



**German Quality**

**High-speed sectional doors HS 5015 PU N/H, HS 6015 PU V**



# Industrial Sectional Doors High-Speed Sectional Doors

**HÖRMANN**







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### Industrial sectional doors

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# Brand quality from Hörmann

## Reliable and orientated towards the future



### In-house product development

At Hörmann, innovation is produced in-house—highly qualified employees of the development departments are in charge of product optimisation and new developments. This results in market-ready, high-quality products that are very popular around the globe.



### Modern manufacturing

All of the essential door and operator components, such as sections, frames, fittings, operators and controls are developed and manufactured by Hörmann. This ensures the greatest compatibility between the door, operator and control. The certified Quality Management System guarantees the highest level of quality from development, through production to shipping.



As Europe's leading manufacturer of doors, frames and operators, we are committed to high product and service quality. This is how we set standards on an international scale.

Highly specialised factories develop and produce construction components that are marked by excellent quality, functional safety and a long service life.

Our presence in the global economy's key regions makes us a strong, future-orientated partner for industrial and public construction projects.



It goes without saying that spare parts for doors, operators and controls are original Hörmann parts that come with a guaranteed availability of 10 years.



## Protecting the environment

Hörmann shows respect for the environment not only by using PU rigid foam, but also with regard to its colour coating. Our high-tech regenerative exhaust air decontamination system substantially reduces energy requirements as compared to previous methods. Tomorrow's more stringent limit values are already complied with today.



## Competent advice

Experienced specialists from our customer-orientated sales organisation accompany you from the planning stage, through technical clarification up to the final building inspection. Complete working documentation, such as technical manuals, is not only available in printed form, but is always accessible and up-to-date at [www.hoermann.com](http://www.hoermann.com).



# Industrial sectional doors

Doors, operators and controls from a single source



A uniquely broad range means that, in terms of both function and design, Hörmann sectional doors blend superbly into modern industrial architecture, from the standardised all-purpose unit to the highly individual designer-style building.

Doors, operators and controls are perfectly coordinated with one another and always tested and certified.



## Space-saving door system

Sectional doors open upwards. This creates space in front of and behind the door. Useful space is not wasted in the building because the door sections are parked underneath the ceiling or vertically on the wall. Since the doors are fitted behind the opening, the clear passage width can be used in full. This virtually excludes the risk of damage.



## State-of-the-art operator technology

The operators and controls that Hörmann offers are the outcome of its own in-house development and production. Perfectly matched components, subjected to endurance tests, give you the assurance that your door will perform well in continued use. The control system with a uniform operating concept and 7-segment display\* facilitates daily use. Identical housing sizes and cable sets not only simplify installation but also the addition of optional extras at a later date.

\* Except for WA 300 S4  
with integrated control

# Good reasons to try Hörmann

The market leader has the innovations

**Only from Hörmann**

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1

## A permanently clear view



### Maximum scratch resistance

Doors with DURATEC synthetic glazing stand up to tough demands in rough industrial environments, while maintaining their transparency. A special surface coating, similar to that used on car headlights, protects the pane over the long-term from scratches and damage caused by cleaning.

**The DURATEC glazing is available as standard and at no extra charge in all sectional doors with synthetic glazing – only from Hörmann.**

For further information, see pages 20 – 21.

2

## Efficient thermal insulation



### ThermoFrame

Well-insulated industrial sectional doors are essential in heated buildings. Hörmann industrial sectional doors are optionally available with the ThermoFrame frame connection for a thermal break between frame and brickwork. Additionally, lip seals on both sides of the door and a double seal in the lintel area protect from heat or cold loss, increasing the thermal insulation value by up to 12%.

For further information, see pages 19.



**Most comfort and safe wicket door  
with trip-free threshold**

EUROPEAN PATENT

**Only from Hörmann**



**3**

**Practical  
solutions**

**Wicket door with trip-free threshold**

The wicket door with extra-flat stainless steel threshold ensures easier passage of pedestrians. With doors with a width up to 5510 mm, the threshold rail is only 10 mm high in the middle and 5 mm high at the edges, reducing the risk of tripping considerably and making it easier to wheel things through.

Under certain circumstances, Hörmann wicket doors with trip-free threshold can even be used as escape doors and for barrier-free construction.

For further information, see pages 16.

**Only from Hörmann**



**4**

**Non-contact  
door monitoring**

**Leading photocell**

Power-driven Hörmann industrial sectional doors with WA 400 operators are equipped with a self-monitoring closing edge safety device with with optosensors as standard. for sectional doors with wicket doors, the leading photocell VL 2 for non-contact monitoring of the closing edge are provided as standard.

**These solutions offer you increased safety, faster door action and lower inspection and maintenance costs.**

For further information, see pages 17.

# SPU 40

**Sturdy double-skinned steel door with good thermal insulation**



## For use in heated buildings

Building doors must not only be extremely sturdy, they must also have good thermal insulation characteristics. Hörmann's SPU 40 door is a proven sectional door made of steel sections that optimally fulfils these requirements.

Thanks to a combination of steel and PU rigid foam, the door leaf is both robust and insulating.

## The elegant Micrograin surface

This finish impresses with fine lines and the smooth surface with subtle ribbing at the section transitions. The Micrograin surface complements the elegance of modern architecture.

## Exquisite workmanship

The hollow space in the double-skinned door leaf is evenly filled with foam. The polyurethane rigid foam is thus connected to the steel shell. This 42-mm-thick insulating core provides the convincing robustness and thermal insulation.

Stucco-textured surfaces or elegant Micrograin surfaces are available. Depending on the overall height of the door, sections are provided in the height combinations 625 / 750 mm and 375 / 500 mm. Optional glazing lets natural light inside. Secure and practical pedestrian passage is possible with an additional wicket door with trip-free threshold.





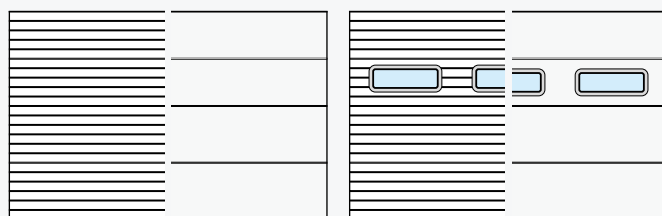


## SPU 40 doors: Optimum for Loading technology

Hörmann offers  
all of the components  
from a single source:

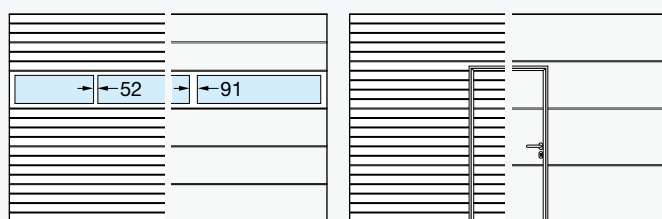
- Dock levellers
- Loading houses
- Dock seals
- Industrial doors
- Control systems
- Security accessories

### Door versions (examples\*) SPU 40



Door version without glazing  
Door section heights:  
375, 500, 625, 750 mm

With compound window type A  
Door section heights:  
500, 625, 750 mm



With aluminium glazing frame  
Frame height: 500, 625, 750 mm

With wicket door with  
trip-free threshold

\* Figure on left with Stucco-textured surface and figure on right with Micrograin surface.

