





# Industrial Sectional Doors

Better safe than sorry: the innovative wicket door with trip-free threshold







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# **Brand quality from Hörmann**

Reliable and oriented towards the future



VW original parts logistics, Ludwigsfelde (near Berlin)



### 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 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.

This is Hörmann quality – Made in Germany.



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, futureoriented partner for industrial and public construction projects.



Energy savings compass // NEW Your interactive planning aid on the Internet at www.hoermann.com



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 the previous methods. Tomorrow's more stringent limit values are already complied with today.



### **Competent advice**

Experienced specialists from our customer-oriented 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.

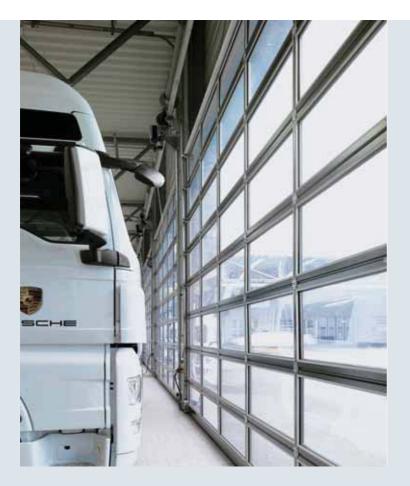
# System solutions that pay off:

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 co-ordinated to each other 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, parallel to 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 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.

# Sustainable production



for future-oriented construction



Industrial sectional doors with PU (polyurethane) foamed steel sections (company EPD) Hörmann KG Brockhagen



Aluminium industrial sectional doors (company EPD) Hörmann KG Brockhagen



EPD industrial sectional doors with PU foamed steel sections

EPD aluminium industrial sectional doors



### Sustainable production: Industrial sectional doors from Hörmann

#### **Ecological quality**

A comprehensive energy management system ensures environmentally friendly production, e.g. by using the heat from the production systems to warm the building.

#### **Economic quality**

A long service life and low maintenance costs thanks to the use of high-quality materials, such as DURATEC glazing.

#### **Functional quality**

Large, energy-saving glazing, as well as door constructions with thermal breaks, enable optimum energy efficiency in the building.

#### **Process quality**

Careful use of resources and materials by further processing of mono-material plastic waste from the production process.

### Sustainability verified and documented by the IFT in Rosenheim

Hörmann is the only manufacturer who already received confirmation of the sustainability of all its industrial sectional doors through an environmental product declaration (EPD) in accordance with ISO 14025 from the Institut für Fenstertechnik (ift – Institute of window technology) in Rosenheim. The inspection was based on the Product Category Rules (PCR) "Doors and Gates". Environmentally-friendly production was confirmed by a life-cycle analysis in accordance with DIN ISO 14040 / 14044 for all industrial sectional doors.

# Sustainable construction with Hörmann competence

Hörmann has already been able to gain great expertise in sustainable construction through various projects. We also apply this know-how to support your projects.

### References for sustainable construction with Hörmann













dm logistics centre, Weilerswist



Immogate logistics centre, Munich

Nordex-Forum, Hamburg Unilever Hafen-City, Hamburg Deutsche Börse, Eschborn Opernturm, Frankfurt Skyline-Tower, Munich Prologis Pineham Sites, Sainsbury

Sustainability of Hörmann's multi-function doors has also been verified by an environmental product declaration (EPD) from IFT.



# breeam



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





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.



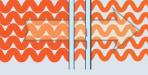
Also take a look at the video at: www.hoermann.com.

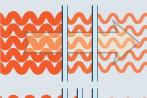
For more information on the glazing types, see pages 38–39.

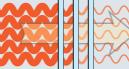
High thermal insulation with standard 26 mm double glazing and optimum thermal insulation with optional triple glazing.

### Improved thermal insulation

In comparison with 16 mm double glazing, the thermal insulation value is up to 20% lower. Triple glazing with even better thermal insulation is optionally available.







16 mm double pane

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

Optional DURATEC triple pane Up to 30% better thermal insulation in comparison with 16 mm double pane

In the building

Exterior side

# ThermoFrame Frame connection with thermal break



### Further options for improving the energy-efficiency of industrial sectional doors

- Optional climatic double pane made of single-pane safety glass // NEW Ug = 1.1 W/m<sup>2</sup>K (see pages 38-39)
- Optional triple pane U<sub>g</sub> = 1.9 W/m<sup>2</sup>K (see pages 38-39)
- ASP 40 / ASR 40 sectional doors (see pages 18–19 and 24–25)
- Faster door travel with a frequency converter operator (FU) (see page 50)



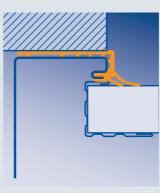
### ThermoFrame Patent pending Optionally available for all industrial sectional doors

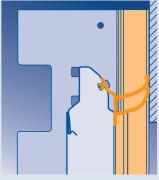
Up to

better

thermal insulation

- 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

### ThermoFrame As standard for all DPU industrial sectional doors

- New UPVC bottom locating profile
- New UPVC lintel profile with double lip
- With ThermoFrame frame connection
- Up to 36 % better thermal insulation with a door surface of 3000 × 3000 mm
- Top thermal insulation value: U = 0.48 W/m<sup>2</sup>K with a door surface of 5000 × 5000 mm

<b>SPU</b> 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 %
<b>DPU</b> Door surface (mm)			
3000 × 3000	0.95 W/m <sup>2</sup> K	0.60 W/m <sup>2</sup> K	36.8 %
4000 × 4000	0.79 W/m <sup>2</sup> K	0.53 W/m <sup>2</sup> K	32.9 %
5000 × 5000	0.69 W/m <sup>2</sup> K	0.48 W/m <sup>2</sup> K	30.4 %

 $^{\ast}$  With DPU industrial sectional door, 3000  $\times$  3000 mm

The wicket door with trip-free threshold as a fully-fledged escape route





### Avoid accident risks

In daily use, wicket doors with trip-free thresholds pose less of a risk for persons stumbling and injuring themselves. Tool cars or trolleys can easily pass over the very flat **stainless steel threshold** with rounded edges.

### **Optimally sealed**

Despite its flat construction, the adjustable threshold profile with flexible seal compensates for unevenness in the floor and optimally seals the bottom edge of the door.

### Also as an escape door

In certain circumstances Hörmann wicket doors with tripfree threshold up to a door width of 5500 mm fulfil the requirements of an escape door.

### Accessibility

Under certain conditions, Hörmann wicket doors with trip-free thresholds fulfil requirements for accessibility in accordance with DIN EN 18040-1 and are certified by the IFT Rosenheim.

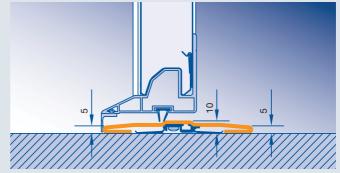
Detailed information on wicket doors and side doors can be found on pages 34–35.



Also take a look at the video at: www.hoermann.com.



A separately adjustable bottom seal for both doors compensates for any slight unevenness in the floor.



#### An extra-flat threshold

The stainless steel threshold is 5 mm high on both sides and permanently fixed to the bottom section. When the door is opened, there is no bottom profile to hinder easy passage.

Only Hörmann's wicket doors with trip-free thresholds can be used in automatic operation without any limitations, thanks to the leading photocell VL2.

# Lasting protection in two surface variants

### Stucco-textured surface

Hörmann's steel door surfaces are based on hot-galvanized material and a high-adhesion primer-coating (2-component PUR) that protect the door against adverse effects of the weather. Additional Stucco texturing makes the door impervious to dirt and small scratches. The door leaf has uniform ribbing every 125 mm in the sections and section transitions. Doors are available at no surcharge in 14 preferred colours, as well as in one of 200 colours based on RAL and NCS. The inside of the door is supplied in Grey white (similar to RAL 9002) as standard.

### **Micrograin surface**

Micrograin features a smooth surface and characteristic fine lines. Section transitions are finely ribbed. Compound windows are always centred vertically in the section. Doors are available at no surcharge in 14 preferred colours, as well as in one of 200 colours based on RAL and NCS. The inside of the door is Stucco-textured in Grey white as standard.

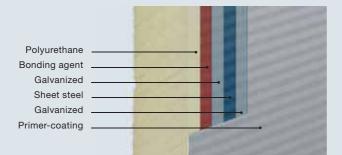
For more information on the available colours, please see pages 36–37.

