SilensPRO® MEGA

Machine-roomless lifts for **heavy loads**

1350 -4000 Kg

SilensPRO®
MEGA

The most robust solution for heavier loads

- The **Silens Pro Mega®** **is a machine-roomless lift with permanent magnets gearless traction, ideal for transporting large loads in all types of buildings between 30 and 60 metres of height.**
- **Silens Pro Mega®** is an **extremely robust** and **durable** lift, equipped with **strengthened cars** designed to carry **heavy loads**.
- It incorporates a gearless motor **which is silent, environmentally friendly, compact and light**, designed to occupy the smallest possible space inside a shaft.
- Loads from **1350 kg to 4000 kg**.
- Speeds of **1 m per sec or 1.6 m per sec.**
- **Very low energy consumption**.
- **Easy to install and maintain**. Specific installation tools available on request.
- Equipped as standard with the **Direct Approach to Floor,** giving the lift **unbeatable travel** comfort.
- Meets the new standards **EN81-20 and EN81-50**

Load	1350-4000 kg (loads from 4100kg up to 10.000kg available on request)
Rated speed	1 m/s · 1.6 m/s
Openings	Single Double 180º access
Control system	Altamira II
Cars	220 Series
Car and Landing Doors	From 1100 to 2100 mm, depending on model
Maximum travel	From 30 m to 60 m, depending on model

RATED LOAD · 1350kg / 18 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1200	2450	2100	2750	3600 (1 m/s)	1300 (1 m/s)	Side opening 2P C/O 1100
2/180°				2850			Side opening 2P C/O 1100
1/0°			2450	2750	3850 (1.6 m/s)	1400 (1.6 m/s)	Central opening 2P C/O 1100
2/180°				2850			Central opening 2P C/O 1100

RATED LOAD · 1500kg / 20 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1300	2450	2200	2750	3600 (1 m/s)	1300 (1 m/s)	Side opening 2P C/O 1100
2/180°				2850			Side opening 2P C/O 1100
1/0°			2450	2750	3850 (1.6 m/s)	1400 (1.6 m/s)	Central opening 2P C/O 1100
2/180°				2850			Central opening 2P C/O 1100

RATED LOAD · 1600kg / 21 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1400	2400	2300	2700	3600 (1 m/s)	1300 (1 m/s)	Side opening 2P C/O 1100
2/180°				2800			Side opening 2P C/O 1100
1/0°			2450	2700	3850 (1.6 m/s)	1400 (1.6 m/s)	Central opening 2P C/O 1100
2/180°				2800			Central opening 2P C/O 1100

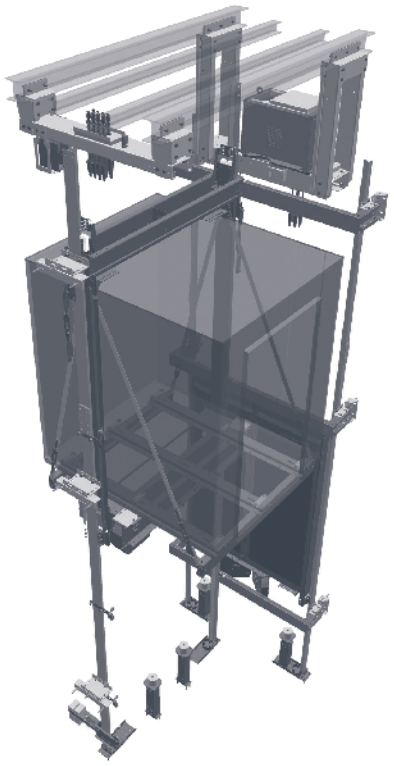
RATED LOAD · 2000kg / 26 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

