



AIRTIGHTNESS



MAXIMUM  
HYGIENE



TOPMOST  
SAFETY

## Ditec **VALOR HS** **VALOR HH**

Automatic  
pedestrian doors  
for **controlled**  
**atmosphere environments**

**Automation designed for specialist environments.**

Ditec Valor HS and Ditec Valor HH offer solutions which are particularly suited to sectors where certain specific characteristics of the seal are deemed indispensable.



A person in blue scrubs is walking through a glass door into a clinical room. The room contains medical equipment, including a large machine with a control panel and a sink. The door is made of glass and has a metal frame. The ceiling is white with a grid pattern. The floor is light-colored. The text 'AIR TIGHT' is overlaid in large red letters at the bottom of the image.

# AIR TIGHT

# The utmost benefits of advanced technology

Ditec Valor HS and Ditec Valor HH automatic doors are especially suitable for:

## Hospital / healthcare environments

- operating theatres
- radiology rooms
- clean rooms
- controlled atmosphere environments (hospitals, clinics, rehabilitation centres, care homes, disabled centres, rest homes, multi-purpose surgeries, doctors' surgeries, dentists' surgeries)

## Other sectors

- pharmaceutical industry
- recording rooms and sound-insulated environments
- electronics laboratories
- analysis laboratories (pharmaceutical and/or chemical sector)
- applications on ships
- applications with heavy wings

**Ditec Valor HS** automation for doors with seals, where the wing provides for partial seal, with a specially designed guard.

**Ditec Valor HH** this automation is hermetically sealed on all four sides, and the wing – on closing – drops and slides to compress the seal against the jamb along the perimeter.

## Super silent operation

All versions feature super silent operation, thanks to the anti-vibration seals, making them ideal for environments where comfort, silence and a warm welcome are indispensable and fundamental requirements.

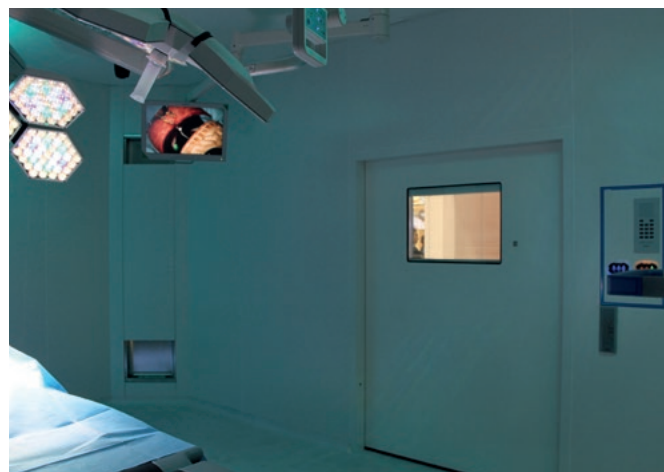
## Maximum hygiene

The rounded guard and the screwless visible heads prevent dust from building up, making cleaning easy. Electrostatic energy that may have accumulated on the moving wings is permanently discharged, thus avoiding the build-up of dust too. Automatic doors must guarantee freedom of movement in absolute hygiene and safety both for patients and healthcare workers, without coming into manual contact with the actual doors.

The entire range accommodates these needs fully.

## Maximum safety

The motion detectors can be built into the automation and concealed. Consequently, they prevent the classic build-up of dust on elements outside the guard.



They also ensure protection not only in the doorway but also in the side opening movement of the wings, preventing accidental impact with unforeseen obstacles. They are indispensable when stretchers and wheelchairs are passing and may not be detected by traditional photocells.

## Maximum capacity

The HS version fully satisfies the requirements of the radiologic sector, where wings are moved which are shielded against X-rays with lead protection that determine significant weight.

## Maximum availability of finishes

Ditec Valor HS and Ditec Valor HH automatic entrances are available in all RAL colours, in anodised finishes (from natural silver to polished titanium) with panels surfaced in HPL laminate in the Abet/Print range of colours.

