

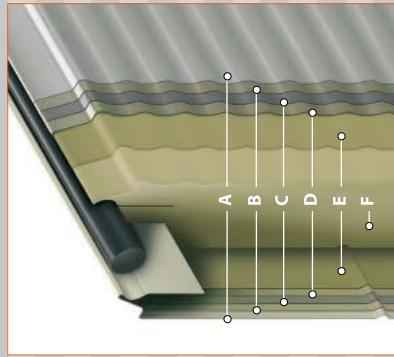
Sectional overhead doors

Strong piece of technology



Sandwich- construction **ISO 40 mm panel**

Panel thickness: 40 mm
Insulation value: U=0.52 W/m²K
Density PU foam: 40 kg/m³

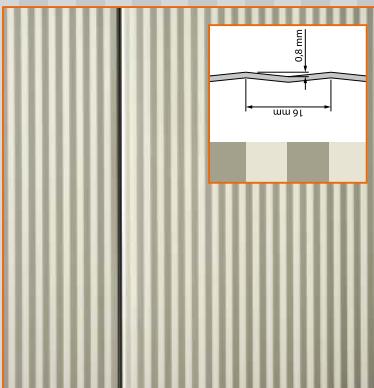


ISO 40 mm

all-rounder

The ISO 40 mm sectional door is Alpha's most popular door, a modern design that unifies excellent thermal insulation and sound absorbing qualities in its micro-profiled panels. The choice of design and materials are endless, which means the door can always be perfectly configured to meet your wishes. Numerous types of built-in windows as well as different heights and widths make up the ISO 40 mm range, as well as a variety of 15 standard Alpha's in-house colours.

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Micro-profiling, it's the standard! 15 Standard colours without any extra charge

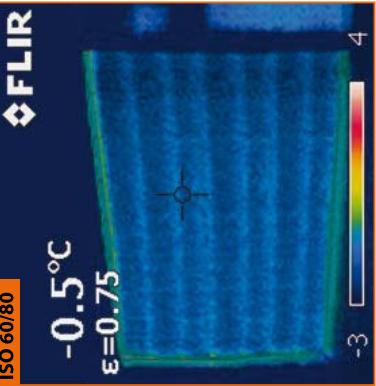
- A Paint layer: 15 standard colours (outside)
- B Zinc coating: 275 g/m²
- C Steel sheet: 0.5 mm
- D Zinc coating: 275 g/m²
- E Primer coating
- F PU high density foam: 9=40 kg/m³, HFC-free

- G Primer coating
- H Zinc coating: 275 g/m²
- I Steel sheet
- J Zinc coating: 275 g/m²
- K Paint layer: RAL 9002 (inside)

Flexibility is everything

ISO 40 mm sectional doors are designed and manufactured using the very latest technology. Their finish is robust and detailed, as demonstrated by the metal or aluminium end caps, the reinforcement profiles and the anodized aluminium sub-profiles, which cannot be seen from the outside. Flexibility is everything in the manufacturing process, and it is true all-rounder that perfectly combines price, performance and application options.

U-value ISO 40 mm sectional door: 5,000 x 5,000 mm: 0.99 W/m²K



Infrared imaging

The ISO 60 mm and ISO 80 mm sectional door insulates even more effectively than the ISO 40 mm door. We check this feature by taking infrared images of the assembled doors. Any light spots indicate where energy loss occurs, while the dark regions are well-insulated.

Wind load

Depending on the width of the door, Alpha will install reinforcing profiles on the door. Thanks to these, the door is able to withstand a heavy wind load, in accordance with the applicable rules and standards. At a door width from 4200 mm (ALU 40) / 5000 mm (ALU 60) each second panel has a profile. With a door width from 5000 mm (ALU 40) / 5800 mm (ALU 60), each section has a reinforcement profile.

Floor seal

Alpha uses double rubber sealing strips to ensure that the door is flush with the floor. Together with a concrete strip, this will prevent water from seeping under the door.



Standard Colors

Thanks to Alpha, architects can now indulge in design and colour variations. The optical properties of the microprofiled sheet plate makes the doors perfectly modern industrial architecture. Alpha's in-house range offers 15 common cold-coatings; the doors can always be seamlessly integrated into your company's Do you have special requirements when it comes to the colour? Alpha can offer a rainbow of colours.

