FACE

Automatic Doors

ENGLISH

# INSTALLATION AND MAINTENANCE MANUAL FOR SWING DOOR

## SW70S SPRING

Summary

## 1. INTRODUCTION

Before you begin to install or start an automatic pedestrian door, an inspection must be carried out on site by qualified personnel, to take measurements of the compartment wall, door and drive.
This inspection is to assess the risk and to select and implement the most appropriate solutions according to the type of pedestrian traffic (intense, narrow, one-way, bi-directional, etc.), the type of users (elderly, disabled, children, etc..), in the presence of potential hazards or local circumstances.
To assist installers in applying the requirements of European Standard EN 16005 concerning the safe use of automatic pedestrian doors, we recommend consulting the guides E.D.S.F. (European Door and Shutter Federation) available on www.edsf.com.

### 1.1 INTENDED USE

SW70S is a spring automation designed to operate pedestrian swing doors with widths ranging from 600 to 1500mm and a maximum weight of 300kg.
It must be installed on a lintel in indoor-only environments and is suitable for most internal and external doors.
The integration of the spring allows the door to close even in the absence of power, with adjustable braking via a jumper.
SW70S can be operated automatically via sensors or manually using physical or touch buttons. It can also be used manually, with power-assisted movement or in push&go mode.
SW70S is connected to the door to be moved via a range of arms, which allows the installation of SW70S on either the hinge side or the opposite side. Extensions are available to compensate for any height differences during installation.
The automation is compatible with most pedestrian door safety sensors available on the market, and can be used with sensors without force limitations, with sensors and force limitations, in low energy mode, and for emergency exits without door breakage.
For emergency exits without door breakage, SW70S must be installed so that the door opens in the direction of escape, and the required forces must be verified.
It is possible to move a pair of doors synchronously, with or without overlap, by using two SW70S operators with their respective arms.

### 1.2 UNINTENDED USE

Do not use on sliding, pivoting, folding doors or on frameless glass.
Do not use as drive for machinery safety doors or any safeguarding enclosure.
The operator is not intended for vehicle traffic, ATEX areas or doors requiring IP > 20.
Do not modify, alter, or remove any part of the device. The use of unauthorized accessories or modification of its components may compromise the safety and functionality of the system, voiding the warranty and non-compliance with safety regulations.
Using SW70S in unintended applications or in ways not compliant with the manufacturer's specifications may pose safety risks, compromise the functionality of the system, and invalidate any warranties. It is essential to follow the guidelines and recommendations for installation and use of the product, using it exclusively in the applications for which it was designed.

### 1.3 GENERAL SAFETY INSTRUCTION

This assembly, installation, and maintenance manual is intended exclusively for professionally competent personnel.
Read the instructions carefully before starting the product installation. These instructions must be kept.
WARNING: Important safety instructions. Follow all instructions as improper installation can cause serious injury.
Packaging materials (plastic, polystyrene, etc.) must not be disposed of in the environment and should not be left within children's reach as potential hazards.
Children must not be present during installation.
Before starting the installation, check the product's integrity. Do not install the product in explosive environments or atmospheres: the presence of flammable gases or fumes poses a serious safety risk.
Before installing the automation, make all necessary structural modifications related to safety gaps and the protection or segregation of all crushing, shearing, trapping, and generally hazardous areas.
Ensure that the existing structure meets the necessary strength and stability requirements. FACE is not responsible for non-compliance with Good Practice in the construction of frames to be motorized, nor for any deformations that may occur during use.
Safety devices (presence sensors, photocells, etc.) must be installed considering: the applicable standards and directives, Good Practice criteria, the installation environment, the system's operating logic, and the forces developed by the automatic pedestrian door.
Apply the required signage as per current regulations to identify hazardous areas.
The noise emission level of the door is LpA ≤ 70 dB(A).
Each installation must have the identification data of the automatic pedestrian door visible.
The product in the manufacturer's original packaging can only be transported indoors (railway cars, containers, enclosed vehicles).
In case of product malfunction, stop use and contact the authorized service center.
The manufacturing date is indicated in the production lot printed on the product label. If necessary, contact us at www.facespa.it.
The general sales conditions are listed in the official FACE price lists.
Do not modify, alter, or remove any part of the device. The use of unauthorized accessories or modification of its components may compromise the safety and functionality of the system, voiding the warranty and non-compliance with safety regulations.

**1.4 RESIDUAL RISKS**

Based on the structural characteristics, the type of door, and the adopted protection solutions, residual risks may persist.
The secondary closing edge is difficult to fully protect by sensors; therefore, it is necessary to assess the addition of specific mechanical protections.
Since SW70S is a spring automation, the risks of impact, crushing, and entrapment in the absence of power must be evaluated.
The door leaf must use only safety glass (e.g., laminated or tempered glass compliant with relevant standards).
The door must have no sharp edges that could cause injury.
No parts of the door or hardware must protrude into the escape route, to avoid creating obstacles or hazards in emergency situations.
It is also important to consider the additional risks when the door is used by children, the elderly, or disabled individuals, both with and without power.
The spring charge must be performed exclusively using the procedure outlined in this manual.
Do not exceed the recommended limit for spring charge.
Do not modify the spring compression by adjusting the screw that holds it; uncontrolled release of the spring can cause serious damage to property and people.
Do not remove the plastic spring protections.
Do not exceed the maximum spring compression limit: this may cause the chain to break, damage the gearmotor, uncontrolled release of the spring, and serious damage to property and people.
If purely manual operation is intended, for example in the event of a power failure or when the automation is deactivated, it is necessary to ensure that the door leaf can be easily and securely grasped and operated. Suitable door handles must be installed, appropriately sized, securely fixed, and positioned at a height and in a location compliant with local accessibility and fire safety regulations. Handles must allow effortless manual opening and closing, and be resistant to repeated use without risk of detachment or damage. In emergency escape routes, it is particularly important that manual operation is immediate, intuitive, and unobstructed. Failure to install suitable door handles when manual operation is foreseen may significantly increase the residual risks for users.

**1.5 EC MARKING AND EUROPEAN DIRECTIVES**

Automations for swing pedestrian door, are designed and manufactured in compliance with the safety requirements of the European standard EN 16005 and are CE-marked in accordance with the Electromagnetic Compatibility Directive (2014/30/UE).
The automation also include a Declaration of Incorporation according to the Machinery Directive (2006/42/EC).

Pursuant to Machinery Directive (2006/42/CE) the installer who motorises a door or gate has the same obligations as the manufacturer of machinery and as such must:
- prepare the technical file which must contain the documents indicated in Annex V of the Machinery Directive; (The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the pedestrian door);
- draft the EC declaration of conformity in accordance with Annex ll-A of the Machinery Directive and deliver it to the customer;
- affix the CE marking on the power operated door in accordance with point 1.7.3 of Annex l of the Machinery

All data and information contained in this manual have been drawn up and checked with the greatest care. However FACE cannot take any responsibility for eventual errors, omissions or inaccuracies due to technical or illustrative purposes.
FACE reserves the right to make changes and improvements to their products. For this reason, the illustrations and the information appearing in this document are not definitive.
This edition of the manual cancels and replaces all previous versions. In case of modification will be issued a new edition.

This edition of the manual applies to SW70S units running firmware stated in the page footer.
Features and menu items may differ on earlier firmware versions.
To verify the installed firmware, go to INFO > FW VERSION on the control board.

# DECLARATION OF INCORPORATION

Machines Directive 2006/42/EC, Annex II-B

CE

FACE S.r.l.

Viale delle Industrie, 74 - 31030 Dosson di Casier (TV) - ITALY

## Declares that:

The Product automations for power operated pedestrian swing door type: **SW70S.**

Has been built for installation on pedestrian door and constitutes a machine in accordance with Directive 2006/42/EC. The manufacturer of the power operated pedestrian door must declare its conformity in accordance with Directive 2006/42/EC (Annex II-A) prior to starting-up the machine.

It complies with the applicable essential safety requirements specified in Annex I, chapter 1 of Directive 2006/42/EC:

1.1.2, 1.1.3, 1.2, 1.3.1, 1.3.2, 1.3.4, 1.3.7, 1.3.8, 1.4, 1.5.1, 1.5.2, 1.5.10, 1.5.11, 1.5.14, 1.6.1, 1.6.3, 1.7

It complies with the Electromagnetic Compatibility Directive 2014/30/UE.

It complies with following harmonized standards:

EN 16005 Power operated pedestrian doorsets - Safety in use - Requirements and test methods

EN 60335-2-103 Household and similar electrical appliances - Safety - Part 2: Particular requirements for drives for gates, doors and windows

The technical documentation complies with Annex VII-B to Directive 2006/42/EC.

The technical documentation is managed by: Ferdinando Menuzzo with registered offices in Viale delle Industrie, 74 - 31030 Dosson di Casier (TV) - ITALY

A copy of the technical documentation shall be supplied to the competent national authorities following duly motivated request.

Place and date:
Dosson di Casier, 2025-07-01

Paolo Bacchin
Managing Director

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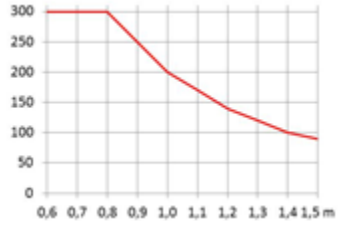
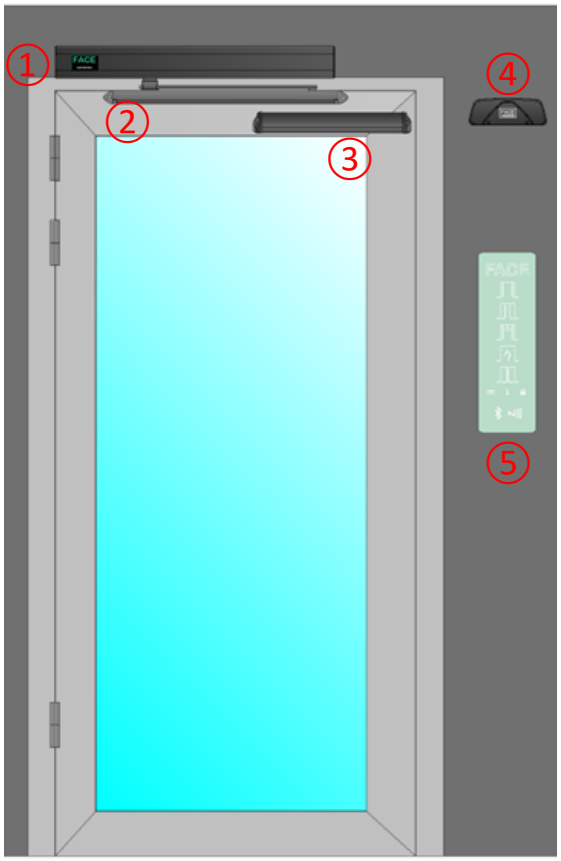
## 2. TECHNICAL DATA

| Technical data | SW70S |
|---|---|
| Model | SPRING |
| Usage | Opening by motor, closing by spring and motor, with easy manual handling |
| Standards | EN 16005<br>EN 1154 (closing forces with sliding arm: EN1-EN4)<br>EN 1154 (closing forces with articulated arm: EN2-EN5) |
| Certification | Zertifiziert durch TÜV THÜRINGEN Type tested |
| Product dimensions<br>(Height x Depth x Length) | 70 x 150 x 620 mm |
| Maximum load: | 300 kg x 0,8 m<br>  |
| Opening and closing time | 2 – 6 s |
| Duty class<br>Intermittent operation | Continuous operation<br>100% |
| Power supply<br>Rated power<br>Stand-by (1) | 100 – 240 Vac 50/60 Hz<br>70 W<br>< 0,5 W |
| Rated load | 40 Nm |
| Operating temperature<br>Storage temperature (2) | -15 °C +50 °C<br>-20 °C +70°C |
| Humidity range | 5% - 90% non-condensing |
| Protection class | IP 20 |
| Parameter adjustments | Joystick e LCD display |
| Average life (3) | 3.000.000 cycles |
| Power output for accessories | 12 Vcc (1,2 A max) |
| Power output for electric locks and electronic locks | 12 Vcc (1 A max) / 24 Vcc (1 A max) |
| Firmware update | USB |
| Function selector device | FSD5, FSD6 |
| Battery power device | SW70SBD, SW70SSBD1, SW70SBBD1 |

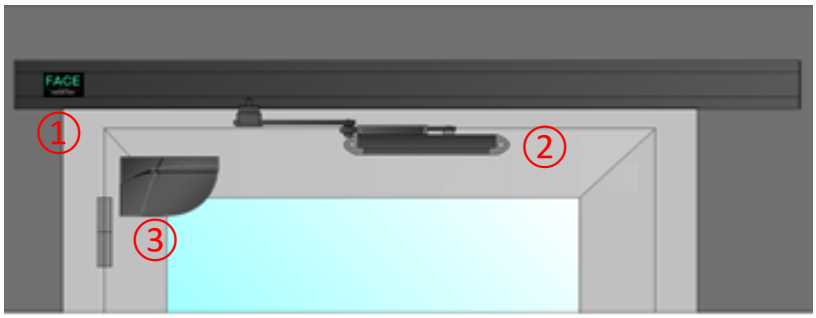
(1) Stand-by mode in accordance with Regulation (EU) 2023/826, Annex III, point 1, letter b.
(2) Before installation, the product should be kept at room temperature if stored or transported at very low or very high temperatures.
(3) The product's average lifespan stated should be considered as purely indicative and estimated, taking into account normal usage conditions, as well as proper installation and maintenance in accordance with the technical manual's instructions. This value is also significantly influenced by additional variable factors, such as, but not limited to, climatic and environmental conditions. The product's average lifespan should not be confused with the product warranty.
N.B. The technical data provided above refers to average usage conditions and cannot be guaranteed for every individual case. Each automatic entry has variable elements such as friction, balancing, and environmental conditions that may substantially alter both the duration and the quality of the operation of the automatic entry or some of its components, including the automation system. It is the installer's responsibility to apply appropriate safety factors for each specific installation.

## 3. ORDERING OPTIONS

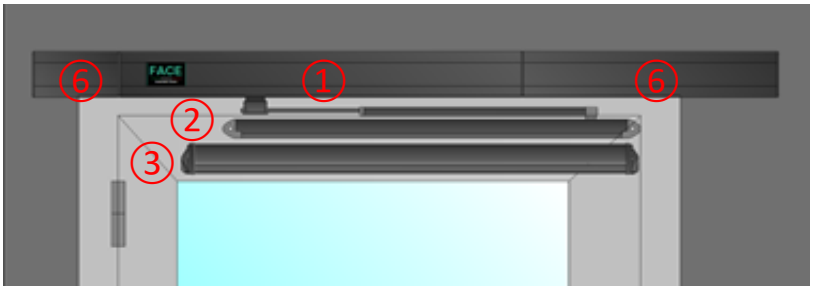
### 3.1 SW70S




### 3.2 SW70S TO SIZE




### 3.3 SW70S WITH JUNCTION KIT

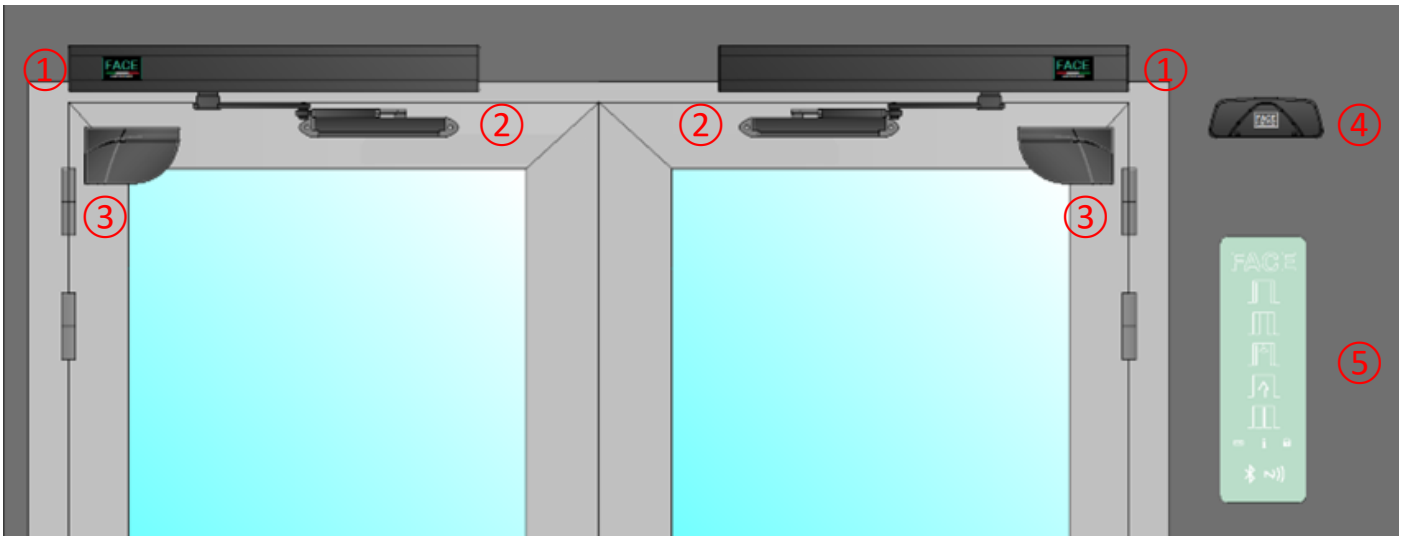



| Rif. | Code | Description |
|---|---|---|
| 1 | SW70SS | SW70S (Spring) automation for swing doors, silver anodized |
| | SW70SB | SW70S (Spring) automation for swing doors, black anodized |
| | SW70SSS10 | SW70S (Spring) automation for swing doors, max length. 1000mm, silver anodized |
| | SW70SBS10 | SW70S (Spring) automation for swing doors, max length. 1000mm, black anodized |
| | SW70SSS20 | SW70S (Spring) automation for swing doors, max length. 2000mm, silver anodized |
| | SW70SBS20 | SW70S (Spring) automation for swing doors, max length. 2000mm, black anodized |
| 2 | SW70SA | Sliding arm pull |
| | SW70AA | Articulated arm push |
| | SW70SA1 | Sliding arm push |
| 3 | SD3, SD4 | Safety sensor (optional) |
| 4 | OS1, OS2 | Opening sensor (optional) |
| 5 | FSD5, FSD6 | Electronic function selector (optional) |
| 6 | SW70SJ1 | SW70S Junction kit, max length 1000mm (optional) |

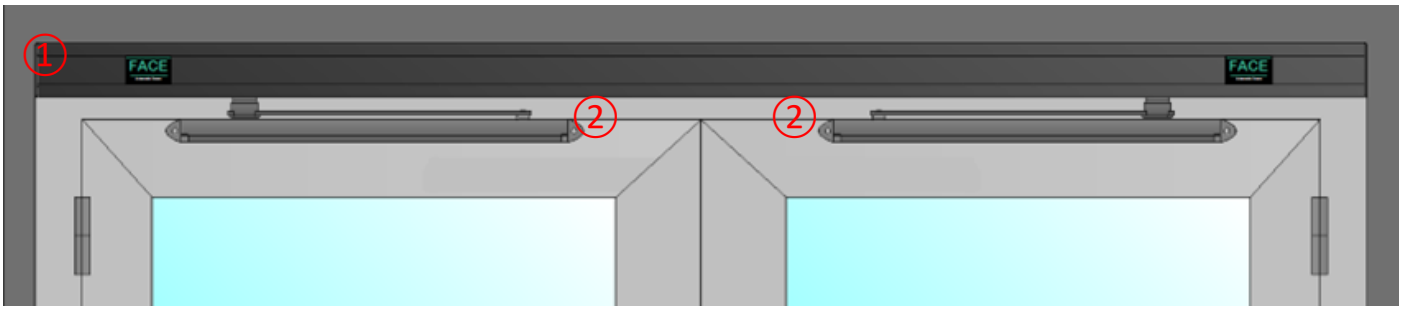
Note: Components and codes are those most commonly used in systems for automatic swing doors. The full range of equipment and accessories is also available in the sales list.

