



Sectional Garage Doors

More convenience and security every day

HÖRMANN





Hörmann brand quality	4
Advantages of sectional garage doors	6
Good reason to try Hörmann	8
Surface finish and design styles	12
L-ribbed	14
M-ribbed	18
Panelled	22
Door handles	26
Glazings	28
Installation solutions	30
Garage door operators	34
Accessories	38
Performance characteristics	40
Dimensions and fitting data	44
Experience Hörmann quality	47

Some of the doors shown are equipped with optional extras and do not always correspond to our standard models.

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

All rights reserved. No part may be reproduced without our prior permission. Subject to changes.

Hörmann brand quality

Reliable and oriented towards the future



“A good reputation must to be earned.”

August Hörmann (1886-1944)

In line with the founder's philosophy, the Hörmann brand today is a true promise of quality. The family-owned company has over 80 years of experience in door and operator construction and, with sales of over 20 million doors, is No. 1 in Europe. This makes a Hörmann sectional door a reassuring purchase.



Brand quality from Germany

All doors and operator components developed and manufactured by Hörmann are perfectly matched to each other as well as being tested and certified by independent, recognised institutes to ensure your safety. All doors are manufactured according to the DIN EN 9001 quality management system and meet the requirements of European standard 13241-1. Furthermore, our highly qualified employees work intensively on new products, continual further developments and improvements to details. Patents and unique products on the market are the result of this.



Garage doors for generations

Endurance tests under real conditions ensure mature series products with Hörmann quality. Thanks to excellent technical solutions and uncompromising quality assurance, you receive a reliable warranty on all sectional doors and operators.



Competent advice

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

Benefit from numerous advantages

Sectional doors always fit and save space



Sectional doors open vertically upwards and are suspended under the ceiling to save space. This construction principle means you can make full use of the space inside and in front of the garage. Additionally, sectional garage doors can be fitted in every garage door opening, offer a wider passage width and are optimally sealed.

Treat yourself to this comfort and convenience.

**Easier entrance into the garage
and more room in front of and in the garage**



For every fitting situation

The shape of the garage door opening is not of prime importance. Whether square, angled, with segmental or full centred arch – a sectional door always fits.



Narrow passage width
with old up-and-over doors



Complete passage width
with modern sectional doors

Wider passage

With older up-and-over doors, driving in and out is often a matter of millimetres. Sectional doors with a passage width extended by up to 14 cm also make it much easier to park modern, larger vehicles and SUVs.



Sealed all-round

Flexible and weather-resistant seals on all four sides of Hörmann's sectional doors keep out the wind, rain and snow. High-quality intermediate seals between the door sections of double-skinned doors provide for additional sealing. Thanks to its large-sized profile lip, the bottom seal can easily accommodate slight irregularities in the floor.

Good reasons to try Hörmann

Perfect appearance



Woodgrain



Micrograin



Decograin — Golden Oak



Decograin — Rosewood

1

Various surface finishes

Elegant surface decors to choose

Hörmann provide various surface finishes to meet all kinds of requirements. Woodgrain surface finish is standard in RAL 9016, Grey RAL 9002, White aluminum RAL 9006 and Anthracite grey RAL 7016, optionally in around 200 colours from the RAL colour chart. Micrograin is standard in Traffic white RAL 9016, Grey RAL 9002, White aluminum RAL 9006 and Anthracite grey RAL 7016. We also provide Decograin surface finishes in golden oak and rosewood.



