

# Automatic accesses for Public Transport infrastructures

**manusa**   
intelligent access

## Technology and manufacturing 100% Manusa

Manusa develops and manufactures all its products. From our headquarters in Sant Cugat del Vallès (Barcelona, Spain) and our facilities in Valls (Tarragona, Spain), we give response to the needs of all our customers.

As well as in Spain, we have our own delegations in Portugal, Brazil and China. In the rest of the world we work with exclusive distributors, who have received training courses in our facilities to guarantee our always top quality customer attention and service.



**Experience  
Quality  
Service**

### **More than 50 years of experience**

Right from the start we have been committed to **innovation** and technology to provide our customers the **best product**, adapted to the market and their needs.

### **We leave nothing to chance**

We only use **top quality materials** to manufacture our doors and access systems, and they undergo the **strictest quality controls**. During the production process we test each one with a continuous opening and closing operation during 24h to guarantee that they work perfectly.

### **Exclusive solutions for each customer**

Our team of professional experts designs, manufactures, installs and maintains more than 20,000 doors a year. This **leading infrastructure** allows us to guarantee an **immediate response** and to offer the best service. The satisfaction of our customers is our best reward, and is what encourages us to keep improving every day.

# Airport

Airports are particularly sensitive places as regards heavy pedestrian traffic and security. Manusa automatic doors combine operating and security requirements for all the areas in the airport complex.



## PSD in People Movers

In airports it is extremely advisable to install platform screen doors in people movers or small train stations, that are in charge of connecting different terminals in the same airport or other public transport systems.