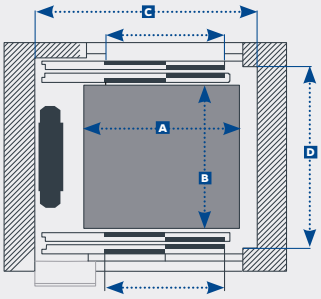
Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1500	2700	2400	3000	3600 (1 m/s)	1300 (1 m/s)	Side opening 2P C/O 1300
2/180°				3100			Side opening 2P C/O 1300
1/0°			2450	3000	3850 (1.6 m/s)	1400 (1.6 m/s)	Side opening 2P C/O 1100
2/180°				3100			Side opening 2P C/O 1100

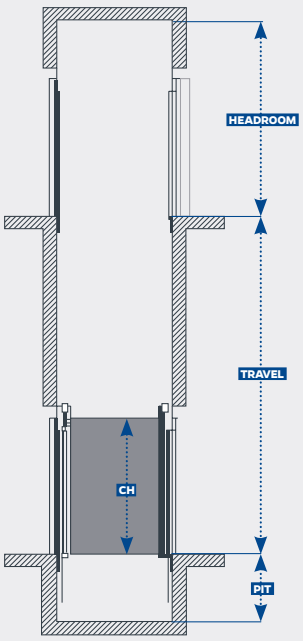
Standard shaft and car dimensions

* According to the door and opening type.

** Option for reduced headroom from 3450 mm for s = 1m per sec and 3700 mm for 1.6 m per sec with 2050 mm cab.







Operational ranges (standard mechanics)

Maximum travel	Up to 60 m	
Shaft	**Pit**	**Minimum standard:** 1300 mm (Ns = 1 m per sec) · 1400 mm (Ns = 1.6 m per sec) *Low pit solutions available under study: 900mm for 1 m/s and 1150mm for 1,6 m/s*
	Headroom	Standard minimum (2200 mm) car: 3600 mm (Ns = 1 m/s) 3850 mm (Ns = 1.6 m/s) Reduced minimum (2050 mm car): 3450 mm (Ns = 1 m/s) 3700 mm (Ns = 1.6 m/s)
	Minimum width	Car width + 900 mm
Car	**Minimum depth**	1400 mm
	Maximum depth	2700 mm
	Minimum width	1200 mm
	Maximum width	2500 mm
	Standard height	2200 mm (2050 mm and 2100 mm option)

RATED LOAD · 2100kg / 28 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1600	2600	2550	2900	3700 (1 m/s)	1400 (1 m/s)	Side 2P C/O 1400
2/180°				3000			Side 2P C/O 1400
1/0°			3000	2900	3900 (1.6 m/s)	1500 (1.6 m/s)	Central 2P C/O 1400
2/180°				3000			Central 2P C/O 1400

RATED LOAD · 2300kg / 30 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1600	2800	2550	3100	3700 (1 m/s)	1400 (1 m/s)	Side 2P C/O 1400
2/180°				3200			Side 2P C/O 1400
1/0°			3000	3100	3900 (1.6 m/s)	1500 (1.6 m/s)	Central 2P C/O 1400
2/180°				3200			Central 2P C/O 1400

RATED LOAD · 2500kg / 33 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1600	3000	2550	3300	3700 (1 m/s)	1400 (1 m/s)	Side 2P C/O 1400
2/180°				3400			Side 2P C/O 1400
1/0°			3000	3300	3900 (1.6 m/s)	1500 (1.6 m/s)	Central 2P C/O 1400
2/180°				3400			Central 2P C/O 1400