Only from Hörmann

2

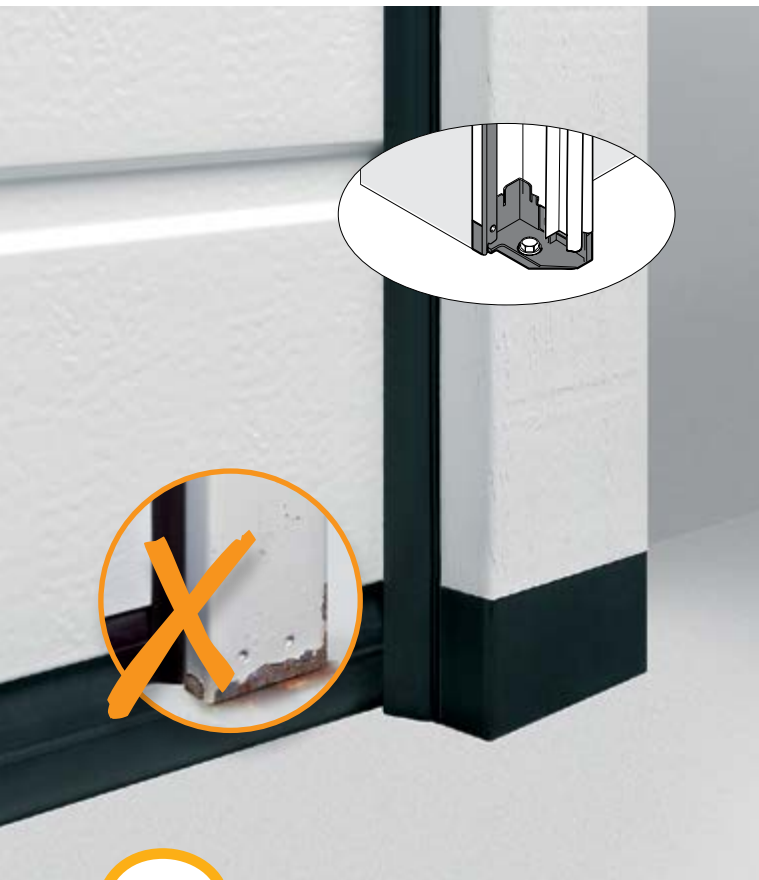
More security, of course

Reliable protection with the anti-lift kit

Uninvited guests barely stand a chance with Hörmann's automatic sectional doors. When the garage door is closed, the anti-lift kit automatically engages in the operator boom's stop, it then locks immediately and is secured against forced opening. This door latching functions purely mechanically, and in contrast to competitor operators, continues to secure the door even when the power fails.

Good reasons to try Hörmann

Innovations from the market leader



3

Optimum long-term protection

Also resistant to waterlogging

A non-brittle, 4 cm plastic frame shoe offers long-term protection against corrosion (even with waterlogging) that is unmatched by competitor solutions. The frame shoe completely covers the frame in the area susceptible to rust. Only this offers true long-term protection. Together with the door's bottom seal, the frame shoe makes for a bottom edge that is visually appealing.



4

Efficient thermal insulation

With thermal break between the frame and the building structure

A well-insulated garage door is always recommended when the garage and the home are directly connected. To further improve the already high insulation values, Hörmann has developed the ThermoFrame frame connection, a plastic profile that can be simply fitted together with the door frame.

This creates a thermal break between the frame and the brickwork, improving thermal insulation by up to 15 %* . The optional ThermoFrame frame connection is available for all Hörmann sectional doors.

* With a door surface of 5000 x 2125 mm



Tested safety

Hörmann automatic sectional doors have been tested and certified by TÜV in accordance with the TTZ directive "Break-in resistance for garage doors".



5

Fascia panels as standard

Make up for insufficient headroom

For garage doors, the fascia panel is the most practical solution to make up for insufficient headroom. For all door versions, our standard fascia panels always match the door color or style and can thus be visibly mounted in the opening. the standard single-skinned fascia panel which height is 95 mm can meet most situations.



6

Side wall fitting, no problem

Properly adjusted installation solution

The sectional door frame can be fitted to the side wall of the garage with Hörmann's special universal anchors. Irregularities in the wall can be easily compensated, leaving the reveal intact.

Good reasons to try Hörmann

Hörmann BiSecur: The modern radio system for garage door and entrance gate operators



7

Bi-directional radio system BiSecur

The modern radio system

for garage door and entrance gate operators

Our bi-directional, high-security BiSecur radio system is based on future-oriented technology that allows you to conveniently and safely operate garage doors, entrance gates, lights and much more.