## AUTOMATIC DOORS

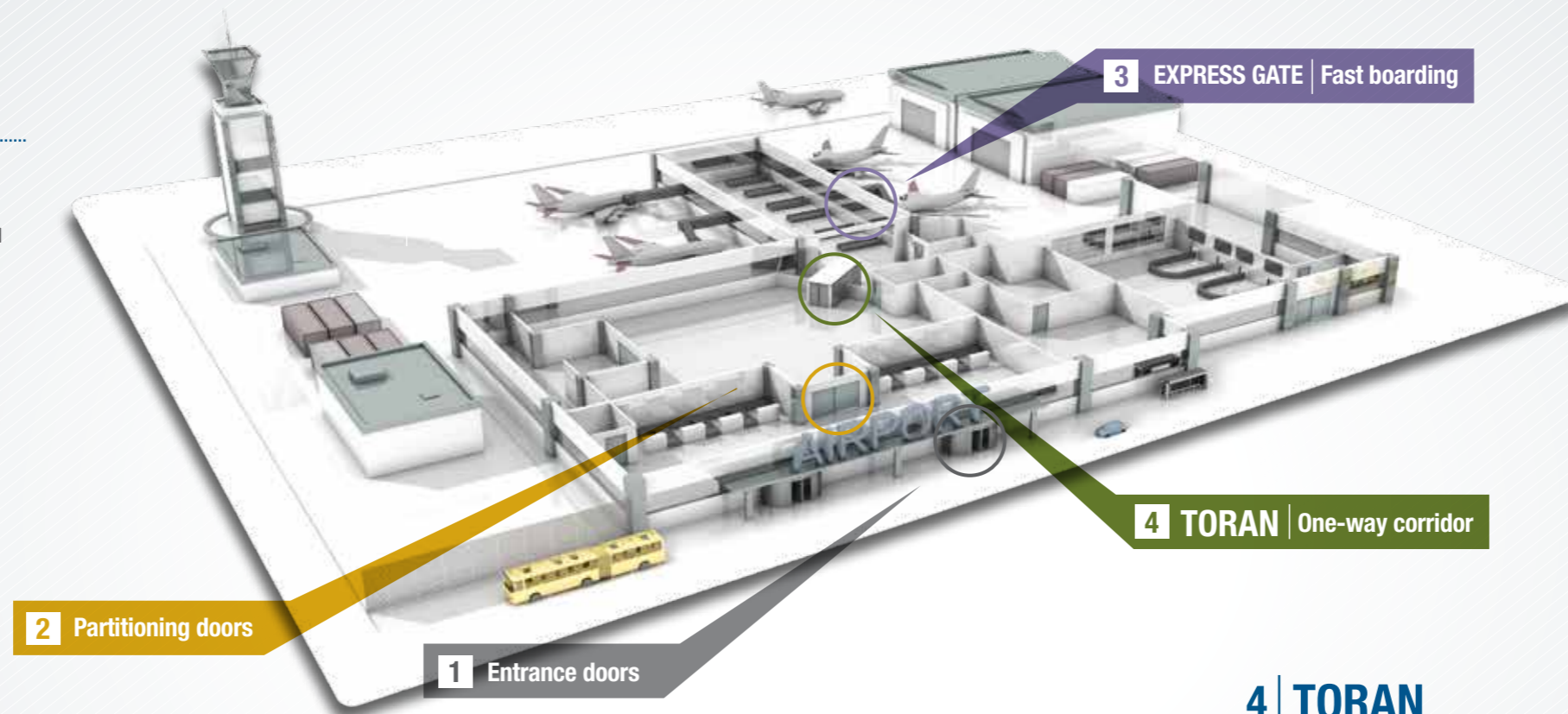
For entrances or interior partitionings

### 1 | Entrance doors

Automatic bi-parting, single, telescopic, curved sliding doors or revolving doors for entrances and exits with high pedestrian traffic.

### 2 | Partitioning doors

Wide range of automatic doors adaptable to any need: standard sliding and swing doors, doors with panic break-out system that allow folding back the leaves, leaving the biggest clearance in the event of an emergency and fire-resistant doors to partition and isolate areas with the highest risk of fires.



## 3 | EXPRESS GATE

Fast boarding gate

Express Gates allow controlling boarding cards and access automation to the finger. They are made up of an elegant unit that serves as a support for the glass leaves, safety photocells, access control readers and Manusa's exclusive system for opening doors with complete safety. The unit is 900 mm long, the shortest on the market.

The ledge finishes, glass panel height or side panels of the Express Gates can be customised in many ways. They are available in two clearance widths, 600 and 900 mm.

\*Express Gates can also be used to automate customs control access.

## 4 | TORAN

One-way corridor

With a stylish and modern self-supporting design, Toran is especially designed to meet security needs in transport terminals.

Made with balance doors, that adapt Manusa INVERTER technology, to increase the motor performance and equip

them with a less aggressive operation for the users (unlike swing doors).

They allow total connectivity with other existing management and control systems, and are equipped with the latest communications technology.



1 ENTRANCE



2 PARTITIONING



4 TORAN

# Train station

Manusa offers complete solutions to automate all accesses in passenger railway stations.



