TECHNICAL CATALOGUE

EVOLUS
EVOLUS-T

Operator for sliding and telescopic automatic doors

LABEL

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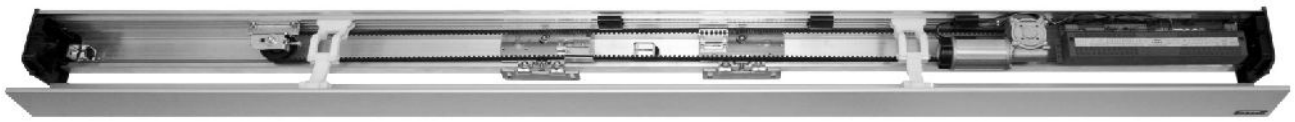


EVOLUS

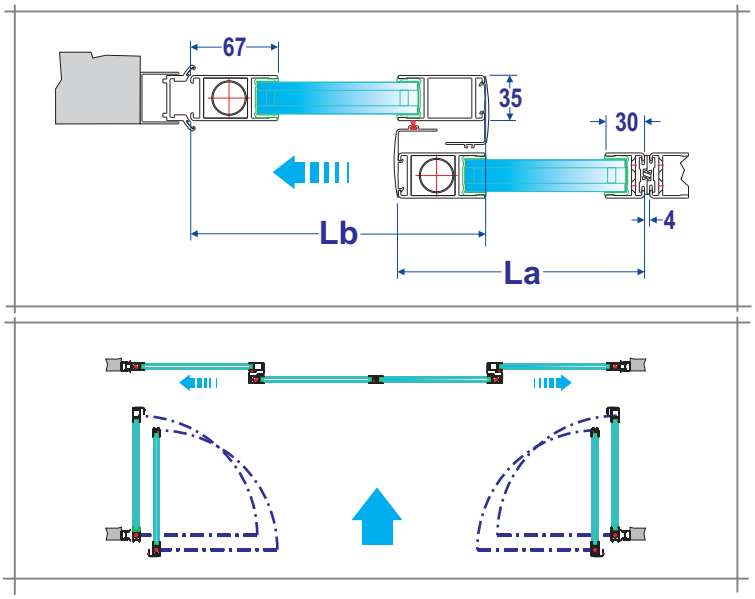
EVOLUS-T

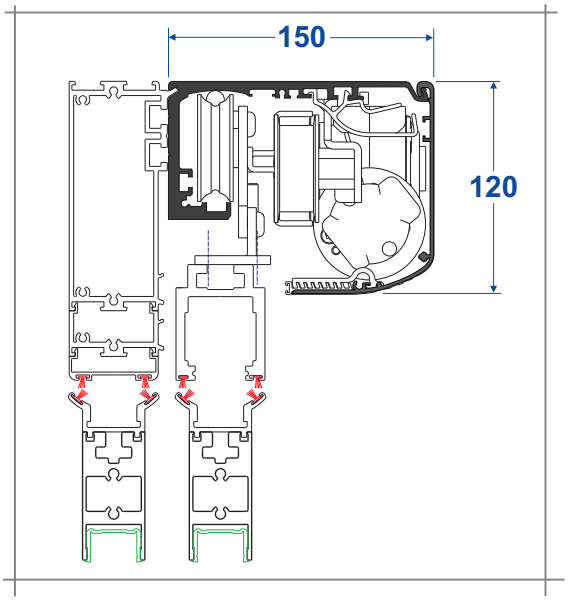
EVOLUS: **OPERATORS FOR SLIDING DOORS**

1. **EVOLUS:** Operator for sliding doors (1 leaf, 2 leaves)
   Models: EVOLUS 90, EVOLUS 150
   Max. crosspiece length: 6500 mm
   Free passage max. 3200 mm

2. **EVOLUS T:** Operator for sliding telescopic doors (2 movable leaves and 1, 4 movable leaves and 2 fixed ones)
   Models: EVOLUS T 200, EVOLUS T 300
   Max. crosspiece length: 6500 mm
   Free passage max. 4000 mm

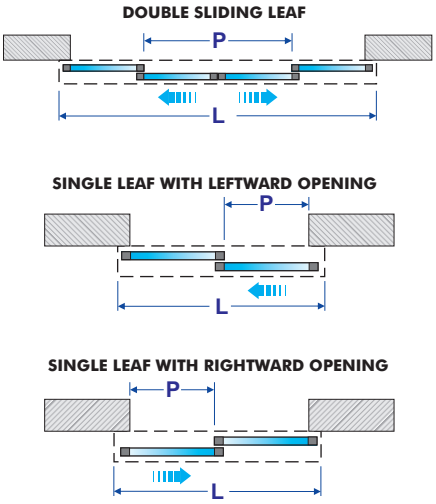
- **Anti-panic system with integral outward opening**
  mechanical integrated anti-panic system with profile lines LB 35/50





PROFILE LINE FOR LABEL AUTOMATIC SLIDING DOORS

1. **LB18:** for framed leaves with stratified/tempered glass up to max. thickness of 12mm.
2. **LB35:** for framed leaves with chamber/stratified glass up to max. thickness of 26mm.
3. **LB50:** for framed leaves with panel glass up to max. thickness of 41mm.