### SPU 40

#### Size range

Width up to 8000 mm  
Height up to 7000 mm

#### Resistance to wind load <sup>1)</sup>

Class 3

#### Water tightness <sup>2)</sup>

Class 3 (70 Pa)

#### Air permeability <sup>3)</sup>

Without wicket door R = 25 dB  
With wicket door class 1

#### Acoustic insulation <sup>4)</sup>

Without wicket door R = 25 dB  
With wicket door R = 24 dB

#### Thermal insulation <sup>5) 6)</sup>

Without wicket door  
- With ThermoFrame U = 0.94 W/ (m<sup>2</sup>·K)  
- Without ThermoFrame U = 1.0 W/ (m<sup>2</sup>·K)  
With wicket door  
- With ThermoFrame U = 1.2 W/ (m<sup>2</sup>·K)  
- Without ThermoFrame U = 1.2 W/ (m<sup>2</sup>·K)

#### Section thermal insulation <sup>5)</sup>

U = 0.50 W/ (m<sup>2</sup>·K)

<sup>1)</sup> EN 12424; <sup>2)</sup> EN 12425; <sup>3)</sup> EN 12426; <sup>4)</sup> EN 717-1;

<sup>5)</sup> EN 13241-1, appendix B EN 12428;

<sup>6)</sup> With a door surface of 5000 × 5000 mm

**Safety features in acc. with EN 13241-1  
are listed on page 25.**

**Doors with wicket door with trip-free threshold  
are available in widths up to 6500 mm.**

Please refer to the technical manual for further information.



# APU 40

Modern aluminium door with steel bottom section and many versions



## Universal application

The combination of a double-skinned steel bottom section and aluminium glazing frame has more than proved itself in practice. The APU 40 door is very stable and lets a lot of light into the building. It is one of the most popular Hörmann sectional doors for factory buildings, thanks to its appealing features and numerous variants.

## An attractive appearance

The glazed door sections above the bottom section are always evenly spaced. APU 40 doors always have a bottom section that is 500, 750, 1000 or 1500 mm high.

## Individual versions

The high stability is mainly due to the 42-mm-thick insulating core made of polyurethane rigid foam used to uniformly foam-fill the bottom section. The door is reliably protected against corrosion and environmental conditions through a high-quality primer-coating on galvanised material, and via Stucco texturing. The door is also available with a Micrograin surface on the exterior. On request, the door comes with a wicket door with trip-free threshold for use as a practical pedestrian passage.

Stable bottom section

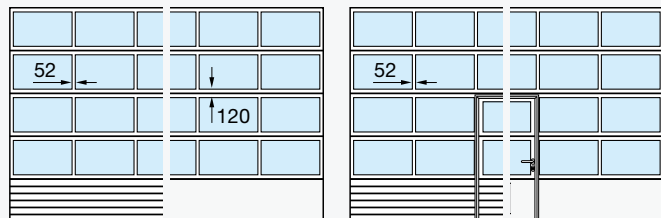




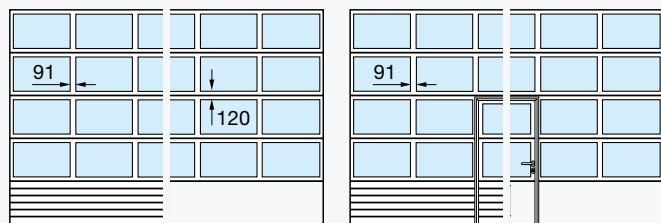


### Door versions (examples\*)

#### APU 40



With 52-mm rail extrusion (on request with 91-mm rail extrusion) and 750 mm bottom section for doors up to 5500 mm wide, optionally 500 mm, 1000 mm and 1500 mm



As standard with a 91-mm rail extrusion for doors from 5510 mm wide

\* Figure on left with Stucco-textured surface and figure on right with Micrograin surface.

#### APU 40

##### Size range

Width up to 8000 mm  
Height up to 7000 mm

##### Resistance to wind load <sup>1)</sup>

Class 3



##### Water tightness <sup>2)</sup>

Class 3 (70 Pa)



##### Air permeability <sup>3)</sup>

Without wicket door class 2  
With wicket door class 1



##### Acoustic insulation <sup>4)</sup>

Without wicket door R = 23 dB  
With wicket door R = 22 dB



##### Thermal insulation <sup>5) 6)</sup>

Without wicket door  
– Standard double pane with ThermoFrame U = 3.3 W/ (m<sup>2</sup>·K)  
– Standard double pane without ThermoFrame U = 3.4 W/ (m<sup>2</sup>·K)  
with wicket door  
– Standard double pane with ThermoFrame U = 3.6 W/ (m<sup>2</sup>·K)  
– Standard double pane without ThermoFrame U = 3.6 W/ (m<sup>2</sup>·K)



<sup>1)</sup> EN 12424; <sup>2)</sup> EN 12425; <sup>3)</sup> EN 12426; <sup>4)</sup> EN 717-1;  
<sup>5)</sup> EN 13241-1, appendix B EN 12428;

<sup>6)</sup> With a door surface of 5000 × 5000 mm

**Safety features in acc. with EN 13241-1 are listed on page 25.**

**Doors with wicket door with trip-free threshold are available in widths up to 6500 mm.**

Please refer to the technical manual for further information.

# ALR 40

A modern aluminium door underscores contemporary architecture



## Prestigious door solution

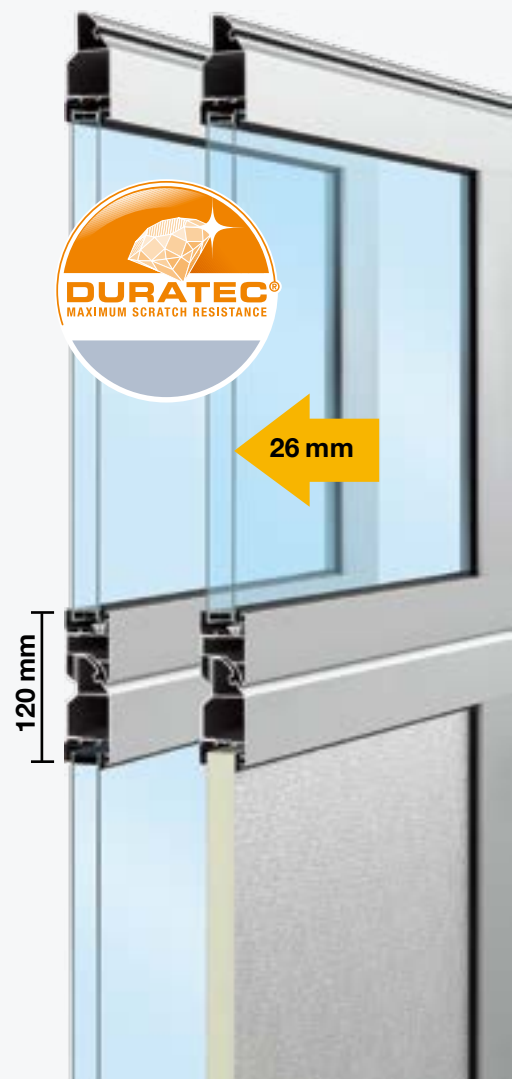
With its extensive transparency, the ALR 40 door features a contemporary appearance. Large-surface glazing down to the bottom section and a slim aluminium frame profile give this door its tasteful design.



View of the door interior with aluminium glazing beads

## Door design with many variants

To ensure a clear and modern door appearance, Hörmann divides each door leaf uniformly from top to bottom. The door width is decisive for the profile variant: either with a 52 mm profile width for door widths up to 5500 mm or with a 91 mm profile for door widths from 5510 mm. An optional wicket door with trip-free threshold is harmoniously integrated into the overall door.





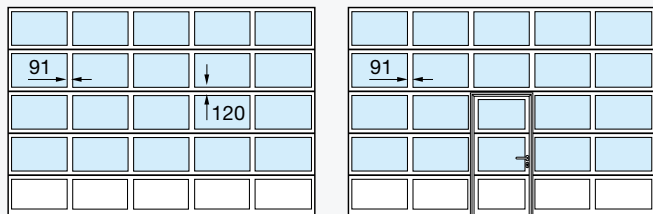


## Door versions (examples)

### ALR 40



With 52 mm rail extrusion (on request with 91 mm rail extrusion) for doors up to 5500 mm wide



As standard with a 91 mm rail extrusion for doors from 5510 mm wide

Individual arrangement of the glass and panel infills possible, or fully glazed window sections.