Dark colors are to be avoided in alignment with the sun in double-walled steel doors, as a possible deflection can damage the door.



The purpose of windows

- ISO sectional doors can be fitted with Plexiglas windows for increased natural light and improved visibility. The standard windows are oblong, with straight or rounded corners containing single or insulating double glazing.
- For additional security against intruders, narrow rectangular windows with rounded corners are also available. Are you looking for a one-of-a-kind design? Then go for the rounded windows or a creative pattern made up of windows.



Types of windows

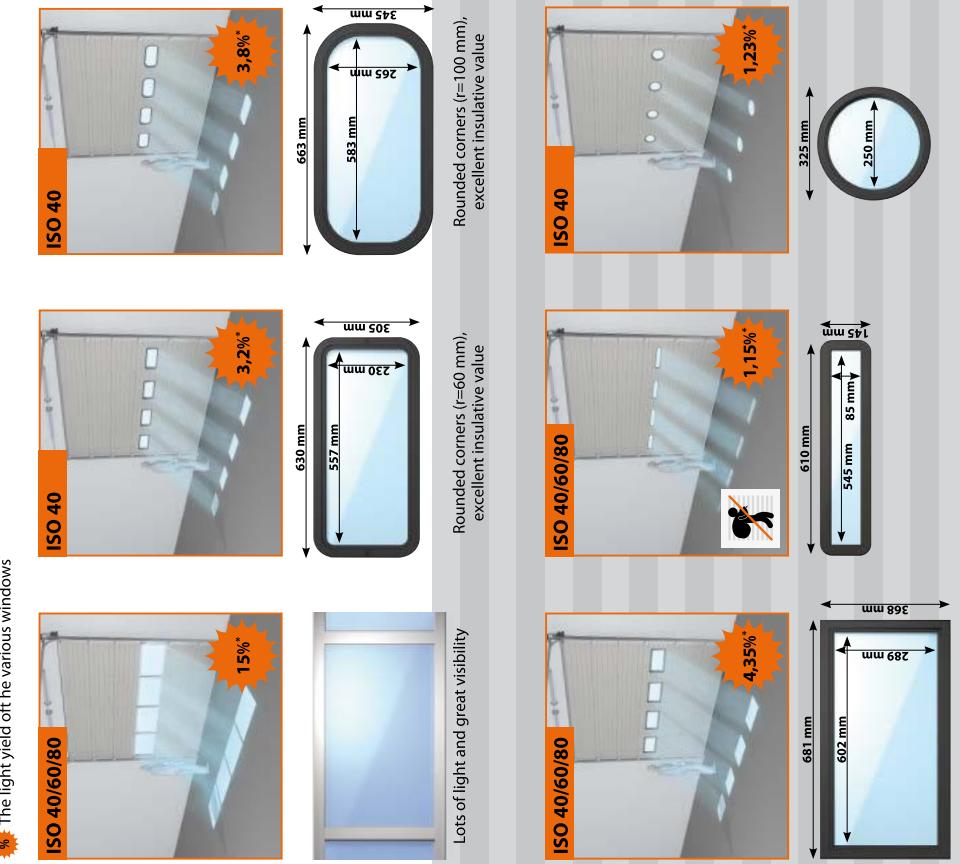
The image displays a grid of color swatches for ISO 40 Stucco. The grid is organized into several columns, each representing a different color family or standard. The columns include:

- ISO 40/60 (top left)
- ISO 40/60 (top middle)
- ISO 40/60 (top right)
- ISO 40 (middle left)
- ISO 40/60/80 (middle middle)
- ISO 40 (middle right)
- ISO 40 (bottom left)
- ISO 40/60/80 (bottom middle)
- ISO 40 (bottom right)

Each swatch is labeled with its corresponding color name and standard. The colors range from deep reds and blues to various shades of grey and earth tones. The background of the grid features horizontal stripes in some colors, such as the top row and the middle row's first two columns.

