

MOTION4  
DOORS

We present **MOTION4**

With the firm conviction that the future of doors, windows and other similar applications lies in automation, MOTION4 was born in 2008 with the hope to be able to solve it through an innovative technology: magnetic linear motor technology.

Today, it is already a reality and MOTION4 is present in more than 53 countries.



## THE NEXT BIG STEP IN AUTOMATIC DOORS

### Why automate interior doors?

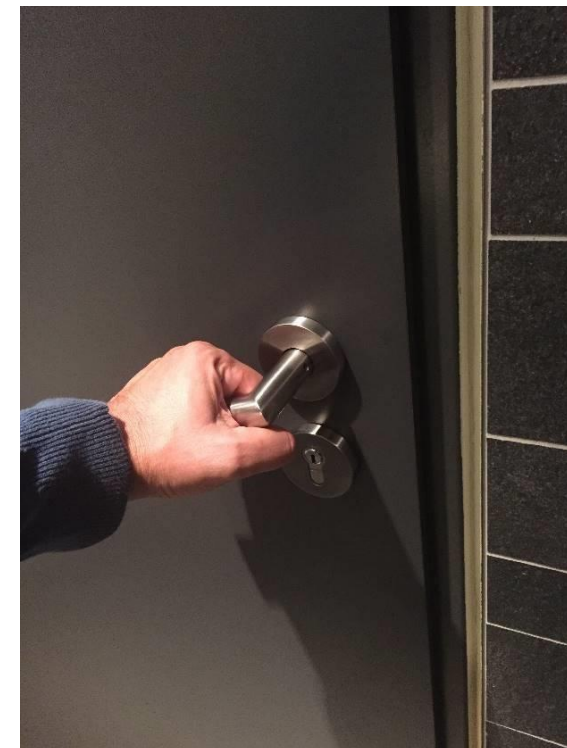
- 1) **COMFORT AND PRIVACY:** The door does not have to be opened and closed as we pass through, which increases comfort. In addition, it always remains closed and not half-open.
- 2) **ENERGY SAVING:** They work as a temperature insulator. As they open and close automatically, they prevent temperature loss.

- 3) **SECURITY:** They allow you to have control with different activation and security elements. In addition, the automatic lock can be activated so that the door remains closed, adding additional security.
- 4) **ACCESSIBILITY:** They facilitate the passage of people with reduced mobility and the elderly.
- 5) **INSULATION:** By always remaining closed, it favours isolation from external factors such as odours, light, noise, etc.
- 6) **HYGIENE:** It avoids any contact when opening and closing the door, guaranteeing maximum hygiene.
- 7) **AESTHETICS AND DESIGN:** Innovative, compact and elegant design with different finish options.

## Paradox of public toilets

In a public toilet, we wash our hands with an **automatic tap**, an **automatic soap dispenser** and an **automatic hand dryer**.

But then, we open the **manual door** using our freshly washed hands by touching the same handle that has been touched by hundreds of people who have entered the toilet before you.



## Why are interior doors not automated? (Until now...)

- 1) **SIZE:** Current mechanisms are too big and bulky. Designed only for exterior doors and with no thought for aesthetics.
- 2) **MAINTENANCE:** Traditional automatic door operators have many mechanical elements (motor, belts, drive arms, pulleys, wheels, etc.), which require periodic maintenance at a high cost.

- 3) **NOISE:** Due to the mechanical elements and the friction involved, traditional automatic doors emit too much noise for an indoor environment.
- 4) **PRICE:** Traditional automatic doors are expensive both in terms of materials and installation costs. In addition, they require specialist technicians to install them.



# EvoDrive+

Powering the new generation of automatic doors

The **EvoDrive+** is a compact and elegant automatic door operator specifically designed for internal sliding doors.

Powered by the innovative **magnetic linear motor technology** developed by **MOTION4**, it measures only 60 mm high x 70 mm deep, combining the size of a manual sliding door track with the functions and performance of a traditional automatic door operator.



## What is Linear Motor Magnetic Technology?

The **linear motor** is an electric motor that, instead of being rotary, produces a linear force along its length.

Traction is generated from the interaction of the **magnetic fields induced by the motor and permanent magnets** in the guide.