Ditec Valor HS and Ditec Valor HH can also be equipped with wings with AISI 304 stainless steel panel in scotch brite finish.



# Technical profiles

## Entrance example

### Ditec Valor HS 01

#### Automation for doors with semi-hermetic closure

The wing enables a partial seal, with a stop on the frame's vertical jambs and contact on the lintel and the floor.

### Ditec Valor HH 02

#### Automation for doors with hermetic closing on all 4 sides

As it closes, the wing moves vertically and horizontally to press the seals against the entire perimeter of the frame and on the floor.

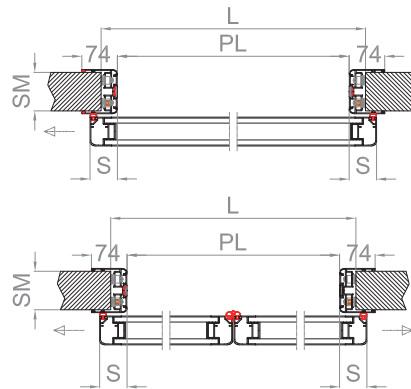
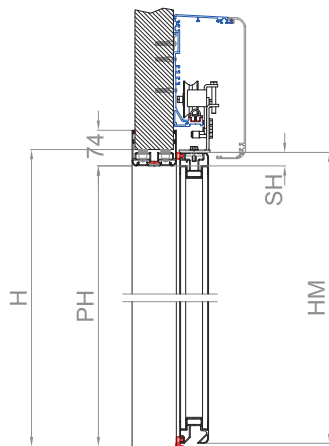
01



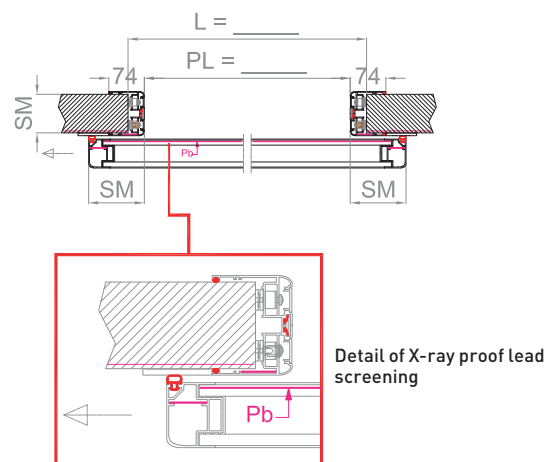
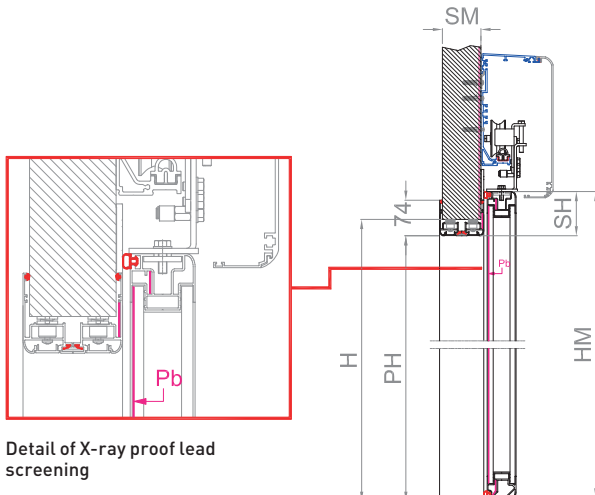
02



