



**AUTOMATIC ENTRANCE SPECIALISTS**

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**Civic, Rex, Bis e GTS**  
Automatic systems  
for sliding doors



**Automatic pedestrian doors**

CE

# Automatic systems for sliding doors

## Essential features

All the automatic systems for sliding doors manufactured by DITEC feature:

- a 24Vdc motor;
- an electronic board endowed with microprocessor-controlled logic for the management of all automatic functions;
- an electronic anticrush device with encoder;
- a photocell complete with amplifier, projector, receiver (except in the Civic model) capable of processing the signals of an additional projector/receiver unit;
- a sturdy box in extruded aluminium of exclusive and refined design;
- transmission by toothed belt in synthetic material;
- sliding on reinforced nylon wheels;
- the possibility of being fitted with all common accessories for full control, security and safety such as radar, photocells, floor mats, pushbuttons, electronic access control and function programmers, operating mode selectors, etc.;
- couplings for framed and glass doors;
- maximum flexibility and interchangeability thanks to component standardization so as to permit expeditions and cost-saving servicing.



## The range

DITEC S.p.A. offers its customers a complete range of automatic systems for sliding pedestrian doors so as to permit choice of the right product at the right price every time, depending on performance requirements. Whether for heavy traffic requiring high door opening speeds

(1.6 m/s), for low traffic such as in the home and in the office or for the rapid and safe movement of heavy reinforced doors in banks, security areas and the like, DITEC automatic systems always provide the right answer to every pedestrian traffic flow problem.

## Civic

Absolutely unique on the market thanks to an avant-garde design philosophy, **Civic** is capable of making any internal sliding doors automatic.

## Rex

An extremely simple automatic system to assemble and start up. The great technological and design innovations and great versatility, despite its excellent price-performance ratio, make **Rex** a very widespread automatic system.

## BIS O - V

These are completely innovative automatic systems because they represent the point of integration between entry systems and dedicated information technology. The extremely compact dimensions of the casing, horizontal or vertical, enable all architectural requirements to be satisfied.

A high performance and avant-garde technology place the **BIS** automatic systems at the highest levels of the market, making them the automatic systems preferred by those who want "the best".

## BIS T

Like the **BIS O** and **BIS V** models, **BIS T** is a completely innovative automatic system with a high performance. It has been designed for the automation of doors with telescopic sliding leaves. This system of moving the door leaves enables much wider passage spaces to be obtained, with the same sized entrance dimensions.

## GTS-P

This automatic system has been designed to move sliding doors weighing up to 450 kg. This very technologically advanced system is extremely reliable and sturdy.



## Door opening systems to satisfy every requirement.



# Civic

Still today, when people think of an automatic pedestrian door, the thought immediately goes to the external doors of supermarkets, airports, hotels or other such public establishments. Rarely is an automatic pedestrian door seen as something to be mounted at home or inside a building. And yet there are cases where an automatic door in such places is

indispensable, for example in the case of elderly people or of people with deambulating difficulties at home, in nurseries, hospitals and so on.

DITEC is the only company which has specifically faced this problem and Civic is the answer it has given to it. **Civic** brings pedestrian door automation for the first time to a wide

public, opening up a potential market where the interest for such a commodity has been brewing now for some time. **Civic** has been especially created to cater for such requirements, offering excellent performance at reasonable costs as it is the result of component optimization and rationalisation of modern design systems.

In fact, **Civic** features a compact but powerful geared motor with a silver anodized aluminium sliding track and the trolleys of the **Rex** series, making for a system of excellent value for money which is easy to assemble and commission. Its ideal field of application is for the automation of sliding internal doors.

**Civic** moves the door very gently so that the risk of damage or injury in the domestic environment is fully eliminated.

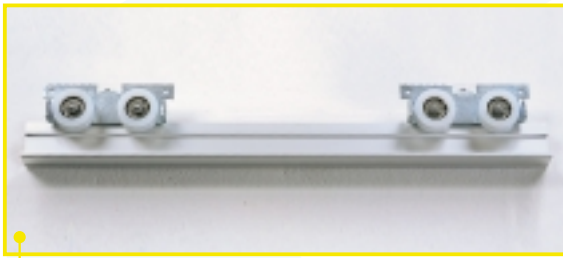
Supplied either pre-assembled or in assembly kits for professional installers.

Basic model includes:

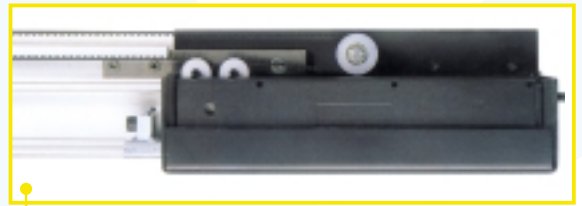
- a pushbutton control panel
- an automatic closing speed adjusting device.

