

# **Rolling Shutters and Rolling Grilles**

Matching side door NT 60







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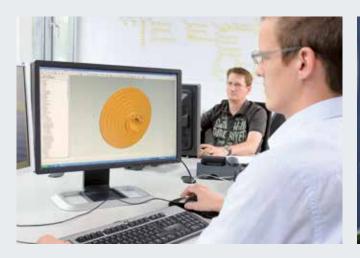
Image on left: better worx, Berlin

# **Hörmann Brand Quality**

Reliable and oriented towards the future



Kirow Ardelt GmbH, Leipzig



### In-house product development

At Hörmann, innovation is produced in-house – highly qualified employees of the development department 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 the essential door components, such as profiles, side guides, support brackets and fittings are developed and produced by Hörmann - not bought in from here, there and everywhere.

This ensures greatest compatibility between the door, operator and control. The certified 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, hinged 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 manufacture construction components that are characterised 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.



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.



### **Competent advice**

Experienced specialists within 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

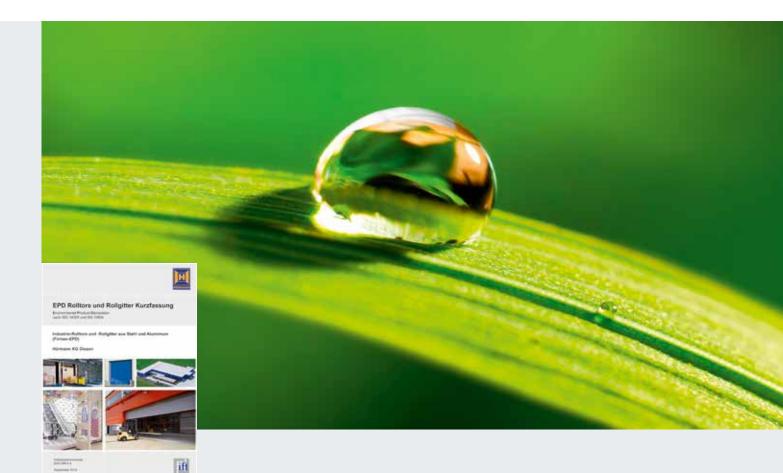


### **Fast service**

Our extensive service network means that we are always nearby and at your service around the clock. This is a major advantage in terms of inspections, maintenance and repairs.

# **Sustainable Production**

For future-oriented construction



### Sustainability documented and approved by the ift in Rosenheim

Hörmann has received confirmation of the sustainability of all its rolling shutters and rolling grilles through an environmental product declaration (EPD) in accordance with ISO 14025 and EN 15804 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 lifecycle analysis in accordance with DIN ISO 14040 / 14044 for all rolling shutters and rolling grilles.

# Sustainably produced rolling shutters and rolling grilles from Hörmann

### **Ecological quality**

Environmentally-friendly production through a comprehensive energy management system Economical quality

A long service life and low maintenance costs thanks to the use of high-quality materials

### **Process quality**

Sustainable production processes through optimised material use

# Sustainable construction with Hörmann's expertise

Hörmann has been able to gain great expertise in sustainable construction through various projects. We also apply this know-how to support your projects. Another advantage: For every project order, the required data for LEED certification are automatically generated.







# **Simple and Sustainable Planning**

With the Hörmann Architects' Program and energy savings compass



### The Architects' Program More than 9000 drawings for over 850 products

Planning with Hörmann products is now even easier thanks to a modern, user-friendly interface. Clearly structured navigation via drop-down menus and symbols, as well as a search function, give you faster access to tender specifications and drawings (in DWG and PDF format) of over 850 Hörmann products. Photo-realistic presentations provide additional information on many products.

The Architects' Program can be downloaded free-of-charge from the Hörmann Architects' Forum.

### The energy savings compass For sustainable planning

Hörmann's energy saving compass shows how external and internal doors are planned with energyefficiency and sustainability in mind. An integrated calculated module estimates the amortisation period for door modernisation.

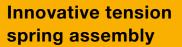


Plan with the energy savings compass at: www.hormann.co.uk/energysavingscompass

# **Good Reasons to Try Hörmann**

Innovations from the market leader







### Safe and proven

Manual door opening and closing is facilitated significantly by the tension spring assembly. Rolling shutters/rolling grilles SB and TGT up to 6000 × 4500 mm can be moved with little force. For rolling shutters / rolling grilles with an optional operator, the tension spring assembly reduces wear on the mechanical door elements and operator technology.

For further information, see pages 12–15.

# High security without sensors on the door curtain

### Power limit as standard for WA 300 R S4 / WA 300 AR S4

In combination with these operators, the rolling shutters / rolling grilles SB and TGT are characterised by a **high level of safety when opening and closing.** Thanks to the standard power limit in the "Open" and "Close" directions, most curtain variants and size ranges do not require the installation of a closing edge safety device and lintel trap guard to meet the requirements of DIN EN 12453. In addition, the door is **very low maintenance,** since there are no sensors with spiral cables susceptible to wear fitted to the door curtain.

For further information, see pages 46 - 47.



### Accessory package S6 with FU operator and control

Optimise your operations and minimise heat loss with the optional accessory package S6 incl. FU operator for the rolling shutter DD with Decotherm curtain. **The door opens at up to 1.1 m/s** – and thus almost as fast as a high-speed door. Further advantages: fitting dimensions as well as procurement and operating costs are significantly lower than for a high-speed door. Thanks to the soft start and soft stop function, the door runs particularly gently despite the speed – this takes stress off the door mechanism, **thus extending the service life of the door.** A light grille in the side guide ensures the necessary high security and is also reliably protected against wear and damage.

For further information, please see page 49.

### Useful details for a longer service life

### Well thought-out design

with guide channel and wind locks The rolling shutter guide channel DD effectively reduces wear on the door curtain. If necessary, you can easily replace the funnel.

In addition, our developments often fulfil several functions. For example, wind locks on the rolling shutter curtains **protect your door from damage due to wind loads;** at the same time they provide **excellent burglar protection,** since the profiles cannot be pushed out of the guide.

For further information, please see page 36.

# **Application Areas**

A matching door type for every purpose

## Compact, spacesaving construction for shopping centres

SB rolling shutter / rolling grille DD rolling grille



You can find additional door solutions for store entrances in the brochure "RollMatic Rolling Grille".

# Optimised door systems for logistics

SB rolling shutter / rolling grille DD rolling shutter DD rolling shutter S6



## Easy operation for commercial buildings, warehouses and agriculture

SB rolling shutter / rolling grille (manually operated) SB rolling shutter / rolling grille (with operator)



## A secure door for underground garages and multistorey car parks

TGT rolling shutter / rolling grille DD rolling shutter / rolling grille

You can find additional door solutions for underground and collective garages in the brochure "Door Systems for Collective Garages".



# Large doors for industrial halls and disposal companies

DD rolling shutter / rolling grille



# Ideal solutions for special requirements

DD rolling shutter / rolling grille Classic rolling shutter / rolling grille



# **SB Rolling Shutter / Rolling Grille**

Simple manual operation for door openings up to 6000 x 4500 mm



### **Shopping centres**

This door features space-saving design and high operational safety in all situations, e.g. with emergency opening from the outside, which is especially suited for small shop entrances.

The inexpensive solution as a manual rolling shutter with tension spring assembly





### Agriculture

This robust, inexpensive solution with steel or aluminium rolling shutter curtains is available for door widths up to 5000 mm

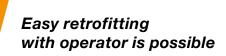


**Warehouses** Easy operation as a manual rolling shutter with tension spring assembly.

# **SB Rolling Shutter / Rolling Grille**

Simple manual operation thanks to an innovative tension spring assembly









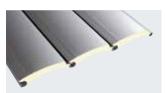
### **Tension spring assembly**

- The innovative tension spring assembly allows easy opening and closing without great exertion of force
- Ideally compensated curtain weight



assembly

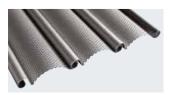
(W × H, max.)