#### Without screening



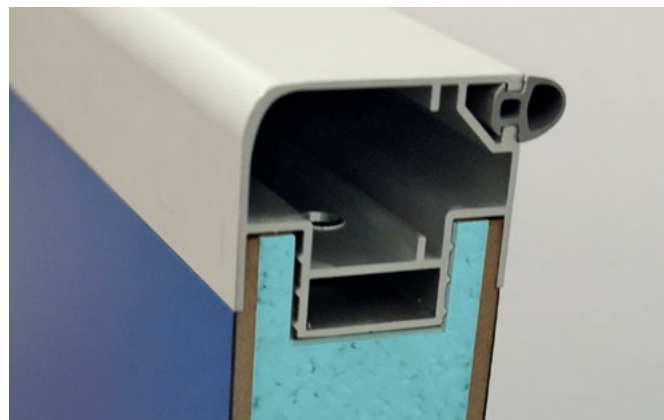
#### With X-ray proof lead shielding



# Automation, dedicated frames and accessories

## Painstaking care for details

Ditec provides a complete range of frames and accessories dedicated especially to special applications and controlled atmosphere environments, included with the automation.



## Ditec Pam H60 01 02 03

### HPL laminate and AISI 304 stainless steel laminate panels

Wing for sliding door consisting of rounded extruded aluminium frame and panel. Wing thickness 60 mm with non-toxic silicon perimeter seals. The external profile is perfectly flush fitting and sealed with non-toxic silicon.

The internal panel consists of a sandwich of two HPL laminate plates, plus two 5 mm thick MDF class 1 fireproof panels and an extruded high-density self-extinguishing polyester sheet.

The panel can be surfaced with melamine laminate or AISI 304 stainless steel laminate in scotch brite finish.

## Ditec Pam H60 03

### Framed wing with double glazing

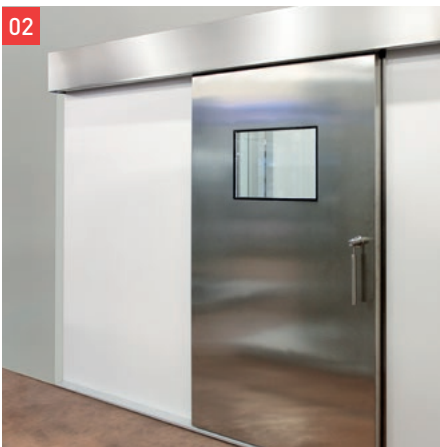
Wing for sliding door consisting of rounded extruded aluminium frame and double glazing. Wing thickness 60 mm with non-toxic silicon perimeter seals.

The wing profile is equipped with a purpose-designed adapter which allows the glazing to be fitted and secured in place with specially-provided glazing beads.

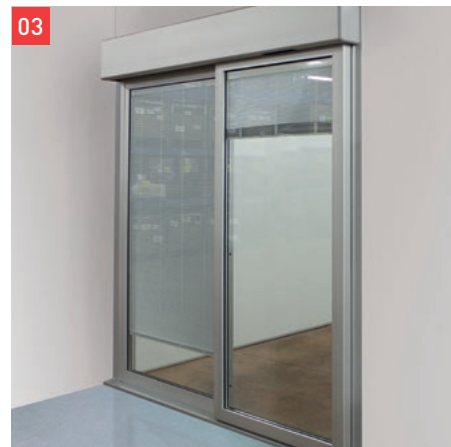
The dimensions envisaged are accomplished using two plates of 3+3 transparent laminated safety glass with an intermediate chamber of 20 mm.



Can be fitted with a round or rectangular window. The window is fully flush fitted into the wing and sealed with non-toxic silicon injected all around the perimeter.



Can be constructed with 1, 2 or 3 mm lead strips for X-ray screening and a handle to move the wing.



The sliding door frame is made of rounded extruded aluminium on three sides of the compartment to achieve a wall thickness of a minimum of 80 mm where photocells can also be housed.