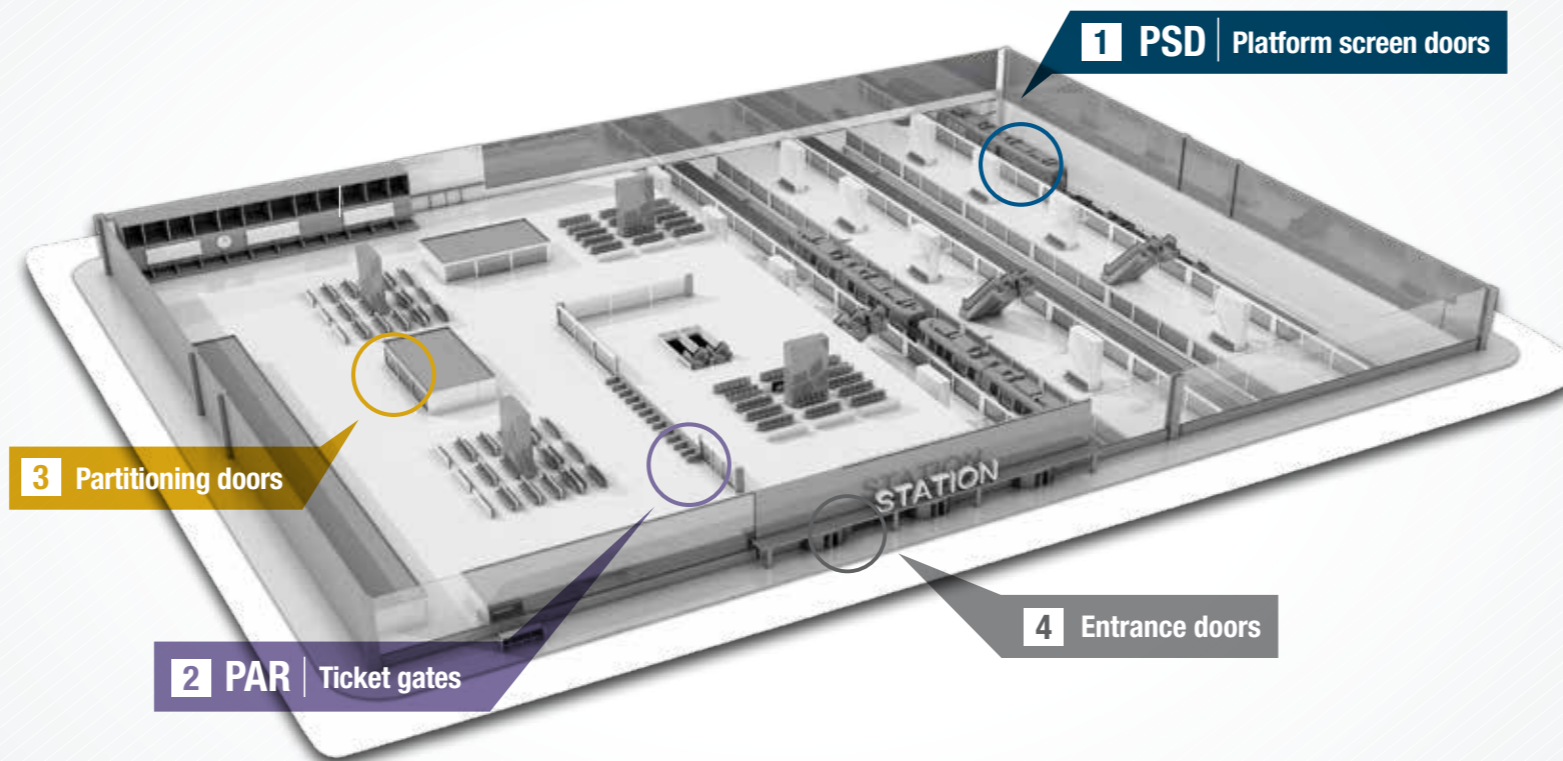
1 PSD

## INVERTER Technology

All Manusa products for railway transport infrastructures are based on Inverter technology, that allows separate control of the force and speed of the leaves, providing users with greater safety. They also do not have to be serviced very often, as the traction system does not need a gear and is based on asynchronous motors (without brushes).

## 2 | PAR Tariff barriers

Designed for passenger access control with maximum safety and speed in all types of public transport facilities.



## 1 | PSD Platform screen doors

Designed to meet the increased demand of railway transport in cities, Manusa's platform screen doors are perfectly adaptable to all types of both newly built and remodelled stations given their modular configuration.