### Quality in every layer and perfect long-term protection

The structure of the door sections guarantees the utmost stability and robustness. The thick insulating core of highgrade PU rigid foam is applied evenly in a continuous computer-controlled process.

The hot-galvanized sheet steel and high-adhesion polyesterprimer coating provide optimum, long-term protection against adverse effects of the weather and heavy usage. The result: A material composite that guarantees a long service life.

The door styles and surfaces from the sectional garage door programme are available on request.



Door leaf construction



# **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 doubleskinned 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 for 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

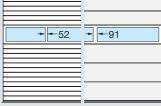
Hörmann offers all the components from a single source:

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

#### Door versions (examples\*)

-

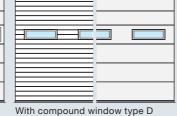
Door version without glazing Door section heights: 375, 500, 625, 750 mm



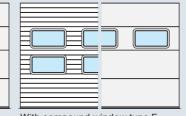
With aluminium glazing frame Frame height: 500, 625, 750 mm Version  ${\bf N}$  with narrow window sections and version  ${\bf B}$  with wide window sections

With wicket door with trip-free threshold

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



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



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

#### 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> Class 2 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 U =  $1.0 \text{ W/m}^2\text{K}$ With wicket door U =  $1.2 \text{ W/m}^2\text{K}$ 

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 43.

Doors with wicket door with trip-free threshold are available in widths up to 7000 mm.

Please refer to the technical manual for further information.

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

# DPU

# A doubly insulated, energy-saving door for more than just fresh logistics.



#### Thermal protection lowers operating costs

Fresh goods must be transported and stored in a closed cold chain from the manufacturer to the end customer. This requirement demands a high level of energy in every cooling process. The DPU door minimises temperature losses at door openings, making it ideal for use in deep freeze warehouses.

#### Systematic insulation

The hollow space in the double-skinned steel door is uniformly foam-filled with polyurethane rigid foam, binding the material to the steel shell. The insulating core in DPU doors is 80 mm thick, providing it with excellent insulation values. Double seals at the lintel and floor increase door sealing and thus effectively reduce energy losses.

The steel sections of the DPU door have thermal breaks on the interior and exterior. This ensures a thermal insulation value of up to  $0.48 \text{ W/m}^2\text{K}$  (door surface  $5000 \times 5000 \text{ mm}$ ) and reduces the accumulation of condensation water on the inside of the door.

UPVC lintel profile with double lip



80 mm

Thermal break

UPVC bottom locating profile with double bottom seal

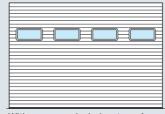
Narrow ribbing (does not match SPU, APU and TAP)



#### **Door versions (examples)**

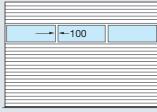


Door version without glazing



DPU Size range

With compound window type A



Available with aluminium glazing frames up to 8000 mm wide

#### Make the most of daylight

Aluminium glazing frames not only increase the light in cold storage areas, profiles with thermal breaks (depth 80 mm) and glass-fibre reinforced polyamide spacers also ensure excellent thermal insulation. DPU sectional doors are also available with three different types of compound glazing: double, triple or quadruple synthetic panes.

### DPU doors with the best thermal insulation as standard

- New UPVC bottom locating profile
- New UPVC lintel profile with double lip
- With ThermoFrame frame connection
- Optimum corrosionprotection of the side frame



\* With DPU industrial sectional door 3000 × 3000 mm

### Width up to 6000 mm (torsion springs) Width up to 10000 mm (direct drive operator) Height up to 5000 mm (torsion springs) Height up to 8000 mm (direct drive operator) Resistance to wind load 1) Class 4 Over 8000 mm door width class 3 Water tightness 2) Class 3 (70 Pa) Air permeability 3) Class 3 Acoustic insulation 4) R = 25 dB Thermal insulation <sup>5) 6)</sup> $U = 0.48 W/m^{2}K$ Section thermal insulation 5) $U = 0.30 \text{ W/m}^2\text{K}$ <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 43.

## **ASP 40**

Aluminium door with elegant profile appearance and stable steel bottom section



#### Slim profile architecture

The frame construction for the ASP 40 door features a slim profile view and invisible section transitions. This door can be optimally incorporated in modern industrial architecture with extensive glazing. In addition to an attractive appearance, the ASP 40 door has the sturdiness required for daily use.



Section transition with seal and finger trap protection

#### Light and good thermal insulation

The narrow aluminium profiles in ASP 40 doors allow more light into the building. The vertical and horizontal door rails have an identical width, which results in a harmonious door appearance. The clear view is improved with the 26-mm thick DURATEC glazing that does not require a centre spacer. The doubleskinned bottom section is foam-filled with PU rigid foam and is available in an elegant Micrograin or Stucco-textured surface. The interior is always Stuccotextured. In addition to its high stability and transparency, the ASP 40 door also offers good thermal insulation.





#### Door versions (examples\*)

65	-	¥		
		165	5	
		=	_	

Standard bottom section height 750 mm



Optional bottom section height 1500 mm, (2 sections, each 750 mm)

Optional bottom section height 500 mm

	_	

Optional bottom section height 1000 mm, (2 sections, each 500 mm)

#### ASP 40

Size range Width up to 5000 mm Height up to 7000 mm

Resistance to wind load <sup>1)</sup> Class 3 Water tightness 2) Class 3 (70 Pa) Air permeability 3) Class 2 Acoustic insulation 4) R = 23 dB Thermal insulation <sup>5) 6)</sup> - Standard double pane U =  $3.4 \text{ W/m}^2\text{K}$ - Optional triple pane U =  $2.9 \text{ W/m}^2\text{K}$ <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 43.

# **APU 40**

Modern aluminium door with steel bottom section and many versions



#### **Universal application**

The combination of double-skinned steel bottom section and aluminium glazing frame has more than proven 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.

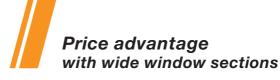
#### Individual versions

The high stability is mainly due to a 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 galvanized 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 N with narrow window sections

52	
	120

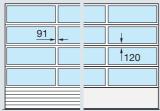
52	

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

91	91	
120		

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

#### APU 40 B with wide window sections



As standard with 91-mm rail extrusion

#### **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 2) Class 3 (70 Pa)

### Air permeability 3)

Without wicket door class 2 With wicket door class 1

#### Acoustic insulation 4)

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

#### Thermal insulation 5) 6)

Without wicket door

- Standard double pane U = 3.5 W/m<sup>2</sup>K
   Optional triple pane U = 2.9 W/m<sup>2</sup>K
- Optional climatic double pane (single-pane safety glass)  $U = 2.4 \text{ W/m}^{2}\text{K}$
- with wicket door
- Standard double pane U = 3.7 W/m<sup>2</sup>K
- Optional triple pane U = 3.1 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;

- $^{6)}$  With a door surface of 5000  $\times$  5000 mm

Safety features in acc. with EN 13241-1 are listed on page 43.

Doors with wicket door with trip-free threshold are available in widths up to 7000 mm.

### **TAP 40** Steel / aluminium door with profiles with thermal break



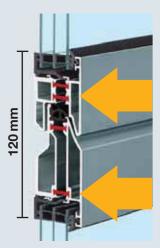
#### A door with three benefits

The TAP 40 door unifies three advantages: good thermal insulation, sufficient natural light and high stability. This thermal door is used in buildings that require a comfortable inside temperature as well as a sturdy door, such as automotive workshops.

#### Stability and thermal insulation

Good thermal insulation is achieved in the TAP 40 door through aluminium extrusions with thermal breaks. They separate the outer and inner shell with glass-fibre reinforced polyamide spacers and also have a non-positive connection. In addition, 26-mm thick DURATEC double glazing ensures excellent insulation.

In addition to being very sturdy, the double-skinned steel bottom section with a PU rigid foam infill provides excellent insulation.



Thermal breaks in the frame profile via glass-fibre reinforced polyamide spacers (red) in conjunction with optional triple glazing.



