

EvoDrive+

USER MANUAL



Part 3 of the Installation, User and Maintenance Manual
This section must be given to the User of the automatic door

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PART 3 **USER MANUAL**

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EvoDrive+ **AUTOMATIC DOOR OPERATOR** FOR INTERIOR SLIDING DOOR

PART 3

User manual

This part of the manual explains the operating and safety considerations, to be taken into account by the end user.



It is very important to read this manual in full,
and to observe and follow all instructions as described herein.

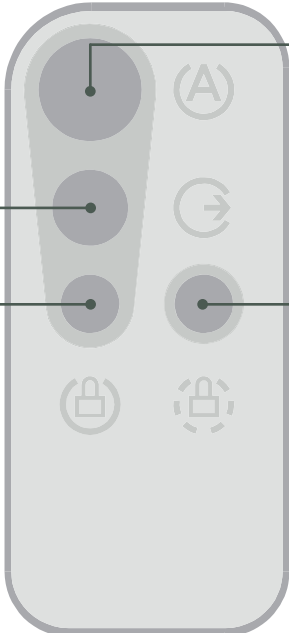
1. PRODUCT DESCRIPTION

This door is equipped with the **EvoDrive+** automatic sliding door operator, specifically designed for interior doors. Equipped with the latest technology in automatic doors, the leaves are moved by a linear motor that slides with the door leaf by attraction and repulsion of the permanent magnets incorporated along the header frame, making the operator a very compact unit, with a superb, smooth and silent movement. Please, read these instructions in full before using the door for first time.

2. INSTRUCTIONS OF USE

2.1. OPERATING MODES

The **EvoDrive+** is delivered with a wireless remote control with 4 buttons to let you set the operating mode to any of the following:



OPEN mode
The door will open and remain free. It will work as a manual sliding door.

AUTOMATIC mode
Every time an activation device (push button, touchless switch, radar or sensor) is triggered and when the door is pushed manually 5 cm, the door will open during an adjustable hold-open time and close again.

CLOSED mode
The door will close and remain in that position. If the door is equipped with an automatic lock (optional), the door will be blocked in the closed position.

EXIT only / ACCESS control mode
The activation devices on the interior side of the door will remain active, while the devices on the exterior side will remain disabled. For a full functionality, we recommend to equip the door with an automatic lock.

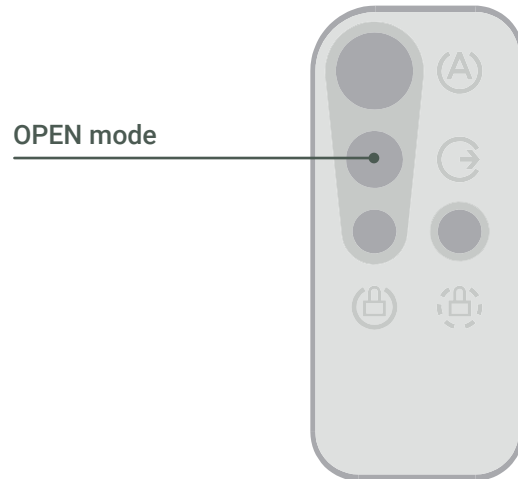
2.2. OPERATION DURING POWER FAILURE

Thanks to the particular technology of the **EvoDrive+** automatic door operator and the absence of mechanical elements such as gears or belts, in the event of power failure the manual and smooth movement of the door is guaranteed by simply pushing or pulling the door leaf or handle with a minimum effort.

If the operator is equipped with an automatic lock, this will be released in the event of power failure, and the motors will be disconnected to allow a manual movement of the door, performing just like any other manual sliding door.

2.3. DOOR CLEANING

To clean the door, press button “Open” on the remote control to set the door to “Open” mode, then slide the door leaf manually to any position. In this mode, the activation devices will remain disabled, and the door is safe for cleaning.



When cleaning is finished, please remember to set the door to the next desired operating mode.