Decotherm S, steel 5000 × 4500 mm



**HR 120 A, aluminium** 5000 × 4500 mm



**HR 120 aero, aluminium** 4000 × 4000 mm



**HG-L, aluminium** 6000 × 4500 mm



**HG 75, aluminium** 6000 × 3500 mm

All curtains with wind locks or pull-out protection as standard! For further information, please see page 36.

Overview of curtains From page 32

### Chain Hoist

- Easy opening and closing via the interior or exterior handle
- Particularly convenient with an optional chain hoist (recommended for doors higher than 3500 mm)

Well thought-out door design

door travel

• Reduced fitting times, since the entire

door construction, including support

brackets and side guides, is fitted as a frame unit to the building structure
Limited sideroom of only 165 mm facilitates fitting in narrow spaces
Plastic runners and brush seals in the aluminium side guides ensure quiet





# **SB Rolling Shutter / Rolling Grille**

The convenient operator solutions with soft start and soft stop



Warehouses Convenient operation with operator





**Logistics** The ideal solution for low to medium operational frequencies.



### Agriculture

This robust, inexpensive solution with steel or aluminium profiles is available for door widths up to 5000  $\rm mm$ 



Shop doors The convenient rolling grille solution with operator up to 6000 mm door width for secure night time locking

# **SB Rolling Shutter / Rolling Grille**

High security due to power limit as standard

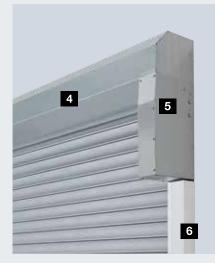
As standard for SB rolling shutter / rolling grille with operators WA 250 R S4/ WA 300 R S4 . SB rolling shutter equipped with WA 250 R S4 / WA 300 R S4 operator and optional PVSB curtain cover

### Also available as an external rolling shutter!









### **Operator variants**

### WA 250 R S4 1

The inexpensive operator with press-andhold operation WA 300 R S4 The comfortable operator with impulse operation WA 300 AR S4 The side-flanged compact operator

### Soft start and soft stop

• Ensures quiet door travel, reducing wear on the door and operator

# Power limit in "Open" and "Close" directions as standard

- Easy to fit, since no closing edge safety device and lintel trap guard needs to be installed on the door
- Low maintenance, as there are no sensors with spiral cables susceptible to wear fitted to the door curtain
- Economical, due to short fitting times and low maintenance requirements

# Release directly on the operator as standard

- Integrated maintenance release directly on the operator 3
- The door can be switched to manual operation at any time
- The door remains fully functional, even in the event of a power failure
- Can be optionally operated from the exterior of the building

### Easy fitting

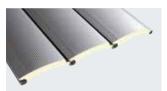
- No additional side space requirement with the operators WA 250 R S4, WA 300 R S4
- Optional fitting gearbox allows for fitting without a forklift in difficult fitting situations (see page 50)

### **Optional cover**

- To prevent accidental reaching into the door barrel for doors under 2500 mm height (housing in accordance with the requirements of EN 13241-1)
- Permanent protection from dirt and adverse effects of the weather
- Curtain cover PVSB protects the door barrel
- Operator cover VWA protects the operator 5
- Aluminium spring chamber cover AFA protects the spring systems

### Curtain variants Size range

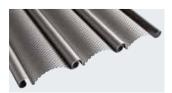
 $(W \times H, max.)$ 



Decotherm S, steel 5000 × 4500 mm



HR 120 A, aluminium 5000 × 4500 mm



**HR 120 aero, aluminium** 4000 × 4000 mm



**HG-L, aluminium** 6000 × 4500 mm



**HG 75, aluminium** 6000 × 3500 mm

All curtains with wind locks or pull-out protection as standard! For further information, please see page 36.

Overview of curtains From page 32 Operators and controls From page 46

# **TGT Underground Garage Rolling Shutter / Rolling Grille**

The door solution for collective garages with wear-free security technology



**Residential and commercial building** The compact construction is ideal for fitting situations with limited space.



### **Residential and commercial building**

The standard power limit offers a high level of safety when opening and closing without sensors on the door curtain which are prone to malfunctions.



### Hotel garage

The underground garage rolling shutter / rolling grille is the ideal choice for up to 300 door cycles (open / close) per day.

# TGT Underground Garage Rolling Shutter / Rolling Grille

High security without sensors on the door curtain



VWA operator cover and AFA aluminium spring chamber cover

# Application-optimised door technology

Constructed for over 200000 door cycles (open / close) and up to 300 door cycles (open / close) per day









### **Compact door construction**

- Low required headroom of only 380 mm (Decotherm S) or 350 mm (HG-L) facilitates fitting in narrow spaces
- Reduced fitting times, since the entire door construction, including support brackets and side guides, is fitted as a frame unit to the building structure
- Secure rolling up of the rolling shutter or rolling grille curtain in the compact curtain cover PVTGT

### Fast WA 300 R S4 operator

- An optimally adjusted ratio for the operator enables up to 20% faster opening of the door in comparison with an SB rolling shutter / rolling grille
- Particularly low noise and gentle due to "soft start" and "soft stop"
- Galvanized sheet steel cover PVTGT as protection 2

# Power limit in "Open" and "Close" directions as standard

- Easy to fit, since no closing edge safety device and lintel trap guard needs to be installed on the door
- Low maintenance, as there are no sensors with spiral cables susceptible to wear fitted to the door curtain
- Economical, due to short fitting times and low maintenance requirements

### **Tension spring assembly**

- Supports the operator during the opening and closing of the door
- Special dimensions of the springs and guide channels ensure long service intervals
- The optional AFA aluminium spring chamber cover prevents accidental reaching into the tension springs
- Vision fields to monitor the status of the springs

### Easy emergency release 5

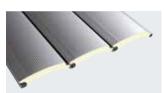
- Easy and quick manual door opening
- Use of entrances and exits ensured even during power failures
- Can be optionally operated from the exterior of the building

All curtains with wind locks or pull-out protection as standard! For further information, please see page 36.

Overview of curtains From page 32 Operators and controls From page 46

### Curtain variants Size range

 $(W \times H, max.)$ 



Decotherm S, steel 5000 × 2400 mm



**HG-L, aluminium** 6000 × 2400 mm

**Note:** Compliance with the acoustic rating requirements in accordance with DIN 4109 depends on the acoustic planning and design of the building structure.

# DD Rolling Shutter / Rolling Grille

New innovative rolling shutter generation for door openings up to a width of 12000 mm



Large doors The robust design allows for door openings up to a height of 9000 mm.





Logistics High opening and closing speeds with the accessory package S6 optimise your operations and reduce heat loses.



**Night locking** The DD rolling grille is the ideal choice for secure night locking of large openings.

# **DD Rolling Shutter / Rolling Grille**

More flexibility and simple fitting with the direct drive operator



# The safe and fast rolling shutter with FU operator: rolling shutter DD Decotherm with the accessory packet S6









### Narrow aluminium side guide

- Only 80 mm side space requirement for all door sizes
- Fitted quickly and easily directly to the building structure without anchor technology
- 2-part design from 6000 mm door height for better handling during transport and fitting
- Harmonious unit of side guides and preassembled aluminium subframe profiles
- Optionally with steel bracket fastening for insulated building openings or fitting by welding in steel construction

### Limited sideroom

- Bearing side max. 180 mm
- Operator side max. 280 mm

### Guide channel that is gentle on the door

- Less wear on the door curtain due to newly developed metal holders with polyamide sliding surfaces
- · Service-friendly, easy dismantling

### Easy fitting

- The door components can easily be positioned on the building structure using the metre line and console template
- Ready-to-fit unit consisting of curtain, barrel and support bracket
- Side guide markings for quick adjustment of the door's end-of-travel positions
- Stackable packaging units to optimise transport and logistics

### Curtain and operator cover

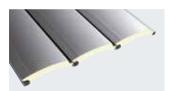
- The door barrel is protected from dirt and adverse effects of the weather by the PVDD curtain cover
- As trap guard for doors less than 2500 mm high (required according to EN 13241-1)
- Can be extended by the VDD operator cover 5 (closed unit: support brackets, curtain and operator)
- Made of galvanized sheet steel for use as an external rolling shutter

# Optional accessory package S6 for rolling shutter DD Decotherm S

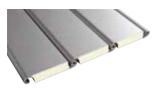
- Opening speed up to 1.1 m/sec
- · FU operator with soft start and soft stop
- Safety light grille in the side guides
- L pads on the curtain interior for quiet door travel

For further information, please see page 53.