Unlike traditional automatism, the linear motor does not use pulleys, belts, arms, or other mechanical components. Giving as The result is a **compact** and **elegant** chassis ideal for use on interior doors.

The installation process is very simple, and, in addition, the **maintenance cost** is significantly reduced compared to traditional technologies using DC motors.

the



## Main

### advantages **EvoDrive+** automatic guide

- 1) **SUPER COMPACT SIZE:** The guide is only 60 mm high x 65 mm deep. It combines the dimensions of a manual slide with the functions of an automatic door.
- 2) **SOFT AND QUIET MOTION:** No belts. No pulleys. No gearboxes. The door moves in absolute silence.
- 3) **DESIGNED FOR INTERIORS:** Discreet and elegant design thanks to its compact design and variety of finishes.
- 4) **QUICK INSTALLATION:** Assembly is quick and easy. The automatic guide can be cut to size and the opening direction can be changed easily.
- 5) **MINIMAL MAINTENANCE:** The slide requires almost no maintenance to keep it running for years.



## Main

The first EvoDrive installed  
(2011) still in operation

advantages of  
EvoDrive+



low

Combining the best of a manual slide (size, maintenance, low noise level) and the best of an automatic slide (automatic opening and closing, opening by activation elements, safety, compliance with current regulations).

## Main



Efficient Quiet Soft move  
High-tech Compact Easy to install  
Safety Modern design

features **EvoDrive+**

- Main technical features

Compact aluminium housing: only 60 x 70 mm

Min. clear opening: 700 mm (Track length 1450 mm)

## Main

Max. clear opening: 1400 mm (Track length 2850 mm)

Leaf weight up to 80 kg

Adjustable opening speed: 200 to 800 mm/s

Acceleration and braking curves: 200 to 800 mm/s

Low operating noise: <50dB

Power supply: 80-265 VAC (Universal)

Power consumption: *In operation: 70 W*

Electric three phase AC motor type LSMPPM (Linear Synchronous Motor with Permanent Magnets)

Voltage: 24 VDC

Peak current: 5A

Operating current: 3A

Motor driver:

- *Magnetic position feedback with 3 hall cells.*

- *Motion control by means of a*

- *driver with fieldoriented control (FOC)*

- *Wireless communication*

**4 operating modes:**

## features EvoDrive+

- **Electronic Specifications** (Operated by Microcontroller MCU) – Wireless communication

*Peaks (0,2 sec): 180 W*

*Stand-by: 2.5 W*

- **Motor specifications**

## Main

- *Automatic*
- *Open*
- *Close or Close/Lock (with optional auto lock)*
- *Exit only / Access control*
- *Opening direction: right or left - “Low energy” or normal mode*
- *Opening speed*
- *Closing force*
- *Obstruction sensitivity*
- *Hold-open time*

### Conform to European norms and directives in force:

- *Directive 2006/42/CE on Machinery*
- *Directive 2004/108/EC on “Electromagnetic Compatibility (EMC)”*
- *Directive 2004/95/EC on “Safety of low voltage electrical appliances”*
- *Norm EN16005: “Power operated pedestrian doorsets – Safety in use”*

### Adjustable parameters:

- *Push & Go*

## Activation and safety elements

### EvoDrive+



Remote Control

Handheld device used to select



Push Button

Wired or Wireless options. Forget about cables using the push



Touchless Switch

Activates the door by simply approaching your hand or foot to the sensor (adjustable



Active Infrared Sensor



Automatic Lock

Wireless  
button.

between 10 and 5  
cm)