### ALR 40

#### Size range

Width up to 8000 mm  
Height up to 7000 mm

#### Resistance to wind load <sup>1)</sup>

Class 3



#### Water tightness <sup>2)</sup>

Class 3 (70 Pa)



#### Air permeability <sup>3)</sup>

Without wicket door class 2  
With wicket door class 1



#### Acoustic insulation <sup>4)</sup>

Without wicket door R = 23 dB  
With wicket door R = 22 dB



#### Thermal insulation <sup>5) 6)</sup>

Without wicket door  
– Standard double pane with ThermoFrame U = 3.6 W/ (m<sup>2</sup>·K)  
– Standard double pane without ThermoFrame U = 3.6 W/ (m<sup>2</sup>·K)  
with wicket door  
– Standard double pane with ThermoFrame U = 3.8 W/ (m<sup>2</sup>·K)  
– Standard double pane without ThermoFrame U = 3.8 W/ (m<sup>2</sup>·K)



<sup>1)</sup> EN 12424; <sup>2)</sup> EN 12425; <sup>3)</sup> EN 12426; <sup>4)</sup> EN 717-1;

<sup>5)</sup> EN 13241-1, appendix B EN 12428;

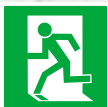
<sup>6)</sup> With a door surface of 5000 × 5000 mm

**Safety features in acc. with EN 13241-1 are listed on page 25.**

**Doors with wicket door with trip-free threshold are available in widths up to 6500 mm.**

Please refer to the technical manual for further information.

# Sectional doors with wicket door and trip-free threshold



The wicket door with trip-free threshold is provided with a 10 mm and 5 mm flat stainless steel threshold rail in the middle and at the edges respectively. For doors with widths from 5510 mm, the threshold is approx. 13 mm.

- Reduces the risk of tripping up: easier to wheel things through.
- Power-driven doors feature a leading photocell VL 2 with two sensors which causes the door to reverse on encountering an obstruction well before contact is made.
- The wicket door contact ensures that the main door can only be opened when the wicket door is closed.

In certain circumstances, Hörmann wicket doors with trip-free threshold fulfil the requirements of an escape door.



**Robust door catch**  
Prevents door-leaf drop and buckling.



**Continuous strip**  
Built inconspicuously into the door frame to prevent trapping.



**Wicket door as standard with slide rail door closer**



**Finger trap protection**  
On both the inside and outside of the wicket door frame as a standard feature.



**High thermal insulation:** Thanks to an adjustable double seal located in the transition from the bottom edge of the door to the floor and the door leaf to the threshold. A separately adjustable bottom seal for both doors compensates for any slight unevenness in the floor.



# Leading photocell

More safety and high speeds



The non-contact, automatic safety cut-out protects people and property



## Leading photocell (European patent)

There is more safety with Hörmann industrial sectional doors thanks to the optional leading VL2 photocell. The sensors monitor the bottom edge of the door and, as a result, obstructions and persons are quickly detected and the door starts to reverse before contact is made. Thanks to this technology, Hörmann sectional doors can be operated at higher speeds without the permissible closing forces being exceeded.

Two VL2 photocell sensors are situated in a leading swivel arm construction. Doors with wicket doors with trip-free thresholds require a leading VL2 photocell.

The leading VL2 photocell monitors the bottom edge of the door with two sensors for doors with a wicket door and trip-free threshold. The anti-crash protection at the sides prevents the swivel arm from being damaged when the door is closed.

# Coloured doors highlight corporate design



**Colours are increasingly being used to fly the company flag. In this regard, coloured industrial doors are an ideal vehicle.**

All industrial sectional doors with Stucco-textured surface from Hörmann are available in 6 preferred colours, as well as approximately 200 colours based on RAL\*.

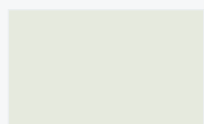
Doors with Micrograin surface are available in RAL 9002 and RAL 9006.

Both wet coating on the interior and exterior sides and the coil coating procedure for double-skinned 42-mm sections ensure high-quality, long-lasting colour. This maintains the attractive appearance of your door.

Dark colours should not be used for double-skinned steel doors that are exposed to the sun, as possible section deflection may restrict the door's function (bi-metal effect).

The galvanised subframe and fittings are not factory-coated. The frames for compound windows are black as standard. Door leaf reinforcements and end caps are Grey white (similar to RAL 9002) as standard.

## 6 preferred colours



Grey white  
RAL 9002



White aluminium  
RAL 9006



Anthracite grey  
RAL 7016



Moss green  
RAL 6005



Ultramarine blue  
RAL 5002



Flame red  
RAL 3000



The colours shown are subject to the limitations of the printing process and cannot be regarded as binding. Contact your Hörmann specialist dealer for advice regarding coloured doors.

\* With the exception of pearl-effect and fluorescent colours. Slight colour variations are possible.  
All colours are based on RAL.



# ThermoFrame

## Frame connection with thermal break

NEW



Further options  
for improving the  
energy efficiency  
of industrial  
sectional doors

- Standard double pane 26 mm (see page 20)
- Faster door travel with a frequency converter operator (FU) (see page 30)

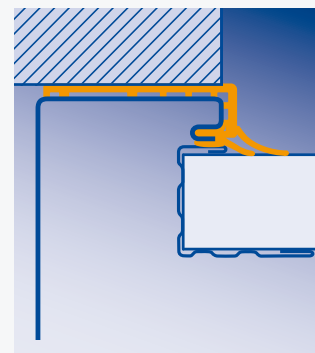
PATENT PENDING

**Only from Hörmann**

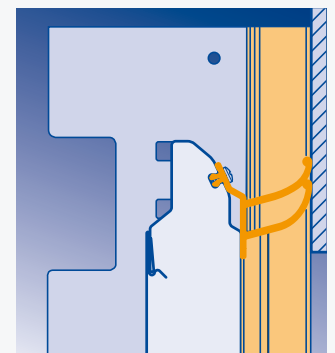
### ThermoFrame

#### Optionally available for all industrial sectional doors

- Thermal break between the frame and brickwork
- Additional seals for improved tightness
- Easy to fit along with the door frame
- Optimum corrosion-protection of the side frame
- **Up to 12 % better thermal insulation** in the SPU industrial sectional door, 3000 × 3000 mm



Sideroom with ThermoFrame



Lintel fitting with ThermoFrame

SPU Door surface (mm)	without ThermoFrame	with ThermoFrame	Improvement
3000 × 3000	1.22 W/m <sup>2</sup> K	1.07 W/m <sup>2</sup> K	12.3 %
4000 × 4000	1.10 W/m <sup>2</sup> K	0.99 W/m <sup>2</sup> K	10.0 %
5000 × 5000	1.03 W/m <sup>2</sup> K	0.94 W/m <sup>2</sup> K	8.7 %

# Superior scratch-resistance and thermal insulation of Hörmann sectional door glazings

**NEW**  
26 mm double  
glazing as standard



**Only from Hörmann**

The new DURATEC glazing is available as standard and at no extra charge in all sectional doors with synthetic glazing – only from Hörmann.

## A permanently clear view

With DURATEC synthetic glazing, Hörmann sectional doors retain their clear view permanently, even after multiple cleanings and heavy use.

## Better protection against scratches caused by cleaning

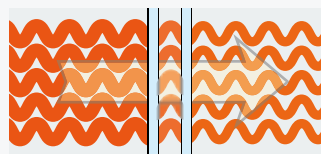
A special surface coating, similar to that used on car headlights, protects the pane over the long-term from scratches and damage caused by cleaning.

Sensitive, common  
synthetic glazing

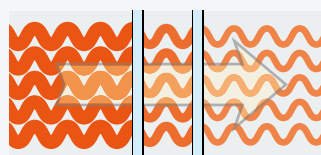
DURATEC synthetic glazing  
with maximum scratch resistance

## Improved thermal insulation

In comparison with 16 mm double glazing, the thermal insulation value is up to 20 % lower.



