EN

INCOLD ACTIVE
Rapid doors

# USE AND MAINTENANCE

## ROLL UP DOOR WITH MEMBRANE KEYPAD

Latest version always updated online

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incold®

SUMMARY PAGE

## 1. GENERAL INFORMATION

### 1.0 MANUFACTURER

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### 1.1 GENERAL INFORMATION ABOUT THE MANUAL

This manual and the information contained in it are the exclusive property of INCOLD S.p.A. Reproductions and reprinting, even partial, are prohibited without the written authorisation of INCOLD S.p.A.
This manual is updated to the current state of the technologies used. INCOLD S.p.A. reserves the right to make changes due to technological progress.
The assembly sequences are referred to in the annexes.
The images presented are not faithful reproductions of the machine but are merely for illustrative purposes.
The manufacturer declines all responsibility for injury to persons or damage to property resulting from incorrect or improper installation, incorrect or improper use.

### 1.2 INFORMATIVE ICONS

Dangers and behaviours to be avoided during use, assembly, maintenance and in any situation that could cause serious injury or death.

Prescriptions, rules, references and communications that each person responsible for the installation and use of the door (each for their competence) must respect.

### 1.3 PROHIBITIONS AND REQUIREMENTS

This manual must be read before installing the door, being sure to respect what has been described in order to guarantee correct operation of the product.
The manual is to be considered part of the door and must be kept for the entire duration of the product.
The manufacturer considers itself exempt from any responsibility in the following cases:

- improper use of the product
- incorrect installation, not performed according to the rules indicated
- serious failings in the scheduled maintenance
- unauthorised modifications and interventions
- use of non-original spare parts
- partial or total failure to comply with the instructions.
- anything not expressly indicated in this manual.

### 1.4 SAFETY WARNINGS

The local safety regulations must always be observed.
Transportation, mechanical assembly and electrical connection of the door must be performed by expert and qualified personnel. Regulation of the traffic in the operating area of the automatic operation doors is the responsibility of the USER; INCOLD S.p.A., as a safety condition, recommends preventing traffic in areas along parallel and adjacent paths of the automatic operation doors, delimiting/identifying these areas and carrying out specific training and instruction on use for the personnel concerned.

Use of the door is intended solely for personnel who have been instructed on correct operation of the door itself and on the risks associated with improper use.
If in doubt, contact the manufacturer.
Attention risk of crushing.

If maintenance work and/or changes to the door operating parameters are carried out, a check must always be carried out to ensure that the safety devices are operating correctly.
Modification of the door operating parameters must be carried out by qualified personnel authorised by Incold S.p.A. Any modifications carried out by personnel who are not perfectly trained and competent could cause serious damage to the door, property and/or persons.
The safety devices with which the door is equipped must be kept fully functional at all times; deactivation and/or tampering are prohibited. Safety devices that are not fully functional or deactivated could cause serious damage to the door, property and/or persons. Work on safety devices may only be carried out by qualified personnel authorised by Incold S.p.A.
Incold S.p.A. shall not be held liable for any damage to the door, property and/or persons caused by modifications to the door's operating parameters carried out by unqualified personnel expressly authorised by Incold S.p.A., and/or by the deactivation/manipulation of safety devices.

## 2. PRODUCT DESCRIPTION

### 2.1 PRESENTATION OF THE PRODUCT

The Incold roll-up doors are automated rapid roll-up doors.
The automatic drive is via a worm gear motor-reducer. The control panel and related software are the exclusive property of INCOLD S.p.A.
Positioning of the sheet is controlled by an encoder installed in the gearmotor, while the speeds and ramps are controlled by an inverter.
Control of the door and adjustment of the parameters take place via the keypad integrated within the frame.

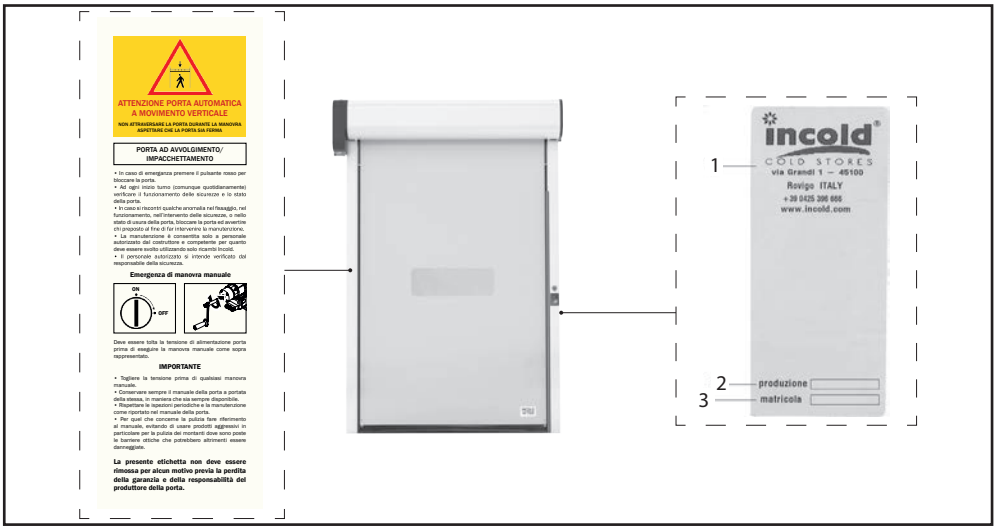
| **MODEL** | **ROLL UP - ZIP** |
|---|---|
| **Certification (EN 13241)** | Istituto Giordano |
| **Applications** | Indoor/outdoor |
| **Wind resistance (EN 12424)** | Class 3 |
| **Dimensions:**<br>**Height x Lenght max** | 5600 x 4450 mm |
| **Maximum weight of door (sheet)** | sheet 950g = 21 kg/m$^2$<br>sheet 1300g = 29 kg/m$^2$ |
| **Maximum opening speed** | 0,8 m/s |
| **Intermittence service class** | Continuous functioning<br>S3 = 75% |
| **Power supply**<br>**Rated output** | 230 Vca 50 Hz<br>0.75 KW |
| **IP Rating** | IP 20 |
| **Operating temperature** | +1 °C +40 °C |
| **Noise** | ≤ 70.3 dBA |

## 2.2 PLATE DATA

On the side of the upright, on the keypad side, is the data plate with the following information:

1. Name and address of the manufacturer
2. Production date (year / month / day)
3. Serial number

Safety and maintenance label. Do not remove the label. The manufacturer declines responsibility if the label has been removed. The warranty will be null and void if the label has been removed.




## 2.3 CONDITIONS OF USE

The doors of the INCOLDACTIVE line are designed to close the access areas to agro-food and refrigerated rooms at a positive temperature. The door and its components have been designed to work in a temperature range of 0° to +40°.

Door not suitable for use in environments with explosion and ATEX risk.

| Classification of agro-food environments according to indoor atmosphere | | | | | | |
|---|---|---|---|---|---|---|
| **Category** | **Aggressiveness** | **Cleaning** | **Humidity** | **Internal temp.** | **Type of storage and/or processing** | **Compatible coatings** |
| **Ai 1** | Non-aggressive | Ordinary | Low | -40 ÷ +25°C | • Low temperature cold rooms<br>• Dry product storage | PR and ZN sheet metal |
| **Ai 2** | Non-aggressive | Ordinary | Medium | 0 ÷ +25°C | • Fruit and vegetable storage<br>• Controlled atmosphere storage<br>• Storage of packaged dairy products<br>• Storage of packed meat products | PR and ZN sheet metal |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Ai 3** | Non-aggressive | Non-intensive | High | 0 ÷ +25°C | • Fruit and vegetable processing<br>• Meat processing and storing | Painted aluminium |
| **Ai 4** | Weakly aggressive | Non-intensive | Wet | 0 ÷ +30°C | • Preparation of cooked dishes<br>• Poultry slaughterhouses<br>• Wine storage rooms<br>• Butter processing<br>• Meat processing | Painted aluminium |
| **Ai 5** | Aggressive | Intensive | Very wet | 0 ÷ +35°C | • Cattle, sheep, goat and pig slaughterhouses<br>• Sausage processing<br>• Mushroom cultivation<br>• Cooking salt<br>• Drying and smoking<br>• Blanching and evisceration<br>• Bakery workshops<br>• Fish processing | Stainless steel<br>Fibreglass |
| **Ai 6** | Very aggressive | Very intensive | Saturated | 0 ÷ +40°C | • Tripe washing and processing<br>• Leather and hide processing<br>• Salting and brining<br>• Milk processing, dairies<br>• Processing of sea products | 316 stainless steel<br>Fibreglass |

In order to avoid physical injury due to lack of illumination as the door does not have its own illumination. Prior to installation, the ambient lighting of the place of use must be checked, which must avoid shaded areas that may cause disturbance, annoying glare or dangerous stroboscopic effects.

The workstations must be illuminated with a minimum nominal intensity of 300 lux.

If the door is installed along transit routes of forklift trucks that may also operate in poor lighting conditions (e.g. night shift), the end user must provide adequate lighting systems so that the door is visible and impacts with the door in motion are avoided

If the operating temperatures are not observed, the safety systems may not work.

The power supply to the panel is 230V with a frequency of 50-60 Hz; the gearmotor has a power of 0.75 kW.

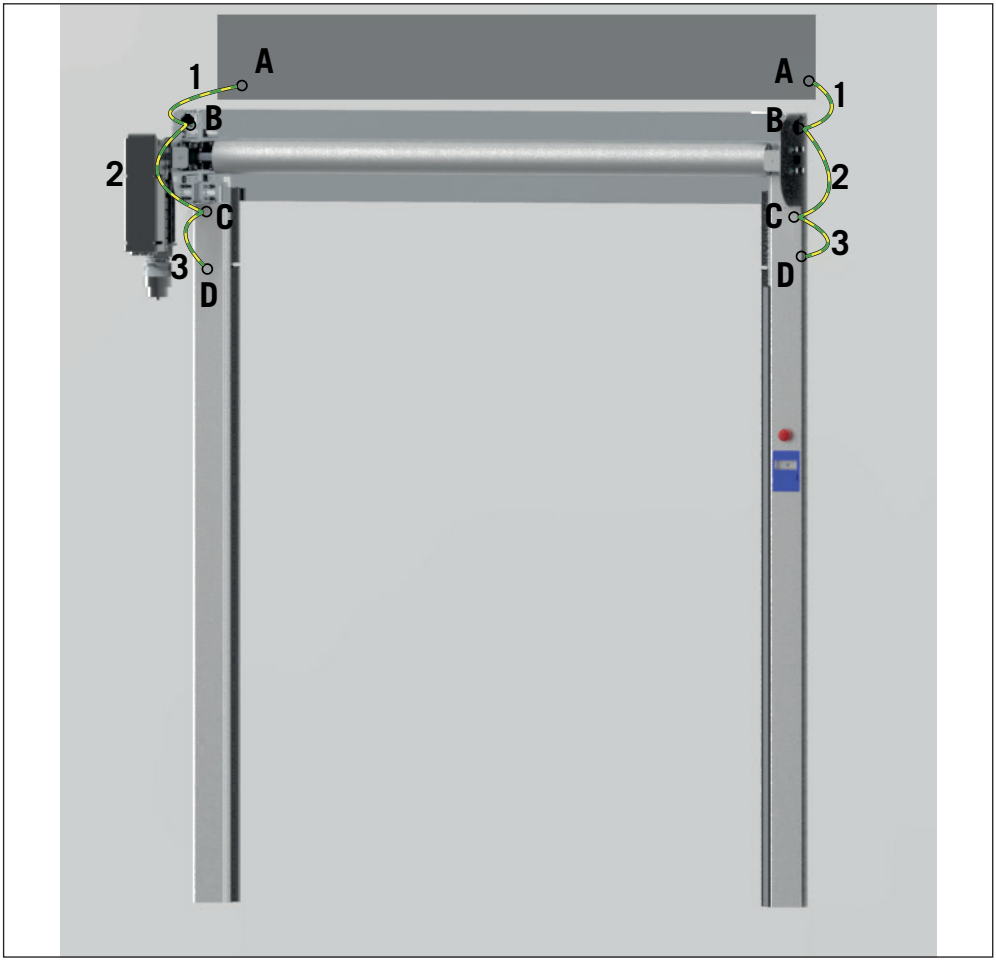
Ensure a differential magnetothermal switch for each door
2 poles - 10 A - Id = 0.3 A - Type F or Type B

The user must ensure that the power supply line is suitable for the power demand, with a voltage dip of not more than 3%.

Correct functioning of the door is not guaranteed if the differential magnetothermal switch is not provided as indicated.

## Door earthing

Provide 6 cables 25 cm long with eyelets on both sides M6. Connect cover with base, base with bearing bracket, bearing with housing. Everything on the right and left.




In the image above, the cables are shown in an exaggerated manner (in order to make it clear) that connect the various removable parts, forming an electrical continuity to ground. The purpose of earthing is to facilitate any dispersion towards earth, facilitating the rapid intervention of the earth leakage of the residual current circuit breaker with which the door must be equipped (not supplied by the customer).

- Section A-B wire 1 (between the upper casing and the bearing bracket)
- Section B-C wire 2 (between the bearing bracket and the vertical upright base)
- Section C-D wire 3 (between the vertical riser base and the vertical riser cover)

On site, the circuit thus created must be well connected to the customer's earthing system.

## Centre of gravity for lifting

In the following picture, the centre of gravity is shown with a yellow icon (approximate), it is located at the top and on the side where the motor is placed. Attention: if the door has the motor positioned on the right, the centre of gravity is at the same height, but shifted to the side where the motor is located.

## 2.4 INCORRECT USE OF THE MACHINE

The following are strictly forbidden:
- The intervention on rapid roll-up doors by inexperienced or untrained persons;
- Removing or tamper with the automation system and with other door elements;
- Changing the programming of the operating logic of the automation control unit;
- Excluding of the safety systems;
- Transiting through the opening with vehicles at speeds higher than walking pace.

## 2.5 SAFETY DEVICES

Rapid roll-up doors are machines and, as such, are fitted with safety devices that prevent accidental injury to users and limit dangerous situations during their operation.
Rapid roll-up doors for cold rooms are usually installed in areas that restrict access to a limited number of persons who have been trained for use. They should not be installed in areas frequented by large numbers of the public or by untrained personnel.
In order to limit the risks, the fast roll-up doors are fitted with:

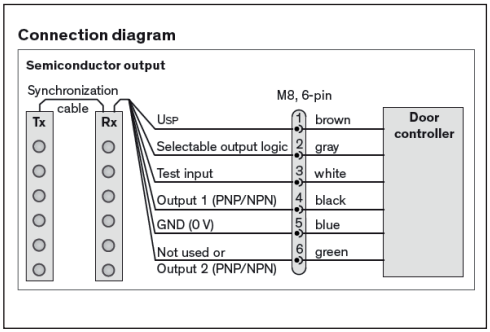
- **Sensitive side or sensitive edge:** (optional) this is the main safety device to ensure the safety of users; it is located on the lower part of the sheet and when it intervenes, it causes immediate stopping and reopening of the door
- **Optical barriers** it consists of a transmitter - receiver group, they stop movement and reopen the door if, during closing, the interruption of the light beam occurs.
- **Emergency button:** red in colour and characterised by the typical mushroom shape, it ensures instantaneous blocking of all door movements in all situations of danger or emergencyc
- **Flashing optical indicator** (on request only): the indicator goes into operation when the automatic door is activated.

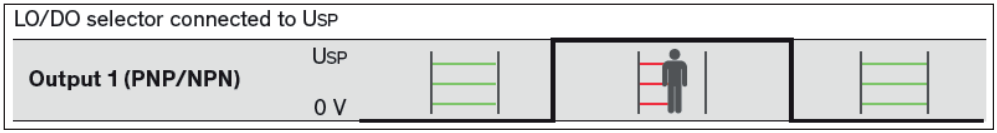
Before activating the automatic door, the operator/maintenance technician must make sure that the protection devices are perfectly fixed, functioning and that accidental or voluntary causes have not compromised their function.

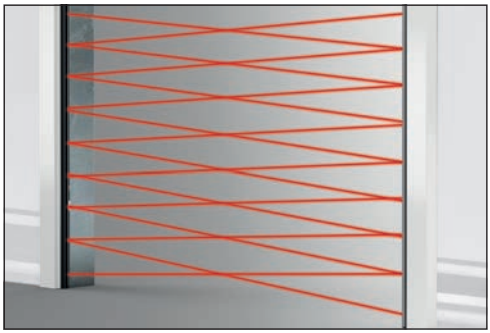
## 2.5.1 operation of the available safety devices

### Photocell barrier

A scanning light curtain consists of two elements: an emitter and a receiver. The emitter has an optic that consists of an array of photo-emitters which, with a precise cadence, one after the other emit narrow light pulses towards the receiver. The light radiation is generated by a solid state source consisting of semiconductor elements with high efficiency and long life. It can be outside the visible range. The receiver has an optic consisting of an array of photoreceivers geometrically corresponding to those of the emitter. The light radiations reaching the photoreceivers are transformed into an electrical signal, amplified and processed to drive the receiver's output devices. The reading of the light pulse occurs synchronously therefore a synchronism signal must be transmitted between the two emitter / receiver elements. The detection takes place by interrupting the path of the beam determined by the presence of an opaque object. The blanking function allows the door to be closed which in fact interrupts the beams between TX and RX during closing as it recognizes the ordered interruption of the beams from top to bottom in a sequential manner. Otherwise an object that interrupts one or more beams not sequentially, it is recognized as an obstacle and causes the door to reopen (if it is closing) or to lock the door in the open position (if it is open and a closing command is given).



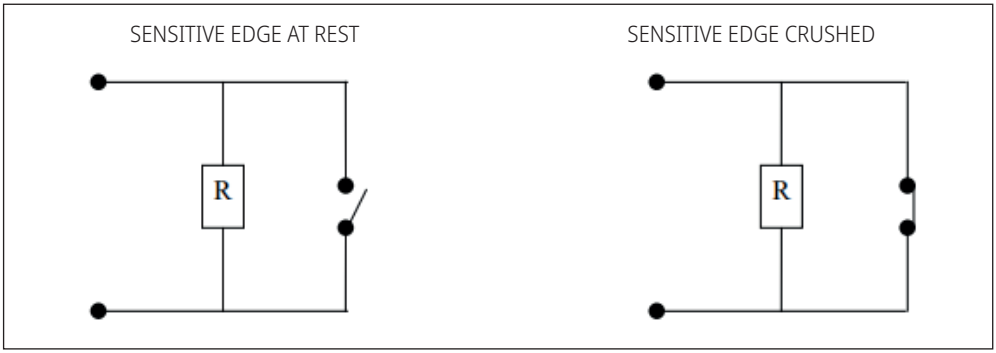



## 8.2kΩ resistive sensitive edge:

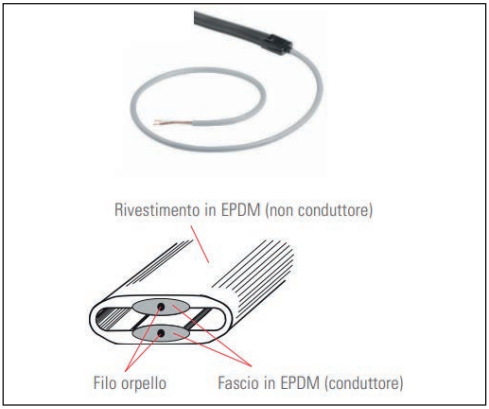
The sensitive edge is a "safety component" with the function of an electro-sensitive device designed for the detection of persons or parts of persons. It is equipped with a sensor capable of detecting a pressure stress and a control circuit with a verification function according to the specified category and an output interface. The sensitive surface deforms locally to actuate the sensor.
It consists of two essential parts:

- A PRESSURE SENSOR
- ONE CONTROL UNIT.

Operation: When the edge is operated by an external force, after a certain deformation defined as "pre-stroke", the two parts of the conductive plastic material come into contact, closing the circuit. The change in status of the internal sensor (from NO to NC) is processed by the control unit (sensor control device) which sends a machine stop signal thus eliminating the dangerous situation that has arisen.

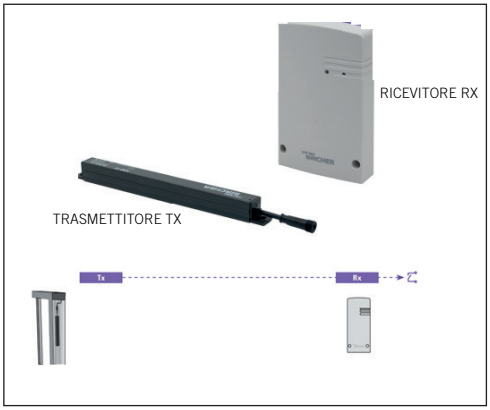



The resistance R = 8.2kΩ when the edge is pressed the resistance is bypassed by the branch in parallel and the measured resistance is reduced from 8.1 ÷ 8.5 kΩ to a value below 500 Ω. sensitive is inserted in a special pocket created in the lower part of the sheet of the fast doors, The sensitive edge is accessible thanks to the buttons that can be opened and closed which allow the side opening of the sheet bag.



## Sensitive edge signal transmission (and control) system :

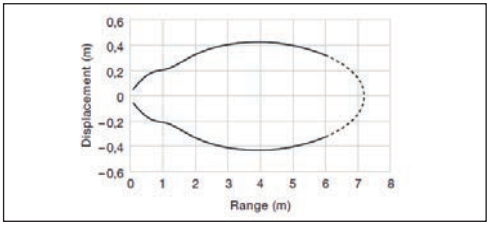
The XRT transmitter element for wireless transmission system transmits the signal coming from the sensitive edge when pressed and monitors the safety profiles on the doors, in conjunction with an XRF receiver. The transmitter is connected to the sensitive edge and placed inside the pocket, in the lower part of the sheet. It works at an operating frequency of 868.3 MHz. It has a range of 100 m (under optimal conditions). It works at an operating temperature from –20 ° C to +60 ° C. it is equipped with a 1x 3.6 V inorganic lithium battery (mod. XRF-TI). It is necessary to periodically check the condition of the batteries, if necessary, replace them. If the batteries are discharged, the door does not perform the closing operation.
The signal sent by the transmitter is picked up by the receiver placed near the machine control board. The receiver has a 12–36 V DC supply voltage which it draws from the port board. The signal picked up by the receiver is transferred via wire to the safety input of the door electronic board. A LED located outside the receiver box provides information on the status: Green = System ready, no sensor pressed Orange = Sensor pressed (main closing edge)

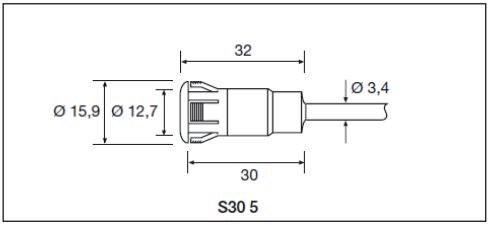


## Single beam photocell (used as a courtesy system in combination with the sensitive edge):

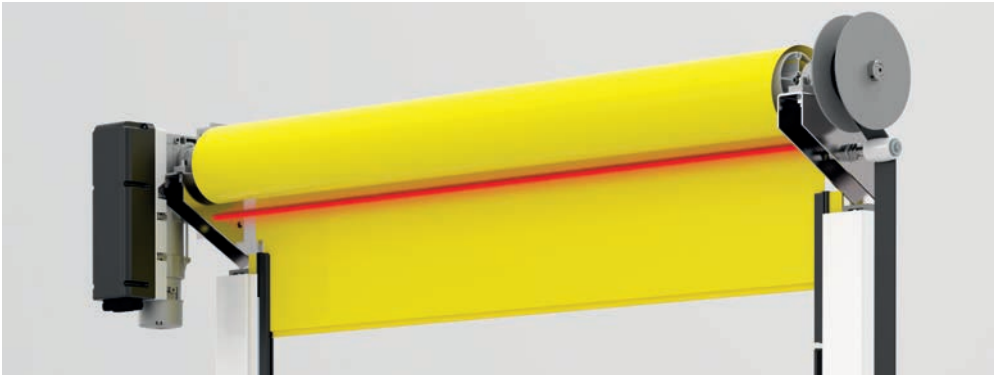
The photocell assembly consists of an SMT transmitter and an SMR receiver, which was used to be used in barrier mode. The SMT and SMR are powered with a 24V dc supply voltage and NPN output. The technology is infrared. The application distance is from 1 to 15 meters.
The photocells are positioned one in front of the other, as one is programmed to send the signal to the second which in turn directly transmits the input to block the movement of the gate door in case of obstacles. The photocell, called the transmitter, has a LED that sends infrared signals to the other receiver photocell that detects the input. When the second photocell fails to see the infrared light, it immediately sends a signal to the control unit, requiring the automation to stop. Using infrared light with a frequency that the human eye cannot see is a choice designed to prevent sunlight from getting in the way and sending incorrect signals to the photocells. The alignment of the photocells of the automatic gate is calculated in such a way that in this specific position both the two photocells and the gate automation are obstructed by people or vehicles passing through the moving door. The assembly of the door photocells requires the positioning of the two sensors perfectly in line, which must be placed at the same height. The recommended height is 30 cm from the ground in order to easily solve the problem of remote alignment. Both photocells must be powered, but only the receiver one, which sends the command, must also be connected to the control unit through a specific cable for photocells. As for the maintenance of the photocells, it is very important to regularly check their operation because the latter could be damaged even by a simple storm. It may happen that the photocell does not work even in case of bad cleaning; simply clean them to restore correct functioning; instead, if problems continue to be encountered, it is a good idea to carry out more detailed checks by contacting the manufacturer. Even if they are no longer perfectly aligned, the photocells stop working correctly, but in this case it is only necessary to reposition them in the correct way to restore their activity

The three pictures represent the photocell applied on the door, the signal displacement, the dimensions of the transmitter equal to the receiver, wiring.