The given operating and performance features can only be guaranteed with use of FACE accessories and safety devices.

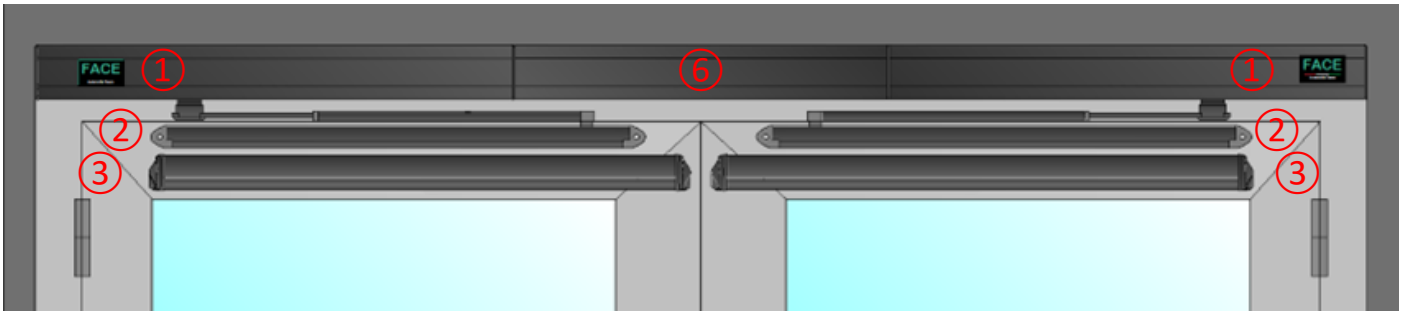
### 3.4 DOUBLE SW70S SYNCHRONIZED




### 3.5 DOUBLE SW70S TO MEASURE SYNCHRONIZED




### 3.6 DOUBLE SW70S SYNCHRONIZED WITH JUNCTION KIT




| Rif. | Code | Description |
|---|---|---|
| 1 | SW70SS | SW70S (Spring) automation for swing doors, silver anodized |
| | SW70SB | SW70S (Spring) automation for swing doors, black anodized |
| | SW70SSD20 | Double SW70S (Spring) automation for swing doors, max length. 2000mm, silver anodized |
| | SW70SBD20 | Double SW70S (Spring) automation for swing doors, max length. 2000mm, black anodized |
| | SW70SSD30 | Double SW70S (Spring) automation for swing doors, max length. 3000mm, silver anodized |
| | SW70SBD30 | Double SW70S (Spring) automation for swing doors, max length. 3000mm, black anodized |
| 2 | SW70SA | Sliding arm pull |
| | SW70AA | Articulated arm push |
| | SW70SA1 | Sliding arm push |
| 3 | SD3, SD4 | Safety sensor (optional) |
| 4 | OS1, OS2 | Opening sensor (optional) |
| 5 | FSD5, FSD6 | Electronic function selector (optional) |
| 6 | SW70SJ1 | SW70S Junction kit, max length 1000mm (optional) |

Note: Components and codes are those most commonly used in systems for automatic swing doors. The full range of equipment and accessories is also available in the sales list.

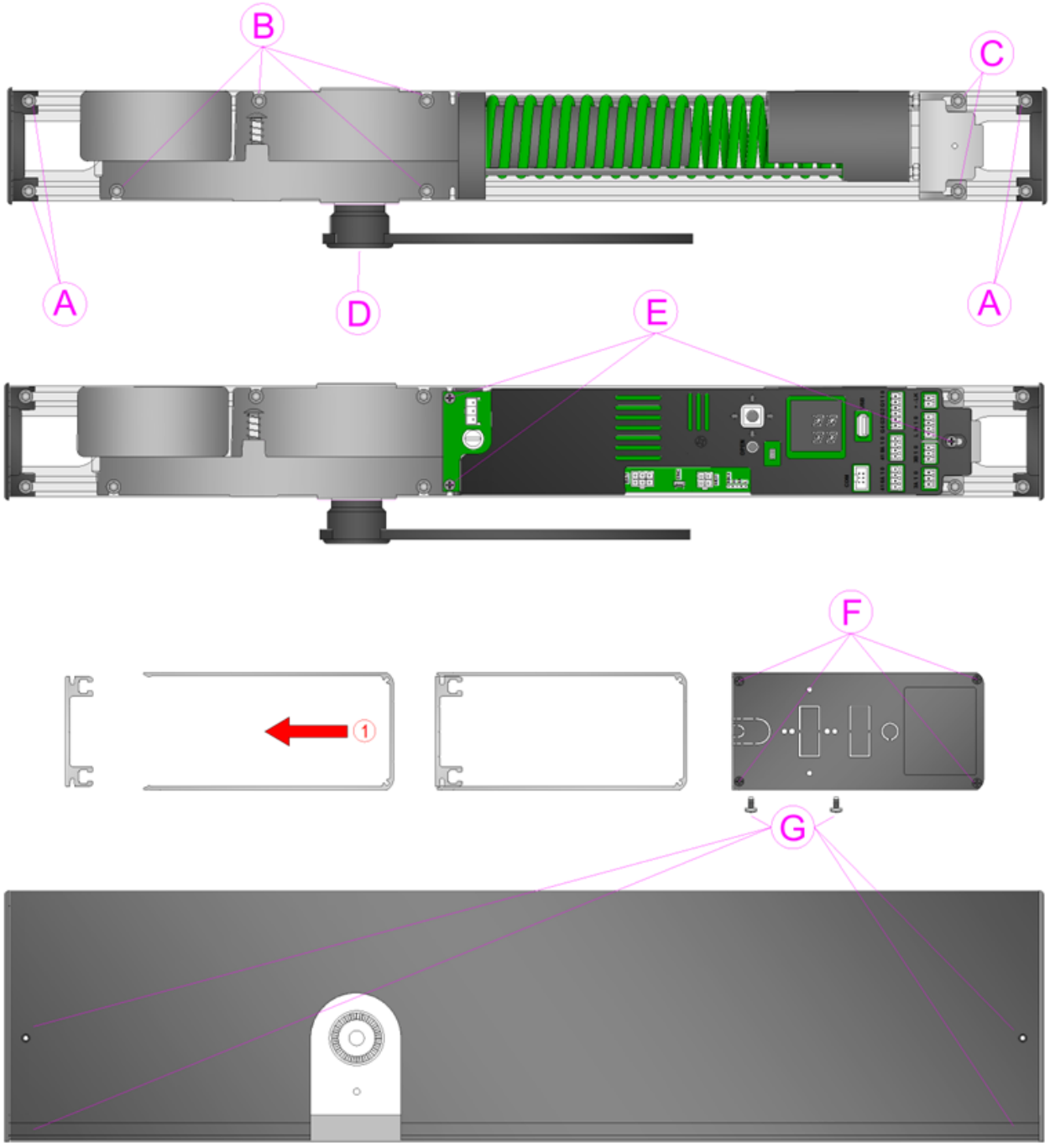
The given operating and performance features can only be guaranteed with use of FACE accessories and safety devices.

## 4. ASSEMBLY PROCEDURE OF THE AUTOMATION

Check the stability, the weight of the leaf and that the movement is smooth and without friction (if necessary to reinforce the frame). Any closing door device must be removed or completely deactivated.

The tightening torque of the screws is shown in the following table.

| Rif. | Position | Screw type | | Torque |
|---|---|---|---|---|
| A | End cap |  | M5 x 14 mm | 0,8 Nm |
| B | Motor | | | 3 Nm |
| C | Spring |  | M5 x 10 mm | 3 Nm |
| D | Arm |  | M8 x 20 mm | 10 Nm |
| E | PCB |  | 3,5 x 6,5 mm | 1 Nm |
| F | Carter |  | 2,9 x 13 mm | 1 Nm |
| G | Carter |  | 3,5 x 6,5 mm | 1 Nm |



### 4.1 INSTALLATION OF AUTOMATION WITH SLIDING ARM TO PULL

Use the sliding arm to pull with doors which open inside (view from the automation).

Remove the cover and fix the automation in a stable and leveled way to the wall using screws with a diameter ≥ 4.8 mm, using the measurements shown in the figure. Refer to the axis of the door hinges.

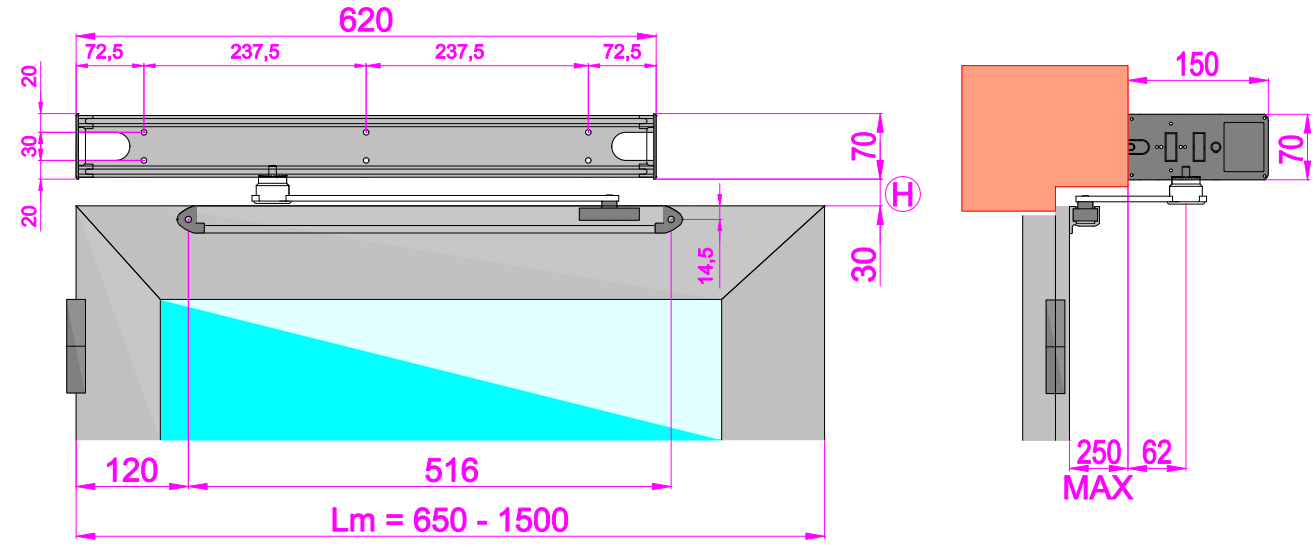
Fix the sliding arm on the door as shown in the figure. Insert the sliding arm in the guide and fix to the automation.

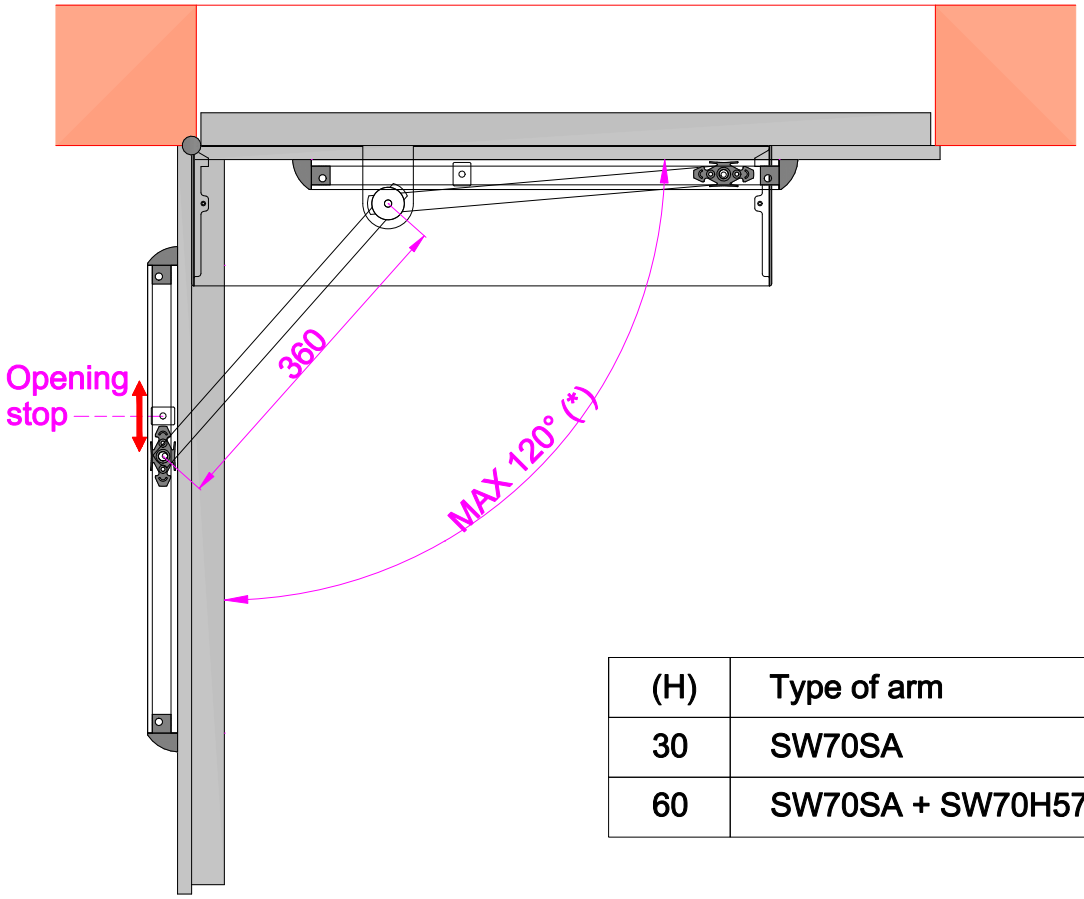
Note: if necessary, you can change the measure H, between the automation and the door, by replacing the spacer, using the codes listed in the table.

Move the door manually, and verify the correct opening and closing smoothly.

Adjust the opening mechanical stop inside the sliding arm.

**WARNING**: Do not handle the automation unit by the end caps or the electronic control board. Always lift it by the base or the gearbox.




| (H) | Type of arm |
|---|---|
| 30 | SW70SA |
| 60 | SW70SA + SW70H57 |

(*) The maximum opening angle depends on the type of installation, the characteristics of the door leaf, and the preloading of the closing spring.

### 4.2 INSTALLATION OF AUTOMATION WITH ARTICULATED ARM TO PUSH

Use the articulated arm to push with doors which open outside (view from the automation).

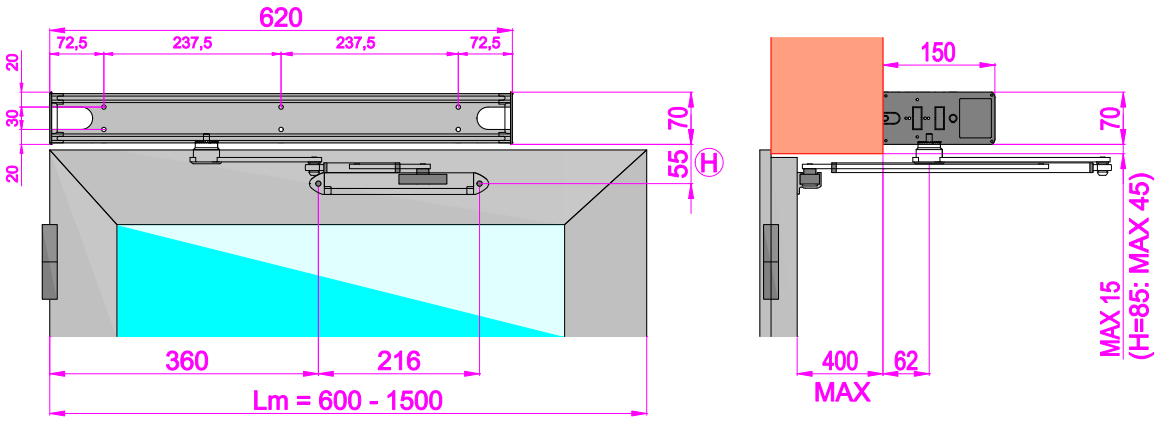
Remove the cover and fix the automation in a stable and leveled way to the wall using screws with a diameter ≥ 4.8 mm, using the measurements shown in the figure. Refer to the axis of the door hinges.