2.4. RESTRICTIONS OF USE

In order to reduce unnecessary risks to people, all automatic doors equipped with an **EvoDrive+** automatic door operator installed in an area where it is expected to be used by children, elderly, frail and disabled users, a risk assessment must be conducted, taking into consideration the necessities of these groups of risk. Should this be the case, it is required to provide the necessary indications, help and advice on the correct use of these doors to those groups of risk.

Don't allow children play within the clear opening and the travelling area of the door leaves, and always keep the remote controls out of their reach.

Linear Motor Applications, S.L. declines all responsibility for any eventual damages to persons, animals or objects as a result of not observing the indications described in this installation, maintenance and user manual.

The manufacturer of the automatic door operator declines all responsibility (civil or criminal) for any non-authorized manipulation of the product, or the replacement of parts or components of the automatic door operator using non-original or non-authorized accessories and spare parts, which may result on an increase of risk and danger to people.

It is strictly forbidden to remove or alter the stickers or signs supplied by the manufacturer in the automatic door operator and its operator and accessories.

It is strictly forbidden to stand within the moving area of the door, and to operate near the mechanical parts in motion.

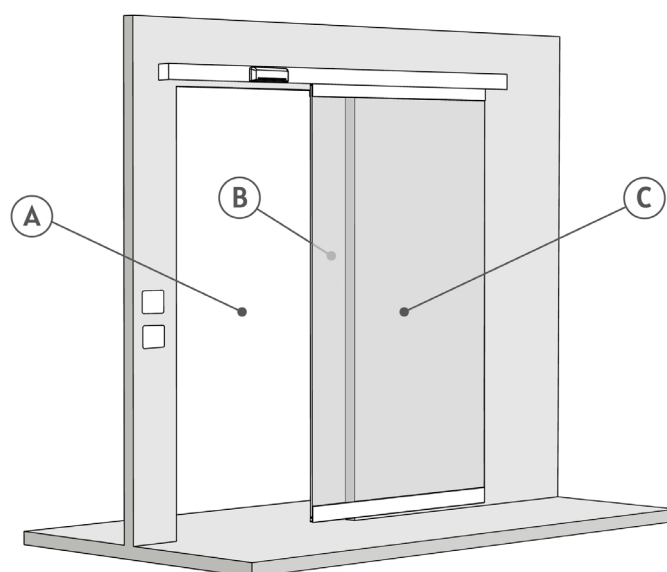
Only authorized technicians are allowed to open the cover of the door operator and manipulate the internal parts, for installation and maintenance purposes. The power switch must be turned off before doing any intervention on the door operator.

End users and non-qualified technicians are strictly not allowed to open the cover and/or manipulate the internal parts of the door operator.

3. RISK ASSESSMENT

3.1. IDENTIFICATION OF DANGEROUS AREAS

The image below shows the zones of risk of the sliding door.

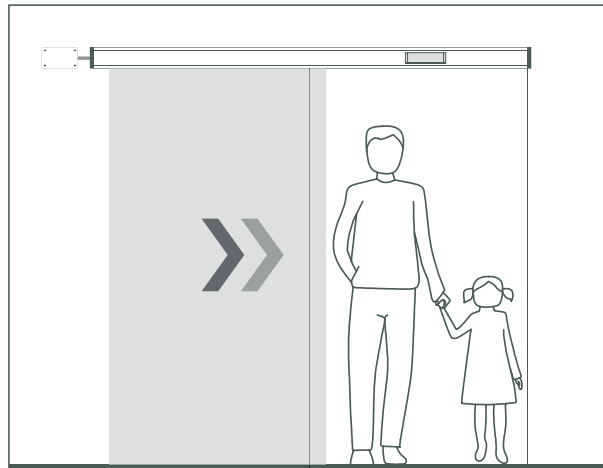


As indicated in the *“Directive on Machinery”*, it is understood by:

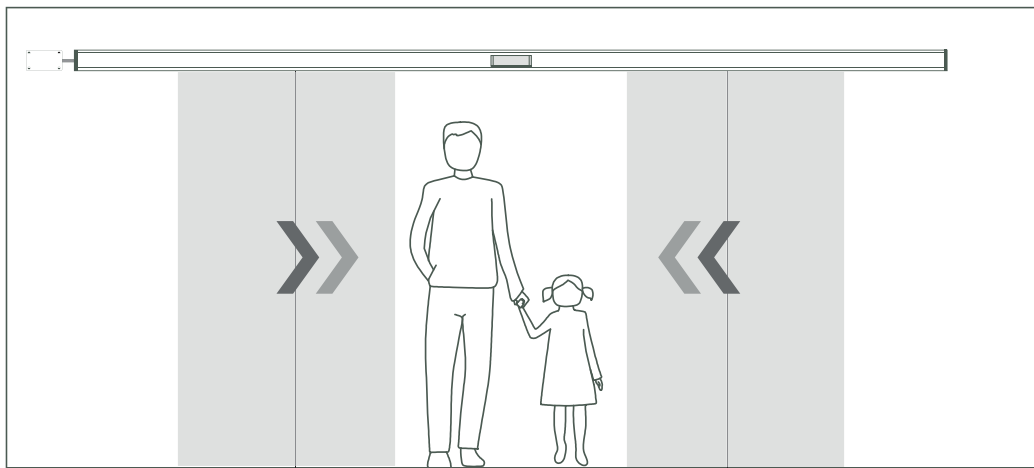
Danger zone: Any area inside and/or near a machine where, the presence or exposure of a person, constitutes a risk for the safety and health of that person.

Exposed person: Any person standing or moving completely or partially, within a danger zone.

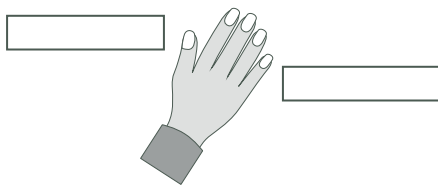
In relation with the usage of this automatic door operator, the diagrams below show the typical residual risks in relation with the zones of risk indicated above.



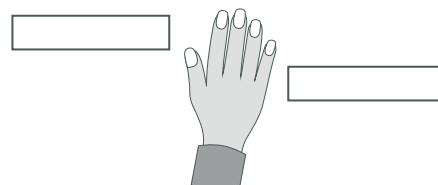
IMPACT



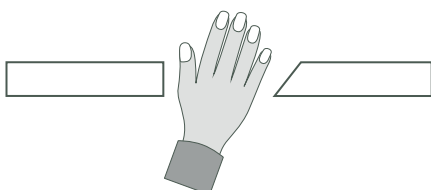
CRUSH



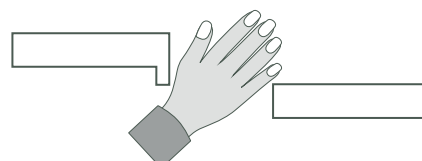
SHEARING



ENTRAPMENT



CUT



HOOKING

3.2. RESIDUAL RISKS

Although the **EvoDrive+** automatic door operator has been designed and manufactured to ensure a safe operation, some residual risks may still persist even after adopting complementary measures of protection.

Automatic sliding doors may have some risks of crush, impact, entrapments and other potential hazards. Depending on the structural conditions on site, the door version and the safety equipment, these risks may not disappear completely.

In accordance with the European norm EN16361, the travelling area where the leaf of an automatic door is sliding should have some type of protection, to reduce the risk of impact to persons as much as possible. To limit these risks of the **EvoDrive+** door operator, the following safety measures should be considered and implemented:

- The possibility of using safety sensors to detect the movement and presence of people and/or objects within the travelling area.
- “Low energy” mode: subject to the width and mass of the door leaf, its speed is reduced and adjusted to a predefined value during the closing cycle, to ensure that the kinetic energy of the door leaf and the impact force do not exceed those admitted in the said norm.
- To ensure a high level of safety, mainly in those installation sites where the presence of groups of risks recommends the adoption of additional safety measures, the **EvoDrive+** automatic door operator allows the simultaneous implementation of the two above mentioned safety measures.