## Photocell for control of fabric unwinding in the canopy:

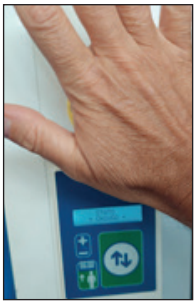


The photocell assembly consists of an SMT transmitter and SMR receiver. The SMT and SMR are powered by a 24V dc supply voltage and NPN output. The technology is infrared. The application distance is from 1 to 15 metres.

The photocells are positioned one in front of the other, as one is programmed to send the signal to the second, which in turn directly transmits the input to block the movement of the gate door in the event of obstacles. The photocell, called the transmitter, has a led that sends infrared signals to the other photocell receiver that detects the input. The moment the second photocell cannot see the infrared light, because it is interrupted by the curtain not unfolding properly due to an obstacle in its path, it immediately sends a signal to the control unit, forcing the automation to stop.

## Emergency stop buttons

The door is equipped with an emergency button (a red mushroom-shaped button on a yellow background) that allows you to avoid dangerous situations that are likely to occur in the imminent or are occurring.



It is fixed on the door jamb in a clearly visible way, to ensure the immediate stop of the door should it be needed. The emergency stop button is immediately accessible and available in all machine operating modes. The button used as an emergency stop device is mushroom-shaped (or operated with the palm of the hand). The contacts change state as soon as the button locks in the pressed position.

The message “EMERGENCY BUTTON STOP STATUS” appears on the liquid crystal keypad display and the door is and remains locked in all its functions. For the release of the mushroom it is necessary to make a partial rotation of the red mushroom. After a few seconds the message “EMERGENCY BUTTON STOP STATUS” disappears on the display and the door goes back to working while waiting for a command.

| USE | RESIDUAL RISK | PREVENTIVE SOLUTIONS TO REDUCE RISKS |
|---|---|---|
| Handling, installation, electrical connection, maintenance. | Danger of injury to parts of the body, crushing, impact, cuts, falls, damage due to electric shock. | These operations must be carried out exclusively by competent and adequately trained personnel, equipped with appropriate PPE, after having read and understood this manual. It is advisable to delimit the work area to prevent access to unauthorised persons. Before carrying out any maintenance operation, press the emergency button. Should it be necessary to intervene on electrical components, disconnect the power supply before starting. |
| Cleaning operations | Cuts, injuries, falls from stairs, inhalation of chemicals, damage due to electric shocks | Proceed with cleaning operations only after having read and understood the following manual and equipped with appropriate PPE. Use only the products indicated in para.4.1 |
| Use of locks or bolts | Staff trapped inside the cell | Do not install additional door-locking systems, or if necessary, adequately instruct personnel on the correct use of these systems. If necessary, evaluate the installation of an alarm device that signals the presence of trapped personnel |
| Door operation until a second subject is in the vicinity of the door | Dragging, crushing, impact | Mount the door in places accessible only to authorised and suitably trained personnel. Pay the utmost attention; before operating the door, always check that there are no persons nearby. |

## 2.6 INDICATIONS ABOUT NOISE

The level of airborne noise produced by the rapid roll-up doors was measured and evaluated by simulating operation of the same at the premises of the manufacturer: the equivalent weighted continuous sound pressure level is:
Roll Zip Prime= 70.3dB
Roll Glide Prime = 68.9dB

The noise level of closing varies in relation to:
- conditions of use (environment, configuration)
- efficiency state
- power of the motor installed
- door dimensions.

## 2.7 TECHNICAL SPECIFICATION ON FABRICS

<table>
<tr><th>TECHNICAL SPECIFICATION</th><th>STANDARDS</th><th>VALUE</th><th>FABRIC</th><th>AVAILABLE COLOURS - RAL</th></tr>
<tr><td rowspan="5">FIRE PERFORMANCE</td><td>DIN 75 200<br>ISO 3795</td><td>Speed of combustion<br>< 100mm/min</td><td>953 Complan Sattler<br>900 g/m²</td><td>  <br>1003 Giallo segnale | 1013 Bianco perla | 1021 Giallo navone<br>2004 Arancio puro | 3002 Rosso carmino | 5010 Blu genziana<br>5012 Blu luce | 6026 Verde opale | 7035 Grigio luce<br>7037 Grigio polvere | 7038 Grigio agata | 9005 Nero intenso<br>9006 Alluminio brillante | 9016 Bianco traffico</td></tr>
<tr><td>UNI 9177:1987</td><td>Class 2</td><td rowspan="3">Sattler 684<br>all in one<br>690 g/m²</td><td rowspan="3">RAL 9010 (ART.960 900 g/m²)<br>RAL 1003 giallo segnale<br>RAL 3002 rosso carminio<br>RAL 6005 verde muschio<br>RAL 5015 blu cielo<br>RAL 7035 grigio luce<br>RAL 7038 grigio agata<br>RAL 9005 nero intenso<br>(Altri colori disponibili non RAL)</td></tr>
<tr><td>NF P 92-503</td><td>M2</td></tr>
<tr><td>EN 13501-1</td><td>BS2d0 *</td></tr>
<tr><td>UNI 9177:1987<br>and<br>NF P 92-503</td><td>Class 2<br>and<br>M2</td><td>Sattler 666<br>POLYPLAN<br>Thermofoam<br>1300 g/m²</td><td>RAL 5010 blù genziana<br>RAL 7035 grigio luce<br>RAL 9010 bianco puro</td></tr>
<tr><td>DIN 75 200<br>ISO 3795</td><td>Velocità di combustione<br>< 100mm/min</td><td>976 Complan food Sattler<br>670 g/m²</td><td>Colour beige no RAL</td></tr>
<tr><td colspan="5">The 900g/m² sheet with fire reaction class 2 is also available.</td></tr>
</table>

## 3. OPERATIONS OF INSTALLATION AND USE

### 3.1 HANDLING / STORAGE

The loading and unloading operations must be carried out by qualified personnel using hand-operated or electric forklift trucks suitable for the dimensions and weight to be handled.

Always position the loading forks at the points indicated to avoid the risk of overturning and always insert the forks completely.

- NO unauthorised persons should be present near the lifting operation.
- Distribute the weight of the package to keep the centre of gravity of the load in equilibrium.

The use of gloves and any other personal protective equipment is recommended in order to avoid the risk of injury or damage during all stages of assembly.

DO NOT store the product in open areas and therefore subject to atmospheric agents and direct sunlight. Exposure to ultraviolet rays causes permanent deformation of plastic materials. Storage temperature -10° +50°.
Before storing, check that the packaging is intact and that there are no defects that could compromise future installation.


### 3.2 RECEIPT, UNPACKING, PRELIMINARY OPERATIONS

Before proceeding with installation, check:

- that the packaging is intact and has no defects
- that all the elements have been provided for assembly of the same with perfect verticality of the surfaces on which the door will be installed (check with plumb line/laser level etc.)

In case of uncertainty, contact the manufacturer for any clarification.

### 3.3 MECHANICAL INSTALLATION

#### 3.3.1 Installation hole

For installation of the door a hole is required in the wall with the dimensions indicated in Fig. 1, where:
H = free light height of the door,
L = free light width of the door.

Warning, above height H it is necessary to provide enough space for the top part, equal to:
- at least 600 mm for the 590 mm version
- at least 450 mm for the 420 mm version

### 3.3.2 Frame assembly

Near the installation hole, clean the floor and place the two vertical uprights and the crossbar on the ground.

**VERSION 590 mm**
The joining element is on the upper part of the two uprights. Line up the holes with those in the guide support and secure everything with the screws provided, M8X20 (Fig. 2).
Repeat the operation on the second upright.

**VERSION 420 mm**
There are two joining elements in the lower part of the crosspiece.
Insert the protruding ends inside the upper part of the two uprights. (Fig. 3).

Place a pallet under the crosspiece (it will be needed for the lifting operation) as described in the image (Fig. 4). Then proceed to lift the pallet with a fork lift truck, an operator must accompany the uprights on side to reduce the sliding on the ground to a minimum.

### 3.3.3 Positioning and holes

The door must be positioned with the uprights perfectly perpendicular to the ground, and the upper part straight; use a spirit level, aligners or plumb line in this phase. There are slots in the two uprights, in a central position; drill with a Ø13 bit for inserting the M12 tie rods (Fig. 5). On the ground, drill and secure the two dowels for locking the uprights.

**VERSION 590 mm**
Make three Ø13 holes on the wall, on the right upright and three holes on the left upright corresponding to the holes on the bearing support (Fig. 5 version 590 mm).

**VERSION 420 mm**
Create a Ø13 hole on the wall, on the right upright and one on the left upright corresponding to the slot on the metal back of the crosspiece. (Fig. 5 version 420 mm)

### 3.3.4 Fixings

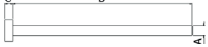
**VERSION 590 mm**
Use the 3 metal M12 bars for the upper securing; secure from the inner side with a flat washer plus a spring washer and its cap nut (Fig. 6 version 590 mm).

**VERSION 420 mm**
For securing at the top, use the two nylon tie rods with their washers and allocated nuts from the opposite part of the securing wall. (Fig. 6 version 420 mm)

Proceed with inserting the nylon tie rods and from the opposite part place the nylon washer and its nut on all the slotted holes (Fig. 6).

| FIXING ON SANDWICH INSULATION PANEL | |
|---|---|
| **For fastenings up to panel thickness 200 mm** | |
| Nylon washer diameter 60 mm with hole diameter 12 mm | 16 pcs |
| Plastic nut cover white M12 | 16 pcs |
| Nylon threaded rod M12 with square head L=230 mm | 16 pcs |
| Nylon hex nut 12M H12 | 16 pcs |
| **For fixing thickness > 200 mm** | |
| Nylon washer diameter 60 mm with hole diameter 12 mm | 16 pcs |
| Plastic nut cover white M12 | 16 pcs |
| Galvanised threaded rod M12 L=1000 mm | 2 pcs |
| Nylon threaded rod M12 L=500 mm | 10 pcs |
| Nylon hex nut 12M H12 | 32 pcs |
| M12 grower rosettes | 16 pcs |

# THREADED TIE RODS




-**DESCRIPTION**: *Metric thread round bars with square head*

-**FEATURES:** *Electrically and thermally insulating. Highly tensile strength. Ideal in industrial refrigeration to avoid thermal bridges*

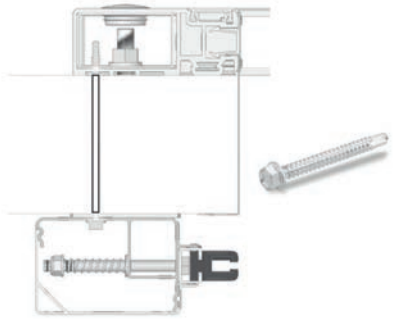
-**MATERIAL**: *Pa6-Fv.*

-**COLOUR:** *Natural*

| Article code | Min. quantity | A | B | C | NOTES |
|---|---|---|---|---|---|
| TIR12X160 | 50 | M12 | 160 | 10 | |
| TIR12X180 | 50 | M12 | 180 | 10 | |
| TIR12X230 | 50 | M12 | 230 | 10 | |
| TIR12X250 | 50 | M12 | 250 | 10 | |
| TIR12X300 | 50 | M12 | 300 | 10 | |

| **Floor** | |
|---|---|
| Through plug to beat hight performance | 4 pcs |

| FIXING OPPOSITE INCOLD SLIDING DOOR | |
|---|---|
| **The size of the fasteners changes depending on the thickness** | |
| Stainless steel flat washer 6.4x24 | 16 pcs |
| Self-drilling screw with flanged hexagon head 6.3xL variable | 16 pcs |



| **Floor** | |
|---|---|
| Through plug to beat hight performance | 4 pcs |

| FIXING ON METALLIC STRUCTURE | |
|---|---|
| Spring washer 6,4x24 stainless steel | 16 pcs |
| Self-drilling screw with hexagonal head flanged 6.3x60 | 16 pcs |

| **Floor** | |
|---|---|
| Through plug to beat hight performance | 4 pcs |

| FIXING ON WALL | |
|---|---|
| Extended nylon anchor with hexagonal head screw | 16 pcs |
| 8x24 flat washer in galvanized steel | 16 pcs |

Lightweight concrete

Chalk

Hollow brick

| **Floor** | |
|---|---|
| Through plug to beat hight performance | 4 pcs |

| FASTENING CONCRETE BLOCKS ON WALL | |
|---|---|
| Steel through anchor with countersunk hexagonal flat head screw | 16 pcs |
| 8x24 flat washer in galvanized steel | 16 pcs |
|  | |
|  | |
|  Concrete C20/25  Sandstone brick  Solid brick  Polystyrene panels  Natural stone | |
| **Floor** | |
| Through plug to beat hight performance | 4 pz |
|  | |

### 3.3.5 Completing assembly

Assemble the two aluminium side covers. It is not necessary to use screws for securing the covers in the standard version (first) because they snap in. For the stainless steel version, use the screws provided.

**VERSION 590 mm**

Assemble the two side brackets supporting them on the bearing brackets; assemble the other brackets at the same height (only for large size doors) (Fig. 7).

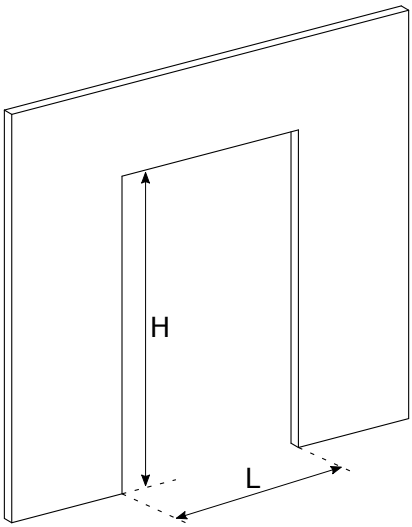
Insert the sheet hinges inside the side housings in the upright for at least 20 cm delicately pulling downwards. (Fig. 7).

Assemble the casing: secure it to the wall supporting it on the previously assembled brackets (Fig. 8).

**VERSION 420 mm**

Insert the sheet hinges inside the side housings in the upright for at least 20 cm delicately pulling downwards. (Fig. 7).

Assemble the casing: rest it and secure it to the previously assembled door crosspiece with suitable screws. (Fig. 8).



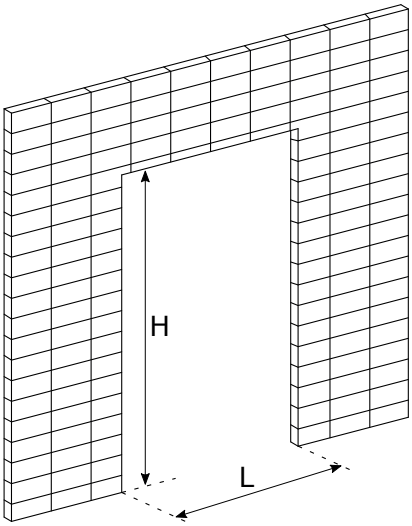




Fig. 1

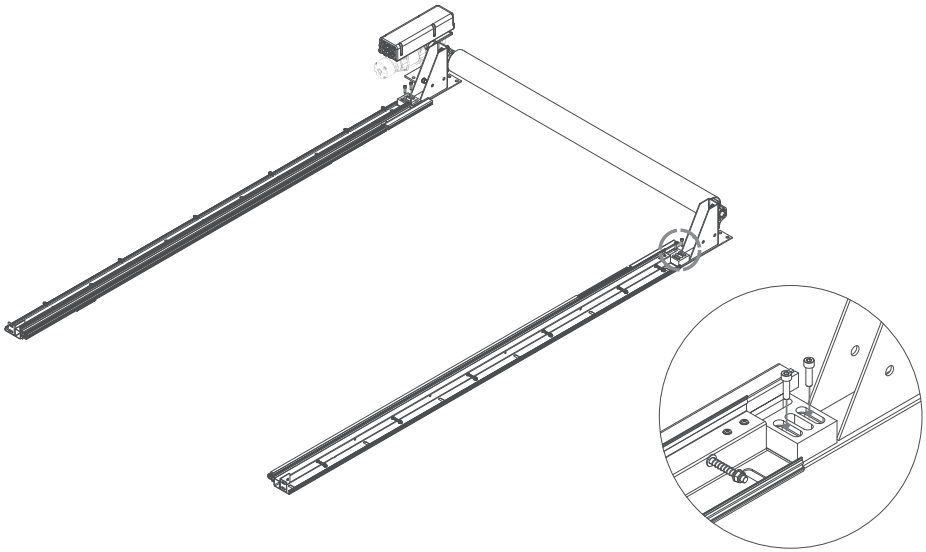


Fig. 2

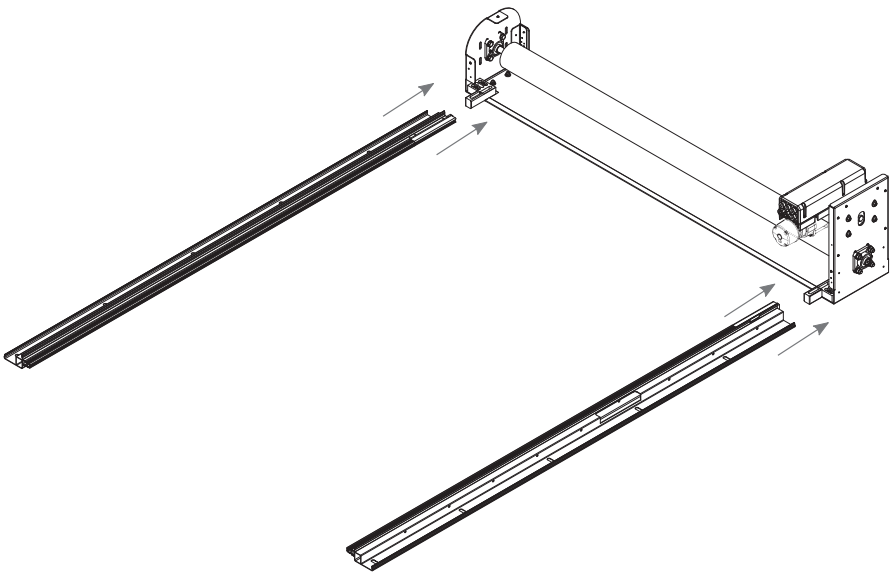


Fig. 3

If door with insulated curtain and applied on cold room panel, follow the installation procedure below, otherwise go to figure no. 4.