With a stable, interference-free range, the newly developed, extremely secure BiSecur encryption protocol makes sure that no-one can copy your radio signal. Tested and certified by security experts at the Bochum University and as safe as online banking.

Convenient inquiry of the door position

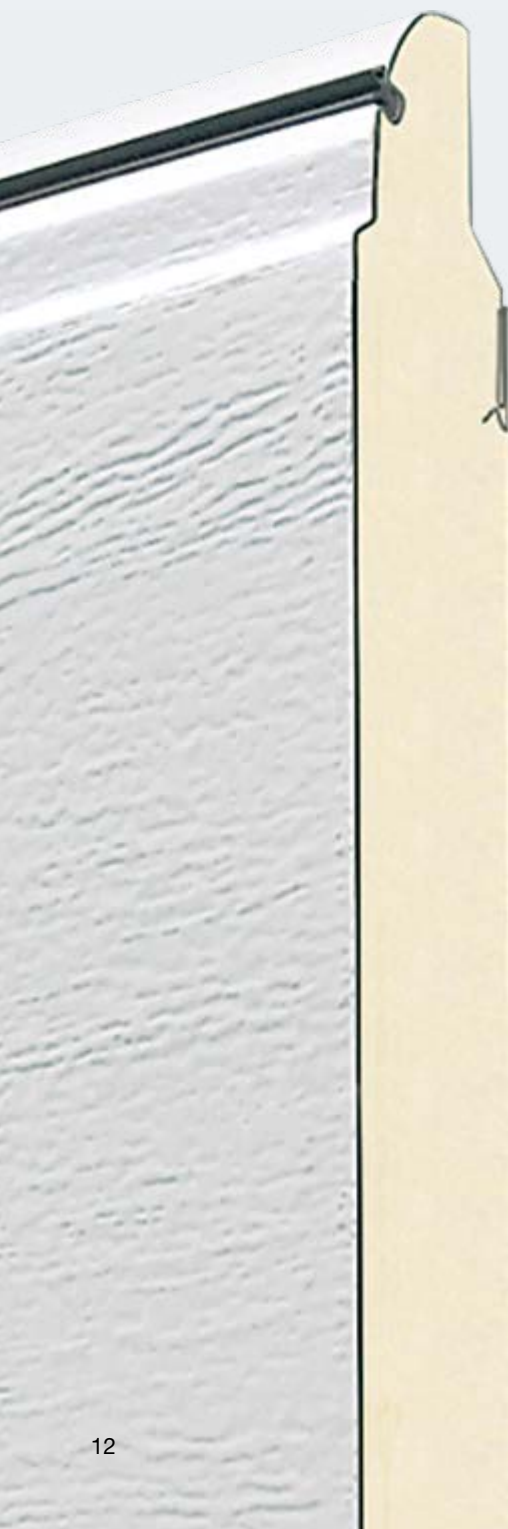
You no longer have to go out in all kinds of weather to check that your garage door is closed. With a single push of a button, the LED colour on the hand transmitter HS 5 BS shows you whether the door is open or closed. If required, another push of a button closes the door.

Double-skinned steel sectional door LPU

Highest thermal insulation and greatest variety of surface finishes

LPU

Double-skinned LPU doors offer the best-possible insulation. Moreover, the 42-mm-thick sections give the door the greatest stability and make for quiet operation.



Woodgrain



Traffic white RAL 9016



4 standard RAL colors



RAL to choose

Woodgrain is standard in Traffic white RAL 9016, Grey RAL 9002, White aluminum RAL 9006 and Anthracite grey RAL 7016, optionally in around 200 colours from the RAL colour chart.

The surfaces are perfectly protected against rust. Rain runs off without leaving any streaky marks thanks to the use of hot-galvanized material and a high-quality polyester-primer coating on both sides. A grey haze from air pollution is largely prevented.

On this inexpensive, robust surface with an authentic sawn timber look, minor scratches can be easily repaired by working with the texture.

Door styles

M-ribbed
S-panelled
U-panelled
L-panelled

Micrograin



Traffic white RAL 9016



4 standard RAL colors

This surface features a wave profile that is embossed into smooth steel, producing attractive light and shadow effects.