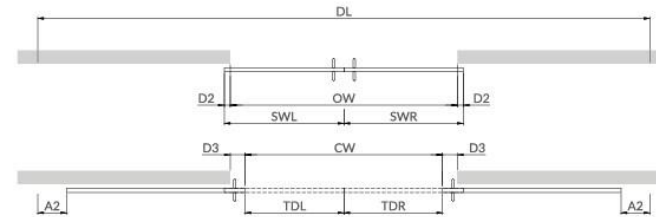
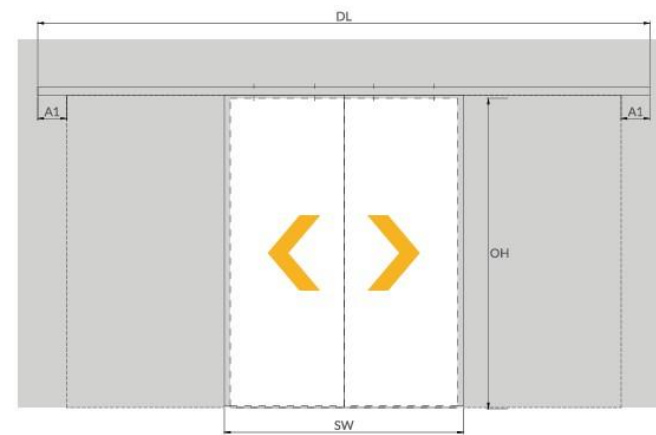
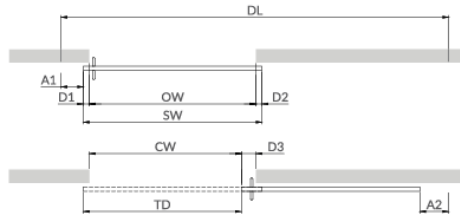
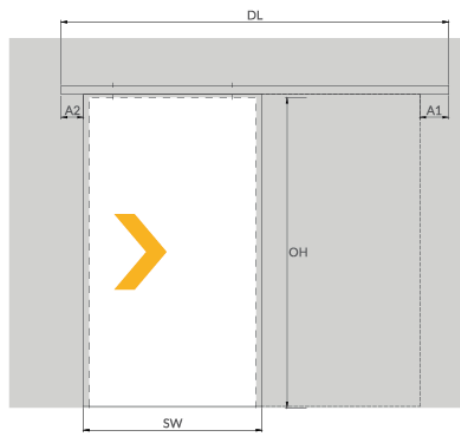
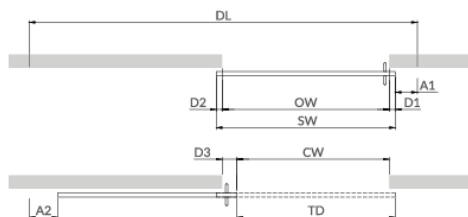
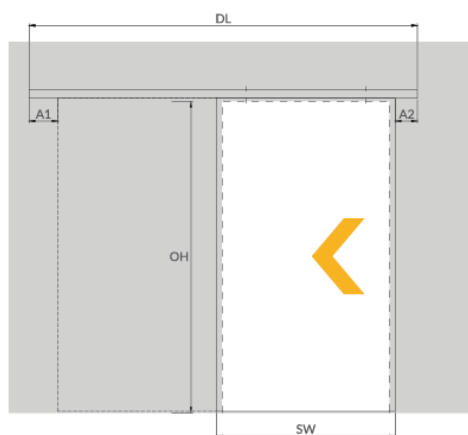
Can be used for Keeps the door blocked  
Activation only, Safety when the leaf is closed  
only, or a combination position and “Closed” or of  
both. Detects “ExitOnly” modes are  
presence of people selected. In event of power  
near the door. failure, the lock will release to allow  
manual opening.

## Comparative table **EvoDrive+**

	Manual door guide	Traditional automatic door operator	<b>EvoDrive+</b>
Automatic opening and closing	✗	✓	✓
Proximity detection activation	✗	✓	✓
Sensor or remote control activation	✗	✓	✓
Push & Go	✗	✗	✓

Compact size	✓	✗	✓
Quiet movement	✓	✗	✓
Easy installation	✓	✗	✓
Reduced maintenance	✓	✗	✓