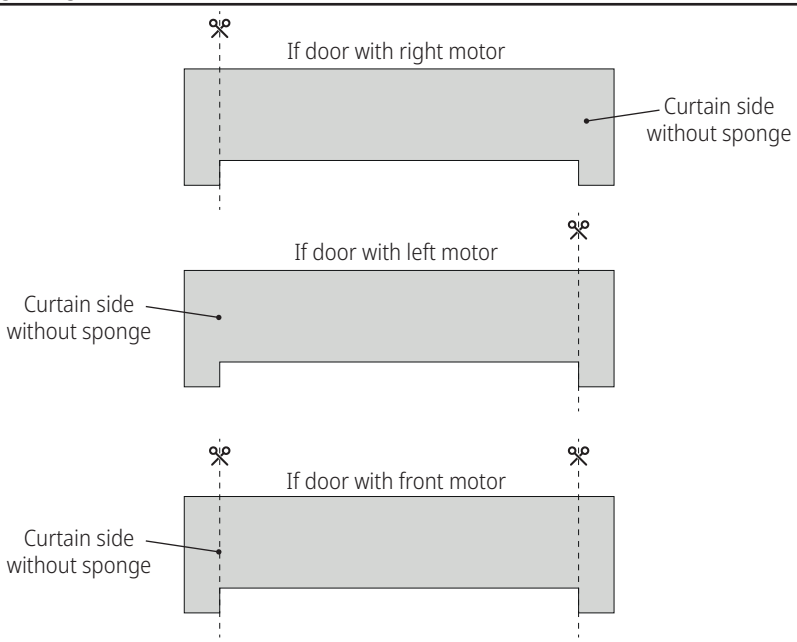



**Fig. A**

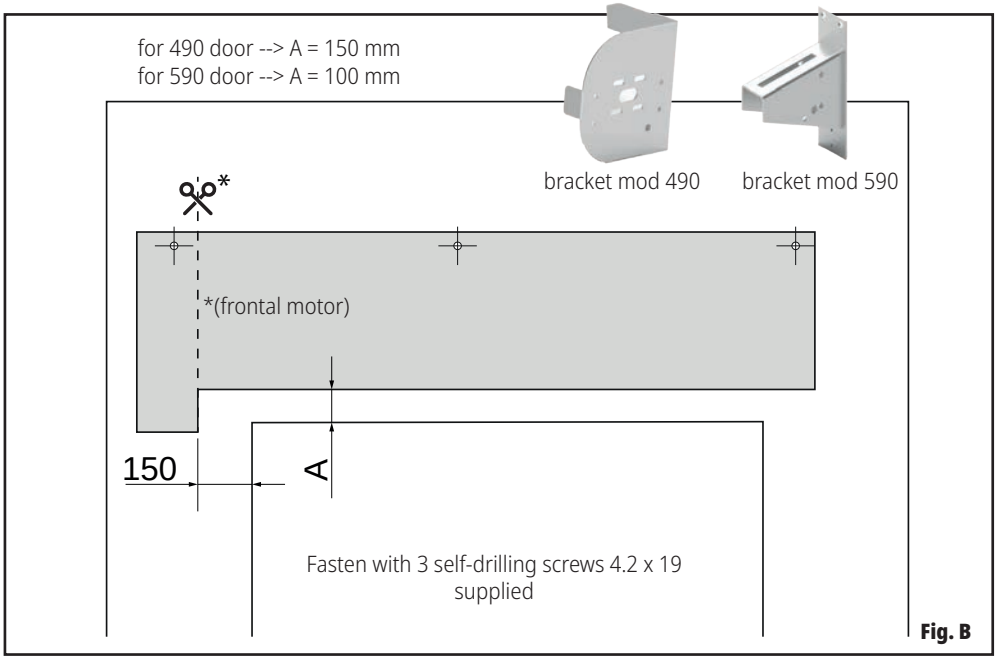



**Fig. B**

Cut the thermal break profile for uprights to the required size, then fix them to the back of the uprights with double-sided adhesive tape (not supplied)

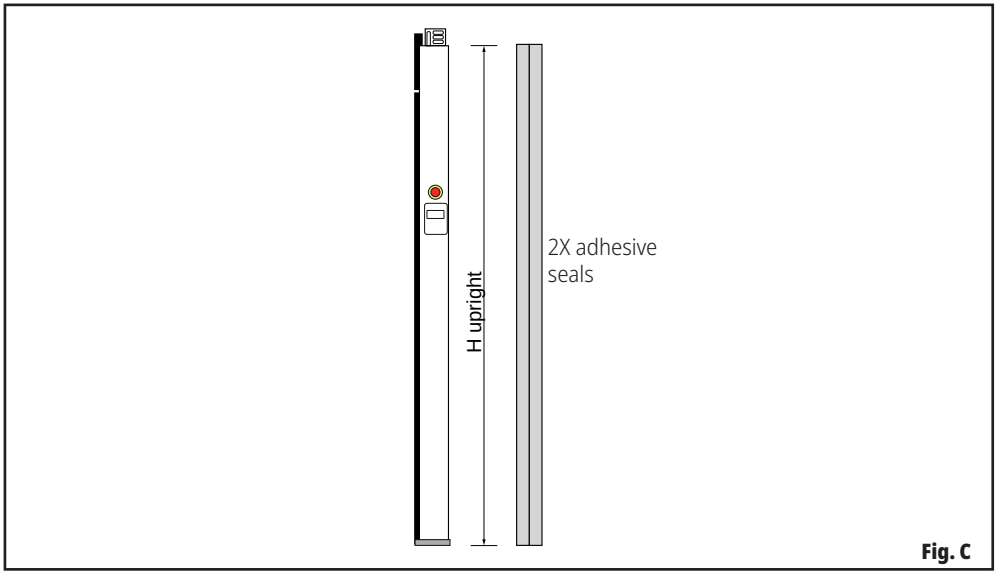



**Fig. C**

Complete the assembly of the door and finish the upper assembly by cutting off the excess of the thermal break sheet.

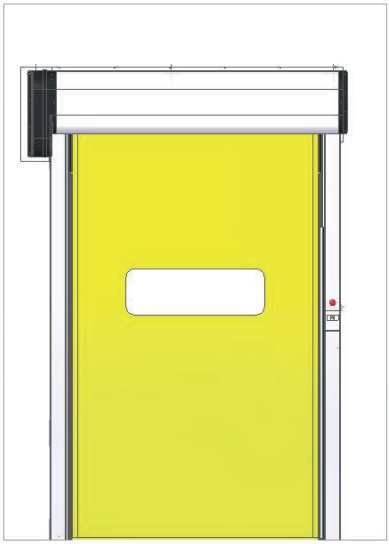


**Fig. D**

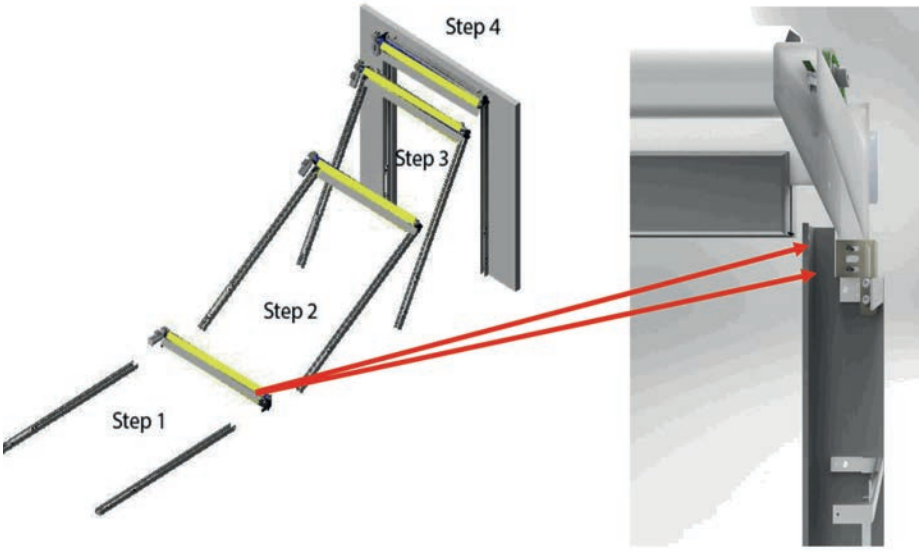



Fig. 4

**VERSION 420 mm**

**VERSION 590 mm**

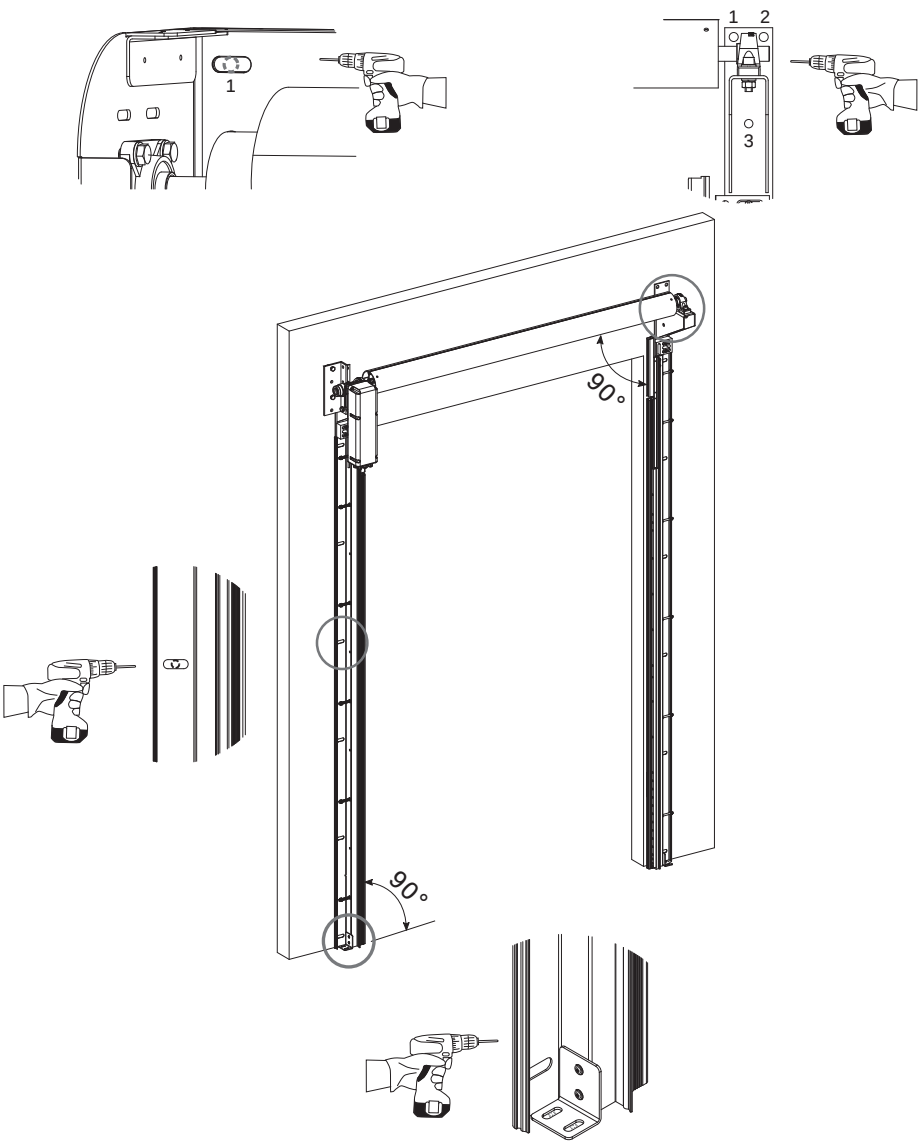



Fig. 5

**VERSION 420 mm**

**VERSION 590 mm**

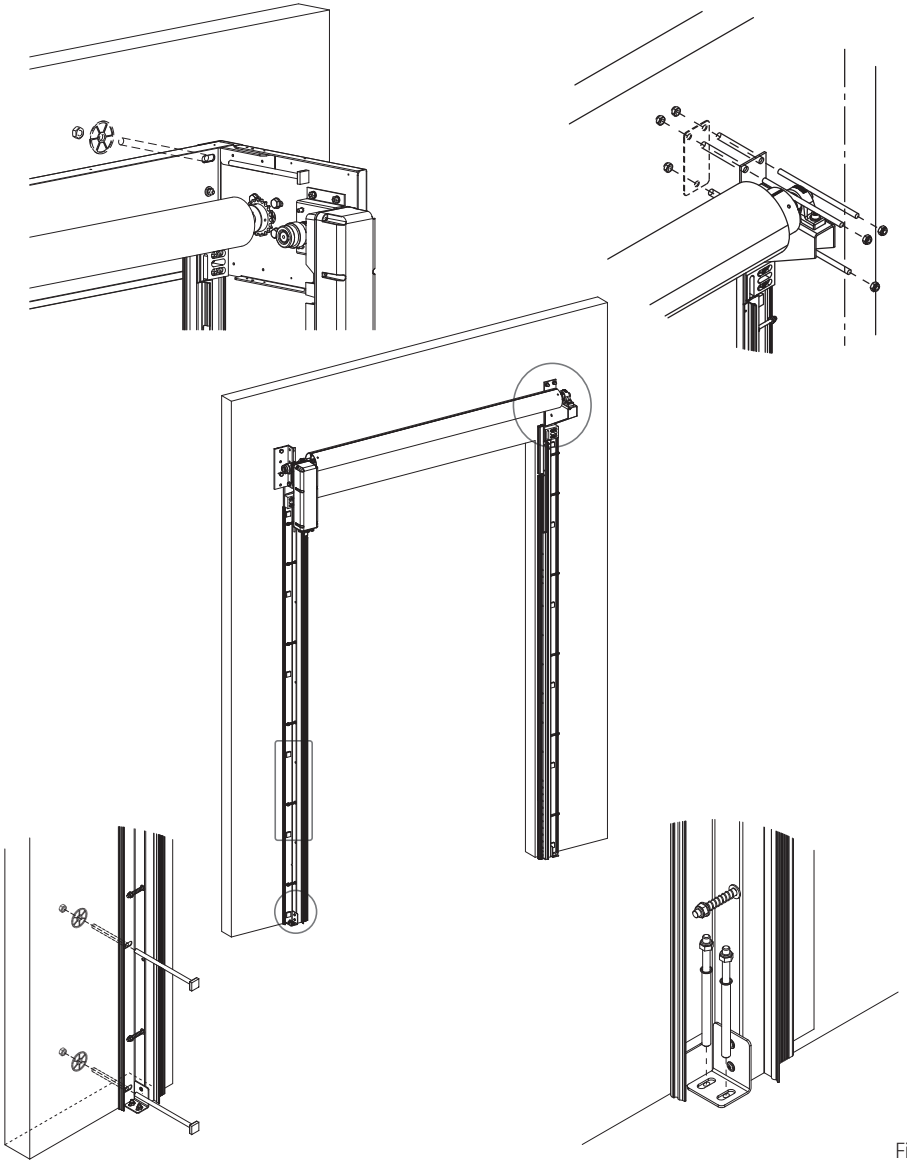


Fig. 6

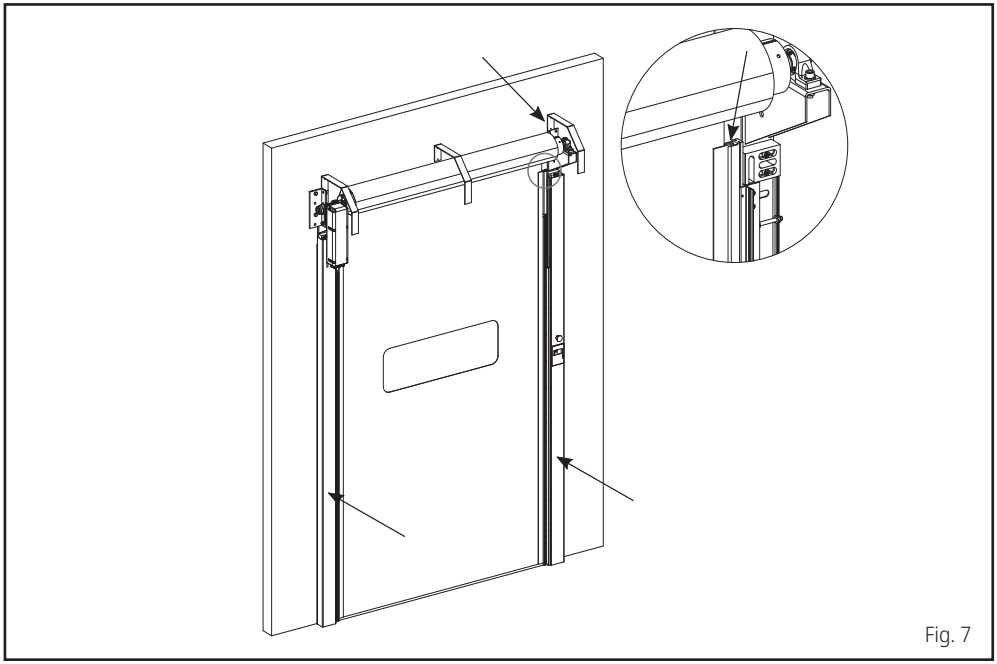


Fig. 7

If door with insulated curtain, attach the brush (supplied) to the frame on which the door is mounted, so that the bristles rest on the door curtain.

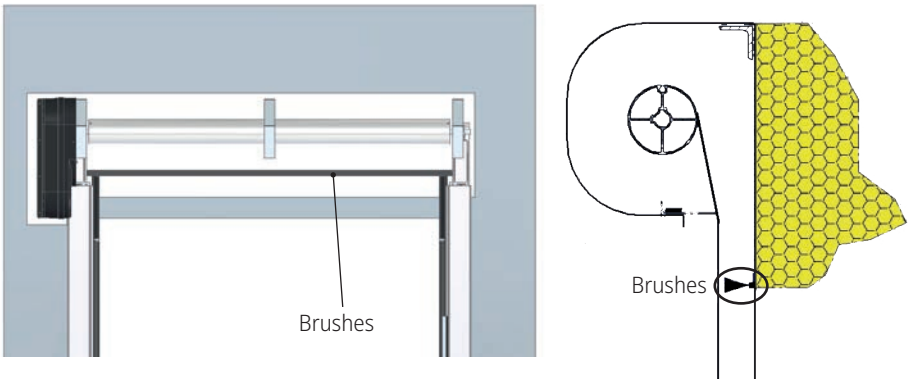



**Fig. E**

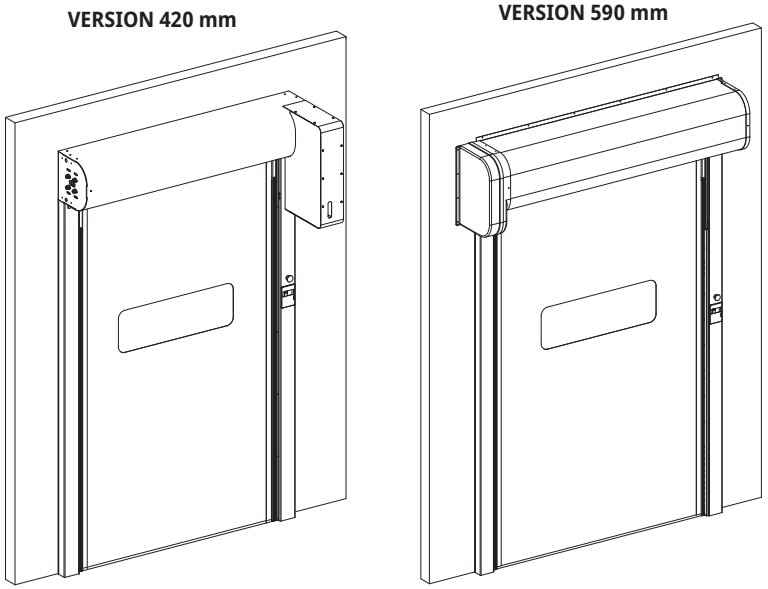
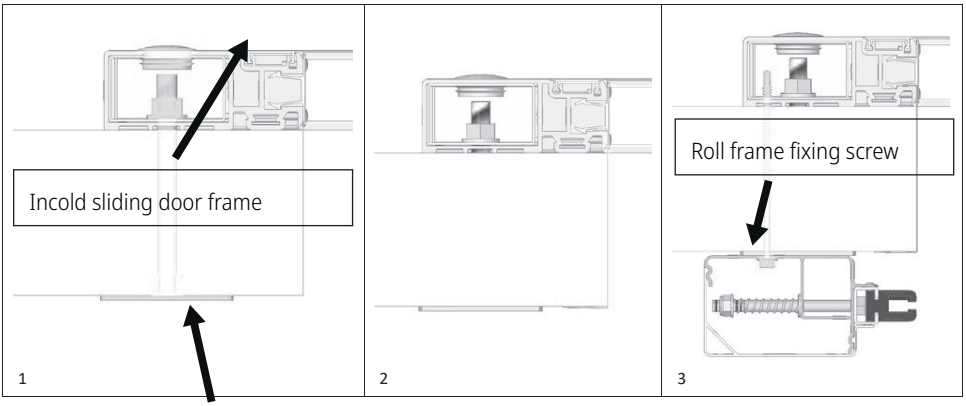



Fig. 8

# ASSEMBLY OF THE OPPOSED ROLL UP DOOR WITH INCOLD SLIDING DOOR




Use the plate with welded nut to secure the sliding door frame.

Install the edging steels

Fix the roll door with self-drilling screws on the reinforcement of the sliding door frame

## 3.4 ELECTRICAL CONNECTIONS

### 3.4.1 Positioning electrical components


| | |
|---|---|
| 1 - Geared motor with integrated card | 3 - Optical barriers |
| 2 - Control panel | 4 - Sensitive edge (optional) |

### 3.4.2 Cablaggio componenti

Connect:
- The cables of the optical barriers, depending on type (see circuit diagram) (Fig. 10)
- The keypad cable with quick connector exiting the motor (Fig. 11)
- The 2-wire cable L = 5mt to the black opening mushroom (see wiring diagram)
- The 2-wire cable L = 10mt to the pulling cable (see wiring diagram)
- The power plug

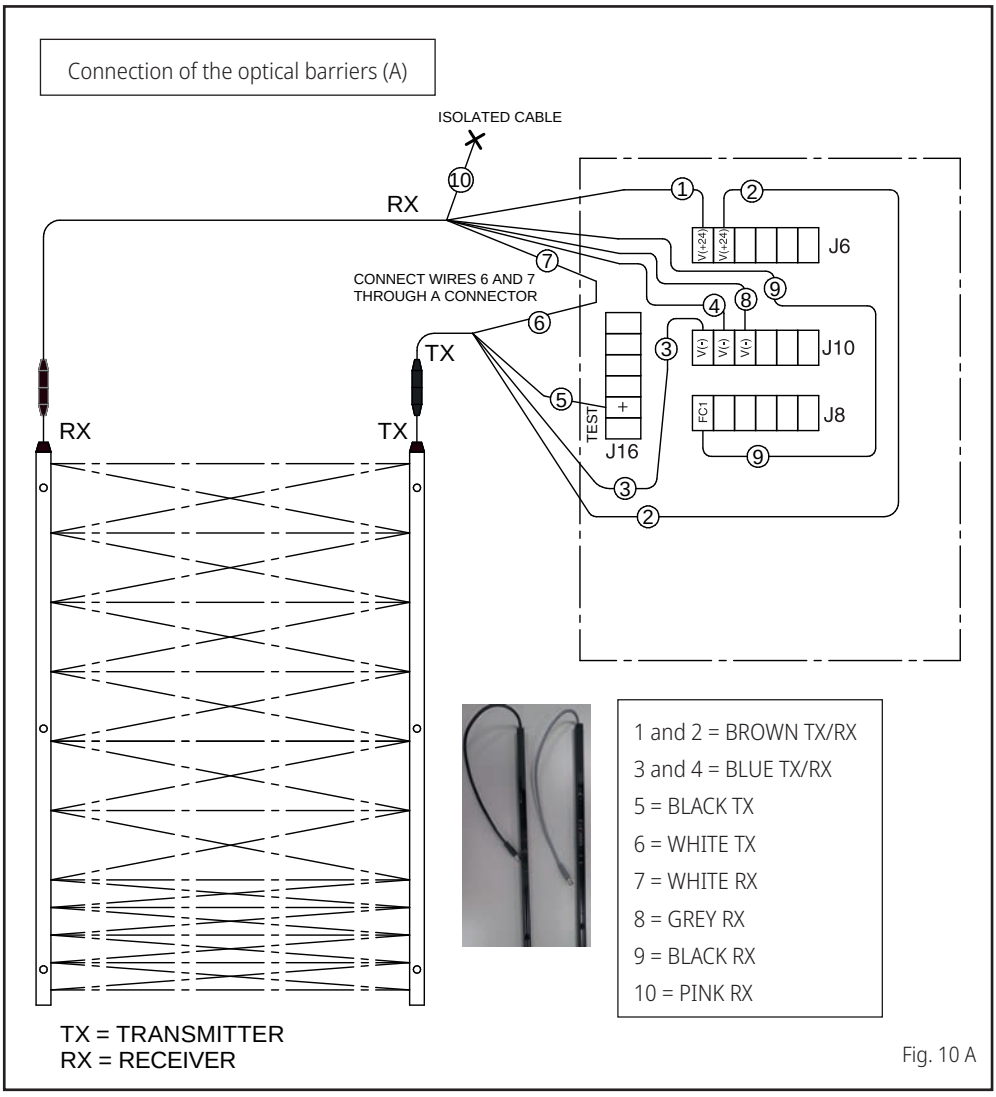
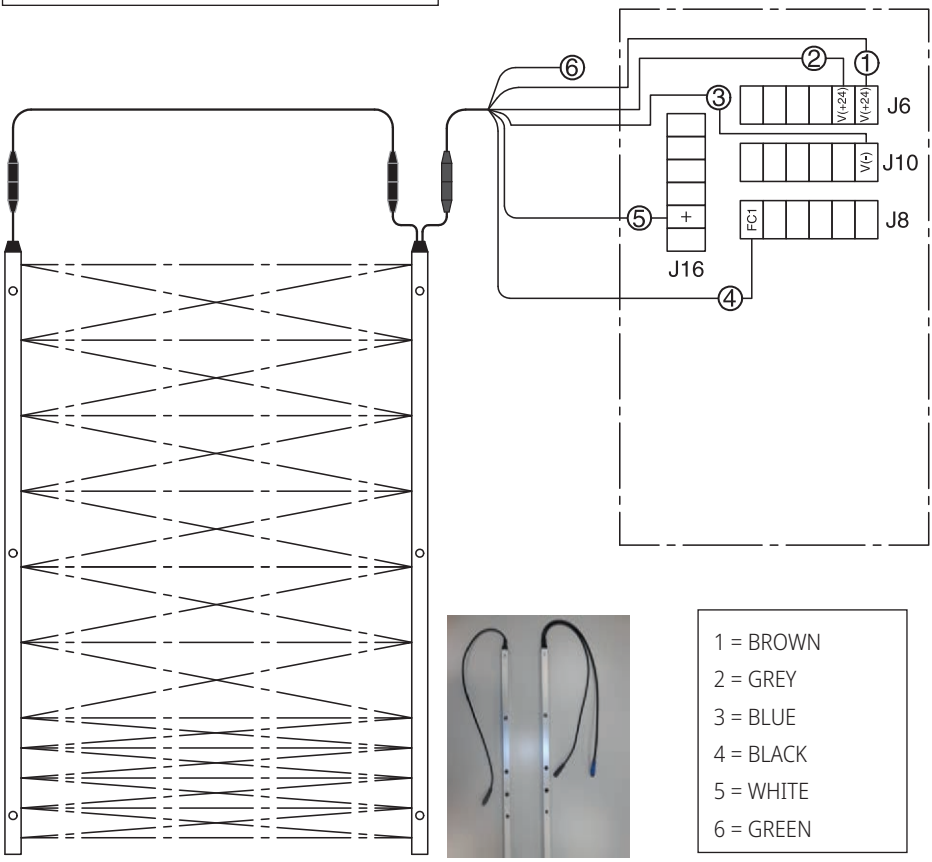



