



Rex, Bis, Ten, GTS-P



**Automations for
straight-line sliding doors**



DITEC automatic doors
A sign of distinction

Comfort, safety, prestige, hygiene, appeal, access control and, in the case of air-conditioned areas, optimised energy consumption: these are just some of the advantages that you can have from an automatic door.

DITEC is a leading manufacturer of these functional and useful automations.

Today's life has made it more and more frequent and common to find doors that open when we get near them. Thanks to cutting-edge technology, superior quality of processes and materials, our automatic sliding doors, opening and closing smoothly and trouble-free, not only give the building something more in terms of look, novelty and appeal but they also make the life of the people using them more and more comfortable.

This is why having an automatic door is not only a question of image and adaptation to advanced technical solutions, it is also a sign of care for the people that come and go, in that it makes their life easier.

Automatic doors also provide an useful means to solve problems arising from architectural barriers.

DITEC constant commitment to study new solutions and offer the widest range of products to meet any customer requirement are a tangible reality.



Hospitals – operating theatres



Banks



Malls



Supermarkets



Green houses



Medical centres, laboratories - Pharmacies



Public buildings



Hotels



Pubs, restaurants, cafés



Car dealers



Companies – Offices

Post offices



Railway stations

Airports



Houses



Subways



Special events



Shops



Ships

DITEC **Certified quality and experience**

DITEC invests a consistent part of its resources to continue developing winning solutions both in terms of functionality and safety.

As a result of this constant commitment, new original and advanced solutions are patented every year.

Furthermore, as a testimony to the company's high quality standards, DITEC has qualified for Quality Management System certificates in compliance with ISO 9001 (Vision 2000) standard as well as other relevant certificates.



DITEC **A full product range**

DITEC offers the market the widest automation range available for straight-line sliding pedestrian doors, capable of satisfying any particular requirement or performance: from the high-opening speed automatic systems for high-traffic entrances, to the smooth and controlled motion systems for house installations.

These automatic systems are easy to install and come in a variety of aesthetic solutions that can match any type of furniture.

To increase safety and make access to escape routes easier, DITEC offers special anti-panic break-out solutions. You can choose the automation which best satisfies your needs and check its full and advanced technical features in the following tables.

Product range

	REX	BIS 0	BIS V	BIS T	TEN	GTS-P
Automation features	For straight-line sliding doors	For straight-line sliding doors with horizontal cover	For straight-line sliding doors with vertical cover	For straight-line telescopic sliding doors	For straight-line sliding doors	For straight-line sliding doors
Type of duty/service	Very heavy	Very heavy	Very heavy	Very heavy	Very heavy	Very heavy
Max. stroke	3500 mm	5000 mm	5000 mm	5000 mm	5000 mm	5000 mm
Product size	100x190x(max.L)	175x140x(max.L)	142x220x(max.L)	210x220x(max.L)	225x100x(max.L)	210x180x(max.L)

▶ Technical Specifications of the available versions

Funzionamento	REX	BIS O	BIS V	BIS T	TEN	GTS-P
Capacity	100 kg (1 wing) 140 kg (2 wings)	120 kg (1 wing) 200 kg (2 wings)	120 kg (1 wing) 200 kg (2 wings)	180 kg (2 ante) 260 kg (4 wings)	100 kg (1 wing) 200 kg (2 wings)	250 kg (1 wing) 350 kg (2 wings)
Capacity with reinforced wheels	- -	150 kg (1 wing) 250 kg (2 wings)	150 kg (1 wing) 250 kg (2 wings)	- -	120 kg (1 wing) 200 kg (2 wings)	- -
Intermittence	S3 = 100%	S3 = 100%	S3 = 100%	S3 = 100%	S3 = 100%	S3 = 100%
Power supply	230V AC / 50-60 Hz	230V AC / 50-60 Hz	230V AC / 50-60 Hz	230V AC / 50-60 Hz	230V AC / 50-60 Hz	230V AC / 50-60 Hz
Insulation rate	1	1	1	1	1	1
Current	0.5 A	1 A	1 A	1 A	1 A	1.6 A
Max. opening speed	0.6 m/s (1 wing) 1.2 m/s (2 wings)	0.8 m/s (1 wing) 1.6 m/s (2 wings)	0.8 m/s (1 wing) 1.6 m/s (2 wings)	0.8 m/s (1 wing) 1.6 m/s (2 wings)	0.8 m/s (1 wing) 1.6 m/s (2 wings)	0.7 m/s (1 wing) 1.4 m/s (2 wings)
Max. closing speed	0.4 m/s (1 wing) 0.8 m/s (2 wings)	0.8 m/s (1 wing) 1.6 m/s (2 wings)	0.8 m/s (1 wing) 1.6 m/s (2 wings)	0.8 m/s (1 wing) 1.6 m/s (2 wings)	0.8 m/s (1 wing) 1.6 m/s (2 wings)	0.7 m/s (1 wing) 1.4 m/s (2 wings)
Operation temperature	-20°C / +55°C (+5°C / +40°C battery)	-20°C / +55°C (+5°C / +40°C battery)	-20°C / +55°C (+5°C / +40°C battery)	-20°C / +55°C (+5°C / +40°C battery)	-20°C / +55°C (+5°C / +40°C battery)	-20°C / +55°C (+5°C / +40°C battery)
Protection degree	IP20	IP20	IP20	IP20	IP20	IP20
Control panel	192	94	94	94	94	198F