The purpose of windows

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Track-systems

High-quality modular ease of assembly

Alpha rail systems are modular and largely pre-assembled. The rail systems can be used for both ISO and ALU doors, such as the Panorama door. Certified quality and durability are at the forefront of the design and assembly of our rail systems and suspension packages.



Spring buffer

The sturdy-built spring buffer ensures that the door will lower as soon as it is prompted to do so. The length of the spring buffer depends on the door configuration.



Floor plate

The floor plate ensures that the rail connects to the floor and, together with the expansion joint profile, sets the correct distance between the guides.



M8 bolts

We always use M8 bolts to join the sheet metal sections and rail profiles. That means that, together with the carefully pre-assembled components, assembly time is very short.

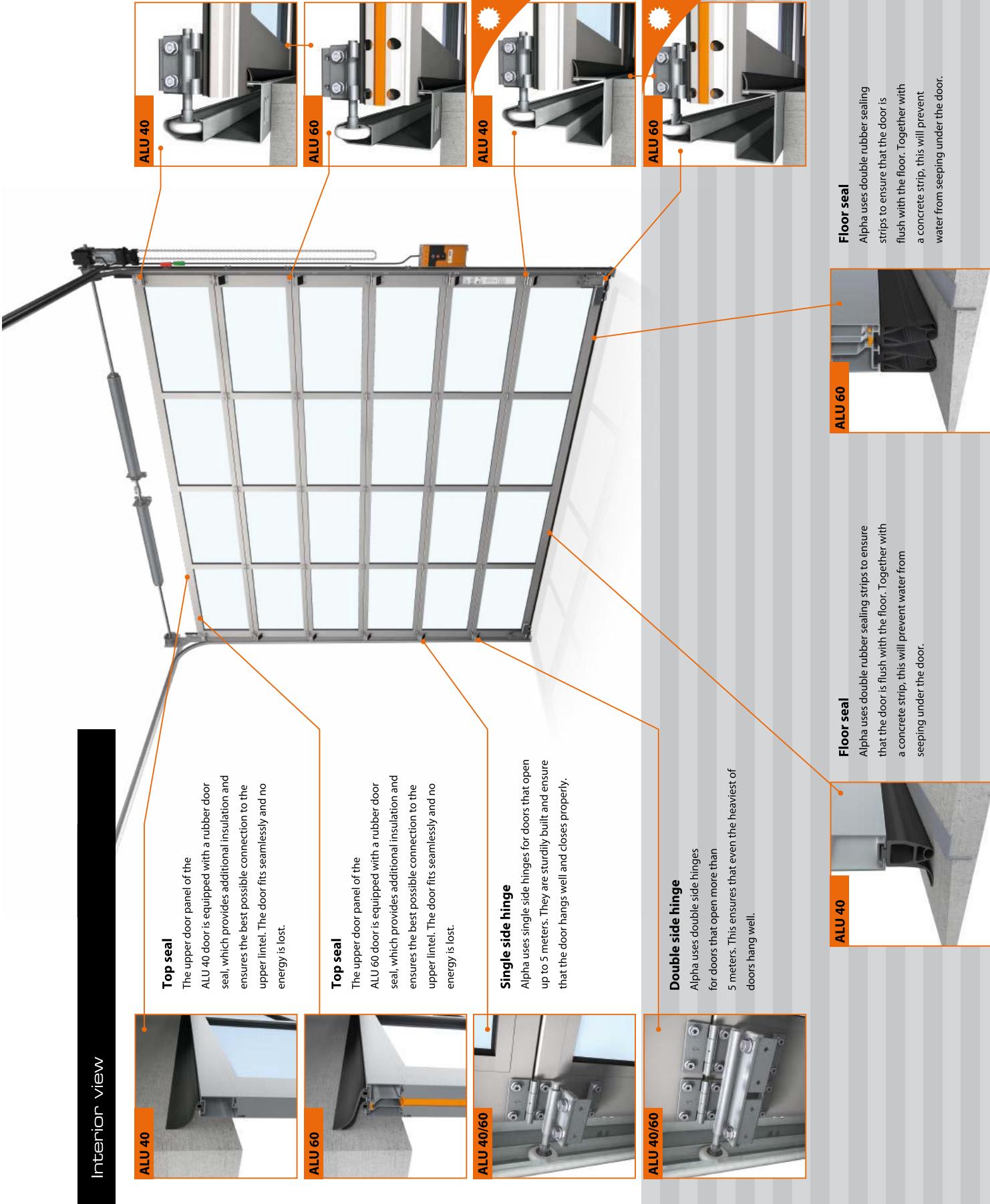
Cable position

Thanks to the modular structure of our rail systems and sheet metal components, we can ensure the perfect cable position in relation to the vertical rails, which results in optimal safety and reliability.

