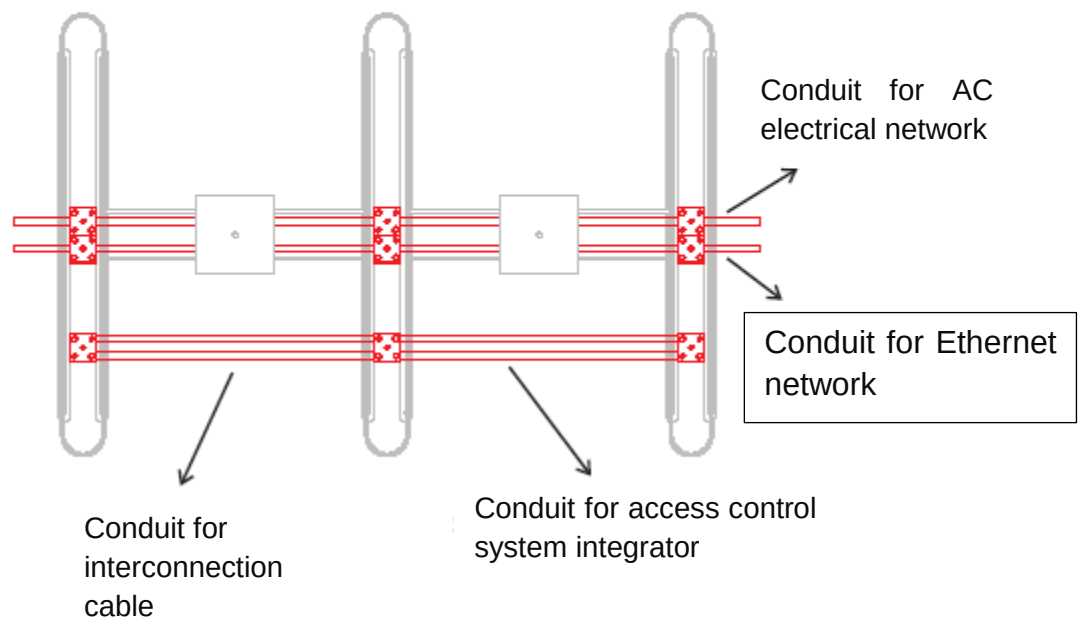


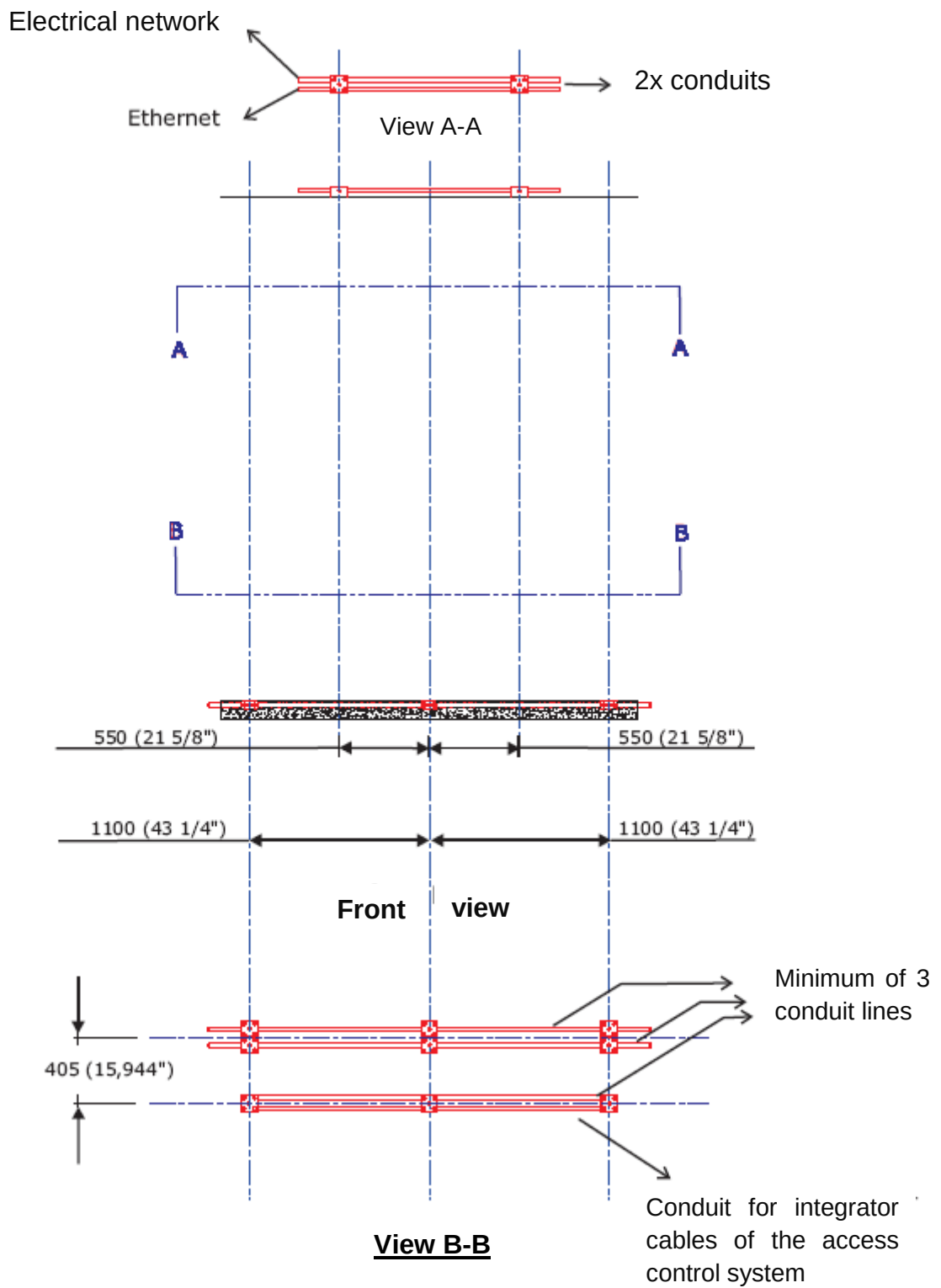
Side view