▶ Main functions of the control panel

	REX 192	BIS 94	TEN 94	GTS-P 198F
Battery back up Provides for power supply in the event of power failure	/	/	/ (optional)	/
Number of motors	1	1	1	2
Motor power supply	24V DC / 5 A	24V DC / 8 A	24V DC / 8 A	24V DC / 2x8 A
Accessories power supply	24V DC / 0.3 A	24V DC / 0.5 A	24V DC / 0.5 A	24V DC / 0.5 A
Electric lock power supply	24V DC / 1 A	24V DC / 1 A	24V DC / 1 A	24V DC / 1 A
Encoder Through the learning manoeuvre the system recognizes the mechanical stops and in the following manoeuvres it manages speed and slowdown effects	/	/	/	/
Power adjustment		/	/	/
ODS - obstacle detection Provides for operation stopping or reversal in case of obstacle detection	/	/	/	/
Opening speed adjustment		/	/	/
Closing speed adjustment		/	/	/
Slow down effect Provides for best approach	/	/	/	/
Opening control	/	/	/	/
Partial opening control	/	/	/	/
Closing control		/	/	/
Timed automatic closing	/	/	/	/
Stop safety	/	/	/	/
Reverse safety	/	/	/	/

REX

Simple and adaptable For very heavy duty

Easy assembly and multi-purpose applications make Rex a widely known automation. The traction unit and the electronic control panel in one block, make assembly time shorter.

Many components are in common with other automations of the DITEC line and this is a sure advantage for our customers.

Installation flexibility

Rex is an extremely flexible "system" in that it allows to have various configurations on the basis of specific installation needs. Indeed, it has a provision for both an aluminium traditional casing and a simple sliding track.

Guaranteed functioning even without electricity

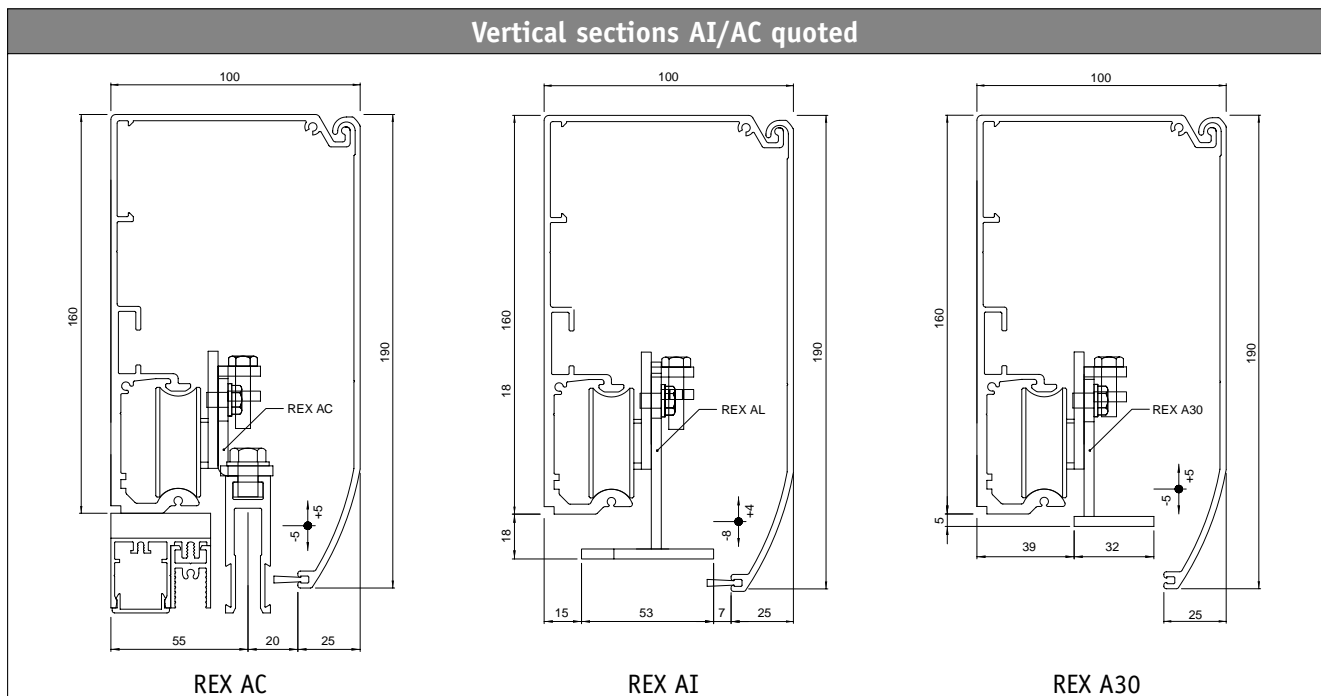
A standard provision for a device with built-in battery ensures functioning even in the event of power failure.