A qualified technician should verify the correct installation, commissioning, adjustment and operation of the safety sensors and/or the “low energy” mode, always in accordance, but not limited to the above mentioned norm.

4. TROUBLESHOOTING

If you think or observe that the door is malfunctioning, check the following recommendations before calling the after sales service:

- The power must be connected: check if the ON/OFF switch is ON.
- The operating mode in the remote control is in the correct position. Check if the door moves in Automatic mode.
- The door is not blocked by any object or dirt under the door leaf or within the doorway. In case there is an obstruction within the door travelling area, remove that obstruction and change the operating mode to Open and Automatic to resume normal operation.

If these points are in order and the door is still not moving when activated, being the door in Automatic mode, please contact a service technician.

5. TECHNICAL SPECIFICATIONS

MECHANICAL FEATURES

MAIN FEATURES	Clear opening width, single leaf (mm): 750 - 1400 Clear opening width double leaf (mm): 1500 - 2800 Operator length, single leaf (mm): 1650 - 2850 Operator length double leaf (mm): 3100 - 5700 Opening speed: adjustable between 200 and 600 mm/s Closing speed: 200 mm/s EN16005 "Low Energy" Weight of the operator: 8-10 kg
OPERATOR DIMENSIONS (h x w)	60 x 70 mm
LEAF WEIGHT	Min. 5 kg - Max. 80 kg
OTHER DATA	Operating noise: < 50 dB Use - continuous Number of cycles: > 1.000.000
ADJUSTABLE PARAMETERS	Opening direction: right or left Bistable Mode "Low energy" or Normal mode Opening speed Hold open time

ELECTRICAL FEATURES

POWER SUPPLY	80-264 VAC/390 VDC & 47-63 Hz (Universal) Maximum Power in Operation: 180 W Fuse Protection: 2 A Cable section: 3x1,5 mm ² . Length 2 m
POWER CONSUMPTION	In motion: 80 W Peaks (0,5 sec): 180 W In stand-by < 4 W
MOTOR	Type: Linear LSMPM (Linear Synchronous Motor with Permanent Magnets) No. of poles: 4 Pitch pole: 50 mm No. of phases: 3 Voltage: 24 V DC Permanent neodymium magnets Force: < 100 N
CONTROL	Motion control by means of a driver with field oriented control (FOC) Self-adjustment of clear opening
ACCESSORIES	Voltage: 24 V CC Current: 1 A
OPERATING TEMPERATURE	Min: 5 °C - Max: 40 °C

6. AUTOMATIC DOOR OPERATOR CE DECLARATION FORM

DECLARATION OF CONFORMITY

Directive 2006/42/CE -Directive on Machinery-

We hereby declare, under our sole responsibility, that the product and model described here in is conform to the essential health and safety requirements as described in the following directives issued by the European Council for the harmonisation of the legal norms in all countries members of the European Union:

Product:	Automatic door operator for sliding doors
Model:	EvoDrive+
Serial number:	All starting with 610
Manufacturer:	Linear Motor Applications, S.L. Pol. Ind. Santiga Pasaje Arrahona nº4, Nave 1 08210 Barberà del Vallés, Barcelona Spain
Directives and standards:	Directive 2006/42/EC: "Machinery Directive" Directive 2014/30/EU: "Electromagnetic Compatibility (EMC)" Directive 2014/35/EU: "Low Voltage Directive (LVD)" EN 16005:2013/AC:2015: "Power operated pedestrian doorsets"

The CE mark is attached to each product, indicating its compliance with the above mentioned directives and norms. This declaration of conformity applies only when the installation and commissioning of the machine described herein has been made according to the manufacturer's installation, user and maintenance manual.

Barberà del Vallès, Barcelona, on the 3rd of January of 2022.



Mr. Oriol Guilera

General Manager - LMA

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MOTION4
DOORS

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