### Curtain variants Size range (W × H, max.)



Decotherm S, steel 10000 × 9000 mm



HR 116 A, aluminium 12000 × 8000 mm



HR 120 A, aluminium 12000 × 8000 mm HR 120 S, steel 12000 × 8000 mm



**HR 120 aero, aluminium** 12000 × 8000 mm



**HG-L, aluminium** 9000 × 5500 mm



HG-V, aluminium (reinforced) 12000 × 8000 mm HG-S, steel 12000 × 8000 mm

All curtains with wind locks or pull-out protection as standard! Overview of curtains From page 32 Operators and controls From page 46

# **Classic Rolling Shutter / Rolling Grille**

Individual solutions for opening widths up to 30 m



### Large doors as coupled constructions (SSG)

Up to three rolling shutters or rolling grilles can be coupled in the opening up to 30 m wide and 6 m high using the SSG system. Once the doors have been opened, the mullions are unlocked manually and slid over to the side park positions.



### Large doors for wide door openings and high wind loads

The Wind Protection System (WPS) increases the rigidity of the door against wind load. An aluminium telescopic support reliably braces the closed door. As a result, wind load classes 2 and higher can also be achieved for door widths above 10 m.







**Door opening with sloping ground** A chamfered bottom profile compensates for differences in height with sloping ground. Steps can also be bridged this way.



**External rolling shutters** External rolling shutters are the perfect solution for hall openings that lack interior sideroom. If there is no overhead covering, we offer a special curtain cover in either galvanized sheet steel or stainless sheet steel.

# **Classic Rolling Shutter / Rolling Grille**

Sturdy and reliable









### Side guides 🚺

- Sturdy, made of 2 to 2.5-mm-thick galvanized steel
- Plastic runners with integrated brush seals ensure quiet door travel
- Wind locks with articulated design for higher wind loads

### 

### For variable support

- Fitting and service-friendly screw connection
- With variable 30 mm increments and good sealing

### Weld-on spacer brackets 3

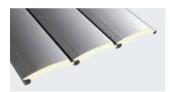
- Especially suited for steel structures
- Can be directly welded onto the steel structure
- Ideally supplement the anchor technology in steel construction halls

### Bend-resistant bottom profiles 4

- Sturdy aluminium profile for curtain reinforcement
- Weather-resistant, flexible EPDM tubular seal
- Prevents the penetration of dirt and rain
- Compensates for minor unevenness
  - in the floor

### Curtain variants Size range

 $(W \times H, max.)$ 



Decotherm S, steel 10000 × 9000 mm



HR 116 A, aluminium 11750 × 8000 mm



HR 120 A, aluminium HR 120 S, steel 11750 × 8000 mm



**HR 120 aero, aluminium** 11750 × 8000 mm



HG-V, aluminium (reinforced) 11750 × 8000 mm HG-S, steel 11750 × 8000 mm

Overview of curtains From page 32 Operators and controls From page 46

# Rolling Shutter Laths Decotherm S, HR 116 A

Double-skinned and thermally insulated



**Decotherm S, steel** 

Galvanized special steel makes these profiles especially resistant to damage caused by transport, fitting and operation. Either with or without colour coating. The facetted inner profile face matches the micro-profiled outer face.



HR 116 A, aluminium

The robust profile HR 116 A is ideal for industrial halls with large structural openings. With the special texture of the Stucco-textured surface minor damages are hardly visible. Matching inner and outer face, even with colour coating to choose.

Profile type	Decotherm S	HR 116 A	
Material	Steel	Aluminium	
Surfaces without colour coating	Galvanized without protective paint*	Stucco without protective paint	
Surfaces with colour coating	Exterior and interior with identical	Exterior and interior with identical	
	colour coating to choose	colour coating to choose	
Standard colours	RAL 9002	RAL 9002	
	RAL 9006	RAL 9006	
Preferred colours**	•	•	
Special colours	•	•	
Profile height	109 mm	119 mm	
Curtain weight	Approx. 10.3 kg/m <sup>2</sup>	Approx. 10.0 kg/m <sup>2</sup>	
Wind load class 2	10000 mm	12000 mm	
up to a door width of			
Heat transmission EN 12428	3.9 W/(m <sup>2</sup> ·K)	5.3 W/(m <sup>2</sup> ·K)	
(single profiles)			
Door type	SB Rolling Shutter	DD rolling shutter	
	TGT rolling shutter	Classic rolling grille	
	DD rolling shutter		
	Classic rolling shutter		
Windows	•	•	
Ventilation slots	-	•	

\* Differences in appearance between two doors may occur for technical reasons

\*\* For preferred colours see page 41

\*\*\*Ventilation laths HR 120 aero

Optionally available

- Not available

All SB, TGT, DD rolling shutter curtains are supplied as standard with wind locks or pull-out protection. For further information, please see page 36.

# Rolling Shutter Laths HR 120 A / S, HR 120 aero

Single-skinned



### HR 120 A, aluminium

The HR 120 A profile is the ideal solution for unheated buildings. The bright-rolled version is the standard surface finish for this profile. The profile exterior of the aluminium coil-coated surface finish features high-quality colour coating. Interior in Basalt grey, RAL 7012, if colour-coated.



#### HR 120 aero, aluminium

This finely perforated profile permits the entry of adequate light and air. Dust, paper and other contaminants remain outside. The bright-rolled surface finish is particularly well-suited for simple applications without requirements to appearance. The exterior of the coil-coated surface finish features a high-quality colour coating. Interior in Basalt grey, RAL 7012, if colour-coated.

### HR 120 S, steel

With the HR 120 S profile made of heavy-duty steel with a galvanized finish, your door can withstand higher loads.

Profile type	HR 120 A	HR 120 S	HR 120 aero	
Material	Aluminium	Steel	Aluminium	
Surfaces without colour coating	Bright-rolled and without Galvanized without		Bright-rolled and without	
	protective paint	protective paint	protective paint	
Surfaces with colour coating	Exterior:	_	Exterior:	
	Colour coating to choose		Colour coating to choose	
	Interior:		Interior:	
	Basalt grey protective paint, RAL	Basalt grey protective paint, RAL 7012		
Standard colours	RAL 9002	-	RAL 9002	
	RAL 9006		RAL 9006	
Preferred colours**	•	-	-	
Special colours	•	-	-	
Profile height	119 mm	119 mm	119 mm	
Curtain weight	Approx. 6.0 kg/m <sup>2</sup>	Approx. 15.0 kg/m <sup>2</sup>	Approx. 5.5 kg/m <sup>2</sup>	
Wind load class 2	7500 mm	10000 mm	5500 mm	
up to a door width of				
Heat transmission EN 12428	_	_	_	
(single profiles)				
Door type	SB Rolling Shutter	DD rolling shutter	SB Rolling Shutter	
	DD rolling shutter	Classic rolling grille	DD rolling shutter	
	Classic rolling shutter		Classic rolling shutter	
Windows	•	•	-	
Ventilation slots	***	_	_	

# Rolling Grille Curtains HG-V, HG-S, HG-L, HG 75



### HG-V, aluminium (reinforced)

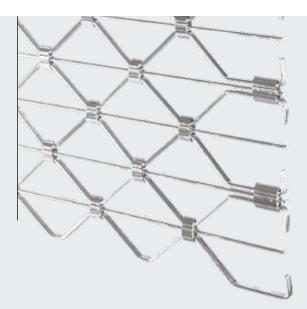
The aluminium curtain, reinforced with V2 A stainless steel honeycomb connections, is ideal for wide openings such as underground garages or multi-storey car parks where high numbers of opening / closing cycles are the norm.