**Civic** can also be set up with a number of control and safety accessories available in the range.





Slide trolleys  
(common to the REX series)



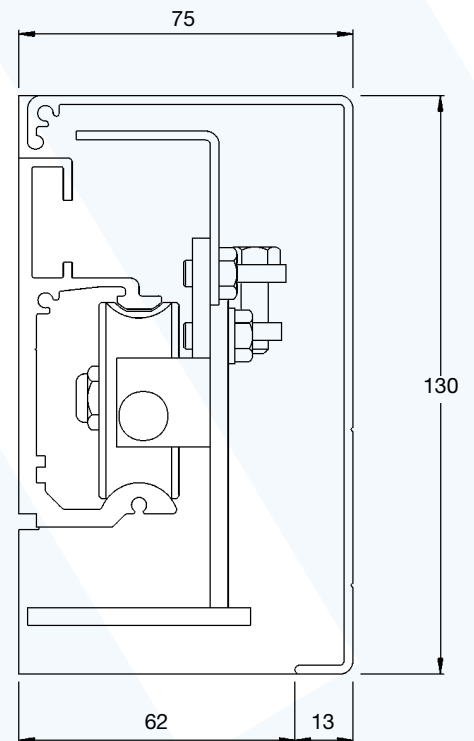
Detail of the drive unit



**CIVIC model**



**Dimensioned vertical section**



**Civic Technical features:**

Operation	Light duty
Maximum overall capacity	40 Kgs (1 wing), 60 Kgs (2 wings)
Sliding track and trolleys	same as in the REX model
Speed (1 wing)	0.4 m/s during opening, 0.2 m/s during closing
Power supply	230Vac with 1.5mm cable
Motor	24Vdc with encoder, reversible, without lock
Force	30N
Electronic control board	Built-in, with microprocessor (Type 63)
Behaviour upon obstacle detection	Reversal of movement during closing, and stop during opening
Safety devices	Possibility of connecting photocells with opening function only
Limit switch	Automatic upon obstacle detection
Outputs	24V - max. 0.15A
Controls	Low-voltage, with telephone-type plug-in connectors
Opening	Pushbutton or radar, photocells, etc.
Closing	Pushbutton or timed

# Rex

Incorporating an advanced design philosophy, this automation system features truly unique technological solutions. The drive unit and electronic control board are built into one so as to reduce installation time to a minimum. With a lot of its components in common with other automatic systems, **Rex** is also easy to service and maintain, while costs are reduced to a minimum. An extremely flexible system, **Rex** can be set up in a variety of configurations depending on installation requirements. In fact, **Rex** can be sup-

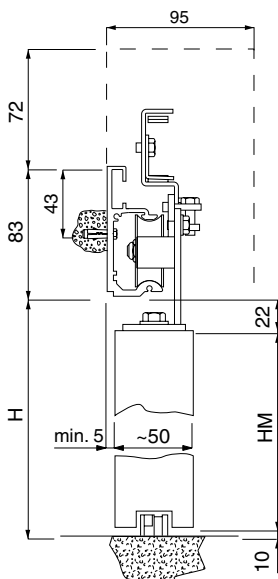
plied either with a traditional aluminium box or, in case of lack of space, with a simple guide, thus satisfying all installation and price requirements. Traditional couplings for framed and glass doors as well as a very economic and simplified door attachment system are also available if required. A device with built-in batteries as a standard ensures that the automatic system will continue working even in case of power failure. All models in the **Rex** series come with a type CEL photocell (amplifier + projector + receiver) as a standard

and are designed to permit mounting of an additional projector + receiver unit.

**Rex** can be fitted with a wide range of security and control accessories as well as with a number of safety devices including:

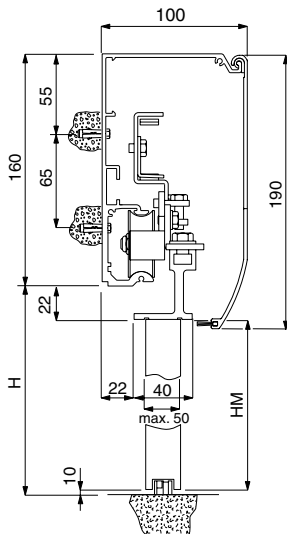
- door lock system
- additional manual lock release mechanism
- breakaway antipanic system only for the mobile wings (ASMI/ASME)
- total breakaway antipanic system for both mobile and fixed wings (AST).