# Automation, dedicated frames and accessories

## **Ditec dedicated frames ensure the entire system is sturdy and reliable**

The rounded profiles, the panels and the inset windows flush with the exterior without any ledges prevent the build-up of dirt and make for easy cleaning and improved hygiene. The frames are equipped with silicon seals (non-toxic). These seals (where envisaged) are inset into the wing without any additional profiles. This enhances the attractive styling while providing more efficient cleanliness and hygiene. The floor runner was also designed to cover the fixing screws and not only to improve the appearance but also to ensure easier cleaning. Indeed, it prevents the build-up of dirt on the screws and is easier to clean.

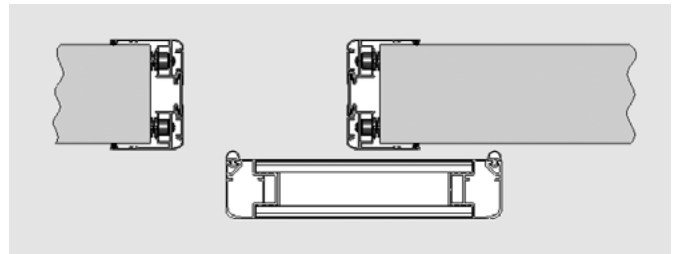
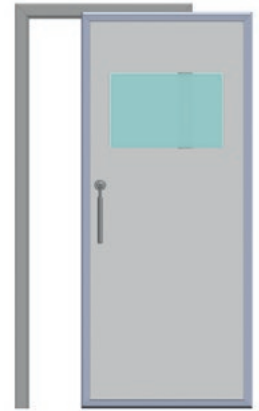
## **Maximum availability of finishes**

Ditec Valor HS and Ditec Valor HH automatic entrances are available in all RAL colours, in anodised finishes (from natural silver to polished titanium) with panels surfaced in HPL laminate in the Abet/Print range of colours and in scotch brite finish in the AISI 304 STAINLESS STEEL versions.

## **Ditec Pam H60.**

### **Frames with hermetic seal or partial seal**

The entry system combines automation with dedicated frames, with different types of wing, frame and cornice, to meet the technical specifications required by the environment.



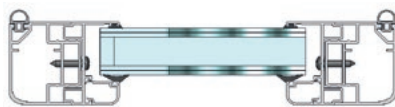
### Wing general features

- Rounded profiles to facilitate cleaning
- Non-toxic silicon seals
- 60 mm thick wings for guaranteed durability
- Profiles sit flush with the internal panel and window

**Framed wing:** perimeter in extruded aluminium and internal panel surfaced with HPL laminate or AISI 304 sheet with scotch brite finish



**Wing with window:** perimeter in extruded aluminium and double-glazing (3+3/20/3+3)



### Wall frame general features

- Rounded profiles to facilitate cleaning
- Wall thickness from 80 to 400 mm
- Designed to accommodate photocells
- Easily mounted and adjusted

**Frames:** aluminium profiles with compensation sheet



**Cornice:** aluminium perimeter profile for finished walls

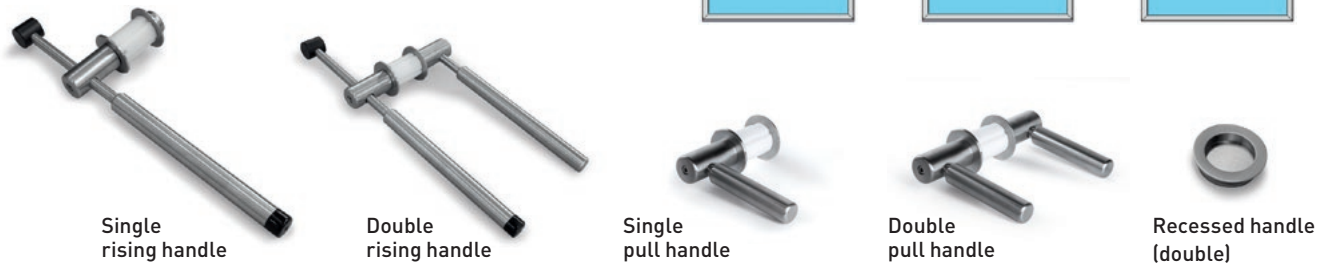
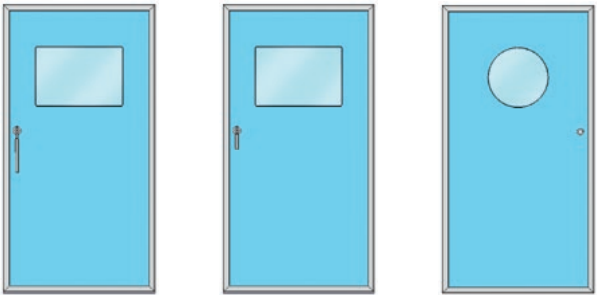