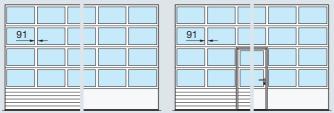


#### Door versions (examples\*)

52	

52	

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

120

The bottom section height for Micrograin and Stucco-textured surfaces is 750 mm as standard and optionally 500 mm, 1000 mm and 1500 mm

#### **TAP 40**

Size range Width up to 7000 mm Height up to 7000 mm

Resistance to wind load <sup>1)</sup> Class 3

Water tightness 2) Class 3 (70 Pa)

#### Air permeability 3)

Without wicket door class 2 With wicket door class 1

#### Acoustic insulation 4)

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

#### Thermal insulation 5) 6)

- Without wicket door
- Standard double pane U = 2.9 W/m<sup>2</sup>K
   Optional triple pane U = 2.4 W/m<sup>2</sup>K
- Optional climatic double pane (single-pane safety glass)  $U = 2.0 \text{ W/m}^{2}\text{K}$
- with wicket door
- Standard double pane U = 3.1 W/m<sup>2</sup>K
- Optional triple pane U = 2.6 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;

- $^{6)}$  With a door surface of 5000  $\times$  5000 mm

Safety features in acc. with EN 13241-1 are listed on page 43.

#### Doors with wicket door with trip-free threshold are available in widths up to 7000 mm.

# **ASR 40**

Aluminium door with fine profiles for facades with extensive glazing



# A more beautiful appearance for architecture accentuated by glass

The frame construction of the ASR 40 door perfectly suits modern glass facades and blends in with the fixed elements of the facade. The profiles have a uniform vertical and horizontal width of 65 mm. The door appears elegant and harmonious thanks to the profile symmetry and invisible section transitions.



Section transition with seal and finger trap protection

# More natural light and an improved view

The slim profile view in the ASR 40 industrial sectional doors provides your customers and passers-by with an unimpeded view into your sales and exhibition areas and also helps you make use of daylight.

# Transparency with good thermal insulation

The new 26-mm-thick DURATEC double glazing and intelligent profile geometry are responsible for efficient thermal insulation in ASR 40 doors. As standard, the bottom section comes with a 26-mm-thick PU sandwich infill that is Stucco-textured on the exterior and interior. The fully glazed ASR 40 door is another, particularly attractive, option.

65 mn







#### Door versions (examples)

65	◄	ŧ	
		<sup>1</sup> 65	

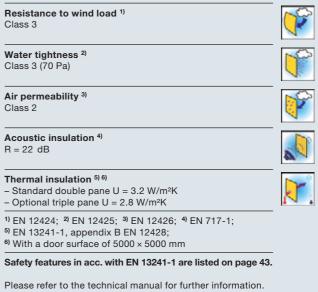
As standard with 65 mm profile view, horizontal and vertical, without visible section transitions.



The slim profile with invisible section transitions

## ASR 40

**Size range** Width up to 5000 mm Height up to 7000 mm



# **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.

#### 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. Broader glazing is also available for the wide profiles. An optional wicket door with trip-free threshold is harmoniously integrated into the overall door.



View of the door interior with black glazing beads







#### Door versions (examples) ALR 40 N with narrow window sections

52	+	¥	
		120	

52	-		
		$\square$	

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

91	91
120	

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

#### ALR 40 B with wide window sections

91	ŧ
	120

As standard with 91-mm rail extrusion, matching doors with wicket doors are available with narrow window sections and a 91-mm rail extrusion

Individual arrangement of the glass and panel infills possible, or fully glazed for wide and narrow 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 4)

Without wicket door R = 23 dB - Optional double pane (single-pane safety glass) R = 30 dB With wicket door R = 22 dB

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

- Without wicket door
- Standard double pane U =  $3.3 \text{ W/m}^2\text{K}$
- Optional triple pane U = 3.0 W/m<sup>2</sup>K
- Optional climatic double pane (single-pane safety glass)
   U = 2.6 W/m<sup>2</sup>K
- with wicket door
- Standard double pane U = 3.5 W/m<sup>2</sup>K
- Optional triple pane U = 3.2 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  $5000 \times 5000$  mm

Safety features in acc. with EN 13241-1 are listed on page 43.

Doors with wicket door with trip-free threshold are available in widths up to 7000 mm.







# **ALR Vitraplan**

An eye-catcher for prestigious buildings and modern architecture



#### For demanding building architecture

The ALR Vitraplan door is an exclusive version of the ALR 40 door with wide glazing areas. The door is especially elegant thanks to offset, flush-fitting glazing. The frame profile is concealed, so nothing detracts from the clear overall appearance.

Continuous glazing adds an eyecatching element to modern industrial structures and prestigious private buildings. The interior corresponds to the profile appearance of the ALR 40 B door. Hörmann's proven finger trap protection for industrial sectional doors is also included in ALR Vitraplan doors.

#### Two colours to choose from

The ALR Vitraplan can be optimally integrated in the facade with glazings in brown and grey, as well as a dark frame profile colour that harmonises with the glass. This exclusive door fascinates with a mix of mirroring and transparency.



Offset glazing in brown



Offset glazing in grey







#### **Door version**

The glazing division is identical to that of the ALR 40 B door (see page 27)



#### ALR Vitraplan

Size range Width up to 6000 mm Height up to 7000 mm

Resistance to wind load <sup>1)</sup> Class 3

Water tightness 2) Class 3 (70 Pa)

Air permeability 3)

Class 2

Acoustic insulation 4) R = 23 dB

Thermal insulation 5) 6) - Standard double pane U =  $3.2 \text{ W/m}^2\text{K}$ - Optional triple pane U =  $3.0 \text{ W/m}^2\text{K}$ 

<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 43.

Please refer to the technical manual for further information.

Exclusive aluminium door with flush-fitting glazing

# ALS 40 Aluminium "display window" door with real glass



# Large areas of glazing invite you to take a closer look

Seeing from the outside what's on offer on the inside, coupled with the attraction of a light and airy showroom. These are the benefits of the Hörmann "display window" door with its slim-line aluminium profiles and the generously apportioned glazing. For example, for use in car showrooms, yacht and boatyards and at camper van and caravan dealers.

# Equal-height infills in genuine tempered safety glass

A good display window door should have the same effect as a showroom window. Hörmann achieves this impression by employing large areas of glazing with panes of exactly the same height. For this we use 6-mm laminated glass because a "showroom window" in an exposed location must be easy to clean and always look spick and span. On request, the door is available with double panes in 26-mm-thick safety glass.





#### **Door versions**

Up to 3330 mm width

91	<b>←</b> ↓
	120

Over 3330 mm wide with vertical rail (91 mm)

#### ALS 40

Size range Width up to 5500 mm Height up to 4000 mm

Resistance to wind load <sup>1)</sup> Class 3

Water tightness 2) Class 3 (70 Pa)

Air permeability 3)

Class 2

Acoustic insulation 4) R = 30 dB

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

- Standard single pane (laminated safety glass) U = 6.2 W/m²K
   Optional climatic double pane (single-pane safety glass) U = 2.6 W/m²K
- <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 43.

# **TAR 40** Aluminium door with profiles with thermal break



#### **Convincing arguments**

This door has three advantages: high transparency, exceptional stability and good thermal insulation. The modern design of the TAR 40 door can be integrated seamlessly into contemporary facades.

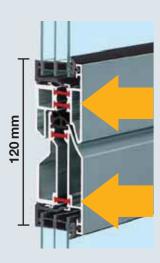
#### Stable thermal breaks in the profile

The outer and inner shell are separated by glass-fibre reinforced polyamide spacers and also have a non-positive connection.

# The best thermal insulation and comfort

The high thermal insulation value is achieved through a combination of door features: aluminium extrusions with thermal breaks and cold-repelling double glazing.

DURATEC double glazing is 26 mm thick as standard, resulting in a high thermal insulation value. On request, the door is also available with DURATEC triple glazing for even better thermal insulation. As standard, the bottom section is infilled with 26-mm thick PU rigid foam. An optional wicket door with trip-free threshold provides a convenient passage for pedestrians without having to open the door all the way. This reduces heat loss and saves energy.



Thermal breaks in the frame profile via glass-fibre reinforced polyamide spacers (red) in conjunction with optional triple glazing.





The very best in terms of light, visibility and thermal insulation



#### **Door versions (examples)**

52	¥	
	120	

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

91	
1120	

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

120	

Available fully glazed or with an individual arrangement of the glass and panel infills

#### **TAR 40**

Size range Width up to 7000 mm Height up to 7000 mm

Resistance to wind load 1) Class 3

Water tightness 2) Class 3 (70 Pa)

Air permeability 3)

Without wicket door class 2 With wicket door class 1

#### Acoustic insulation 4)

Without wicket door R = 23 dB Optional double pane (single-pane safety glass) R = 30 dB With wicket door R = 22 dB

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

- Without wicket door
- Standard double pane U = 2.7 W/m<sup>2</sup>K
- Optional triple pane U = 2.4 W/m<sup>2</sup>K
- Optional climatic double pane (single-pane safety glass)  $U = 2.1 W/m^2 K$
- with wicket door
- Standard double pane U = 2.9 W/m<sup>2</sup>K
- Optional triple pane U = 2.6 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;
- $^{6)}$  With a door surface of 5000  $\times$  5000 mm

Safety features in acc. with EN 13241-1 are listed on page 43.