## Dimensioned vertical sections

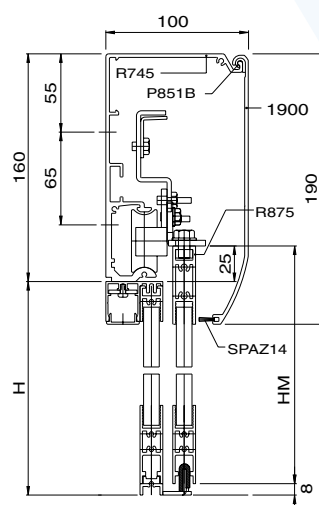


Example of installation with runway only

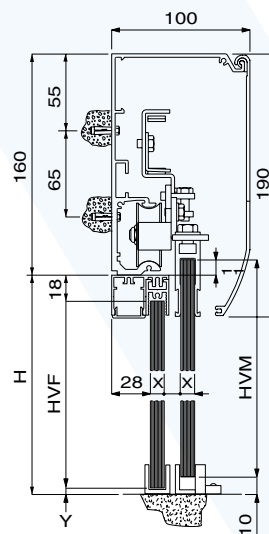
## Examples of installation with standard casing profile



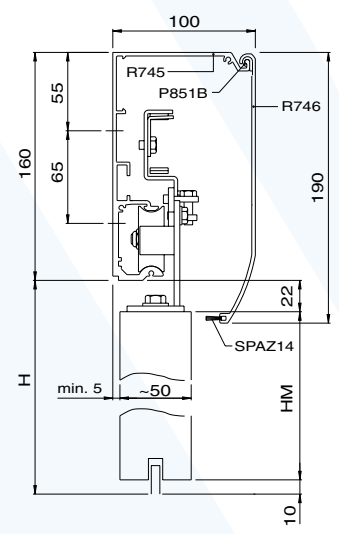
Wing coupling  
Standard framed door



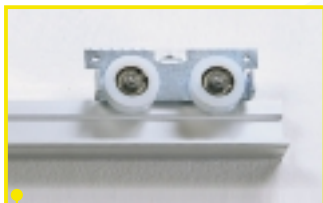
Simplified version



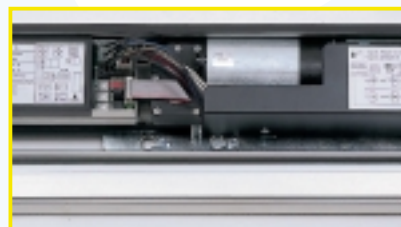
Standard glass  
door coupling



Glass door coupling with  
Light series profiles



Slide trolleys

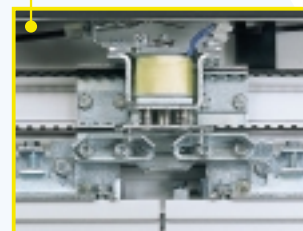


Electronic control board with microprocessor  
Control card with built-in photocell amplifier



**REX model**

Wing locking device



## REX Technical features

Operation	Continuous duty
Capacity	100 Kgs (1 wing) - 140 Kgs (2 wings)
Slide	On reinforced nylon wheels
Drive	Toothed belt in synthetic electroconducting material
Casing profile	Extruded aluminium
Casing profile dimensions (base x height)	100x160 mm
Minimum length	6,600 mm
Maximum length	0.5 m/s (1 wing) - 1.0 m/s (2 wings)
Maximum opening speed	Set at about 70% of full speed for opening
Closing speed	0.1 m/s
Approach speed	3,200 mm
Standard maximum clear opening	230Vac/50Hz (120Vac/60Hz on request)
Power supply	24Vdc with encoder
Motor	Built-in 24Vdc battery
Emergency operation	1A
Maximum absorbed current 230V	Microprocessor logic
Electronic control board	Control card with built-in photocell amplifier
Power supply for accessories	24Vdc, 0.5A
Anticrush device	Electronic with encoder (standard)
Controls	Manual/Automatic. One/two-ways. Door open/closed. Total/partial opening
Settings	Manual and automatic with trimmer and dip switch
Manually adjustable functions	Drive force. Dwell time during opening (0-30). Partial opening.
Self-adjusting functions	Maximum opening/closing limits.

# BIS

Very often when we think of the future it seems far-off and often unreachable. Then one day we realize that, through the achievement of important innovative goals, the future has arrived. This is the case of the BIS automatic systems that have inaugurated an important technological era, in which software, computers and – in the future – the Internet, have become the travelling companions of the users and installers of automatic pedestrian doors. Up until yesterday the automatic door was an entrance system that stood alone and used standard operating parameters; today the automatic door takes advantage of the opportunities offered by com-

puterized control in order to operate flexibly using operating functions that are practically “made-to-measure”, both in the case of individual use, such as “home automation” and in use for “building automation”, i.e. as part of a network. The technological evolution of software is today capable of coordinating and controlling any kind of entrance system, from the simplest to the most sophisticated, with the maximum degree of operating flexibility. But the future has only just begun because, in addition to representing a concentrate of extremely high-level technology in terms of quality and performance, the BIS system is the most exclusive prologue

of a system that will expand into new services of remote control and remote service that will be very highly valued by both the most demanding user and the most skilled professional. The perfect integration of the three models in terms of components and the rationalization of the entire system at the design level, have been translated into a product with truly revolutionary characteristics that guarantee the installer ever greater reliability, simplicity of control and practical assembly, thus enabling the new family of BIS automatic systems to be placed in a high performance bracket, but with very competitive prices.