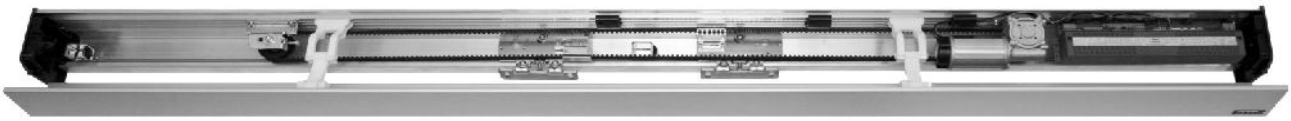
The EVOLUS operator is shown in two models:

EVOLUS 90
Automation for one-leaf sliding door
(maximum weight 130 kg)
Automation for two-leaf sliding door
(maximum weight 90 kg per leaf)

EVOLUS 150
Automation for one-leaf sliding door
(maximum weight 200 kg)
Automation for two-leaf sliding door
(maximum weight 150 kg per leaf)

EVOLUS

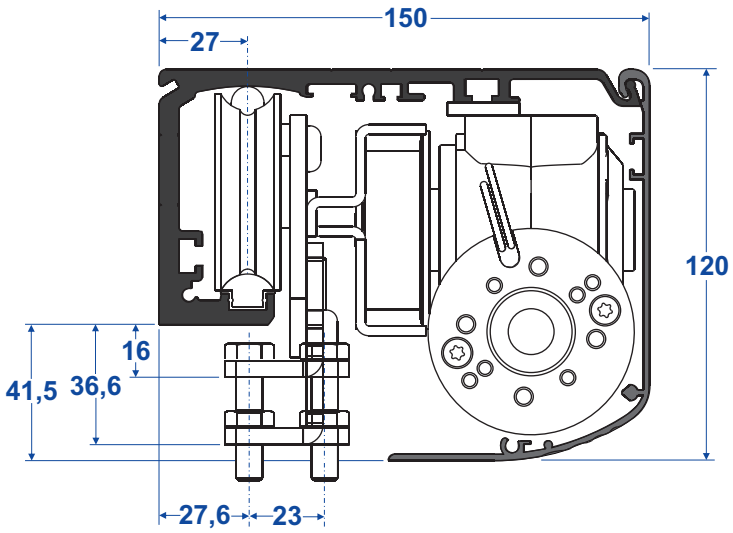
EVOLUS 90	1 leaf sliding door	2 leaf sliding door	Anti-panic version
Opening width	700-3000 mm	900-3000 mm	700-1200 mm
Max recommended weight	Max kg. 130/leaf	Max kg. 90/leaf	Max kg. 100/leaf
Opening speed	Max 0.7 m/s per leaf	Max 0.7 m/s per leaf	Max 0.7 m/s per leaf
Closing speed	Max 0.6 m/s per leaf	Max 0.6 m/s per leaf	Max 0.6 m/s per leaf
Dimensions H x P	120 x 150 mm	120 x 150 mm	120 x 150 mm
Pause time	Max 20 s	Max 20 s	Max 20 s
Temperature	-20° C + 50° C	-20° C + 50° C	-20° C + 50° C
Degree of protection	IP 22	IP 22	IP 22
Max crosspiece length	6500 mm	6500 mm	6500 mm
EVOLUS 150	**1 leaf sliding door**	**2 leaf sliding door**	**Anti-panic version**
Opening width	700-3000 mm	900-3000 mm	700-1200 mm
Max recommended weight	Max kg. 200/leaf	Max kg. 150/leaf	Max kg. 100/leaf
Opening speed	Max 0.7 m/s per leaf	Max 0.7 m/s per leaf	Max 0.7 m/s per leaf
Closing speed	Max 0.6 m/s per leaf	Max 0.6 m/s per leaf	Max 0.6 m/s per leaf
Dimensions H x P	120 x 150 mm	120 x 150 mm	120 x 150 mm
Pause time	Max 20 s	Max 20 s	Max 20 s
Temperature	-20° C + 50° C	-20° C + 50° C	-20° C + 50° C
Degree of protection	IP 22	IP 22	IP 22
Max crosspiece length	6500 mm	6500 mm	6500 mm

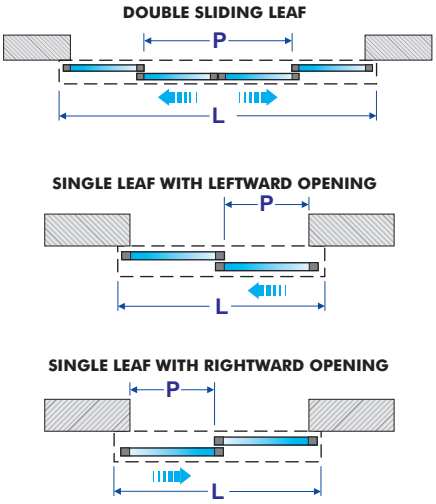


Automations can be supplied in two versions:

A. Assembled door ready for installation
B. Door kit to be mounted

Automatism is provided in kit version

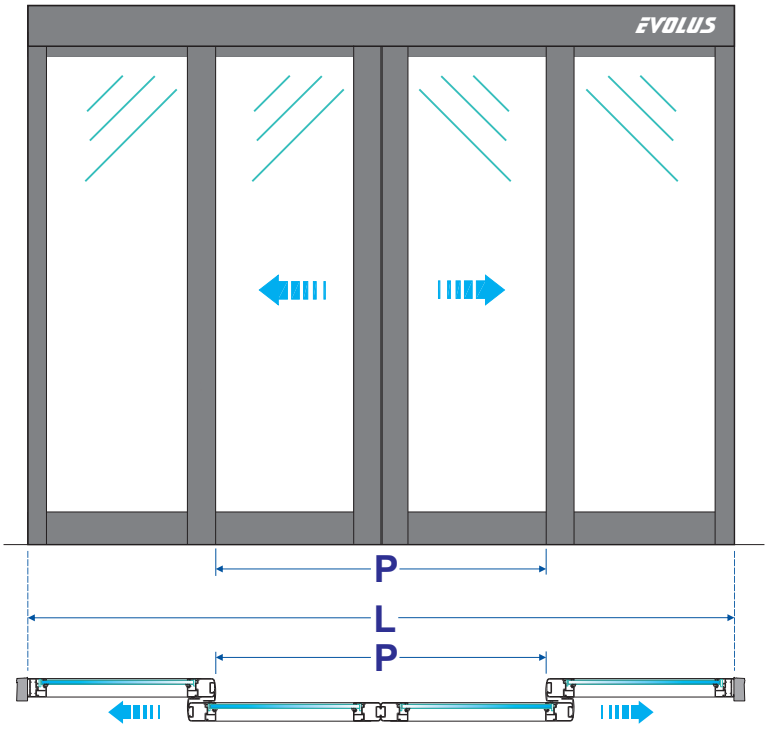




EVOLUS

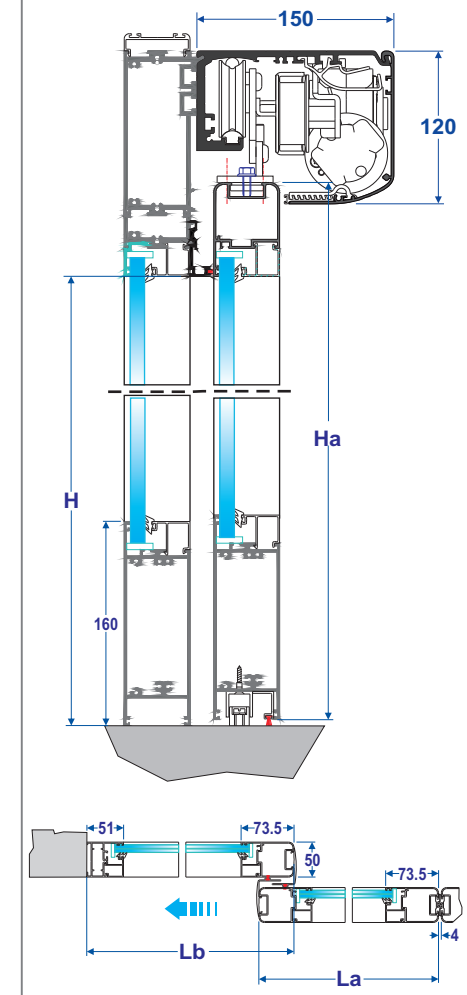
- **Technical drawings concerning the** Evolus **automatic door: vertical section of the operator with LB50 profile, typology of opening with one or two leaves.**

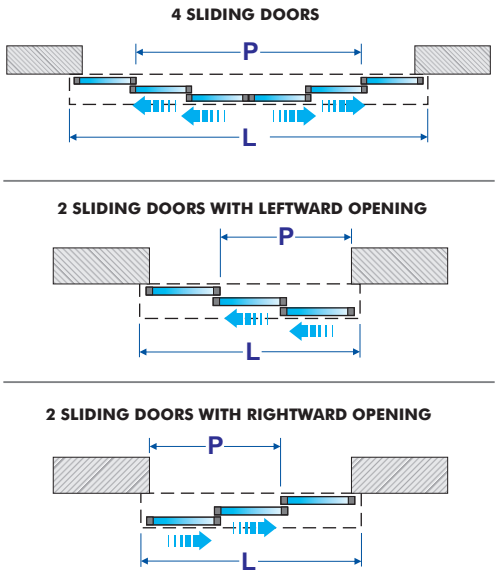
EXAMPLE OF INSTALLATION OF DOUBLE-LEAF LB50



LEGEND:

P	= FREE PASSAGE
L	= BEAM LENGTH
La	= MOVABLE LEAF WIDTH
Lb	= FIXED LEAF WIDTH
Ha	= MOVABLE LEAF HEIGHT
H	= PASSAGE OPENING HEIGHT





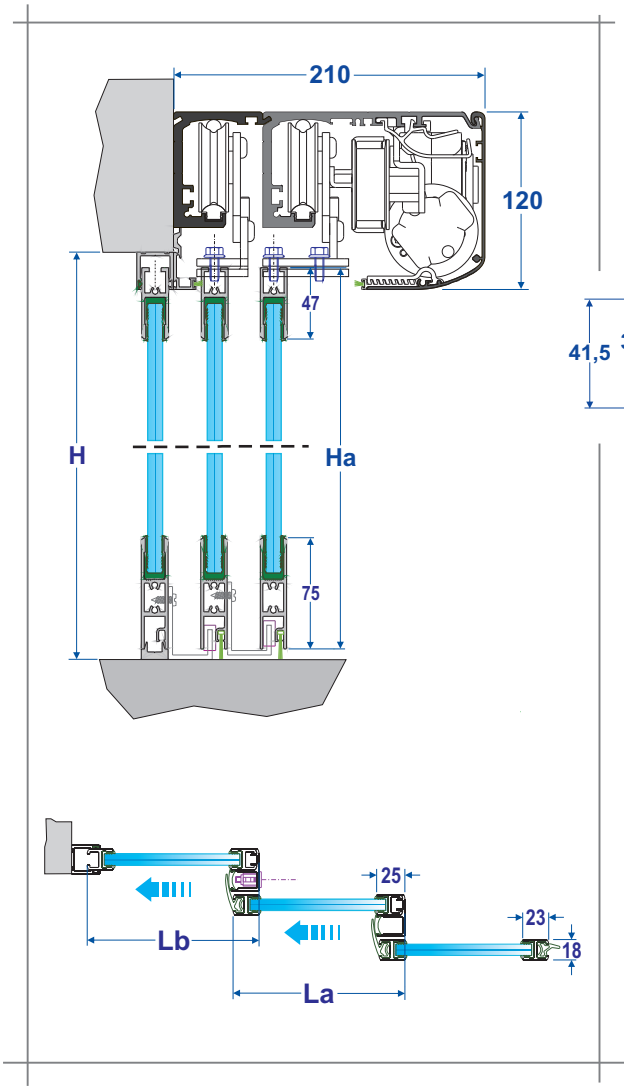
The EVOLUS T operator is shown in two models:

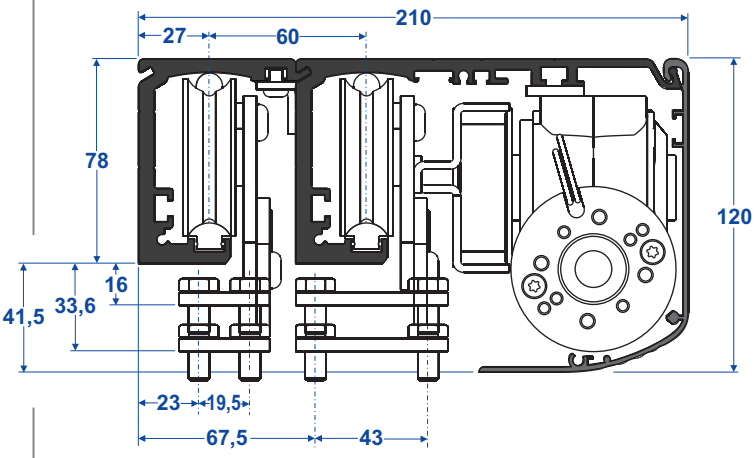
EVOLUS T 200
Automation for TELESCOPIC sliding door (maximum total weight of leaves 200 kg)

EVOLUS T 300
Automation for TELESCOPIC sliding door (maximum total weight of leaves 300 Kg)

EVOLUS-T

EVOLUS T200	2 leaf sliding doors	4 leaf sliding doors
Opening width	800-4000 mm	1600-4000 mm
Max recommended weight	Max kg. 100 per 2 leaves	Max kg. 50 per 4 leaves
Opening speed	Max 0.7 m/s per leaf	Max 0.7 m/s per leaf
Closing speed	Max 0.6 m/s per leaf	Max 0.6 m/s per leaf
Dimensions H x P	120 x 210 mm	120 x 210 mm
Pause time	Max 20 s	Max 20 s
Temperature	-20° C + 50° C	-20° C + 50° C
Degree of protection	IP 22	IP 22
Max crosspiece length	6500 mm	6500 mm
EVOLUS 150	**2 leaf sliding doors**	**4 leaf sliding doors**
Opening width	800-4000 mm	1600-4000 mm
Max recommended weight	Max kg. 150 per 2 leaves	Max kg. 75 per 4 leaves
Opening speed	Max 0.7 m/s per leaf	Max 0.7 m/s per leaf
Closing speed	Max 0.6 m/s per leaf	Max 0.6 m/s per leaf
Dimensions H x P	120 x 210 mm	120 x 210 mm
Pause time	Max 20 s	Max 20 s
Temperature	-20° C + 50° C	-20° C + 50° C
Degree of protection	IP 22	IP 22
Max crosspiece length	6500 mm	6500 mm



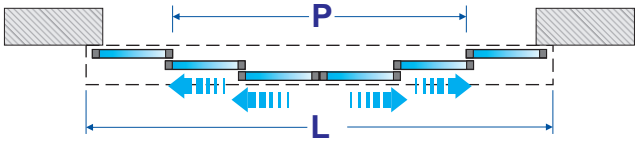


EVOLUS-T

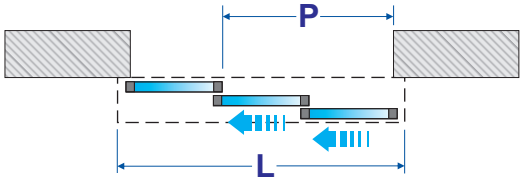
LB-18

- Technical drawings concerning the Evolus-t automatic door: vertical section of the operator with LB18 profile, typology of opening with two and four movable leaves.