Safe and noiseless

Rex is provided with a 24 V DC motor, a microprocessor logic electronic control panel, an electronic impact-free device with encoder, a photocell device with amplifier, projector and receiver.

The casing is made of aluminium extrusion and traction is performed by means of a synthetic toothed belt.

Rex, like all the other DITEC automations can come with a complete range of original DITEC accessories for control and safety, in addition to the specific accessories included in the line.



 **New, complete, innovative, available in 3 versions
For very heavy duty**

Ready for the future

Thanks to its advanced electromechanical components and its innovative special control panel, BIS offers all the latest innovations in the field of automatic doors. The microprocessor logic "Q.E. 94" DITEC control panel allows remote control and adjustment, by means of an infra-red beam radio remote control or by PC. The special monitoring system DMCS (Door Monitoring & Controlling System) makes control of several doors at a time easier, thus allowing you to control access for all the building entrances provided with BIS automations, remaining comfortably seated at your PC desk.

Plenty of equipment

BIS automations come with plentiful equipment:

- gear motor with microprocessor logic control panel
- sliding track made of anodised aluminium section
- sliding is performed on nylon wheels, trolleys with reinforced wheels can be installed to increase the automation maximum capacity
- traction is performed by means of a toothed belt made of electro-conductive synthetic material to ensure noiseless operation

- electronic impact-free device with encoder
- emergency functioning by means of a built-in-the-automation 24 V DC battery (optional)
- manual and automatic adjustment by means of trimmer and dip-switch

3 versions to satisfy any need

BIS 0 - horizontal development model, cover height 100 mm

BIS V - vertical development model, cover height 180 mm

BIS T - vertical development model, cover height 180 mm, for telescopic doors with 1+1 or 2+2 sliding wings

Anti-panic

Bis 0 and Bis V can be equipped with special anti-panic devices, such as:

- mobile wing break-out system (ASMI/ASME)
- mobile and fixed wings total break-out system (AST).



BIS 0



For BIS 0 and BIS V, approved, redundant-type versions for escape routes are available.