RATED LOAD · 2900kg / 38 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

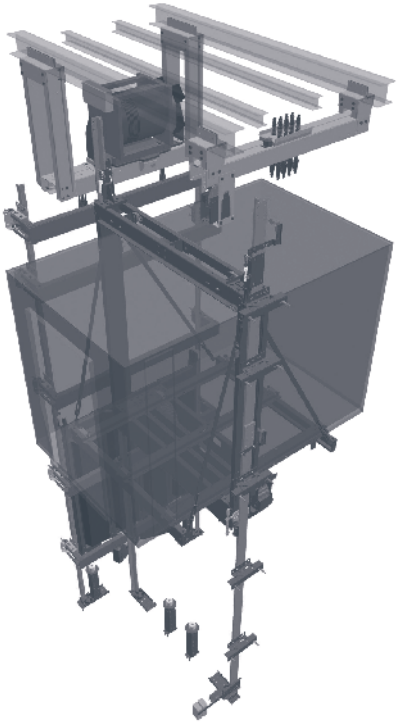
Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1750	3000	2700	3300	3700 (1 m/s)	1400 (1 m/s)	Side 2P C/O 1500
2/180°				3400			Side 2P C/O 1500
1/0°			3000	3300	3900 (1.6 m/s)	1500 (1.6 m/s)	Central 2P C/O 1400
2/180°				3400			Central 2P C/O 1400

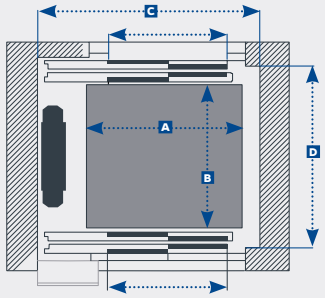
RATED LOAD · 3000kg / 40 people | ROPING · **2:1** | MAXIMUM SPEED · **1 m/s · 1.6 m/s**

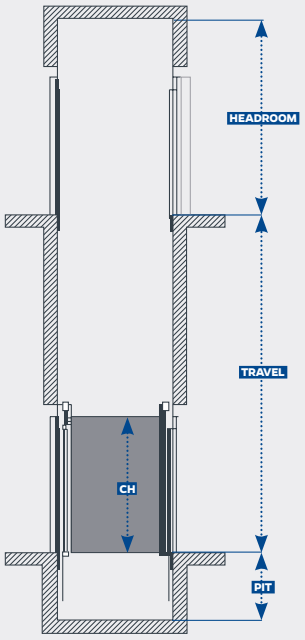
Entrances Angle	Car Width (A)	Car Depth (B)	Shaft Width (C)	Shaft Depth* (D)	Headroom** CH 2200mm	Pit	Door type Maximum
1/0°	1800	3025	2750	3325	3700 (1 m/s)	1400 (1 m/s)	Side 2P C/O 1500
2/180°				3425			Side 2P C/O 1500
1/0°			3000	3325	3900 (1,6 m/s)	1500 (1,6 m/s)	Central 2P C/O 1400
2/180°				3425			Central 2P C/O 1400

Standard shaft and car dimensions

* According to the door and opening type.
** Reduced headroom option of 3450 mm for s = 1 m per sec and 3700 mm for 1.6 m per sec with 2050 mm car







Operational ranges (standard mechanics)

Maximum travel	Up to 53 m	
Shaft	**Pit**	Standard minimum: 1400 mm (Ns = 1 m/s) 1500 mm (Ns = 1.6 m/s) *Low pit solutions available under study: 1000mm for 1 m/s and 1250mm for 1,6 m/s*
	Headroom	Standard minimum (2200 mm) car: 3700 mm (Ns = 1 m/s) 3900 mm (Ns = 1.6 m/s) Reduced minimum (2050 mm car): 3550 mm (Ns = 1 m/s) 3750 mm (Ns = 1.6 m/s)
	Minimum width	Car width + 950 mm
Car	**Minimum depth**	2000 mm
	Maximum depth	3350 mm
	Minimum width	1500 mm
	Maximum width	2900 mm
	Standard height	2200 mm (2050 mm and 2100 mm option)

RATED LOAD · **3100kg / 42 people** | ROPING · **4:1** | MAXIMUM SPEED · **1 m/s**

Entrances Angle	Car		Shaft		Headroom CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	2000	2850	3250	3150	4200	1300	Central opening 4P C/O 1700
2/180°	2000	2800	3250	3200			Central opening 4P C/O 1700
1/0°	2200	2550	3450	2850			Central opening 4P C/O 1900
2/180°	2200	2500	3450	2900			Central opening 4P C/O 1900