**BIS** is available in three versions:

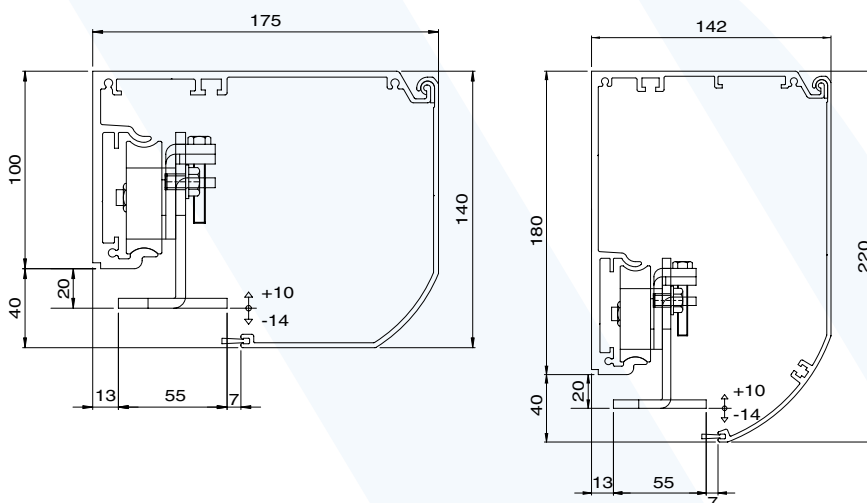
- **BIS O**, a horizontal model with a transom box height of just 100 mm.
- **BIS V**, a vertical model with a standard transom box height of 180 mm.
- **BIS T**, a vertical model (transom box height: 180 mm) for telescopic doors with 1+1 or 2+2 sliding leaves.

The technical characteristics of the new automatic system are extremely interesting:

- maximum **opening speed of up to 1.6 m/s** (for the version with two mobile leaves).
- load of up to **200 kg** for very heavy service (and up to 250 kg with the use of special reinforced wheel/carriage units)
- possibility of mounting special **fire-proof carriages with special metal wheels**
- integrated control/traction system with **direct current geared motor with encoder**. Control panel with the latest generation microprocessor logic, featuring the **possibility of distance control and adjustment by means of infrared remote control or via computer**.
- steel sliding carriages with **large regulation range for the door leaves** capable of compensating for any sizing error of the fixture.



**Dimensioned vertical section**



## BIS Technical features

Models	BIS O		BIS V	
Casing profile (base x height)	175x140 mm		142x220 mm	
Maximum capacity	<b>1 wing:</b> 120 kg	<b>2 wings:</b> 200 kg	<b>1 wing:</b> 120 kg	<b>2 wings:</b> 200 kg
Maximum capacity with reinforced carriages	160 kg	250 kg	160 kg	250 kg
Maximum standard clear opening	5000 mm		5000 mm	

# BIS-O and BIS-V models



**BIS-O model**



**BIS-V model**

## Principal product characteristics:

- CE European certification
- Operating: very intensive use
- Opening/closure speed: 0.8 m/s (1 leaf), 1.6 m/s (2 leaves)
- Possibility of installing carriages with reinforced wheels that enable the maximum load of the automatic system to be increased up to 160 kg (1 leaf) or 250 Kg (2 leaves).
- Possibility of installing carriages with fireproof brass wheels, which enable the emergency sliding of the leaf in the case of fire and the consequent overheating or melting of the normal wheels.



The brain of the system is the QE 94 electronic control panel and the associated DIR card.  
In the case of BIS O, BIS V and BIS T the system can be controlled according to three levels of sophistication:

### Basic version,

for single doors with the following parameters of standard use:

- thrust and sensibility to collision with objects adjustable by means of trimmer
- automatic closing time adjustable by means of trimmer
- opening speed: 0.7 m/s
- closing speed: 0.5 m/s
- setting of operating direction by means of dip-switch
- partial opening: 50%
- type of lock: normal
- battery mode: continuity
- last manoeuvre with flat battery: closure

### Intermediate version,

which offers the opportunity to change the standard parameters of use by using the accessories listed below:

**a)** TEL R infrared receiver + TEL simple remote control; this solution enables the following parameters to be changed:

- thrust and sensibility to collision with objects adjustable from 0 - 100% (with optional password protection)
  - closing time adjustable from 0 - 30 s
  - opening speed: adjustable from 0.3 m - 0.8 m/s
  - closure speed: adjustable from 0.3 m - 0.8 m/s
  - force: adjustable from 60% - 100%
  - partial opening: adjustable from 5 - 90%
  - battery mode: choice between continuity/anti-panic
  - last manoeuvre with flat battery: choice between opening/closure or:
  - b)** a TEL 2 double remote control that, by means of the supplementary TEL R infrared receiver, or the PAS M24 radar, enables the modification of the aforementioned parameters, using DIR1 which is installed on the automatic system, and also the following adjustments to be made to the PAS M24 radar:
    - detection area and mode
    - duration of output contact
    - configuration of the relay and dynamic sensibility of the movement.
- TEL 2 also enables the application of a security code in order to avoid the unauthorized modification of the configured settings.