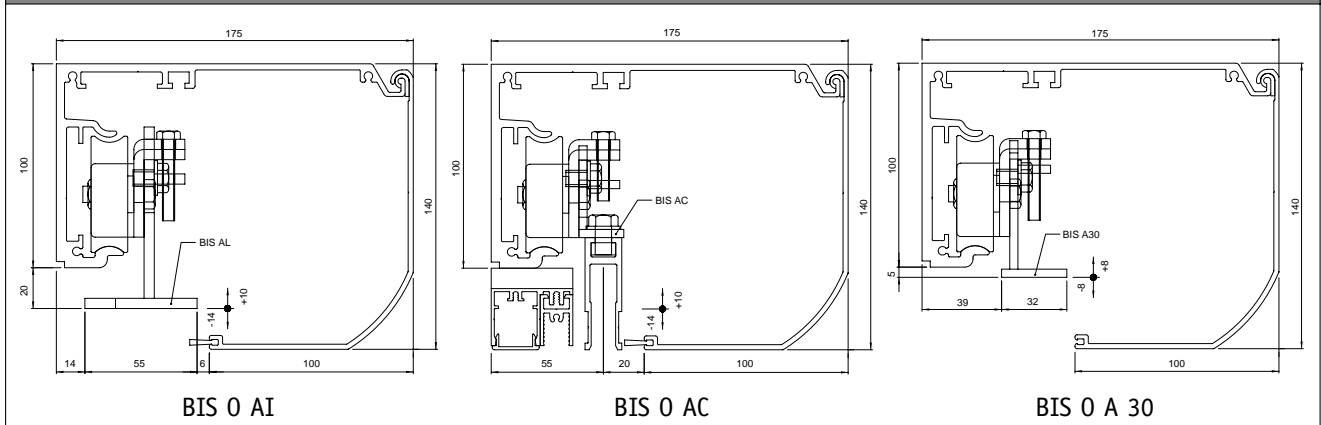
BIS V



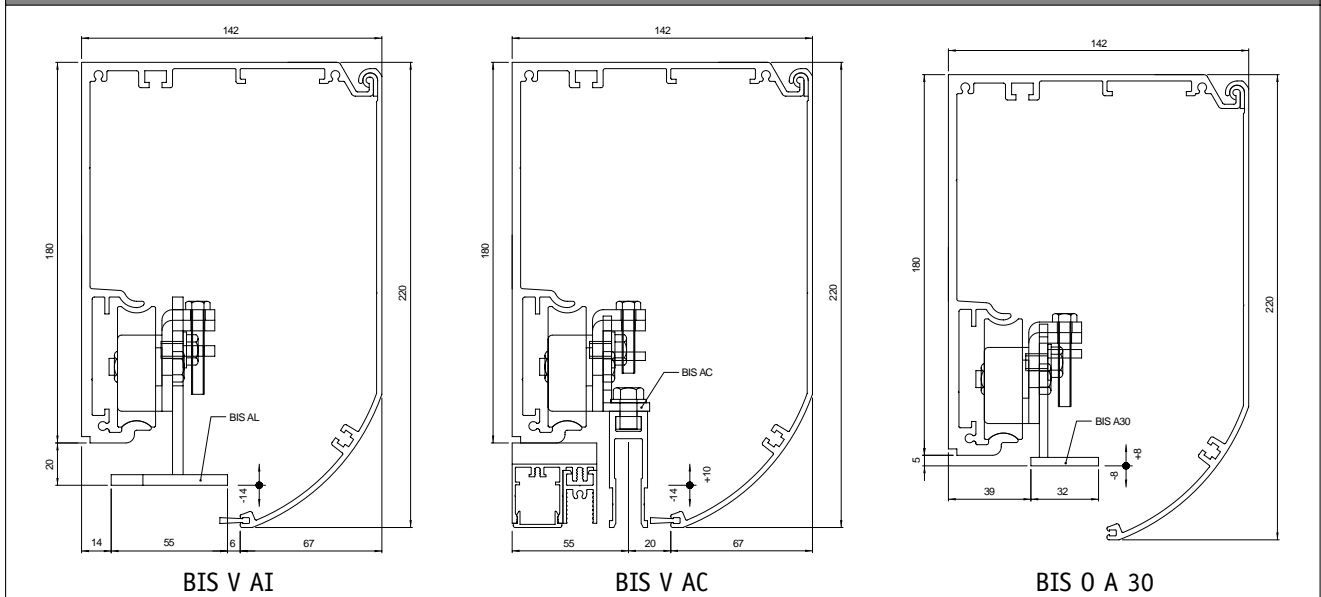
BIS T



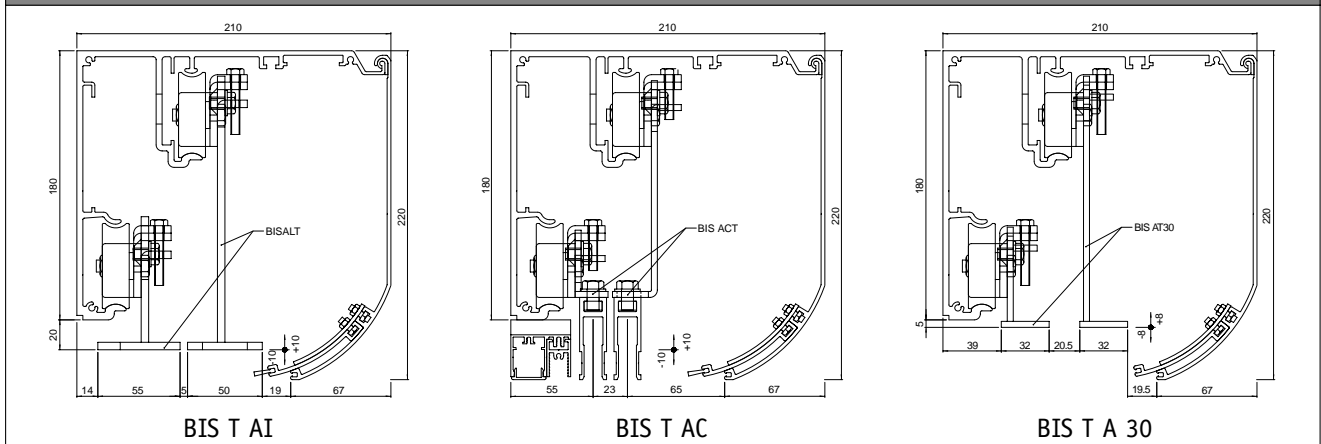
Vertical sections AI/AC quoted



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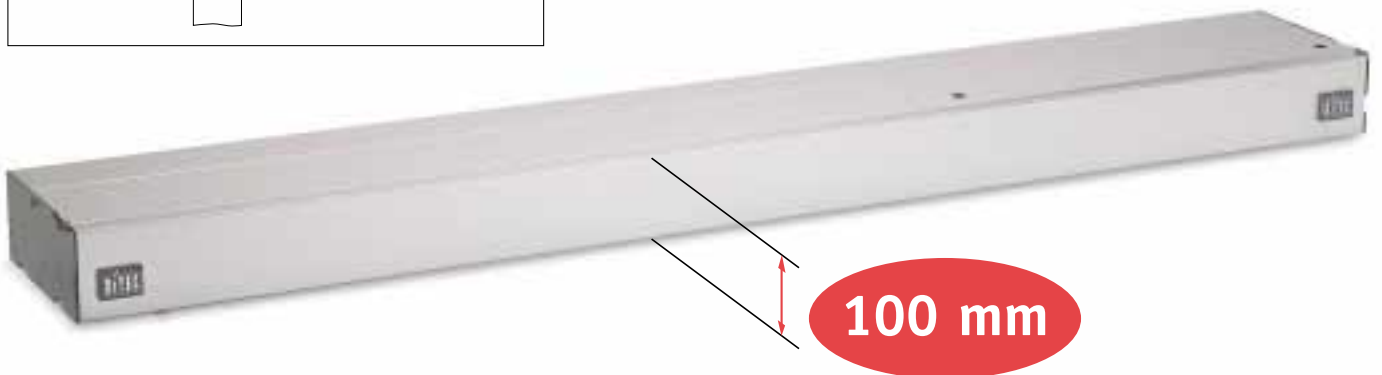
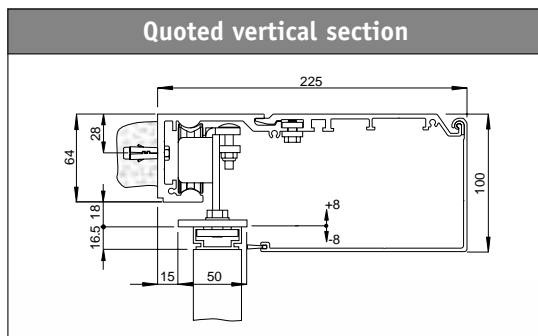


▶ Automatic architecture

Nowadays, planning buildings with technological facades has become a common reality.

Automatic doors should obviously conform to this new reality in aesthetic terms, so as to be perfectly integrated in the technological structure, as well as in qualitative terms.

Ten is the new DITEC automation specifically engineered to satisfy the new architectural and application requirements.



▶ Functionality

Modern and technological, Ten is characterised by three major, general features:

- ▶ Its casing is only 100 mm high
- ▶ It can be adjusted vertically up to 12 mm
- ▶ Its casing can be assembled in two separate parts to be joined.

▶ Geometrical and neat appearance