### **HG-S, steel** The robust and low-cost galvanized steel version is especially suitable for large widths and a high number of cycles.

Curtain type	HG-V	HG-S	HG-L	HG 75
Material	Aluminium	Steel	Aluminium	Aluminium
Surfaces without colour coating	Bright-rolled	Galvanized	Bright-rolled	
Surfaces with colour coating	-	Colour coating to choose	Colour coating to choose or anodised in a natural finish (E6 / EV 1)	RAL 9016, RAL 7035, RAL 9006, RAL 5011, RAL 8028, RAL 7016, RAL 9005
Weight of curtain	Approx. 7 kg/m <sup>2</sup>	Approx. 14 kg/m <sup>2</sup>	Approx. 6.5 kg/m <sup>2</sup>	Approx. 6.7 kg / m <sup>2</sup>
Door type	DD rolling grille Classic rolling grille	DD rolling grille Classic rolling grille	SB rolling grille TGT rolling grille DD rolling grille	SB rolling grille

The curtains for SB, TGT, DD rolling grilles are supplied as standard with wind locks or pull-out protection. For further information, please see page 36.



### HG-L, lightweight and compact aluminium

The elegant and space-saving aluminium version is particularly suitable for use in shopping arcades. Grille and honeycomb connections with aluminium crossbars provide additional reach-through protection.



#### HG 75, aluminium

The extruded aluminium profiles are available in a powder-coated surface finish. The  $100 \times 40$  mm square holes can be provided in a straight or offset arrangement.



### **Compact fitting dimensions and RC 2 security – optimal for store entrances**

Thanks to its compact design, the new RollMatic rolling grille is the ideal solution for small store entrances in the tightest of spaces. The RollMatic rolling grille is available in the curtain variants HG-L and HG 75.

The combination with the AD 100 sliding door combines the requirements of a convenient automated daytime entrance and escape route as well as secure night time locking. This combination meets the RC 2 requirement (tested and approved) when the door and grille are closed.



RollMatic rolling grille Compart design parties for starting grilles in continued spaces.

enteriore and Galefügebione for kardwarkels Englings

More information can be found in the brochures "Rolling Grille RollMatic" and "Automatic Door Systems".

# Wind Lock and Break-In-Resistance

For a sturdy and safe operation

### Pull-out protection and wind lock

All rolling shutter and rolling grille curtains for door types SB, TGT and DD are supplied as standard with wind lock or pull-out protection. These prevent the curtain from being pushed out of the side guides. That is effective break-in-resistance! Furthermore, the potential wind loads that can affect the door are increased by this construction.



DD rolling shutter Decotherm S profile with plastic wind lock (standard)



DD rolling shutter Decotherm S profile with steel wind lock (from 5000 mm door width or height or optionally higher wind load requirements)



DD rolling shutter HR 116 A profile with steel wind lock



DD rolling grille curtain HG-L, HG-V, HG-S with pull-out protection (shown HG-L)



SB / TGT rolling shutter Decotherm S profile with plastic wind lock

## **Break-In-Resistant Locks**

Locks the bottom profile with the side guides



External view



# Lockable bottom profile with profile cylinder for all door types

Actuation either from the interior and exterior or only from the interior.





# Shootbolt for SB rolling shutter / rolling grille

The shootbolts are fitted on the interior on the right and left end of the bottom profile (not suitable for external rolling shutters).



# Shootbolt for DD and classic rolling shutter / rolling grille

The shootbolt can be fitted to the right or left of the side guide. The lock can be secured with a padlock (not suitable for external rolling shutters).



# Electromagnetic locking for classic rolling shutters / rolling grilles

The automatic locking in the "Close" position can also be connected to a central control system.



## Side door NT 60

- For all rolling shutter and rolling grille curtains
- 60 mm aluminium frame construction
- As standard with all-round seals made of long-lasting, weather-resistant EPDM
- Two-part hinges, three-way adjustable
- Curtains fixed by glazing beads
- Also available with a fascia panel

## Fittings

- Mortice lock with profile cylinder
- Offset lever handle set with oval rose escutcheon, made of black plastic
- On request also available as lever / knob handle sets
- Optionally available in natural finish cast aluminium, polished stainless steel or brushed stainless steel

## **Optional equipment**

- Stainless steel push bar 38-2, brushed, 1000 mm high, outside, additionally with stainless steel lever handle set, inside
- Overhead door closer with hold-open device
- Push bar for escape door, inside (panic lock required)
- Multiple-point locking
- Window section with synthetic double pane



View from inside with 3-way adjustable hinge



Viewed from inside with synthetic glazing



Lever handle set as standard

for rolling shutters from outside

Side door NT 60 viewed for rolling grille from outside



View from inside with 3-way adjustable hinge



Lever handle set as standard



Optional additional synthetic pane to provide full reach-through protection



# Steel side doors with thermal break

## MZ Thermo65 multi-purpose door

- 65-mm-thick door leaf with thermal break and PU rigid foam infill
- Aluminium block frame with thermal break and threshold with thermal break
- High thermal insulation with a U-value = 0.82 W/(m<sup>2</sup>·K)
- Optionally available in a WK 2 KSI Thermo version with 42-mm-thick door leaf

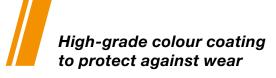


Additional information can be found in the Function doors for construction projects brochure.

# **Coloured Rolling Shutters and Rolling Grilles**

Create attractive accents





## Matching door colours for facade

Coloured doors are increasingly used as design elements in modern industrial and commercial architecture. On account of their size alone, industrial rolling shutters and rolling grilles already play a key role in determining the visual appearance of the facade. This is why Hörmann offers you high-quality curtain coatings in more than 1000 RAL colours.

## High-grade colour coating

Coil-coated rolling shutter laths provide long-term protection against adverse weather effects for surface finishes. Additional protective paint with polyamide particles reduces abrasion and noise.

All curtain and door types feature a bright-rolled bottom profile.

## Special colours according to RAL



The colours shown are subject to the limitations of the printing process and cannot be regarded as binding.

All colours based on RAL.

Slight colour variations are permissible.

## **Standard colours**

Grey white	RAL 9002
White aluminium	RAL 9006

## **Preferred colours**

Grey aluminium	RAL 9007
Terra brown	RAL 8028
Anthracite grey	RAL 7016
Moss green	RAL 6005
Gentian blue	RAL 5010
Flame red	RAL 3000

## The Safety of Hörmann Rolling Shutters and Rolling Grilles Is Certified

Safety features according to the European standard 13241-1 Hörmann products are tested and certified for:

- Anti-fall safeguard
- Trap protection
- Trap guard

Hörmann rolling shutters and rolling grilles work safely during all opening and closing phases – whether manually-operated or power-driven. In doors with an impulse control, the specified dynamic closing forces are reliably maintained through monitoring systems with an integrated self-test function.

At Hörmann, the door and operator are perfectly matched to each other, tested by independent organisations for your safety and in compliance with the relevant standards. It pays to compare!

# Rolling grilles in public, easily accessible areas

Special safety equipment is required in areas frequented by children, who may hang on the rolling grille.

Lintel trap guards always need to be fitted on DD and classic rolling grilles with impulse controls.

With rolling grille SB and TGT with operator WA 300 R S4, the safety requirements according to DIN 13241-1 are fulfilled by the standard power limit in the "Open" direction.

## Anti-fall safeguard



Integral catch safety device in direct drive operators This catch safety device offers especially good absorption, a large amount of power reserve and reliably prevents the door

curtain from falling.