16 mm double pane



Inside the  
building

Outside the  
building

**Standard  
DURATEC double pane**  
Up to 20 % better thermal  
insulation with a 26 mm  
pane thickness

For more information on the glazing types, see page 21.



# More light in the building

## Section window, aluminium glazing frame



**1**

### Section window Type A

**Clear view:**  
635 × 245 mm

**Glazing frame:**  
Black plastic frame

**Door section height:**  
500, 625, 750 mm (SPU)

**For door type:**  
SPU

**2**

### Aluminium glazing frame with standard window sections

**Clear view:**  
Depending on version

**Glazing frame:**  
Standard profile, anodised E6 / C0  
(previously E6 / EV 1)

**Rail extrusion:**  
52 / 91 mm

**For door types:**  
SPU, APU, ALR




### Maximum scratch resistance

With DURATEC synthetic glazing, Hörmann sectional doors retain their clear view permanently, even after multiple cleanings and heavy use.

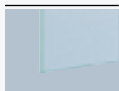




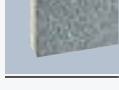
### 1 Section window



	DURATEC synthetic double pane, clear Plastic frame 33 mm	SPU
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### 2 Aluminium glazing frame



	DURATEC synthetic pane, clear 3 mm	SPU, APU, ALR
	Synthetic pane, crystal structure 3 mm	SPU, APU, ALR
	DURATEC synthetic double pane, clear 26 mm ( $U_g = 2.6 \text{ W} / (\text{m}^2 \cdot \text{K})$ )	SPU, APU, ALR
	Synthetic double pane, crystal structure with clear DURATEC inner pane 26 mm ( $U_g = 2.6 \text{ W} / (\text{m}^2 \cdot \text{K})$ )	SPU, APU, ALR
	PU sandwich infill Aluminium sheet cladding, anodised on both sides, smooth 26 mm	APU, ALR
	PU sandwich infill Aluminium sheet cladding, Stucco-textured both sides 26 mm	APU, ALR

### A clear view without centre spacers

The new Duratec glazing, which is delivered as standard, is 26 mm thick and therefore no longer requires centre spacers. This gives you a clear view into the building.



26-mm-thick glazing  
without centre spacer



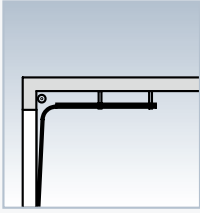
16 mm glazing with centre  
spacers in old series

# Hörmann sectional doors can be adapted to any building

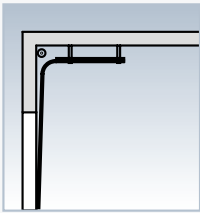
Sound planning for old and new buildings



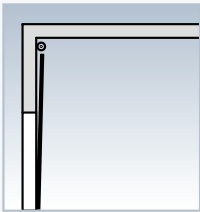




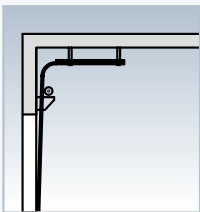
Track application N  
Normal track  
application



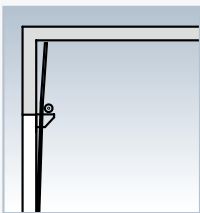
Track application H  
High-lift track  
application



Track application V  
Vertical track  
application



Track application HU  
with lowmounted  
spring shaft



Track application VU  
with lowmounted  
spring shaft



#### Minimum headroom

Manual operation	390 mm
Power-driven WA 300 S4 / WA 400	390 mm

#### Minimum sideroom

Manual operation with cable	125 mm
Manual operation with chain hoist	165 mm
Power-driven WA 300 S4 / WA 400	200 mm

The door's guidance system should in no way impede the workflow within the building. That's why choosing the correct track application is important during the planning stage. With Hörmann, all of the different track applications are available for all door types.

# The best proof of quality: sophisticated technology to the last detail

## **1 Quiet door travel**

Hinged roller holders made of galvanised steel with adjustable plastic rollers on ball-bearings ensure precise, quiet door travel.

## **Particularly service-friendly**

If the frame is damaged in a collision, the **bolted tracks** can be exchanged easily and inexpensively.

## **2 Galvanised, articulated roller holder**

The articulated roller holder reduces the headroom and protects the top door section from excessive bending when the door is open.

## **3 Strong-holding connections**

Stable centre hinges made of galvanised steel connect the individual door sections precisely. The edge profiling of the door sections has been designed so that the screws are held by four layers of sheet and are resistant to tearing out.

## **4 Upper frame end with connecting bracket**

Permanently defined positions for the spring shaft bracket make it easier to fit the entire spring shaft.

## **Connection of spring shaft to cable drum**

A separate feather key is not required; instead, a secure diecast connection increases functional safety and is easy to fit.

The shaft is galvanised, **the springs are shot-blasted and coated.**

## **Flexible shaft coupling**

Low variation in the axial alignment can be compensated for by the flexible shaft coupling.

## **5 Pre-fabricated suspension**

Ceiling suspension of the tracks is achieved through special anchors with slotted holes, made of galvanised steel. They are pre-fabricated as much as possible for the respective fitting situation.





# Safety features according to EN 13241-1

Doors must comply with the safety requirements of European standard 13241-1.

Hörmann products are tested and certified for:

## Anti-fall safeguard

### 6 Reliable door guidance

The rollers are guided precisely in a **safety track** developed by Hörmann. This is why the door leaf cannot fall out during the turning phase or when parked near to the ceiling.

### 7 Optimum counterbalance

The torsion spring assembly with grooved spring shaft ensures an optimum counterbalance. As a result, the door moves easily during the entire opening and closing phase.

### 8 Catch safety device

This load-dependent latch device is integrated in the load carrier for protection in case a cable or spring breaks.

**European patent.**

### 9 Spring safety device

Stops the torsion spring shaft if a spring breaks and securely holds the door in this position. **European patent.**

## Trap protection

### 10 Finger trap protection

The unique form of the door sections eliminates trap points, both on the outside and inside.

### 11 Internally guided cables

The carrying cables are guided on the inside between the door leaf and frame. There are no protruding components. This virtually excludes the risk of injury.

### 12 Side trap guards

The side frames are completely closed from top to bottom. This creates a secure side trap guard.

### 13 Closing edge safety device

Sensors monitor the bottom edge of the door and stop and reverse it if there is a hazard. A leading photocell ensures particularly safe monitoring of the closing edge (for further information, see page 19). Obstructions are detected before they come into contact with the door.



# Manually operated doors

With pull rope or chain hoist

## Optional operation options



Optional: Hand pulley with rope



Optional: chain hoist

## Lock operation from inside



### Shootbolt

Prepared for an on-site padlock for use as a secure night door.



### Only from Hörmann

#### Rotary latch

An automatic latching disc securely latches the door. Available upon request for doors with VU and HU tracks.



### EUROPEAN PATENT

### Only from Hörmann

#### Floor locking

Extremely practical for frequently used doors. Convenient foot release. The automatic latch audibly engages when closed.

## Lock operation from outside



Shootbolt



Rotary latch

With the handle set, the door lock can be ergonomically operated from outside. From inside, the lock is operated via a T-handle and locking pin. **A profile cylinder also be integrated into central locking systems.**

## More security

Thanks to a break-in-resistant arrestor kit



The locking hook of the arrestor kit automatically latches if the door is forced upwards.

### Tightly locked and protected against forced opening

All Hörmann power-driven industrial sectional doors up to 5 m height are equipped with a break-in-resistant arrestor kit as standard. This mechanical protection reliably prevents the door from being forcefully pushed open, even in the case of a power failure.

Industrial sectional doors over 5 m high are naturally break-in resistant owing to their heavy weight.

In sectional doors with chain drive operators, self-locking gearboxes protect against forced opening.

### Increased security for night doors

In power-driven doors, an additional mechanical shootbolt can be installed (see the figure on page 26). Because it is equipped with an electrical interrupter contact, the operator cannot be started if the door is locked.