The automation is enclosed in a functional, elegant and simple aluminium cover, only 100 mm high, which perfectly and almost invisibly combines with the structural system of the building components.

▶ Practicality and quick installation

Structural imperfections are not a problem thanks to its vertical travel.

The new architecture requires more than beauty. In fact, as a consequence of technological innovation, house building formulas have completely changed and building yards themselves have become a place where products are not only manufactured, but also assembled and finished.

Despite its thin structure, Ten allows to have up to a 12 mm vertical adjustment, thanks to its special but simple internal translation components.

This gives Ten a very important advantage because it allows to make up for floor unevenness and thermal expansion typical of building metal components, thus making installation trouble-free.



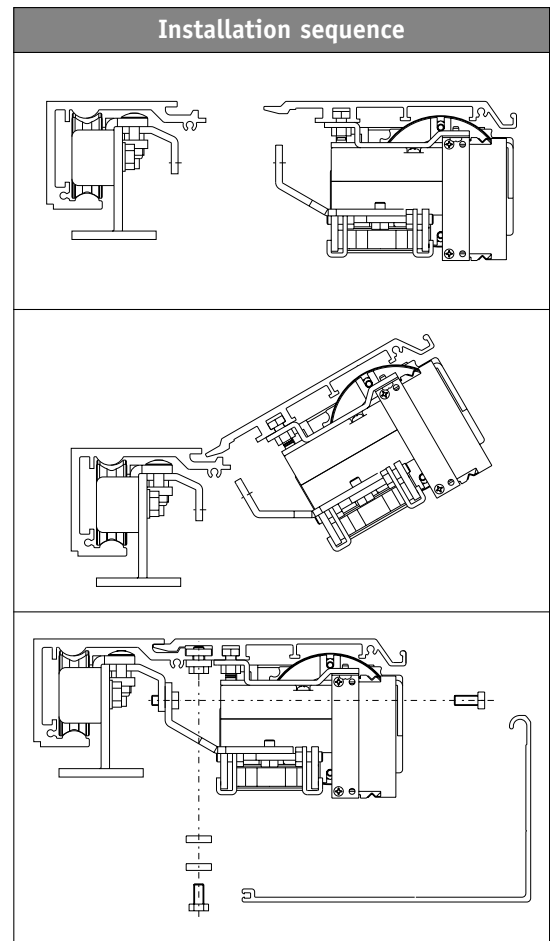
▶ Two-part casing simple to join. Difficult to be easier.