### Superior version,

with which it is possible to use the most advanced functions of the system, by means of a special interface and use of the DMCS software (for installation on a normal PC).

In addition to the parameters described above, this equipment makes it possible to control advanced functions such as:

- total control of the adjustments (including those of the trimmer)
- selection of the operating mode (also in the presence of COM2)\*
- selection of the emergency exit mode (advanced battery control)\*
- in-the-field operating self-diagnosis\*
- synchronization functions between doors, such as the parallel of the automatic systems or their interlock, thus using less connections\*
- network operation
- testing of the control panel and the encoder, in order to check their optimal functioning \*
- management and control of a certain number of installations and their relative accessories via PC with a supervisory function
- detection and provision of a whole series of technical data: n° manoeuvres, n° resets, n° alarms, etc.

\* currently being implemented

# BIS-T



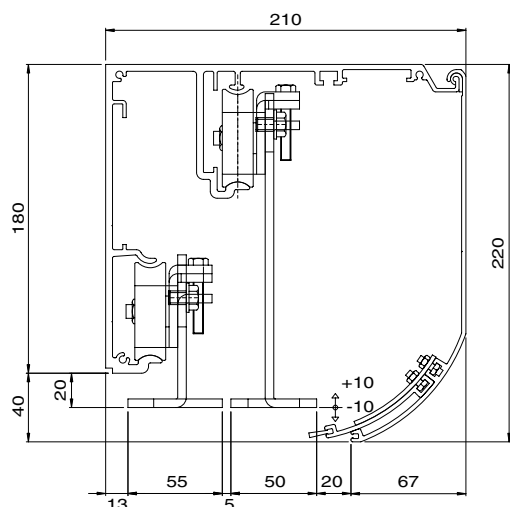
## ► BIS T model for telescopic sliding doors

### Principal product characteristics

- CE European certification
- Operation: very intensive use
- Closure/opening speed: 0.8 m/s (1 leaf), 1.6 m/s (2 leaves)
- Also for the BIS T model, the brain of the system is the Q.E.94 electronic control panel and the associated DIR card. As described in detail on the previous page, these devices permit control according to three levels of sophistication: basic, intermediate and superior. Each level is capable of responding in an optimized manner to specific requirements of use, but above all represents the most advanced technological answer towards the modern remote control of entrance systems.



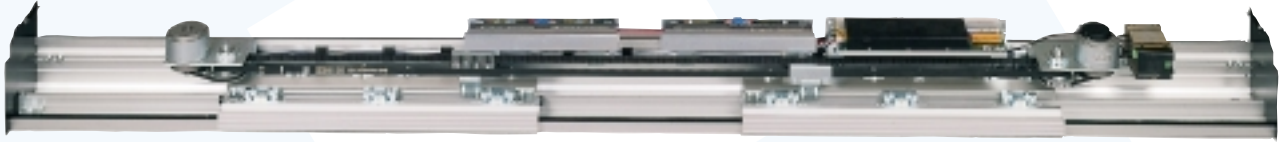
### Dimensioned vertical section



### Bis T technical features

Model	BIS T	
Casing profile (base x height)	210x220 mm	
Maximum capacity	<b>1+1 wings:</b>	<b>2+2 wings:</b>
	180 kg	260 kg
Maximum standard clear opening	5000 mm	

# GTS-P

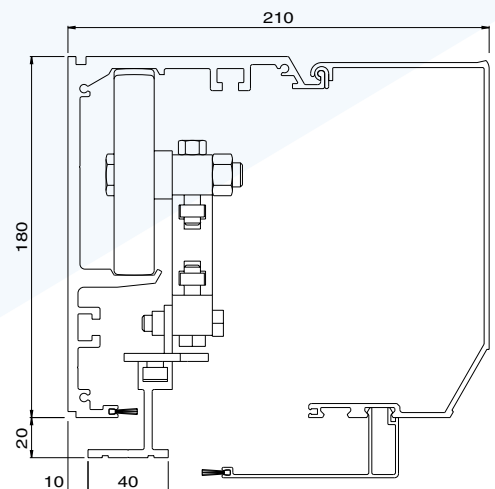


▶ **GTS-P model for heavy weight doors**



It is a model particularly suited to meet numerically reduced but high performances installation requirements. In fact, it can move heavy weight doors up to 450 Kg at high speed, a feat that can only be accomplished by a system incorporating advanced technology, of study construction and maximum dependability. GTS-P possesses these features at the best.

**Dimensioned vertical section**



## GTS-P technical features

Model	GTS-P	
Casing profile (base x height)	210x180 mm	
Minimum length	<b>1 wing:</b> 1800 mm	<b>2 wings:</b> 2600 mm
Maximum capacity:	light duty	450 kg
	heavy duty	350 kg
Maximum standard clear opening	3200 mm	

# PAM 35 and PAM 16 Series

## Systems of aluminium profiles and seals for sliding doors

### PAM 35

The Pam 35 series is a system of aluminium profiles and seals especially designed for use with automatic doors with straight sliding leaves. They feature a range of distinctive characteristics that put them at the top levels of the market. DITEC has taken advantage of its experience obtained with the previous P.A. 92 section bars in order to maintain the basic concepts of the simplicity of cutting, assembly and construction of the fixture.

