

IP1950EN • 2014-11-10

**Ditec**



**Ditec VALOR**

Technical manual

Sliding doors automation

(translation of the original instructions)

[www.ditecautomations.com](http://www.ditecautomations.com)

# Index

|           | <b>Subject</b>  | <b>Page</b> |
|-----------|---|-------------|
| <b>1.</b> | <b>General safety precautions</b>                                 | <b>3</b>    |
| <b>2.</b> | <b>Declaration of incorporation of partly completed machinery</b> | <b>4</b>    |
| 2.1       | Machinery directive   | 4           |
| <b>3.</b> | <b>Technical data</b>   | <b>5</b>    |
| 3.1       | Applications  | 5           |
| <b>4.</b> | <b>Standard installation</b>                                      | <b>6</b>    |
| <b>5.</b> | <b>Installation of the automation</b>                             | <b>7</b>    |
| 5.1       | VALOR box fastening   | 7           |
| 5.2       | VALOR T box fastening   | 8           |
| 5.3       | VALOR H box fastening   | 9           |
| 5.4       | Preparation of glass door wing                                    | 11          |
| 5.5       | VALOR - VALOR H door wing installation and adjustment             | 12          |
| 5.6       | VALOR T door wing installation and adjustment                     | 13          |
| 5.7       | Floor guide installation  | 15          |
| 5.8       | Belt adjustment   | 16          |
| 5.9       | Lock installation   | 16          |
| <b>6.</b> | <b>Electrical connections</b>                                     | <b>17</b>   |
| <b>7.</b> | <b>Ordinary maintenance program</b>                               | <b>18</b>   |

## Key



This symbol indicates instructions or notes regarding safety, to which special attention must be paid.



This symbol indicates useful information for the correct functioning of the product.

# 1. General safety precautions



Failure to observe the information in this manual may result in minor personal injury or damage to equipment.  
Save these instructions for future reference.

This installation manual is intended for qualified personnel only.

Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with the present standards.

Read the instructions carefully before installing the product.

Bad installation could be dangerous.



The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as these are a potential source of danger.

Before installing the product, make sure it is in perfect condition.

Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard.

Before installing the motorisation device, make all the necessary structural modifications in order to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas.

Make sure the existing structure is up to standard in terms of strength and stability. The motorisation device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorised or for any deformation during use.



The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door.

The safety devices must protect the crushing, cutting, trapping and general hazardous areas of the motorised door.

Display the signs required by law to identify hazardous areas.

Each installation must bear a visible indication of the data identifying the motorised door.

When requested, connect the motorised door to an effective earthing system that complies with current safety standards.

During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.

The automation protection casing must be removed by qualified personnel only.



The electronic parts must be handled using earthed antistatic conductive arms.

The manufacturer of the motorisation declines all responsibility in the event of component parts being fitted that are not compatible with the safe and correct operation.

Use original spare parts only for repairs or replacements of products.

The installer must supply all information on automatic, manual and emergency operation of the motorised door and must provide the user with the operating instructions.

## 2. Declaration of incorporation of partly completed machinery

(Directive 2006/42/EC, Annex II-B)

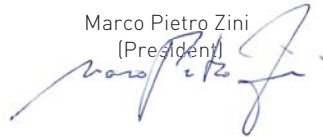
The manufacturer ASSA ABLOY Entrance Systems AB with headquarters in Lodjursgatan 10, SE-261 44 Landskrona, Sweden

declares that the automation system for Ditec VALOR sliding doors:

- has been constructed to be installed on a manual door to construct a machine pursuant to the Directive 2006/42/EC. The manufacturer of the motorized door shall declare conformity pursuant to the Directive 2006/42/EC (annex II-A), prior to the machine being put into service;
- conforms to applicable essential safety requirements indicated in annex I, chapter 1 of the Directive 2006/42/EC;
- conforms to the Low Voltage Directive 2006/95/EC;
- conforms to the Electromagnetic Compatibility Directive 2004/108/EC;
- technical documentation conforms to Annex VII-B to the Directive 2006/42/EC;
- technical documentation is managed by Marco Pietro Zini with offices in Via Mons. Banfi, 3 - 21042 Caronno Pertusella (VA) - ITALY;
- a copy of technical documentation will be provided to national competent authorities, following a suitably justified request.