# Separate catch safety device for chain drive and tubular operators

Just like the integral version, this version is a high-performance device that responds as soon as the speed limit is fractionally exceeded.

With the SB and TGT rolling shutters, the doubly secured tension spring assembly prevents the door from falling.

## Trap protection and trap guard



**Trap protection** Black plastic strips on the edges of the side guide protect against cuts.



## Curtain cover

The optional curtain cover for door types SB, TGT and DD prevents operators from reaching into the hazard area of the door curtain in accordance with the EN 13241-1 requirements.

## Safety equipment

Closing edge safety device, lintel trap guard and through-traffic photocell are self-testing before and during every shutter cycle. If a malfunction is detected in just one of the units, the shutter's control system automatically switches to press-and-hold operation.



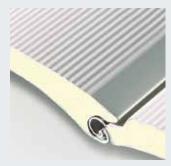
Safety requirements Please note the mandatory annual inspection for all power-driven doors.

## Well Thought-Out Designs with Convincing Performance Properties

Performance characteristics according to the European standard 13241-1 Hörmann products are tested and certified for:

- Thermal insulation
- Acoustic insulation
- Sealing
- Wind load

## Thermal insulation and acoustic insulation



Decotherm



## Thermal insulation

Minimal thermal bridges and use of fine-pored PU rigid foam infill ensure good thermal insulation in all doubleskinned door profiles compared with other rolling shutters.

## Acoustic insulation

The door's curtain and sealing technology reduce noise from both outside and inside.

## Sealing



Bristle seal



Double-skinned DD and classic rolling shutters have all-round sealing. This is ensured by a frost-proof flexible lip seal along the bottom edge, a brush seal at the lintel optimally adapted to the door size, as well as a fine bristle seal in the side guides.

## Stability



DD rolling shutter Decotherm S profile with steel wind lock



Robust wink locks and deflectionresistant bottom profiles enable your door to withstand high wind loads.

# **Compatible System Solutions**

For high functional door safety





## Better with a system

This means the components have been optimally adjusted to work together, ensuring the door's functional safety.

The uniform operating concept and the 7-segment displays facilitate daily use. Fitting is also simplified thanks to uniform housing and cable sets. This way, all Hörmann products work together optimally and efficiently:

- Industrial doors
- Loading technology
- OPERATORS
- Controls
- Accessories

## Operators WA 250 R S4 / WA 300 R S4

## For SB rolling shutters / rolling grilles For TGT underground garage rolling shutter / rolling grille

# WA 250 R S4 with press-and-hold operation

- Inexpensive operator for SB rolling shutters / rolling grilles
- Ideally suited for doors with low operating frequency
- Integrated operator control with push button DTH-R
  Opening and closing when button is pressed
- (press-and-hold operation)
- Low power consumption in standby of approx. 1 watt (if no other electrical accessories are connected)
- Soft start and soft stop for gentle door operation
- Limit switch reporting or start warning with traffic lights can be optionally connected via additional prints.

## WA 300 R S4 with impulse operation and standard power limit

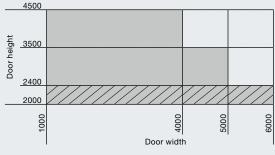
- "Comfort" operator for SB rolling shutters / rolling grilles and TGT underground garage rolling shutters / rolling grilles
- Automatic opening and closing after pressing the button (impulse operation)
- Low power consumption in standby of approx. 1 watt (if no other electrical accessories are connected)
- · Soft start and soft stop for gentle door operation
- Automatic timer
- Integrated operator control with push button DTH-R
- Functional extension with external control 360: second opening height, traffic control (in combination with activating kit for warning light and photocell)

# Power limit in "Open" and "Close" directions as standard

- Easy to fit, since no closing edge safety device and lintel trap guard needs to be installed on the door
- Low maintenance, as there are no sensors with spiral cables susceptible to wear fitted to the door curtain
- Economical, due to short fitting times and low maintenance requirements

## Impulse operation without closing edge safety device

- Size range for Decotherm S rolling shutters, HG-L rolling grilles and TGT rolling shutters / rolling grilles
- Size range for the TGT HG-L rolling grille







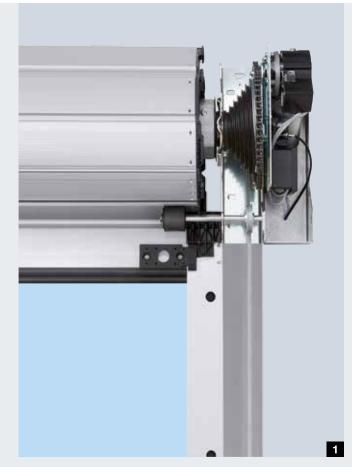


Easy fitting without forklift with the optional gearbox fitting (for rolling shutters with Decotherm S curtain and rolling grilles with HG-L curtain)

## Operator WA 300 AR S4

## For SB rolling shutters / rolling grilles







# WA 300 AR S4 The compact operator

- Compact operator solution for SB rolling shutters / rolling grilles
- Small operator unit next to the barrel, no visible components underneath the door barrel
- Only 100 mm additional sideroom is required on the operator side 1
- Quiet and gentle door travel with soft start and soft stop
- Control unit 300 can be installed separately
- Quick and convenient setting of the travel limits and control parameters from the floor
- Can be upgraded with external control 360
- Easy switching to manual door operation (for use inside and outside buildings) with the standard "secured release"
- Available with and without curtain cover 2
- Suitable for indoor and outdoor use, optimally suited for shop and underground garage doors

# Power limit in "Open" and "Close" directions as standard

- Impulse operation without closing edge safety device (see page 46 below)
- Easy to fit, since no closing edge safety device and lintel trap guard needs to be installed on the door
- Low maintenance, as there are no sensors with spiral cables susceptible to wear fitted to the door curtain
- Economical, due to short fitting times and low maintenance requirements



External control unit 300

## **Direct Drive Operator**

For DD rolling shutters / rolling grilles

## **Direct drive operator**

- Powerful direct drive operator with absolute encoder (AWG)
- Integrated position-independent catch safety device
- Variable operator fitting
  Towards bottom
  Horizontal
  - 3 Towards top
- With the horizontal or upward alignment, no operator technology is visible underneath the barrel
- Free choice of fitting position during fitting







## **Accessory Package S6 with FU Operator**

## For DD rolling shutters



## Optional accessory package S6 Fast and reliable with soft start and soft stop

- For rolling shutter DD with Decotherm S curtain and colour coating
- Powerful 1-phase FU operator with soft start and soft stop for gentle door travel
- Up to 30 door cycles per hour or 300 per day possible
- The door construction is designed for at least 200000 door cycles
- Opening speed up to 1.1 m/sec
- Light grilles in the side guides safeguard the door area even with high closing speeds 2
- No-wear monitoring of the door operation as no sensors are required on the curtain
- L-Pads on the inside of the curtain to minimise noise and wear
- Space-saving design with only 100 mm of additional required headroom (compared to a standard version DD rolling shutter with the same size)
- Optimises the flow of traffic and reduces energy loss
- Max. width 5000 mm, max. height 8500 mm





## **Direct Drive, Chain Drive and Tubular Operators**

For classic rolling shutter / rolling grille

## **Direct drive operators**

- Ideal for small to medium-sized rolling shutters and rolling grilles
- With integral catch safety device



## Chain drive operators

- Powerful operator for large rolling shutters
- With plug-in connections for mains cables and connection cables
- With a separate catch safety device as standard



## **Tubular operators**

- For small doors with especially limited fitting space at the sides and few door cycles per day
- With a separate catch safety device as standard



## **Hörmann Is Your Partner for Special Solutions**

**Special control construction** 



Hörmann offers you a complete and individual control concept from a single source. From the integration of the Hörmann special control into your control concept to a complete central control for all functions as well as PC-based visualisation of all door and loading components.