Safety tracks

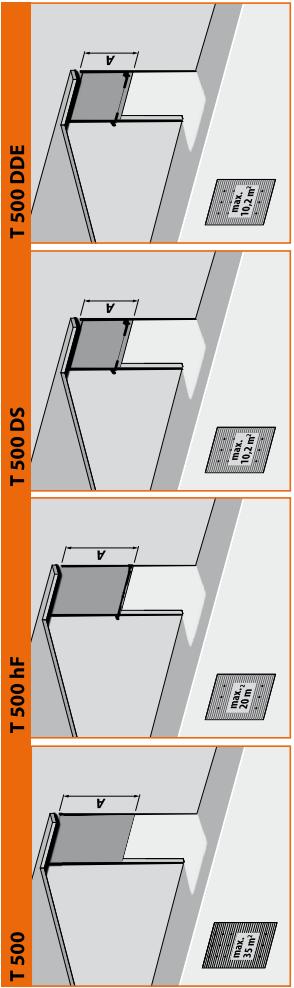
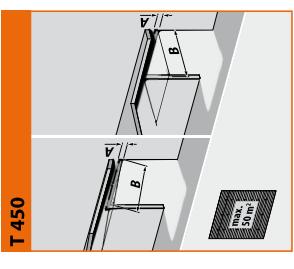
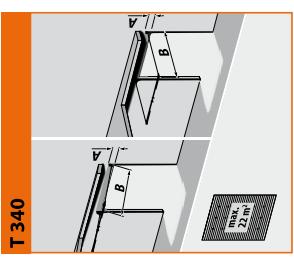
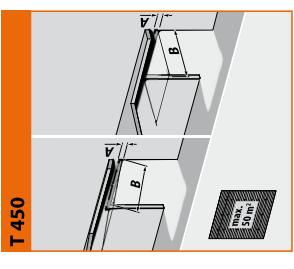
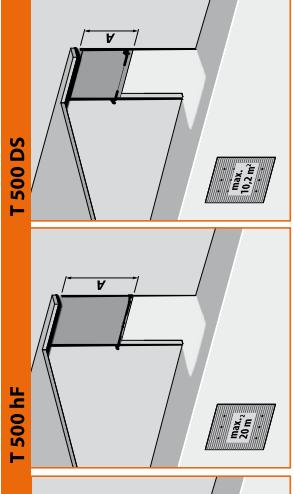
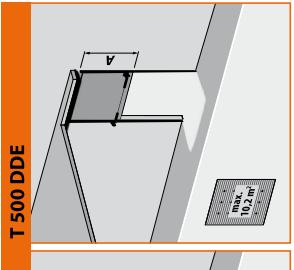
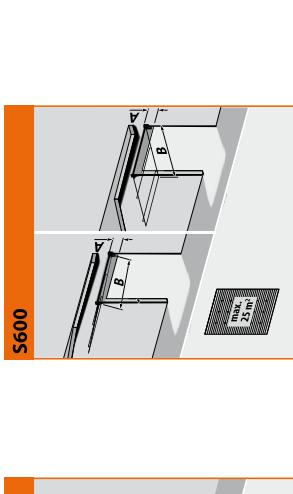
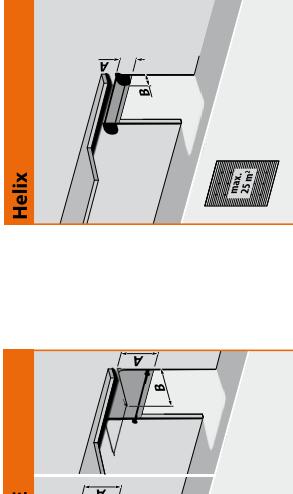
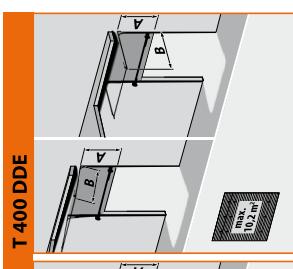
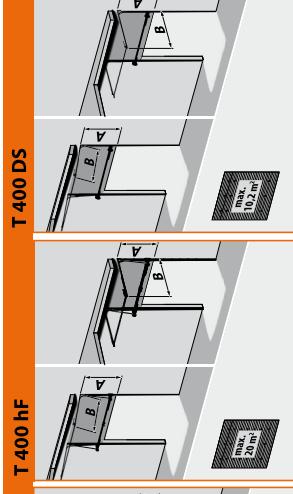
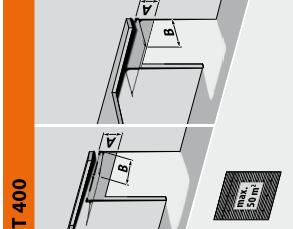
The safety guide guarantees that the rollers do not become derailed. The cable is safely encapsulated in the construction as an additional safety measure.