2 PAR



2 PAR



3 PARTITIONING



4 ENTRANCE

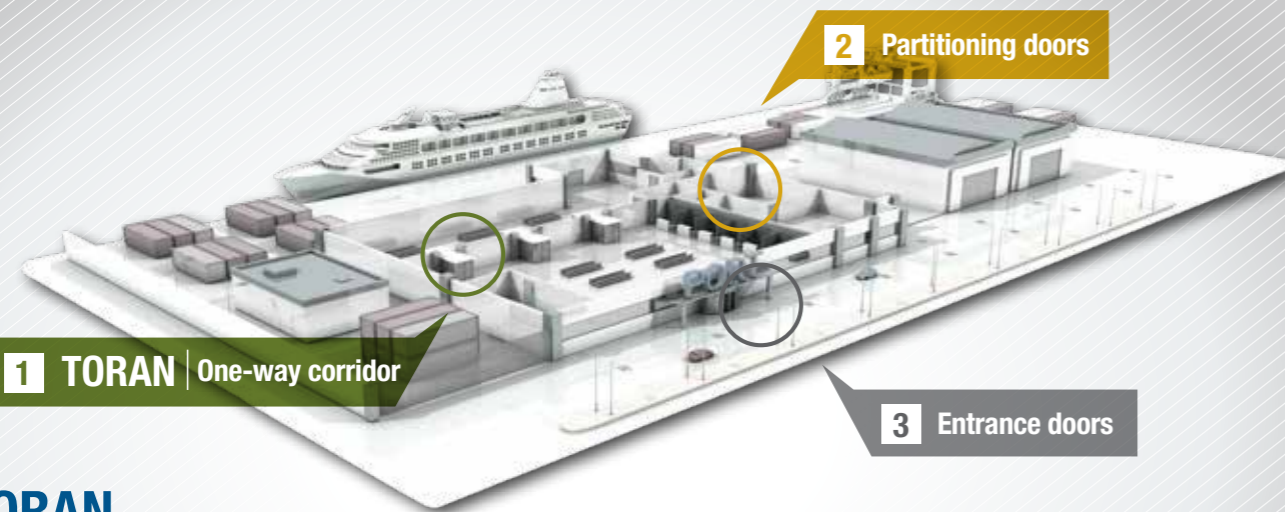
# Port

Passenger ship terminals require specific access automation solutions. Automatic entrances, partitioning doors and one-way corridors guarantee both the safety of the passengers and that of the ship terminal itself.



# Bus Station

In bus stations, above all in those with heavy traffic, it is essential to guarantee the safety of the passengers on the dock screen doors. A station that makes passenger traffic easier is also more human and pleasant for the user.



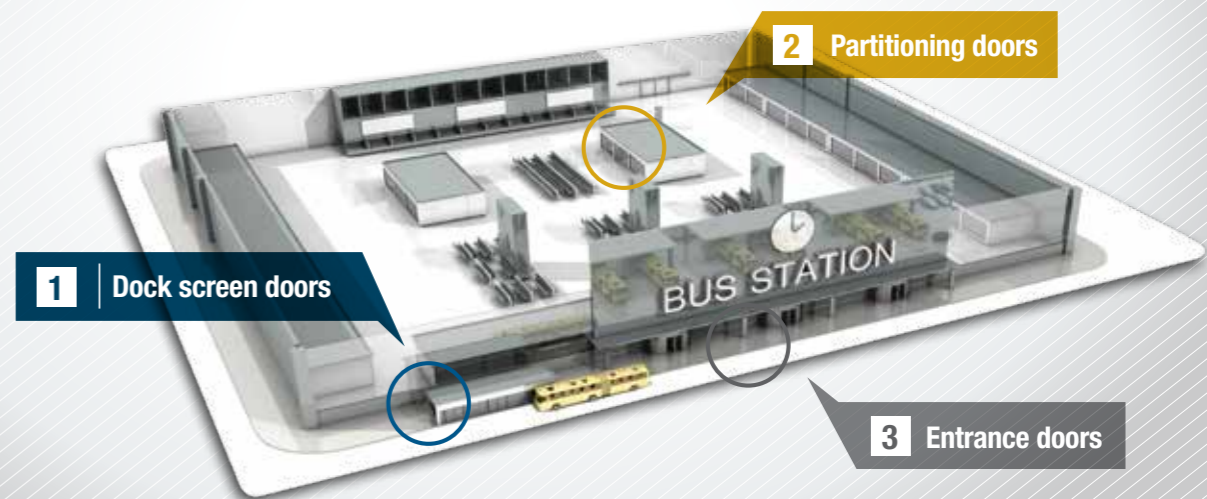
## TORAN One-way corridor

With a stylish and modern self-supporting design, Toran is especially designed to meet security needs in transport terminals. Made with balance doors, that adapt Manusa INVERTER technology, to increase the motor performance and equip them with a less aggressive operation for the users (unlike swing doors). They allow total connectivity with other existing management and control systems, and are equipped with the latest communications technology.

## Dock screen doors

To guarantee the safety of the passengers and them getting onto and off the bus in an orderly fashion, Manusa dock screen doors guarantee separating the dock screen gates and the vehicle parking area, preventing passengers from entering non-authorized areas.

With a modular configuration, they can be adapted to all types of stations. Necessary in BRT (Bus Rapid Transit) systems to guarantee user safety. They are complemented with bus - dock screen door communication systems to increase the system's performance.