RATED LOAD · **3500kg / 46 people** | ROPING · **4:1** | MAXIMUM SPEED · **1 m/s**

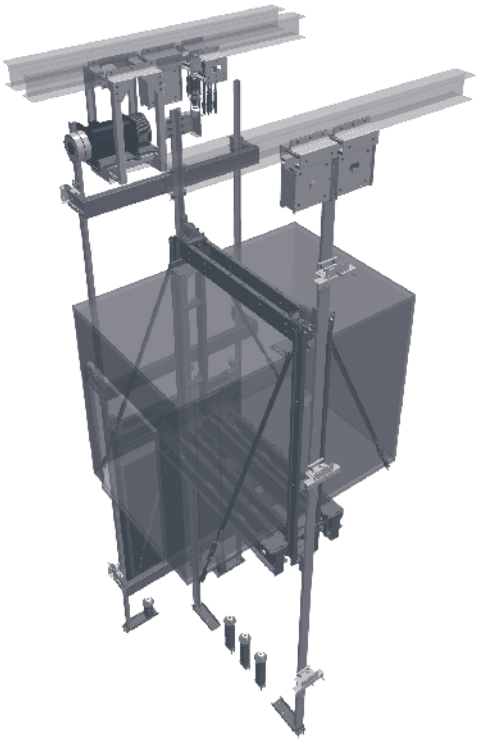
Entrances Angle	Car		Shaft		Headroom CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	2200	2950	3450	3250	4200	1300	Central opening 4P C/O 1900
2/180°	2200	2900	3450	3300			Central opening 4P C/O 1900
1/0°	2400	2700	3650	3000			Central opening 4P C/O 2000
2/180°	2400	2650	3650	3050			Central opening 4P C/O 2000

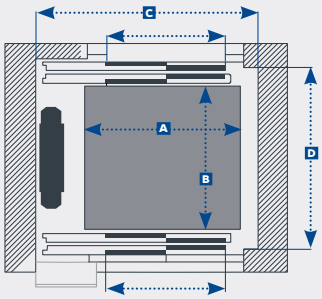
RATED LOAD · **4000kg / 53 people** | ROPING · **4:1** | MAXIMUM SPEED · **1 m/s**

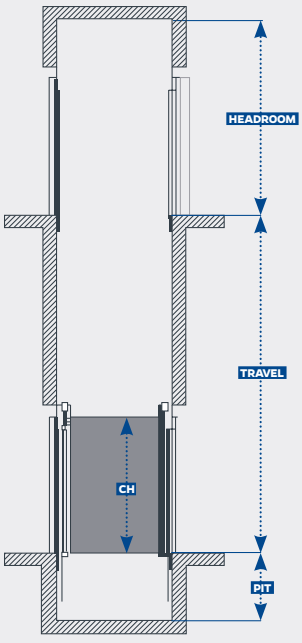
Entrances Angle	Car		Shaft		Headroom CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	2200	3300	3450	3600	4200	1300	Central opening 4P C/O 1900
2/180°	2200	3250	3450	3650			Central opening 4P C/O 1900
1/0°	2500	2900	3750	3200			Central opening 4P C/O 2100
2/180°	2500	2850	3750	3250			Central opening 4P C/O 2100

Standard shaft and car dimensions

* According to the door and opening type.







Operational ranges (standard mechanics)

Maximum travel	Up to 30 m	
Shaft	**Pit**	**Standard minimum:** 1300 mm
	Headroom	**Standard minimum (2200 mm) car:** 4200 mm
	Minimum width	Car width + 1250 mm
Car	**Minimum depth**	2600 mm
	Maximum depth	4000 mm
	Minimum width	1600 mm
	Maximum width	3000 mm
	Standard height	2200 mm


8PERS-630KG
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Serie 220

The 220 Series has been designed to respond effectively to all the vertical transport needs of buildings with high volumes of traffic.