Landskrona, 15-01-2013

Marco Pietro Zini  
(President)



### 2.1 Machinery Directive

Pursuant to Machinery Directive (2006/42/EC) the installer who motorizes 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 motorized door);
- draw up the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the EC marking on the motorized door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

### 3. Technical data

|   | Ditec VALOR L-H                    | Ditec VALOR P                               | Ditec VALOR N                            | Ditec VALOR T                        |
|---|------------------------------------|---|--|--------------------------------------|
| <b>Power supply</b>                               | 230 V~ 50/60 Hz                    | 230 V~ 50/60 Hz                             | 230 V~ 50/60 Hz                          | 230 V~ 50/60 Hz                      |
| <b>Power fuse</b>                                 | F1A                                | F1A<br>F1,6A with weight<br>>200 kg         | F1A<br>F1,6A with weight<br>>200 kg      | F1A<br>F1,6 A with weight<br>>200 kg |
| <b>Rated power input</b>                          | 200 W                              | 300 W                                       | 300 W                                    | 300 W                                |
| <b>Max speed 1 wing</b>                           | 0,8 m/s                            | 0,8 m/s                                     | 0,8 m/s                                  | -                                    |
| <b>Max speed 2 wings</b>                          | 1,6 m/s                            | 1,6 m/s<br>1,2 m/s with<br>weight 180 kg    | 1,6 m/s<br>1,2 m/s with<br>weight 180 kg | 0,8 m/s                              |
| <b>Max speed 4 wings</b>                          | -                                  | -   | -  | 1,6 m/s                              |
| <b>Service life</b>                               | 5 - HEAVY DUTY                     | 6 - CONTINUOUS                              | 6 - CONTINUOUS                           | 6 - CONTINUOUS                       |
| <b>Intermittence</b>                              | S3=100%                            | S3=100%                                     | S3=100%                                  | S3=100%                              |
| <b>Max door weight 1 wing</b>                     | 100 kg                             | 120 kg<br>100 kg 1 break-<br>out door wing  | 120 kg                                   | 200 kg                               |
| <b>Max door weight 2 wings</b>                    | 180 kg                             | 220 kg<br>180 kg 2 break-<br>out door wings | 240 kg                                   | 260 kg                               |
| <b>Door weight with reinforced wheels 1 wing</b>  | -                                  | -   | 150 kg                                   | -                                    |
| <b>Door weight with reinforced wheels 2 wings</b> | -                                  | -   | 300 kg                                   | -                                    |
| <b>Temperature</b>                                | -20 °C - +55 °C                    | -20 °C - +55 °C                             | -20 °C - +55 °C                          | -20 °C - +55 °C                      |
| <b>Temperature with batteries</b>                 | -10 °C - +50 °C                    | -10 °C - +50 °C                             | -10 °C - +50 °C                          | -10 °C - +50 °C                      |
| <b>Degree of protection</b>                       | IP20<br>(FOR INTERNAL<br>USE ONLY) | IP20<br>(FOR INTERNAL<br>USE ONLY)          | IP20<br>(FOR INTERNAL<br>USE ONLY)       | IP20<br>(FOR INTERNAL<br>USE ONLY)   |
| <b>Control panel</b>                              | EL20                               | EL20  | EL20                                     | EL20                                 |
| <b>Accessories power supply</b>                   | 24 V $\overline{\text{=}}$ 0,5 A   | 24 V $\overline{\text{=}}$ 0,5 A            | 24 V $\overline{\text{=}}$ 0,5 A         | 24 V $\overline{\text{=}}$ 0,5 A     |

#### 3.1 Operating instructions

Service class: 5 (minimum 5 years of working life with 600 cycles per day).

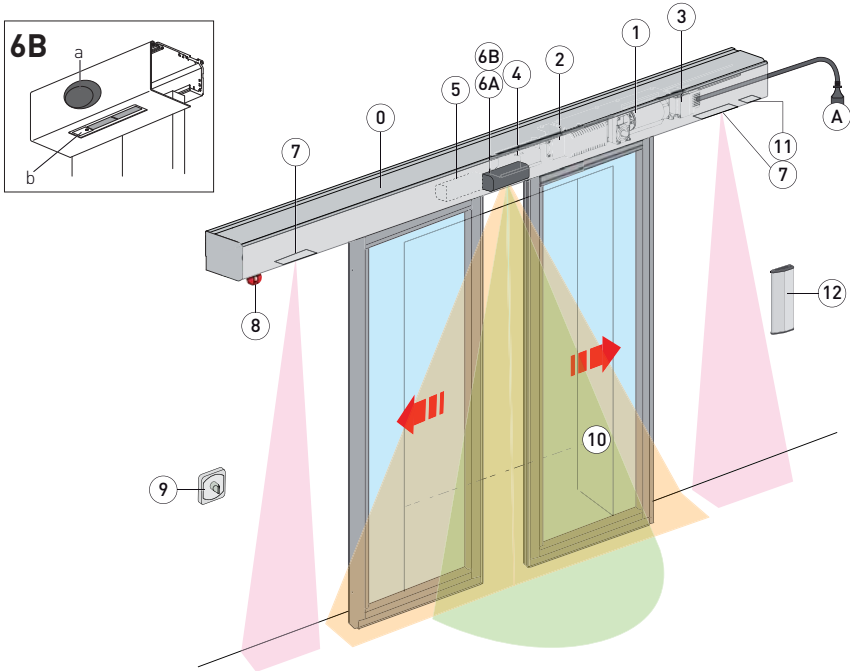
Applications: VERY INTENSE (for shared entrances with very intense pedestrian use).

Service class: 6 (minimum 5 years of working life with continuous use).

Applications: CONTINUOUS (for all special situations with continuous use).

- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of maximum permissible weight). A reduction in performance is to be expected when the access is made to operate at the maximum permissible weight.
- Service class, running times, and the number of consecutive cycles are to be taken as merely indicative having been statistically determined under average operating conditions, and are therefore not necessarily applicable to specific conditions of use. During given time spans product performance characteristics will be such as not to require any special maintenance.
- The actual performance characteristics of each automatic access may be affected by independent variables such as friction, balancing and environmental factors, all of which may substantially alter the performance characteristics of the automatic access or curtail its working life or parts thereof (including the automatic devices themselves). When setting up, specific local conditions must be duly borne in mind and the installation adapted accordingly for ensuring maximum durability and trouble-free operation.

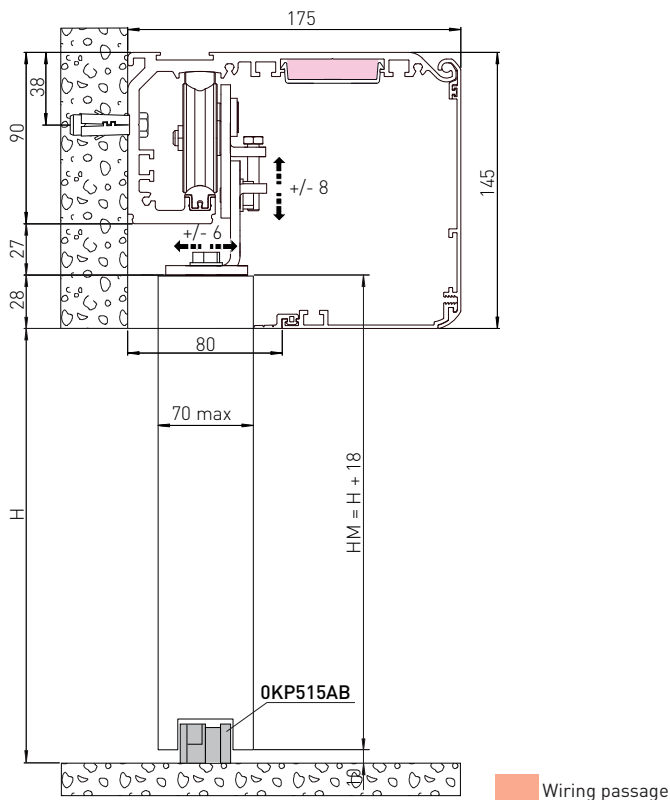
## 4. Standard installation



| Ref. | Code   | Description  |
|------|--|--|
| 0    | VALOR  | Operator   |
| 1    |  | Drive unit   |
| 2    | EL20   | Control panel  |
| 3    | AL2  | Transformer  |
| 4    | VALABE<br>VALABC   | Emergency batteries (optional)<br>No-break batteries (optional)  |
| 5    | PAS024AMW (microwave+infrared), or<br>PASAA2 (only infrared)   | Combined sensor for opening and safety during closing<br>external side   |
| 6A   | PAS024AMW (microwave+infrared), or<br>PASAA2 (infrared only)   | Combined sensor for opening and safety during closing<br>internal side (operator)  |
| or   |  |  |
| 6B   | PASM24W (microwave), or<br>PASM243 (microwave), or<br>PASS24 (microwave), or<br>PASS24W (microwave), or<br>PASA (infrared)   | + PASAT3] (infrared)<br>Opening sensor (a) + Safety during closing sensor (b) internal<br>side (inside the operator's housing) |
| 7    | PASAT3<br>PASAT3I  | Safety during opening sensor (outside or inside the opera-<br>tor's housing)   |
| 8    | VALSB<br>LOKSBM  | Integrated release handle<br>Release handle  |
| 9    | COME - COMHK   | Functions selector switch  |
| 10   | CELPR  | Photocells (NOT ACCORDING TO STANDARD EN 16005)  |
| 11   | MD1  | Display  |
| 12   | PFP1 - PFP2 - PDP1 - PDP2  | Open push buttons  |
| A    | Connect the power supply to an approved omnipolar switch with an opening distance of the contacts of at least 3mm (not supplied). The connection to the mains must be made via an independent channel, separated from the connections to command and safety devices. |  |

## 5. Installation of the automation

### 5.1 VALOR box fastening



Unless otherwise specified, all measurements are expressed in millimetres (mm).

The VALOR automation wall fixing measurements are illustrated in the diagram, considering that the door wing profiles are not of our production.

If the door wings are made with DITEC profiles: refer to the measurements in the related manuals.  
**WARNING:** if the door wings are fitted with a break-out device, use the carriages with brackets with 3 fixing points.