Micrograin is standard in Traffic white RAL 9016, Grey RAL 9002, White aluminum RAL 9006 and Anthracite grey RAL 7016.

Door styles

L-ribbed

Decograin



Golden Oak



2 decors

Decograin is available in two natural-looking timber designs. An embossed wood grain gives it all the aesthetics of timber. The door remains beautiful for a long time thanks to the special surface protection of the UV-resistant plastic film coating on the outside of the steel sections.

This finely structured surface is an ideal choice for price-conscious owners and is particularly suited for modern homes.

Door styles

M-ribbed
S-panelled
U-panelled

Overview of steel sectional doors

Styles and dimensions

L-ribbed

Ordering width 6000 mm

Ordering height 3034 mm

L-ribbed design is only available on Micrograin surface.

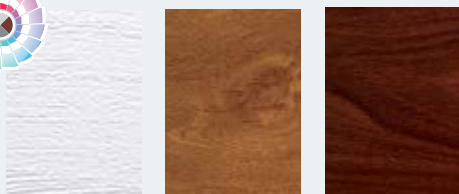


M-ribbed

Ordering width 6000 mm

Ordering height 3034 mm

M-ribbed design is available on both Woodgrain and Decograin surface.



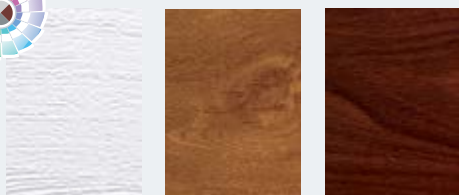
S-panelled (433 x 307 mm)

U-panelled (478 x 370 mm)

Ordering width 6000 mm

Ordering height 3034 mm

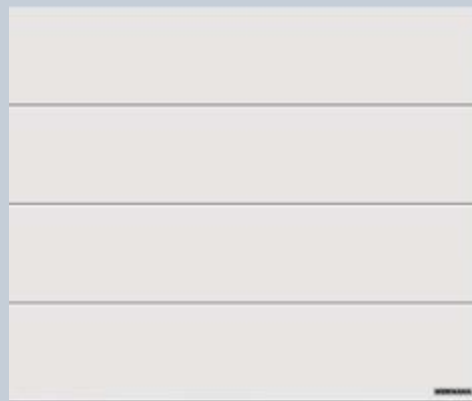
S/U-panelled design is available on both Woodgrain and Decograin surface.



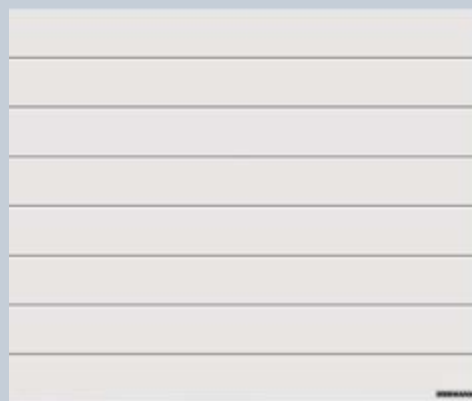
L-panelled (1060 x 370 mm)

Ordering size please see price list part A

L-panelled design is only available on Woodgrain surface.



L-ribbed in Micrograin, Traffic white, RAL9016



M-ribbed in Woodgrain, Traffic white, RAL 9016



S-panelled in Woodgrain, Traffic white, RAL 9016



L-panelled in Woodgrain, Traffic white, RAL 9016

L-ribbed

The door style with superior elegance





L-ribbed with the surface finish Micrograin RAL 7016

L-ribbed

Sturdy steel panels



L-ribbed with the surface finish Microgra in, RAL 9006



L-ribbed in surface finish Micrograin, RAL 7016

L-ribbed with the surface finish Micrograin, RAL 9002





L-ribbed with the surface finish Micrograin, RAL 9016



L-ribbed



Micrograin

Traffic white RAL 9016,
Grey RAL 9002, White aluminum
RAL 9006 and Anthracite grey
RAL 7016 as standard.