Interior view



Overview of rail systems

Of course the space available for the door and structural issues remain deciding factors when it comes to installing a door, which is why Alpha offers different rail systems that can be customised to suit any scenario.

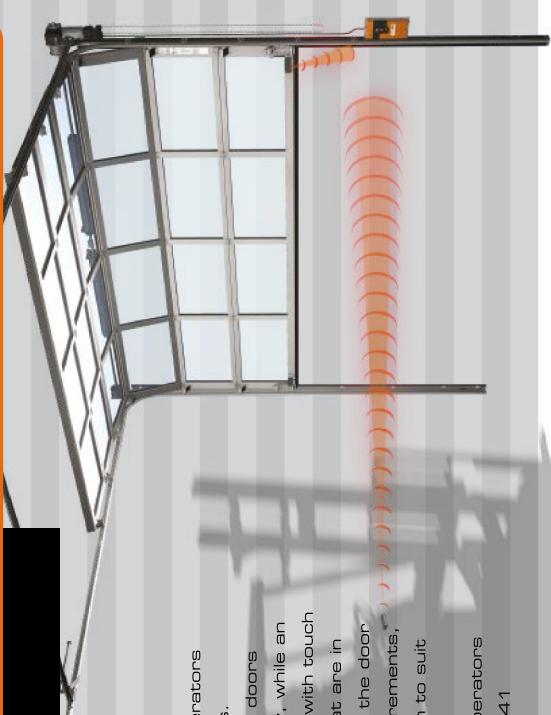
	T 500	Vertical rail system (comes standard)	A= open height + 560 mm B= open height + 650 mm
	T 340	Low built-in rail system, incorporated cables + steel support profile	A= 340 mm B= open width + 750 mm Width max. 6,500 mm
	T 240	Low built-in rail system, incorporated cables + steel support profile	A= 240 mm B= open height + 1,000 mm Width max. 6,500 mm
	T 450	Standard rail system (comes standard)	A= 430-510 mm B= open height + 650 mm
	T 500 hF	Elevated rail system with low spring axis + steel support profile	A= hoisting + 200 mm B= open height - hoisting + 600 mm Width max. 4,500 mm Lift min. 1,450 mm
	T 500 DDE	Elevated rail system with low spring axis + steel support profile	A= hoisting + 200 mm B= open height - hoisting + 600 mm Width max. 3,200 mm Height max. 3,200 mm Lift min. 1,700 mm
	T 400 hF	Elevated rail system with low spring axis + steel support profile	A= hoisting + 200 mm B= open height - hoisting + 600 mm Width max. 4,500 mm Lift min. 1,450 mm
	T 400 DS	Elevated rail system with low spring axis + steel support profile	A= hoisting + 200 mm B= open height - hoisting + 600 mm Width max. 3,200 mm Height max. 3,200 mm Lift min. 1,700 mm
	T 400 DDE	Elevated rail system with low spring axis + steel support profile	A= hoisting + 200 mm B= open height - hoisting + 600 mm Width max. 3,200 mm Height max. 3,200 mm Lift min. 1,700 mm
	Helix	Helix spiral	A= 1100 mm B= 1200 mm Width max. 5000 mm Height: min. 2500 mm max. 5000 mm
	S600	Vertical rail system with low spring axis + steel support profile	A= open height + 400 mm Width max. 4,500 mm Height max. 3,200 mm
	Helix 5600 Horizontal track system	Helix 5600 Horizontal track system	A= 600 mm B= open height + 265 mm Width max. 5000 mm