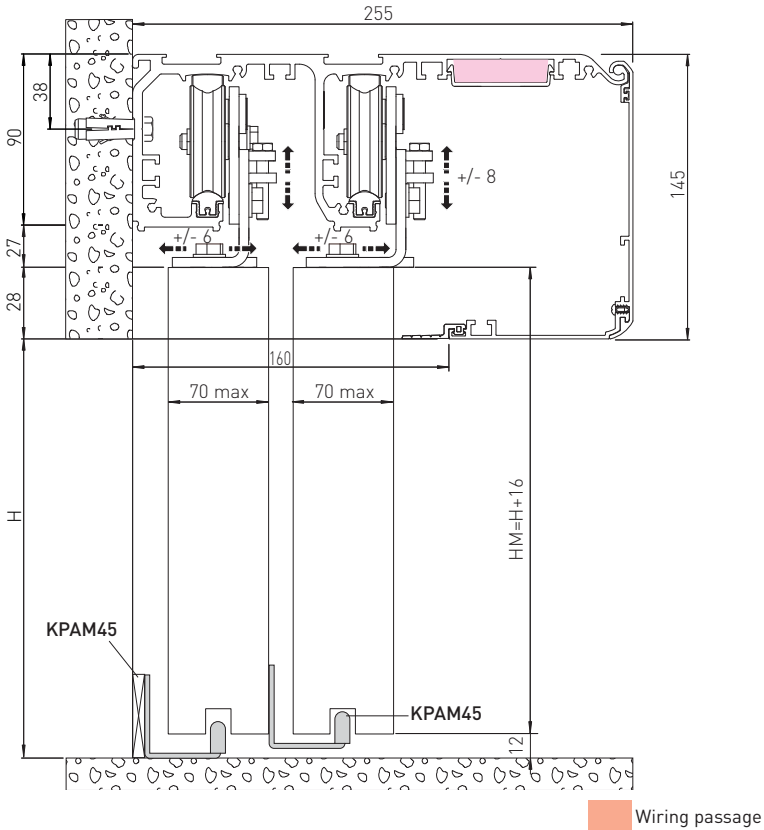
Fix the box with M6 Ø12 steel plugs or 6MA screws. Distribute the fixing points approx. every 800 mm.

Make sure that the box is level and its top surface is perpendicular with the floor and not deformed lengthwise with the shape of the wall. If the wall is not straight and smooth, the box must be fixed to metal plates.

**WARNING:** The fastening of the box to the wall must be suitable in order to sustain the weight of the door wings.



## 5.2 VALOR T box fastening



The VALOR T automation wall fixing measurements are illustrated in the diagram, considering that the door wing profiles are not of our production.

If the door wings are made with DITEC profiles: refer to the measurements in the related manuals. Fix the box with M6 Ø12 steel plugs or 6MA screws.

Distribute the fixing points approx. every 800 mm.

Make sure that the top surface of the box is perpendicular with the floor and not deformed length-wise with the shape of the wall.

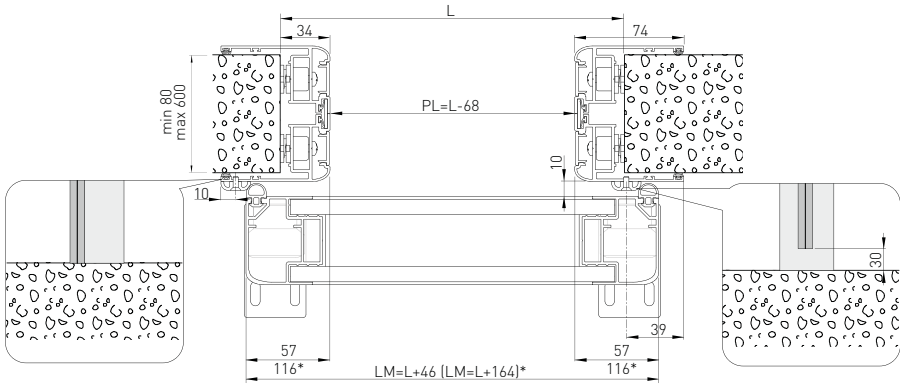
If the wall is not straight and smooth, the box must be fixed to metal plates.

**WARNING:** The fastening of the box to the wall must be suitable in order to sustain the weight of the door wings.

**WARNING:** The fastening of the box to the wall must be suitable in order to sustain the weight of the door wings.







Unless otherwise specified, all measurements are expressed in millimetres (mm).

The figure shows the measurements for wall mounting the VALOR H automation considering that the door wings are made of DITEC profiles.

If the PAMH60 door wing has lead-shielding (e.g. radiology department) refer to the measurements marked [\*].