## Door configurations with EvoDrive+



Lateral opening to the left

Lateral opening to the right

Central opening with two doors

\*With symmetrical or asymmetrical  
measures

## Recommended applications EvoDrive+

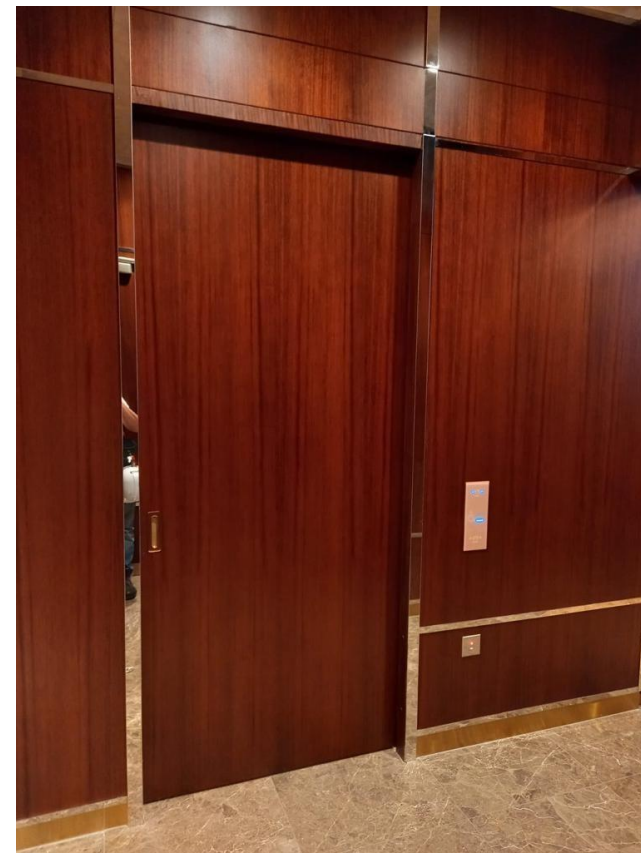
- 1) **Hotels and Restaurants:** Access doors to the kitchen/work areas, access to bathrooms, private and adapted rooms, access doors to the main hall, access to VIP and restricted areas, access to garage access, etc.





## Recommended applications **EvoDrive+**

2) **Airports and Shopping centers:** Access doors, access to toilets, access doors to the main hall, access to VIP and restricted areas, access to smoking areas, etc.



## Recommended applications **EvoDrive+**

2) **Offices and working environments:** Access doors to common working areas, division of offices and departments, access doors, separation of meeting rooms, etc.



## Recommended applications **EvoDrive+**

3) **Residential and health care facilities:** Access doors in rooms adapted for persons with reduced mobility.



## Recommended applications **EvoDrive+**

4) **Schools and education centres:** Access doors inside buildings such as schools, high schools, civic and cultural centres, etc.



## Recommended applications **EvoDrive+**

5) **Private homes:** Access doors to the kitchen, bedrooms, separation of shared spaces, etc.



## References

44 Habitaciones Hotel ABBA, San Sebastián (2020) Interior Service Iberia

Oficinas LEGO, Madrid (2019) CBRE

Auditorio Fundación ONCE (2019) CBRE

Clínica Dermatológica – Oficinas COCA-COLA (2016) – Laboratorios NORMON (2019) – BIOMERAUX (2017-2019) Tetris  
Oficinas NATURGY (2018)  
Hotel ILUNION ATRIUM (2017) – Hotel Ilunion Bilbao (2020) IHP-Madrid  
Hotel HYATT Gran Vía (2018) Saint Gobain  
Hotel SILKEN PUERTA AMÉRICA (2018) Galöw  
Hotel DON SANCHO (2018) Desvan construcciones y reformas  
Hotel EUROPE Mallorca 2016 – Hotel VILLA CORTÉS (Europe hotel), Tenerife (2018)  
Restaurante EL GOLOSO, Madrid (2016)  
Restaurante LISANDER TRATTORIA (2016) – Restaurante ALCHEMIST, Copenhagen  
Puertas automáticas portales viviendas LAFINCA REAL ESTATE (Construcciones Sanmartín – Tilmon SA)  
Geriátrico GRENOBLE, Francia (204 habitaciones) (2014)  
Aeropuerto de DUBAI (34 puertas acceso baños) (2016), 2ª Fase de la reforma 2020  
Aeropuerto Athens International  
Clínica TEKNON (Grupo Quirón), Barcelona (2018) – Hospital ST.JOAN DE DÉU, Barcelona (2017) – Hospital SANT PAU  
Casino MARINA BAY, Singapore (2020-2021)



# iThankyou!

¿How can we help?

[www.motion4.eu](http://www.motion4.eu)

[arvind.nanduri@motion4.eu](mailto:arvind.nanduri@motion4.eu)

[MOBILE: +91 8886595901](tel:+918886595901)