Individual in-house project development

Modular solutions, compatible with the Hörmann operator technology

Controlled processes through visualisation on a control panel or web application

## **Controls** Compatible system solutions

	Internal control WA 250 R S4	Internal control WA 300 R S4	External control 300	External control 360	Impulse control 445 R	Comfort control 460 R	
OPERATORS							
WA 250 R S4 for SB rolling shutter / rolling grille	•	-		-			
WA 300 R S4 for SB / TGT rolling shutter / rolling grille	-	•		0			
WA 300 AR S4 for SB rolling shutter / rolling grille			•	0			
Direct drive operator for DD rolling shutter / rolling grille					0	0	
Accessory package S6 for rolling shutter DD							
Direct drive, chain drive and tubular operator for classic rolling shutter / rolling grille					0	0	
Functions / features							
Control and operator can be mounted separately	-	-	•	•	•	•	
Adjustments made conveniently directly on the control			•	•	•	•	
Soft start and soft stop for quiet door travel	•	•	•	•			
Power limit in "Open"/"Close" directions <sup>4)</sup>	_	•	•	•			
Second opening height with additional button on the housing cover	-	⊖ <sup>2)</sup>	⊖ <sup>2)</sup>	•		•	
Status and error display via LED	•	•	•				
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)	-	-		0	0	0	
Extension possible with external radio receiver	-	•	•	•	•	•	
Automatic timer <sup>1)</sup>	-	•	•	•		•	
Traffic control <sup>1)</sup>	-	-		0		0	
Integrated connecting terminals for additional command units	-	•	•	•	•	•	
Function lock via miniature lock	0	0	•	• 5)	• 5)	• 5)	
With SKS closing edge safety device: see fig. "Impulse operation without closing edge safety device"	-	•	•	•	•	•	
Without SKS closing edge safety device: "Open"/"Close" in press-and-hold operation	٠	•	•	•			
Standard accessory DTH-R push button	•	•					
Power supply	230 V	230 V	230 V	230 V	400/230 V	400/230 V	
Main switch integrated into control housing	-	⊖ <sup>3)</sup>	0	0	0	0	
Protection category IP 65 (jet-water protected) for controls and door leaf components	•	•	•	•	•	•	

as standard

 $\ensuremath{\bigcirc}$  with corresponding equipment possibly with additional control

- Not available

1) Only in combination with an activating kit for warning light and photocell or light grille

2) Possible in combination with UAP1-300 and DTH I or DTH IM

 $^{\scriptscriptstyle 3)}\,$  In combination with push button control 300 U

4) In the "Close" direction, the power limit is only possible in the indicated curtain variants and size ranges

(see "Impulse operation without closing edge safety device", see page 46)

5) Convertible to profile half cylinder

Comfort control B 455 R	FU control B 971 R S6
0	0
•	•
•	•
•	•
0	0
 •	•
•	•
•	•
• <sup>5)</sup>	• <sup>5)</sup>
•	•
•	•
230 V	230 V
0	0
•	•



**Optional: Profile half cylinder** For all external controls



Optional: Main switch For all external controls



## Optional push button control 300 U Push button control 300 U

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

On request with integrated option relay: • "Open" limit switch reporting

- "Open" limit switch reporting for dock leveller release
- No magnetic switch required on the door
- Minimum cabling required

## Optional:

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



## Accessories

Radio control, receivers

## **Only from Hörmann**

## **Hörmann BiSecur (BS)**

## The modern radio system for industrial door operators

The bi-directional BiSecur radio system is based on future-oriented technology for the convenient and secure operation of industrial doors. The extremely secure BiSecur encryption protocol makes sure that no-one can copy your radio signal. It was tested and certified by security experts at Bochum University.

#### Your advantages

- 128-bit encryption with the same high security level as in online banking
- · Interference-resistant radio signal with a stable range
- Convenient inquiry of the door position\*
- Backwards compatible, i.e. radio receivers with the frequency 868 MHz (2005 to June 2012) can also be operated with BiSecur control elements





5-button hand transmitter HS 5 BS With additional button for querying the door position\*, black or white textured surface, with chrome caps



5-button hand transmitter HS 5 BS With additional button for querying the door position\*, black textured surface, with chrome caps



4-button hand transmitter HS 4 BS Black textured with chrome caps



🗢 BiSecur

1-button hand transmitter HS 1 BS Black textured with chrome caps



4-button security hand transmitter HSS 4 BS Additional function: copy protection for hand transmitter coding, with chrome caps



2-button hand transmitter HSE 2 BS High-gloss black or white, with chrome caps



4-button hand transmitter HSE 4 BS Black textured surface with chrome or plastic caps



去 BiSecur

1-button hand transmitter HSE 1 BS Black textured with chrome caps

\* WA 300 S4 optionally with bi-directional receiver ESEi BS, all other operators optionally with bi-directional receiver HET-2 24 BS and feedback on the end-of-travel positions.





# ш

Industrial hand transmitter HSI BS

To control up to 1000 doors, with a display and extra-large quick selection buttons for easier operation with work gloves, transferring of hand transmitter coding to other devices possible



Radio code switch FCT 3 BS With illuminated buttons 3 function codes



Radio code switch FCT 10 BS With illuminated buttons and protective cover, 10 function codes



🗢 BiSecur

Radio finger-scan FFL 12 BS 2 function codes and up to 12 fingerprints



1-channel relay receiver HER 1 BS With volt-free relay output with status query



2-channel relay receiver HER 2 BS With 2 volt-free relay outputs with status query and external antenna



2-channel relay receiver HET-E2 24 BS With 2 volt-free relay outputs for choosing the direction, a 2-pin input for volt-free Open and Close limit switch reporting (for querying the door position)



4-channel relay receiver HER 4 BS With 4 volt-free relay outputs with status query



3-channel receiver HEI 3 BS For controlling 3 functions



**Bi-directional receiver** ESEi BS For querying door position 🗢 BiSecur

## Accessories Push buttons





#### Push button DTH-R

For separate control of the door in the "Open" / "Close" positions, with separate stop button. Dimensions:  $90 \times 160 \times 55$  mm (W × H ×D) Protection category: IP 65

For controls 360, 445 R, 460 R, B 455 R and integrated controls WA 250 R S4, WA 300 R S4



#### Push button DTH-RM

For separate control of the door in the "Open" / "Close" positions, with separate stop button, with miniature lock (operator is deactivated). Operator movement is no longer possible.), 2 keys included in the scope of delivery. Dimensions:  $90 \times 160 \times 55$  mm (W × H ×D) Protection category: IP 65

#### For controls

360, 445 R, 460 R, B 455 R and o integrated controls WA 250 R S4, WA 300 R S4



#### Push button DTH-I

For control of the door in the "Open / Close" positions, with separate stop button, 1/2-open button to open the door up to the programmed intermediate travel limit. Dimensions:  $90 \times 160 \times 55 \text{ mm} (W \times H \times D)$ Protection category: IP 65

For controls 360, 460 R and integrated controls WA 300 R S4



#### Push button DTH-IM

For control of the door in the "Open / Close" positions, with separate stop button, 1/2-open button to open the door up to the programmed intermediate travel limit, with miniature lock (Operator is deactivated. Operator movement is no longer possible.), 2 keys included in the scope of delivery. Dimensions:

 $90 \times 160 \times 55$  mm (W × H ×D) Protection category: IP 65

For controls 360, 460 R and integrated controls WA 300 R S4



Push button DT 02 For control of the door in the "Open / Close" positions, with separate stop button. Dimensions:  $75 \times 145 \times 70 \text{ mm} (W \times H \times D)$ Protection category: IP 65

For controls 360, 445 R, 460 R and B 455 R



Push button DT 03 For separate control of both operational directions, with separate stop button. Dimensions: 75 × 180 × 70 mm (W × H ×D) Protection category: IP 65