Power

Operators

Alpha offers a variety of operators for powering sectional doors. A manual system is ideal for doors that are not used frequently, while an electrically powered system with touch control is best for doors that are in constant use. Depending on the door configuration and your requirements, there is always a mechanism to suit your needs.

All our drive systems and operators meet the European EN-13241 standard.



Dead man's switch - electric

This system is an excellent choice when a door is used infrequently. One push of the button is all that's needed to open the door, although you have to keep it depressed to close the door. This enables the person operating the controls to keep an eye out for any dangerous situations that may arise while the door is closing.



Touch control - electric

If the doors are in constant use then go for a touch control. The door raises or lowers automatically to a set position, which can be electronically adjusted, without having to keep the button depressed. An obstacle detection system is built into the door's bottom seal.



Touch control with remote control and high speed motor

If the doors are in constant use then go for a touch control. The door raises or lowers automatically to a set position, which can be electronically adjusted, without having to keep the button depressed. An obstacle detection system has been built into the door's bottom seal.



One touch with remote control

The touch control system is also perfect for remote operation and can save a lot of time, because it allows the forklift driver to remain seated while the door is opened or closed remotely. This option includes a stationary photoelectric safety sensor, which is fitted to the door.



Chain hoist - manually operated

The chain hoist requires less physical exertion than a pull-cord (1:4 ratio). The system – suitable for sectional doors up to 30 m² – ensures that the door can be secured in the uppermost position.



Pull cord - manually operated

If your door is smaller than 16 m² and you use it only sporadically, then your best option is the pull-cord mechanism. However, the system requires physical exertion (1:1 ratio) and there is a risk the door will not open sufficiently, which may result in damage.

Control box features



Alpha offers a wide range of top-quality controls for your sectional door that can be integrated into the door system's control box. Numerous elements can also be mounted on an interior or exterior wall, a pillar or anywhere else, including safety devices, switches, remote controls, warning lights and much more.



Motor with emergency chain

All the drive systems have a mechanical back-up system fitted to the reduction gearbox of the electric motor, so that the sectional door can be opened if the power fails. It must be activated and deactivated manually using pull cords. The reduction gearbox can then be powered using the chain.



Motor with release system

The motor can also be fitted with a release system. Cables are used to disconnect the reduction gearbox from the spring shaft, which means that the sectional door can be opened faster in the event of malfunctions. It goes without saying that sectional doors with a release system are fitted with a spring break safety device.



Emergency stop

Alpha offers the option to have an emergency stop installed in the control box when local, national or international legislation stipulates that an electrically operated sectional door must have this safety feature.



Two setting switch

You can use this switch to configure two settings. For example, push the button once to raise the door to the height of a person and twice to open the door fully. This option is ideal if you want to save energy and don't always need to open the door completely.



Key switch

The key switch is used to disable the control box and prevent unauthorised people from operating the door. Only authorised people have a key to activate the door.