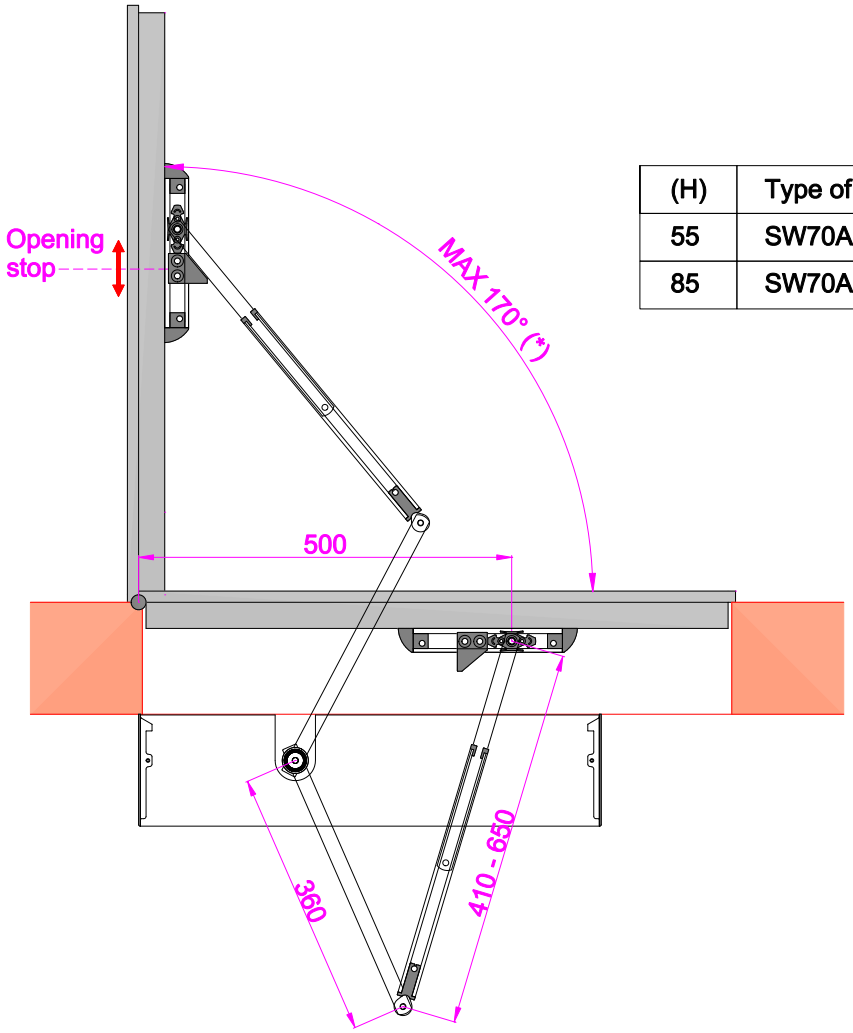
Fix the bracket of the articulated arm on the door, using the measurements shown in the figure.

Note: if necessary, you can change the measure H, between the automation and the door, by replacing the spacer, using the codes listed in the table.

Note: the mechanical stop on the floor must be fixed in a visible position and must not create tripping hazard.

**WARNING**: Do not handle the automation unit by the end caps or the electronic control board. Always lift it by the base or the gearbox.




| (H) | Type of arm |
|---|---|
| 55 | SW70AA |
| 85 | SW70AA + SW70H57 |

(*) The maximum opening angle depends on the type of installation, the characteristics of the door leaf, and the preloading of the closing spring.

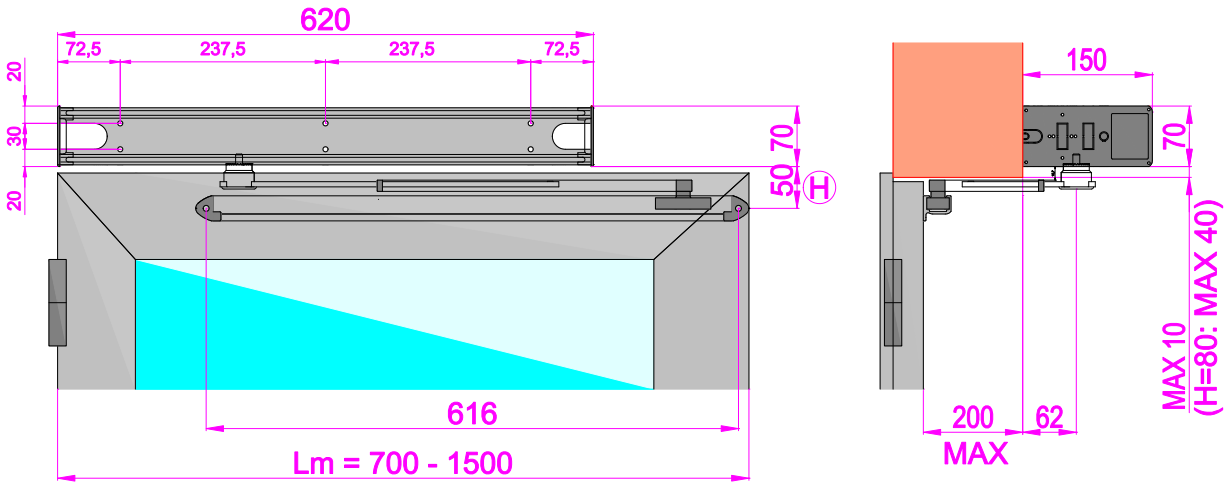
### 4.3 INSTALLATION OF AUTOMATION WITH SLIDING ARM TO PUSH

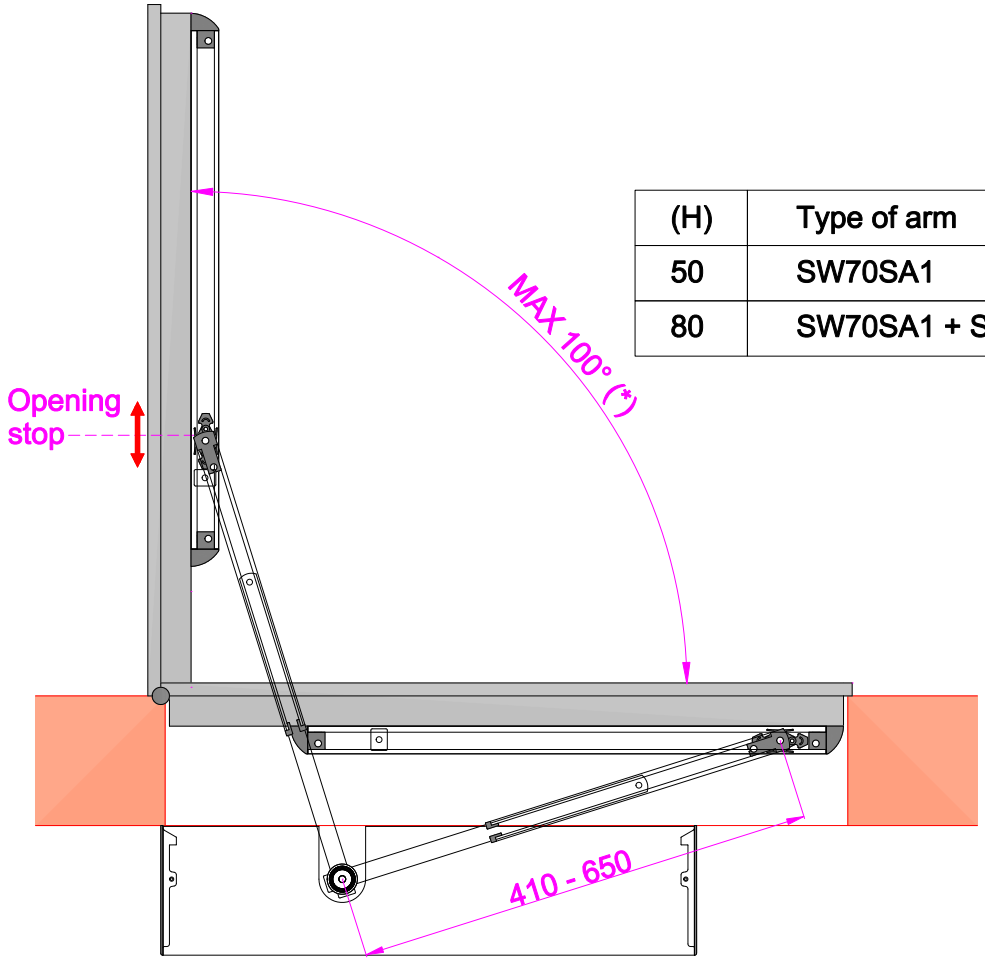
Use the sliding arm to push with doors which open outside (view from the automation).

Remove the cover and fix the automation in a stable and leveled way to the wall using screws with a diameter ≥ 4.8 mm, using the measurements shown in the figure. Refer to the axis of the door hinges.

Note: if necessary, you can change the measure H, between the automation and the door, by replacing the spacer, using the codes listed in the table.

**WARNING**: Do not handle the automation unit by the end caps or the electronic control board. Always lift it by the base or the gearbox.



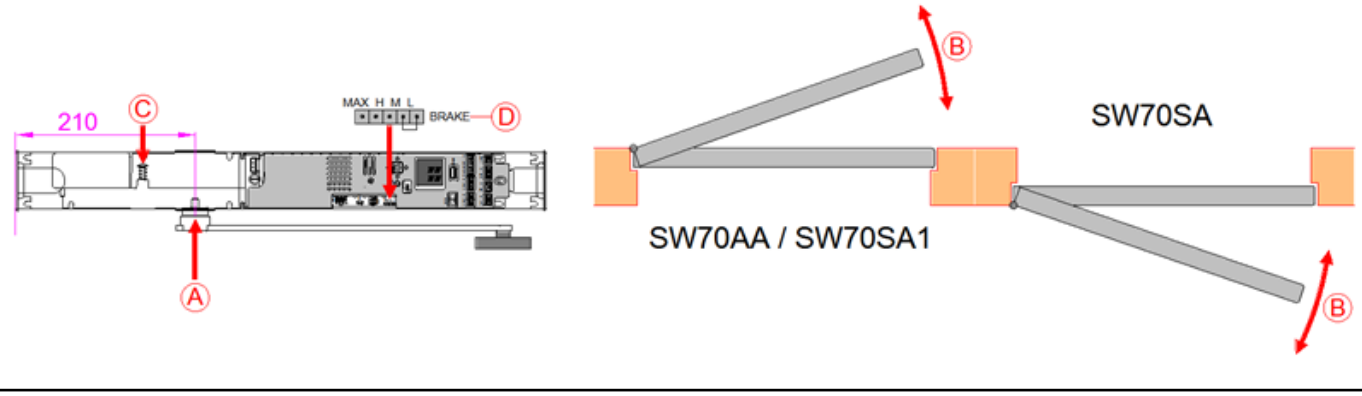




| (H) | Type of arm |
|---|---|
| 50 | SW70SA1 |
| 80 | SW70SA1 + SW70H57 |

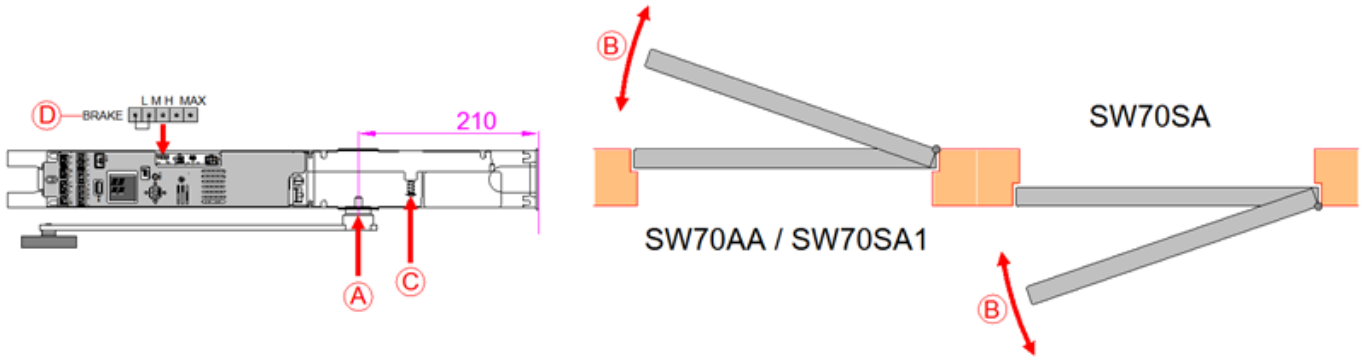
(*) The maximum opening angle depends on the type of installation, the characteristics of the door leaf, and the preloading of the closing spring.

### 4.4 CLOSURE SPRING PRELOAD

**DOOR WITH HINGES ON THE LEFT**




**DOOR WITH HINGES ON THE RIGHT**




- Secure the arm to the upper part of the door leaf as shown in the figure.
- Only for SW70AA: Screw the two 4.8x13 screws into the sliding block to lock it onto the sliding profile.
- Move the door to the closed position and attach the arm to the automation using screw (A) with a 6 mm hex key.
- Open the door to an angle (B) of approximately 30°-45° and stop the door by pressing button (C).
- N.B. The preloading of the spring can be increased or reduced by opening the door to a larger or smaller angle.
- Disconnect the arm from the automation by unscrewing screw (A), move the door to the closed position, screw (A) back in, and release button (C).

If fixing difficulties arise, the preloading procedure can always be performed in a different movement section (e.g., from a 45° open position, preload up to 90° open, then finalize the fixing in the closed position).

**WARNING**: apply high-strength threadlocker (Loctite 270 or equivalent) on the screw fixing the arm to the motor and the screws fixing the arm spacer

### 4.5 ADJUSTING DOOR BRAKING

If necessary, to increase the door braking in the absence of power, move the jumper on the BRAKE (D) connector of the electronic control to position M (medium braking), H (high braking).
Manually move the door and check the correct opening and closing force.

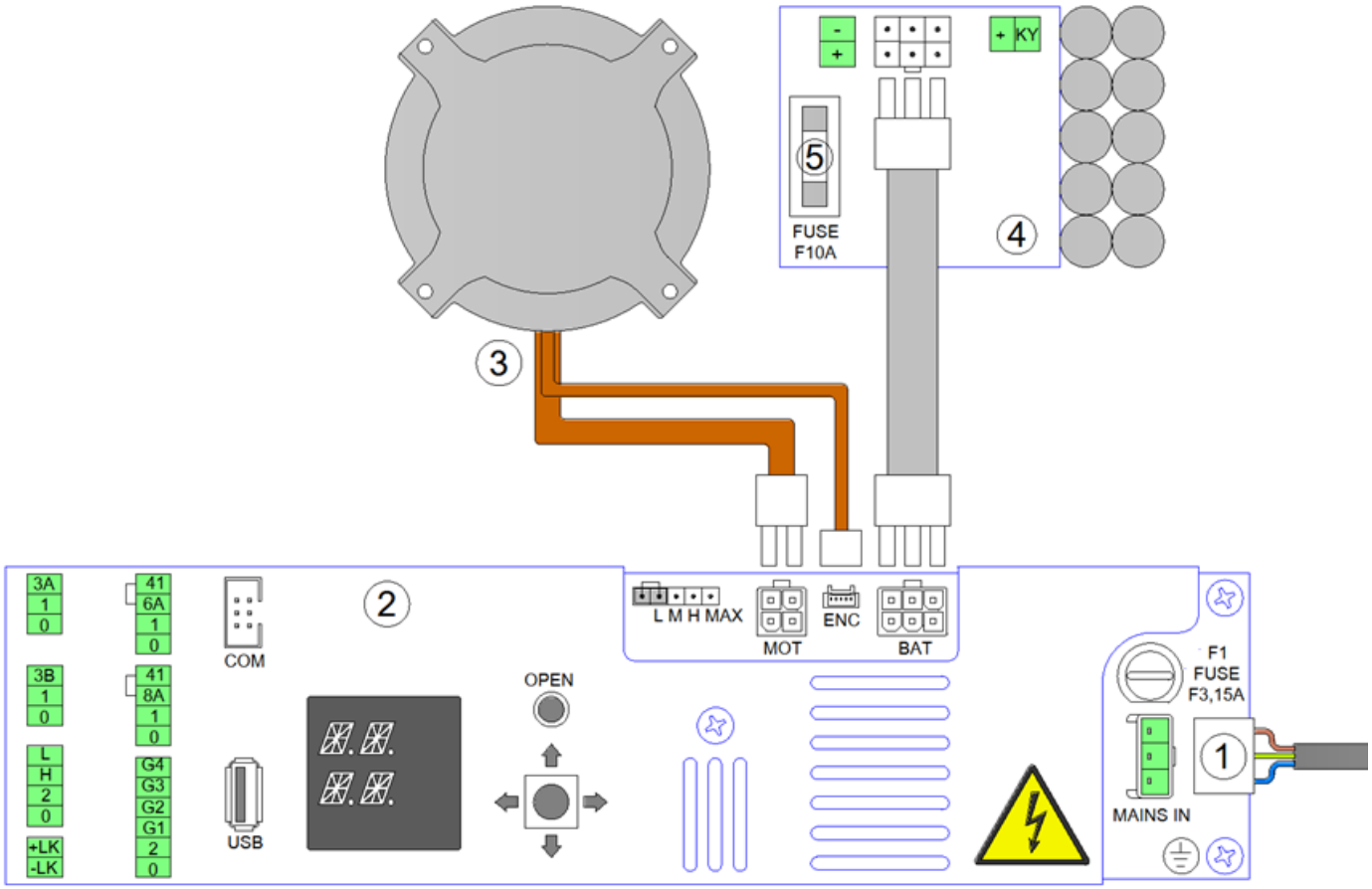
**WARNING**: Adjust the position of the mechanical door stop in the open position as shown in the figure.

### 4.6 CARTER CLOSING

Insert the cover profile into the base profile and, to prevent the cover from being opened without the use of a tool secure it using the supplied screws.

**WARNING**: Secure the cover to the base profile to ensure the grounding of the cover.

## 5. ELECTRICAL CONNECTIONS




| Rif. | Code | Terminals | Description |
|---|---|---|---|
| 1 | 21282 | MAINS IN | Cable for connection to the power supply. |
| 2 | 5CB20 | | Electronic control |
| 3 | 2B9115 | MOT | Brushless motor |
| | | ENC | Angular sensor |
| 4 | SW70SBD | BAT | Battery power device |
| 5 | | FUSE | Battery fuse 5x20 type F3,15A |

### 5.1 GENERAL SAFETY ELECTRICAL PRECAUTIONS

Installation, electrical connections, and adjustments must be carried out in compliance with Good Practice and in accordance with applicable regulations.
Before connecting the power supply, ensure that the nameplate data match those of the electrical distribution network.
The power supply network must include an all-pole switch/disconnector with a contact opening distance equal to or greater than 3 mm. This switch must be protected against unauthorized activation and installed near the automation system, not in the main panel.
Ensure that an appropriate residual current device (RCD) and overcurrent protection are installed upstream of the electrical system.
Connect the automation system to an effective grounding system in compliance with current safety regulations.
During installation, maintenance, and repair operations, disconnect the power supply before opening the cover to access electrical components.
When handling electronic parts, use antistatic conductive wristbands connected to the ground. FACE declines all responsibility if incompatible components are installed, affecting safety and proper operation.
For any repairs or product replacements, only original spare parts must be used.
Replace the device fuse only with fuses of identical specifications.