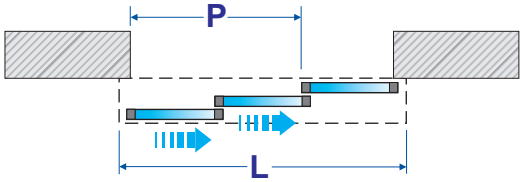
4 SLIDING DOORS

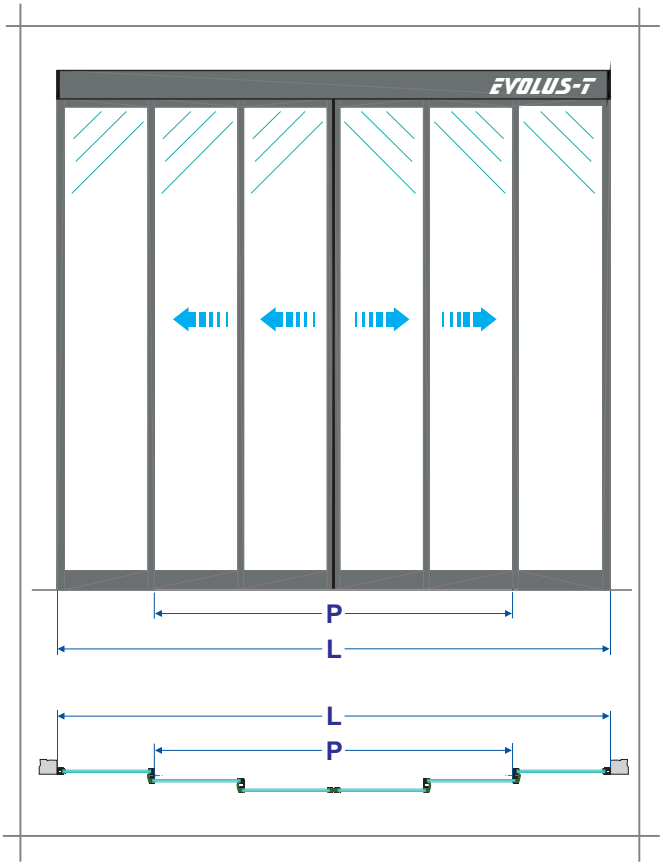


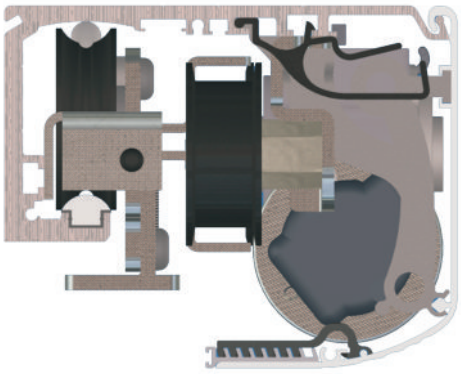
2 SLIDING DOORS WITH LEFTWARD OPENING

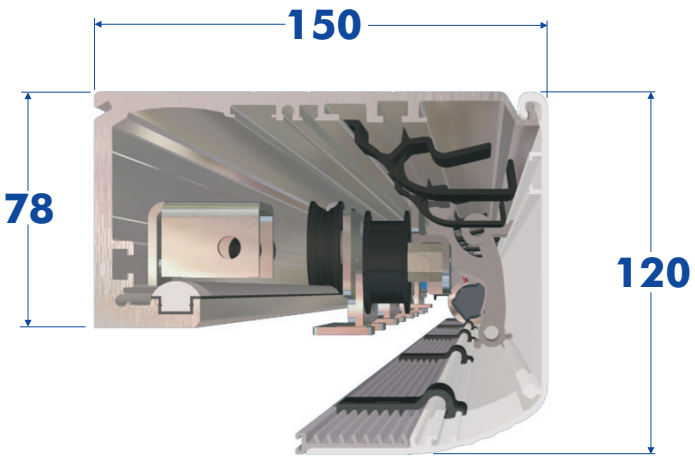


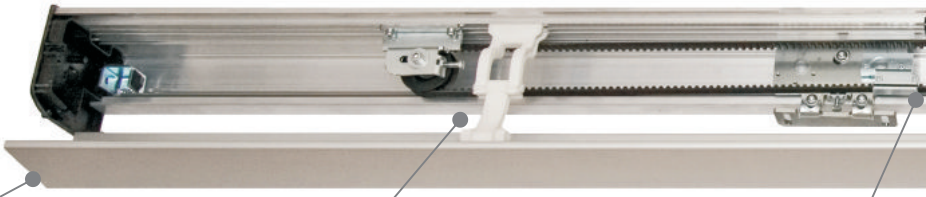
2 SLIDING DOORS WITH RIGHTWARD OPENING



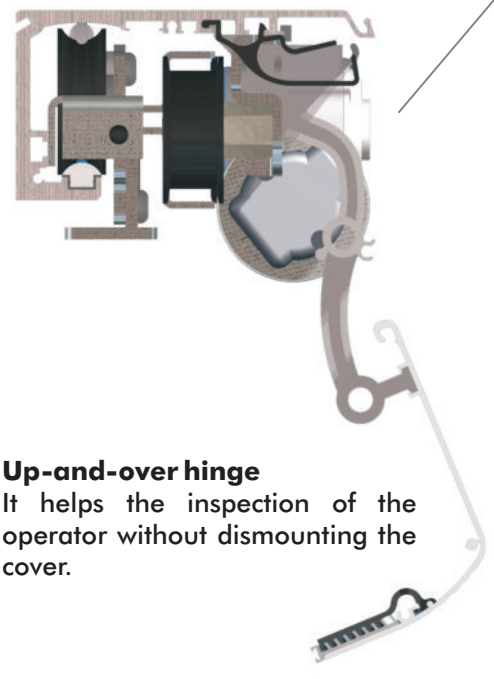








Adjustable curtain
It permits the optimal closing of the space between cover and door frame.