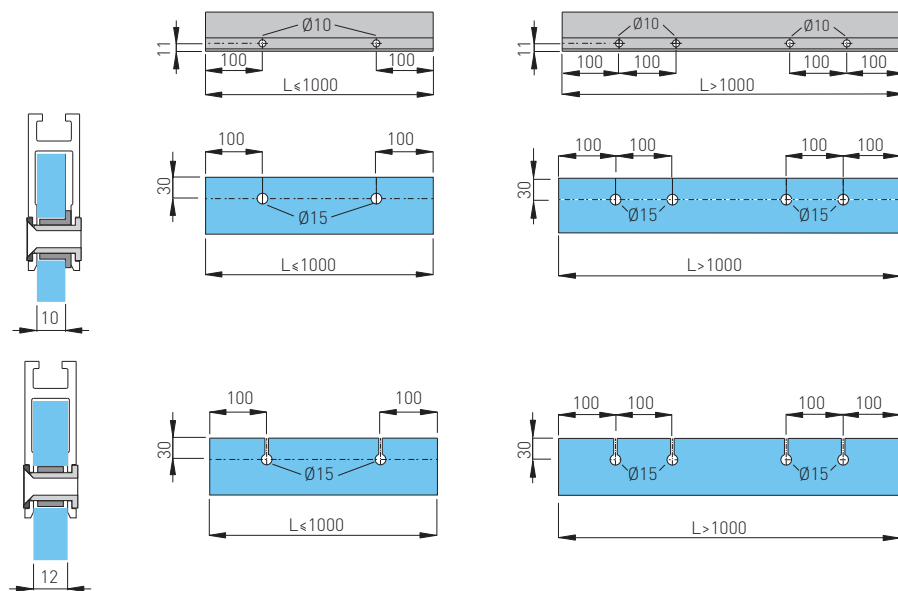
Fix the box with M6 Ø12 steel plugs or 6MA screws. Distribute the fixing points approx. every 800 mm.

Make sure that the box is level and its top surface is perpendicular with the floor and not deformed lengthwise with the shape of the wall. If the wall is not straight and smooth, the box must be fixed to metal plates.

**WARNING:** The fastening of the box to the wall must be suitable in order to sustain the weight of the door wings.

## 5.4 Preparation of the glass door wing

The diagram indicates the process measurements of the aluminium profile AC1356 and glass.  $\varnothing 10$  through holes are required on the aluminium profile and  $\varnothing 15$  on the glass for fastening. The number of holes and related distance between centres are based on the door wing width. Silicon should ideally be used between the edge of the glass and the internal base of the profile.



With AC4255 or AC4870 glass wing attachment applications, see the respective manual.

## 5.5 VALOR - VALOR H wings installation and adjustment

Make sure that the central wheel [d] is adjusted as illustrated in the diagram.

Fix the door wing to the carriage with screws [a].

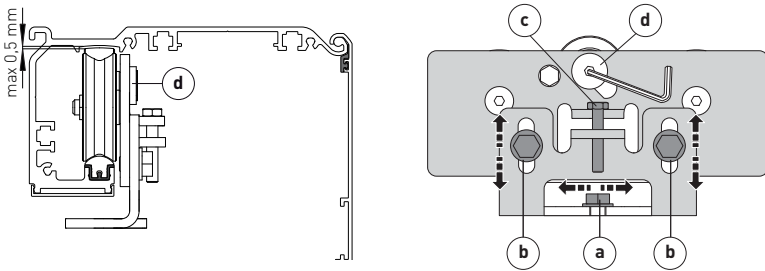
The outer wheel of the carriage must not protrude beyond the dimension of the door wing.

Adjust the horizontal position of the door wing in accordance with the measurements indicated in diagram VALOR 2 for 2 door wing automations, VALOR 1 RH for right-hand opening automations and VALOR 1 LH for left-hand opening automations. Secure the adjustment with screws [a].

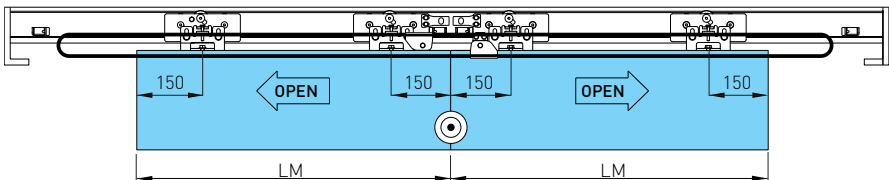
Loosen screws [b], adjust the vertical position of the door wing by means of screw [c] and fix the adjustment with screws [b].

Check, by moving the door manually, that the movement is free and without friction and that all the wheels rest on the guide.

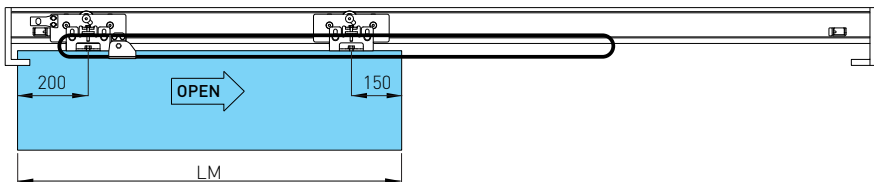
**WARNING:** Leave a gap of at least 10 mm between the glass door wings when closed to avoid contact of the glass.



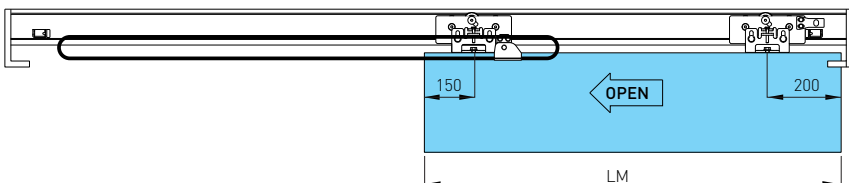
### VALOR 2 WINGS



### VALOR 1 WING - RIGHT OPENING



### VALOR 1 WING - LEFT OPENING



## 5.6 VALOR T wings installation and adjustment

Make sure that the central wheel [d] is adjusted as illustrated in the diagram.