Doors with wicket door with trip-free threshold are available in widths up to 7000 mm.











# Sectional doors with wicket door and trip-free threshold





**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

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.

- The garage door does not need to be opened for pedestrian traffic.
- It reduces the risk of tripping up and it's 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 up to a width of 5500 mm fulfil the requirements of an escape door.

We continue to offer the wicket door with threshold rail matching the door.

We recommend the wicket door with threshold rail for inclining surfaces in the door / wicket door opening area.



Also take a look at the video at: www.hoermann.com.





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.

# **Matching side doors**



### Matching side doors

If sufficient space is available next to the door, the matching side door provides an economical and safe way of separating employee traffic from vehicle traffic. For your safety, side doors also serve as escape routes. They open inwards and outwards and can be right or left-hand hinged. Side doors are also available on request with 3-point locking (latch, bolt, double locking hook and security rose escutcheon), which cannot be retrofitted.

#### Equipment of wicket and side doors

All door frames are made of aluminium extrusions, anodised in accordance with DIN 17611 and stained in a natural finish (previously E6 / EV1). As standard with all-round seals made of long-lasting, weather-resistant EPDM.

#### **Fittings**

Mortice lock with profile cylinder. Offset lever handle set, with black plastic oval rose escutcheons, on request with lever / knob handle sets. Also available in natural finish cast aluminium, polished stainless steel or brushed stainless steel.

#### **Overhead door closer**

Standard with wicket doors. Optional with side doors.



The side door with high thermal insulation:

### MZ Thermo multi-purpose door INEW

- 46-mm-thick door leaf with thermal break and PU rigid foam infill
- Aluminium block frame with thermal break and threshold with thermal break
- Double all-round seals
- High thermal insulation with a U-value = 1.2 W/m<sup>2</sup>K
- Single-point locking, with a plastic lever handle
- As standard in Traffic white RAL 9016
- Optionally available in a WK2 KSI Thermo version

For further information, please see the Function doors for Construction Projects brochure

# 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 from Hörmann are available in 14 preferred colours, as well as approximately 200 colours based on RAL and NCS\*.

The wet coating on the interior and exterior sides and coil coating procedure for double-skinned, 42-mm sections in preferred colours ensure highquality, long-lasting colour. This maintains the attractive appearance of your door.

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

The galvanized subframe and fittings are not factory-coated. Anodised profiles for the wicket door and glazing beads can be optionally coated. The frames for section windows and compound windows are black as standard. Door leaf reinforcements and end caps are Grey white (similar to RAL 9002) as standard.

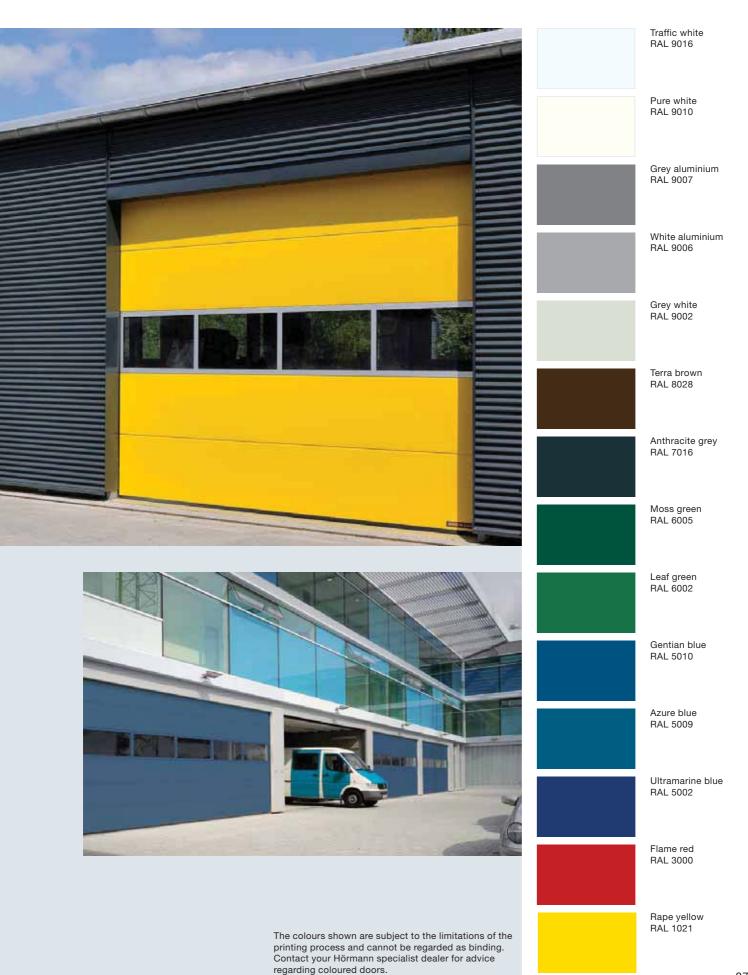




\* With the exception of pearl-effect and fluorescent colours. Slight colour variations are permissible. All colours are based on RAL / NCS.

Doors with double-skinned steel sections in any of the 14 preferred colours are Grey white (similar to RAL 9002) on the inside.

# 14 preferred colours No surcharge for doubleskinned steel sections



# More light in the building

Section window, aluminium glazing frame





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



**Clear view:** 725 × 370 mm

Glazing frame: Black plastic frame

Door section height: 625, 750 mm



635 × 245 mm

**Glazing frame:** 

diecast frame

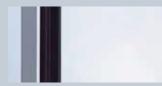
500 mm (DPU) 500, 625, 750 mm (SPU)

Black plastic frame or black

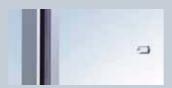
Door section height:



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

## 4

Aluminium glazing frame NF, WF Version N with standard window sections Version B with wide window sections

Clear view: Depending on version

Glazing frame: Standard profile or E6 / C0 anodised profile with thermal break (previously E6 / EV1)

Rail extrusion: 52/91 mm 100 mm (DPU)

## 5

602 × 132 mm

Glazing frame:

Black plastic frame

500, 625, 750 mm

Door section height:

Aluminium glazing frame FP Version N with standard window sections

Clear view: Depending on version

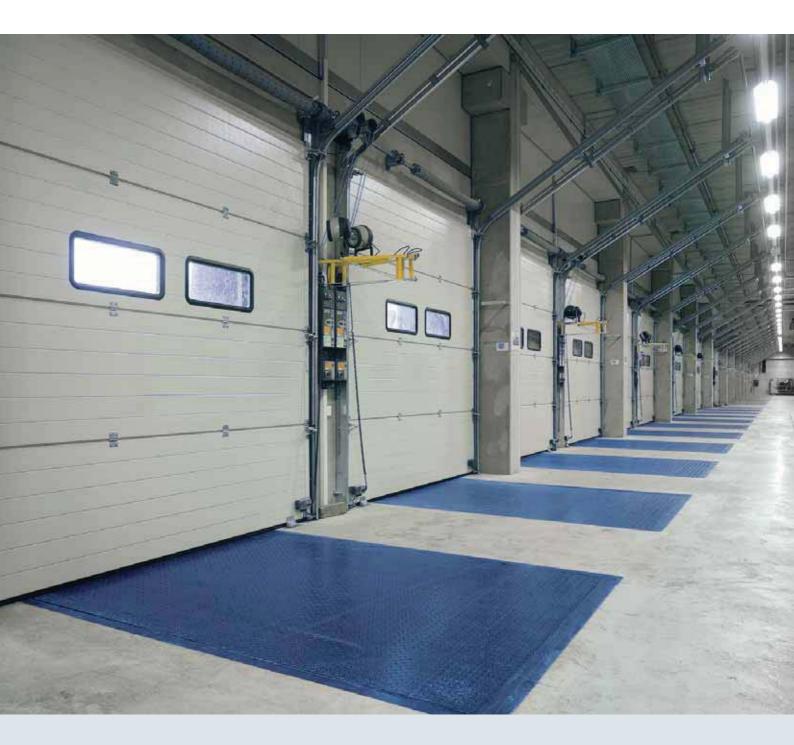
**Glazing frame:** Normal profile, anodised E6 / C0 (previously E6/EV1)