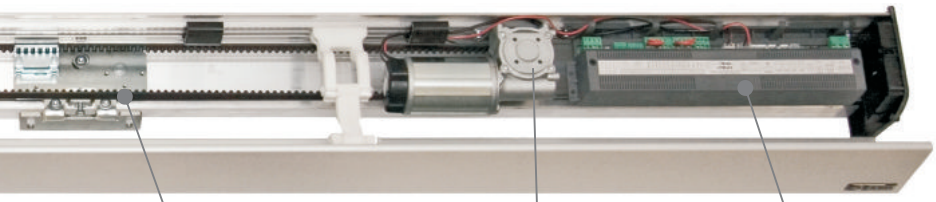


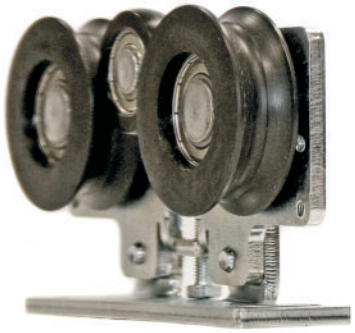
Up-and-over hinge
It helps the inspection of the operator without dismounting the cover.

Electric block FAIL SAFE-FAIL SECURE
FAIL SAFE:
in case of power failure the electric block releases the door.
FAIL SECURE:
in case of power failure the electric block keeps the door closed.

Mechanical-key selector
It permits to manage 5 different work programs.
Available also in wireless version.

Digital programmer
Display with luminous screen. It permits an easy use of the automatic door and the total control of the system programming.
Available also in wireless version.





Sliding carriages
Three-wheel system to ensure:
- adjustable anti-derailment
- wide possibilities of adjustment of height and depth of leaf
- higher stability of leaves

Control unit
- compact and reliable
- extreme easiness of use
- high performance
- many functions

FUNCTIONS OF THE EVOLUS OPERATOR

CHOICE OF PROGRAMS BY MEANS OF MECHANICAL SELECTOR

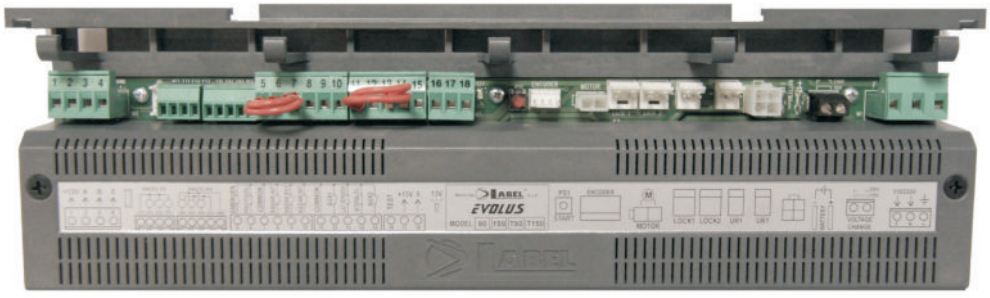
- TRAFFIC IN BOTH RUNNING DIRECTIONS;
- OUTGOING TRAFFIC ONLY;
- DOOR ALWAYS OPEN;
- NIGHT LOCK;
- WINTER OPENING;
- MANUAL DOOR

CHOICE OF PROGRAMS BY MEANS OF DIGITAL PROGRAMMER

- TRAFFIC IN BOTH RUNNING DIRECTIONS;
- OUTGOING TRAFFIC ONLY;
- INCOMING TRAFFIC ONLY;
- DOORS ALWAYS OPEN;
- NIGHT LOCK;
- WINTER OPENING;
- CHEMIST'S OPENING;
- MANUAL DOOR

PROGRAMMING OF FUNCTIONS BY MEANS OF DIGITAL PROGRAMMER OR DIP SWITCH

- **ALL THE PARAMETERS FOR THE DOOR MOVEMENT**
- **NIGHT FUNCTION - SHOP FUNCTION:**
  when choosing the night function, the door is kept open 10" before closing.
  When in night lock, the door can be opened by an emergency push-button or by a remote control.
- **BANK FUNCTION:**
  The electric block locks the leaves at every closing when the program selector is in day function.
- **POWER FAILURE:** anti-panic function with emergency battery:
  1. in case of power shortage and with selector in day function, the door opens and is kept open until power supply is restored.
  2. the door goes on operating until the battery exhausts.
- **BATTERY DAMAGED**, one can choose:
  1. the door opens and is kept open.
  2. the door goes on working normally and sends an acoustic signal one second before opening.
- **WINTER FUNCTION:** partial opening of the door (in case of intense traffic the door can be opened totally too).
- **PUSH AND GO:** the door opens by pushing the leaf laterally.
- **STEP-BY-STEP:** by means of the same push-button (emergency or start input) the door opening or closing can be enabled, excluding the automatic closing.
- **"RADAR-SHOP" FUNCTION:** the door opens normally in case of passage; should anyone enter the radar field without crossing the door, the latter closes immediately as soon as the radar stops detecting the movement.
- **GRADUAL ACCELERATION RAMP:** to check the acceleration at starting, for light or telescopic doors.



OPTIONAL FUNCTIONS AVAILABLE WITH MODULE “UR1”

- **INTERLOCKING FUNCTION:** connection between two control units that manage two automatic doors in interlocked configuration.
- **DOOR OPEN" SIGNAL:** a led signal shows the door state (door open or closed).
- **AIR BLADE:** this function manages the air blade.
  It is a device that generates a warm or cold air jet to separate the inside temperature from the outside one. The output is active when the door is moving or opens and it is inactive when the door is closed.

ADJUSTMENTS

ADJUSTMENTS (by digital programmer)

- Deceleration distance when opening
- Deceleration distance when closing
- Opening distance in chemist's function
- Obstacle perception

ADJUSTMENTS
(by dip switch or by digital programmer)

- Opening speed (max 70 cm/sec)
- Closing speed (max 60 cm/sec)
- Thrust power.
- winter opening (max. 150 cm, min. 40 cm per leaf)
- rest time (from 0 to 20 sec)

OTHER ADJUSTMENTS
(technical menu, only by digital selector)

- Braking curve when opening and/or closing.
- Acceleration ramp when opening and/or closing.
- Limit switch distance when opening.
- Thrust power at operation end when closing.
- Tension to keep the door closed
- TThrust time at operation end when closing.