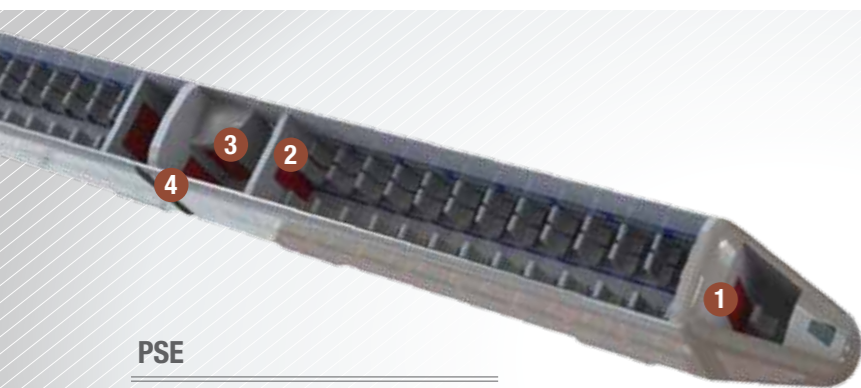
# PSE Onboard Doors

**Railway vehicles require specific access solutions. Manusa offers railway rolling stock manufacturers different OEM solutions for interior partitioning doors, for both long distance and urban transport trains.**

## PSE | Onboard Partitioning Doors

Automatic interior boarding doors for trains, adaptable and customisable to any interior design, offering the added value of a fast end assembly in the train. They cover the different necessary types in the interior design of the vehicle itself and are especially designed to achieve a high level of safety and reliability, guaranteeing total compliance of strict railway industry specifications and regulations.

They are sliding doors, with either one or two leaves, applicable to car intercommunication doors, platform access and driver cab access doors, toilet doors, etc.



### PSE

1. Access door to driver cab.
2. Access door to platform.
3. Toilet door.
4. Intercommunication door between cars.

Several versions available:

#### PSE-Visio

Equipped with reliable induction motors, available in straight and curved configurations.

#### PSE-EI

Fire and smoke-proof: available in level E30, EW30, E60, EI30 and EI60, with leaves designed in aluminium and glass.

#### PSE-Linea

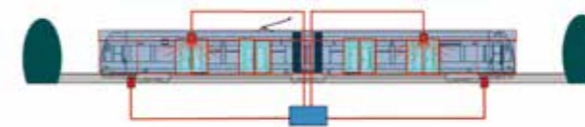
Innovative drive with a linear motor, with maximum performance in the smallest possible space.



# Accessories

## 1 ASC platform door autonomous control system

Safe system that allows controlling the PSD and PSG platform doors separately from the signalling thanks to its train positioning detection and the status of its doors.



## 2 Information screens

Integrated in the PSD system, they allow providing the transport service users with multimedia information.



## 3 LED Display

Integrated in the cover of the PSD, it allows transmitting all sorts of messages to the passengers.



## 4 Clearance lighting

Integrated in the cover of the PSD, it lights up the access and allows establishing a colour code according to the status of the access area.



## 5 Counting system

Counting and crowd control system in accesses to vehicles and stations using high precision artificial vision sensors.



## 6 Openlinx

Device that allows integrating the PAR and Express Gate access barrier network in any external control system, communications bus or SCADA.



## 7 Manulink 2.0

Exclusive control software for the centralised control of a PAR and Express Gate system.



## 8 Activation and safety sensors

Sensors for activation and protection of PSE door closing using active infrared technology.



# manusa

intelligent access



## HEAD OFFICE

Avda. Via Augusta, 85-87, 6th floor

08174 Sant Cugat del Vallès, Barcelona (Spain)

Tel.: +34 935 915 700 · [manusa@manusa.com](mailto:manusa@manusa.com)

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

## BRANCHES

Spain, Portugal, Brazil, China

## INTERNATIONAL DISTRIBUTORS

### AFRICA

Algeria, Egypt, Morocco, Nigeria, Republic of Angola, Republic of Mozambique, South Africa, Tunisia, United Republic of Tanzania

### AMERICA

Argentina, Colombia, Costa Rica, Cuba, Chile, Ecuador, Mexico, Panama, Paraguay, Peru, Uruguay, Venezuela

### ASIA/OCEANIA

Australia, China, Hong-Kong, India, Indonesia, Malaysia, Myanmar, Pakistan, South Korea, Taiwan, Thailand, The Philippines, Vietnam

### EUROPE

Andorra, Belgium, Bosnia-Herzegovina, Cyprus, Czech Republic, Finland, France, Germany, Greece, Holland, Hungary, Iceland, Ireland, Italy, Latvia, Luxembourg, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Switzerland, Turkey, Ukraine, United Kingdom,

### MIDDLE EAST

Bahrain, Iran, Jordan, Kuwait, Lebanon, Qatar, Saudi Arabia, Syria, United Arab Emirates

D90013-EN