Rail extrusion: 65 mm

Section wir	ndow	1 Type A	2 Type D 3 Type E
	DURATEC synthetic double pane, clear Plastic frame SPU 33 mm Diecast frame SPU 29 mm, DPU 43 mm	SPU, DPU	SPU
	DURATEC triple synthetic pane, clear 43 mm DPU diecast frame	DPU	
	DURATEC quadruple synthetic pane, clear 43 mm DPU diecast frame	DPU	
	DURATEC polycarbonate double panes, clear Impact-resistant, break-in-resistant 29 mm SPU diecast frame	SPU	
Aluminium	glazing frame	4 NF, WF	5 FP
	DURATEC synthetic pane, clear 3 mm	SPU, APU, ALR	
	DURATEC synthetic double pane, clear 26 mm (U <sub>g</sub> = 2.6 W/m <sup>2</sup> K) 45 mm for DPU (U <sub>g</sub> = 2.7 W/m <sup>2</sup> K)	SPU, DPU, APU, TAP, ALR, TAR	ASP, ASR
	DURATEC triple synthetic pane, clear 26 mm (U <sub>g</sub> = 1.9 W/m <sup>2</sup> K) 45 mm for DPU (U <sub>g</sub> = 1.6 W/m <sup>2</sup> K)	SPU, DPU, APU, TAP, ALR, TAR	ASP, ASR
	DURATEC quadruple synthetic pane, clear 45 mm (U <sub>g</sub> = 1.3 W/m <sup>2</sup> K)	DPU	
	DURATEC polycarbonate pane, clear Impact-resistant, break-in-resistant 6 mm	SPU, APU, ALR	
	DURATEC polycarbonate double panes, clear Impact-resistant, break-in-resistant 26 mm (U <sub>g</sub> = 2.6 W/m <sup>2</sup> K)	SPU, APU, TAP, ALR, TAR	ASP, ASR
	Synthetic pane, crystal structure 3 mm	SPU, APU, ALR	
	Synthetic double pane, crystal structure with clear DURATEC inner pane 26 mm (Ug = $2.6 \text{ W/m}^2\text{K}$ )	SPU, APU, TAP, ALR, TAR	ASP, ASR
	Single pane made of laminated safety glass, clear 6 mm	SPU, APU, ALR, ALS	
	Double pane single-layer safety glass, clear 26 mm (U <sub>g</sub> = 2.7 W/m <sup>2</sup> K) Climatic double pane made of single-pane safety glass, clear 26 mm (U <sub>g</sub> = 1.1 W/m <sup>2</sup> K)	SPU, APU, TAP, ALR, TAR, ALS	
	Double-moulded panes 16 mm	SPU, APU, ALR	
	Expanded mesh, stainless steel Ventilation cross section: 58% of infill surface	SPU, APU, ALR	
	Perforated steel sheet, stainless steel, smooth Ventilation cross section: 40% of infill surface	SPU, APU, ALR	
	PU sandwich infill Aluminium sheet cladding, anodised on both sides, smooth 26 mm	APU, TAP, ALR, TAR	ASP, ASR
	PU sandwich infill Aluminium sheet cladding, Stucco-textured both sides 26 mm	APU, TAP, ALR, TAR	ASP, ASR
		·	

# Hörmann sectional doors can be adapted to any building

Sound planning for old and new buildings



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 the different track applications are available for all door types.

Please see the valid technical manual for all of the possible track applications.

# The low headroom track application





# Protection bollards protect the frame from damage

When used outside, they avoid expensive collision damage on buildings. When used inside, they protect the door tracks from collision damage. 200 mm

Power-driven WA300 S4 / WA400

In underground garages and collective garages,

we recommend using a low-noise FU operator.

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

#### 1 Quiet door travel

Hinged roller holders made of galvanized 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 Galvanized, 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

42

Stable centre hinges made of galvanized steel connect the individual door sections precisely. 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.

9

2

1

11

10

6

# 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 galvanized, the springs are shot-blasted and coated.

#### Flexible shaft coupling

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

#### 5 Pre-fabricated suspension

Ceiling suspension of the tracks is achieved through special anchors with slotted holes, made of galvanized 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. Have this confirmed by other manufacturers!

# 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 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. No protruding components. This virtually excludes the risk of injuries. For doors with a low headroom track application, the load carrier consists of a carrying chain / carrying cable.

#### 12 Side trap guards

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

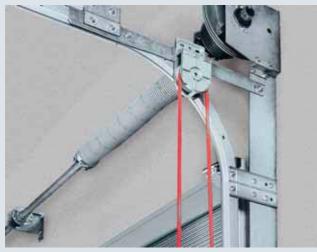
#### 13 Closing edge safety device

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 53). Obstructions are detected before they come into contact with the door.

# Manually operated doors

As standard with pull rope or pull rod.

### **Optional operation options**



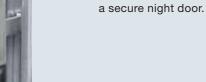
Optional: Hand pulley with rope or link steel chain



Optional: chain hoist (top figure), or with chain tensioner (bottom figure)







Securely locked as standard



#### **Shootbolt** Prepared for an on-site padlock for use as



Rotary latch An automatic latching disc securely latches the door. On request for doors with VU / WB and HU / RB tracks (with spring shaft at bottom).



#### Floor locking

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

# The door handle

**Standard security** 



#### Lock operation from outside

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







Rotary latch



### **Recessed handle set**

Vertical door guidance, ideal for logistics applications, thanks to a flat design and flexible installation height (dock doors). You can operate two functions with the locking cylinder: **permanently unlocked door and automatic re-locking.** 

All parts on the inside are protected by cladding.







Rotary latch

# **Industrial sectional doors, operators and controls** Hörmann offers a perfectly co-ordinated system from a single source



# **Standard security**

Thanks to a break-in-resistant arrestor kit





# 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 case of a power failure.

Industrial sectional doors over 5 m high are break-in resistant due 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 44). Because it is equipped with an electrical interrupter contact, the operator cannot be started if the door is locked.

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

## **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. A closing edge safety device or similar components do not need to be installed 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.

#### Track applications:

- Normal track application N1
- Low headroom track application L1
- High-lift track application H4 / HU4
- Vertical track application V6 / VU6

#### Door sizes:

- Max. door width 5000 mm
- Max. door height 3500 mm
- Not for door types ALS 40 and DPU



Diagonal 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)

\* Except for doors with wicket doors

### Optional



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



# Maintenance release directly on the operator

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



### Optional control 400 U

Available as a compact control unit in combination with dock leveller controls 420 S and 420 T.



# 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:  $83 \times 133 \times 50$  mm (W × H × D)

#### Push rod

For manual operation of doors higher than 3000 mm as well as for emergency operation (see figure on page 51).

#### **Emergency battery**

With this emergency power in an external housing, you can bypass network power failures for up to 24 hours and max. 5 door cycles (dependent on the temperature and situation of charge). The emergency battery recharges itself during normal operation.

# 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 / B 445, A / B 460, B 460 FU



Standard fitting position: horizontal, alternatively vertical. Shown with an optional emergency hand chain.



Standard fitting position: vertical Shown with an optional emergency hand chain.



Ideal option when sideroom is lacking.

#### Operator with chain box WA 400

We recommend the WA 400 operator with chain box for all types of doors up to a height of 7000 mm if there is little sideroom. For applications L and LD an operator with chain box is required. Due to the indirect transmission of forces, the door is subjected to minimum wear and friction.

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

#### 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.

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



With all 3-phase current versions:

- Exceptionally smooth running
- Long on-time
- Fast door travel
- •Also as an FU version



#### Standard maintenance release

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

#### **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).



# Optional emergency operation for maintenance release

#### **Emergency crank handle**

The low-cost option, available in two versions. As a fixed crank handle or jointed emergency crank handle. Retrofitting with an emergency hand chain is possible.

#### Emergency hand chain

Through a combination of the emergency hand chain and the optional secured release, the door can be released or operated from the floor.



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:

 $83 \times 133 \times 50 \text{ mm} (W \times H \times D)$ 





#### Push rod

For doors over 3000 mm high, and as an emergency opening device, particularly recommended for fire station doors. A secured release is required.

Meets the requirements of fire service directive EN 14092.