“3x Junction boxes 4x4”

Top view



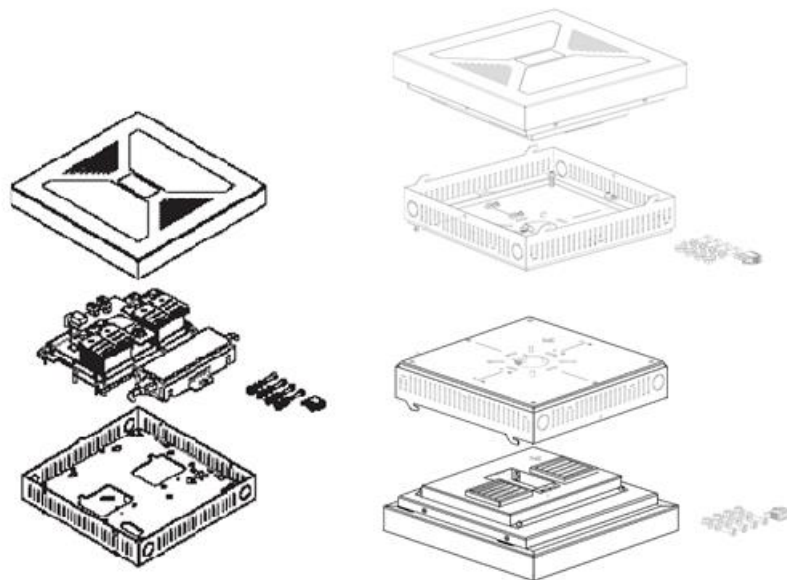


Base view

Isometric:



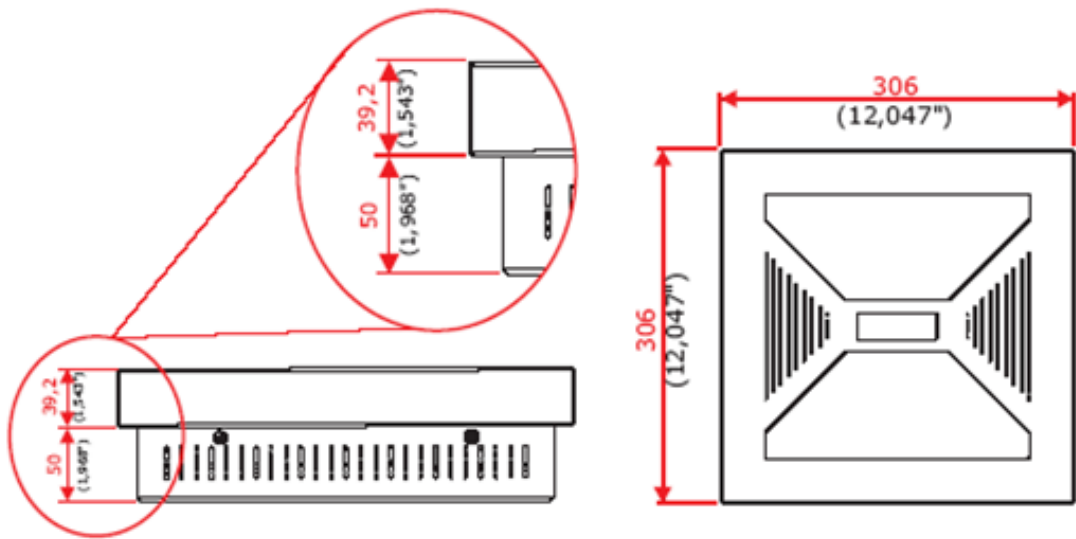
Exploded view:



Sensor version 1

Sensor version 2

Dimensions:



ANNEX 1

Installation requirements checklist							
Responsible:					Date: / /		
Client/Integrator:							
Installation location:							
Instructions: It is recommended that this checklist be evaluated by architects, engineers, and installers so they can prepare the installation site in the best possible way. For items that have been correctly addressed, mark an X in the [OK] column. For items not addressed, mark an X in the [NOK] column. In these cases of non-compliance, it is necessary to comment on the situation and propose an action plan so that the criterion is met in the "Customer Comments" column. These specific cases must be evaluated by Digicon to verify if the installation can be carried out. If during the installation process any item is found to be not addressed [NOK], the procedure may be interrupted, and the integrator may request reimbursement for any additional work or downtime.							
Item number	Specification	Customer verification			Final acceptance		
		OK	NOK	Comments	OK	NOK	Comments
Installation location:							
7.1.1	Sunlight						
7.1.2	Open environment						
7.1.3	Minimum width						
7.1.4	Packaging						
7.2 Module positioning							
7.2.1	Alignment						

Item number	Specification	Customer verification			Final acceptance		
		OK	NOK	Comments	OK	NOK	Comments
7.3 Sensor positioning							
7.3.1	Stable structure						
7.3.2	Parallelism						
7.3.3	Centralization						
7.3.4	Height						
7.4 Floor fixation							
7.4.1	Concrete specification						
7.4.2	Anchoring system						
7.5 Routing cables to the modules".							
7.5.1	Conduit pathways						
7.5.2	Individual lines						

Item number	Specification	Customer verification			Final acceptance		
		OK	NOK	Comments	OK	NOK	Comments
7.5.3	Conduit line for integrator".						
7.5.4	Cable length						
7.5.5	Conduit diameters						
7.5.6	Junction boxes						
7.5.7	Positioning of junction boxes						
7.6 Cable routing for the sensor							
7.6.1	Conduit lines						
7.6.2	Individual conduits						
7.6.3	Interconnection between dFlow and sensor".						
7.6.4	Conduit diameter						

Item number	Specification	Customer verification			Final acceptance		
		OK	NOK	Comments	OK	NOK	Comments
7.6.5	Junction boxes						
7.6.6	Positioning of junction boxes						
7.7 Cabling for the equipment's logic network							
7.7.1	Individuality						
7.7.2	Cable category						
7.7.3	Exit position						
7.7.4	Waiting length						
7.8 Cabling for the equipment's logic network							
7.8.1	Individuality						
7.8.2	Cable specification						

Item number	Specification	Customer verification			Final acceptance		
		OK	NOK	Comments	OK	NOK	Comments
7.8.3	Exit position						
7.8.4	waiting length						
7.9 Cabling for the equipment's logic network							
7.9.1	Individuality						
7.9.2	Cable category						
7.9.3	Exit position						
7.9.4	Waiting length						
7.10 Cabling for the equipment's logic network							
7.10.1	Individuality						
7.10.2	Cable specification						

Item number	Specification	Customer verification			Final acceptance		
		OK	NOK	Comments	OK	NOK	Comments
7.10.3	Exit position						
7.10.4	waiting length						
7.11 specifications							
7.11.1	IP (Internet Protocol)						
7.11.2	Power supply						
7.12 installation evidence							
7.12.1	Photos and videos						

Signature

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