Fix the door wing to the carriage with screws [a].

The outer wheel of the carriage must not protrude beyond the dimension of the door wing.

Adjust the horizontal position of the door wing in accordance with the measurements indicated in diagram VALOR 2 +2 for four door wing automations, VALOR 1 +1 RH for right-hand opening automations and VALOR 1 +1 LH for left-hand opening automations. Secure the adjustment with screws [a]. Loosen screws [b], adjust the vertical position of the door wing by means of screw [c] and fix the adjustment with screws [b].

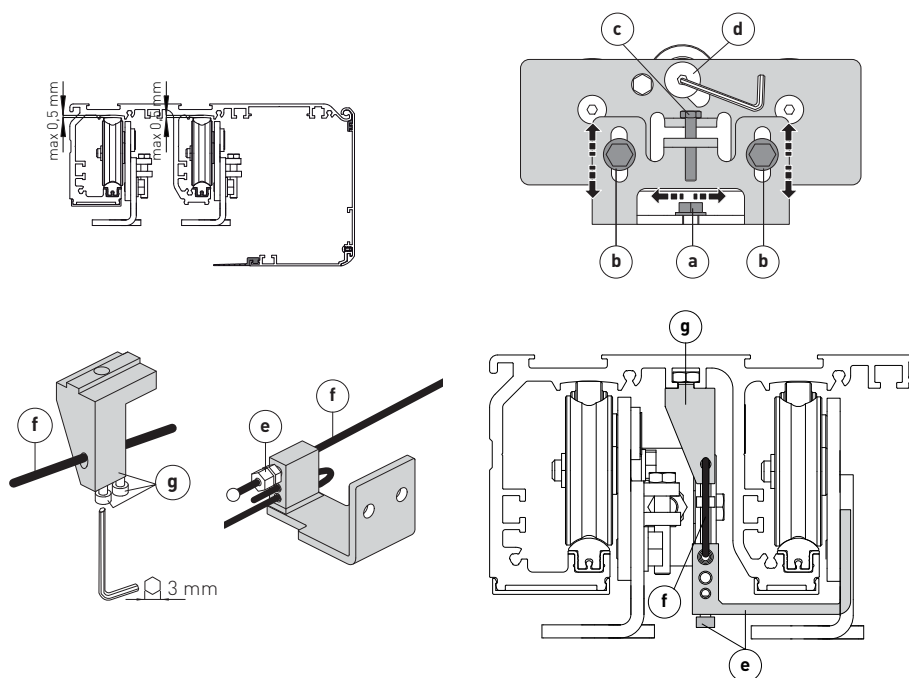
Check, by moving the door manually, that the movement is free and without friction and that all the wheels rest on the guide.

Proceed as follows to adjust the overlap of the door wings:

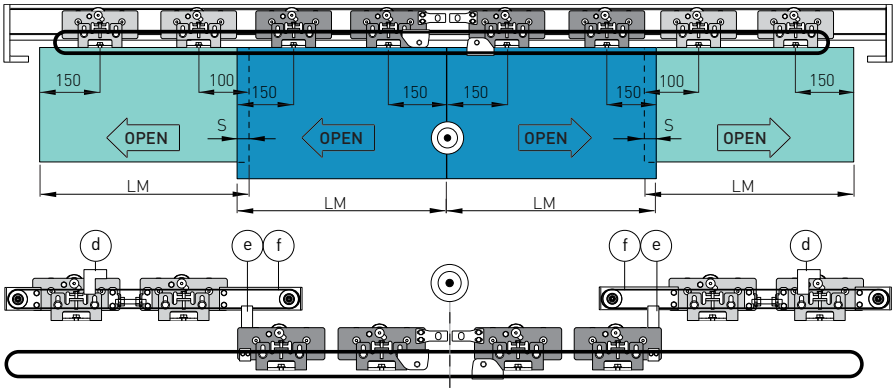
- Place the door in the closed position.
- Hold the external door wing in the closed position.
- Loosen [g] and move the door wing, increasing or decreasing the overlap.
- Tighten [g].

Adjust the tension of the cables by means of adjuster [e], loosening the locking nut.