# **Operator ITO 400, SupraMatic H and SupraMatic HD**

The space-saving operator

# Chain drive with boom guidance ITO 400

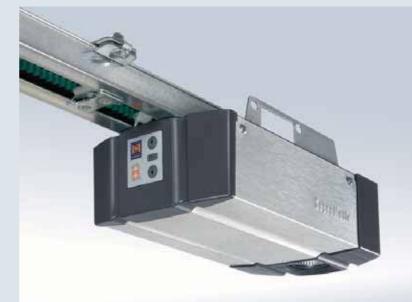
- No sideroom required
- Emergency release via bowden cable on the slide carriage
- Emergency release from the outside possible
- IP 65 (jet-water protected)
- For normal tracks (N, ND) and low-headroom tracks (L, LD)
- Max. door height 4500 mm
- Also available as an FU version
- For doors with wicket doors on request

Can be combined with controls A / B 445, A / B 460 and B 460 FU



### Operators SupraMatic H and SupraMatic HD

- Suitable for max. 100 door cycles (Open / Close) per day
- Pull and push force 1000 N, peak force 1200 N, max. opening speed 18 cm/s
- Quick release operated from inside
- Connecting lead with EEC plug, second suspension for boom FS 60 and FS 6
- Integrated illumination with factory-set 2-minute light
- Arrestor kit as safety equipment
- Expandable with additional units
- (for activating kits for warning lights, see page 62) • For doors with spring safety device
- For doors with spring safety device
  SupraMatic H: max. width 5000 mm
- (5500 mm on request), max. height 3000 mm • SupraMatic HD: max. width 6750 mm
- (7000 mm on request), max. height 3000 mm
- For normal tracks (N) and low-headroom tracks (L)
- For doors with wicket doors, ALS and real glass on request
- Not for DPU doors



# Leading photocell

More safety and high speeds



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







## Leading photocell (European patent)

4 4

More safety with Hörmann industrial sectional doors thanks to the optional leading photocell VL. A sensor monitors 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 One (VL 1) or two (VL 2) sensors are situated in a leading swivel arm construction.

DPU doors with impulse-controlled operators or doors with wicket doors with trip-free thresholds require a leading photocell VL 2. The leading photocell VL 2 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".

# **Controls Compatible system solutions**



Impulse control A/B 445 (400/230 V)

- Control and operator can be mounted separately
- Controls and door leaf components in protection category IP 65 (jet-water protected). Connection with a CEE plug corresponds to protection category IP 44.Menu read-out from outside
- without removing the housing cover, thanks to an integrated double 7-segment display
- · Adjustments are no longer made on the motor but conveniently from the control via an electronic door position sensor
- Service menu with maintenance and operating hours counters, as well as fault analysis
- Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via mobile phone)
- (additional control required). • Function lock via miniature lock (convertible to profile half
- cylinder) Can be upgraded to control A/B
- 460 so there is no need to replace the entire module



**Comfort control** A / B 460 (400 / 230 V)

- Control and operator can be
- mounted separatelyAdditional button on housing cover for 2nd opening height and integral connecting terminals for further command units
- · Controls and door leaf components in protection category IP 65 (jet-water protected). Connection with a CEE plug corresponds to protection category IP 44.
- Menu read-out from outside without removing the housing cover, thanks to an integrated double 7-segment display
- Adjustments are no longer made on the motor but conveniently from the control via an electronic door position sensor
- · Service menu with maintenance, cycle, and operating hours counters, as well as fault analysis

 Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via

mobile phone) (additional control required).Function lock via miniature lock

- (convertible to profile half cylinder) • Lockable automatic timer and
- traffic control

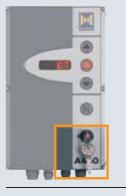
# Frequency converter control B 460 FU (230 V)

- Gentle to the door thanks to
- soft start and soft stopAdjustable high-speed opening
- and closing (depending on tracks) · Control and operator can be
- mounted separately Additional button on housing cover for 2nd opening height and integral connecting terminals
- for further command units · Controls and door leaf components in protection category IP 65 (jet-water protected). Connection with a CEE plug corresponds to
- Menu read-out from outside without removing the housing cover, thanks to an integrated double 7-segment display
- Adjustments are no longer made on the motor but conveniently from the control via an electronic door position sensor
- Service menu with maintenance, cycle, and operating hours
- counters, as well as fault analysis Collective malfunction signalling with on-site individual display
- (acoustic, visual, or e.g. via mobile phone) (additional control required).
- Function lock via miniature lock (convertible to profile half cylinder)

#### Meets the requirements of fire service directive EN 14092

# Hörmann is your partner for special solutions

Hörmann offers you a complete individual control concept from a single source. From the integration of the Hörmann special control into your control concept, via a complete central control for all functional processes, up to PC-based visualisation of all door and loading components.



Optional profile half cylinder

For all controls (except for WA 300 S4)



Optional Main switch

For all controls (except for WA 300 S4)

Optional

Key switch post STI 1 For installing a maximum of 2 controls with additional housing. Colour: White aluminium (similar to RAL 9006) Dimensions: 200 × 60 mm, height 1660 mm





Individual in-house project development



Modular solutions, compatible with the Hörmann operator technology



Controlled processes through visualisation on a control panel or web application



More information can be found in the Special control systems brochure.

# **Accessories** Radio control, receiver





#### Industrial hand transmitter

HSI This hand transmitter can control up to 1000 doors. It is equipped with a display and convenient quick selection buttons. Extra-large keys facilitate handling with work gloves. As a time-saving feature, the coding for a hand transmitter can also be transferred via cable to other transmitters.





4-button hand transmitter HS 4

1-button hand transmitter HS 1



4-button security hand transmitter HSS 4 Additional function: copy protection for hand transmitter coding



#### Radio code switch

FCT 10b For up to 10 radio codes (868 MHz). The keypad illuminates when pressed for the first time.



Radio finger-scan FFL 12 For up to 12 radio codes (868 MHz). The keypad illuminates when pressed for the first time.

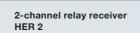


1-channel receiver HEI 1

2-channel receiver HEI 2



1-channel relay receiver HER 1 With volt-free relay output; frequency: 868 MHz, IP 65, operating voltage: 24 V DC/230-240 V AC, without connecting lead



\*\*

With 2 volt-free relay outputs, frequency: 868 MHz, IP 65, operating voltage: 24 V DC / 230-240 V AC, separate antenna for exterior use (IP 65), in a tamper-proof aluminium housing with 7 m connecting lead, 3-wire, decoder unit for interior



4-channel relay receiver HER 4 With 4 volt-free relay outputs, frequency: 868 MHz, IP 65, operating voltage 24 V DC / 230-240 V AC

# Accessories Push button



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

For controls A / B 445, A / B 460, B 460 FU and integrated control WA 300 S4





Push button DTH RM *II NEW* 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 controls A / B 445, A / B 460, B 460 FU and integrated control WA 300 S4 Push button DTH I // NEW To move the door into the Open / Close positions. Separate stop button to stop door travel. 1/2-open button to open the door up to the programmed intermediate travel limit. Protection category: IP 65 Dimensions: 90 × 160 × 55 mm (W × H × D)

For controls A / B 460, B 460 FU and integrated control WA 300 S4



Push button DTH IM // NEW To move the door into the Open / Close positions. Separate stop button to stop door travel. 1/2-open button to open the door up to the programmed intermediate travel limit. 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:  $90 \times 160 \times 55 \text{ mm} (W \times H \times D)$ 

For controls A / B 460, B 460 FU and integrated control WA 300 S4



Dimensions:

and B 460 FU



Push button DT 04 For separate control of both operational directions, with separate stop button. Full or partial door opening (via separate button). Dimensions: 69 × 185 × 91 mm (W × H × D)

protection category: IP 65

For controls A / B 460 and B 460 FU

#### Push button DTN A 30

For separate control of both operational directions. The stop button is a push-to-lock button which, once pressed, stays depressed in order to prevent unauthorised operation. Further operation is then only possible once the stop button has been unlocked with a key (2 keys included in the scope of delivery). Dimensions:  $66 \times 145 \times 85$  mm (W × H × D) Protection category: IP 65

For controls A / B 445, A / B 460 and B 460 FU

Push button DT 02 Open or close via a command

button, separate stop button.

 $65 \times 112 \times 68 \text{ mm} (W \times H \times D)$ 

For controls A / B 445, A / B 460

Protection category: IP 65

58





#### Push button DTP 02

Open or close via a command button, separate stop button and operation control light for control voltage. Lockable with profile half cylinder (available as an accessory). Dimensions:

 $86 \times 260 \times 85 \text{ mm} (W \times H \times D)$  Protection category: IP 44

For controls A / B 445, A / B 460 and B 460 FU

#### Push button DTP 03

For separate control of both operational directions. Separate stop button and operation control light for control voltage. Lockable with profile half cylinder (available as an accessory). Dimensions:  $68 \times 290 \times 74$  mm (W × H × D) Protection category: IP 44

For controls A / B 445, A / B 460 and B 460 FU

The lockable function serves to isolate the control voltage and immobilises the command units. Profile half cylinders are not included in the scope of delivery for the push buttons.