For controls 360, 445 R, 460 R and B 455 R



#### Push button DT 04

For separate control of the door in the "Open / Close" positions, with separate stop button, 1/2open button to open the door up to the programmed intermediate travel limit. Dimensions:  $75 \times 225 \times 70$  mm (W × H ×D) Protection category: IP 65

For controls 360, 460 R and B 455 R

#### Push button DTN A 30

For separate control of the door in the "Open" / "Close" positions, with separate stop button (stays depressed after actuation in order to prevent unauthorised operation. Unlocking with key), 2 keys included in the scope of delivery, Dimensions:  $75 \times 180 \times 105$  mm (W × H ×D) Protection category: IP 65

For controls 360, 445 R, 460 R and B 455 R

## Accessories

Push buttons, key switches, key switch posts





#### Push button DTP 02

For control of the door in the "Open / Close" positions, with separate stop button and control voltage indicator, lockable with profile half cylinder (available as accessory). Dimensions: 77 × 235 × 70 mm (W × H × D) Protection category: IP 44

For controls 360, 445 R, 460 R, B 455 R and integrated control WA 300 R S4

#### Push button DTP 03

For separate control of the door in the "Open / Close" positions, with separate stop button and control voltage indicator, lockable with profile half cylinder (available as accessory). Dimensions:  $77 \times 270 \times 70$  mm (W × H × D), Protection category: IP 44

For controls 360, 445 R, 460 R, B 455 R and integrated controls WA 250 R S4, WA 300 R S4

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.

Emergency-off button DTN 10 To quickly immobilise the door, push-to-lock button (mushroom button), surface-mounted. Dimensions: 93 × 93 × 95 mm (W × H ×D) Protection category: IP 65

For controls 360, 445 R, 460 R, B 455 R and integrated controls WA 250 R S4, WA 300 R S4



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 360, 445 R, 460 R, B 455 R and integrated controls WA 250 R S4, WA 300 R S4







Kev switch ESU 30

Recessed version

function selectable.

60 mm (d), 58 mm (D)

Dimensions of cover:

 $90 \times 100 \text{ mm} (W \times H),$ 

65 mm (d), 60 mm (D)

Protection category:

With 3 keys

Dimensions

Wall recess:

IP 54

of switch box:

"Open / Close"

Impulse or





Key switch STAP 30 Surface-mounted

version With 3 keys Impulse or "Open / Close" function selectable. Dimensions:  $80 \times 110 \times 68 \text{ mm}$ (W × H ×D) Protection category: IP 54

## Key switch STUP 30

Recessed version With 3 keys 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

#### Key switch post STS 1

With adapter for installing command units (e.g. transponder key switch, code switch, finger-scan or key switch). The command units must be ordered separately. The post is anodised aluminium (natural finish). Top and bottom end of post in Slate grey, RAL 7015.

Dimensions:

300 mm (d), 1250 mm (H) Protection category: IP 44

Version with fitted key switch STUP (available as accessory)

## **Accessories Code switches**







#### 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 change the direction of the door.

### Dimensions:

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

#### CTV 1 / CTV 3 code switch

The code switches are especially robust and protected against vandalism. To operate, you enter your own personal code - no key is needed. With the CTV 3 comfort version, you can open a second door and also switch on the outside lights or change the direction of the door.

#### Dimensions:

 $75 \times 75 \times 13$  mm (W × H × D), Decoder housing:  $140 \times 130 \times 50 \text{ mm} (W \times H \times D)$ Keypad protection category: 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 rolling shutter / rolling grille. 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 × 275 × 50 mm (W × H × 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 (non-contact system). A major benefit in the dark. Two transponder keys are included. Suitable for max. 100 transponder keys (TTR 100) or 1000 transponder keys (TTR 1000). Alternatively, transponder cards can also be used.

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

## **Accessories** Photocells, light grilles, key switch posts



Reflection photocell RL 50 / RL 300 Photocell with transmitter / receiver unit and reflector. The photocell is tested by the control prior to each closing cycle. Connected via a system cable (RL 50, length 2 m) or a 2-wire cable (RL 300, length 10 m). Dimensions:  $45 \times 86 \times 39$  mm (W × H × D), Protection category: IP 65 Reflector range up to 8 m (standard):

 $30 \times 60 \text{ mm} (W \times H),$ 

Reflector range up to 12 m (not shown):

80 mm diameter

Optional: weather protective cover (not shown), anti-fog coating



#### 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: $45 \times 85 \times 31 \text{ mm} (W \times H \times D)$ Protection category: IP 65

Optional: weather protective cover (not shown)



#### Pull switch ZT 2 with cord

Impulse generation to open or close the door Dimensions:  $60 \times 90 \times 55 \text{ mm} (W \times H \times D)$ Pull cord length: 3.2 m Protection category: IP 65

KA 1 cantilever arm (not shown), extension 1680 - 3080 mm, can be used with ZT 2

#### Light grille HLG-V as advance protection

The light grille additionally monitors the main closing edge of the door at a height of 2500 mm. Fitting is possible both on the outside on the facade and in the reveal as well as to the guide rail. Optionally, the HLG-V can also be integrated into the key switch post set STL made of weather-resistant anodised aluminium.

Max. range: max. 10 m, protection category: IP 65, operating temperature: -20 °C to +60 °C, resolution: < 50 mm (under 500 mm); < 200 mm (over 500 mm), increased security with cross-beam sensor technology, easy alignment possible, connection cables included in the scope of delivery







Fitting to the guide rail

Fitting with key switch post set STL

#### 59

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



Multi-function circuit board to be fitted in existing housing or optionally in separate extension housing (shown) Limit switch reporting, momentary impulse, collective malfunction signalling. Extension unit for controls 445 R, 460 R, B 455 R

Dimensions of additional housing:  $202 \times 164 \times 130 \text{ mm} (W \times H \times D)$ Protection category: IP 65 A circuit board can be optionally mounted in the control.



Digital weekly timer in a separate additional housing

The timer can switch command units on and off via a volt-free contact. Extension unit for controls 460 R, B 455 R Switching capacity: 230 V AC 2.5 A/500 W Can be switched over to summer / winter time Manual switching: automatic operation, switching preselection "permanently ON/OFF"

Dimensions of additional housing:  $202 \times 164 \times 130 \text{ mm} (W \times H \times D)$ Protection category: IP 65



Summer / winter activating kit in an additional housing Function for full opening of door and individually programmable intermediate travel limit. Extension unit for controls 460 R, B 455 R

Dimensions of additional housing:  $202 \times 164 \times 130$  mm (W  $\times$  H  $\times$ D) Protection category: IP 65



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

DI 2 induction loop (not shown) in a separate additional housing Suitable for two separate induction loops. The detector has two volt-free 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 WDI 2: 250 V AC, 4 A, 1000 VA, (resistive load AC) Supplied without loop cable



Loop cable for induction loop Roll of 50 m, Cable designation: SIAF, Cross section: 1.5 mm<sup>2</sup>, Colour: brown





#### 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 control 445 R, 460 R, B 455 R. The activating kit for warning lights serves as a visual indicator while the door is moving (weekly timer, optional for 460 R, B 455 R). Applications:

Start warning (for 445 R, 460 R, B 455 R), automatic timer (460 R, B 455 R).