Max. dimensions

Ordering width 6000 mm
Ordering height 3034 mm

M-ribbed

The door style for modern architecture





M-ribbed with the surface finish Decograin Rosewood

M-ribbed

More surface finishes to choose



M-ribbed with the surface finish Decograin Golden Oak



M-ribbed with surface finish Woodgrain in RAL 9016

M-ribbed with the surface finish Woodgrain in CH 703





M-ribbed with the surface finish Woodgrain in colour Anthracite grey, RAL 7016



M-ribbed



Woodgrain

Traffic white RAL 9016,
Grey RAL 9002, White aluminum
RAL 9006 and Anthracite grey RAL 7016
as standard, other RAL colours are
optionally available.

Decograin

Golden Oak
Rosewood

Max. dimensions

Ordering width 6000 mm
Ordering height 3034 mm

Panelled

The door style for classic buildings





S-panelled with the surface finish Woodgrain in the preferred colour Anthracite grey, RAL 7016

Panelled

Available for full ordering sizes



U-panelled with the surface finish Woodgrain in Traffic white, RAL 9016



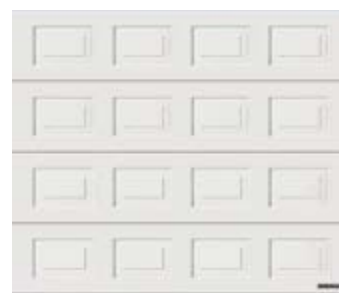
L-panelled with the surface finish Woodgrain in Traffic white, RAL 9016

S-panelled with the surface finish Decograin Golden Oak

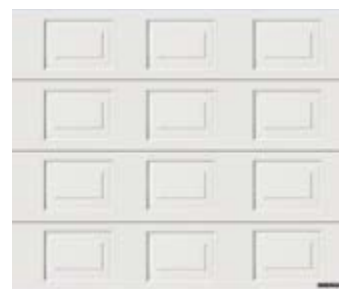




S-panelled with the surface finish Woodgrain in Traffic white, RAL 9016



S-panelled



U-panelled



L-panelled



S/U-panelled

Woodgrain

Traffic white RAL 9016, Grey RAL 9002, White aluminum RAL 9006 and Anthracite grey RAL 7016 as standard, RAL to choose

Decograin

Golden Oak

Rosewood

Max. dimensions

Ordering width 6000 mm

Ordering height 3034 mm

L-panelled

Woodgrain

Traffic white RAL 9016, Grey RAL 9002, White aluminum RAL 9006 and Anthracite grey RAL 7016 as standard RAL to choose

Max. dimensions

Ordering size please see price list part A

Door Handles

It's your choice



More convenient solution for emergency situation

For sectional garage doors without a second access door, we recommend the emergency release with door handle to deal with the emergency situation (e.g. in the event of a power failure). You can easily open the door by the key from outside. A Bowden cable on the inside which is controlled by the door handle unlock the door.



Black plastic



Polished stainless



Brushed stainless steel



White cast aluminium, RAL 9016 steel



Silver cast aluminium



Brown cast aluminium, RAL 8028



Exterior handle with keys



Interior handle with Bowden cable





Clear synthetic glazing from Hörmann comes as standard with DURATEC glazing. It offers max. scratch resistance



Aluminium frame

Available for both panelled and ribbed design. The anodised aluminium glazing frame (DIN 17611) in a natural finish E6 / C0 (previously E6 / EV 1) is available on request in door colour. You can choose the glazing with double synthetic panes in a clear version or crystal structure.



Classic glazing



Sunrise glazing



Modernise and improve

Hörmann offers premium solutions for every fitting and renovation situation



At some points it is simply time to modernise your garage door. The best partner for this: Hörmann and its wide range of door sizes and surface finishes, especially for modernisation purposes. Hörmann can provide you with an attractive and appropriate solution for any fitting situation.



Experienced consultation from Hörmann

Everything from a single source with your Hörmann partner

Your Hörmann service partner can make modernisation easier than you think: from personal consultation to proper disassembly and environmentally-friendly disposal of your old door, as well as correctly dimensioned fitting.