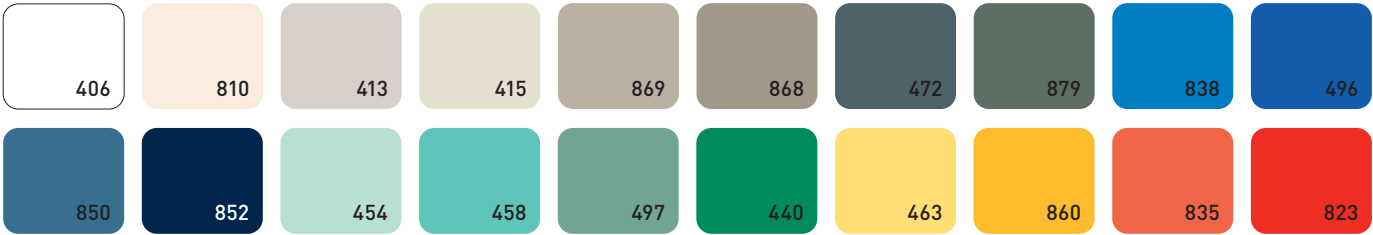
# Automation, dedicated frames and accessories

### Accessories

- Flush-fit 600 x 400 mm rectangular window
  - Flush-fit ø 400 mm circular window
  - 1, 2 or 3 mm thick lead screening
  - Rising pull handle
- For further details: please refer to the price list.



### Examples of the most popular wing colours



Colours printed on paper may not match the actual colour; please therefore refer to the official tables and when choosing any custom colours.





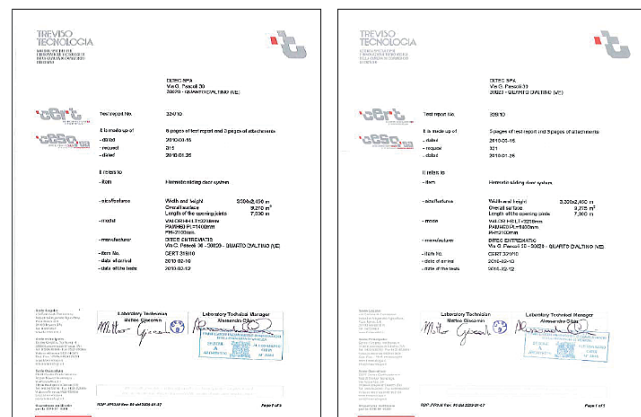
# Ditec Pam H60 permeability test

The complete system, made up of Ditec Valor HH operator and Ditec Pam H60 frame with hermetic closure, 1 wing, offers excellent seal performance, as certified by laboratory results.

The tests performed, in conformity with the specific standards, show results that guarantee excellent air-tightness in conditions of both pressurised and depressurised environments.

The results shown are expressed on the basis of both the perimeter and the area of the wing and are extendable to all the configurations detailed in the price list.