Dimensions: 93 × 93 × 95 mm (W × H × D) Protection category: IP 65

For controls A / B 445, A / B 460 and 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 / B 445, A / B 460 and B 460 FU





Photocell RL 50 Reflection photocell with transmitter / receiver unit and reflector. The photocell is tested by the control prior to each closing cycle. Connected via a system cable (length 2.0 m). Max. range 6.0 m Dimensions:  $68 \times 97 \times 33$  mm (W × H × D) Reflector:  $85 \times 85$  mm (W × H) Protection category: IP 65 **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:  $60 \times 165 \times 43$  mm (W × H × D) Protection category: IP 65

#### Pull switch ZT 2 with cord Impulse generation to open or close the door. Dimensions: $60 \times 90 \times 55$ mm (W × H × D)

Pull cord length: 3.2 m Protection category: IP 65

Cantilever arm KA1 (not shown) Extension 1680 x 3080 mm Can be used with ZT 1

# Accessories

Code switch, key switch, key switch post



#### Code switch CTR 1b, CTR 3b

The code switches CTR 1b and CTR 3b offer a high level of security against unauthorised opening. You simply enter your own personal code – a key is no longer needed. With the CTR 3b comfort version, you can open a second door and also switch on the outside lights or operate a door in the chosen direction.

Dimensions:  $80 \times 110 \times 17 \text{ mm} (W \times H \times D)$ Decoder housing:  $140 \times 130 \times 50 \text{ mm} (W \times H \times D)$ Keypad: IP 65 Decoder housing protection category: IP 54 Switching capacity: 2.5 A/30 V DC 500 W/250 V AC

#### Finger-scan FL 12, FL 100

A fingerprint is enough to securely and conveniently open your industrial sectional door. The finger-scan is available in two versions, as an FL 12 or FL 100 to store 12 or 100 fingerprints, respectively.

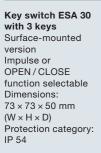
Dimensions:  $80 \times 110 \times 39 \text{ mm} (W \times H \times D)$ Decoder housing:  $70 \times 275 \times 50 \text{ mm} (W \times H \times D)$ Reader protection category: IP 65 Decoder housing protection category: IP 56 Switching capacity: 2.0 A / 30 V DC

#### Transponder key switch TTR 100, TTR 1000

The convenient solution when several persons require access to the building. You simply hold the transponder key with your personal security code approx. 2 cm in front of the reader. A non-contact system! A major benefit in the dark. 2 keys are included. Suitable for max. 100 transponder keys (TTR 100) or 1000 transponder keys (TTR 1000).

Dimensions:  $80 \times 110 \times 17 \text{ mm} (W \times H \times D)$ Decoder housing:  $140 \times 130 \times 50 \text{ mm} (W \times H \times D)$ Transponder pad protection category: IP 65 Decoder housing protection category: IP 54 Switching capacity: 2.5 A/30 V DC 500 W/250 V AC







Key switch ESU 30 with 3 keys Recessed version Impulse or OPEN / CLOSE function selectable Dimensions of switch box: 60 mm (d), 58 mm (D) Dimensions of cover: 90 × 100 mm (W × H) Wall recess: 65 mm (d), 60 mm (D) Protection category: IP 54



Key switch STAP with 3 keys Surface-mounted version Impulse or OPEN / CLOSE function selectable Dimensions:  $80 \times 110 \times 68$  mm (W × H × D) Protection category: IP 54 Key switch STUP with 3 keys Recessed version Impulse or

0

OPEN / CLOSE function selectable Dimensions of switch box: 60 mm (d), 58 mm (D)

Dimensions of cover:  $80 \times 110 \text{ mm} (W \times H)$ Wall recess: 65 mm (d), 60 mm (D)Protection category: IP 54 Key switch post STS 1 With adapter for fitting TTR 100, FCT 10 b, CTR 1b/CTR 3b

or STUP. The command units must be ordered separately. Top and bottom end of post in Slate grey (similar to RAL 7015). The post is stove-enamelled in White aluminium (similar to RAL 9006). Dimensions: 300 mm (d), 1250 mm (H) Protection category: IP 44

Version with fitted key switch STUP (accessory).

# Accessories

**Optional extras, special controls** 





Multi-function circuit board in a

separate additional housing or

for fitting in an existing housing

Limit switch reporting, momentary

impulse, collective malfunction

Extension unit for controls

Protection category: IP 65

mounted in the control.

A/B445, A/B 460, B 460 FU

Dimensions of additional housing:  $202 \times 164 \times 130 \text{ mm} (W \times H \times D)$ 

A circuit board can be optionally

signalling



Digital weekly timer in a

contact.

separate additional housing

units on and off via a volt-free

Extension unit for controls

A/B460, B460 FU

Switching capacity: 230 V AC 2.5 A / 500 W

summer / winter time

Manual switching:

Can be switched over to

Automated operation, switching

preselection for ON / OFF times

 $202 \times 164 \times 130 \text{ mm} (W \times H \times D)$ 

Protection category: IP 65

Dimensions of additional housing:

The timer can switch command



Summer / winter activating kit in an additional housing Function for full opening of door and individually programmable intermediate travel limit Extension unit for controls A / B 460, B 460 FU Dimensions of additional housing: 202 × 164 × 130 mm (W × H × D) Protection category: IP 65



Induction loop DI 1 in a separate additional housing Suitable for one induction loop. The detector has a normally open contact and a change-over contact.

Induction loop DI 2 (not shown) 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:  $202 \times 164 \times 130 \text{ mm} (W \times H \times D)$ Switching capacity: DI 1: low voltage 2 A, 125 V A/60 W DI2: 250 V AC, 4 A, 1000 VA, (resistivity AC) Supplied without loop cable



#### UAP 300 For WA 300 S4 // NEW

For impulse selection, partial opening function, limit switch reporting and activating kit for warning light With 2 m system cable Protection category: IP 65 Max. switching capacity:  $30 \vee DC / 2.5 A$  (resistivity)  $250 \vee AC / 500 W$  (resistivity) Dimensions:  $110 \times 45 \times 40$  mm (W × H × D)

#### HOR 300 (not shown) For WA 300 S4 *II NEW*

To control limit switch reporting or warning lights With 2 m connecting lead Protection category: IP 44 Max. switching capacity: 30 V DC / 2.5 A (resistivity) 250 V AC / 500 W (resistivity) Dimensions: 110 × 45 × 40 mm (W × H × D)



#### Radar movement detector RBM 2

For "Open door" impulse with directional recognition Max. fitting height: 6 m Dimensions:  $155 \times 132 \times 58$  mm (W × H × D) Contact load: 24 V AC / DC, 1 A with resistivity Protection category: IP 65

Remote control for radar movement detector Optional



Loop cable for induction loop 50 m roll each Cable designation: SIAF Cross-section: 1.5 mm<sup>2</sup> Colour: brown

# **Accessories** Activating kit for warning lights, LED warning lights



Activating kit for warning light for fitting in an existing housing or optionally in a separate extension housing, incl. 2 yellow warning lights

Extension unit for controls A/B 445, A/B 460, B 460 FU.

The activating kit for warning lights serves as a visual indicator while the door is moving. (weekly timer, optionally for A / B 460, B 460 FU).