Fig. 10 A

Connection of the optical barriers (B)

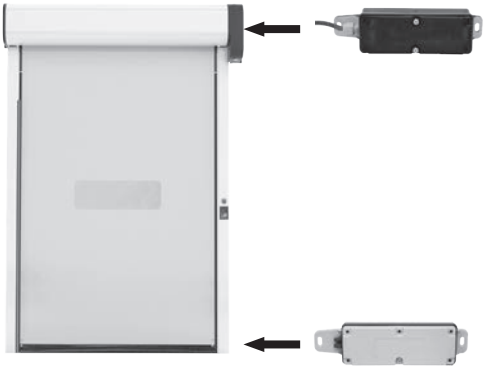





1 = BROWN
2 = GREY
3 = BLUE
4 = BLACK
5 = WHITE
6 = GREEN

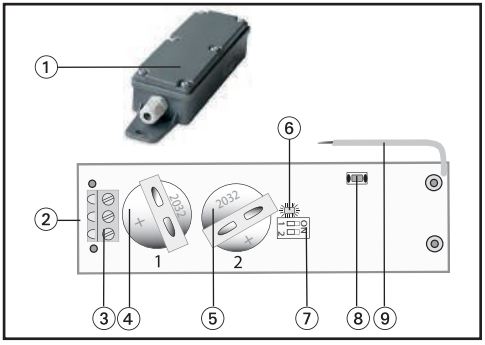
Fig. 10 B

## Version with safety edge (before January 2022)



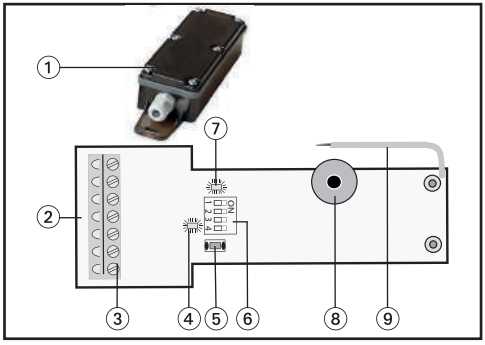

The door has a wireless radio transmission system to bring the signal coming from the safety edge to the main electrical panel. This system consists of a transmitter and a receiver. The transmitter needs to be powered by two supplied batteries (CR2032 type). It is recommended to replace the batteries as part of a scheduled annual maintenance of the door. It is necessary to insert the batteries and memorize the transmitter to make the door work.

**Transmitter:** is fastened above the movable leaf




1. Transmitter
2. PCB Transmitter
3. Terminals
4. Battery 1 CR2032
5. Battery 2 CR2032
6. LED (activation)
7. DIP - Switch
8. Push button
9. Antenna

**Receiver:** is placed in the main electrical panel




1. Receiver
2. PCB Receiver
3. Terminals
4. LED 1 (system readiness)
5. Push button
6. DIP - Switch
7. LED 2 (programming mode)
8. Buzzer
9. Antenna

Insert the batteries in the transmitter placed on the sensitive edge of the leaf of the door, the receiver is placed inside the panel:


1. Remove the PCB from the housing.
2. Insert the anclosed batteries (type CR2032).

**Important:** Insert battery 1 first and then battery 2. Unless this order is observed, correct function is not guaranteed.

**Initialisation:**

**Notice:** The distance between the transmitter and receiver must be at least 1 m. Up to 10 trasmitters can be programmed. Transmitters can be learned in with or without a connected detector / switch. For reason of safety, memory mode is exited automatically 10 seconds after the last key pass.

**Programming a transmitter**

Enter the memory function:

1. Press the key of the receiver until a signal sounds. LED lights up red fot maximum 10 seconds (display memory readiness output 1). ✳

The transmitter must be activated within these 10 seconds:

2. Press the key of the transmitter until a signal sounds on the receiver.

Other transmitters can now also be programmed by pressing their keys.

**Finishing programming:** wait 10 seconds until two signals sound.

**Reset: delete transmitter programming**

Enter the memory function:

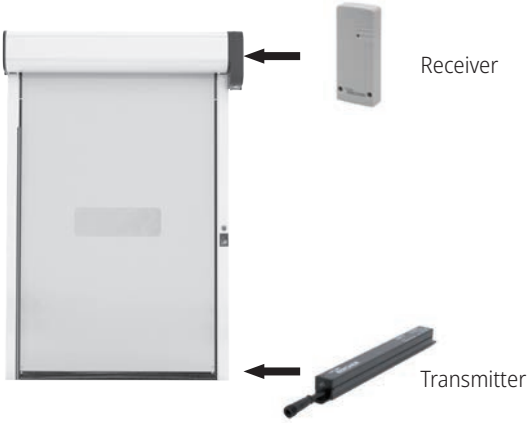
1. Press the key of the receiver until a long signal sounds.

Signal sequence: 

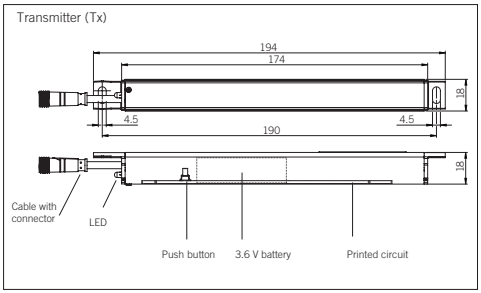
The transmitter memory is now deleted. After 10 seconds, two segnals sound and memory mode is exited automatically.

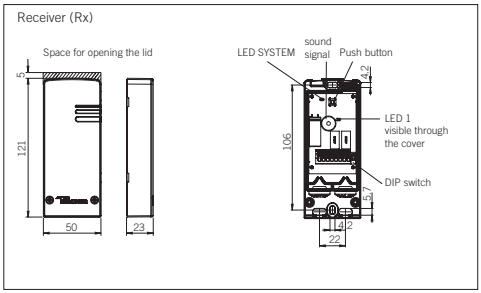
**ATTENTION: REPLACING THE BATTERY ONCE A YEAR IS RECOMMENDED.**

## Safety edge (from January 2022)



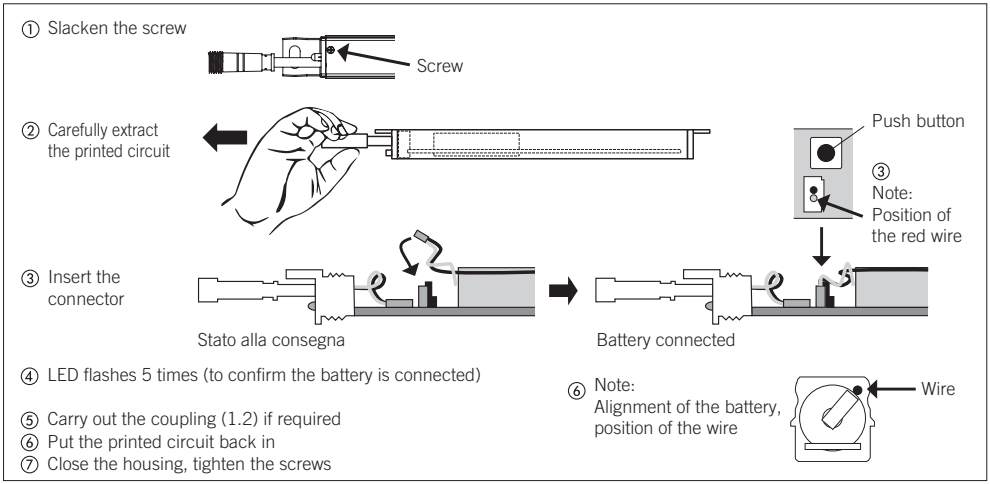

**Note:** Always check the status of the safety devices shown by the LED light on the receiver.



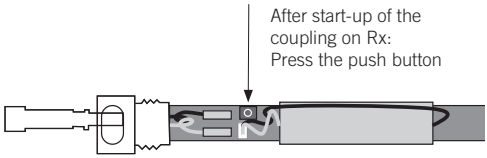

### 1. Transmitter configuration

- **Connect the battery**



- **Coupling**

Coupling is possible with the transmitter open or even after assembly.

| a) Coupling with the cover open | b) Coupling after assembly |
|---|---|
|   | After start-up of the coupling on Rx: By pressing the profile twice within 2 seconds   |

- **System check (compulsory after every setting)**


Check the system by pressing the **safety profile**

The LED flashes when the sensor is activated (by pressing the sensitive edge) and flashes again when it is released. Does the door stop when the sensitive edge is activated?

- **Replacing the batteries**

① Order a new battery (with pre-assembled connector)!
② Extract the printed circuit
③ Disconnect the connector and remove the battery
④ Put the new battery in, insert the connector
⑤ Insert the printed circuit
⑥ Close the cover
⑦ Compulsory system test!
⑧ Dispose of the battery in accordance with the local provisions

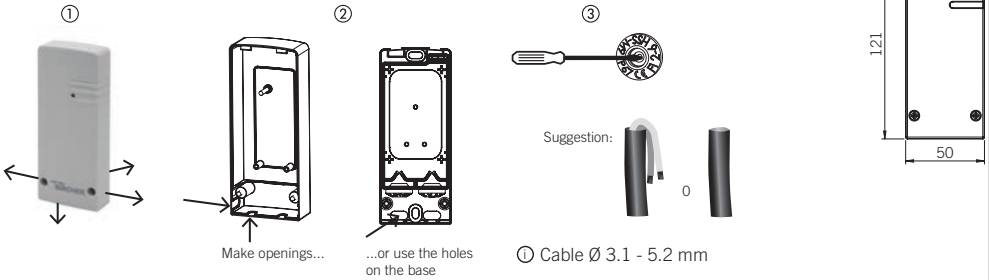
## 2. Receiver configuration

- **Assembly**

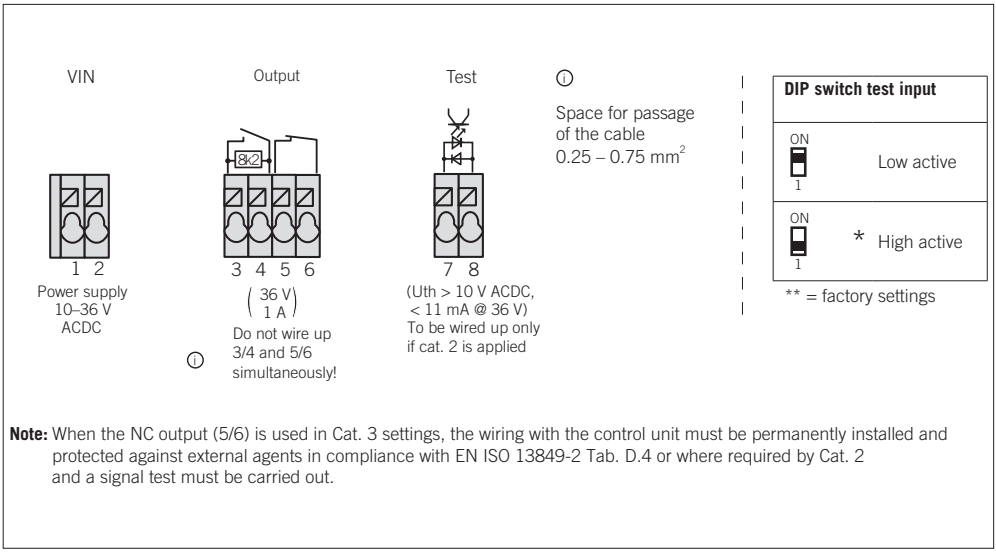
Cable path, traction discharge

① Set a cable path
② If necessary, make an opening in the respective part of the cover
③ Make a hole in the washer
④ Insert the cable

Space for opening the lid

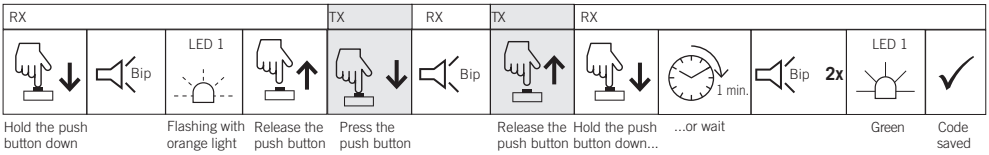


- **Wiring**

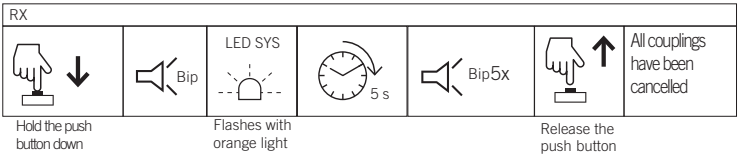



**Note:** When the NC output (5/6) is used in Cat. 3 settings, the wiring with the control unit must be permanently installed and protected against external agents in compliance with EN ISO 13849-2 Tab. D.4 or where required by Cat. 2 and a signal test must be carried out.

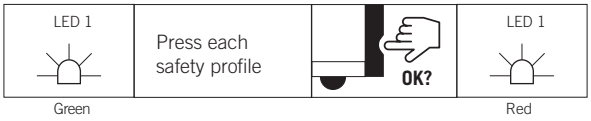
- **Pairing the transmitter with the receiver**




- **Clear pairings**




- **System test, compulsory after every set-up!**

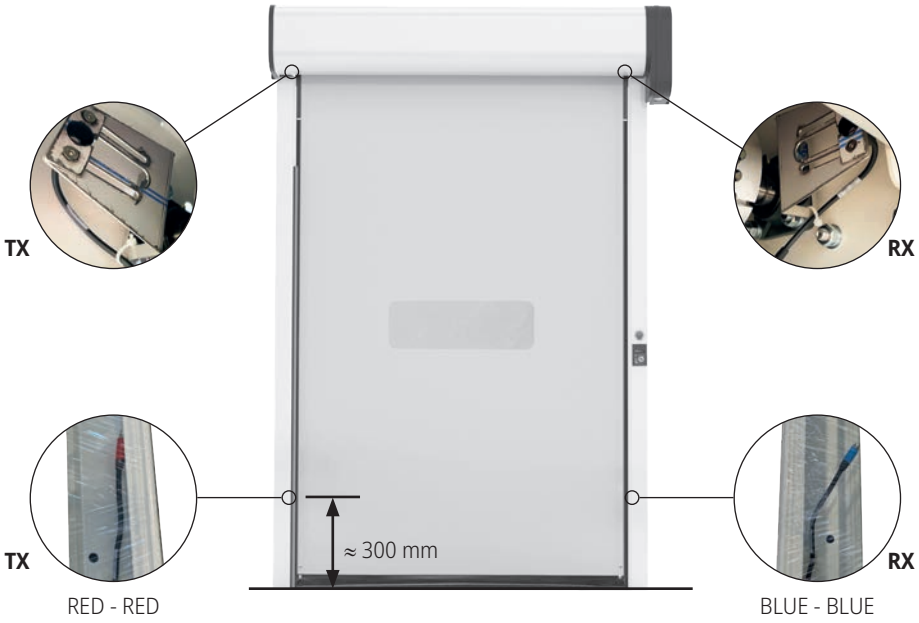


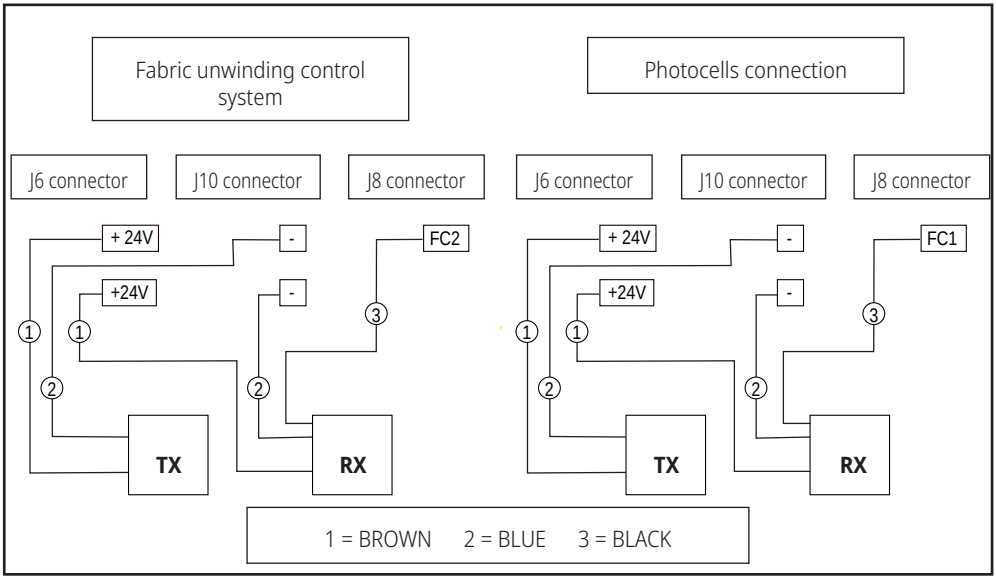

Does the door stop when the sensitive edge is activated?

- **LED output status**

| | SYSTEM LED | LED 1 | Output 1 3-4 | Output 1 5-6 | Bip |
|---|---|---|---|---|---|
| No power supply | - | - | closed | open | |
| System ready, no sensor pressed | green | green | 8k2 | closed | |
| Sensor pressed (edge of main closure) | orange | red | closed | open | |
| Small pedestrian door open (XRF - TW) | orange | red | closed | open | |
| Configuration (coupling) | orange flashing | orange flashing | closed | open | if activated |
| Configuration mode, full memory | orange flashing | orange flashing | closed | open | 10x |
| Low battery | green | green | 8k2 | closed | 3x every min. |
| Active input test | green | red | closed | open | |
| Error<br>a = cable damaged between the sensitive edge and input, resistor out of capacity<br>b = Tx lost or flat battery<br>c = system error | a = red<br>b = red<br>c = red | red | closed | open | |

## Fabric unwinding control system + Photocell



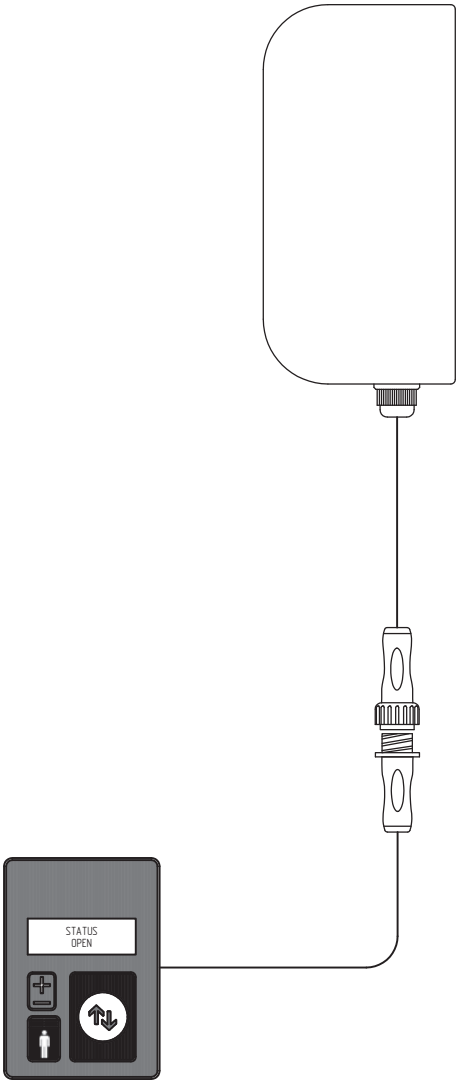
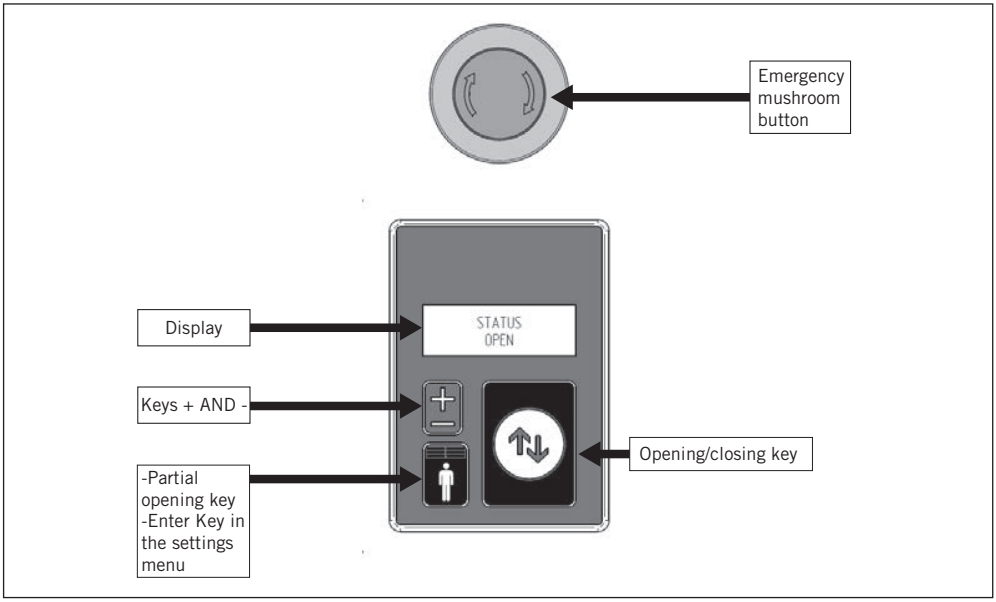



Fig. 11

### 3.4.3 Control keypad



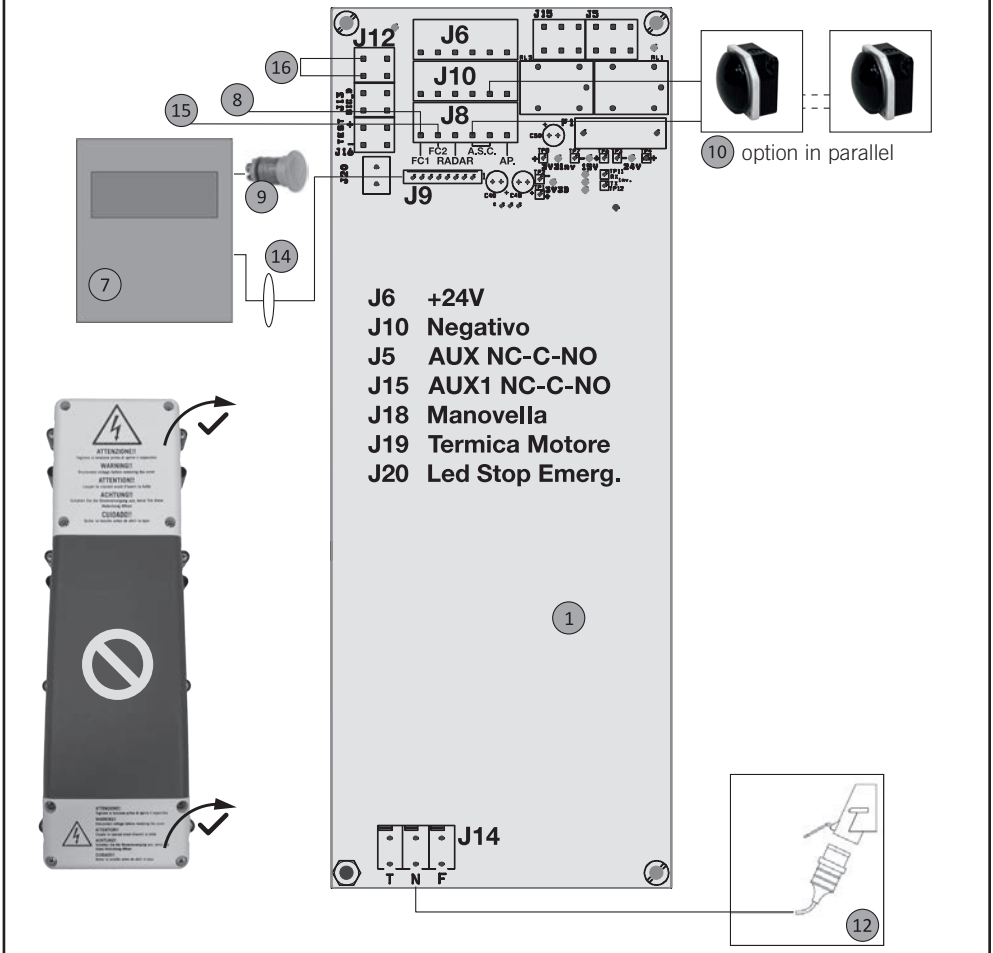

### 3.4.4 Alarms management

Connect:
During the normal operating and calibration phases of the door travel, a check is performed on any alarms that may occur and an alarm appears if an error is detected.
If an alarm is present, it can be reset by holding the key – and entering the password 3333. There are 3 attempts to correctly enter the alarm reset password and a 60" timeout for keypad inactivity.
If the same alarm occurs again, contact the Incold technical assistance office.