Proven durability and resistance: the 220 Series lift cars are sturdily built and reinforced to deal comfortably with intensive work conditions over a long period of time. The construction materials used are of top quality and notably hardwearing.

Additional protective measures: the cars can be reinforced with buffer rails and kick plates for greater durability and with any other materials and components requested by the customer to maximise their effectiveness over time.

Rated loads: **available from 1300 to 4000 Kg.**

Simplicity: the lift car is supplied with the lighting and operating panel pre-wired. Unit assembly is easy and quick, and each is delivered with all the detailed information and documentation required.

The lift cars are built in accordance with the European Lifts Directive **2014/33/EU**, and are available in compliance with the harmonised European standards **EN 81-70** (disability), **EN 81-71** (vandal resistance) and **EN 81-72** (firefighters).

Customized individual design: special wall, floor and ceiling finishes are available on request. Cars can also be delivered ready for final fitting (light fixtures, flooring) by others.

The lift c**ars in the 220 Series** are built in sheet steel and finished with **plastic laminates** in a wide range of colours, or in **stainless steel** in a choice of different textures.

The **car lighting** is direct, using **LED spots or fluorescent lights.**

Ceilings and hatchways are finished in **white skinplate** or **stainless steel.**

The **car doors** are supplied with a **stainless-steel** finish in a choice of textures

The **car fronts** can also have a **stainless-steel finish** in a range of different textures, as required.

The **upper and lower skirtings** are supplied with a **stainless-steel finish in different textures.**

The **car flooring ca**n be finished in **hardwearing rubber,** resistant materials such as **aluminium, stainless steel or reinforced vinyl.**

The **handrails** are supplied with a **stainless-steel finish,** in a range of different configurations, according to customer choice.

Mirror available as **high mirror or mid-height.**

Empty car also available for local decoration by client

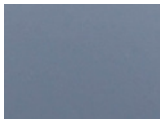
Walls

Light Reflectance Value

Skinplates


P222 72

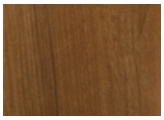
P280

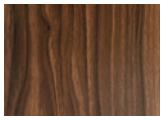

P422 32


P432 35

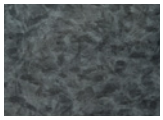

PB55 57


PB65 32


PB70 15


PB75 7

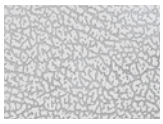

PB80 30


PB60 15

Stainless Steel

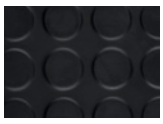

Satin Stainless Steel 45

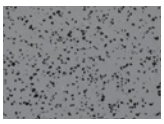

Stainless Linen 20


Elephant skin 22

Flooring

Rubber


S45GN 4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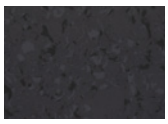
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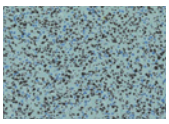
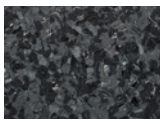
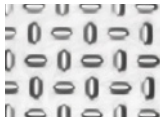