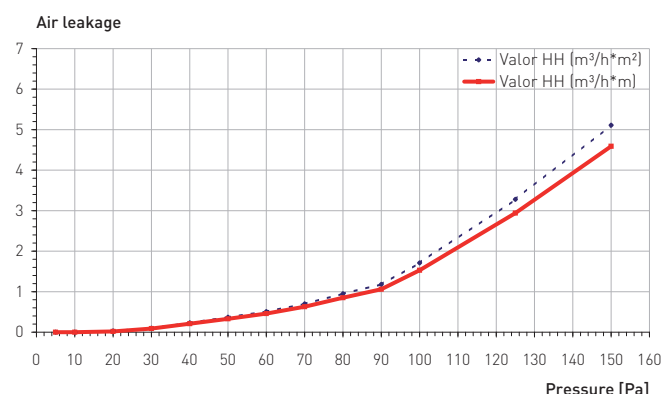
The full certificate no. 324/10 dated 15/03/2010 is available on request.



## Pressurised test

Pressurised to [Pa]	Air leakage $\text{m}^3/\text{h}\cdot\text{m}^2$	Air leakage $\text{m}^3/\text{h}\cdot\text{m}$
5	0	0
10	0	0
20	0.03	0.02
30	0.1	0.09
40	0.23	0.21
50	0.37	0.33
60	0.51	0.46
70	0.7	0.63
80	0.95	0.85
90	1.18	1.06
100	1.71	1.53
125	3.28	2.94
150	5.11	4.59

## Permeability to air - Pressurised

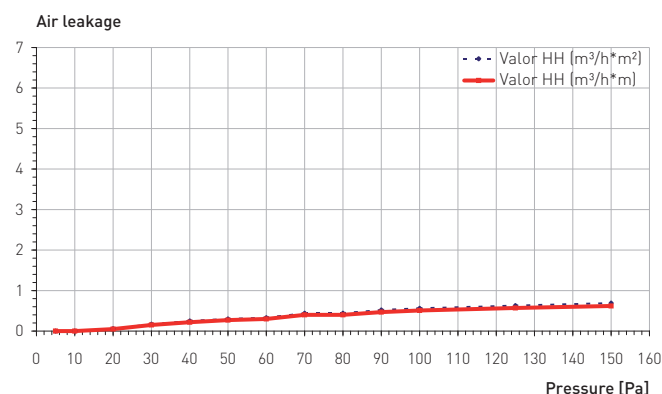


Pressurised test:  
Class 3 - Ref. UNI EN 1026 - UNI EN 12207  
Class 5 - Ref. UNI EN 12426 - UNI EN 12427

## Depressurised test

Depressurised to [Pa]	Air leakage $\text{m}^3/\text{h}\cdot\text{m}^2$	Air leakage $\text{m}^3/\text{h}\cdot\text{m}$
5	0	0
10	0	0
20	0.06	0.05
30	0.17	0.15
40	0.25	0.22
50	0.3	0.27
60	0.33	0.3
70	0.44	0.4
80	0.44	0.4
90	0.52	0.47
100	0.56	0.51
125	0.63	0.57
150	0.69	0.62



## Permeability to air - Depressurised



Depressurised test:  
Class 4 - Ref. UNI EN 1026 - UNI EN 12207  
Class 5 - Ref. UNI EN 12426 - UNI EN 12427

# Ditec Pam H60 frame

## Summary of combinations

		Laminate panel		Glass panel	
					
Ditec Pam H60: general features	Passing space (for different PL dimensions contact our Technical Office)	(PL) 900 - 1800 1 wing	1200 - 2200 2 wings	900 - 1800 1 wing	1200 - 2200 2 wings
		(PH) from 2100 to 2500		from 2100 to 2500	
	Door thickness	60 mm		60 mm	
	Door frame	Aluminium door frame [exclusive project]		Aluminium door frame [exclusive project]	
	Internal panel	Core: extruded polystyrene plate Intermediate layer: MDF Surface cover: HPL laminate or stainless steel		Core: double glazing [3+3 / 20 / 3+3]	
Accessories	Seal	Silicon		Silicon	
	Curtain			Motorised or manual curtain ***	
	Window	600 x 400 mm [default dimensions] ø 400 mm [default dimensions]			
	Handle	Fixed handle: MAN 1 - MAN 2 * Mobile handle: MAN A1 - MAN A2 * Flush-fit handle: MAN I **			
	Protection against radiation	1, 2 or 3 mm thick lead strip			