### 5.2 POWER SUPPLY ELECTRICAL CONNECTION

The connection to the mains supply can be done in one of the two following ways.

#### 5.2.1 ELECTRICAL CONNECTION THROUGH THE AUTOMATION BASE

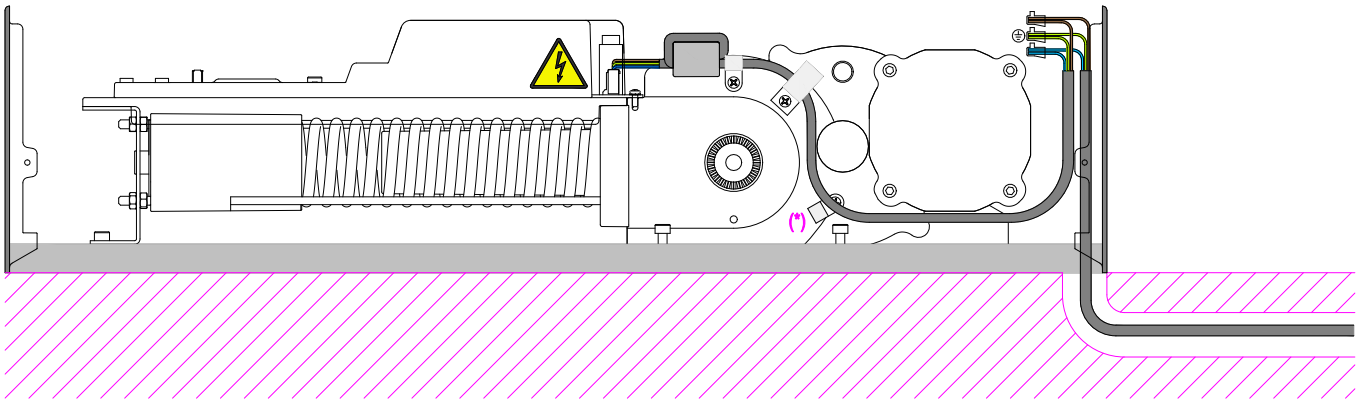
Use the supplied electrical cable and terminals to connect the device to the power supply through a pre-installed wall conduit.

Note: Cut the cable to the desired length.

Ensure that there are no sharp edges that could damage the power cable.

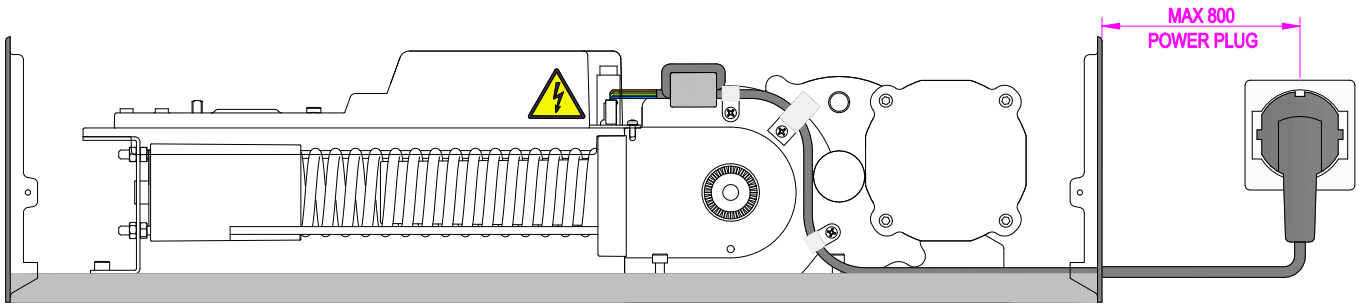
For connection to the electrical network, use an independent conduit separate from the wiring for control and safety devices. Use cables with sufficient thickness for the declared power consumption of the automation, and in any case, not less than 1.5 mm².

Use the second cable clamp (*) to secure the spliced cable before routing it into the conduit.




#### 5.2.2 ELECTRICAL CONNECTION THROUGH THE AUTOMATION END CAP

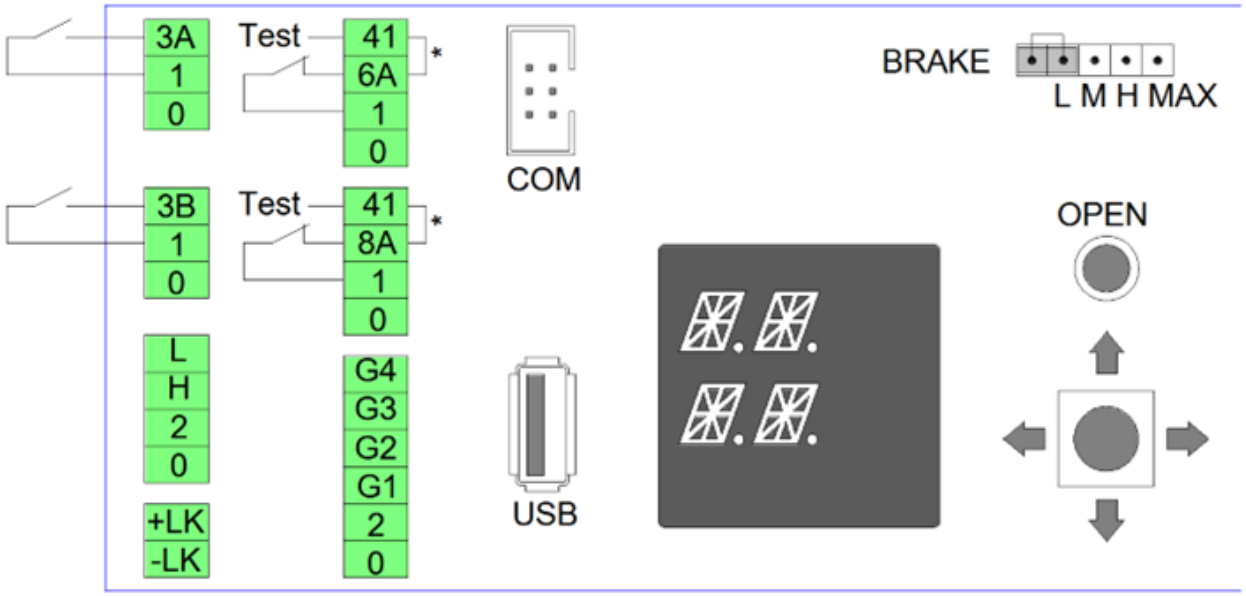
If the power cable runs outside the wall where the automation is mounted, drill the end cap in the designated area or use the precuts available to pass through the endcap.
Connect the power cable to a junction box using the supplied terminals, or connect it to a wall socket using a power plug (not supplied).




#### 5.2.3 ELECTROMAGNETIC COMPATIBILITY

In the presence of devices particularly sensitive to electromagnetic emissions (e.g., anti-theft systems), metal end caps can be purchased separately.
When properly installed, these ensure maximum shielding.

## 6. ELECTRONIC CONTROL TERMINALS

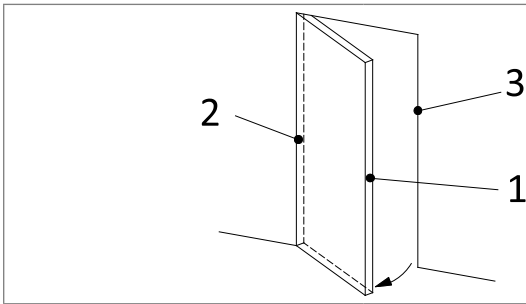



Note: The terminals with the same number are equivalent.
The electronic control comes with the jumpers on the terminals with an asterisk [*]. When connecting safety devices remove the jumpers of the corresponding terminals

| Terminals | Description |
|---|---|
| 0 – 1 | Output 12 Vdc for external powering accessories. The maximum absorption of 1 A corresponds to the sum of all the terminals 1 and 2 (+12V).This line is disabled in standby mode. |
| 0 – 2 | Output 12 Vdc for external powering accessories. The maximum absorption of 1 A corresponds to the sum of all the terminals 1 and 2 (+12V).This line remains enabled in standby mode. |
| 1 – 3A | Contact N.O. opening A side (interior side). |
| 1 – 3B | Contact N.O. opening B side (outer side). |
| 1 – 8A | Closing safety contact N.C. The opening of the contact causes the reversal of the movement.<br>Note: connect safety devices with test (see terminal 41), and remove the jumper 41 - 8A. |
| 1 – 6A | Opening safety contact N.C. The opening of the contact stops the movement during the opening phase; the door closes after 3s. If the automation is closed, the opening of the contact prevents the opening.<br>Note: connect safety devices with test (see terminal 41), and remove the jumper 41 - 6A. |
| 41 | Test output (+12 V). Connect the safety devices with test (in accordance with EN 16005), as indicated in the following chapters.<br>Note: in case of devices without test, connect the N.C. contact to terminals 41 - 8A or 41 - 6A. |
| 2 – G1/G2/G3/G4<br>0 – G1/G2 | Input terminal provided for general use.<br>Output terminal (12 Vdc, 30 mA max) provided for general use.<br>Using the DOOR>I/O menu you can choose a specific function to the G1/G2/G3/G4 terminal. |
| 0 – 2 – H – L | Bus connection to the function selector. |
| +LK / -LK | Output 12Vdc (1 A max) / 24Vdc (1 A max) for electric lock. |
| BRAKE | Braking regulation in the absence of power supply: L = low, M = medium, H = high |
| USB | USB standard. Allows saving the door settings and loading the firmware updates. |
| COM | Connection for remote communication |

| Buttons | Description |
|---|---|
| OPEN | Open the door. |
| ↑ | Joystick up, Scroll the menu and decrease the selected values. |
| ↓ | Joystick down, Scroll the menu and increase the selected values. |
| → | Joystick to the right, enter the menu and save the selected value. |
| ← | Joystick to the left, exit the menu, and cancel the ongoing modification. |

### 6.1 SAFETY FUNCTIONS

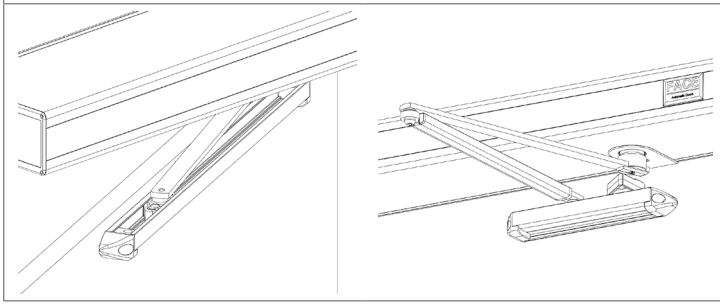



There is a risk of crushing, squeezing and drawing at automatic doors at the various closing edges.

1: Main closing edge

2: Secondary closing edge

3: Opposing closing edge



There is a risk of squeezing and drawing on sliding and articulated arms.

| Function | Hazard controlled | Protective device / logic | Test | Reference |
|---|---|---|---|---|
| 6A Opening side presence sensor | Crushing / impact in opening | SD3<br>SD4<br>monitored via T41 | Test object to be detected in all areas covered by the leaf movement | Chapter 8.2 |
| 8A Closing side presence sensor | Crushing / impact in closing | SD3<br>SD4<br>monitored via T41 | Test object to be detected in all areas covered by the leaf movement | Chapter 8.2 |
| Force limitation | Impact in opening or closing | Reduced speed | Dynamometer as described in EN16005 | Chapter 8.2.2 |
| T41 safety sensors test | Failure or disconnection of safety devices | 41 terminal | Self test requested at every opening movement (W140, W142) | Chapter 12.6 |
| Low energy | Crushing / impact in opening or closing | Internal force control and reduced speed | Dynamometer as described in EN16005 | Chapter 9.1 |
| Battery backup (BTMD) | Loss of mains power | Battery module | Remove power supply voltage | Chapter 12.4 |
| Spring closing | Loss of mains power | Internal spring adjustable with BRAKE jumper | Remove power supply voltage and verify correct closing of the door | Chapter 4.4 |

Opening safety:

- If the sensor on the opening side detects an obstacle, the door will stop opening.
- If the sensor on the opening side detects an obstacle while the door is closed, the door will not open.

Closing safety:

- If the sensor on the closing side detects an obstacle while closing the door, the door will reverse the movement.
- If the sensor on the closing side detects an obstacle while in the open position, the door will stay open.

If both sensors on the opening and the closing side detects an obstacle, the door will stop and stay in position.
When all sensors are clear of obstacles, the door will resume normal operation.

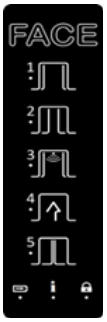
## 7. ELECTRICAL CONNECTION OF FUNCTION SELECTOR

Connect the 0-1-H-L terminals of the function selector, by cable (not supplied by us), to the 0-2-H-L terminals of the electronic control.

Note: for lengths over 10 m, use a cable with 2 twisted-pairs.

ATTENTION: the function selector must be used by authorized personnel only; if it is installed in a place accessible to the public, the function selector must be protected by a proximity badge (13.56MHz ISO15693 and ISO14443 Mifare) or by a numeric code (max 40 badges and codes).

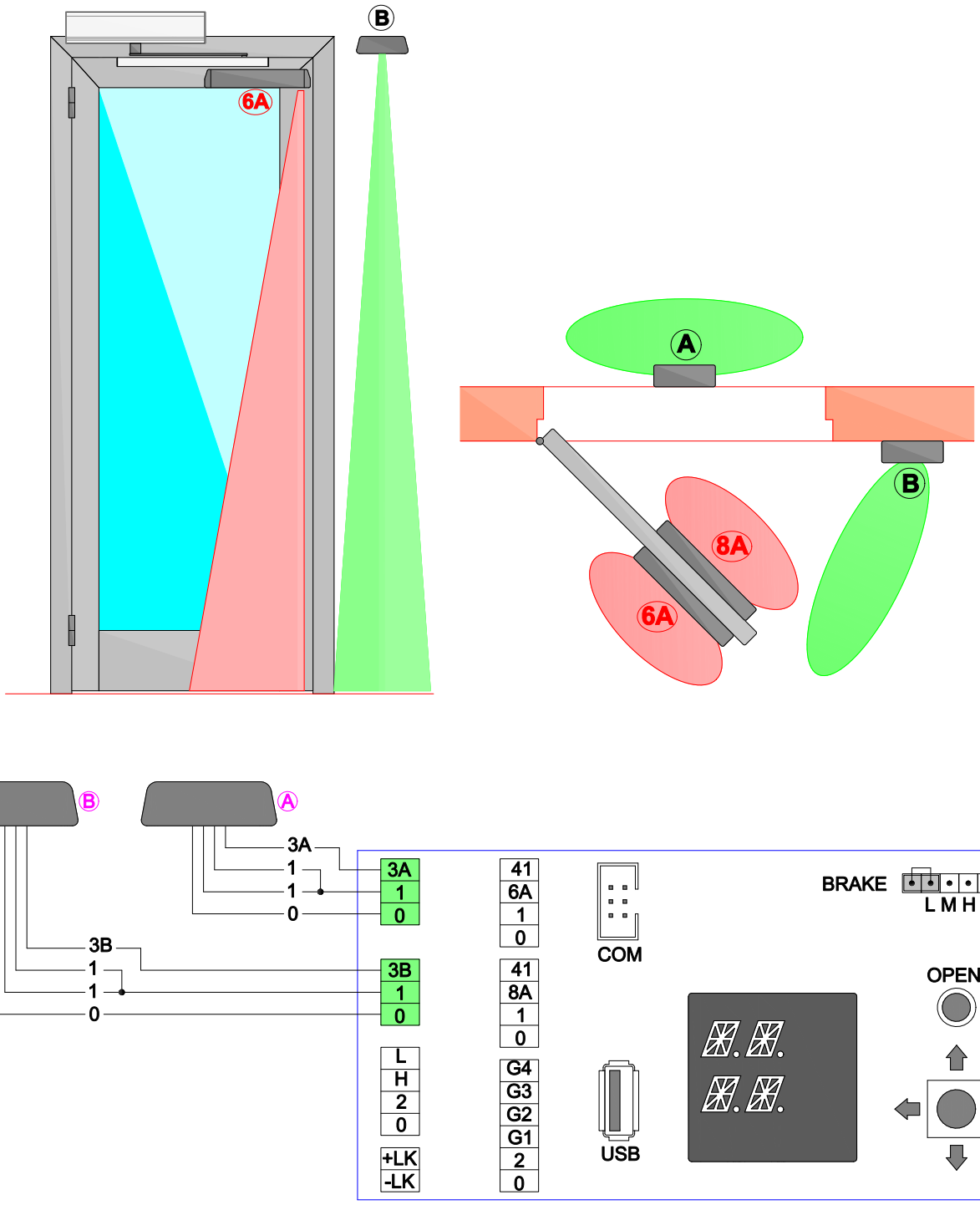
The function selector allows the following settings.