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-quality aluminium housing, powder-coated



Traffic control in a separate additional housing or for fitting in an existing housing, incl. 2 red / green warning lights Extension unit for control 460 R and B 455 R. The activating kit for warning lights serves as a visual indicator for regulating the entrance and exit (optional weekly timer). Duration of the green phase: Adjustable from 0-480 s Duration of the 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 × 164 × 130 mm (W × H × D) Contact load: 250 V AC : 2.5 A / 500 W, Protection category: IP 65 Traffic light material: High-quality aluminium housing, powder-coated



#### **UAP 1-300** for WA 300 R S4

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 V DC / 2.5 A (resistive load) 250 V AC/500 W (resistive load) Dimensions:

 $110 \times 45 \times 40 \text{ mm} (W \times H \times D)$ 



#### HOR 1-300 for WA 300 R S4

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 (resistive load) 250 V AC/500 W (resistive load) Dimensions:  $110 \times 45 \times 40$  mm (W × H × D)



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

**Optional: remote control** for radar movement detector

# **Overview of Rolling Shutters and Rolling Grilles**

Construction and quality features

• = Standard  $\bigcirc$  = Optional

		SB	Rolling Shut	ter	SB rolli	SB rolling grille		
		Decotherm	HR	120	HG-L	HG 75		
		S	Α	aero				
Wind load EN 12424	Class 2 up to door width in mm	5000	5000	4000	-	-		
	Higher wind loads on request	-	-	-	-	-		
	Wind lock	•	•	•	-	-		
Water tightness EN 12425		0	0	0	0	0		
Thermal insulation	Appendix B EN 12428 Individual shutter section (U = W/m²K)	3,9	-	-	-	-		
	Shutter 4 x 4 m, fitted (U = W/( $m^{2}$ ·K))	4,1	-	-	-	-		
Door sizes	Max. width (LZ) mm	5000	5000	4000	6000	6000		
	Max. height (RM) mm	4500	4500	4000	4500	3500	]	
Space requirements	See the technical manual	•						
Curtain material	Single-skinned steel	-	-	-	-	-		
	Double-skinned steel	•	-	-	-	-	1	
	Single-skinned aluminium	-	•	•	•	•		
	Double-skinned aluminium	-	_	-	-	_		
Curtain surface	Galvanized steel	•	_	-	-	_		
	Galvanized steel coated in RAL 9002	0	_	_	_	_		
	Galvanized steel coated in RAL 9006	0	_	_	_	_		
	Galvanized steel coated in RAL to choose	0	_	_	_	_	1	
	Bright-rolled aluminium	_	•	•	_	_	1	
	 Mill-finished aluminium	_	_	_	•	_	1	
	Stucco-textured aluminium	_	_	_	_	_	1	
	Aluminium coated in RAL 9002	_	0	0	0	_	-	
	Aluminium coated in RAL 9006	_	0	0	0	0	-	
	Aluminium coated in RAL to choose	_	0	_	0	0*	1	
	Anodised aluminium E6 / EV 1	_		_	0	_	1	
Own weight of curtain	Approx. kg/m <sup>2</sup>	10,3	6,0	5,5	6,5	6,7		
Side door	Matching the door	0	0	0,0		_		
Glazing	Standard arrangement	0	0	-	_	_		
	Logistics arrangement	0	0	_	_	_	_	
Seals	All-round on 4 sides	0	0		_	_		
Break-in-resistance	Pull-out protection	•	•	•	•	•		
	Internal locking	0	0	0	0	0	-	
	External / internal locking	0	0	0	0	0	-	
Anti-lift kit		_		-	•	•		
Safety equipment	Finger trap protection	•	•	•	-			
	Side trap guard	0	0	0	-	-		
	· · · · · _ · _	•	•	•	•	•	-	
Fastening options	Safety catch Concrete		•	•	•			
actoring options			•	•	•		-	
	Steel			-	-	•	-	
	Brickwork		•	•	•			

\* RAL 9016, RAL 7035, RAL 9006, RAL 5011, RAL 8028, RAL 7016, RAL 9005

\*\* Shutter 4 x 2.4 m, fitted

	TGT rolling rolling	shutter / grille		D	D rolling shutt	er		I	DD rolling grill	e
D	ecotherm	HG-L	Decotherm	HR 116		HR 120		HG-L	HG-V	HG-S
	S		S	Α	Α	s	aero			
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## **Overview of Rolling Shutters and Rolling Grilles**

Construction and quality features

• = Standard

			Classic rolling shutter					
		Decotherm	HR 116		HR 120			
		s	Α	Α	S	aero		
Wind load EN 12424	Class 2 up to door width in mm	10000	10000	7500	10000	4500		
	Higher wind loads on request	0	0	0	0	0	-	
	Wind lock	0	0	0	0	0	-	
Water tightness EN 12425		0	0	0	0	0		
Thermal insulation	Appendix B EN 12428 Individual shutter section (U = W/m²K)	3,9	5,3	-	-	_		
	Shutter 4 x 4 m, fitted (U = W/( $m^2 \cdot K$ ))	4,2	5,4	-	-	-		
Door sizes	Max. width (LZ) mm	10000	11750	11750	11750	11750		
	Max. height (RM) mm	9000	9000	8000	8000	8000		
Space requirements	See the technical manual							
Curtain material	Single-skinned steel	-	-	-	•	-		
	Double-skinned steel	•	-	-	-	-		
	Single-skinned aluminium	-	-	•	-	•		
	Double-skinned aluminium	-	•	-	-	-		
Curtain surface	Galvanized steel	•	-	-	•	-		
	Galvanized steel coated in RAL 9002	0	_	_	-	-		
	Galvanized steel coated in RAL 9006	0	-	-	-	-	1	
	Galvanized steel coated in RAL to choose	0	-	-	-	-		
	Bright-rolled aluminium	-	-	•	-	•		
	Mill-finished aluminium	-	-	-	-	-		
	Stucco-textured aluminium	-	•	-	-	-		
	Aluminium coated in RAL 9002	-	0	0	-	0		
	Aluminium coated in RAL 9006	-	0	0	-	0	1	
	Aluminium coated in RAL to choose	-	0	0	-	-		
	Anodised aluminium E6 / EV 1	-	-	_	-	-		
Own weight of curtain	Approx. kg/m <sup>2</sup>	10,3	10,0	6,0	15,0	5,5		
Side door	Matching the door	0	0	0	0	0		
Glazing	Standard arrangement	0	0	0	0	-		
	Logistics arrangement	0	0	0	0	-		
Seals	All-round on 4 sides	•	•	●	•	-		
Break-in-resistance	Pull-out protection	-	_	_	-	_		
	Internal locking	0	0	0	0	0		
	External / internal locking	0	0	0	0	0		
Anti-lift kit		-	_	_	-	_		
Safety equipment	Finger trap protection	•	•	•	•	•		
	Side trap guard	0	0	0	0	0		
	Safety catch	•	•	•	•	•		
Fastening options	Concrete	•	•	•	•	•		
	Steel	•	•	•	•	•		
	Brickwork	•	•	•	•	•		
	 Timber	•	•	•	•	•		

\* RAL 9016, RAL 7035, RAL 9006, RAL 5011, RAL 8028, RAL 7016, RAL 9005

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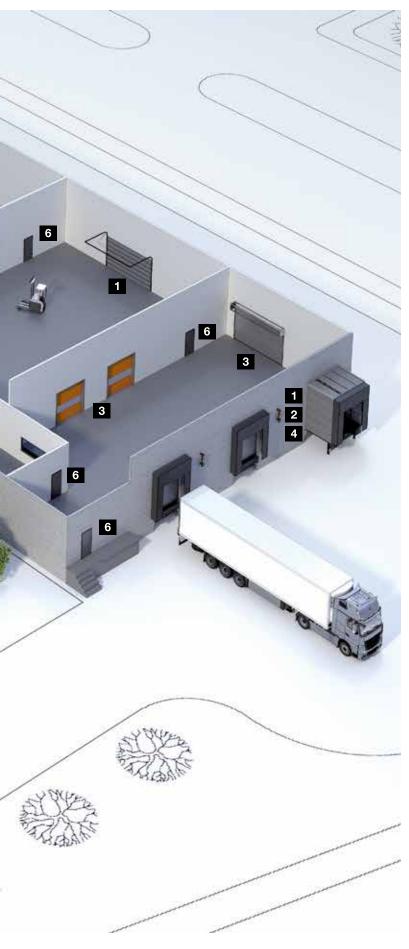
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Steel and stainless steel doors



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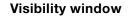


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Automatic sliding doors





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