#### Elegance and strength.

These are two concepts that are difficult to reconcile, but fundamental in order to satisfy the most complex requests. Changes that have visibly improved the elegance of the system include: the insertion of the photo-cells in the uprights of the fixed leaf and the elimination of the vertical sealing brushes that have enabled the section bars to be smooth with no grooves.

#### Simplicity of working.

Perpendicular cuts and the absence of any particular working make these section bars easy to use and assemble.

All of this translates into a great saving for our Customer.

In addition the Pam 35 series has been designed to be compatible with all the current and future automatic systems.

#### Greater reliability of the "integrated automatic system".

The use of Pam 35 profiles enables fixed and mobile door leaves to be obtained that are perfectly coupled with the automatic system.

The resulting entity is an "integrated automatic system" born as a single product and not out of the joining of two components (automatic system and fixture).

The greater reliability of the integrated door over time is obvious!

#### Thermal sealing.

This is a fundamental characteristic. Using the complete range of profiles and seals for both the door leaves and the automatic system, allows effective thermal sealing to be achieved in every possible point of the passage of air (upper, lower, lateral).

#### Easiness of installation.

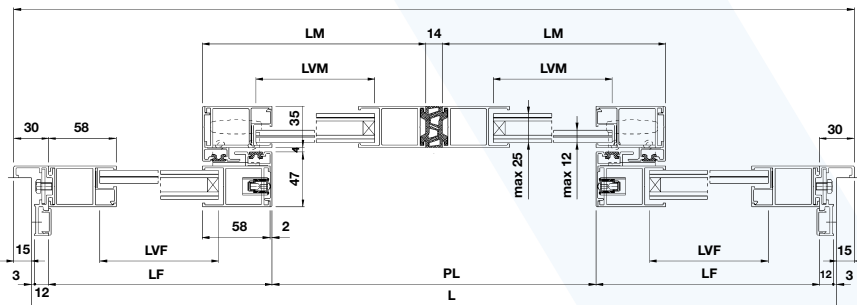
Installation is very simple and does not require any on-the-site working.

#### Accident prevention.

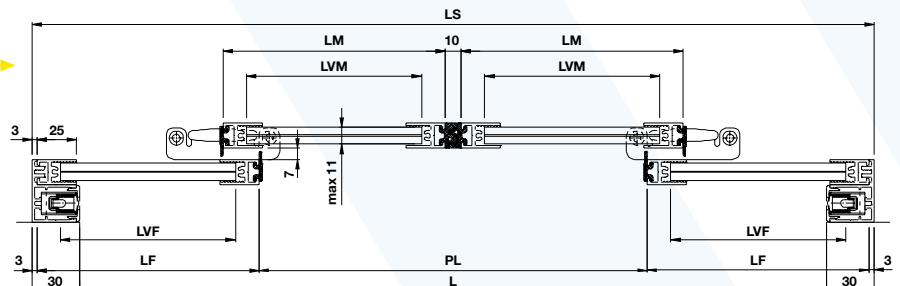
The forms, dimensions and types of installation have been studied and created in compliance with the most complex relevant regulations.

#### Complete technical documentation.

For this series DITEC has created complete and exhaustive technical documentation with cutting manuals and computer support in order to aid the work of the installer.



### PAM 16



### PAM 16

The Pam 16 series is a system of aluminium profiles that are even smaller and lighter, despite maintaining the qualities of strength and reliability typical of the Pam 35 series.

A special central seal guarantees air sealing with double slot-in between the leaves.

#### Beauty and visibility.

This is a very valid product from an aesthetic point of view, which allows a greater glazed area and greater visibility, in a coordinated and harmonious whole.

# Break-away anti-panic systems

DITEC offers three break-away anti-panic systems for sliding door leaves, named **ASMI**, **ASME** and **AST**.

Many advantages are achieved by the use of these devices:

- they are extremely safe as they disconnect the electrical current upon opening
- they always work as they are mechanically operated
- they always permit the maximum possible opening, enabling the rapid exit of people from the environment.

**ASMI** and **ASME**: break-away anti-panic systems for mobile door leaves. The ASMI and ASME anti-panic systems are made from aluminium section bars (a supporting one and a crash one) that can be anodized or painted the same colour as the fixture. In the case of panic, it is sufficient to push the leaves in the direction of escape, whatever position they may be in, in order to obtain the swing opening of the leaves themselves. The ASMI device is anti-panic system for internal mobile break-away leaves only, whilst the ASME device is for the external mobile leaves break-away only.

As the ASMI and ASME systems satisfy all the most severe relevant requirements, they have obtained TÜV type-approval and are thus also suitable for use as EMERGENCY EXITS within the limit expected by same approval.