# Shaft operator WA 300 S4

## With standard soft start and soft stop

### Flexible fitting

The new shaft operator WA 300 S4 can be fitted quickly and flexibly, as well as vertically or diagonally.

There is no need to install a closing edge safety device or similar component on the door thanks to the operator's automatic safety cut-out. This saves fitting time and reduces servicing due to damaged cables.

The operator's standard soft start and soft stop also ensure gentle and quiet door travel.

The WA 300 S4 operator is only available in combination with sectional doors without a wicket door.

#### Track applications:

- Normal track application N
- High-lift track application H / HU
- Vertical track application V / VU

#### Door sizes:

- Max. door width 6000 mm
- Max. door height 4500 mm



Diagonal fitting variant



Vertical fitting variant

## As standard with WA 300 S4

- Soft start and soft stop for gentle and quiet door travel
- Power limit in “Open” / “Close” directions
- Integrated control with push button DTH R
- Small side room of only 200 mm
- No installations or cabling required on the door
- Only approx. 1 watt power consumption in stand-by mode (if no other electrical accessories are connected)



### Maintenance release directly on the operator

The operator does not need to be extensively dismantled from the door shaft for statutory annual inspection work. This saves time and money. The maintenance release can be converted to a secured release at any time.



### Push button DTH R

Push button DTH R (open/stop/close) is a standard fitting for shaft operator WA 300 S4.



### Optional push button control 300 U

Push button control 300 U (in the image above) forms a compact unit with dock leveller controls 420 S and 420 T. Combined with a dock leveller control with the new energy-saver function, this reduces energy consumption. Push button control 300 U is also optionally available with integrated main switch (not shown).

## Optional releases



### Secured release on inside

This allows you to conveniently release the operator from the floor (Hörmann patent).



### Secured release from outside ASE

To unlatch the door from the outside (required for buildings without a second entrance). Lockable diecast housing with profile half cylinder.

Dimensions:

83 × 133 × 50 mm (W × H × D)

# Shaft operator WA 400, WA 400 M

**Strong and robust**

## Operator to flange WA 400

This patented flange version is simple and quick to fit to the spring shaft and requires considerably less sideroom than the direct drive solutions from other manufacturers.

**Can be combined with controls**  
**A 445, A 460, B 460 FU**



Standard fitting position: horizontal, alternatively vertical  
With standard emergency hand chain.

## Operator with chain box WA 400

We recommend the WA 400 operator with chain box for all types of door up to a height of 7000 mm if there is little sideroom. Because of the indirect transmission of forces, the door is subjected to minimum wear and friction.

**Can be combined with controls**  
**A 445, A 460, B 460 FU**



Standard fitting position: vertical  
With standard emergency hand chain.

## Operator for central mounting WA 400 M

This version is mounted centrally on the spring shaft: as a result no additional sideroom is necessary. Note the required headroom!  
The WA 400 M includes a secured release as a standard feature and is suitable for virtually any track application. Double spring shaft available upon request.

**Can be combined with controls**  
**A 445, A 460**



Ideal option when sideroom is lacking.



## Advantages of shaft operator WA 400, WA 400 M:

- Exceptionally smooth running
- Long on-time
- Fast door travel



## Standard maintenance release

The operator does not need to be extensively dismantled from the door shaft for statutory annual inspection work. This saves time and money. The maintenance release can be converted to a secured release at any time.



## Emergency hand chain

Through the emergency hand chain, the door can be operated from the floor during power failure.

## Optional releases



### Secured release on inside

(as standard with WA 400 M)

This allows you to conveniently release the operator from the floor (Hörmann patent).



### Secured release from outside ASE

To unlatch the door from the outside (required for buildings without a second entrance). Lockable diecast housing with profile half cylinder.

Dimensions:

83 × 133 × 50 mm (W × H × D)

# Controls

## Compatible system solutions



	Internal control WA 300 with standard push button DTH R	External control 360	Impulse control A 445	Comfort control A 460	FU control B 460 FU
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### Operators

WA 300 S4	●	○			
WA 400			●	●	
WA 400 FU					●

### Functions / features

Bottom edge safety device		○	●	●	●
Control and operator can be mounted separately		●	●	●	●
Adjustments made conveniently directly on the control		●	●	●	●
Soft start and soft stop for gentle and quiet door travel	●	●			●
Adjustable high-speed opening and closing (depending on tracks)	● <sup>2)</sup>	● <sup>2)</sup>			●
Power limit in Open and Close directions	●	●	●	●	●
Integrated Open / Stop / Close operation		●	●	●	●
Second opening height with additional button on the housing cover		●		●	●
Menu reading from outside with a double 7-segment display (maintenance, cycle and operating hours counters as well as error analysis)		●	●	●	●
Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via mobile phone).		●	○	○	○
Automatic timer	● <sup>5)</sup>	● <sup>5)</sup>		●	●
Connecting terminals for additional command units	○	●	●	●	●
Power supply	230 V	230 V	400 / 230 V	400 / 230 V	230 V
Connection cable with CEE plug <sup>1)</sup> (Protection category IP 44)	●	●	●	●	●
Main switch integrated into control housing	○ <sup>3)</sup>	○	○	○	○
Protection category IP 65 (jet-water protected) for controls and door leaf components	●	●	●	●	●

### Optional accessories

Remote control	○	○	○	○	○
Key switch	○	○	○	○	○
Pull switch	○	○	○	○	○
Push button DTH R/DTH RM	○	○	○	○	○
Push button DTH I/DTH IM		○		○	○
Radar		○	○	○	○
Induction loop		○	○	○	○
Warning light		○ <sup>4)</sup>	○ <sup>4)</sup>	○ <sup>4)</sup>	○ <sup>4)</sup>
Secured release	○	○	○	○	○
Photo cell EL51	○	○	○	○	○
Multi-function circuit board		○	○	○	○



**Optional profile half cylinder**  
For all external controls



**Optional Main switch**  
For all external controls

● As standard

○ With corresponding equipment possibly with additional control

<sup>1)</sup> For controls with integrated main switch the connecting cable is omitted

<sup>2)</sup> In the Close direction during operation without SKS (during operation with SKS, the door generally travels at high speed in the Close direction)

<sup>3)</sup> External main switch possible

<sup>4)</sup> Possible in combination with multi-function circuit board

<sup>5)</sup> Only in combination with an activating kit for warning light and photocell or light grille

# Overview of door types

## Construction and quality features

● = Standard  
○ = Optional

		SPU 40	APU 40	ALR 40
<b>Resistance to wind load EN 12424</b>	Class	3	3	3
<b>Water tightness EN 12425</b>	Door without wicket door, class	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)
<b>Air permeability EN 12426</b>	Door without wicket door, class	2	2	2
	Door with wicket door, class	1	1	1
<b>Acoustic insulation EN 717-1</b>	Door without wicket door R = . . . dB	25	23	23
	Door with wicket door R = . . . dB	24	22	22
<b>Thermal insulation EN 13241-1, appendix B EN 12428</b>	Door without wicket door, U = W/ (m <sup>2</sup> ·K) <sup>1)</sup>			
	With ThermoFrame	0.94	3.3	3.6
	Without ThermoFrame	1.0	3.4	3.6
	Door with wicket door, U = W/ (m <sup>2</sup> ·K) <sup>1)</sup>			
	With ThermoFrame	1.2	3.6	3.8
	Without ThermoFrame	1.2	3.6	3.8
	Section, U = W/ (m <sup>2</sup> ·K)	0.50	–	–
<b>Design</b>	Self-supporting	●	●	●
	Depth, mm	42	42	42
<b>Door sizes</b>	Max. width mm, LZ	8000	8000	8000
	Max. height mm, RM	7000	7000	7000
<b>Space requirement</b>	See the technical manual			
<b>Material, door leaf</b>	Steel, double-skinned, 42 mm	●	●	–
	Aluminium, standard profile	–	●	●
<b>Surface, door leaf</b>	Galvanised steel, coated RAL 9002	●	●	–
	Galvanised steel, coated RAL to choose	○	○	–
	Anodised aluminium E6 / C0 (previously E6 / EV 1)	○	●	●
	Aluminium coated in RAL to choose	○	○	○
<b>Wicket door</b>	With trip-free threshold	○	○	○
<b>Glazings</b>	Type A section window	○	–	–
	Aluminium glazing frame	○	●	●
<b>Seals</b>	All-round on 4 sides	●	●	●
	Intermediate seal between the door sections	●	●	●
<b>ThermoFrame // NEW</b>	PVC hard / soft seal	○	○	○
<b>Locking system for manual operated doors</b>	Internal latches	●	●	●
	Outside / inside locking	○	○	○
<b>Arrestor kit</b>	For door heights of up to 5 m with shaft operator	●	●	●
<b>Safety equipment</b>	Finger trap protection	●	●	●
	Side trap guards	●	●	●
	Spring break safeguard for manual operation	●	●	●
	Safety catch for door heights over 5m, with WA 400 operator or manually operated	●	●	●
	Safety catch for doors with WA 300 operator	●	●	●
<b>Fastening options</b>	Concrete	●	●	●
	Steel	●	●	●
	Brickwork	●	●	●
	Others on request			