OTHER TECHNICAL INFORMATION

ACOUSTIC SIGNAL BY BUZZER (BEEP)
The door control unit sends acoustic signals to indicate

1. door not programmed;
2. encoder not working;
3. interruption of the operation in case of breaking of leaves;
4. exit from programming procedure by means of digital programmer;
5. photocell self-diagnosis failed
6. initial programming ended;
7. battery signal or not operating (at every opening) for the first 10 openings of the day functions;
8. detection of obstacle.

SAFETY

- Pre-arrangement for safety sensor when opening.
- Two pairs of safety photocells.
- Motion reversion: should the electric block or the night function be not activated, the door can be opened manually
- Carriages with anti-lifting device.
- Motion inversion when detecting an obstacle.
- Acoustic signaling system when detecting any malfunctioning.
- Signal on digital programmer display when detecting any malfunctioning.
- Possibility of keeping the door open in case of power failure; otherwise the battery state is signaled by the digital programmer display.

FREE PASSAGE

- Reduced in winter function; the reduced opening can be adjusted.
- Possibility to have the START input always available, to open the door completely.

Single-channel **SPYCO** rolling code **transmitter**, gray or green. It works with **RFMU/1E receiver** that can be located under the operator casing.

Digital programmer for the door control.
It permits to select all the functions, to set all the parameters (acceleration, speed, distances, etc.), to check the state of all the inputs by means of leds.
CABLED or WIRELESS versions.

Mechanical selector for the choice of the work program.
CABLED or WIRELESS versions.

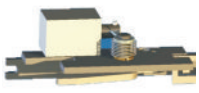
Active infrared-ray **sensor** for the detection of movement or presence.
One output with exchange contact.

Active wide-area infrared-ray **sensor** for the detection of movement or presence.
Provided with two separated outputs for activation and safety.

Micro-wave **sensor** for the detection of movement.
Available in the two- and single-direction versions.

Thin and elegant **elbow push-button**, silver colour, for the door opening command.

The **Label photocells** are provided with the continuous self-testing function.
The Label control unit supports up to three pairs of photocells (the third one can be used during the installation of the anti-panic outward-opening system).

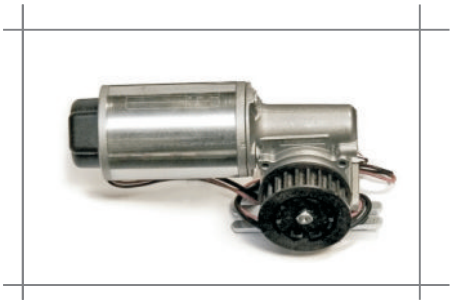


Electric block, type **FAIL SAFE, FAIL SECURE**

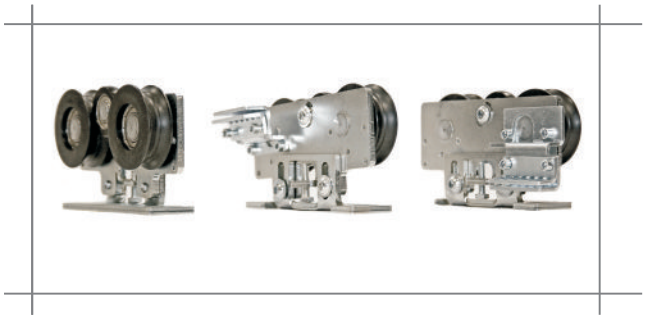
Emergency battery for the door opening in case of power failure.

COMPONENTS OF THE EVOLUS OPERATOR

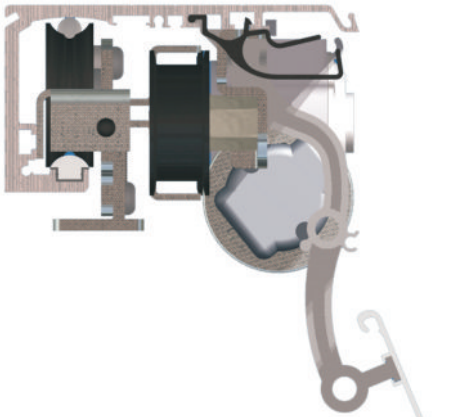
1. Motor with reduction gear and encoder (continuous current 40 Vcc);
2. Anti-static traction belt;
3. High-resistance carriages with double sliding wheel and anti-lifting wheel, adjustable in height;
4. Anti-noise rubber profile: ensuring the utmost silentness;
5. Sliding rail, made of aluminum alloy;
6. Compact control unit, reliable and extremely versatile.



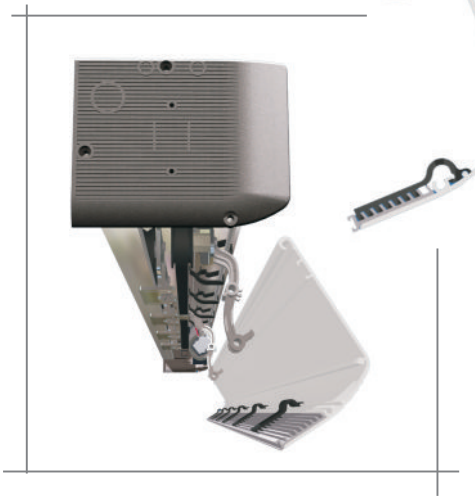
40 V **motor** with encoder



SLIDING CARRIAGES:
The solidity and quality of components permit a very intensive use.
Every carriage is provided with an adjustable anti-lifting wheel.