The elegant cover is divided into two anodised aluminium sections to be joined in sequence with a very simple movement.

Trolleys and wheels are housed in the first section and the door mobile wings are attached to them. This allows easy wing installation and adjustment, as there are no hindrances typical of very low automations.

The drive unit – which consists of the gear motor, the electronic control panel and the transformer already mounted onto a single bracket to facilitate installation - is housed in the second section. Wiring is orderly enclosed in a raceway obtained in the aluminium section.

Ten automation has been engineered to facilitate installation and to enable installers to work trouble-free.



▶ Tested and reliable

Primary components are the same as those already used for the other DITEC Bis automations.



The redundant version, tested and approved for escape routes, is available.



▶ Invisible

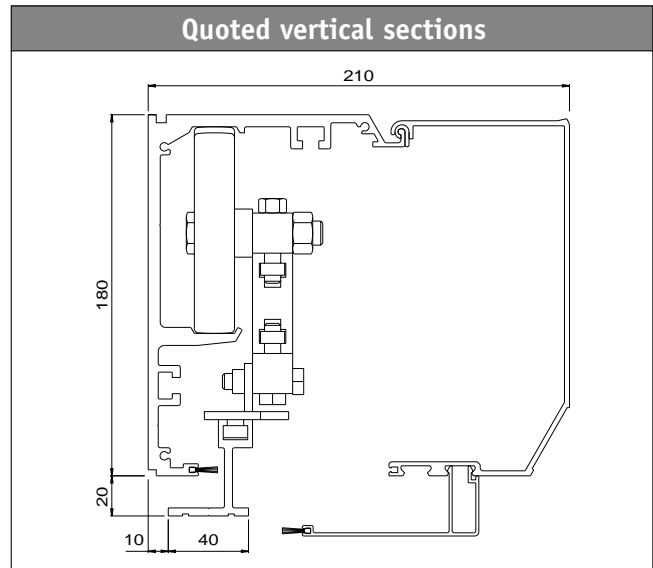
Ten perfectly combines with all door profiles of the DITEC line, particularly with PAM 30 profiles, which have been designed for the demanding and professional European market.

In order to have a clean and free door panel, the upper profiles have been designed to fit inside the automation, thus emphasizing its small dimensions - just 100 mm - and making the actuator an integral part of the door frame.

GTS-P

▶ Rugged and reliable for heavy door actuation

This is a 24 V DC motor and microprocessor logic control panel actuator designed to satisfy qualitatively demanding installation needs, such as the actuation of wings with a weight of up to 450 Kg. Electronic equipment includes an encoder impact-free device



▶ GTS-P technical specifications

	GTS-P
Casing base x height	210x180 mm
Minimum casing length	1800 mm (1 wing) – 2600 mm (2 wings)
Light duty maximum capacity	350 Kg (1 wing) – 450 Kg (2 wings)
Heavy duty maximum capacity	250 Kg (1 wing) – 350 Kg (2 wings)
Standard maximum passageway	3200 mm



PAM 16, PAM 30 and PAM 35

Aluminium structure systems and seals for doors with sliding wings

Elegant, rugged and innovative

DITEC PAM profiles can satisfy even the most demanding needs.

The photocells inside the vertical uprights of the fixed wing and no sealing vertical brush give the profiles a very elegant and clean aspect.

Easy to mount

90° cuts and simple working make these profiles easy to use and assembly, allowing you to save time.

Effective heat/cold seal

DITEC complete range of profiles and seals both for wings and automations, provides an effective heat/cold seal wherever air can get through (upper, lower, side parts).