**AST**: integral break-away anti-panic system.

The AST device is a system that enables the break-away opening of both sliding mobile and fixed side leaves. The same basic ASMI/ASME device is used for the break-away opening of the door leaves, whilst a break-away rotational system with two hinges (upper and lower hinge) and slot-in rabbet stop is used for the swing opening of the fixed side leaves. Air sealing is guaranteed around the perimeter of the fixture by a special "rabbet" seal, whilst a coupling system between the mobile and fixed leaves is also featured in order to prevent opening from outside. In the case of panic, it is sufficient to push the leaf/leaves in the direction of escape (whatever position they may be in) in order to cause the swing opening of the entire system (mobile and fixed leaves).

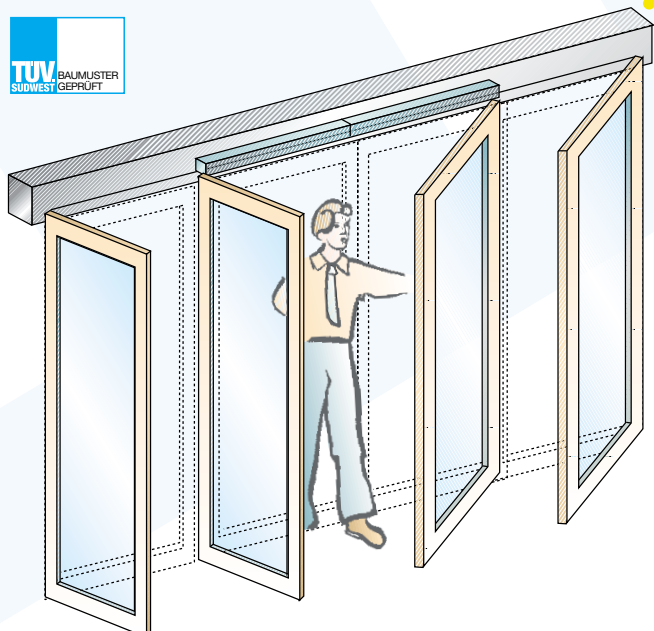
As the AST system satisfies all the most severe relevant requirements, it has attained TÜV type-approval and is thus also suitable for use as a EMERGENCY EXIT within the limit expected by same approval.

Automatic sliding door with AST device  
In emergency situation

Automatic sliding door  
during normal operation



**AST:**  
Integral break-away  
anti-panic system  
(mobile leaves + fixed leaves)



# Devices and accessories

**Miniaturized photocells:** amplifier, projector, receiver, 7m range

**Key, pull, emergency, and mechanical/pneumatic elbow pushbuttons**

Wing locking devices with manual release, with and without antipanic system

**Mechanical function programmers** with and without key lock

**Electronic multi-function programmer** with extra security functions for access control

One and two way microwave **sensors**

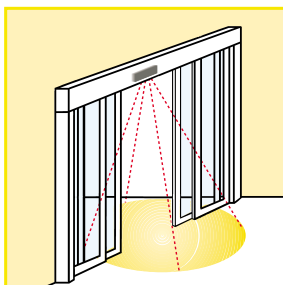
Active and passive infrared **sensors**

**Floor mats** in various sizes

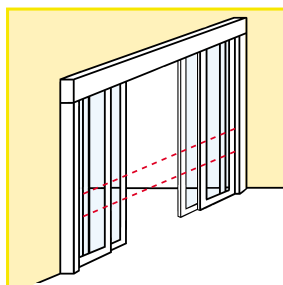
**Table-top** and flush-mounting push-button panel