UP-AND-OVER HINGE FOR THE CASING OPENING:
Solution studied to help the operator opening, keeping the covering casing in opening position by means of the support levers.



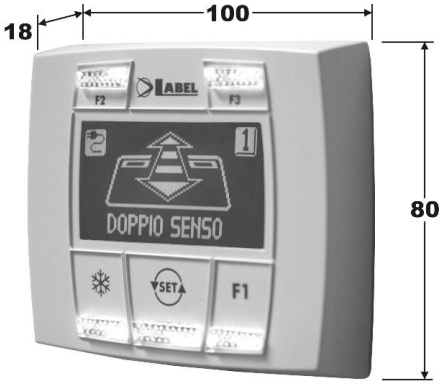
THE DIGITAL PROGRAMMER PERMITS TO CHOOSE THE DOOR WORK PROGRAM AVAILABLE IN CABLED AND WIRELESS VERSIONS

- traffic in both directions;
- incoming traffic only;
- outgoing traffic only;
- door open;
- night lock;
- winter opening;
- chemist's opening;
- manual door.

CONTROL UNIT PROGRAMMING:

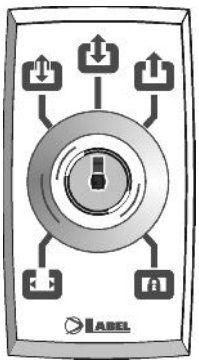
The control unit programming can be carried out by means of the digital programmer

- setting of initial set-up of the door;
- adjustment of functions and setting of work parameters;
- choice of the language of the installation country;
- setting of password for function lock;
- customization of graphic aspects of display and key functions;
- possibility of controlling up to 8 doors by means of a single digital programmer;
- display of inputs and possible errors.



MECHANICAL SELECTOR AVAILABLE IN CABLED AND WIRELESS VERSIONS
THE MECHANICAL SELECTOR PERMITS TO CHOOSE THE DOOR WORK PROGRAM

- DOOR ALWAYS OPEN
- WINTER FUNCTION
- TRAFFIC IN BOTH DIRECTIONS
- OUTGOING TRAFFIC ONLY
- NIGHT LOCK
- MANUAL DOOR



How to fasten the crosspiece:

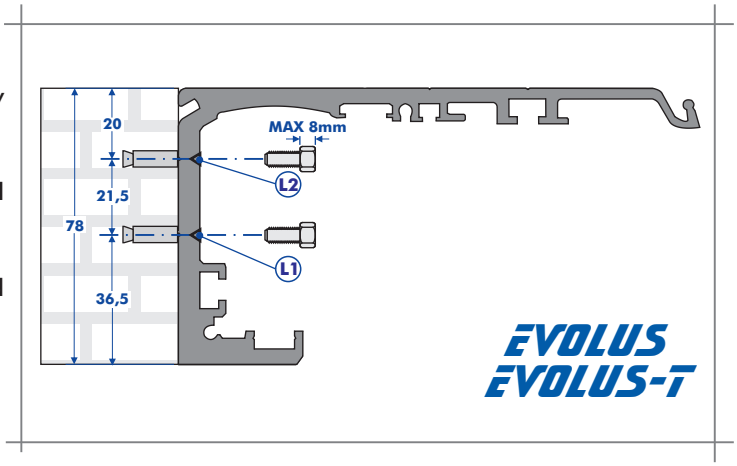
The fastening points must be distributed alternately between the fastening lines every 600 mm.

Fastening of the leaves to carriages and adjustment:

1. Undo the two front screws of every carriage and remove the movable part of it

2. Fasten the movable part on the door profile.

3. Mount the leaf on the structure.



4. Screw the two front screws again in their holes, without tightening them.

5. Adjust the required height of the leaf by means of the control screw and tighten the two front screws fast.

6. Adjust the leaf horizontally by means of the eyelet provided in the movable part of the carriage.

ADJUSTMENT OF THE BELT TENSIONING

To adjust the belt tensioning, operate on the adjustment device provided on the idling pulley.

Always check the correct sliding for the whole run and remove any possible friction.

INITIAL SETTING PROCEDURE

Before starting the setting step, comply with the following recommendations:

1. fasten the leaves on the carriages and check that the sliding rail is clear and clean;
2. let the leaves slide manually to check that no friction can prevent them from sliding correctly;
3. check all the electric connections;
4. fasten the braking pads at the appropriate distances.

At the first installation, the automatic door requires to be set, in order to learn all the parameters (weight of leaves, distances, inertia, etc.).

This is a prerequisite condition without which the door cannot work.

Initial setting procedure

After the above-said steps the true setting step can be started.

Before carrying out this procedure, select some essential parameters.

- if use is made of the digital programmer or mechanical selector
- the opening direction of the door
- if the Label photocell is present
- by means of a simple pressing on a control unit push-button the set-up cycle is started; it consists of a complete opening and closing cycle at slow speed and it will be ended with the acoustic signal of the buzzer.

THE WHOLE SET-UP STEP MUST BE CARRIED OUT ONLY AT THE FIRST INSTALLATION.

EVERY TIME A POWER FAILURE OCCURS, THE DOOR CARRIES OUT THE FIRST OPENING AT REDUCED SPEED.

TECHNICAL CATALOGUE

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