| Symbol | Description |
|---|---|
|  | **OPEN DOOR**<br>When selected, the symbol lights up, the door is permanently open.<br>Note: the leaves can still be handled manually.<br>**LOW SPEED OPERATION**<br>Select the symbol for 5 seconds (double beep), the AUTOMATIC symbol flashes and the door works without safety sensors with reduced speed.<br>Note: this mode must be used temporarily in the event of a malfunction of the safety sensors. |
|  | **AUTOMATIC PARTIAL OPERATION**<br>In the case of a door with 2 automations, when selected, the symbol lights and allows the automatic operation of only one leaf. |
|  | **AUTOMATIC BI-DIRECTIONAL OPERATION**<br>When selected, the symbol lights up, the door works automatic in bidirectional mode.<br>**RESET**<br>Select the symbol for 5 seconds, the automation performs the self-test and the automatic learning. |
|  | **AUTOMATIC ONE-WAY OPERATION**<br>When selected, the symbol lights up and automatic operation of the door is in one-way mode. |
|  | **CLOSED DOOR**<br>When selected, the door is permanently closed.<br>Note: using the menu DOOR > WORKMODE > DLAY you can adjust the delay time to close the door.<br>**MANUAL OPERATION (DOOR>WORKMODE>WMODE=OFF)**<br>Select the symbol for 3 seconds, the symbol flashes and the door can be moved manually.<br>Note: the control and safety sensors are deactivated. |
|  | **PROTECTED FUNCTION SELECTOR**<br>The symbol lights up if the function selector is protected. To activate the temporary operation of the function selector is necessary to approach the badge to the NFC symbol, or enter the code, or select for 3 seconds the logo. |
|  | **ACTIVATION OF FUNCTION SELECTOR BY LOGO (SELECTOR>SEL #>SECL=LOGO)**<br>Select the logo for 3 seconds (the lock symbol light off), the function selector is activated for 10 seconds. Expired the time the function selector switches off (the lock symbol lights up).<br>Note: the function selector logo flashes when the CAN bus communication is not working (H-L terminals). |
|  | **ACTIVATION OF FUNCTION SELECTOR BY BADGE (SELECTOR>SEL #>SECL=CODE)**<br>Approach the badge to the NFC symbol (the lock symbol light off), the function selector is activated for 10 seconds. Expired the time the function selector switches off (the lock symbol lights up). |
| **1 2 3 4 5** | **ACTIVATION OF FUNCTION SELECTOR BY NUMERIC CODE (SELECTOR>SEL #>SECL=CODE)**<br>Press the logo, enter the code (maximum 5 numbers), press the logo for confirmation, (the lock symbol light off), the function selector is activated for 10 seconds. Expired the time the function selector switches off (the lock symbol lights up). |
|  | **BATTERY SIGNAL**<br>Battery symbol off = the door is operating with the mains supply<br>Battery symbol on = the door is operating with battery power<br>Battery symbol flashing = the battery is low or disconnected |
|  | **INFORMATION SIGNAL**<br>Information symbol on = it is necessary to perform the ordinary maintenance of the door.<br>Information symbol flashing = shows the presence of alarms:<br>- 1 flash = failure of electronic control or locking device;<br>- 2 flashes = mechanical failure;<br>- 3 flashes = failure of sensor safety test;<br>- 4 flashes = motor overtemperature. |

## 8. SENSOR

### 8.1 ELECTRICAL CONNECTION OF OPENING SENSOR




Connect the sensor, using the supplied cable to the terminals of the electronic control as follows:

| | 5CB20 | OS1 (Prime Motion B)<br>OS2 (Prime Motion C) | OS3 (HR50-UNI)<br>OS4 (HR50) | TD2 (ClearWave) | TD3 (Magic Switch Chroma) |
|---|---|---|---|---|---|
| OPENING | 0 | White | Grey | Power supply | Power supply |
| | 1 | Brown<br>Yellow | Grey<br>Yellow | Power supply<br>COM | Power supply<br>COM |
| | 3A (3B) | Green | Yellow | NO (Pulse mode) | NO |

For more information, check the installation manual of the sensor.

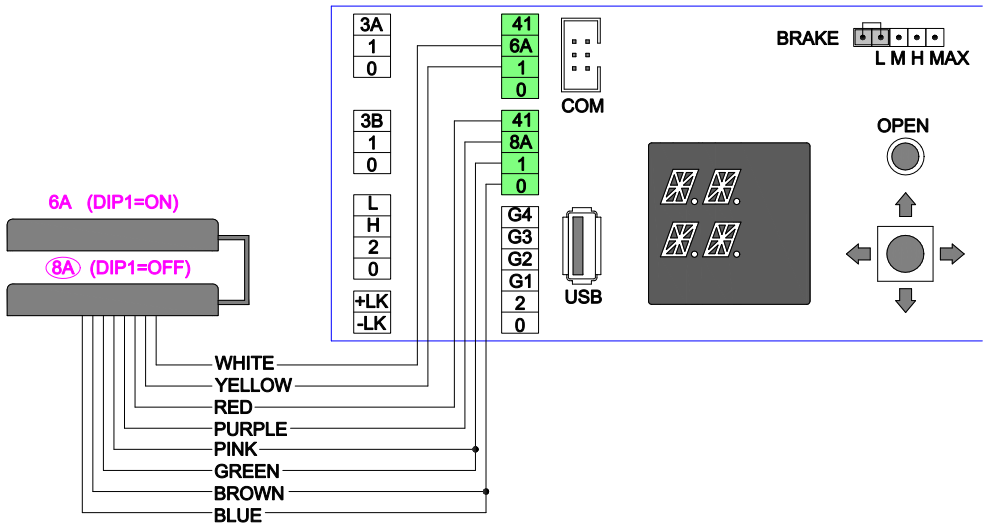
### 8.2 SAFETY SENSORS

The safety sensors should be installed directly on the leaf of the door, and protect both the opening and the closing of the swing door.

#### 8.2.1 ELECTRICAL CONNECTION OF SAFETY SENSOR

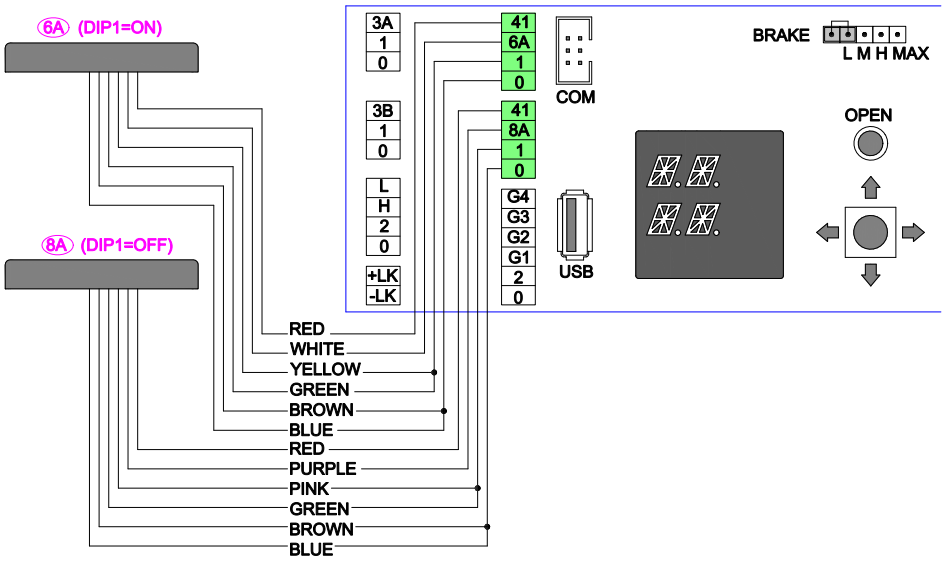
To simplify the installation of the safety sensors, you can choose one of the following two options.

- OPTION 1: Connect the 2 sensors to each other, using the supplied cable. Connect only one of the 2 sensors to the electronic control terminals, as shown below.




| | 5CB20 | SD3 (4SAFE ON SW) | SD4 (FLATSCAN SW) | | 5CB20 | SD3 (4SAFE ON SW) | SD4 (FLATSCAN SW) |
|---|---|---|---|---|---|---|---|
| SAFETY | 0 | | | SAFETY | 0 | Brown<br>Blue | Brown<br>Blue |
| | 1 | Yellow | Yellow | | 1 | Green<br>Pink | Green<br>Pink |
| | 6A | White (DIP1=ON) | White (DIP1=ON) | | 8A | Purple (DIP1=OFF) | Grey (DIP1=OFF) |
| | 41 | | | | 41 | Red | Red |

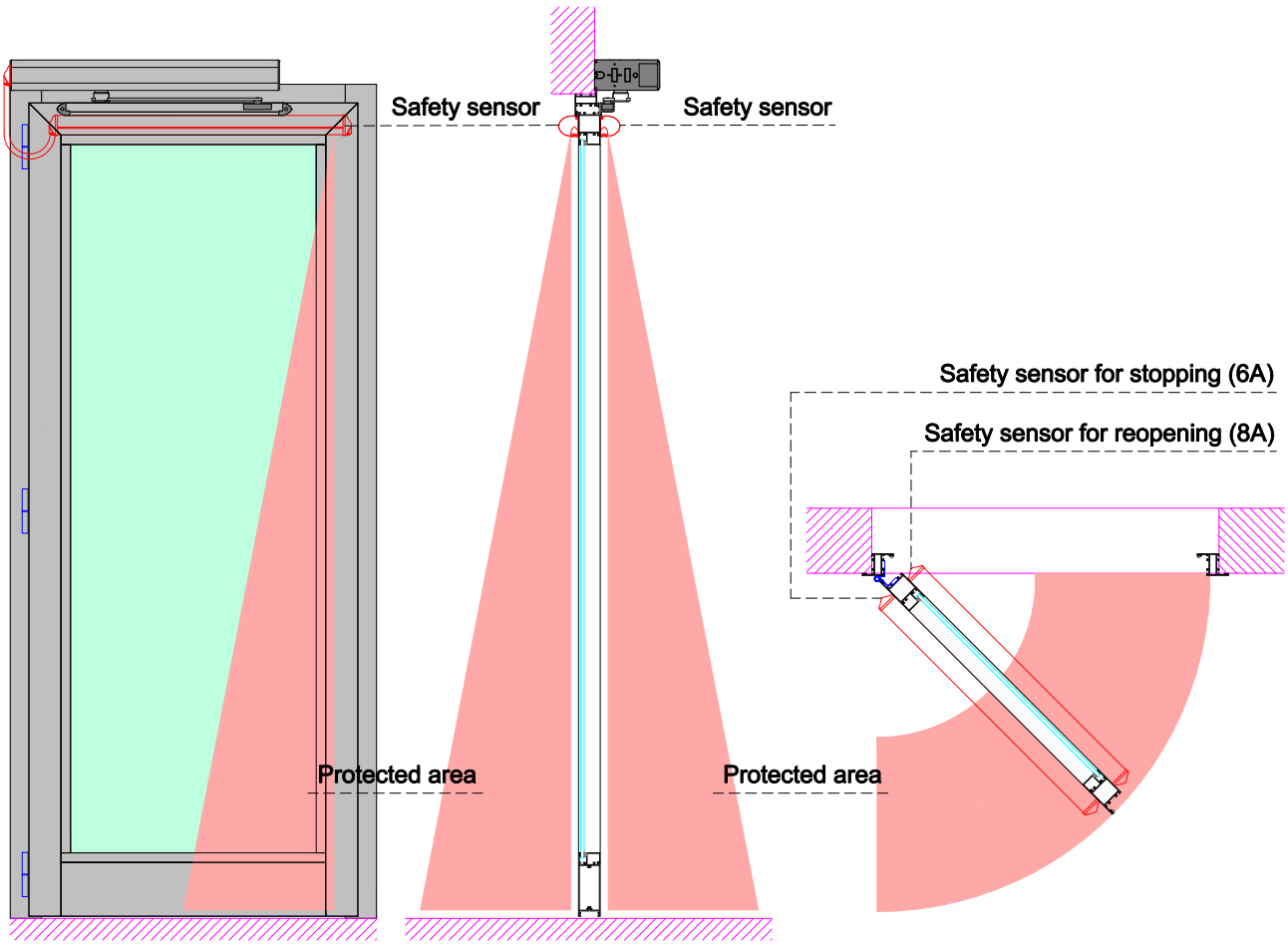
- OPTION 2: Connect each sensor to the electronic control terminals, as shown below.



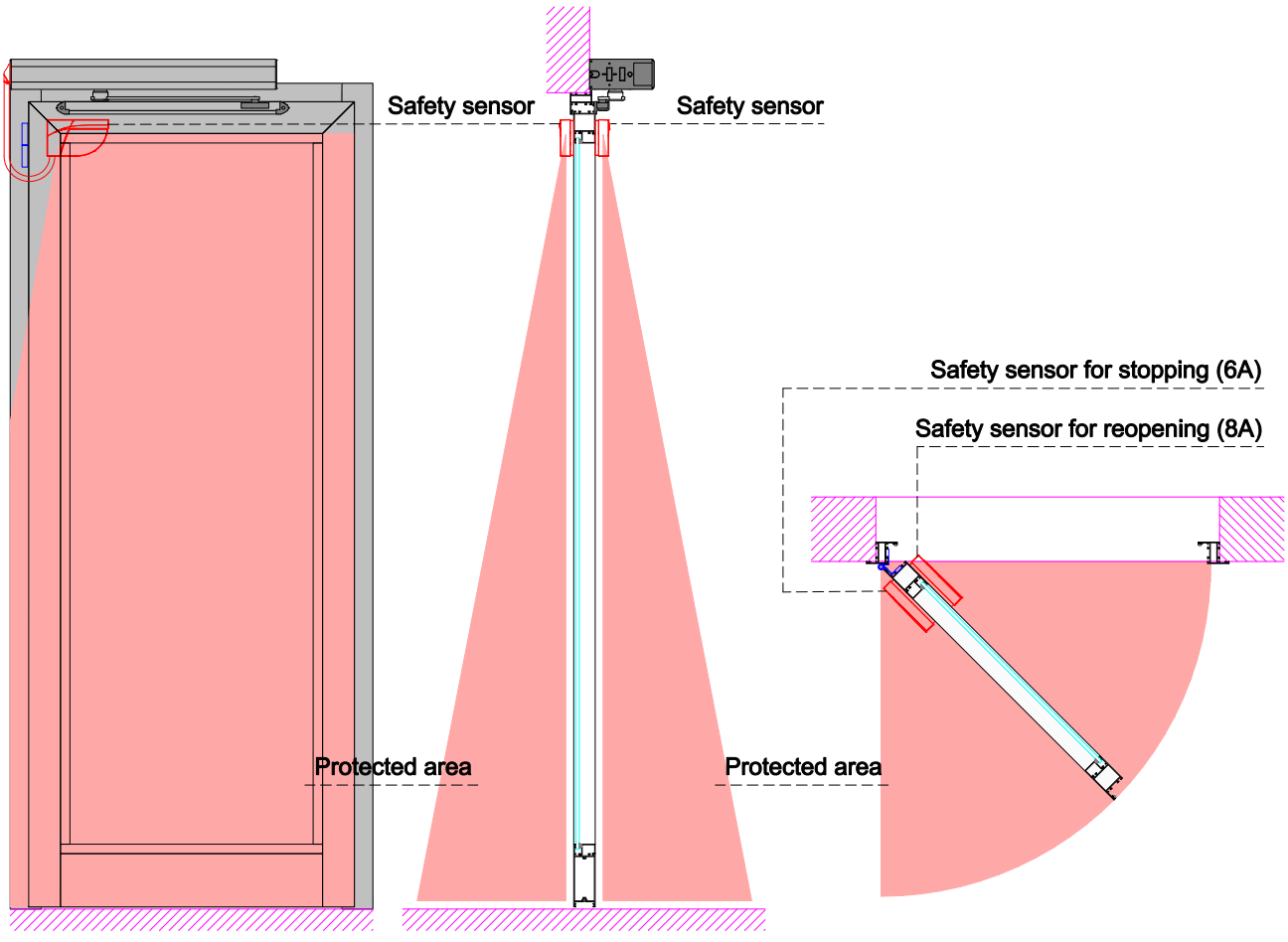

| | 5CB20 | SD3 (4SAFE ON SW) | SD4 (FLATSCAN SW) | | 5CB20 | SD3 (4SAFE ON SW) | SD4 (FLATSCAN SW) |
|---|---|---|---|---|---|---|---|
| SAFETY | 0 | Brown<br>Blue | Brown<br>Blue | SAFETY | 0 | Brown<br>Blue | Brown<br>Blue |
| | 1 | Green<br>Yellow | Green<br>Yellow | | 1 | Green<br>Pink | Green<br>Pink |
| | 6A | White (DIP1=ON) | White (DIP1=ON) | | 8A | Purple (DIP1=OFF) | Grey (DIP1=OFF) |
| | 41 | Red | Red | | 41 | Red | Red |

For more information, check the installation manual of the sensor.

## SD3 (4SAFE ON SW)




## SD4 (FLATSCAN SW)

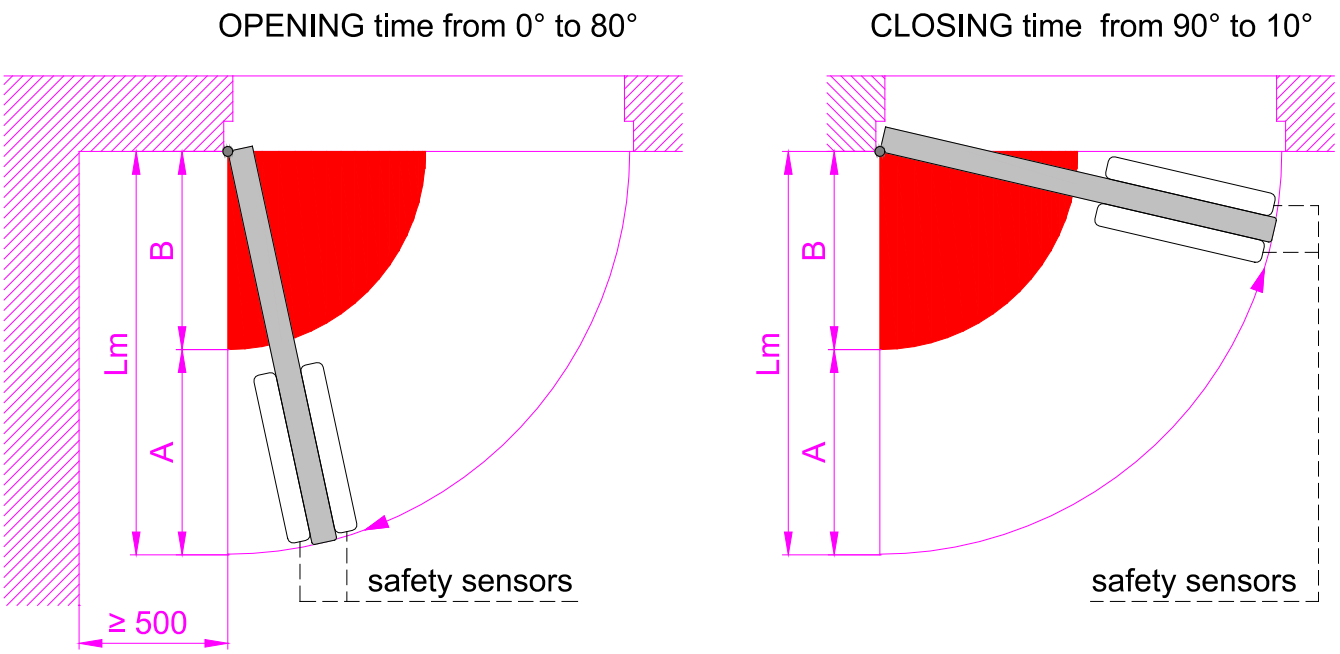


### 8.2.2 ADJUSTMENT OF THE SPEED OF THE DOOR (EN 16005 STANDARD, ANNEX G)

To reduce the speed of the door in area B not protected by safety sensors, make the following adjustments.