Main switch with padlock

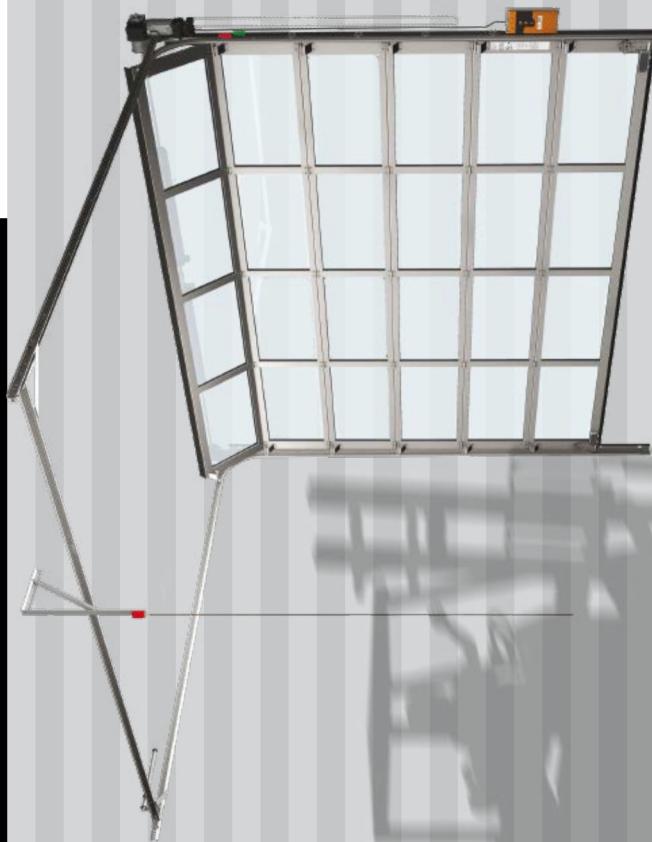
The main switch can be used to turn off the power so that the door system can be serviced. Securing this switch with a padlock prevents unauthorised people from accidentally turning the power on while the service is being carried out.



Wireless communication

Normally, the control box and the connection box on the door panel are connected by means of a spiral cord. But this cord can get in the way and be damaged. That's why Alpha supplies connection boxes that are fitted with a battery and can transmit signals, such as detection messages, wirelessly to the control box.

Extra control features



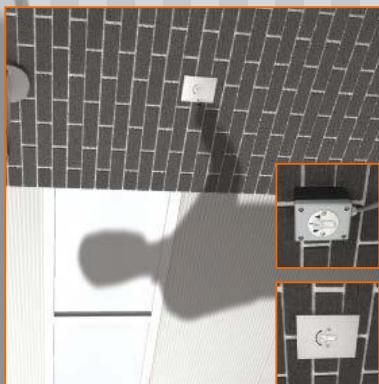
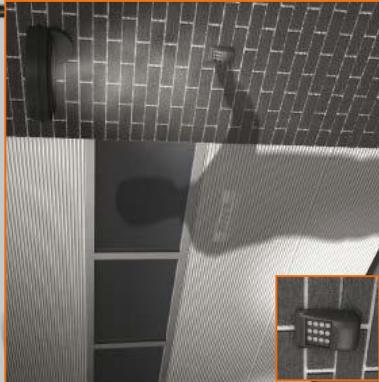
Extra control panel

An extra control panel is the ideal solution if a door needs to be operated from multiple places or remotely, such as from a guardhouse. This handy up-stop-down' box features all the buttons in the standard control box.



Traffic lights and warning lights

Traffic lights and warning lights installed on either side of a door are an effective way of preventing injury to people and damage to the sectional doors and goods. Warning lights alert people and light up before a door opens, while traffic lights control the traffic and prevent damage to the doors.



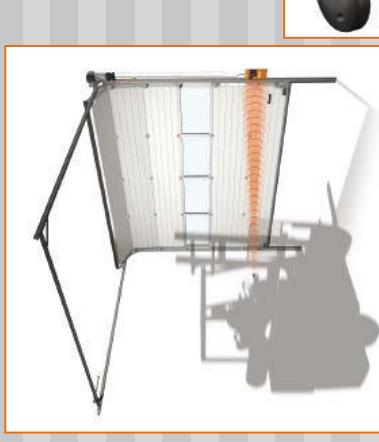
Key switch

The door can be operated using a separate key switch, which can be mounted on the exterior wall. There are two models: the built-in version, which is used a lot in new properties, and the mounted version, which can be installed during renovation without having to break or dismantle anything.



Pull switch

The forklift driver can use the pull switch to operate the door while staying seated. This is the ideal solution if you have a lot of employees, but don't want to give all of them a hand transmitter for the door. The pull switch is often mounted on a frame a few metres in front of or behind the door.