S102 26


S52GN 15

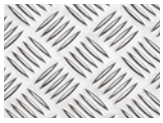

S62GG 58

Stainless steel


S2_I 39


S35_I 45

Aluminium


S3AL 42

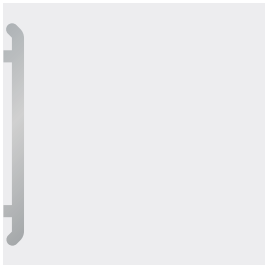
Car lighting

F-S

Spot Led

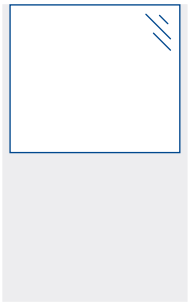
Handrails

PSI 1

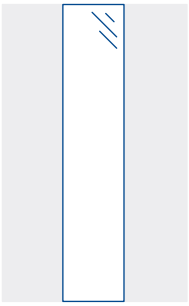


PSI 2

Mirror



Mid-height mirror*



High mirror**

**Wide safety mirror from above the handrail to the ceiling*

*** Tall safety mirror from skirting level to the ceiling*

Buffer rails

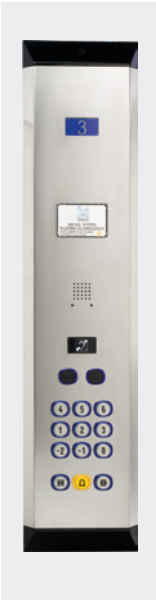
PL_MS

PL_PVC

PL_I

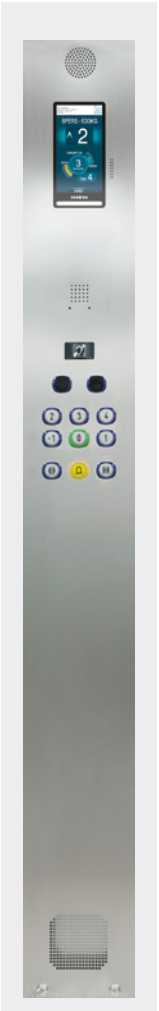
Car operating panels, landing push stations & indicators

Car operating panels



BCE1

BCE2



BCCE*

* Available as flush or surface-mounted.

Landing indicators

HL5

Display Smartech HR*

**Option EN81-70: with "next direction arrow" and gong*

Landing Push Stations

BEE3

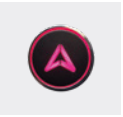
BEE4

BEE5

Landing push buttons

PEMT

PEEB

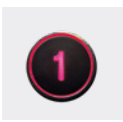


US91

Car push-buttons

PCEB

PCMT



US91

Key switches

PCENK

PCSTK

Lift car Smartech display

Lift availability before travel. The screen tells you if the lift is available for use.

Smartech AutoTest Function. Checks and displays the correct functioning of the safety components and system before the start of each journey.

Position & direction. Shows the location of the lift within the building at all times, as well as direction of travel.

Destination floor & time remaining before arrival. Indicates the floor to which the lift is travelling and the time remaining before arrival, expressed in seconds.

Speed. Passengers are kept informed in real time of the car's speed on each journey, from departure until arrival at the destination floor.

Energy consumption. Indicates if the lift is consuming energy or generating it during travel, thereby reducing the building's operating costs.

Arrival at destination floor alert. Informs passengers when the lift reaches the destination floor.

Date & time. Displays the time and date in real time.

Load & passenger capacity. Indicates the maximum permissible load, in kilograms, and the maximum number of passengers that can travel in the lift car.

Landing Smartech HR display*

*Optional

Welcome messages. The screen greets passengers with messages corresponding to the particular time of day.

Position & direction. Indicates to passengers waiting on a landing the location of the car and its direction of travel in real time.

Flashing LED display by the lift entrance. Alerts passengers to the imminent arrival of the lift.

Situation reports. The display transmits relevant information to passengers: such as when there are too many people in the lift car, when the lift door is blocked and when people are entering or leaving the car, among others.

Lift arrival countdown. The display shows a progress bar and countdown in seconds, accurately updated in real time, so that passengers know exactly when their lift will arrive.

Energy consumption. Indicates if the lift is consuming energy or generating it during travel, thereby reducing the building's operating costs.

Voice messages. The screen device shares travel information with passengers via a voice synthesiser built into the door frame. Its volume is automatically adjusted according to the particular time of day.

All the visual and acoustic messaging has been designed in full accordance with EN 81-70 (Safety rules for the construction and installation of lifts. Particular applications for passenger and goods passenger lifts. Part 70: Accessibility to lifts for persons including persons with disability).