Adjust the opening speed (VOP) so as to open the door (from 0° to 80°) at the times indicated in the table.

Adjust the closing speed (VCL) so as to close the door (from 90° to 10°) at the times indicated in the table.




| | Time [s] | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1,0 | 1,5 | 2,0 | 2,5 | 3,0 | 3,5 | 4,0 | 4,5 | 5,0 | 5,5 | 6,0 |
| | B [m] | | | | | | | | | | |
| | 0,16 | 0,24 | 0,32 | 0,40 | 0,48 | 0,56 | 0,64 | 0,72 | 0,80 | 0,88 | 0,95 |
| **Lm [m]** | A [m] | | | | | | | | | | |
| 0,7 | 0,54 | 0,46 | 0,38 | 0,30 | 0,22 | 0,14 | 0,06 | - | - | - | - |
| 0,8 | 0,64 | 0,56 | 0,48 | 0,40 | 0,32 | 0,24 | 0,16 | 0,08 | - | - | - |
| 0,9 | 0,74 | 0,66 | 0,58 | 0,50 | 0,42 | 0,34 | 0,26 | 0,18 | 0,10 | 0,02 | - |
| 1,0 | 0,84 | 0,76 | 0,68 | 0,60 | 0,52 | 0,44 | 0,36 | 0,28 | 0,20 | 0,12 | 0,05 |
| 1,1 | 0,94 | 0,86 | 0,78 | 0,70 | 0,62 | 0,54 | 0,46 | 0,38 | 0,30 | 0,22 | 0,15 |
| 1,2 | 1,04 | 0,96 | 0,88 | 0,80 | 0,72 | 0,64 | 0,56 | 0,48 | 0,40 | 0,32 | 0,25 |
| 1,3 | 1,14 | 1,06 | 0,98 | 0,90 | 0,82 | 0,74 | 0,66 | 0,58 | 0,50 | 0,42 | 0,35 |
| 1,4 | 1,24 | 1,16 | 1,08 | 1,00 | 0,92 | 0,84 | 0,76 | 0,68 | 0,60 | 0,52 | 0,45 |
| 1,5 | 1,34 | 1,26 | 1,18 | 1,10 | 1,02 | 0,94 | 0,86 | 0,78 | 0,70 | 0,62 | 0,55 |

## 9. SPECIAL OPERATING MODE

### 9.1 LOW ENERGY OPERATING MODE

Attention: the automation can be used in "Low energy" mode, without the installation of safety sensors, only in the absence of users: elderly, infirm, disabled people, small children.

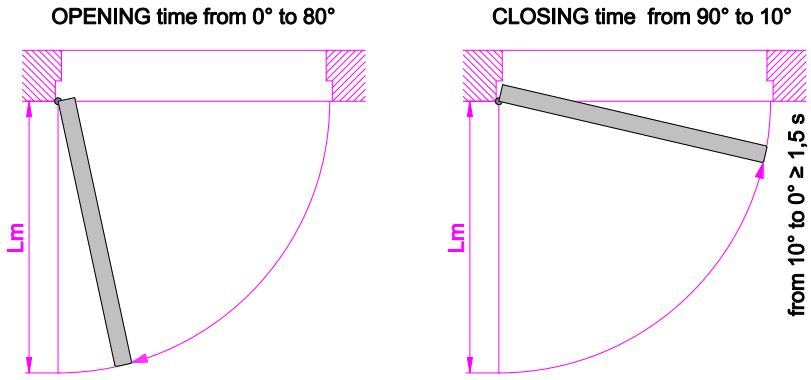
To reduce the force and the kinetic energy of the door, make the following adjustments.

| | SW70SA (cap. 4.1) | SW70AA (cap. 4.2) | SW70SA1 (cap. 4.3) |
|---|---|---|---|
| - Adjustment of the closing spring | Minimum (250mm, about 10°) | Minimum (250mm, about 10°) | Minimum (250mm, about 10°) |
| - Adjustment of the closing spring braking, using the BRAKE connector | BRAKE = MAX (maximum braking) | BRAKE = MAX (maximum braking) | BRAKE = MAX (maximum braking) |
| - Motor force setting, via menu.<br>The measured force must not exceed 67 N, according to EN 16005. | DOOR > BASIC > PUSH ≤ 5<br><br>If the door weight exceeds 90 kg: DOOR > BASIC > PUSH ≤ 3 | DOOR > BASIC > PUSH ≤ 5<br><br>If the door weight exceeds 90 kg: DOOR > BASIC > PUSH ≤ 3 | DOOR > BASIC > PUSH ≤ 5 |

- Adjust the opening speed (VOP) so as to open the door (from 0° to 80°) at the times indicated in the table, according to standard EN 16005.

- Adjust the closing speed (VCL) so as to close the door (from 90° to 10°) at the times indicated in the table, and from 10° to fully closed in not less than 1,5 s, according to standard EN 16005.

| | **Door weight [kg]** | | | | |
|---|---|---|---|---|---|
| | 50 | 60 | 70 | 80 | 90 |
| **Lm [m]** | **Time [s]** | | | | |
| 0,75 m | 3,0 | 3,0 | 3,0 | 3,0 | 3,5 |
| 0,85 m | 3,0 | 3,0 | 3,5 | 3,5 | 4,0 |
| 1,00 m | 3,5 | 3,5 | 4,0 | 4,0 | 4,5 |
| 1,20 m | 4,0 | 4,5 | 4,5 | 5,0 | 5,5 |




**WARNING**: The configurations above are to be considered indicative. During installation, it is necessary to verify the pushing and impact forces according to the EN 16005 standard.

### 9.2 MANUAL OPERATING MODE - POWER ASSIST

Warning: The automation can be used in "Power Assist" mode only in the absence of users such as the elderly, infirm, disabled persons, or young children.
To select the manual operating mode, set the menu: DOOR > ADVANCED > HAND = PWAS.
The "Power Assist" manual operation is activated by manually pushing the door; the 6A safety sensor is deactivated, and the door is opened manually and closed by the closing spring in Low Energy mode (the Low Energy settings for closing must follow the information in section 9.1).
If an opening command is given, the safety sensors are reactivated.

### 9.3 EMERGENCY EXIT

The automation for swing doors is suitable for use as an escape route and emergency exit, by adjusting the closing spring to the minimum, so as to obtain the closing of the door.
Any locks installed must comply with the specific applicable standards.
The force required to manually open an unlocked doorset without a break-out function shall not exceed 150 N.

### 9.4 STANDBY

The standby function automatically disables power supply terminal 1 after 15 minutes in “closed door” mode.
This function works both when setting the “closed door” mode via the electronic function selector (FSD5/FSD6) or through the SAM feature.
In standby mode, the system will not respond to normal activation commands.
Reactivating the system and consequently powering the sensors back on, if present, results in an increased response time.

#### 9.4.1 STANDBY WITHOUT FUNCTION SELECTOR

In case of standby without a function selector connected, the system will disable power supply terminal 1 and the CAN bus line.
To reactivate the system, the 1-G3 contact must be closed.

If the SAM function is assigned to the G3 contact, the system will correctly detect the contact’s status change and adjust the operating mode according to the SAM1 parameter settings.

#### 9.4.2 STANDBY WITH A FUNCTION SELECTOR

In case of standby with a function selector connected, the system will disable power supply terminal 1 while keeping the CAN bus and communication with the selector active.
It will therefore be possible to force system reactivation by selecting a different operating mode through the selector.
The G3 contact can always be used for reactivation, as described in section 9.4.1.

### 9.5 TRAVEL

The Travel function allows a reference operation for door opening to be permanently stored.
This movement is used as a reference limit for controlling subsequent movements.

The end-stop auto-learning process still occurs during the first movement, but the opening will be limited if it exceeds the stored reference movement.

**Obstacle during opening**
If, during the learning phase, the door encounters an obstacle and the opening is shorter than the stored reference movement, the automation will attempt to reach the opening end-stop position, pushing against the position identified as an incorrect end-stop.
Once the obstacle has been removed, upon the next opening command the automation will perform a slow movement until the opening is completed, following the reference movement.

**Obstacle during closing / Startup not in closed position**
If the system is powered on while the door is not completely closed, or if an obstacle is detected during closing, the automation will still attempt to respect the opening travel defined by the reference movement.
After the obstacle is removed, the closing movement will be executed slowly until the closed end-stop is restored.
In some conditions, the automation may signal an overtravel error in closing (W013) and automatically restart.

**10. ELECTRICAL CONNECTIONS OF ELECTRIC LOCK**

Automations for swing doors are compatible with most of the electric locks available in the market. Verify that power supply of the electric lock is 12Vdc (1A max) or 24Vdc (1A max).

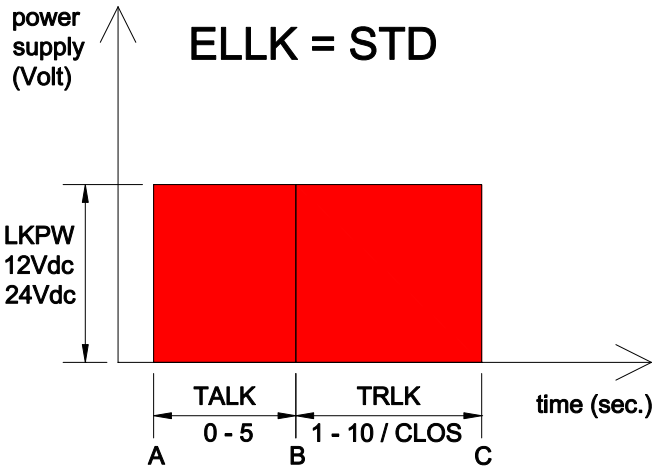
- Connect the electric lock to terminals LK + and –LK of the electronic control.
- Set the electric lock power supply, using menu: DOOR > LOCKS > LKPW.
- Set the type of electric lock operation, using menu: DOOR > LOCKS > ELLK = STD / SAFE / AUTO.
- Set the start of the door opening delay time, using menu: DOOR > LOCKS > TALK = from 0,5 to 5,0 seconds.
- Set the operating time of the electric lock, using menu: DOOR > LOCKS > TRLK = from 0,5 to 10 seconds / CLOSE (activation of the electric lock until the door is closed).

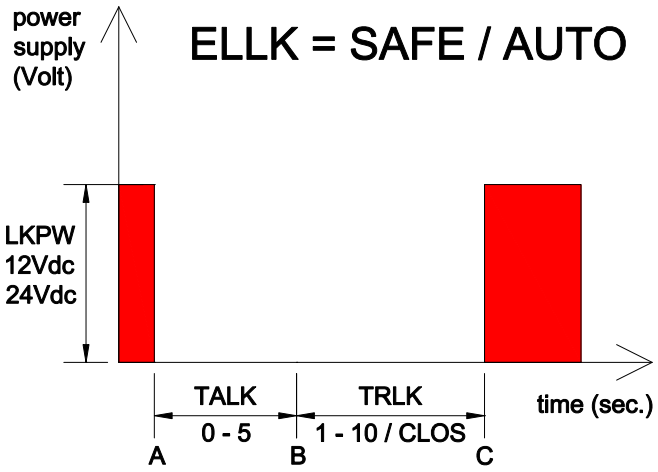
In the figure are shown the timing of the electric lock operation:

A = start of opening pulse and electric lock power supply on/off,

B = start of door opening,

C = end of electric lock power supply on/off.



## 11. ELECTRICAL CONNECTION OF A DOOR WITH 2 LEAVES

(the 2-leaves configuration was not subjected to the TÜV test)

To coordinate the operation of two automatic swing doors with the closing overlap of the leaves (see figure), proceeds as follows.

Using a 3-wire cable (1-H-L), connect the 2 automations MASTER-SLAVE, as shown in the figure.

Network addresses must be assigned using the BOARD SETUP > ID NET menu, as shown in the figure.

Using the menu of the electronic control, set: DOOR > NET > SYNC = MST1 on MASTER automation and DOOR > NET > SYNC = SLV1 on SLAVE automation.

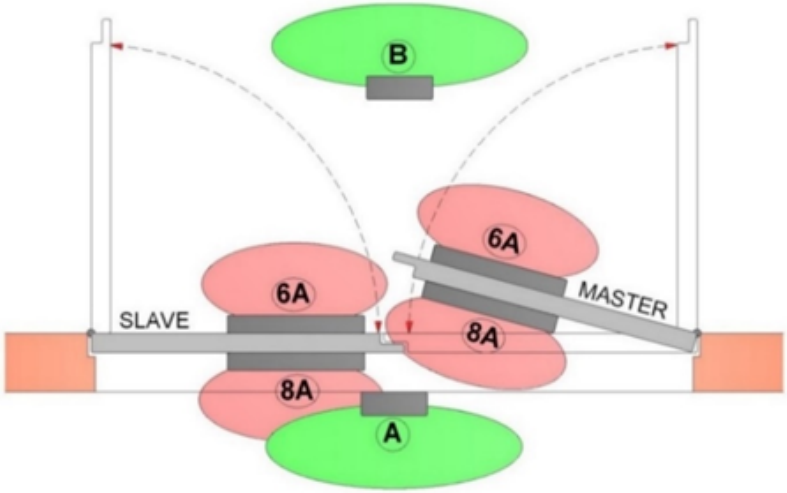
REMOVE THE POWER SUPPLY, WAIT 5 SECONDS, RETURN THE POWER SUPPLY.

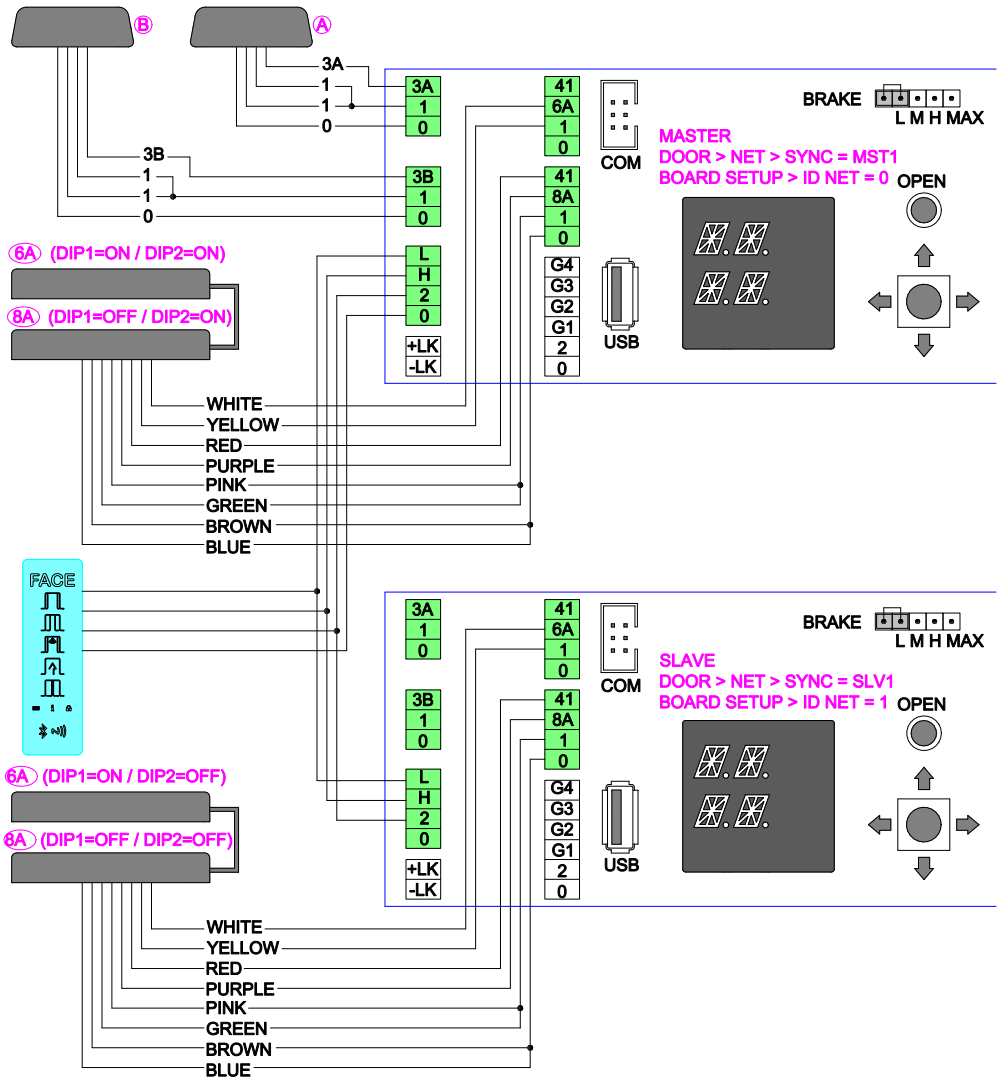
Connect the opening sensors as described in chapter 8.1 and connect the safety sensors as described in chapter 8.2.

Connect the function selector, as shown in the figure.

Note: the partial opening of only one leaf is referred to the MASTER automation.

Note: it is intended that the two leaves shall be installed with the same configuration (e.g. safety sensors, or low energy setting)



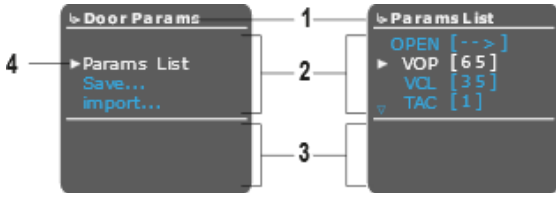
## 12. ELECTRONIC CONTROL ADJUSTMENT

The CB20 electronic control features a 1.67" backlit LCD display, a 5-position joystick, and a priority opening button (OPEN).

### 12.1 DISPLAY SECTIONS


Upon power-up, the display shows the welcome screen.


After the initial startup procedures, the display sequentially shows all active notifications (commands, safety features, errors).