<sup>1)</sup> With a door surface of 5000 × 5000 mm



## High-speed sectional doors

Fast external doors with PU insulating panels for high thermal insulation

**NEW**



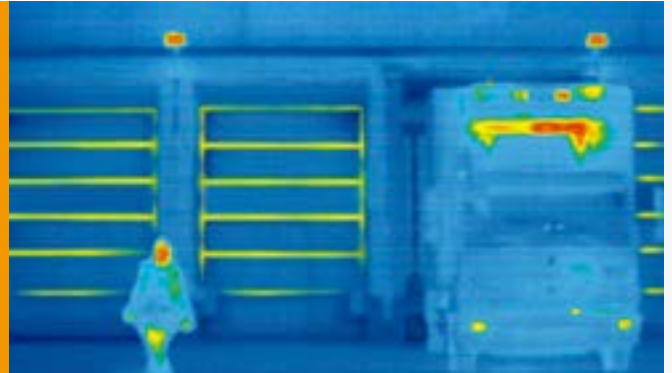
The high-speed sectional doors are characterized by their high thermal insulation, fast opening speed and light grilles as standard. The hot-galvanized, double-skinned sections with an elegant Micrograin surface finish are guided into tracks without contact, which makes the doors especially low-wear and long-lasting.

# The right concepts

## Efficient solution

### Energy efficiency

Thermographic studies confirm that a building's openings are a particularly critical factor when it comes to energy efficiency. With proper planning and the proper equipment that matches the building's intended function, thermal loss can be kept at a minimum.



### Safety

Workplace safety is quite rightfully a very important issue. Accident and health risks as well as damage to goods, vehicles and building equipment must be avoided.



### Longevity

The rough nature of daily use quickly leaves its mark on the doors – quick wear and tear can require costly repairs and replacements within a very short period of time. High-quality materials, coupled with foresighted planning and the selection of suitable protection measures protect your valuable investment.



Increasing demands as to energy efficiency, safety and longevity require individually adjusted solutions. We advise you on site and recommend an economically efficient system which in terms of quality, function and reliability meets your requirements.

# Good reasons to choose Hörmann

## Quality features of high-speed sectional doors



# 1

### Practical solutions

#### Non-contact safety

The safety light grille integrated in the frame monitors the closing zone of the door up to a height of 2500 mm. This does away with the need for additional installations on the door (e.g. closing edge safety device, photocell). Profit from this high level of safety with a high-speed door that is exceptionally easy to fit and service.



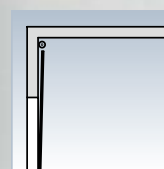
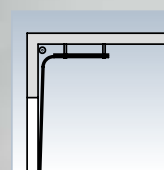
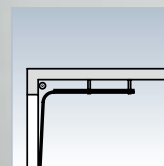
# 2

### Optimised operations

#### Long service life and high efficiency as standard

The standard frequency converter control takes stress off the entire door mechanism, guaranteeing nearly wear-free, quiet door travel. The high opening and closing speeds optimise your operations and reduce heat losses. In addition, they relieve the entire door mechanism through the smooth starting and braking action which considerably extends the service life of the door.





# 3

## A permanently clear view

### Uniformly foamed steel sections

Hot-galvanized, double-skinned sections with PU rigid foam infill provide for particularly high thermal insulation, resulting in a  $U_D$  value of  $1.95 \text{ W} / (\text{m}^2 \cdot \text{K})^*$ . The doors are supplied as standard in White aluminium (RAL 9006). The exterior is characterised by the fine Micrograin lines, on the interior the sections are Stucco-textured.

### Optional glazing

26-mm-thick DURATEC double glazing guarantees maximum scratch resistance and excellent thermal insulation values. An aluminium rail construction in natural finish E6 / C0 divides the glazing using stabilising intermediate spacers.

# 4

## Variety of choices

### Adapted to any building

3 different track applications are available for the high-speed sectional doors, including N, H, and V track applications.

The sections can be diverted flexibly depending on the fitting situation, even vertically on the wall of the hall. This design enables the high-speed sectional doors adapt to all kinds of openings.

\* For  $25 \text{ m}^2$  door surface

# High-speed sectional door HS 5015 PU N

With normal track application



## The space-saving track application

For tight spaces in the lintel area, we recommend track application N. A chain mechanism with spring compensation runs the sections into horizontal tracks. This requires a low headroom of min. 480 mm.



External door / internal door	HS 5015 PU N
<b>Size range</b>	
Max. width (LDB)	5000 mm
Max. height (LDH)	5000 mm
<b>Speed</b>	
With standard FU control AK 500 FU E-1	
Max. opening speed	1.5-2.5 m/s
Max. closing speed	0.5 m/s
<b>Emergency opening / emergency closing</b>	
Emergency hand chain	
<b>Door leaf</b>	
Material	Steel sandwich construction, PU-foamed, DURATEC glazing optional
Depth	42 mm
Section height	225 mm
Hinge connections from approx. 3500 mm door width	
<b>Resistance to wind load (EN 12424)</b>	
Class 4, max. 133 km/h	
<b>Acoustic insulation (EN 717-1)</b> (Without glazing)	
R = 26 dB	
<b>Thermal insulation (EN 12428)</b> For 25 m <sup>2</sup> door size	
U <sub>D</sub> = 1.95 W/(m <sup>2</sup> ·K)	
<b>Door leaf colors**</b>	
Available in over 200 colors based on RAL.	
** With the exception of pearl-effect, fluorescent colors. Dark colors should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.	

# High-speed sectional door HS 5015 PU H

With high-lift track application



## The adjustable track application

The sections are guided in horizontal tracks and can be diverted flexibly depending on the fitting situation. Thus, the door can be fitted behind or above supply lines and crane tracks. Thanks to the belt mechanism with counterweights, the door is especially low-wear and long-lasting.



External door/internal door	HS 5015 PU H
<b>Size range</b>	
Max. width (LDB)	5000 mm
Max. height (LDH)	6000 mm
<b>Speed</b>	
With standard FU control AK 500 FU E-1	
Max. opening speed	1.5-2.5 m/s
Max. closing speed	0.5 m/s
<b>Emergency opening/emergency closing</b>	
Emergency hand chain	
<b>Door leaf</b>	
Material	Steel sandwich construction, PU-foamed, optionally with DURATEC glazing
Depth	42 mm
Section height	225 mm
Hinge connections from approx. 3500 mm door width	
<b>Resistance to wind load (EN 12424)</b>	
Class 4, max. 133 km/h	
<b>Acoustic insulation (EN 717-1)</b>	
(Without glazing)	R = 26 dB
<b>Thermal insulation (EN 12428)</b>	
For 25 m <sup>2</sup> door size	U <sub>D</sub> = 1.95 W/(m <sup>2</sup> ·K)
<b>Door leaf colors**</b>	
Available in over 200 colors based on RAL.	
** With the exception of pearl-effect, fluorescent colors. Dark colors should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.	