Application fields:

Approach warning (for A / B 445, A / B 460, B 460 FU), automatic timer (for A / B 460, B 460 FU)

After the set hold-open phase has elapsed (0-480 s), the warning lights flash during the set pre-warning phase (0-70 s). Traffic light dimensions:

180 × 250 × 290 mm (W × H × D) Dimensions of additional housing: 202 × 164 × 130 mm (W × H × D) Contact load: 250 V AC: 2.5 A / 500 W Protection category: IP 65 Traffic light material: High-grade, powder-coated aluminium housing

housing or for fitting in an existing housing, incl. 2 red / green warning lights Extension unit for controls A / B 460, B 460 FU The activating kit for warning lights serves as a visual indicator for regulating the entrance and exit (optional weekly timer). Duration of green phase: Adjustable from 0 – 480 s Duration of clearance phase: Adjustable from 0-70 s Traffic light dimensions:  $180 \times 410 \times 290 \text{ mm} (W \times H \times D)$ Dimensions of additional housing:  $202 \times 164 \times 130 \text{ mm} (W \times H \times DT)$ Contact load: 250 V AC: 2.5 A / 500 W Protection category: IP 65 Traffic light material: High-grade, powder-coated aluminium housing





# Activating kit for warning light SupraMatic H, SupraMatic HD

#### Extension unit for warning lights ES 1, incl. two yellow warning lights In separate housing, two relays to control

warning lights, option relay (momentary impulse) for illumination control, impulse input, hold-open phase can be shortened, emergency-off button can be connected, SupraMatic H keypad can be switched off, automatic timer can be switched off (e.g. ZSU 2)



# Activating kit for warning light SupraMatic H, SupraMatic HD

Extension unit for warning lights ES 2, incl. two yellow warning lights Technically identical to ES 1. In addition, programming of the SupraMatic H or SupraMatic HD can be performed via the expansion kit. The connection of a closing edge safety device, as well as a safety or throughtraffic photocell, is also possible. Connection of a closing edge safety device. Hold-open phase adjustable from

5 - 480 seconds, pre-warning phase from 1 - 170 seconds



#### Activating kit for warning light SupraMatic H, SupraMatic HD

Traffic control extension unit EF 1, incl. 2 red / green warning lights Technically identical to ES 2. Additional impulse command, entrance and exit, entrance function has priority, limit switch reporting via an integrated relay

# **Overview of door types Construction and quality features**

• = Standard  $\bigcirc$  = Optional

		SPU 40	DPU		
Resistance to wind load EN 12424	Class	3	4 <sup>1)</sup>		
Water tightness EN 12425	Door without wicket door, class	3 (70 Pa)	3 (70 Pa)		
Air permeability	Door without wicket door, class	2	3		
EN 12426	Door with wicket door, class	1	-		
Acoustic insulation	Door without wicket door R = dB	25	25		
EN 717-1	Door with wicket door $R = dB$	24	-		
Thermal insulation	Door without wicket door, U = W/m <sup>2</sup> K $^{3)}$	1.0	0.48		
EN 13241-1, appendix B EN 12428	- Optional triple glazing, U = $W/m^2K^{3}$	-	-		
	- Optional climatic double pane (single-pane safety glass) U = W/m <sup>2</sup> K $^{3)}$	-	-		
	Door with wicket door, U = W/m <sup>2</sup> K $^{3)}$	1.2	-		
	- Optional triple glazing, U = W/m²K <sup>3)</sup>				
	Section, U = W/m <sup>2</sup> K	0.50	0.30		
Design	Self-supporting	•	•	<u></u>	
	Depth, mm	42	80		
Door sizes	Max. width mm, LZ	8000	6000 (10000 <sup>5)</sup> )		
	Max. height mm, RM 4)	7000	5000 (8000 <sup>5)</sup> )		
Space requirement	See the technical manual				
Material, door leaf	Steel, double-skinned, 42 mm	•	_		
······, ·····			•		
			-	<u>,                                     </u>	
Surface, door leaf		•	•		
	· · · · · · · · · · · · · · · · · · ·	0	0		
			0		
Wicket door					
Side door					
Glazings			0		
			-		
	Steel, double-skinned, 42 mm       Steel, double-skinned, 80 mm       Aluminium, standard profile       Aluminium, thermal profile	-			
			0		
Seals			•		
			•		
ThermoFrame // NEW	PVC hard / soft seal	0	•		
Locking systems			•		
	Outside / inside locking		0		
Arrestor kit	For doors of up to 5 m with shaft operator	•	-		
Safety equipment	Finger trap protection	•	-		
	Side trap guards	•	•		
	Spring break safeguard for manual operation		•	_	
	Safety catch for doors with shaft operator	•	•		
Fastening options	Concrete	•	•		
	Steel	•	•		
	Brickwork	•	•		
	Others on request				

 $^{1)}\mbox{Class}$  4 for DPU doors up to 8000 mm door width, class 3 for DPU doors over 8000 mm

<sup>2</sup>)With optional double pane (single-pane safety glass) <sup>3</sup>)With a door surface of 5000 × 5000 mm <sup>4</sup>)Door height over 7000 mm on request (not with door type ALS 40)

<sup>5)</sup> Doors with direct drive operator

ASP 40	APU 40	TAP 40	ASR 40	ALR 40	ALR Vitraplan	ALS 40	TAR 40
3	3	3	3	3	3	3	3
3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa				
 2	2	2	2	2	2	2	2
_	1	1	-	1	-	-	1
23	23	23	22	23 (30 <sup>2)</sup> )	23	30	23 (30 <sup>2)</sup>
-	22	22	-	22	-	-	22
3.4	3.5	2.9	3.2	3.3	3.2	6.2	2.7
2.9	2.9	2.4	2.8	3.0	3.0	-	2.4
-	2.4	2.0	-	2.6	-	2.6	2.1
-	3.7	3.1	-	3.5	-	-	2.9
-	3.1	2.6	-	3.2	-	-	2.6
-	-	-	-	-	-	-	-
•	•	•	•	•	•	٠	•
42/48.5	42	42	48.5	42	42	42	42
5000	8000	7000	5000	8000	6000	5500	7000
7000	7000	7000	7000	7000	7000	4000	7000
•	•	•	-	-	-	-	-
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0	0	0	-	-	-	-	-
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# Hörmann product range

### Everything from a single source for your construction project

#### 1 Sectional doors

These space-saving door systems can be adapted to different industrial facilities using various track applications. Hörmann offers you tailored solutions for every application.

#### 2 Rolling shutters and rolling grilles

Thanks to a simple construction with just a few components, rolling shutters are both economical and sturdy. Hörmann supplies rolling shutters in widths and heights of up to 11.75 m and 9 m respectively, or as special doors which are even higher.

#### **3** Steel and aluminium folding doors

Hörmann folding doors in steel and aluminium are recommended for halls with low traffic frequency and little headroom, as well as areas where no roof load is permitted.

#### 4 High-speed doors

Hörmann high-speed doors are used both inside and as exterior doors to optimise the flow of traffic, improve room conditions and save energy. The Hörmann programme includes vertically and horizontally opening transparent doors with flexible curtains.

#### 5 Loading technology

Hörmann offers you complete loading systems for the logistics sector. The advantages: reliable planning, dependable execution of construction work and high functionality thanks to precisely matched components.

#### 6 Fire sliding doors

Hörmann can provide you with single or double-leaf sliding door solutions suitable for all areas and required fire protection classes.

#### 7 Multi-function doors and reinforced internal doors

Hörmann multi-function doors and reinforced internal doors are suitable for indoor and outdoor use. Our single and double-leaf doors can be used wherever robust door elements are required. With numerous additional functions, such as fire and smoke protection, acoustic insulation or burglar protection.

# 8 Fire and smoke-protection box frame parts

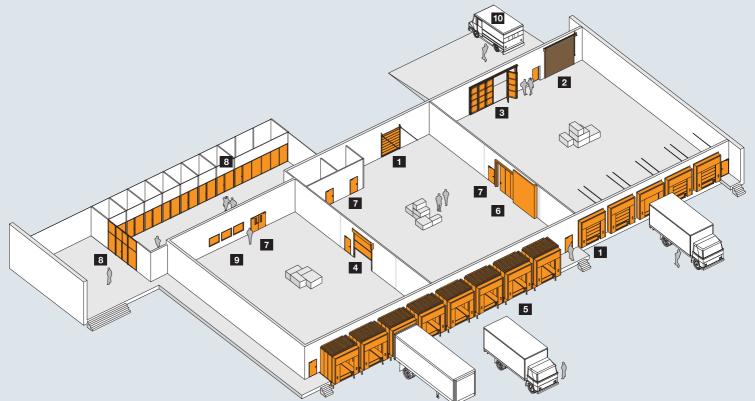
Hörmann can supply you with doors and fixed glazing made of steel and aluminium for areas where appearance is important, such as administration areas in industrial building.

#### 9 Visibility windows

Hörmann visibility glazings are used as windows or room-high elements to provide more light and better visibility.

#### 10 Service

Only intact, professionally maintained systems ensure smooth production processes and secure traffic ways. The statutory inspections and necessary repairs are professionally carried out and documented with an inspection and maintenance contract.























## Hörmann: Quality without Compromise



building products, offering "Quality without Compromise".

HORMANN

DOOR FRAMES