\*AISI 303 stainless steel \*\*Aluminium \*\*\* Only on request



## Technical specifications

	Valor HS	Valor HH
Description	wings with seal	wings with hermetic seal
Stroke control	encoder	encoder
Capacity	class 4: 200 kg (1 wing) / 340 kg (2 wings) class 5: 170 kg (1 wing) / 300 kg (2 wings)	class 4: 200 kg (1 wing) / 200 kg (2 wings) class 5: 160 kg (1 wing) / 160 kg (2 wings)
Capacity with 2 wheels per runner	class 5: 300 kg (1 wing) / 360 kg (2 wings) class 6: 220 kg (1 wing) / 300 kg (2 wings)	
Capacity with 2 wheels per runner and 3rd runner	class 4: 450 kg (1 wing) / 500 kg (2 wings) class 5: 350 kg (1 wing) / 400 kg (2 wings)	
Duty class	4 - heavy duty 5 - very heavy duty 6 - continuous	4 - heavy duty 5 - very heavy duty 1 wing < 160 kg / 2 wings < 160 kg
Intermittent operation	class 4: S2 = 20 min / S3 = 30% class 5: S2 = 60 min / S3 = 60% class 6: S3 = 100%	class 4: S2 = 20 min / S3 = 30% class 5: S2 = 60 min / S3 = 60%
Power supply	230 V AC / 50-60 Hz	230 V AC / 50-60 Hz
Power input	1 A	1 A
Maximum opening speed	0.5 m/s (1 wing) / 1.0 m/s (2 wings)	0.5 m/s (1 wing) / 1.0 m/s (2 wings)
Maximum closing speed	0.5 m/s (1 wing) / 1.0 m/s (2 wings)	0.5 m/s (1 wing) / 1.0 m/s (2 wings)
Release system for manual opening	handle type	
Operating temperature	-20°C / +55°C (-10°C / +50°C with batteries)	+2°C / +55°C (+2°C / +50°C with batteries)
Protection rating	IP 20	IP 20
Product dimensions (mm)	150 x 300 x L	150 x 300 x L
Control panel	EL32 (built-in)	EL32 (built-in)

## Main system functions

	Valor HS - Valor HH
Control panel	EL32
Mains power supply	230 V AC / 50-60 Hz
Batteries	■ (optional)
 Energy saving	energy saving when in use
Number of motors	1
Motor power supply	24 V= / 15 A
Accessories power supply	24 V= / 0.5 A
Electro-mechanical lock	24 V= / 1 A
Courtesy light	■ (with MP1)
Encoder speed and deceleration control	■
Force setting	electronic
ODS - Obstruction Detection System	■
Speed setting	■
Braking / Slowing down	■
Open control	■
Push and Go	■
Partial opening control	■
Close control	■ (optional with MP1)
Temporised automatic closing	■
Emergency stop	■
Emergency reverse	■
Safety test	■
Built-in photocell amplifier	■

When building the system, only use Dítec accessories and safety devices.

Every Dítec automation features CE marking and is designed and built in compliance with the safety requirements of the Machinery Directive(2006/42/EC), of the Electromagnetic Compatibility Directive (2014/30/EU) and of the Low Voltage Directive (2014/35/EU) and of other Directives, laws, specific standards for special products and situations.

The Company reserves the right to make changes which may improve the products.

For this reason, the technical details given are not binding.

Pictures were taken with the consent of those concerned or in public locations.

Further information can be found in the Technical Manuals available at the website: **[www.ditecautomations.com](http://www.ditecautomations.com)**



Cert. n. 0957/6

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Dítec VALOR HS  
and Dítec VALOR HH