Elegance and high visibility

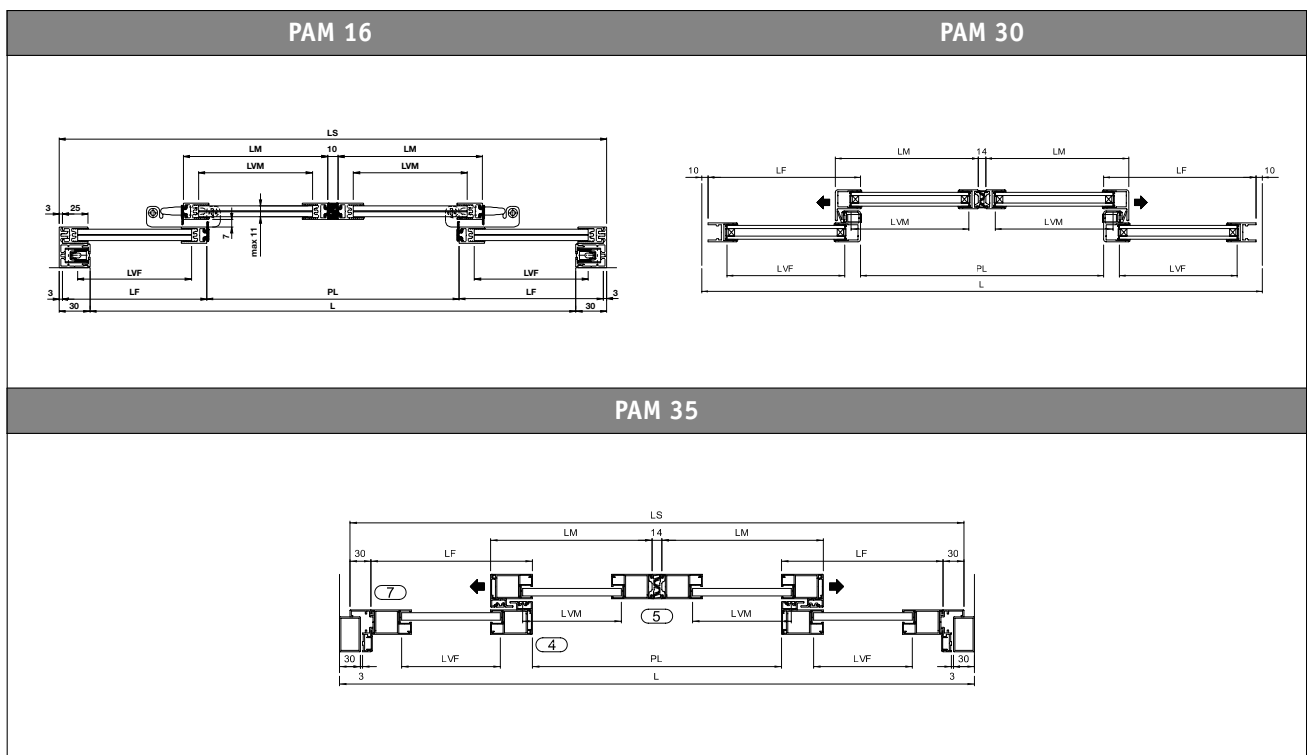
This is a very good product whose elegant and larger glazing surface results in better visibility.

PAM technical specifications

	PAM 16	PAM 30	PAM 35
Thickness	16 mm	30 mm	35 mm
With anti-break-through glass	5+4 or 5+5 mm	3+3, 4+4, 5+5 insulated glass up to 20 mm	All types of glass from 8 to 25 mm
Supplied	Rough or anodised aluminium versions	Rough or anodised aluminium versions	Rough or anodised aluminium versions
Available in bars	of 2520 mm	of 2520 and 5050 mm	of 2520 and 5050 mm
Consisting of	7 profiles and 4 seal gaskets	12 thick profiles 1 main transom - 5 seals 1 sealing brush	11 profiles and 5 seals

Note: PAM16 and PAM30 can not be used for anti-panic break-out systems.

PAM30 can contain 3+3, 4+4, 5+5 mm anti-break-through glass or insulated glass, by using 4 different seals only.



Anti-panic systems



▶ Anti-panic break-out systems

PAM 35 allows the door to be equipped with the anti-panic and break-out system. Three anti-panic systems are available for wings: **ASMI**, **ASME** and **AST**. **ASMI** is an anti-panic system with break-out device for internal sliding wings, **ASME** is an anti-panic system

with break-out device for external sliding wings, whereas **AST** is an anti-panic system with total break-out device both for mobile and side fixed wings, which can provide for an **EMERGENCY EXIT**.



▶ Redundant-type, anti-panic systems



For straight-line doors, where escape routes are needed, a RID redundant system can be mounted as an alternative to an anti-panic break-out system.

RID redundant system is an extension of the standard BIS and TEN systems, engineered specifically for escape routes. To ensure a high level of safety the RID system employs a drive unit with a double motor combined with a redundant power supply device, complete with battery kit.

To ensure the intrinsic safety of the system, the entire BIS and TEN system is continuously monitored by a circuit which is in constant

contact with the control panel and all the accessories by means of a special communication protocol, designed to avoid any operational uncertainty. The circuit, the control panel and all its peripheral accessories have been engineered to ensure optimal, global performance and door operations even in the event of:

- power failure
- fault or damage of any single independent part of the system
- partial or global malfunctioning of the system

Complementary accessories of the automation

Each automation system should be completed with control and safety devices compatible with all the components of the automation and complying with regulations in force

DITEC offers premium quality products and accessories, which satisfy any requirement.

Function program selectors with and without key lock

NEW

COM are the new electronic, mechanical and analogue program selectors designed to select and set desired operation modes for one or more automatic doors. Suitable both for sliding and swing doors by simply replacing the frontal keypad, which is usually supplied with the product. Recognition of the type of automation it is connected to is completely automatic.