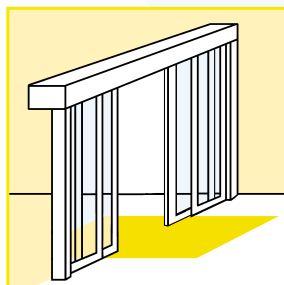
**Microwave and infrared detectors**



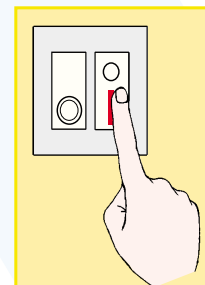
**Photocells**



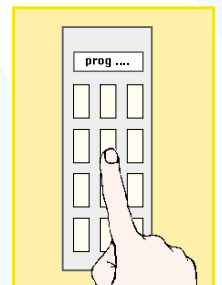
**Floor mats**



**Pushbutton panels**



**Function programmers**

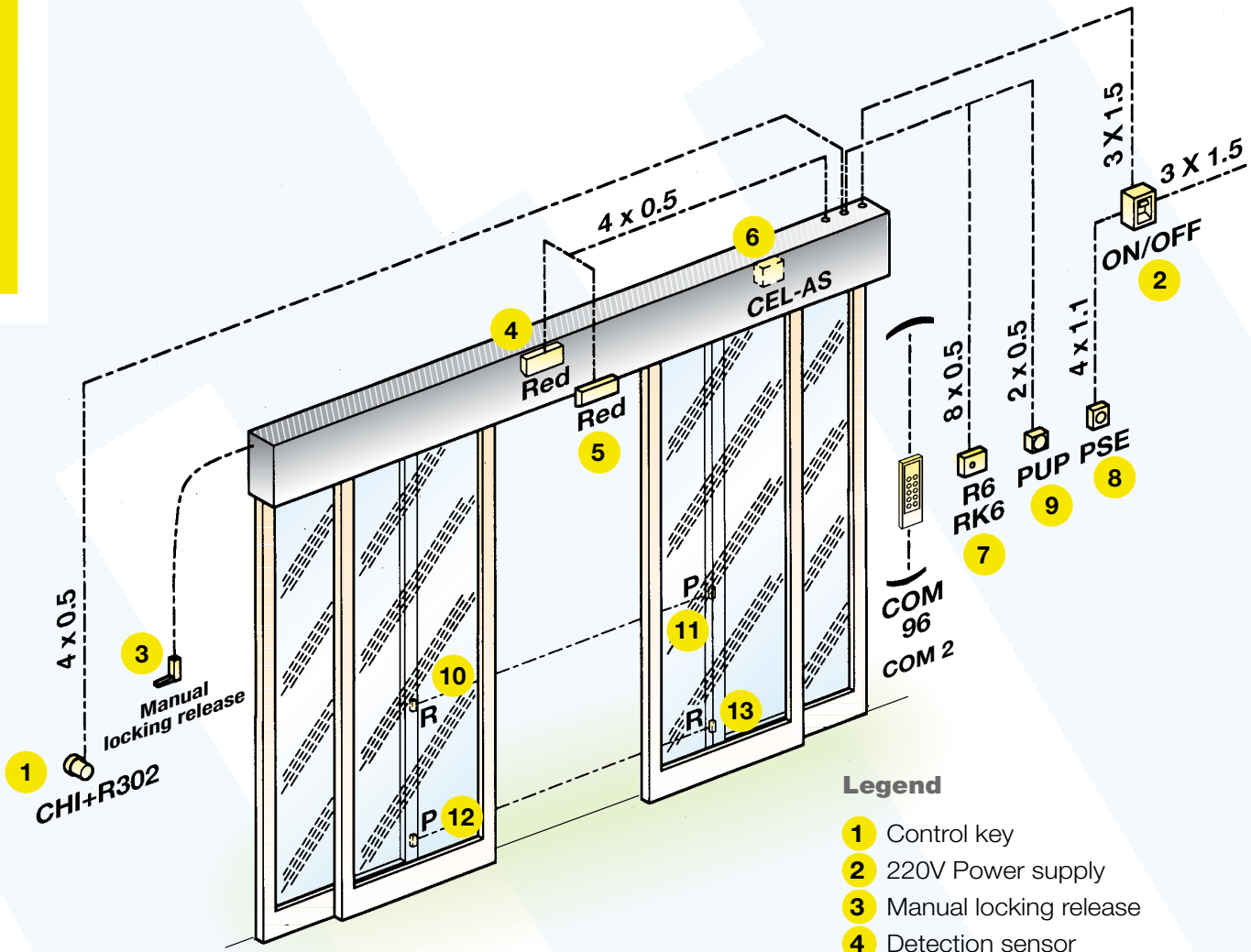


**Standards:** DITEC automation systems are all CE-listed, and designed and built in compliance with applicable safety requirements as set out in Machinery Directive 89/392/CEE, Electromagnetic Compatibility Directive 89/336/CEE and Low-Tension Directive 73/23/CEE.

DITEC S.p.A. reserves the right to make any modifications it deems fit and opportune for product improvement without prior notice.

# Typical installation

Installation drawing of an automatic sliding door.  
Wiring instructions.



## Legend

- 1 Control key
- 2 220V Power supply
- 3 Manual locking release
- 4 Detection sensor
- 5 Detection sensor
- 6 Photocell amplifier
- 7 Function selector
- 8 Emergency pushbutton
- 9 Elbow pushbutton
- 10 11 12 13 Photocell

## Example of specifications for sliding door operators

Electromechanical actuator series \_\_\_\_\_ for automatic sliding doors manufactured by the Automatic Door Division of DITEC S.p.A.

The motor must be set up and wired so as to be able to operate from either 230Vdc or 24Vdc. The automatic electronic control board must be endowed with a microprocessor

logic and the limit switch system must be of the automatic type with encoder for the "intelligent" management of all door movements.

The actuator must be set up with an intrinsic-safety device so as to avoid risk of crushing any obstacle eventually encountered during door movement.

The box for housing the automatic

system should have the following dimensions: \_\_\_\_\_.

In case of power failure, the actuator must be so set up as to allow the manual opening and closing of the door. The actuator must be exclusively made up of electromechanical components, that is it must not be fitted with any partially or fully hydraulic or pneumatic systems.



Factory and offices: CARONNO P.LLA - VA  
Factory: QUARTO D'ALTINO - VE



ISO 9001  
Cert. n° 0957/0

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