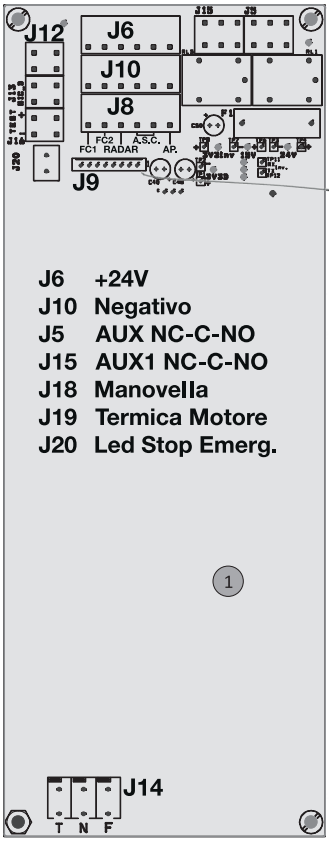
- Alarm 01: inverter overcharge.
- Alarm 02: inverter short-circuit.
- Alarm 03: too high continuous inverter voltage.
- Alarm 04: too low continuous inverter voltage.
- Alarm 05: motor overcharge.
- Alarm 06: motor thermal issue.
- Alarm 07: encode chain ("crank stop" is displayed).
- Alarm 08: inverter driver temperature.
- Alarm 09: PFC not started.
- Alarm 11: failed photocell 1 test.
- Alarm 12: failed photocell 2 test.
- Alarm 17: communication with the inverter.
- Alarm 18: roll-up opening/closing timeout.
- Alarm 19: roll-up calibration data error (loss of data saved in the memory).
- Alarm 20: roll-up position data error (roll-up position not coherent with the calibration data).
- FTC - "RADAR": Photocell or safety edge damaged

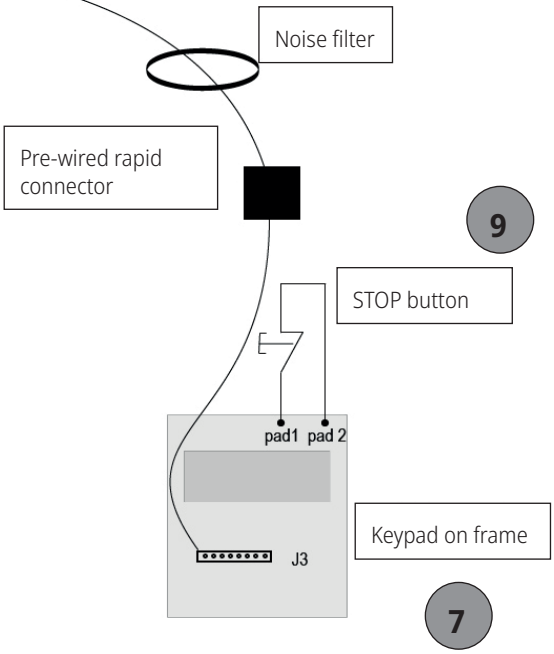
### 3.4.5 Wiring diagrams

**Topographic diagram**

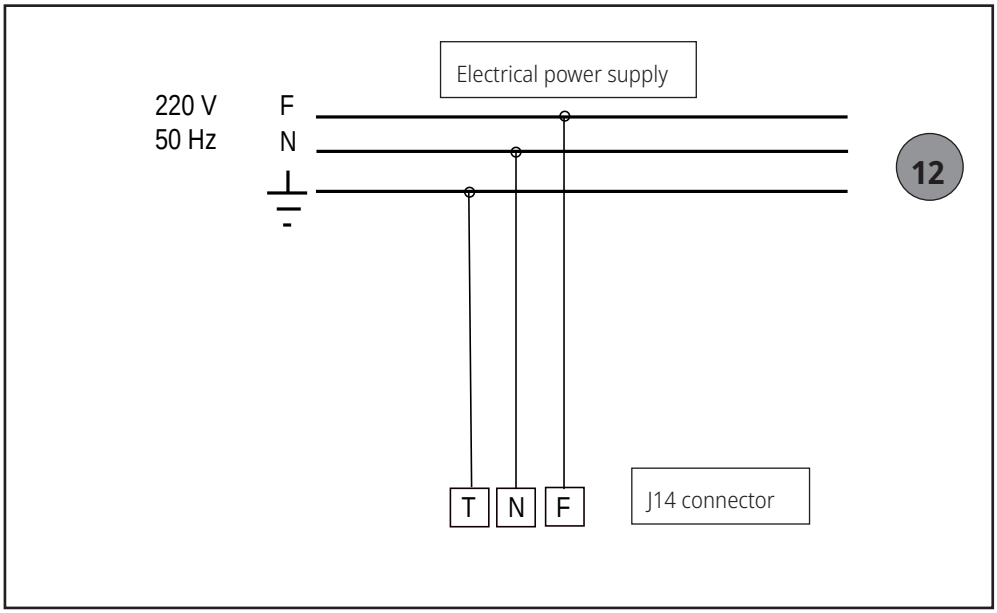


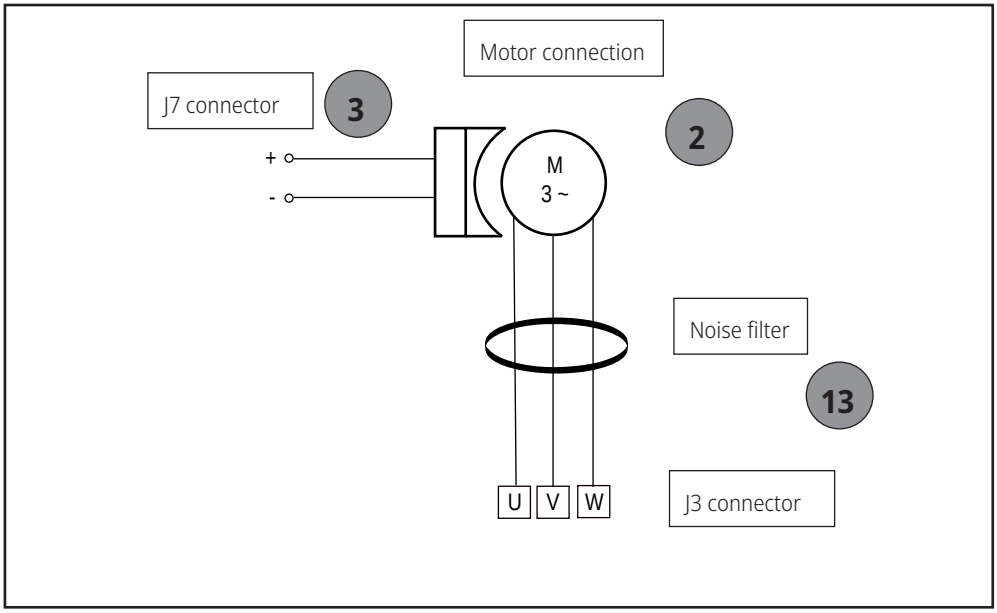

| | |
|---|---|
| 1. Main electronic diagram | 9. Emergency button |
| 2. Electric motor* | 10. Interior opening button |
| 3. Motor brake* | 11. Braking resistance* |
| 4. Thermal protection device* | 12. Power plug |
| 5. Handle insertion protection* | 13. Noise filter* |
| 6. Absolute encoder* | 14. Noise filter |
| 7. Control keypad | 15. TX - RX photocells |
| 8. Sensitive edge | *Parts that cannot be reached by the user |


J12
J6
J10
J8
FC2
A.S.C.
FC1 RADAR
AP.
J9
J6 +24V
J10 Negativo
J5 AUX NC-C-NO
J15 AUX1 NC-C-NO
J18 Manovella
J19 Termica Motore
J20 Led Stop Emerg.
1
J14
T N F


Noise filter
Pre-wired rapid connector
9
STOP button
pad1 pad 2
J3
Keypad on frame
7

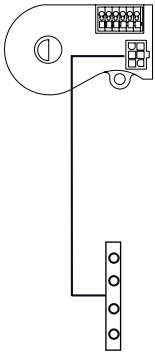
**Control devices**



Encoder connection

6



J11 connector

Handle contact

J18 connector

5

Motor circuit breaker contact

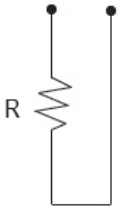
4

J19 connector

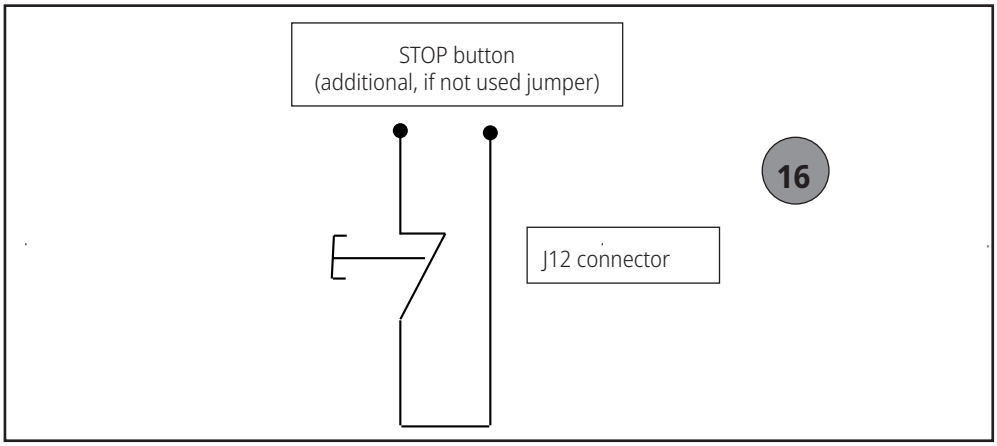
Braking resistance

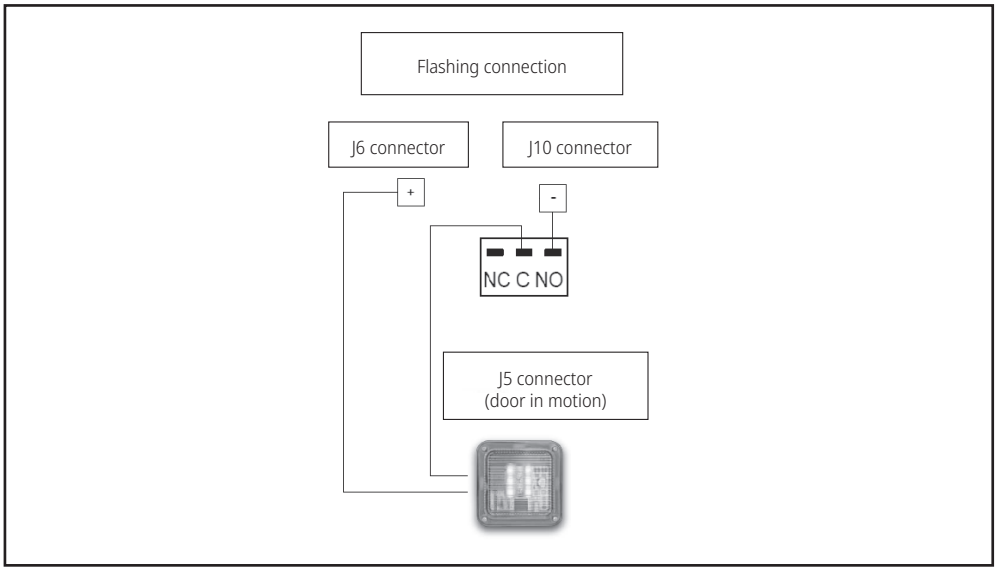
11

J7 connector

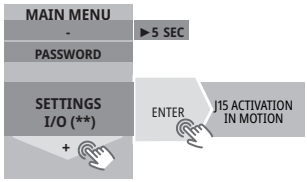


**Safety devices**

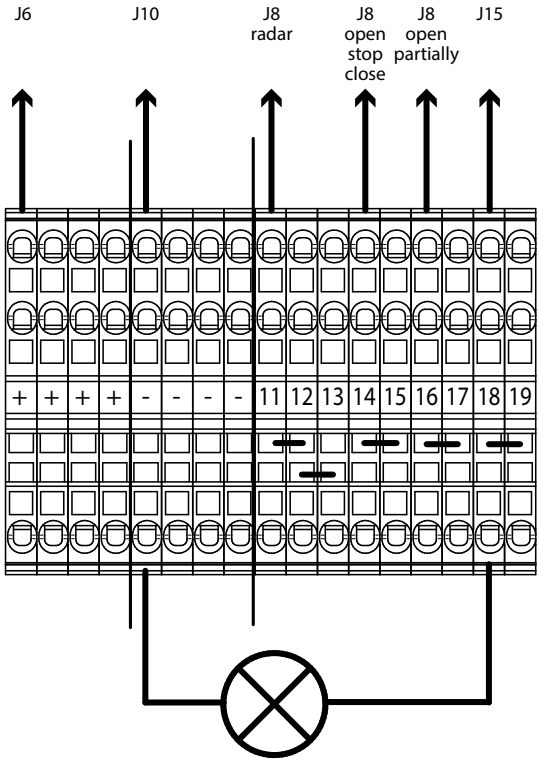


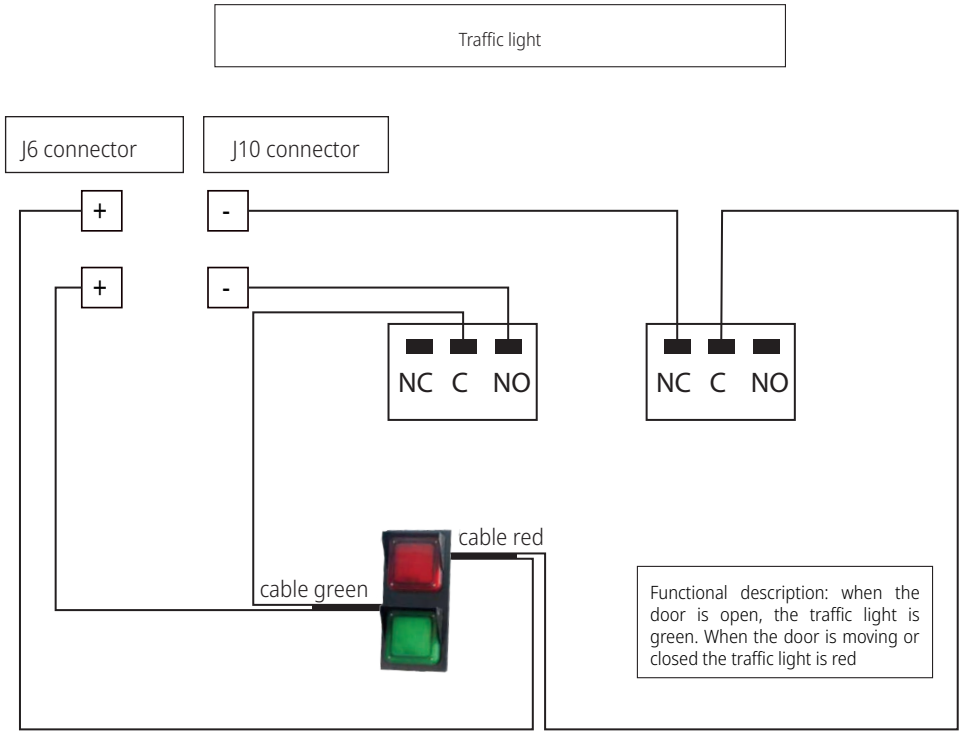




Set the operation of J5 in motion through:

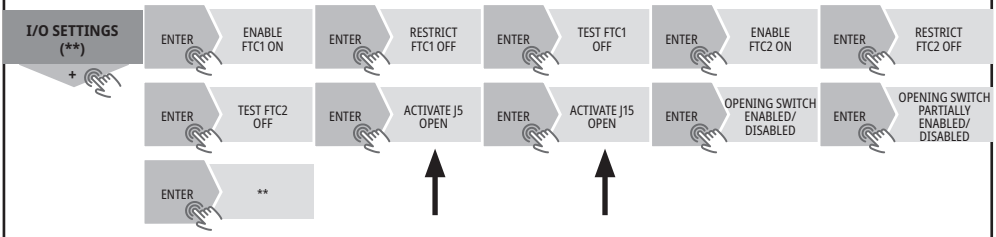


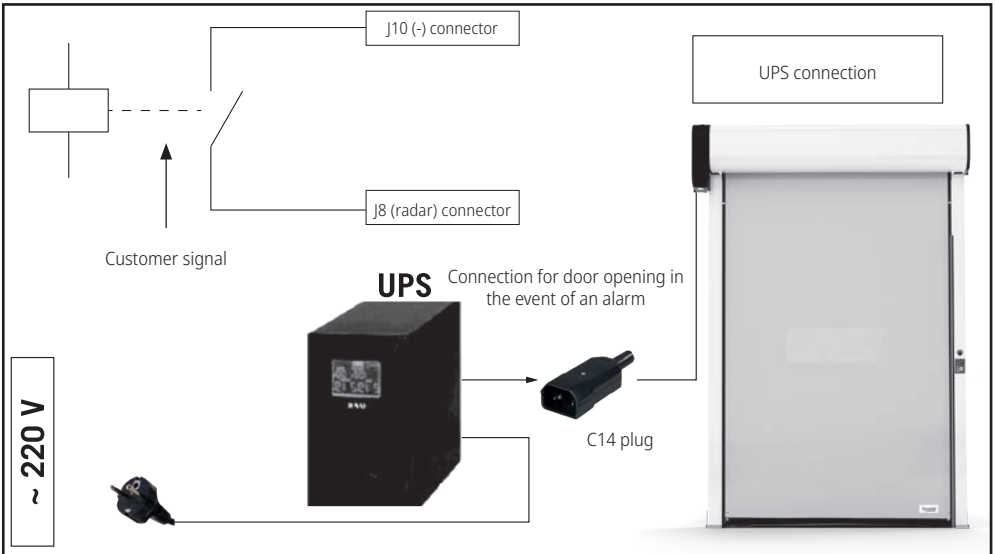
Junction box with flashing



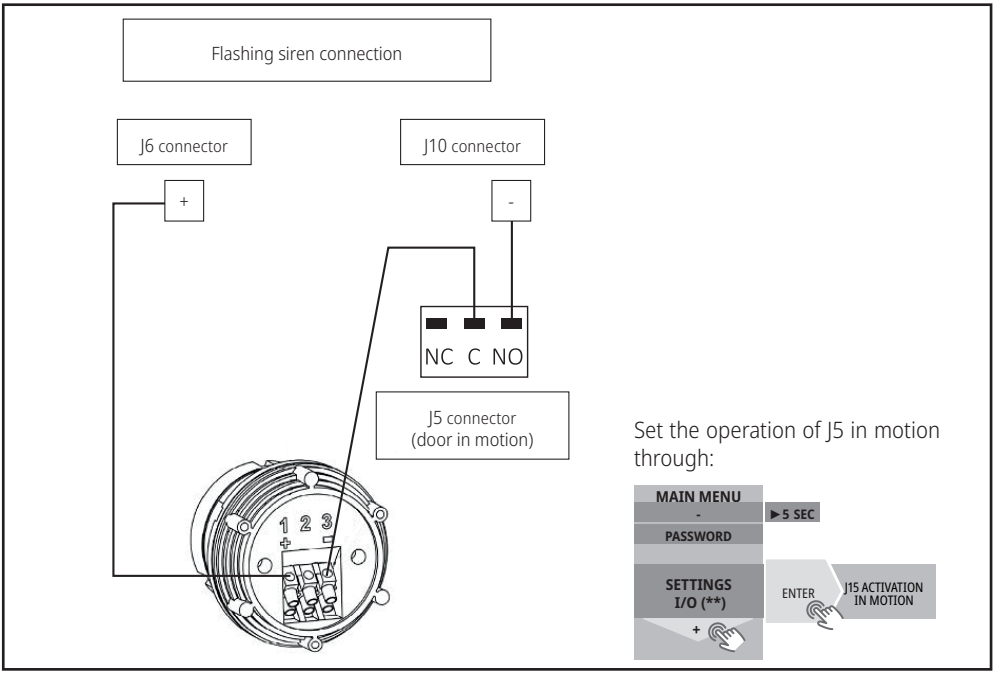



Set the operation of J5 and J15 as below with arrows

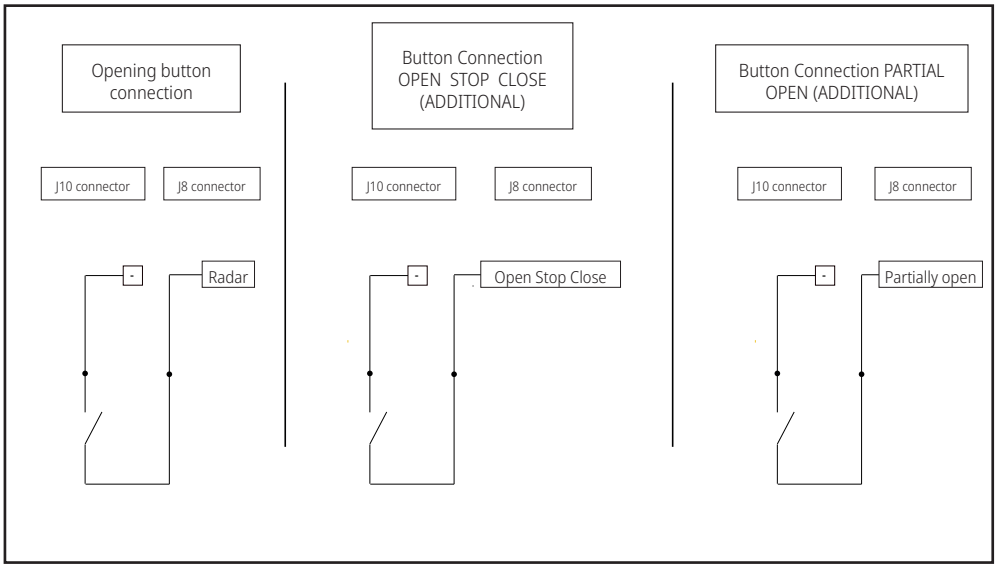


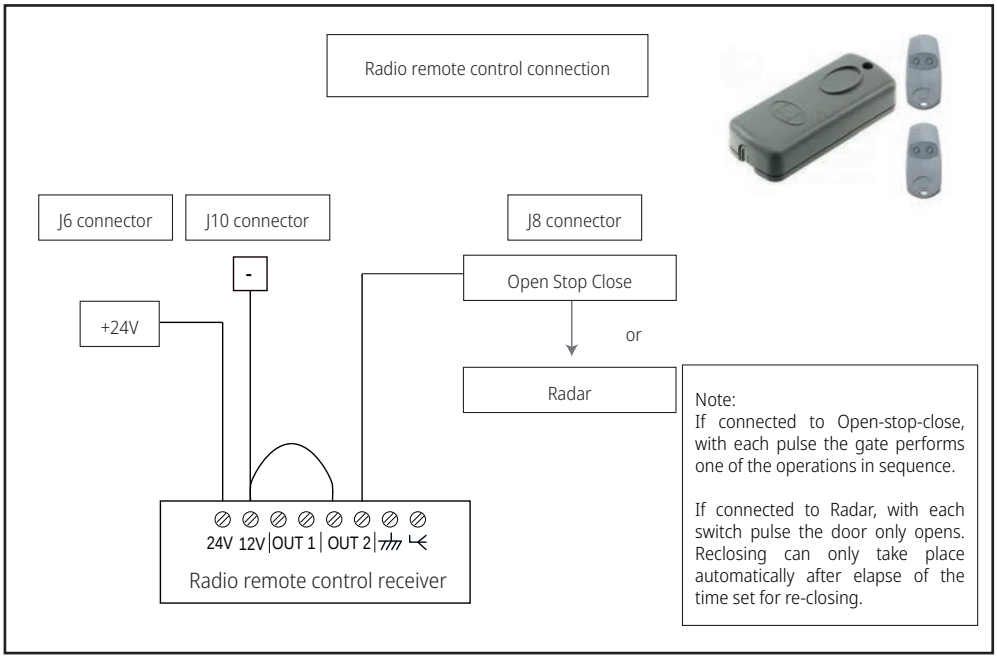


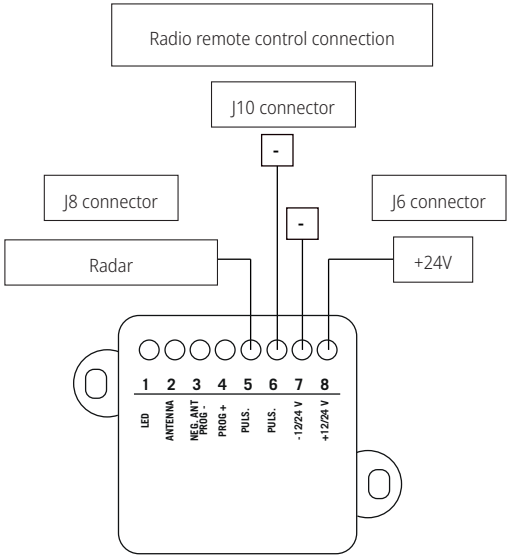

Note: Always follow the instructions in the UPS manual

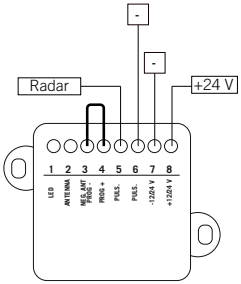


## Opening devices



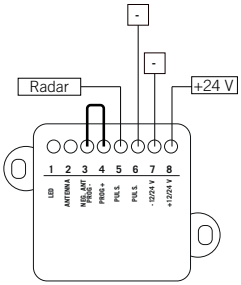






**Programming procedure:**

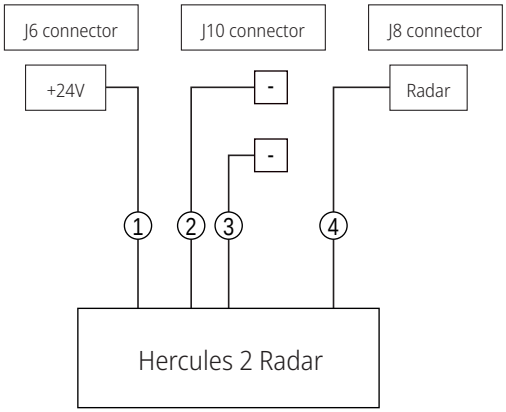
- The LED flashes on start-up and then goes out
- As soon as inputs 3 and 4, which are dedicated to programming, are jumped, the LED emits single flashes for 20 seconds
- Press a key on the remote control within the 20 second interval to associate it
- It stays lit for 3 seconds, as receiver feedback
- Disconnect the jumper from the receiver




**Reset procedure for all remote controls:**

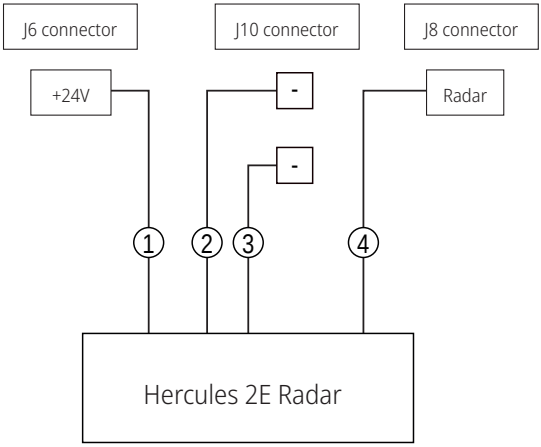
- Power on the receiver with 12V/24V
- The LED flashes and then goes out
- Put the jumper between inputs 3 and 4, which are dedicated to programming, the LED emits single flashes for 20 seconds
- Once the 20 seconds have elapsed, the LED emits longer flashes for another 90 seconds and indicates an alert situation
- It is no longer possible to programme a remote control at this time
- After the 90 seconds have elapsed, the memory is reset
- All the stored remote controls have been deleted
- The LED flashes 4 times repeatedly as long as the jumper is not removed
- If the jumper is removed, the programming procedure begins again, starting from the 20 seconds

Hercules 2 radar connection




1 = BROWN
2 = WHITE
3 = PINK
4 = RED

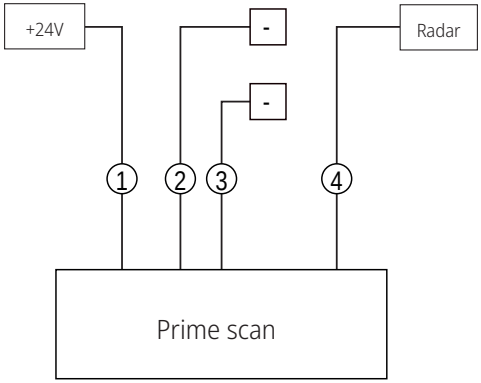
Hercules 2E radar connection




1 = BROWN
2 = WHITE
3 = YELLOW
4 = GREEN

Connection of the Prime scan

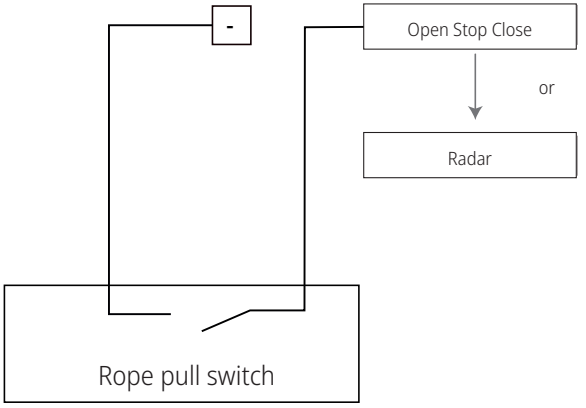
J6 connector | J10 connector | J8 connector




1 = BROWN
2 = WHITE
3 = GREEN
4 = YELLOW

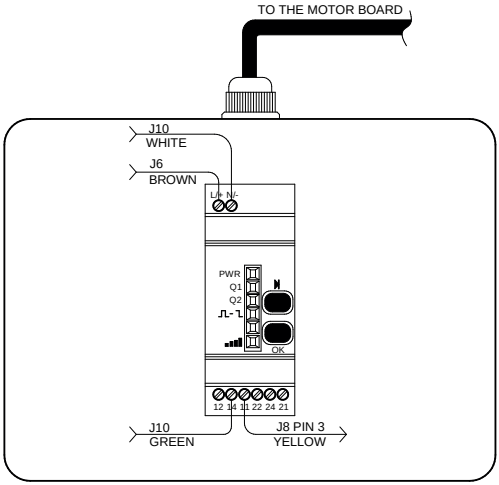
Cable switch connection

J10 connector | J8 connector




Note:
If connected to Open-stop-close, with each pulse the gate performs one of the operations in sequence.

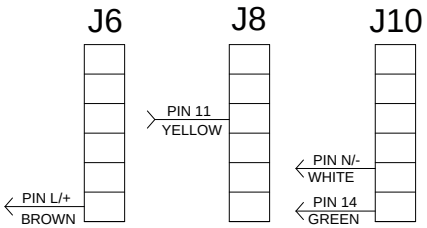
If connected to Radar, with each switch pulse the door only opens. Reclosing can only take place automatically after elapse of the time set for re-closing.




EXTERNAL BOX

Wireless tie-rod connection

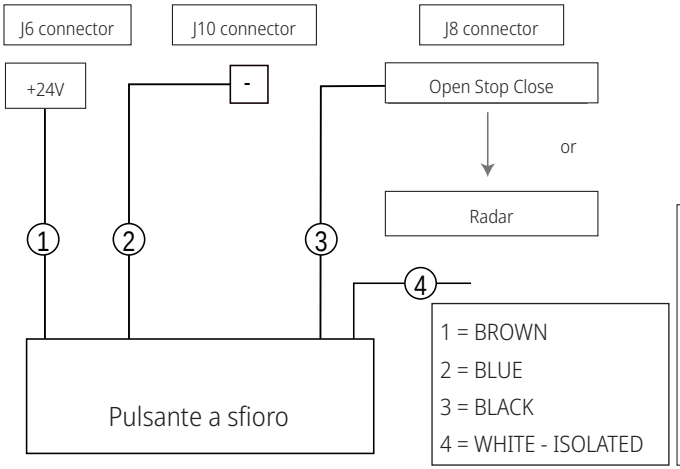
CONNECTION ON MOTOR BOARD




**TRANSMITTER CONFIGURATION PROCEDURE**

1. Press and hold the button for about 3 seconds until the "Q1" LED starts flashing.
2. Press the "OK" button
3. Actuate the tie rod three times (if the receiver has picked up the signal, the LED will light up)
4. Actuate the pull rod one last time (the "Q1" LED should light up briefly).

Connection Sick touch button

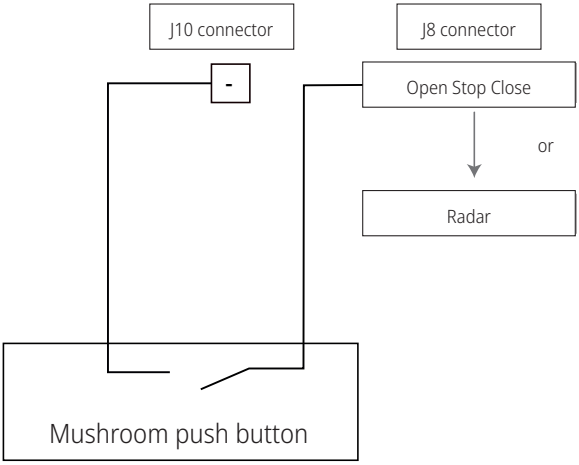



1 = BROWN
2 = BLUE
3 = BLACK
4 = WHITE - ISOLATED

Note:
If connected to Open-stop-close, with each pulse the gate performs one of the operations in sequence.

If connected to Radar, with each switch pulse the door only opens. Reclosing can only take place automatically after elapse of the time set for re-closing.

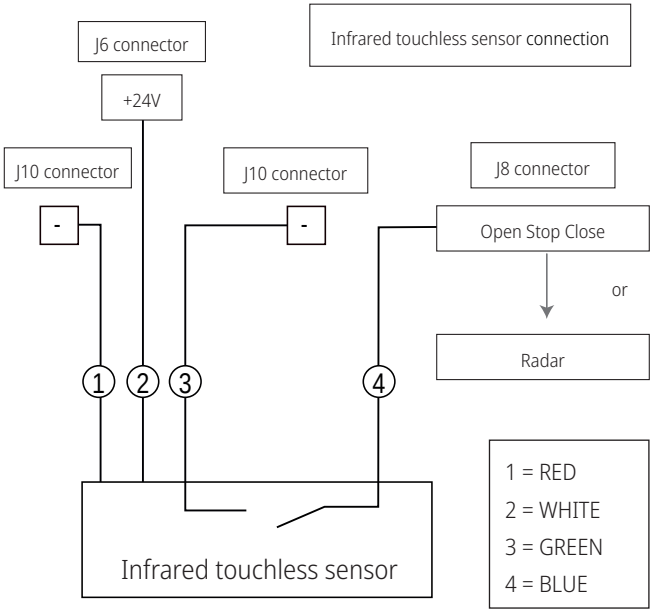
Mushroom push button connection




Note:
If connected to Open-stop-close, with each pulse the gate performs one of the operations in sequence.

If connected to Radar, with each switch pulse the door only opens. Reclosing can only take place automatically after elapse of the time set for re-closing.

Infrared touchless sensor connection

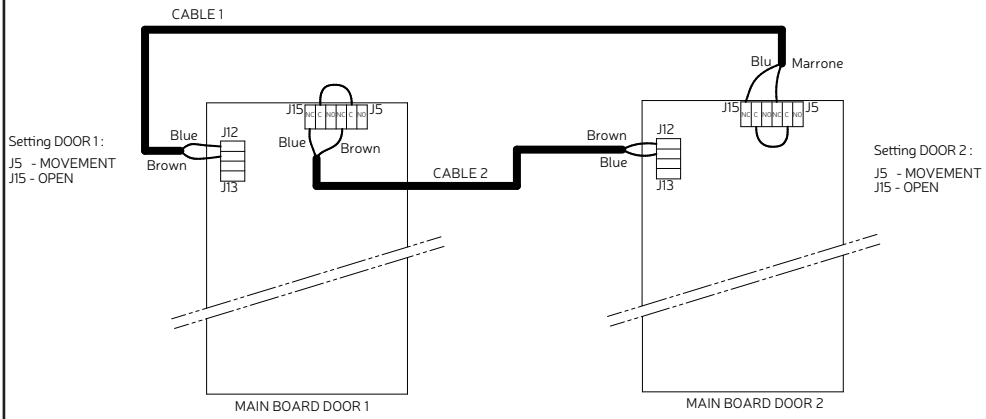


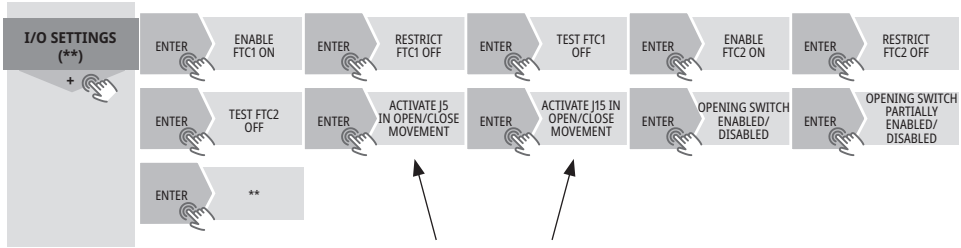

1 = RED
2 = WHITE
3 = GREEN
4 = BLUE

Note:
If connected to Open-stop-close, with each pulse the gate performs one of the operations in sequence.

If connected to Radar, with each switch pulse the door only opens. Reclosing can only take place automatically after elapse of the time set for re-closing.

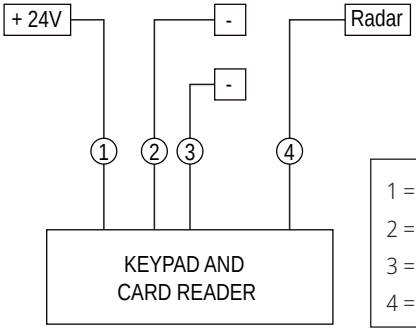
## Interlock scheme




## Keypad and card reader

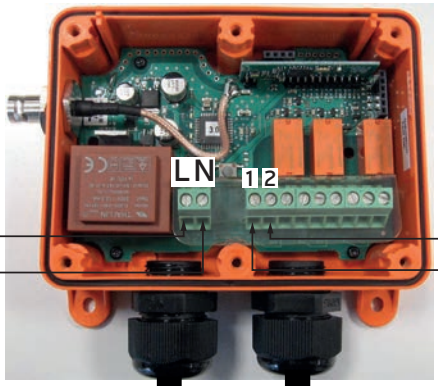
J6 connector | J10 connector | J8 connector




1 = RED
2 = BLACK
3 = YELLOW
4 = WHITE

Programming flowchart:
Enter: 000
Enter: B (1small beep + 1 long Beep+Yellow led on : if is correct)
Enter: 0
Enter: 001
Enter: 123 (or your password)
Enter: A (wait 2 second)
Enter: B
The led yellow is off END.

6-15 channels receiver




Brown plug 16 A

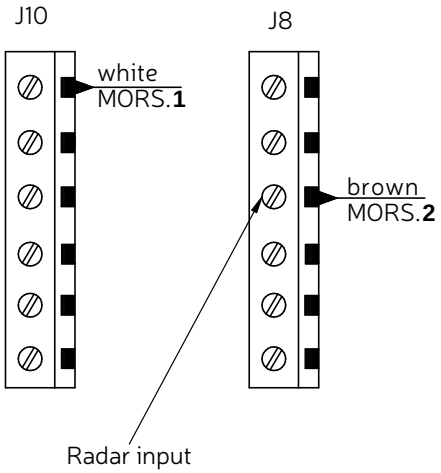
Blue plug 16 A

Brown J8 PIN 3 “Radar”

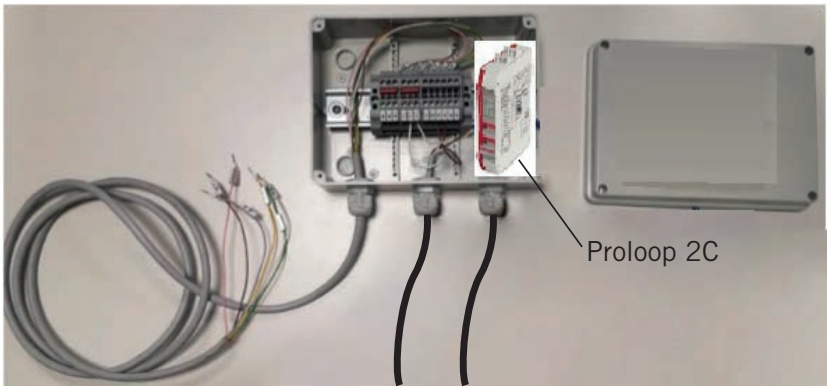
White J10

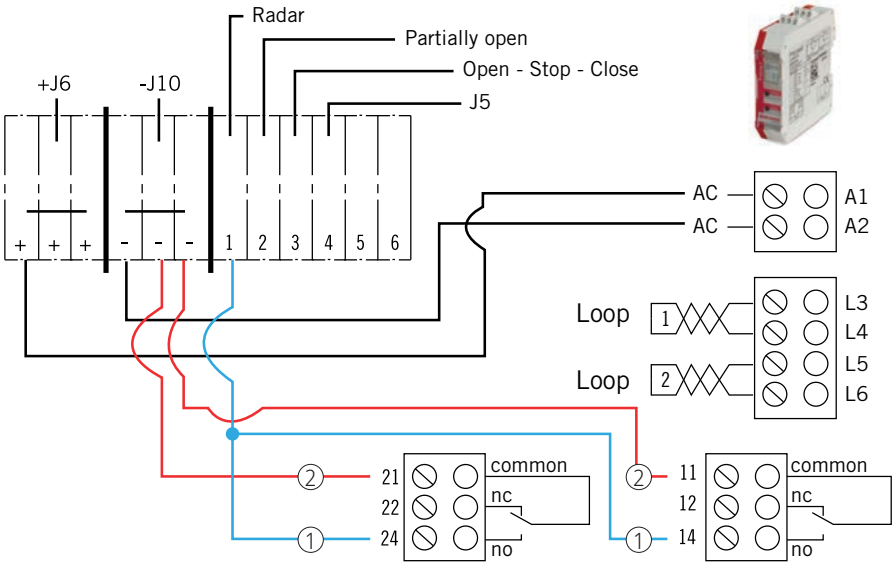
ART. 04110118
Power cord with plug CEE 16A
to external power supply