Altamira II control system: **Silens Pro's®** brain.

The Altamira II control system has been completely designed and manufactured by IMEM Lifts alone. It was conceived to control, with maximum precision, all the actions of any lift or group of lifts in the Silens Pro® range.

Altamira 2 is ready to solve, in a simple way, both the most common functions and the most complex and sophisticated, avoiding traditional electro-mechanical solutions.

01

Seamless integration for perfect performance

- **Altamira II** is fully integrated with the mechanisms of the entire **Silens Pro®** lift range. Therefore, in a **Silens Pro®** lift, the mechanical and the electrical act as one to provide exceptional functionality and performance.
- **Altamira II** minimises the sensors and components required, making it possible to utilise space to the maximum. It provides optimum travel comfort for the lift and reduces electrical consumption.
- As electrical and mechanical manufacturers we not only offer our customers lifts that provide integrated electrical and mechanical solutions with perfect compatibility: we also offer integral technical support to our customers, saving time and providing efficient support throughout the lifecycle of our lifts.

02

Easy and quick installation

- **Altamira II** is supplied pre-assembled, pre-connected and pre-tested which simplifies installation and minimises any margin of error.
- Perfectly configured variator and machine operating patterns match the operation of **Altamira II** with the mechanics of every **Silens Pro®** (Top, Compact, Vanguard and Mega).
- Installation times are reduced thanks to the almost complete elimination of traditional sensors and magnets.
- **Altamira II** integrates software that allows a single person to perform a levelling operation in minutes and from inside the lift car.
- The control cabinet can be installed flexibly anywhere in the building up to a maximum distance of 20 metres from the drive motor*.

**There are versions where the control cabinet can be located more than 20 m from the drive motor. In each case, please check with us.*

Your lift connected to the future

Your Silens Pro® lift will soon be compatible with the IMEM Cloud® connectivity kit. Thanks to the system, your elevator is connected to the Internet 24 hours a day, 365 days a year. **The aim: to achieve maintenance excellence with a tool that transmits everything that happens on the machine to the technical service in real time, and to offer passengers a constantly evolving user experience.**

Increased uninterrupted elevator uptime thanks to enhanced remote monitoring capabilities.

Reduced incident resolution times.

Enhanced user experience thanks to infinite updates and connection to other devices.

Anticipation of incidents thanks to predictive maintenance.

Operational and service functions

Direct approach
The lift approaches the floor with no intermediate speeds to stop gently at the floor level. The position of the car is calculated at all times without the need for magnets.

Return Mode
The cab returns to the return floor if it is below it or when there are no more orders or pending calls. You can set any floor as the return floor.

Max. car registration
Maximum number of car registrations.
Vandal proof function.

Fire control
In the event of a fire, a control is activated that sends the lift to the fire emergency floor. If the lift is going away from the fire emergency floor, it will stop at the first possible stop and without opening the doors, it will return to the fire emergency floor. If the lift is going in the direction of the fire emergency floor, it will not stop until it arrives at that floor. This complies with EN81.73.

When this movement is completed, it can return to normal operation by means of reset or not.

Fire fighting movement - EN81.72-
When this movement is completed, it can return to normal operation by means of reset or not. This movement complies with EN81.72. Available for Australian standard.

Non-stop movement on floors with fire
This prevents the lift stopping at a floor where fire has been detected. If this signal is activated the lift stops at this floor, the car stays with the doors closed and it goes to another floor.

When this movement is completed, it can return to normal operation by means of reset or not.

Out of service
This allows the lift to be left out of service, either at a particular stop or on the first floor where it can stop.

Independent service
The lift only attends to orders that are registered from the car operating panel.

Full load signal
The lift does not answer calls from outside if it is fully loaded.

Car Light Timing
This allows you to set the time when the car light is turned off. It is deactivated once the doors are closed.

Car fan
There is a timer to activate/deactivate the fan.