# High-speed sectional door HS 6015 PU V

With vertical track application



## Dependable with minimum wear

The sections run vertically on the wall of the hall, ensuring that the door cycles are very quiet and wear-free. The belt mechanism with counterweights guarantees a long service life with constant use.



External door / internal door	HS 6015 PU V
<b>Size range</b>	
Max. width (LDB)	6500 mm
Max. height (LDH)	6000 mm
<b>Speed</b>	
With standard FU control AK 500 FU E-1	
Max. opening speed	1.5-2.5 m/s
Max. closing speed	0.5 m/s
<b>Emergency opening / emergency closing</b>	
Emergency hand chain	
<b>Door leaf</b>	
Material	Steel sandwich construction, PU-foamed, DURATEC glazing optional
Depth	42 mm
Section height	225 mm
Hinge connections from approx. 3500 mm door width	
<b>Resistance to wind load</b> (EN 12424)	
Class 4, max. 133 km/h	
<b>Acoustic insulation</b> (EN 717-1)	
R = 26 dB	
<b>Thermal insulation</b> (EN 12428)	
For 25 m <sup>2</sup> door size	U <sub>D</sub> = 1.95 W/(m <sup>2</sup> ·K)
<b>Door leaf colors**</b>	
Available in over 200 colors based on RAL.	
** With the exception of pearl-effect, fluorescent colors. Dark colors should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.	

# FU controls



## AK 500 FUE - 1

**FU control in plastic cabinet IP 54  
three-phase, 400 V**

### Operation

Open-Stop-Close membrane push button, emergency-off button, 4 × 7-segment display for information on door functions, lockable main switch

### Function

Automatic timer, adjustable hold-open phase, safety light grille, closing edge safety device, stop / reopen

### Impulse generator

Push button, pull switch, mushroom button, radar presence detector, slots for induction loop detector and remote control

### Extension options

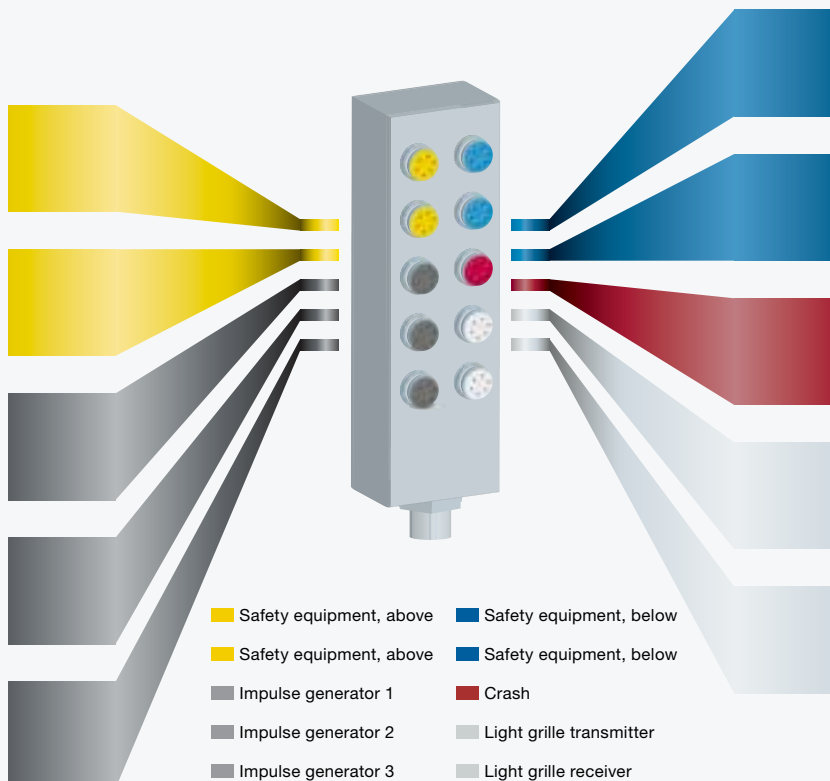
Traffic light, flashing warning light, locking, intermediate stop, extension circuit board

### Wiring

Connecting lead 3 ~ 400 V, N, PE, fuse 16 A, slow-acting, plug-in connection between door operator and control cabinet, connecting lead cross section 5 × 2.5 mm<sup>2</sup> (depending on national standards), colour-coded plug-in control wiring

### Housing dimensions

230 × 460 × 200 mm



### Colour-coded plug-in control wiring

- Wiring of the operator via a distributor box
- Wiring of the operator and control through a simple plug-in connection
- Easy connection of accessory components and safety devices through colour-coded plug-in connections and connection wires
- Fitting time reduced for electrical wiring of the door
- As standard, no wiring with terminal screws is required for control and operator, e. g. for the pull switch or the light grille

# Overview of door types

## Construction and quality features

Use	Internal door		
	External door		
Speed	FU control (3-phase)	Max. opening speed approx. m/s	
		Max. closing speed approx. m/s	
Security features	DIN EN 13241-1		
Resistance to wind load	DIN EN 12424		
Resistance to water penetration	DIN EN 12425		
Air permeability	DIN EN 12426		
Transmission of heat	DIN EN 12428		
Acoustic insulation	DIN EN 52210 dB		
Door sizes	Max. width LDB		
	Max. height LDH		
For fitting dimensions (space requirement) see the Technical Manual			
Door construction	Self-supporting		
Door leaf counterbalance	Supporting		
Door leaf	Section, double-skinned, 42 mm		
	Foamed door leaf		
Door leaf material / surface	Steel, RAL 9006		
	Wet coating in RAL to choose		
Glazing	Aluminium rail window, anodised aluminium E6 / EV1 with double synthetic panes		
Operator and control	Frequency converter control		
	Connecting voltage		
	3-phase		
	Open-Stop-Close button		
	Main switch with all-pole switch-off		
	Fuse protection		
	3-phase		
	Protection category for operator and control		
	Emergency-OFF button		
	3-phase		
	Closing edge safety device with energy chain		
	Closing zone monitoring	Safety light grille IP 67	
	Door area monitoring	Radar presence detector	
		Induction loop	
Emergency opening	Hold-open phase in sec.		
	Electronic limit switch DES		
	Emergency crank handle		
Emergency opening	Emergency hand chain		
	Counter weight / spring		
Volt-free contacts / impulse generator / safety devices			



HS 5015 PU N	HS 5015 PU H	HS 6015 PU V
●	●	●
●	●	●
1.5-2.5	1.5-2.5	1.5-2.5
0.5	0.5	0.5
●	●	●
Class 4	Class 4	Class 4
Class 3	Class 3	Class 3
Class 0	Class 0	Class 0
1.95 W/(m²·K)	1.95 W/(m²·K)	1.95 W/(m²·K)
26	26	26
5000	5000	6500
5000	6000	6000
–	–	–
●	●	●
●	●	●
●	●	●
●	●	●
○	○	○
○	○	○
●	●	●
3–400 V, N, PE	3–400 V, N, PE	3–400 V, N, PE
●	●	●
●	●	●
20 A, slow-acting IP 54	20 A, slow-acting IP 54	20 A, slow-acting IP 54
●	●	●
–	–	–
●	●	●
○	○	○
○	○	○
1–200	1–200	1–200
●	●	●
–	–	–
●	●	●
–/–	–/–	–/–
○/○/○	○/○/○	○/○/○

# Accessories



**4-button  
hand transmitter  
HS 4 BS**



**1-button  
hand transmitter  
HS 1 BS**



**4-button  
hand transmitter  
HSE 4 BS  
Black**



**2-button  
hand transmitter  
HSE 2 BS  
White**



**2-channel receiver  
HEI 3 BS**  
For controlling  
3 functions

**For control 360 and integrated  
control WA300 S4  
For control A 445, A460, B 460 FU**



**1-channel relay receiver  
HER 1 BS**  
with potential-free relay output  
in a separate housing without  
connection cable