COM E

New and elegant

COM E is the new analogue electronic selector designed to set type 94 electronic control panel operation modes, to manage one or more Bis and TEN automations. It consists of one unit provided with a micro-controller, with frontal keyboard and signalling LED.

It is intended for wall fastening, surface or flush mounting, and its size is perfectly compatible with switch and socket square standard.

Operation features

- COM E can set up to 4 doors in the same mode
- Two COM E selectors can be connected on the same automation
- COM EL is also available: it is a complementary and functional accessory for external key lock, coordinated with the same design
- TEL RC is an infra-red beam receiving module, which can be housed inside the COM E selector, and which, through TEL 2 radio remote control, allows parameter management of the automation to which the selector is connected.

COM H and COM K

These are the new function rotary program selectors for automatic door operation mode setting.

Available in two versions, with actuation by handle (COM H) or by key (COM K), these are both provided with a double interchangeable frontal keypad, for sliding or swing doors.

The control instrument is a 6-position rotary electromechanical changeover switch.

These units as well have provision for wall fastening, surface or flush mounting, and their size is perfectly compatible with switch and socket square standard.



▶ Volumetric sensors

These are advanced electronic systems, which detect presence or passage of people in a specific area facing the entrance and have the function to control door opening and closing, and to ensure safe passage.

▶ Infra-red active sensors

Wide range of functions:

- detection area width and depth adjustment
- application level adjustment
- functional sensitivity adjustment
- people detection time adjustment



▶ Passive, infra-red sensors

These have the following features (depending on the versions)

- sensitivity adjustment and opening selection
- opening field zoom adjustment



▶ Microwave sensors

This is a volumetric, one- or two-direction system, which can be fitted on walls or on the ceiling through its bearing. Accurate motion detection. Parameters can be modified even from a distance by means of a remote control.



▶ REM

NEW

▶ Active infra-red barriers

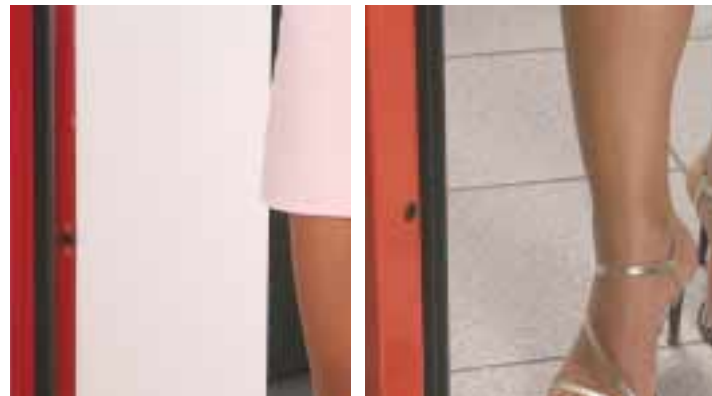
REM are active volumetric barriers for people/object protection and detection. The device emits one or more infra-red light beams, whose reflection by an obstacle located in the detection area, triggers an output contact.

Sensitivity is not dependant from colour or surface structure of the object. Detection beam range and curvature can be adjusted to any type of installation.



▶ Safety photocells

These photocells provide greater control during detection of possible obstacles. They are practical and almost invisible and can be positioned at different heights.



▶ Digital or key selectors

These selectors allow access to authorised people only. They can be fitted both indoors and outdoors. Can have a key version and a vandal-proof keypad.



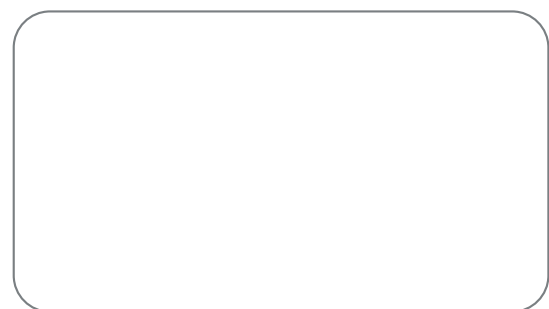
▶ Opening contact sensors or transponder technology control sensors

These sensors enable door opening through buttons or codified cards. They are the ideal solution to automate entrances in companies or private buildings wherever access should be allowed to authorised people only.



▶ Control buttons

Door opening is by means of press or touch buttons.



▶ Sensitive floor mats

These mats can be positioned under carpets to detect presence and control door opening.



▶ Regulations

Use only DITEC accessories and safety devices for automation system installation.

DITEC actuators are CE-marked. They are designed and built in compliance with the safety requirements defined in the Machinery Directive (98/37/EC), Electromagnetic Compatibility Directive (89/336/EEC) and Low-Voltage Directive (73/23/EEC). DITEC S.p.A. reserves the right to make any changes whatsoever in order to upgrade its products.

Ditec products are constantly improved. As a consequence, technical data as listed in this leaflet are not to be considered binding. Further information can be found in our technical manuals, available on the website www.ditec.it



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