ART. 04110120
Mushroom push botton wiring cable
to main board



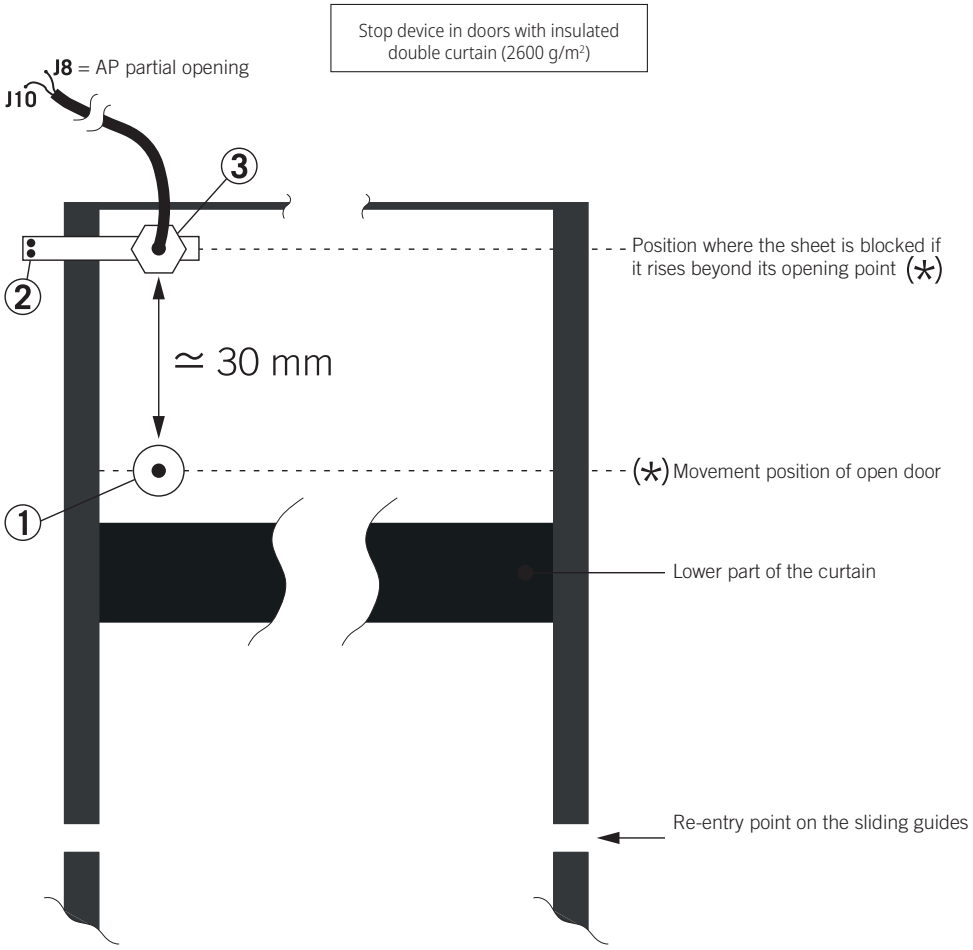
Proloop 2C connection




1 = BLUE
2 = RED

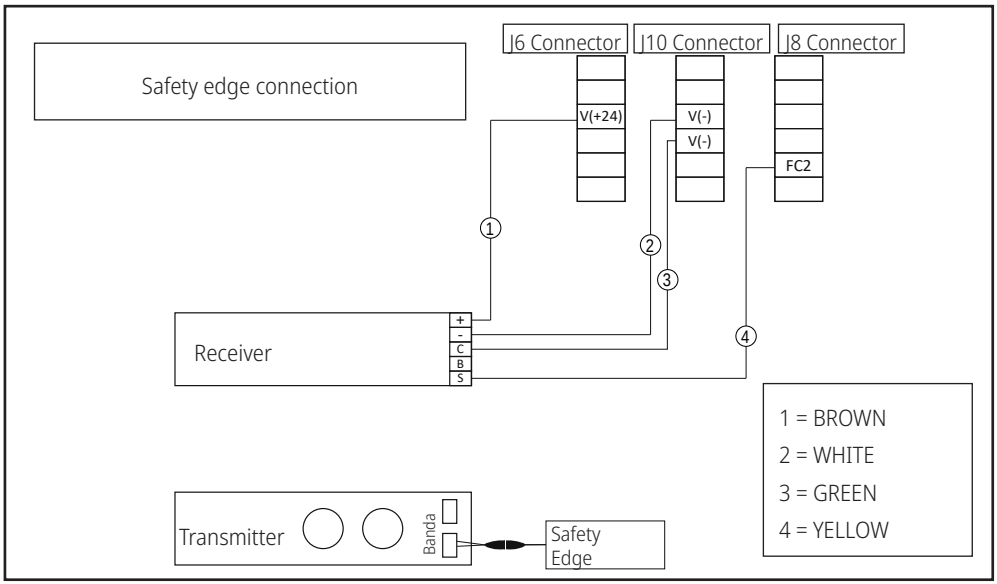
# VERSION WITH 2600 g/m² SHEET

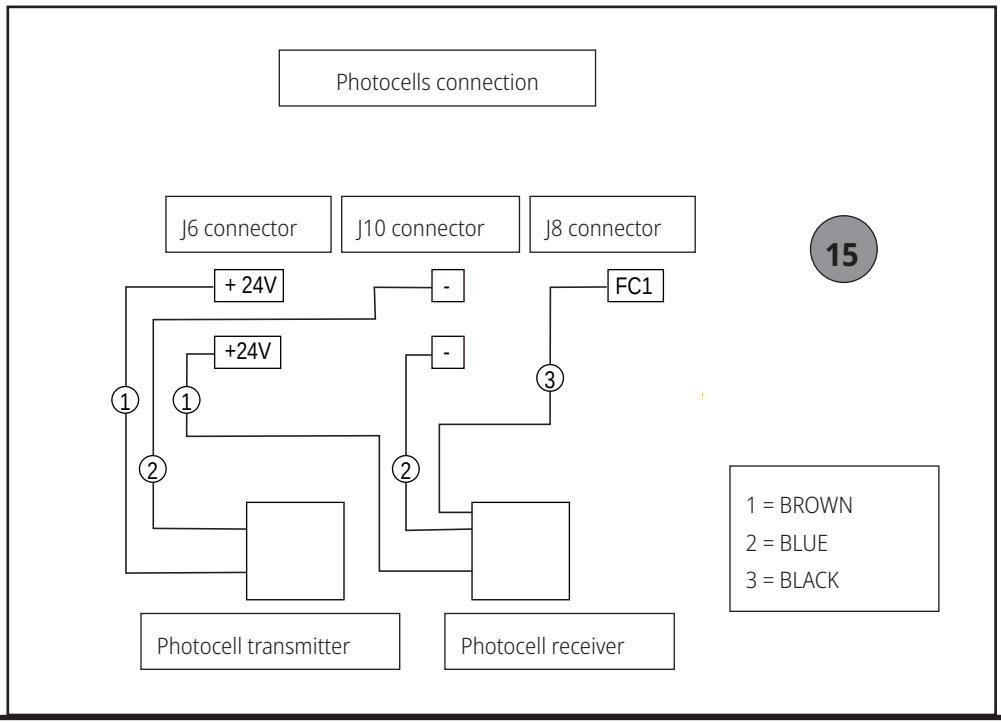



1 = Magnet with screw fixed onto the curtain
2 = Magnetic sensor support fixed onto the frame
3 = Magnetic sensor

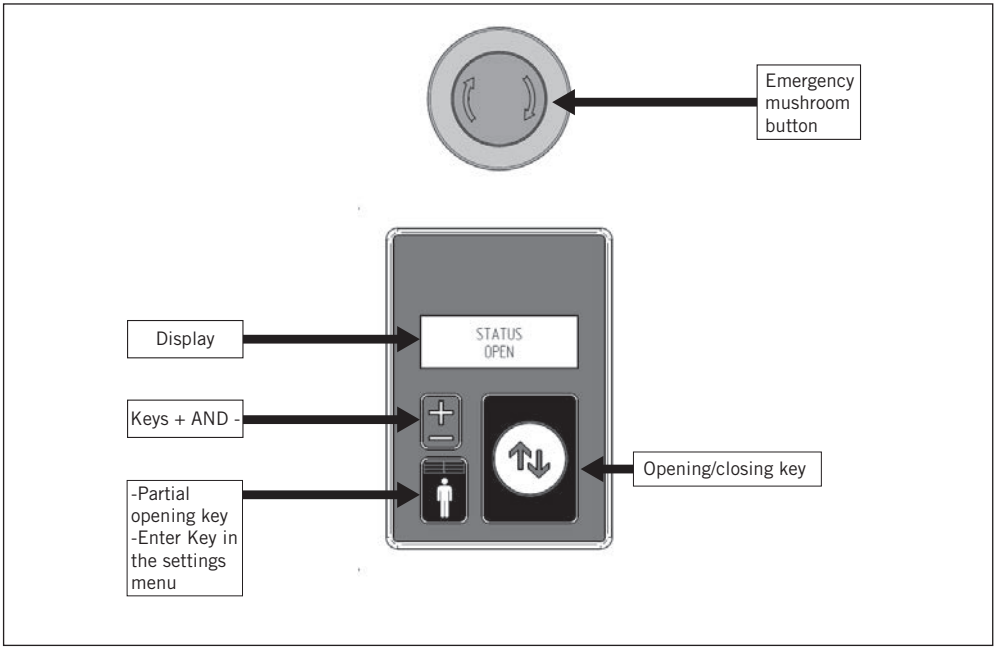
Software version for this application, V 1.14
The partial opening parameter must be 70%

# INOX VERSION



## Keyboard integrate in the upright




• **Key +:**
- from the main screen, with a long press, access the user settings menu
- in a menu without settable parameters, select the next item
- in a menu with a settable parameter, increase the value

• **Key -:**
- from the main screen, with a long press, access the password menu for supervisor settings or reset the alarms
- in a menu without settable parameters, select the previous item
- in a menu with a settable parameter, decrease the value

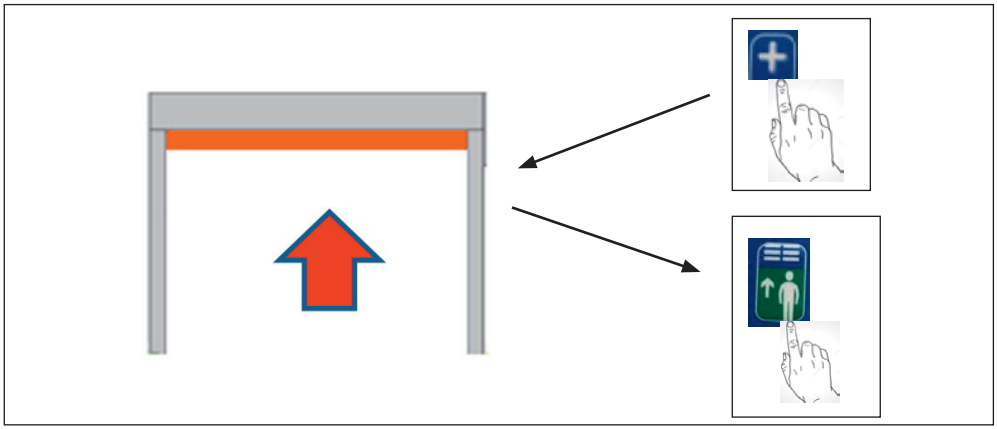
• **Partial opening key:**
- partially open the roll-up, if closed; with the door partially opened, the rollup is completely opened; close the roll-up is partially opened
- in a menu with settable parameter, save the value of the parameter and select the next item

• **Opening/closing key:**
starts the opening or closure of the roll-up or blocks the movement, if active; once the active movement is blocked, the roll-up is pending a next start-up control and, in the meantime, the automatic closure (if set up) is prohibited.

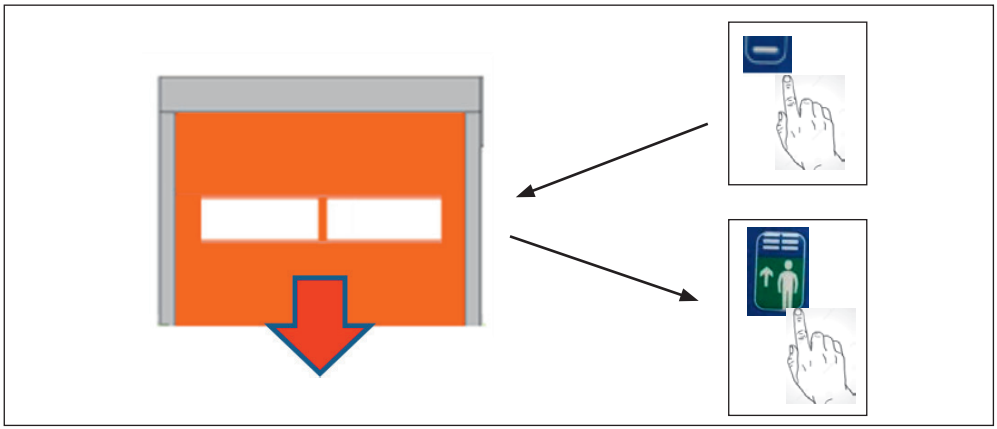
### 3.4.6 First start-up

Upon the first start-up, the display language of the messages is requested, to be changed using the keys +, - and confirm using the partially opening key. Once confirmed, the password screen appears for accessing the initial calibration menu. In order to set the password, change the unique digit using the keys +, - and confirm it using the partially opening key. The calibration menu password is 1234.
As long as the initial calibration is not completed, upon each next start-up, the menu for setting the language and then the password for initial calibration will reappear. Moreover, it is not possible to navigate outside this screens.

The menu is composed of the following items, in this order:
• **Opening position**: it is used to store the position with the roll-up completely opened. The displayed parameter is the current position of the motor encoder. Move the roll-up until completely opened using the keys +, - and save the position using the partial opening key.



• **Closing position:** it is used to store the position with the roll-up completely closed. The displayed parameter is the current position of the motor encoder. Move the roll-up until completely closed using the keys +, - and save the position using the partial opening key.



At the end of the procedure, the complete calibration message is shown and the display goes to the operation screen. Upon the next start-ups, the display will go directly to the operation screen skipping the calibration screen.

The manual movement of the roll-up during calibration (and in manual mode, please see below) will be blocked near the full scale of the encoder, so as to avoid calibrations at values out of scale which might cause the roll-up to function abnormally. Hereinafter, we present the operation areas related to the value of the encoder:

• **Free movement area (encoder between 250 and 7942 points):** the movement of the roll-up is free in both directions.

• **One direction inhibition area (encoder between 100 and 250 points or between 7942 and 8092 points):** the movement in the direction that caused the exceeding of limits is blocked. Therefore, if, for example,
by pressing the key + , the value of 7942 points is exceeded, this key no longer causes movement, while the key - causes a movement which will decrease the value of the encoder.

• **Total inhibition area (encoder between 0 and 100 points or between 8092 and 8192 points):** the movement of the encoder is completely blocked. The situation is reported on the display with the blinking message "manually unlock". In this case, it will be necessary to mechanically move the roll-up after releasing the brake.
In order to simplify any setting of the partial opening and minimum opening parameters to enable the photocell (only roll-up), upon the calibration, it is recommended to write down the values of the encoder corresponding to the desired positions.

## Operating screen

Normally, the status of the roll-up which can undertake one of the following positions is displayed:
• open
• close
• partially opened

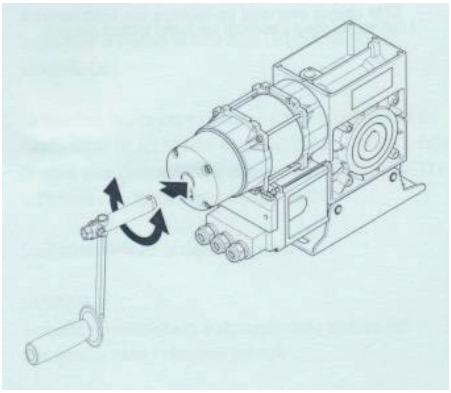
Instead, during the movement, the new position will be displayed:
• opening
• closing
• partial opening

In order to move the roll-up:
• **Opening/closing key:** starts the opening or closure of the roll-up or blocks the movement, if active; once the active movement is blocked, the roll-up is pending a next start-up control and, in the meantime, the automatic closure (if set up) is prohibited
• **Partial opening key:** partially open the roll-up, if closed; with the door partially opened, the roll-up is completely opened; close the roll-up is partially opened
N.B : if the roll-up movement is stopped before the position is reached with the open / close key, upon the next pressing, the movement will always be in open mode. If the emergency button is pressed, the message "emergency stop" is displayed. If the movement is blocked with the manual stop, the message "manual stop" is displayed.
Moreover, from this screen, the following actions are possible:
• **Key + long press:** access the user settings menu

## Operation with emergency hand crank

During maintenance works or in the case of an electrical fault, the door can be moved towards the OPEN or CLOSED positions with the help of the emergency operation equipment.

WARNING:
- Emergency operation must only be carried out from a safe standing position
- Emergency operation must only be carried out when the motor is stationary.
- The system must be disconnected from the power supply during emergency operation



- Push the emergency hand crank into the drive as far as it will go. The control voltage is interrupted and the door can no longer be electrically operated.
- Move the door in the OPEN or CLOSE direction by turning the emergency hand crank.
- Remove the emergency hand crank from the drive after completing emergency manual operation. The control voltage will be interrupted and the door can no longer be operated electrically.

### 3.4.7 Instructions for using the panel

FROM FW DISPLAY 22
FROM FW INVERTER 1.10

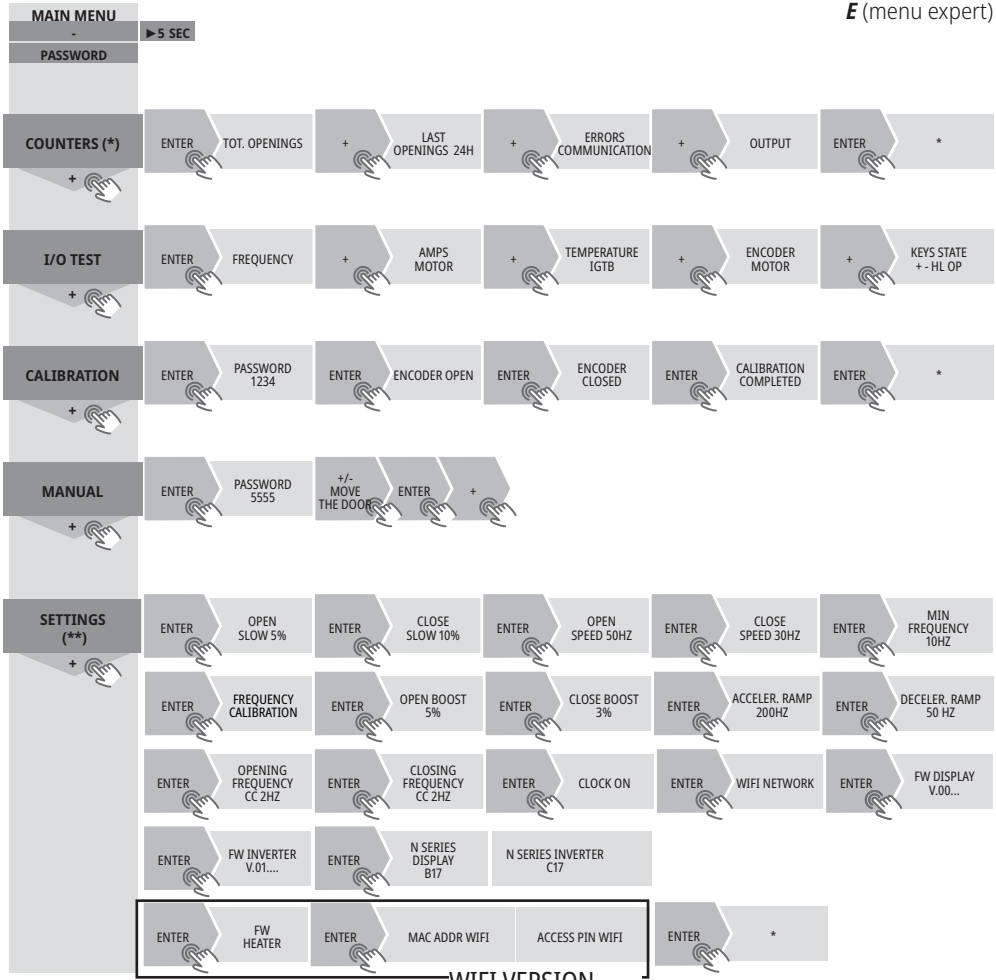
USER INSTRUCTIONS OF THE INTEGRATED PANEL

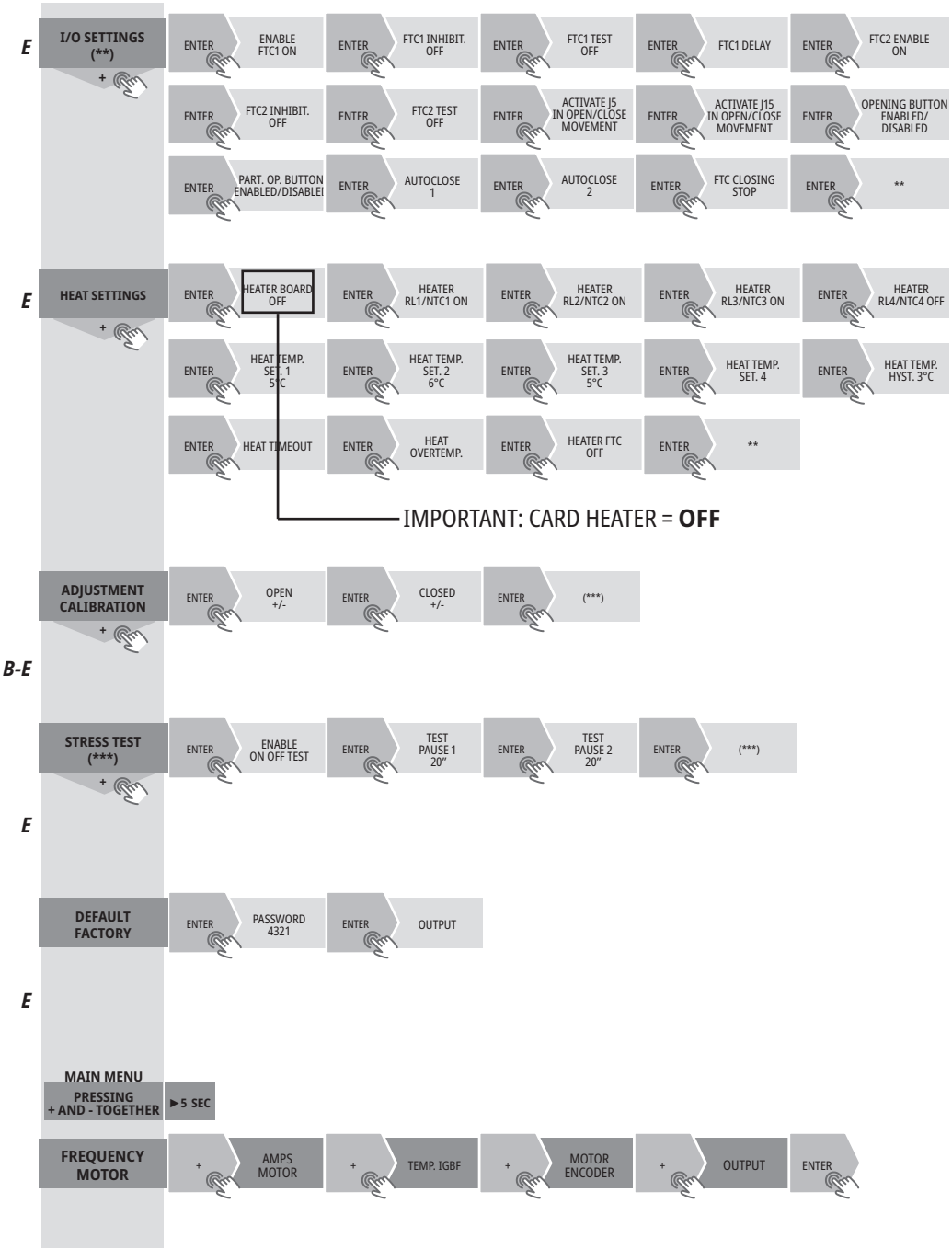
To scroll through the MAIN MENU items, press the + button
To enter the MAIN MENU items, press the ENTER button
To return to the main menu, press the ENTER key.