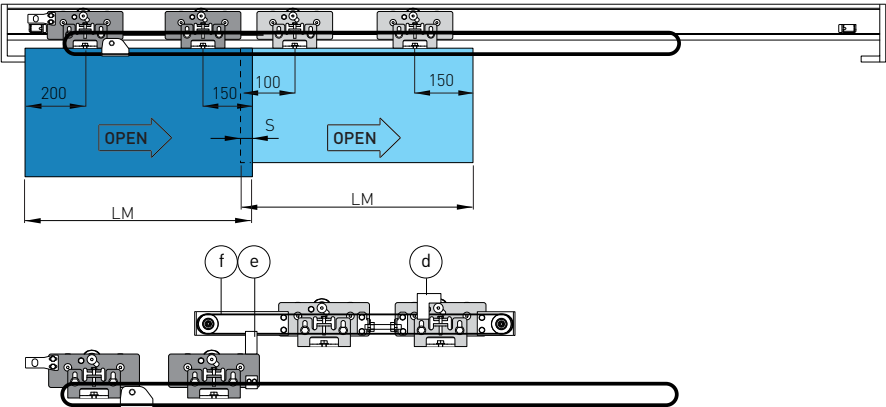
Correctly tension the cable, then block it with the locking nut.



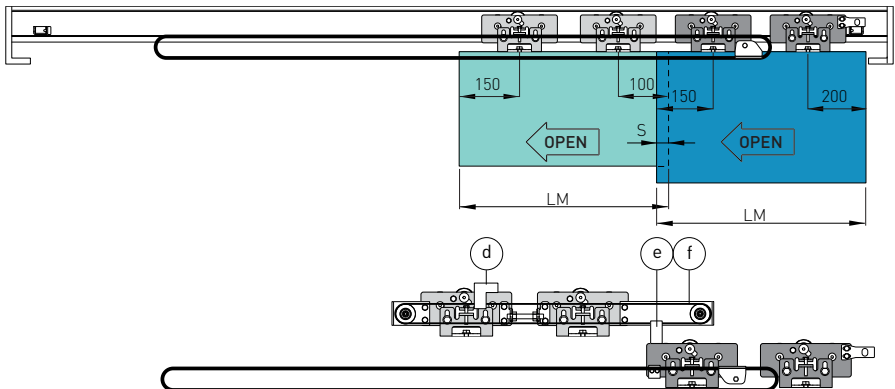
## VALOR 2+2 WINGS



## VALOR 1+1 WING - RIGHT OPENING



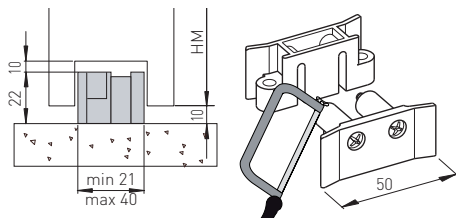
## VALOR 1+1 WING - LEFT OPENING



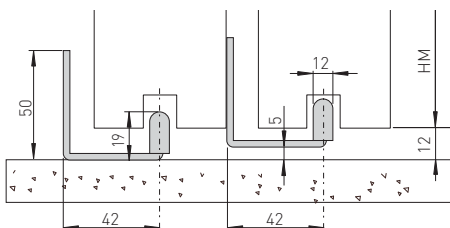
## 5.7 Floor guide installation

The floor guides must be made of an antifriction material such as PVC, NYLON, TEFLON. The length of the floor guide should not be greater than the overlap of between the fixed and mobile door wing and must not enter the doorway.

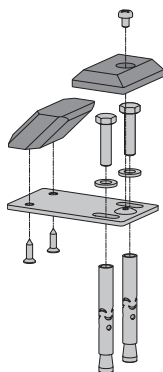
The measurements of the code 0KP515AB floor guide for framed door wings are indicated in the diagram.



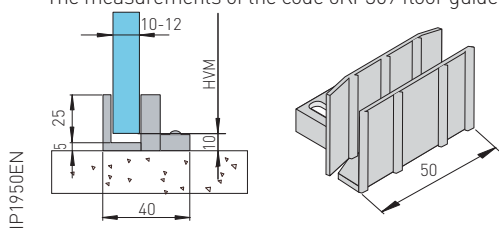
The measurements of the code KPAM45 floor guide for telescopic door wings are indicated in the diagram.



The floor guide for the PAMH60 door wing has the measurements indicated in paragraph 5.3.



The measurements of the code 0KP369 floor guide for glass door wings are indicated in the diagram.



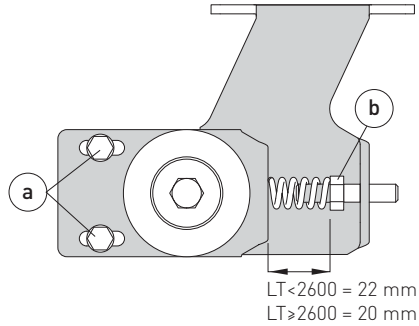
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## 5.8 Belt adjustment

Loosen screws [a], unscrew screw [b] until the spring is at a compression of 22 mm (if the length of the automation is lower than 2600 mm) or 20 mm (if the length of the automation is greater than 2600 mm).

Block the adjustment by tightening screws [a].