Automatic detection of water in the pit
Detects the presence of water in the pit, forcing the elevator to stop at intermediate or upper floors.

ECOSAVER®
Regenerative system that recovers and stores the energy generated by the lift, so that it can be used at a later time, reducing total energy consumption.

Seismic - EN81.77 -
Operation according to EN81.77.

Anti-surfing
This allows secure access to the car roof so the lift cannot be used for vandal purposes.

Stand-by
This allows the lift to reduce power consumption when not in use.

Standard function **Optional function**

Multiple movement functions

Multiple
A group of up to 8 lifts can be controlled.

Multiplex with different number of floors
This allows operation of multiple system of lifts with different amount of floors.

Limit out of service
Parameter to configure the number of warnings detected in the doors before putting a lift ouf of service. When this happens, other lifts of the system will deal with the landing calls.

Multiplex input traffic
This establishes a time period in which there is a lot of traffic entering the building from a certain floor and tries to facilitate the management of the multiple system to reduce the times that users wait for an available car.

Multiple system output traffic
This identifies a time period in which high passenger traffic from a certain floor has been registered, in order to reduce waiting times

Door operation functions

Fast closing of doors
This allows the time between stops to be shortened by means of a button in the car that can be activated if there are car orders.

Door hold
Key in the car operating panel that keeps the door open as if it were a photocell.

Nudge
The doors close slowly in the event of a prolonged interruption of the safety edge, notifying the persons in the car visibly and/or acoustically.

Safety edge
Safety edge according to EN81.20

Self-diagnosing safety edge
Autodiagnosis of the safety edge in which the door sensors are automatically checked.

Signage and display functions

Departure Gong, ascending and descending tones - EN81.70 -
Activates a sound with an ascending scale for ascent and a descending scale for descent.

Overload function
The display gives a visual and audible indication to the users of overloading inside the car.

Voice synthesizer
This is a voice synthesizer that emits informative messages concerning the operation of the lift.

Emergency operation functions

Auto-rescue
Automatic rescue in electric lifts by means of UPS including the opening of doors when the designated floor has been reached. It has a pre-programmed destination floor.

Manual rescue
Manual rescue can be of two types, one by braking and displacement of the car according to the load balance or by means of high power UPS and direction pushbuttons that raise or lower the lift.

Emergency light cockpit button
In the event of a power cut, an emergency light is switched on in the car operating panel which provides illumination in compliance with EN81.20.

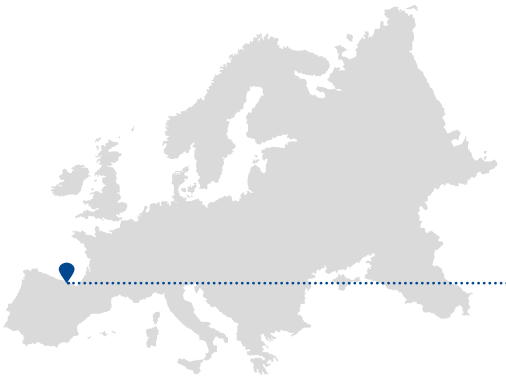
Emergency ceiling light in car
In the event of a power cut, an emergency light is switched on in the car ceiling which provides lighting in compliance with EN81.20 for 2 hours.

Standard function **Optional function**

IMEM LIFTS

SilensPRO®

Designed and manufactured in Europe



- All the products we design are produced entirely in-house in our own European factories – ever since 1968.
- Meeting all the European quality standards.
- Particularly regarding safety, sustainability and environmental care.

CE

EXPORT DEPARTMENT

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AENOR GESTIÓN DE LA CALIDAD ISO 9001 ER-0426/1997 Quality Management System

AENOR GESTIÓN AMBIENTAL ISO 14001 GA-2008/0458 Environmental Management System

AENOR SEGURIDAD Y SALUD EN EL TRABAJO ISO 45001 SST-0008/2008 Occupational Health and Safety Management System

CE Made in Europe

May 2025