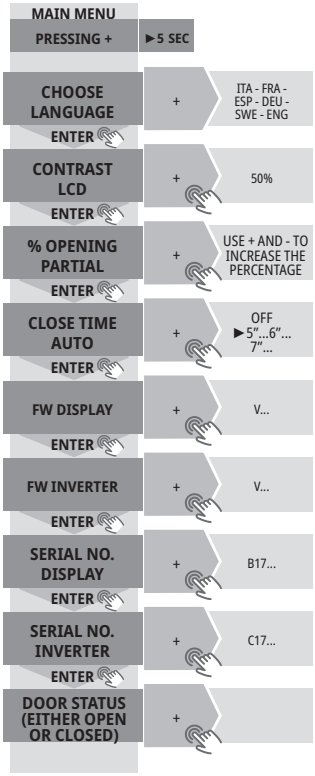

BUTTON ENTER


BUTTON +
BUTTON -

***B*** (menu base)
***E*** (menu expert)



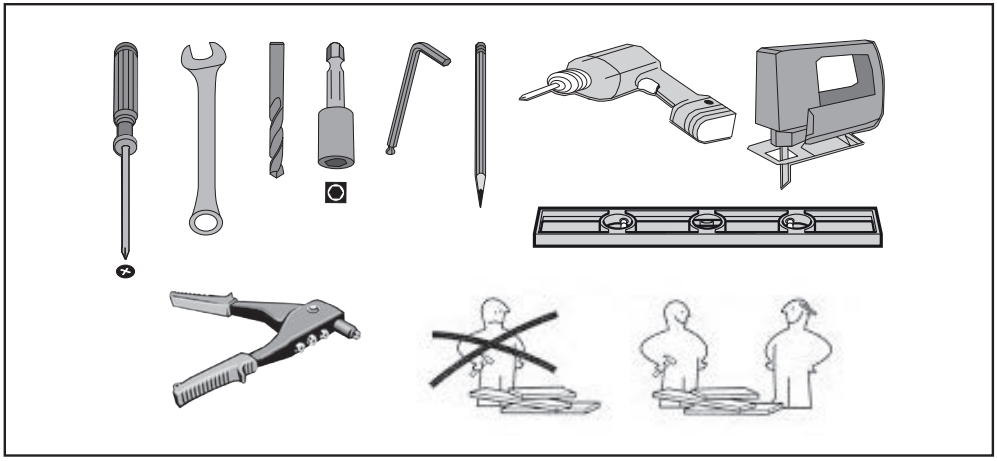

E
I/O SETTINGS (**)
+
ENTER
ENABLE FTC1 ON
ENTER
FTC1 INHIBIT. OFF
ENTER
FTC1 TEST OFF
ENTER
FTC1 DELAY
ENTER
FTC2 ENABLE ON
ENTER
FTC2 INHIBIT. OFF
ENTER
FTC2 TEST OFF
ENTER
ACTIVATE J5 IN OPEN/CLOSE MOVEMENT
ENTER
ACTIVATE J15 IN OPEN/CLOSE MOVEMENT
ENTER
OPENING BUTTON ENABLED/ DISABLED
ENTER
PART. OP. BUTTON ENABLED/DISABLEI
ENTER
AUTOCLOSE 1
ENTER
AUTOCLOSE 2
ENTER
FTC CLOSING STOP
ENTER
**
E
HEAT SETTINGS
+
ENTER
HEATER BOARD OFF
ENTER
HEATER RL1/NTC1 ON
ENTER
HEATER RL2/NTC2 ON
ENTER
HEATER RL3/NTC3 ON
ENTER
HEATER RL4/NTC4 OFF
ENTER
HEAT TEMP. SET. 1 5°C
ENTER
HEAT TEMP. SET. 2 6°C
ENTER
HEAT TEMP. SET. 3 5°C
ENTER
HEAT TEMP. SET. 4
ENTER
HEAT TEMP. HYST. 3°C
ENTER
HEAT TIMEOUT
ENTER
HEAT OVERTEMP.
ENTER
HEATER FTC OFF
ENTER
**
IMPORTANT: CARD HEATER = OFF
ADJUSTMENT CALIBRATION
+
ENTER
OPEN +/-
ENTER
CLOSED +/-
ENTER
(***)
B-E
STRESS TEST (***)
+
ENTER
ENABLE ON OFF TEST
ENTER
TEST PAUSE 1 20"
ENTER
TEST PAUSE 2 20"
ENTER
(***)
E
DEFAULT FACTORY
ENTER
PASSWORD 4321
ENTER
OUTPUT
E
MAIN MENU
PRESSING + AND - TOGETHER
►5 SEC
FREQUENCY MOTOR
+
AMPS MOTOR
+
TEMP. IGBF
+
MOTOR ENCODER
+
OUTPUT
ENTER




**DISPLAYS WHEN THE DOOR IS NORMALLY OPERATIONAL**

| | |
|---|---|
| Open status | **THE DOOR IS OPEN** |
| Closure status | **THE DOOR IS IN CLOSING MOTION** |
| Closed status | **THE DOOR IS CLOSED** |
| Opening status | **THE DOOR IS IN INITIAL OPENING MOTION** |
| Partial opening status | **THE DOOR IS IN MOTION IN THE PARTIAL OPENING POSITION** |
| Partial open status | **THE DOOR IS STOPPED IN THE PARTIAL OPENING POSITION** |
| Emergency stop status | **THE DOOR IS STOPPED BY THE RED MUSHROOM BUTTON HAVING BEEN PRESSED** |

## 4. EQUIPMENT



## 5. DISPOSAL

Follow the local regulations for the disposal of packaging materials.
The packaging material (plastic bags, polystyrene parts, etc.) must be kept out of the reach of children as they are potentially dangerous.
Disposal must be in compliance with the relevant waste disposal regulations. For further information on the treatment, recovery and recycling of this product, contact the local office of competence or the companies specialised in the waste collection service.

The manufacturer declines all responsibility if the conventional accident-prevention regulations and the afore-mentioned instructions are not complied with.

USER INFORMATION
pursuant to art. 14 of the 2012/19/EU DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on waste electrical and electronic equipment (WEEE)

The crossed bin symbol on the appliance or on its packaging indicates that the product at the end of its useful life must be collected separately from other waste.

The end-of-life management of the equipment must be carried out in compliance with current waste management regulations.
In particular, it is specified that the door consists of the following materials:
1. Sheeting: PVC
2. Frame: Aluminium
3. Casing: Stainless steel, S250GD+Z100 painted steel
4. Electrical components: copper, plastic, rubber, etc.
5. Gearmotor group

The user who wishes to dispose of this equipment may contact the manufacturer and implement the system that it has adopted to allow the separate collection of equipment at the end of its life or can select a supply chain authorised for this management.

If management of the end-of-life of the equipment is entrusted to independent third parties, it is advisable to use companies that are authorised to recover and dispose of the type of waste comprising this equipment once it has reached the end of its life.

Appropriate management of the decommissioned equipment for the purposes of recycling, treatment and environmentally compatible disposal helps to avoid possible negative effects on the environment and on human health and promotes the reuse and/or recycling of the materials comprising the equipment.

The manufacturer assumes no responsibility for damage to persons, animals or property resulting from the reuse of individual parts of the machine for functions or assembly situations different from the original ones.

## 6. MAINTENANCE AND CLEANING

### 6.1 CLEANING

It is advised to prepare the hygiene plan taking into account the resistance to aggressive agents and the risks of corrosion of the materials of which the doors are made. Carefully follow the instructions provided on cleaning products; do not change the doses and use the concentrations envisaged or recommended for the various types of material.

DO NOT use pressurised water jets on the following components: photocells, keypad and gearmotor. The components could become irreversibly damaged.


The gearbox contains lubricating oil.

**Accidental release measures**
**Personal precautions, protective equipment and emergency procedures**
**For non-emergency responders**
Wear appropriate protective equipment to prevent contamination of skin, eyes and personal clothing. Do not breathe vapours/aerosols.

**Environmental precautions**
Keep away from drains, surface water and groundwater. Contain contaminated wash water and dispose of it.

**Methods and materials for containment and clean-up**
**Recommendations on how to contain a spill**
Covering drains.
**Recommendations on how to clean up a spill**
Collect with absorbent substances (sand, kieselguhr, acid binder, universal binder).

## 6.2 ORDINARY MAINTENANCE

| PERIODIC INSPECTIONS / MAINTENANCE: | | |
|---|---|---|
| **IMPORTANT:** Daily at the beginning of each work shift to check the correct operation of the door and its emergencies, in case of any anomaly it is necessary to promptly contact the person responsible | | |
| Check the operation of the safety devices | Check that the safety devices in the doors are working properly: sensitive edge at the bottom of the fabric ; Photocell system; Photocell barrier system (if fitted) and operation of the stop button located on the main panel. | Daily at the beginning of each work shift |
| Checking the state of the gear reducer gaskets | Visual inspection of any oil leakage. | Semester / no later than every 50,000 opening |
| Checks on the motor and bearings | Check if the engine moves freely. If necessary, lubricate the bearings. | Semester / no later than every 50,000 opening |
| Engine Brake Checks | Removing the plastic frame from the brake engine and checking the brake disc. If worn to replace. | Semester / no later than every 100,000 opening |
| Check shaft and relevant support | Visual inspection of the shaft and checking of correct tightening of the nuts and bolts. | Semester / no later than every 50,000 opening |
| Coated fabric cover | Checking for tears, wear, etc. . | Semester / no later than every 50,000 |
| Photocells | Checking the proper operation, during the door closing | Daily at the beginning of each work shift |
| Electrical controls and wiring | Checking the conditions of electrical wires and connections. | Semester / no later than every 50,000 opening |
| Movement and operation of the door | Checking the proper operation of the door: Opening, closing, and partial opening | Daily at the beginning of each work shift |
| Number of cycles (opening and closing) | Periodically check the number of maneuvers to schedule proper maintenance .<br>IMPORTANT: The maximum number of door maneuvers is 45 open-close cycles per hour | |
| Wireless system | Replacement of batteries | 1 or 2 years (depends on usage) |

Only use original spare parts Incold

## 7. MAINTENANCE REPORT

| Installation | | Start of maintenance | |
|---|---|---|---|
| Date | Stamp/Signature | Date | Stamp/Signature |
| | | | |
| Door model and installation site | | | |
| Model | | | |
| Location | | Door n | |
| VERIFICATION OF THE UNLOCKING CAPACITY AFTER FIRST INSTALLATION | | | |
| After installation, it is necessary to perform a door ability to move and return to initial position. The outcome of this check, performed on the date shown above, is: [ ] POSITIVE [ ] NEGATIVE<br>If the test fails, report it in the NOTES field the countermeasures adopted, indicating the resolution timing of the failure and record the result of the following check. | | | |

| Register of the scheduled checks | | | | | |
|---|---|---|---|---|---|
| Date | Result | Stamp/ Signature | Date | Result | Stamp/ Signature |
| | | | | | |
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**NOTE:** after **10 years** from the installation date by the Maintenance technician, ensure operational suitability of the product. Complete replacement is also recommended.

Note:

| Register of the scheduled checks | | | | | |
|---|---|---|---|---|---|
| Date | Result | Stamp/ Signature | Date | Result | Stamp/ Signature |
| | | | | | |
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**NOTE:** after **10 years** from the installation date by the Maintenance technician, ensure operational suitability of the product. Complete replacement is also recommended.

Note:

## 8. CHECKLIST FOR INSTALLATION

| |
|---|
| Order number : |
| Customer : |
| Type of door / serial number : |
| Installer (Company Name) : |
| Date of installation : |

**Check the following points and write the answers:**

### ☐ 1 Delivery

The door was delivered without damage due to transport : YES ☐ NO ☐

If no, please specify why :.....

.....

.....

### ☐ 2 Security devices (check which ones are installed and if they work properly):

| | | | | |
|---|---|---|---|---|
| 1.1 | The door is protected by a differential switch * | YES ☐ | NO ☐ | NOT INSTALLED ☐ |
| 1.2 | Safety edge (wireless system) | YES ☐ | NO ☐ | NOT INSTALLED ☐ |
| 1.3 | Safety edge (with spiral cable) | YES ☐ | NO ☐ | NOT INSTALLED ☐ |
| 1.4 | One photocell in the frame : RX + TX | YES ☐ | NO ☐ | NOT INSTALLED ☐ |
| 1.5 | Optical barrier in the frame : RX + TX | YES ☐ | NO ☐ | NOT INSTALLED ☐ |
| 1.6 | System with photocell to detect the proper unrolling of the sheet | YES ☐ | NO ☐ | NOT INSTALLED ☐ |
| 1.7 | Emergency push button | YES ☐ | NO ☐ | NOT INSTALLED ☐ |
| 1.8 | Other ..... | | | |

* the differential switch, is excluded from the supply and is by the customer.

Note:.....

.....

## ☐ 3 Opening devices (check which ones are installed and if they work properly):

| | | | |
|---|---|---|---|
| 1.9 | Touch screen display | YES ☐ NO ☐ | NOT INSTALLED ☐ |
| 1.10 | Opening black mushroom button Ø 90 (inside) | YES ☐ NO ☐ | NOT INSTALLED ☐ |
| 1.11 | Opening black mushroom button Ø 90 (outside) | YES ☐ NO ☐ | NOT INSTALLED ☐ |
| 1.12 | Crank for manual opening | YES ☐ NO ☐ | NOT INSTALLED ☐ |
| 1.13 | Pull cord switch (inside ) | YES ☐ NO ☐ | NOT INSTALLED ☐ |
| 1.14 | Pull cord switch (outside) | YES ☐ NO ☐ | NOT INSTALLED ☐ |
| 1.15 | Motion radar (outside) | YES ☐ NO ☐ | NOT INSTALLED ☐ |
| 1.16 | Motion radar (inside) | YES ☐ NO ☐ | NOT INSTALLED ☐ |
| 1.17 | Has the door successfully performed 10 cycles? | YES ☐ NO ☐ | |
| 1.18 | Other..... | | |

Note:.....
.....
.....

## ☐ 4 Components of the door (check if they work properly) :

| | | |
|---|---|---|
| 1.19 | Motorgear, works properly without strange noises | YES ☐ NO ☐ |
| 1.20 | Correct operation of the emergency mouvement | YES ☐ NO ☐ |
| 1.21 | The door moves and stops regularly on the setted points, slowing down before reaching the lock point | YES ☐ NO ☐ |
| 1.22 | By pressing the button  the door open and closed properly | YES ☐ NO ☐ |
| 1.23 | The PVC fabric is well-tightened when the door is closed | YES ☐ NO ☐ |
| 1.24 | The towel goes well and does not jamming on the guides | YES ☐ NO ☐ |

Note:.....
.....
.....

## ☐ 5 Mechanical mounting :

| | | |
|---|---|---|
| 1.25 | The vertical uprights are firmly fixed to the wall | YES ☐ NO ☐ |
| 1.26 | The top cross is well secured to the vertical uprights | YES ☐ NO ☐ |
| 1.27 | The top cross once fixed is perfect horizontal | YES ☐ NO ☐ |
| 1.28 | The vertical uprights once fixed are perfect verticals | YES ☐ NO ☐ |
| 1.29 | here is visible damage to the chassis or other covers | YES ☐ NO ☐ |

Note:.....
.....
.....

## ☐ 6 Documentation

| | | |
|---|---|---|
| 1.30 | Have you found the installation and maintenance manual in the packaging | YES ☐ NO ☐ |

## ☐ 7 Warranty

The warranty is valid on condition that the door is propertly used and the maintenance cycles are respected by specialized technicians.

Installation/maintenance must be carried out by a company authorised by the manufacturer and using solely INCOLD spare parts.

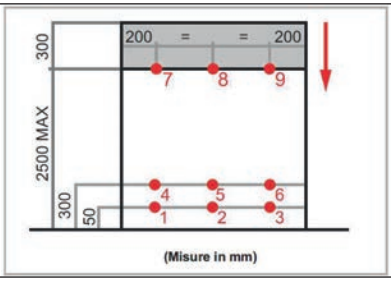
---

Date: ..... Installer (visible name - signature) .....

Date: ..... Customer (visible-signature name).....

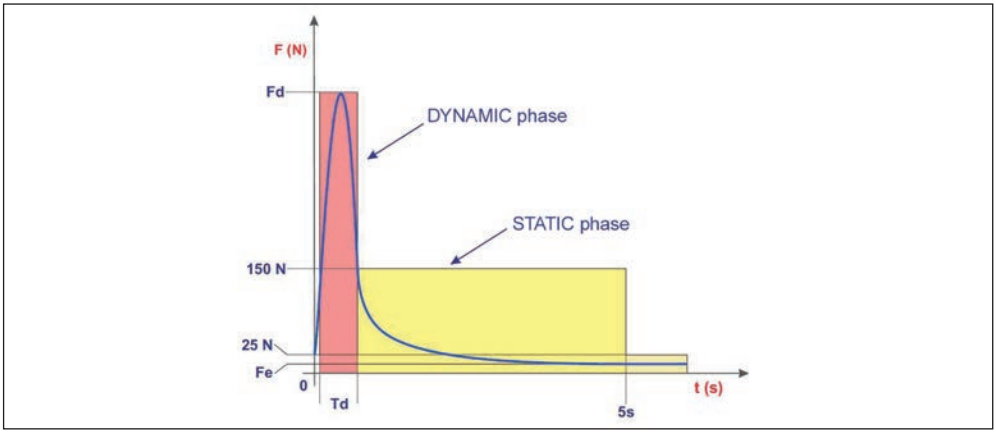
## 8 Impact measurements

| Date | Operator | Serial number door |
|---|---|---|
| Customer | | Building site reference |




| POINT | Fd - Td - Fs - Fe | Fd - Td - Fs - Fe point averages | Result |
|---|---|---|---|
| 1.1 | | | |
| 1.2 | | | |
| 1.3 | | | |
| 2.1 | | | |
| 2.2 | | | |
| 2.3 | | | |
| 3.1 | | | |
| 3.2 | | | |
| 3.3 | | | |
| 4.1 | | | |
| 4.2 | | | |
| 4.3 | | | |
| 5.1 | | | |
| 5.2 | | | |
| 5.3 | | | |
| 6.1 | | | |
| 6.2 | | | |
| 6.3 | | | |
| 7.1 | | | |
| 7.2 | | | |
| 7.3 | | | |

| | | | |
|---|---|---|---|
| 8.1 | | | |
| 8.2 | | | |
| 8.3 | | | |
| 9.1 | | | |
| 9.2 | | | |
| 9.3 | | | |




| TABLE OF PERMISSIBLE DYNAMIC FORCES IN RELATION TO MEASUREMENT DISTANCES | | | |
|---|---|---|---|
| Permissible Dynamic Forces | Between closing and counter-closing edges | | (*) Between flat areas other than closing and counterclosing edges, > 100 cm2 with no side < 100 mm |
| | space/distance from 50 mm up to 500 mm | space/distance from 500 mm | |
| Vertical movement door (sliding, folding) | 400 N | 400 N | 1400 N |

**DYNAMIC phase:** red area, where the peak of the force due to the initial impact of the leaf is represented.

**Parameters and limits of the DYNAMIC phase:**
- **Fd:** maximum value of the "dynamic force" which must be less than 400N or 1400N, depending on the location of the measuring point and the type of closure.
- **Td:** period during which the force exceeds 150N, **the "dynamic time" must be less than 0.75 seconds.**

**STATIC phase:** yellow area, where the force trend is represented, which (normally after the initial peak) falls back below the 150N threshold, and ends 5 seconds after the initial instant:

**Parameters and limits of the STATIC phase:**
- **Fs:** (average) force value, calculated from the end of the dynamic period, up to 5s from the initial instant; must not exceed 150N.
- **Fe:** final value of the force (measured 5s from the initial instant); must not exceed 25N:

incold

CE

**DICHIARAZIONE DI PRESTAZIONE**

*In accordo al Regolamento Prodotti da Costruzione n.305/2011*
*Regolamento Delegato della Commissione (UE) n.574/2014*

**DICHIARAZIONE DI CONFORMITA'**

*In accordo alla Direttiva 2006/42/CE*

*N. ROLL-UP-ZIP-IT rev.00*

- *Codice di identificazione unico del prodotto-tipo: DOORSYSTEM ROLL UP ZIP & FAST ROLL UP*
- *Uso previsto: porta ad avvolgimento rapido per la separazione di ambienti interni adiacenti*
- *Numero matricola:*
- *Fabbricante: INCOLD S.p.A., via A. Grandi, 1 – 45100 Rovigo (RO) – Italia*
- *Sistema di VVCP: Sistema 3*
- *Norma Armonizzata: EN 13241-1:2011*
- *Organismo Notificato: Istituto Giordano S.p.A.*
- *Numero dell'Organismo Notificato: n.0407*
- *Prestazioni Dichiarate:*

| *Caratteristiche Essenziali* | *Dimensioni massime* | *Prestazione* | *Specifica tecnica armonizzata* |
|---|---|---|---|
| *Forze di funzionamento* | *W=6200; H=4200mm* | *Passa* | *EN 13241-1:2011* |
| *Sicurezza dell'apertura* | *W=6200; H=4200mm* | *Passa* | *EN 13241-1:2011* |
| *Rilascio sostanze pericolose* | *W=6200; H=4200mm* | *Passa* | *EN 13241-1:2011* |
| *Resistenza al carico del vento* | *W=4000; H=4000mm* | *Classe 3* | *EN 13241-1:2011* |

*La prestazione del prodotto sopra identificato è conforme all'insieme delle prestazioni dichiarate. La presente dichiarazione di responsabilità viene emessa, in conformità al regolamento (UE) n.305/2011, sotto la sola responsabilità del fabbricante sopra identificato.*

*Tutte le prestazioni non riportate sono da intendersi come non determinate (NPD).*

*La persona incaricata di costituire il fascicolo tecnico è:*

*Luciano Cervaro*

*Via Achille Grandi, 1 – 45100 Rovigo (RO)*

*Le porte ad avvolgimento rapido sono prodotte, inoltre, in conformità alle seguenti Direttive Europee: Direttiva Macchine 2006/42/CE, Direttiva Compatibilità Elettromagnetica 2014/30/CE, Direttiva Bassa Tensione 2014/35/CE*

*Firmato a nome e per conto del fabbricante da:*

***Filippo FINCO***
*Amministratore Delegato* *Rovigo, lì*

**DICHIARAZIONE DI PRESTAZIONE**

*In accordo al Regolamento Prodotti da Costruzione n.305/2011*
*Regolamento Delegato della Commissione (UE) n.574/2014*

**DICHIARAZIONE DI CONFORMITA'**

*In accordo alla Direttiva 2006/42/CE*

*N. ROLL-UP-SLT-IT rev.00*

- *Codice di identificazione unico del prodotto-tipo: DOORSYSTEM ROLL UP SLT*
- *Uso previsto: porta ad avvolgimento rapido per la separazione di ambienti interni adiacenti*
- *Numero matricola:*
- *Fabbricante: INCOLD S.p.A., via A. Grandi, 1 – 45100 Rovigo (RO) – Italia*
- *Sistema di VVCP: Sistema 3*
- *Norma Armonizzata: EN 13241-1:2011*
- *Organismo Notificato: Istituto Giordano S.p.A.*
- *Numero dell'Organismo Notificato: n.0407*
- *Prestazioni Dichiarate:*

| *Caratteristiche Essenziali* | *Dimensioni massime* | *Prestazione* | *Specifica tecnica armonizzata* |
|---|---|---|---|
| *Sicurezza dell'apertura* | *W=2000; H=3000mm* | *Passa* | *EN 13241-1:2011* |

*La prestazione del prodotto sopra identificato è conforme all'insieme delle prestazioni dichiarate. La presente dichiarazione di responsabilità viene emessa, in conformità al regolamento (UE) n.305/2011, sotto la sola responsabilità del fabbricante sopra identificato.*

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*Firmato a nome e per conto del fabbricante da:*

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