Remote control

Alpha has included a receiver in your door's control box, making it easy to upgrade the door system to a remote-controlled one. You can choose between one, two or four-channel transmitters, which can operate four different doors.

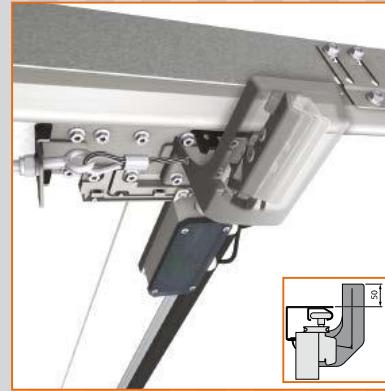


Spring break safety device

The European EN-13241 standard stipulates that a sectional door may never descend without being controlled. All manually operated sectional doors must therefore be fitted with a spring break safety device. This device blocks the spring shaft in the event of a spring breaking and prevents the door from crashing down. With motor driven sectional doors, instead of a spring break safety device there is a self-locking gearbox. This means a spring break safety device is unnecessary, as it is only required for a motor with a release system.

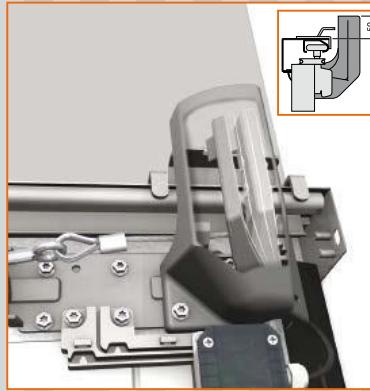
Cable break safety device

The TÜV sets out that the breaking load of both hoisting cables must be six times the weight of a balanced door panel. A cable break safety device is not required if the hoisting cables comply with this breaking load requirement. If that safety margin cannot be guaranteed, then the door must be fitted with a cable break safety device. This device guides safety cables through a system to prevent the door from crashing down should the cable break. An extra 50 mm is required alongside the rail to install a cable break safety device.



Locking device

Sectional doors are suspended on flexible cables, making it possible to raise them when they are unlocked. Designed especially for light, electrically operated doors, the locking device prevents this, because without it sectional doors are more vulnerable to break-ins. Manually operated doors are fitted with a spring-loaded mechanical slide lock as a standard. An extra 50 mm is required alongside the rail to install the locking device.



Safety is important when it comes to the frequently heavy vertical sectional doors, so Alpha offers mechanical and electric safety devices that prevent the door from coming into contact with people, vehicles and obstacles, and causing injury or damage to the doors and/or goods. Excessively safeguarding a sectional door is often unnecessary and could be disadvantageous, as it requires things like extra space for installation and use and could result in components obstructing or even damaging each other. That's why Alpha recommends you always observe the safety rules. We provide optimum safety systems that are certified by TÜV Nord and meet the very strictest requirements and standards.



Electronic safety devices



Predictive safety edge

The predictive safety edge is located 8 cm ahead of the door. If the bottom of the door approaches an obstacle, a signal is immediately sent to the motor and the door stops and reopens. This means the safety edge works without coming into contact with people, goods or transport vehicles.



Standard safety edge

The safety edge device is integrated together with a transmitter and receiver in the door's bottom rubber seal. If the signal is broken by an object or person, the door will stop and retract. The maximum contact pressure for the rubber seal is 40 kg. Choose the predictive obstacle safety edge if you have products that cannot withstand that level of pressure.



Stationary photoelectric safety sensor

Motors with touch control must have a photoelectric safety sensor if the door opening is not visible to users while they are operating the door. There are two types: a model with a transmitter and reflector and model with a transmitter and receiver. In both systems there is a transmitter attached to the rail on the control box side and a reflector or receiver attached to the opposite rail. If the beam between the transmitter and the reflector/receiver is broken, a signal is sent to the motor to stop and reverse the movement. While the reflector system is sensitive to dust and moisture, this is not the case for the receiver mode.



Slack cable device

This safety device is installed on both hoisting cables and immediately disconnects the motor if one of the cables breaks or becomes slack.