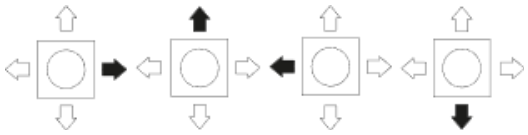



**Display sections**

1. Active menu or submenu (higher level)
2. List of available submenus or parameters
3. Additional description
4. Active selection

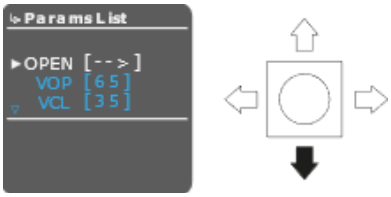
To turn on the display, move the joystick

### 12.2 NAVIGATION

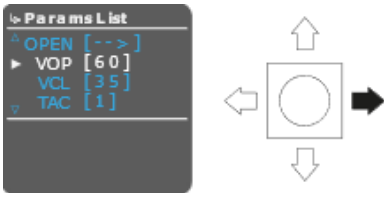


Push the joystick to the right to enter menus/submenus and to confirm the selection
Scroll up/down by pushing the joystick up or down
Return to the upper menu or main screen by pushing the joystick to the left

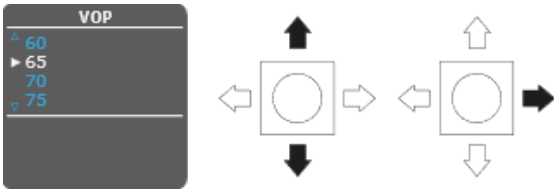
#### 12.2.1 PARAMETER MODIFICATION



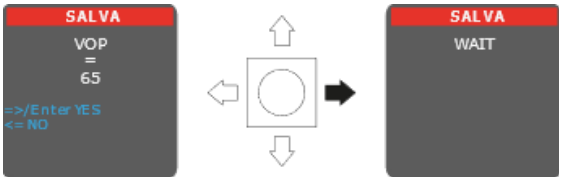

Within the parameter list, scroll to the desired parameter.



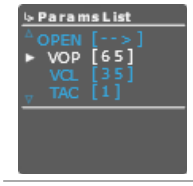

Once the parameter to be modified is highlighted, enter the edit menu by pushing the joystick to the right.




The display shows the list of possible values, highlighting the currently set parameter.
Scroll until you find the desired value, and select it by pushing the joystick to the right.




The system will ask for confirmation to save the new value.
Confirm by pushing the joystick to the right.




After saving, the system returns to the parameter selection, displaying the updated value.

### 12.3 MENU STRUCTURE

| MENU | SUBMENUS | DESCRIPTION |
|---|---|---|
| Door | Basic | Basic settings menu |
| | Advanced | Advanced movement settings menu |
| | Sensors | Sensors related settings menu |
| | Locks | Locks related settings menu |
| | Workmode | Mode of operation and SAM settings menu |
| | I/O | Input/Output G terminals settings menu |
| | Net | Synchronized and interlocked doors settings menu |
| | Reset | Reset door settings to default |
| | Import | Import door settings |
| | Export | Export door settings |
| | Travel | Persistent autolearn |
| | Low energy | Low energy preset |
| Board Setup | Display | Invert the display view |
| | Id Net | Set the network ID |
| | Fw Update | Update the firmware (USB needed) |
| | Factory Settings | Revert to factory settings |
| Info | Serial Number | View the serial number of the control board |
| | Fw Version | View the firmware version |
| | Cycles | View the number of cycles |
| | Uptime | View the uptime |
| | Maintenance | Set the maintenance number of cycles |
| | Events | Displaying of the last 16 warnings. |
| | Logs | Export the log file to USB |
| Selector | SEL 1 | Selector 1 settings menu |
| | SEL 2 | Selector 2 settings menu |
| TAG | OPEN | Open tags and codes |
| | SMOD | Function selector unlock tags and codes |
| | EREAD | Erase single tag or numeric code |
| | ERALL | Erase all tags and numeric codes |
| | Import | Import tag from USB |
| | Export | Export tag to USB |
| APP | USER1/2 | Users mobile APP pin |
| | OWNER | Owner mobile APP pin |
| | INST1/2 | Installer mobile APP pin |

### 12.4 DOOR>BASIC

(*) Factory settings.

| Display | Description |
|---|---|
| **OPEN**<br>OPENING DIRECTION | Setting the opening direction. Choose between the following values:<br>← = door hinged on left<br>**→ (*)= door hinged on right** |
| **ARM**<br>ARM TYPE | Setting the type of arm. Choose between the following values:<br>**SA (*) = sliding arm to pull**<br>AA = articulated arm to push<br>SA1 = sliding arm to push |
| **LEAF**<br>DOOR WEIGHT | Setting the weight of the door. Choose between the following values:<br>NO = without door<br>MIN = light door<br>**MED (*) = medium door**<br>MAX = heavy door |
| **VOP**<br>OPENING SPEED | Opening speed setting. Choose between the minimum and maximum:<br>minimum value = 15 deg/s<br>maximum value = 100 deg/s **(* 50 deg/s)** |
| **VCL**<br>CLOSING SPEED | Closing speed setting. Choose between the minimum and maximum:<br>minimum value = 15 deg/s<br>maximum value = 50 deg/s **(* 30 deg/s)** |
| **TAC**<br>CLOSING TIME | Open door time setting. Choose between the minimum and maximum:<br>NO = the door is always open (only with DOOR > ADVANCED > HAND = NO<br>**minimum value = 1 s (*)**<br>maximum value = 30 s |
| **PUSH**<br>MOTOR POWER | Force setting. Choose between the minimum and maximum:<br>minimum value = 1<br>**maximum value = 10 (*)** |
| **BTMD**<br>BATTERY MODE | Setting operation of battery power device, in absence of electricity. Choose between the following values:<br>**NO (*) = battery not connected**<br>EMERGENCY = emergency open<br>CONTINUITY = continuation of normal operation of the door, with last cycle of opening<br>Note: the number of operations with battery, depends on the efficiency of the battery, the weight of the doors and the present friction.<br>FIRE = priority closing of the door for fire alarm.<br>Note: If the automatic door is turned off for long periods, disconnect the battery from the electronic board. |

### 12.5 DOOR>ADVANCED

(*) Factory settings.

| Display | Description |
|---|---|
| **PUCL**<br>PUSH DOOR CLOSED | Setting the push on the closed mechanical stop. Choose between the following values:<br>**NO (*) = no push**<br>MIN = light push<br>MED = medium push<br>MAX = heavy push<br>XMAX = very heavy push |
| **PIPP**<br>OPENING OFFSET | Setting of the opening offset. Choose between the following values:<br>**AUTO (*) = standard opening offset**<br>PUSH = push on mechanical stop enabled<br>0...30 = opening offset degrees |
| **HOLD**<br>HOLD DOOR OPEN | Setting the push of keeping the door open. Choose between the following values:<br>NO = no push<br>MIN = light push<br>**MED (*) = medium push**<br>MAX = heavy push |
| **PC**<br>CLOSING PUSH | Independent setting of the closing force. Choose between the following values:<br>**NO (*) = see DOOR > BASIC > PUSH (same force in opening and closing)**<br>minimum value = 1<br>maximum value = 10<br><br>Note: if necessary, the closing force (PC) can be set differently from the opening force (PUSH). |

| Display | Description |
|---|---|
| **HAND**<br><br>MANUAL OPERATION | Manual operation of the door in power-assisted mode or with push opening.<br>Choose between the following values:<br>NO = manual operation power-assisted disabled<br>PUGO = manual operation power-assisted enabled and push opening enabled<br>**PWAS (*) = manual operation power-assisted enabled.**<br>Note: the 6A safety device is disabled during manual opening. |
| **SEX**<br><br>SAFETY EXCLUSION | Exclusion of the 8A safety sensor if power assist is active (see power-assisted mode DOOR > ADVANCED > HAND=PWAS). Choose from the following values:<br>NO (*) = 8A safety is working<br>**YES = 8A safety is excluded** |
| **PAL**<br><br>POWER-ASSIST LEVEL | Selecting of the power-assist level. Choose between the following values:<br>OFF = motor assistance for manual operation is disabled<br>**MIN (*) = the motor assistance for manual operation is minimal**<br>MED (*) = the motor assistance for manual operation is medium<br>MAX = the motor assistance for manual operation is maximum |
| **WIND**<br><br>WIND CONTROL | Selecting of the wind control level. Activating this may reduce the power-assist level.<br>Choose between the following values:<br>OFF = No wind control<br>**MIN (*) = Minimal wind control**<br>MED = Medium wind control<br>MAX = Maximum wind control |
| **TAKO**<br><br>KO-CLOSING TIME | Open door time setting, after the 1-G1/G2/G3/G4 command (see menu settings:<br>DOOR > I/O > STG1/STG2/STG3/STG4 = KO/KO2). Choose between the minimum and maximum:<br>**NO (*) = see DOOR > BASIC > TAC**<br>minimum value = 1 s<br>maximum value = 30 s |
| **MOT**<br><br>MOTOR CIRCUIT | Setting the manual friction of the door, by means of the electrical connection of the motor windings. Choose between the following values:<br>OC = manual door opening without friction (motor with open circuit windings)<br>**SC (*) = manual door opening with friction (motor with short-circuit windings)** |
| **STBY**<br><br>STANDBY | Setting of the standby function. Choose between the following values:<br>**YES (*) = after 15 minutes in “closed door” mode, the automation goes into standby mode and disables power supply terminal 1**<br>NO = the automation will never go into standby mode |

**12.6 DOOR>SENSORS**

(*) Factory settings.

| Display | Description |
|---|---|
| **6AEX**<br><br>6A-EXCLUSION | Exclusion of the operation of the sensor opening safety. Choose between the minimum and maximum values:<br>**minimum value = 0% (*)**<br>maximum value = 100% |
| **8AEX**<br><br>8A-EXCLUSION | Exclusion of the operation of the sensor closing safety. Choose between the minimum and maximum values:<br>**minimum value = 0% (*)**<br>maximum value = 100% |
| **ST6A**<br><br>6A-SETTING | Operation of 6A safety command, after the door stop. Choose between the following values:<br>**CLOSE (*) = automatic closing of the door**<br>OPEN = continues the opening of the door |
| **T41**<br><br>SAFETY TEST | Enable test for safety devices (in accordance with EN 16005). Choose between the following values:<br>NO = test disabled<br>**YES (*) = test enable** |

### 12.7 DOOR>LOCKS

(*) Factory settings.

| Display | Description |
|---|---|
| **ELLK**<br><br>LOCK OPERATION TYPE | Selecting the electric lock. Choose between the following values:<br>**DISABLE (*) = electric lock not connected**<br>STD = standard electric lock (security operation)<br>SAFE = electromagnet (safety operation)<br>AUTO = electromagnet (operation matched to the function selector)<br>OPEN = electromagnet for open door |
| **LKPW**<br><br>LOCK POWER SUPPLY | Power supply electric lock (-LK / +LK terminals). Choose between the following values:<br>**12V (*) = 12V electric lock**<br>24V = 24V electric lock<br>12V POW = output 12 Vdc (1A max) for external powering accessories<br>24V POW = output 24 Vdc (1A max) for external powering accessories |
| **LKSH**<br><br>LOCK SHOT | Setting of closing push for hooking the electric lock. Choose between the following values:<br>**NO (*) = no push**<br>MIN = light push<br>MED = medium push<br>MAX = heavy push |
| **ULSH**<br><br>UNLOCK SHOT | Push setting to release the electric lock before opening the door. Choose between the following values:<br>**NO (*) = no push**<br>MIN = light push<br>MED = medium push<br>MAX = heavy push |
| **TALK**<br><br>LOCK ADVANCE TIME | Time advance operating electric lock. Choose between the minimum and maximum values:<br>minimum value = 0 s **(* 0.5 s)**<br>maximum value = 5 s |
| **TRLK**<br><br>LOCK OPERATION TIME | Operating time of the electric lock. Choose between the minimum and maximum values:<br>**minimum value = 0.5 s (*)**<br>maximum value = 10 s<br>CLOSE = the electric lock works until the door is closed |

### 12.8 DOOR>WORKMODE

(*) Factory settings.

| Display | Description |
|---|---|
| **WMOD**<br><br>SELECTOR MODE | Displaying of operating mode of function selector device. Choose between the following values:<br>**NO (*) = no mode**<br>AUTO = automatic bi-directional operation<br>CLOS = closed door<br>OPEN = open door<br>OFF = manual operation (Note: the opening and safety sensors are disabled)<br>PA = automatic partial operation<br>1D = automatic one-way operation<br>1DPA = automatic one-way operation and partial<br>ANSF = automatic with no safety<br>ANP = automatic, no safeties, partial (only for two leaves configuration)<br>ANM = automatic, no safeties, one-way operation<br>ANPM = automatic, no safeties, one-way and partial operation (only for two leaves configuration) |
| **SAM1**<br><br>SELECTOR AUTOMATIC MODE | First setting of function selector, when the 1-G1/G2/G3/G4 contact becomes closed. Set the menu DOOR > I/O > STG1/STG2/STG3/STG4 > SAM.<br>Connect the contact of a clock to 1-G1/G2/G3/G4 terminals, and choose between the following values:<br>OPEN = open door<br>AUTO = automatic bi-directional operation<br>**CLOS (*) = closed door**<br>1D = automatic one-way operation<br>PA = automatic partial operation<br>1DPA = automatic one-way operation and partial<br>OFF = manual operation (Note: the opening and safety sensors are disabled) |

| Display | Description |
|---|---|
| **SAM2**<br><br>SELECTOR AUTOMATIC MODE | Second setting of function selector, when the 1-G1/G2/G3/G4 contact becomes open. Set the menu DOOR > I/O > STG1/STG2/STG3/STG4 > SAM.<br>Connect the contact of a clock to 1-G1/G2/G3/G4 terminals, and choose between the following values:<br>OPEN = open door<br>AUTO = automatic bi-directional operation<br>**CLOS (*) = closed door**<br>1D = automatic one-way operation<br>PA = automatic partial operation<br>1DPA = automatic one-way operation and partial<br>OFF = manual operation (Note: the opening and safety sensors are disabled) |
| **DLAY**<br><br>DELAY CLOSED DOOR | Setting delay time function closed door. Choose between the minimum and maximum values:<br>**minimum value = 1 s (*)**<br>maximum value = 5 min |

**12.9 DOOR>I/O**

(*) Factory settings.

| Display | Description |
|---|---|
| **STG1**<br>**STG2**<br>**STG3**<br>**STG4**<br>*Setting of G1, G2, G3, G4 input* | INPUT COMMANDS BETWEEN 1-G1, 1-G2, 1-G3, 1-G4 TERMINALS<br>Choose between the following values.<br>**NO (*) = no function**<br>KO = opening command<br>KO2 = semi-priority opening command (not active with function selector in closed door)<br>KC = closing command (N.O.) (with synchronized doors, set KC function and connect activator on both doors)<br>FIRE = Priority closing command (N.C.), for fire alarm (with synchronized doors, set FIRE function and connect activator on both doors)<br>VOPN = N.O. opening limit-switch (not suitable for use with synchronized doors)<br>STEP = Step-by-step contact N.O. The closing of the contact performs in sequence the opening (disabled automatic closure) and the closing of the door. Note: do not use the STEP command with synchronized doors (see DOOR > NET > SYNC menu).<br>SAM = Automatic setting command of function selector. The closing of the contact changes the function selector mode (see menu: DOOR > WORKMODE > SAM1 and DOOR > WORKMODE > SAM2).<br>EMER = Emergency opening contact N.C. The opening of the 1-G1 contact opens the door.<br>RSET = reset command<br>CAB = Step-by-step contact N.O. The closing of the contact performs in sequence the closing of the door (disabling 3A/3B terminals, enabling the signaling for occupied cabin) and the opening of the door (enabling 3A/3B terminals, disabling the signaling for occupied cabin).<br>INKE = Interlocked operation exclusion command between two doors (see menu: DOOR > NET > INK).<br>PART = Opening command for the MASTER door only (see menu: DOOR > NET > SYNC).<br>SUL = Command to unlock the function selector for 10 seconds |
| **STG1**<br>**STG2**<br>*Setting of G1, G2 output* | OUTPUT SIGNALS BETWEEN 0-G1, 0-G2 TERMINALS (12Vdc 30mA)<br>Choose between the following values.<br>**NO (*) = no function**<br>BELL = The output is activated for 3 seconds when people enter the store (through the sequential activation of the contacts: 1-3B and 1-3A).<br>SERV = The output is activated when the door reaches the number of maintenance cycles, set using the menu: INFO > MAINTENANCE.<br>WARN = The output is activated when at least one warning remains active for 5 minutes. For remove the alarm signal make a reset or turn off the power supply.<br>CLOS = The output is activated when the door is closed<br>OPEN = The output is activated when the door is open<br>AIR = The output is activated when the door is not closed<br>LAMP = The output is activated when the door is moving<br>SCAB = Signaling of the occupied cabin (see menu: DOOR > I/O > STG2 > CAB)<br>INK = Red traffic light signaling for interlocked doors (see menu: DOOR > NET > INK)<br>PWOF = The output is activated in the absence of power supply (W128)<br>HAND = The output is activated when the door is opened by hand<br>FS = The output is activated when the door is not closed, in the presence of a fire alarm.<br>3AS = The output is activated when input 3A is not active<br>3BS = The output is activated when input 3B is not active<br>ELLK = The output is activated in relation to the electric lock setting (see menu: DOOR > LOCKS > ELLK).<br>SRES = The output is activated when a reset is performed (W127) |

### 12.10 DOOR>NET

(*) Factory settings.

| Display | Description |
|---|---|
| **SYNC**<br><br>DOOR SYNCHRO-NIZATION | Door with 2 leaves, setting of master-slave synchronization. Choose between the following values:<br>**NO (*) = no synchronization (door with 1 leaf)**<br>MST1 = automation MASTER which opens first<br>SLV1 = automation SLAVE which closes first<br>MST2 = external automation MASTER which opens first (see menu: DOOR > NET > INK > EXT)<br>SLV2 = external automation SLAVE which closes first (see menu: DOOR > NET > INK > EXT) |
| **SDLY**<br><br>DOOR DELAY | Door with 2 leaves, setting of delay of movement between Master-Slave. Choose from the following values:<br>NO = leaves without overlap<br>MIN = minimum delay<br>**MED (*) = medium delay**<br>MAX = maximum delay |
| **INK**<br><br>INTER-LOCKED DOOR | Interlocked operation of two automatic doors, the opening of a door is permitted only when the other door is closed. Choose between the following values.<br>**NO (*) = no interlock**<br>INT = internal door<br>EXT = external door |