**WARNING:** incorrect adjustment impairs the correct functioning of the automation.



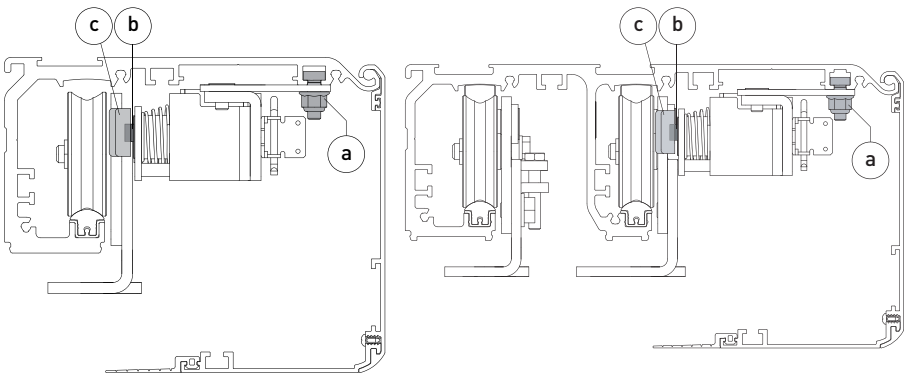
## 5.9 Lock device installation

Place the door wing in the closure position.

Fasten the lock device to the box profile by means of the supplied screws [a].

Align the lock pin [b] and the lock bracket [c] and manually check the correct functioning.

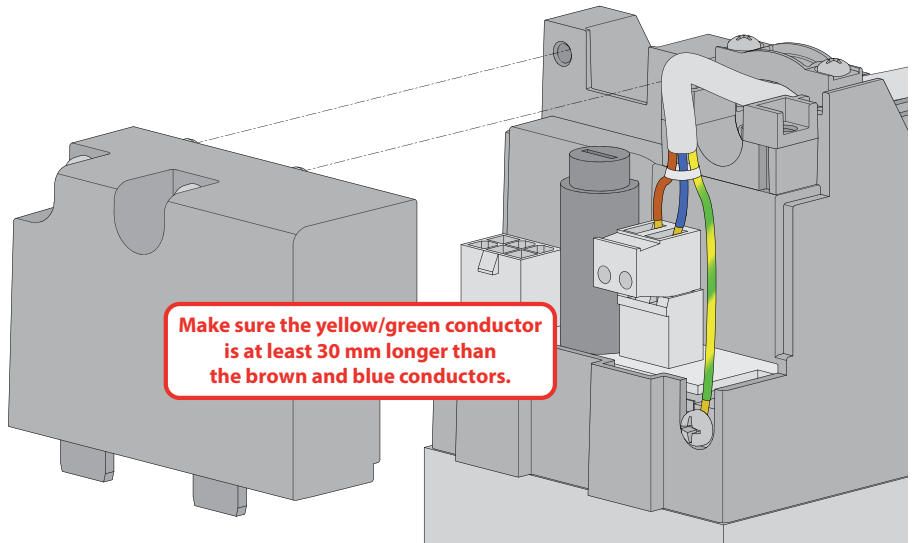
Slightly lubricate the lock pin and lock bracket.





## 6. Electrical connections


Electrical wiring and starting are shown in the installation manual of control panel EL20.



Before connecting the power supply, make sure the plate data correspond to that of the mains power supply.

An omnipolar disconnection switch with minimum contact gaps of 3 mm must be included in the mains supply.

Check that upstream of the electrical installation there is an adequate residual current circuit breaker and a suitable overcurrent cutout.

Use a H05RN-F 3G1,5 or H05RR-F 3G1,5 type electric cable and connect to the terminals L (brown), N (blue),  (yellow/green) in the automation. Make sure the yellow/green conductor is at least 30 mm longer than the brown and blue conductors.

Secure the cable using the special cable clamp and remove the outer sheath near the terminal only.

Connection to the mains power supply, in the section outside the automation, is made with independent channels and separated from the connections to the control and safety devices. The channels must penetrate a few centimetres inside the automation through a hole maximum  $\varnothing 16$  mm.

Make sure there are no sharp edges that may damage the power supply cable.

Make sure that the mains power supply (230 V) conductors and the accessory power supply (24 V) conductors are separate.

## 7. Routine maintenance plan

Perform the following operations and checks every 6 months according to intensity of use of the automation.

Without 230 V~ power supply and batteries:

- Clean and lubricate the moving parts (the carriage guides and the floor guides).
- Check the belt tension.
- Clean sensors and photocells.
- Check the stability of the automatic system and make sure that all screws are correctly tightened.
- Check the alignment of the doors, the closing positions and the correct introduction of the blocking device.

Connect the 230 V~ power supply and batteries:

- Check that the blocking system is working correctly.
- Check the stability of the door and that the movement is regular and without friction.
- Check that all command functions are operating correctly.
- Check the correct functioning of the photocells.
- Check that the door's developed powers are in accordance with applicable regulations.



NOTE: for spare parts, see the spares price list.



For repairs or replacements of products only original spare parts must be used. The installer shall provide all information relating to automatic, manual and emergency operation of the motorised door or gate, and provide the user with operating instructions. The installer must prepare the maintenance log, which will indicate all the interventions of ordinary and extraordinary maintenance carried out.

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