**4-channel relay receiver  
HER 4 BS**  
With 4 volt-free  
relay outputs



**Push button DTH R**  
For separate control of both  
operational directions, with  
separate stop button.  
Protection category: IP 65  
Dimensions:  
90 × 160 × 55 mm (W × H × D)

**For control 360 and  
integrated  
control WA300 S4  
For control A 445, A460,  
B 460 FU**



**Push button DTH RM**  
For separate control of both  
operational directions, with  
separate stop button.  
With miniature lock: Operator is  
deactivated. It is not possible to  
move the operator (2 keys  
included in the scope of  
delivery).  
Protection category: IP 65  
Dimensions:  
90 × 160 × 55 mm (W × H × D)

**For control 360 and integrated  
control WA300 S4  
For control A 445, A460,  
B 460 FU**



**Emergency-off button DTNG 10**  
To quickly immobilise the door.  
Push-to-lock mushroom button  
Surface-mounted  
Dimensions:  
93 × 93 × 95 mm (W × H × D)  
Protection category: IP 65

**For controls:  
A 445, A 460 and B 460 FU**



**2-key push button**  
For separate control of both  
operational directions.  
Protection category: IP 44  
Dimensions:  
70 × 118 × 65 mm (W × H × D)

**For control AK 500 FUE-1**



**Palm / mushroom button**  
With large operating surface  
Plastic housing, IP 65

**For control AK 500 FUE-1**

# Accessories



## Pull switch with plastic pull cord

Horizontal or vertical fitting possible, aluminum die-cast housing IP 65, cord length 4 m



## Comfort radar / presence detector

Radar movement and presence detection with infrared detection. Fast and targeted automatic door opening. Reliable advance protection.

Up to max. 6 m height. In areas with high levels of humidity and in outside areas, only the radar function is available.

Housing: protection category IP 65.

For control 360

For control A 445, A460, B 460 FU

For control AK 500 FUE-1



## Key switch with 3 keys

Recessed version **STUP 30**

Impulse or OPEN / CLOSE function selectable

Dimensions of switch box:

60 mm (d), 58 mm (D)

Dimensions of cover:

80 × 110 mm (W × H)

Wall recess:

65 mm (d), 60 mm (D)

Protection category: IP 54

Surface-mounted version **STAP 30**

Dimensions:

80 × 110 × 68 mm (W × H × D)

For control 360 and integrated control WA300 S4

For control A 445, A460, B 460 FU



## Induction loop DI 2

in a separate additional housing

Suitable for two separate induction loops. The detector has two voltfree normally open contacts. Can be set for impulse or permanent contact.

Directional recognition possible.

Dimensions of additional housing:

202 × 164 × 130 mm (W × H × D)

Switching capacity:

DI 2: 250 V AC, 4 A, 1000 VA,

(resistivity AC)

Supplied with loop cable



## Loop cable

for induction loop

50 m roll

Cable designation: SIAF

Cross-section: 1.5 mm<sup>2</sup>

Colour: brown

For control 360

For control A 445, A460, B 460 FU

For control AK 500 FUE-1



## One-way photocell EL 51

Photocell with separate transmitter and receiver.

The photocell is tested by the control prior to each closing cycle.

Connected via a system cable.

Max. range 8.0 m

Dimensions with fitting bracket:

60 × 165 × 43 mm (W × H × D)

Protection category: IP 65

For control 360 and integrated control WA300 S4

For control A 445, A460, B 460 FU



## Red/green warning lights

In steel housing,

with fitting bracket, IP 65

Circuit board needed

For control 360

For control A 445, A460, B 460 FU

For control AK 500 FUE-1



## Rotating warning light

Yellow, in plastic housing, IP 54

Circuit board needed

For control 360

For control A 445, A460, B 460 FU

For control AK 500 FUE-1



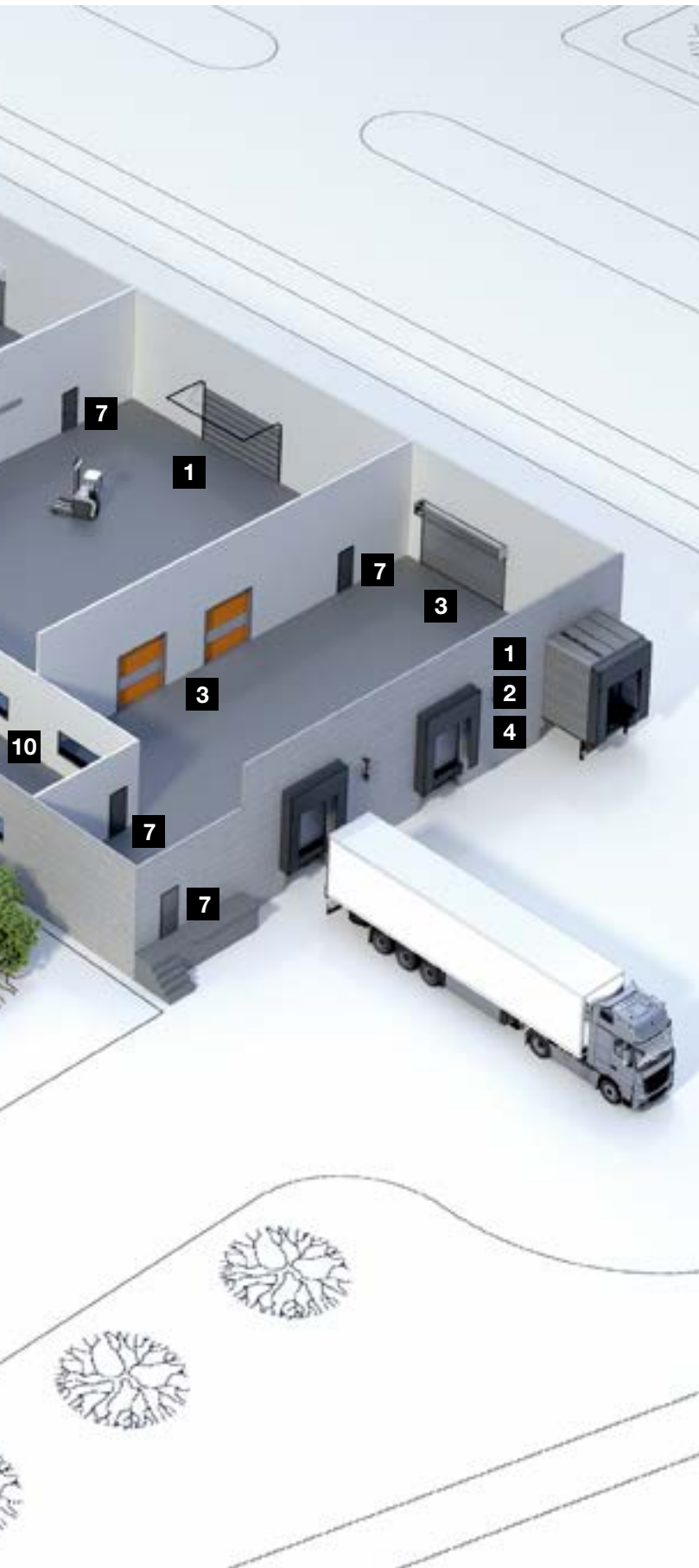
# Hörmann product range

## Everything from a single source





Quick service with testing,  
maintenance and repairs!



**1** Industrial sectional doors

**2** Rolling shutters and rolling grilles

**3** High-speed doors

**4** Loading technology

**5** Garage doors

**6** Steel tubular doors

**7** Fire-rated doors and multipurpose doors

**8** Wooden interior doors with steel frame

**9** Steel interior doors

**10** Insect protection systems



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**DOORS**

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**LOADING TECHNOLOGY**

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Some of the doors shown in this brochure have special features and therefore do not always represent the standard version.

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