### 12.11 DOOR>OTHERS

(*) Factory settings.

| Display | Description |
|---|---|
| **RESET**<br><br>FACTORY SETTINGS | Restore all door settings to factory defaults. |
| **EXPORT**<br><br>SETTING OUTPUT | You can save the menu settings of automation in use, in the USB/micro SD memory. Choose between the following values:<br>**NO (*) = no save**<br>YES = save the menu settings of automation in the USB/micro SD memory |
| **IMPORT**<br><br>SETTING INPUT | You can upload the settings used in another automation, already stored in the USB/micro SD memory. |
| **TRAVEL**<br><br>PERSISTENT AUTOLEARN | Procedure for saving a persistent autolearn movement.<br>Choose between the following values:<br>YES = begin the saving procedure<br>**NO (*) = delete the current travel setting (reboot the automation to take effect)** |
| **LOW ENERGY**<br><br>LOW ENERGY PRESETTING | Setting values for low energy doors. It set the parameters<br>DOOR > BASIC > PUSH = 5<br>DOOR > BASIC > VOP = 25<br>DOOR > BASIC > VCL = 25<br>DOOR > ADVANCED > PC = OFF |

### 12.12 BOARD SETUP

(*) Factory settings.

| Display | Description |
|---|---|
| **DISPLAY**<br><br>DISPLAY ORIENTATION | Change the display orientation |
| **ID NET**<br><br>ID NUMBER | If several automations are connected to the network via the 2-H-L terminals, they must have different identification numbers. Choose between the following values:<br>**0 (*)** / 1 / 2 / 3<br>N.B. After changing the ID, turn the automation off and on again. |
| **FW UPDATE**<br><br>FIRMWARE UPGRADE | Programming procedure of electronic control.<br>Insert the USB/micro SD memory in the electronic control.<br>From this menu, choose the firmware version you want and follow the instructions on the display.<br>After the procedure, remove the USB/micro SD memory from the electronic control and store it for future use.<br>Note: in the case of programming error or missing firmware (W100), proceed as follows: disconnect the power supply, insert the USB/micro SD memory, give power supply, the programming procedure starts automatically. |
| **FACTORY SETTINGS**<br><br>FACTORY DEFAULT | Restore all settings to factory defaults. |

### 12.13 INFO

(*) Factory settings.

| Display | Description |
|---|---|
| **SERIAL NUMBER** | Displaying the serial number of the electronic control |
| **FW VERSION** | Displaying the firmware version of the electronic control |
| **CYCLES** | Shows the number of cycles of the door |
| **UP TIME** | Shows the total uptime of the electronic control |
| **MAINTENANCE** | Enabling the signaling of routine maintenance of the door.<br>**NO (*) = no signaling**<br>minimum value = 1000<br>maximum value = 1000000<br>step = 1000 |
| **EVENTS** | Displaying of the last 16 warnings.<br>Press the joystick to the right on a warning code to see description and uptime details. |
| **LOG**<br>INFO FILE | You can save the following information in the USB/micro SD memory: the last 16 warnings with details, the menu settings, and the electronic devices connected to automation.<br>Follow the procedure on screen and confirm save of the filename provided. |

### 12.14 SELECTOR>SEL 1/2

(*) Factory settings.

| Display | Description |
|---|---|
| **SECL**<br><br>SELECTOR LOCK | How to activate the function selector. Choose between the following values:<br>**OFF (*) = function selector always accessible**<br>LOGO = function selector accessible by selecting the logo for 3 seconds<br>CODE = function selector accessible with badge and numeric code |
| **FW VERSION** | Displaying the firmware version of the electronic function selector |
| **FW UPDATE**<br><br>FIRMWARE UPGRADE | Programming procedure of electronic function selector.<br>Insert the USB/micro SD memory in the electronic control.<br>From this menu, choose the firmware version you want and follow the instructions on the display.<br>After the procedure, remove the USB/micro SD memory from the electronic control and store it for future use.<br>Note: in the case of programming error or missing firmware (W103), proceed as follows: disconnect the power supply, insert the USB/micro SD memory, give power supply, the programming procedure starts automatically. |

### 12.15 TAG

(*) Factory settings.

| Display | Description |
|---|---|
| **OPEN**<br>OPEN TAG | Saving procedure of badge and numeric code for activation of priority opening.<br>Confirm pushing the joystick to the right, the display will show " - - - - ", waiting for the tag/code.<br>FSD5 - approach the badge to the function selector (in front of the NFC symbol), the display shows the badge code,<br>FSD6 - press the logo, enter the code (from 1 to 5 numbers), press the logo for confirmation, the display shows the numeric code (Note: the numeric code can be stored only if SELECTOR>SEL #>SECL=CODE),<br>- wait for 2 minutes or exit pushing the joystick to the left. |
| **SMOD**<br>SELECT MODE | Saving procedure of badge and numeric code for activation (unlocking) of the function selector.<br>Follow the same procedure as for OPEN |
| **EREAD**<br>ERASE READ | Erasing procedure of single badge or numeric code.<br>Confirm pushing the joystick to the right, the display will show " - - - - ", waiting for the tag/code.<br>FSD5 - approach the badge to the function selector (in front of the NFC symbol), the display shows the badge code,<br>FSD6 - press the logo, enter the code (from 1 to 5 numbers), press the logo for confirmation, the display shows the numeric code (Note: the numeric code can be stored only if SELECTOR>SEL #>SECL=CODE),<br>- wait for 2 minutes or exit pushing the joystick to the left. |
| **ERALL**<br>ERASE ALL | Erasing procedure of all badges and numeric codes. |
| **IMPORT**<br>TAG INPUT | You can upload the tags and numeric codes used in another automation, already stored in the USB/micro SD memory.<br>Follow the procedure on screen and select the desired tag file. Confirm to import |
| **EXPORT**<br>TAG OUTPUT | You can save the tags and numeric codes of automation in use, in the USB/micro SD memory.<br>Follow the procedure on screen and confirm save of the filename provided. |

### 12.16 APP

(*) Factory settings.

| Display | Description |
|---|---|
| **USER1**<br>User 1 APP PIN | PIN for the Mobile APP connection with user authorization.<br>Push the joystick to the right to access options Delete / Modify.<br>Delete: allows to remove the PIN. I twill always be possible to set it again with Modify.<br>Note: A deleted pin will show [- - - -]<br>Modify: allows to modify an existing pin. Scroll left or right to select the digit to be modified. Press the joystick up or down to increase or decrease the value.<br>Press the joystick to the right repeatedly until the last digit is reached, then press once more to confirm the input. |
| **USER2**<br>User 2 APP PIN | PIN for the Mobile APP connection with user authorization.<br>Can be different from USER1.<br>Follow the same procedure as USER1 |
| **OWNER**<br>OWNER APP PIN | PIN for the Mobile APP connection with owner authorization.<br>Follow the same procedure as USER1 |
| **INST1**<br>INSTALLER 1 APP PIN | PIN for the Mobile APP connection with installer authorization.<br>Follow the same procedure as USER1 |
| **INST2**<br>INSTALLER 2 APP PIN | PIN for the Mobile APP connection with installer authorization.<br>Can be different from INST1.<br>Follow the same procedure as USER1 |

**Note:** The current version of the app does not support SW70S automations.

**12.17 WARNINGS LIST**

| DISPLAY | SEL | FLASH | WARNING | CHECK |
|---|---|---|---|---|
| W001 | i | 1 | Encoder error | Check encoder connection |
| W002 | i | 1 | Motor short circuit | Check the connection of the motor |
| W003 | i | 1 | Motor control error | Electronic control failure |
| W010 | i | 2 | Direction reversed | Check the presence of obstacles |
| W011 | i | 2 | Running too long | Check the connection between the motor and leaf |
| W012 | i | 2 | Running too short | Check the presence of obstacles |
| W013 | i | 2 | Overrun | Check the mechanical stops |
| W100 | - | - | Programming error | Repeat the programming procedure in BOARD SETUP > FW UPDATE |
| W103 | - | - | Programming error Selector | Repeat the programming procedure in SELECTOR > SEL 1/2 > FW UPDATE menu |
| W110 | i | 1 | Internal memory error | Electronic control failure |
| W127 | - | - | Automation reset | The automation performs a self-test |
| W128 | 🔋 | on | No power supply | Check the power supply |
| W129 | 🔋 | 1 | No battery | Check the battery connection |
| W130 | 🔋 | 1 | Low Battery | Replace or recharge the battery |
| W140 | i | 3 | 6A safety test failure | Check the safety sensor connection |
| W142 | i | 3 | 8A safety test failure | Check the safety sensor connection |
| W145 | i | 4 | Motor overtemperature (first step) | The door reduces the speed |
| W146 | i | 4 | Motor overtemperature (second step) | The door stops |
| W150 | i | 2 | Obstacle in opening | Check the presence of obstacles |
| W151 | i | 2 | Obstacle in closing | Check the presence of obstacles |
| W152 | i | 2 | Door locked open | Check the presence of locks |
| W153 | i | 2 | Door locked closed | Check the presence of locks |
| W154 | i | 2 | Door in pause for consecutive obstacles | Wait about 30 seconds and check the presence of obstacles or locks |
| W156 | i | 2 | Door moved manually | Wait about 5 seconds |
| W160 | i | 1 | Synchronization error | Check DOOR > NET > SYNC and the DOOR > NET > INK |
| W161 | i | 1 | Net error | Check the BOARD SETUP > ID NET for duplicates ID |
| W256 | i | - | Power on | - |
| W257 | i | - | Firmware update | - |
| W320 | i | on | Signaling of maintenance | Check the INFO > MAINTENANCE menu |
| W330 | i | 1 | Tuning between motor and electronics | Wait about 3-30 seconds |

## 13. START-UP PROCEDURE OF THE AUTOMATIC SWING DOOR

### 13.1 PRELIMINARY CHECKS

At the end of the installation activities, manually move the door leaves and verify that the movement is smooth and free from friction. Check the structural integrity and the correct fastening of all screws. Verify the correctness of all electrical connections. Ensure that the mechanical stop for the door in the open position is installed.

Before connecting any safety devices, leave the jumpers on the safety terminals (41-6A, 41-8A).

### 13.2 POWER SUPPLY

Connect the power supply and the battery, if present.

Note: At every power-on, the automation performs a self-diagnosis (lasting from 3 to 30 seconds). The first opening and closing operation is performed at low speed to allow the automatic learning of the strike position.

### 13.3 CONFIGURATION

To ensure the control unit is set to factory defaults, reset the values via the menu:

BOARD SETUP > FACTORY SETTINGS

If the door has a pushing articulated arm, set: DOOR > BASIC > ARM = AA.

If the door has a pushing sliding arm, set: DOOR > BASIC > ARM = SA1.

Make the necessary adjustments in the menu as indicated in Chapter 6. Use the OPEN button to initiate the opening commands and verify the correct functioning of the door.

Note: The automation automatically detects any obstacles during the closing movement (inversion of movement) and opening movement (stop of movement).

### 13.4 ACCESSORIES

If applicable, connect the electric lock of the door to the terminals -LK \ +LK of the control unit and perform the settings available in the DOOR > LOCKS menu, as indicated in Chapter 10.

### 13.5 SENSORS

Connect the command and safety devices one at a time to protect the opening and closing movements of the door, as indicated in Chapter 8, and verify their correct operation.

Note: Verify that the passage area is correctly protected by the safety sensors, in compliance with the requirements of the European standard EN16005 (Annex C), or adjust the speed settings in accordance with the European standard EN16005 (Annex G), as indicated in Chapter 8.

### 13.6 LOW ENERGY

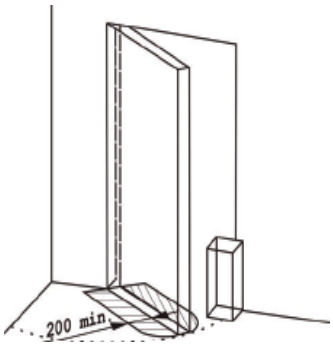
If the risk assessment for the door allows for protection via Low Energy, perform the adjustments in compliance with the European standard EN16005 (Annex F1), as indicated in Chapter 9.

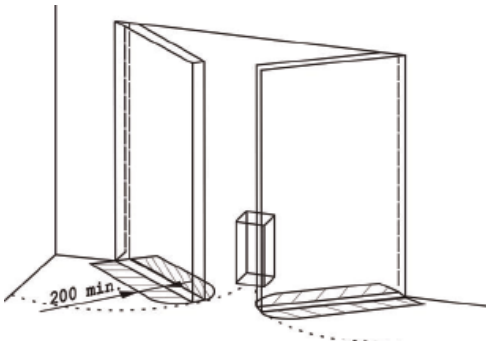
### 13.7 DOCUMENTATION

At the end of the commissioning, provide the automatic door operator with the user manual, including all warnings and necessary information to maintain the safety and functionality of the automatic door.

The automations are provided with a label containing the data required by the European standards EN16005 and EN60335-2-103.

Note: The manufacturer of the automatic swing door must add their own identification label for the system.




## 14. TROUBLESHOOTING

In addition to the following list of possible problems, there are warnings provided by the display, as described in chapter 12.17.

| Problem | Possible causes | Remedy |
|---|---|---|
| The automation does not open or close. | No power supply (display off). | Check the power supply. |
| | Short circuited external accessories. | Disconnect all accessories from terminals 0-1 and reconnect them one at a time (check for voltage 12V). |
| | The door is locked by bolts and locks. | Check the freely move of the doors |
| The automation does not perform the functions set. | Function selector incorrectly set. | Check and correct the settings of the function selector. |
| | Control devices or safety always activated. | Disconnect devices from the terminal and verify the operation of the door. |
| The movement of the doors isn't linear, or reverse the movement for no reason. | The automation does not successfully perform the automatic learning. | Perform a reset or power off and power on the automation. |
| The automation opens but does not close | Anomalies during the safety devices test. | Jumper contacts one at a time 41 -6A , 41 - 8A. |
| | The opening devices are activated. | Verify that the opening sensors are not subject to vibration , do not perform false detections or the presence of moving objects in the field of action. |
| | The automatic closing doesn't work. | Check the settings of the function selector . |
| Safety devices not activating. | Incorrect connections between the safety devices and electronic control. | Check that the safety contacts of the devices are properly connected to the terminal blocks and the relative jumpers have been removed. |
| The automation opens by itself. | The opening and safety devices are unstable or detect moving bodies | Verify that the opening sensors are not subject to vibration , do not perform false detections or the presence of moving bodies in the field of action. |

## 15. AUTOMATIC SWING DOOR ROUTINE MAINTENANCE PLAN

To ensure proper operation and safe use of the automatic swing door, as required by European standard EN16005, the owner has to perform routine maintenance by qualified personnel. Except for routine cleaning of the door, the responsibility of the owner, all maintenance and repair work must be carried out by qualified personnel. The following table lists tasks related to routine maintenance, and the frequency of intervention related to an automatic swing door operation with standard conditions. In the case of more severe operating conditions, or in the case of sporadic use of the automatic swing door, the frequency of maintenance can be consistently adequate.

| Task | Frequency |
|---|---|
| Remove the power supply, open the automation and perform the following checks and adjustments.<br>- Check all screws fastening of components within the automation.<br>- Check the state of wear of the hinges (if necessary replace them).<br>- Verify correct mounting of the arm on the door.<br>- Check the correct force of the closing spring, and low energy setting if used.<br>- If present, verify proper engagement of the electric lock. | Every 6 months or every 200.000 cycles. |
| Connect the power supply and perform the following checks and adjustments.<br>- Check the correct operation of the control and safety devices.<br>- Check the Low energy operation if used.<br>- Check the detection area of the security sensors complies with the requirements of the European standard EN16005.<br>- If present, verify the correct operation of the electric lock.<br>- If present, verify the correct operation of the battery power device (if necessary replace the battery). | Every 6 months or every 200.000 cycles.<br><br>Note: the EN16005 European standard requires the verification of the safety functions of the automation and of the safety devices at least once a year. |

All maintenance, replacement, repair, update, etc. must be written into the proof book, as required by European standard EN16005, and delivered to the owner of the automatic swing door. For repairs or replacements of products, original spare parts must be used.

## 16 DISPOSAL OF PRODUCTS

The packaging materials (cardboard, plastic, and so on) should be disposed of as solid household waste, and simply separated from other waste for recycling. Our products are made of various materials. Most of these (aluminum, plastic, iron, electrical cables) are classified as solid household waste. They can be recycled by separating them before dumping at authorized city plants. Whereas other components (control boards, batteries, and so on) may contain hazardous pollutants. These must therefore be disposed of by authorized, certified professional services. Before disposing, it is always advisable to check with the specific laws that apply in your area. DO NOT DISPOSE IN THE ENVIRONMENT.

**DECLARATION OF INCORPORATION (FOR UK MARKET ONLY)**
The Supply of Machinery (Safety) Regulations 2008, Annex II-B

UK CA

FACE S.r.l. - Viale delle Industrie, 74 - 31030 Dosson di Casier (TV) - ITALY

Declares that the Product automations for power operated swing door type: SW70S.
Has been built for installation on pedestrian door and constitutes a machine in accordance with The Supply of Machinery (Safety) Regulations 2008. The manufacturer of the power operated pedestrian door must declare its conformity in accordance with The Supply of Machinery (Safety) Regulations 2008, prior to starting-up the machine.
It complies with the applicable essential safety requirements specified in The Supply of Machinery (Safety) Regulations 2008, Annex I: 1.1.2, 1.1.3, 1.2, 1.3.1, 1.3.2, 1.3.4, 1.3.7, 1.3.8, 1.4, 1.5.1, 1.5.2, 1.5.10, 1.5.11, 1.5.14, 1.6.1, 1.6.3, 1.7
It complies with the Electromagnetic Compatibility Regulations 2016.

It complies with following harmonized standards:
EN 16005 Power operated pedestrian doorsets - Safety in use - Requirements and test methods
EN 60335-2-103 Household and similar electrical appliances - Safety - Part 2: Particular requirements for drives for gates, doors and windows
The technical documentation complies with The Supply of Machinery (Safety) Regulations 2008, Annex VII-B.
The technical documentation is managed by: Ferdinando Menuzzo with registered offices in Viale delle Industrie, 74 - 31030 Dosson di Casier (TV) - ITALY
A copy of the technical documentation shall be supplied to the competent national authorities following duly motivated request.

Place and date:
Dosson di Casier, 2025-07-01

Paolo Bacchin
Managing Director