Trouble-free, simple fitting

For standard fitting, Hörmann delivers the sectional doors with all necessary fitting material, makes the fitting and maintenance more simple and easy.



Your Hörmann partners will gladly explain the benefits of a sectional garage door.

Neat gap treatment for an attractive appearance

Hörmann offers attractive solutions for every fitting situation. This saves fitting time and reduces costs. Visible gaps between frames and the reveal can thus be covered with a frame covering, an optional retrofit fascia or a fascia frame set. Of course, all this comes in surface finishes and colours that match the door.



Your door is fitted within a day – of course with operator plus convenient remote control

Properly mounted and fitted

Standard fitting and special anchors for side fixing

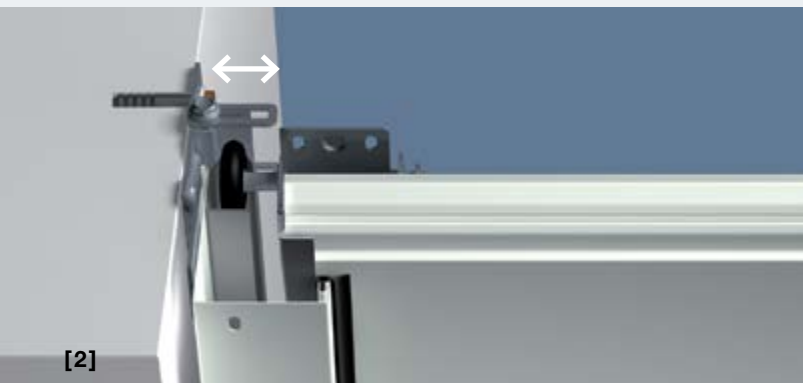


Standard fitting

The sectional door can be fitted behind the opening [1]. The reveal guarantees stable fitting. This allows the frame to be screwed directly into the wall behind the opening.

Ideally, the available garage has at least 115 mm of clearance in the lintel area and a 90 mm sideroom.

Hörmann sectional doors come with all the necessary fitting materials for this situation.



Optional special anchor for frame side fixing

The sectional door frame can be fitted to the side wall of the garage with Hörmann's special universal anchors. Irregularities in the wall can be easily compensated, leaving the reveal intact.

[2] Fitting with up to 35 mm wall spacing

[3] Fitting with angled or irregular side wall

[4] Fitting with non-load bearing facades (facing brick or thermal insulation) with at least 90 mm sideroom



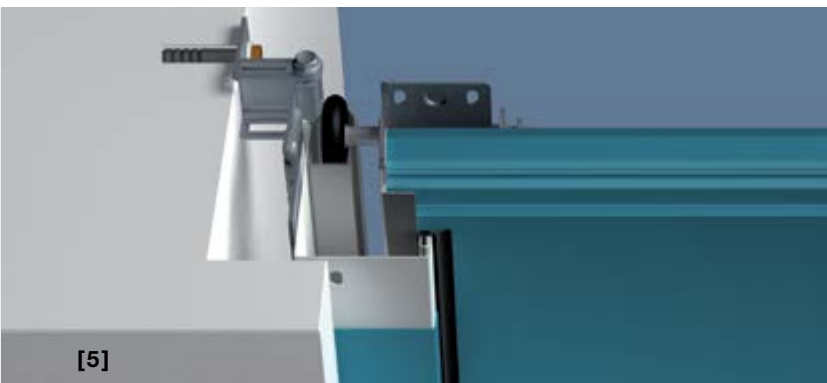
Please note:

If the door is fitted in the opening by side fixing anchor, the ordering width and ordering height of the door should be reduced accordingly.



Properly adjusted

Frame covering and fascia panels



Frame covering in the colour of the door

At Hörmann, side frames are delivered in smooth white as standard. With a frame covering that matches the door sections' colour or decor, you can also achieve a harmonious appearance for doors with different surface finishes.

[5] [6] 90-mm-wide frame covering for fitting behind the opening, with little sideroom



Standard fascia panels

For standard fitting behind the opening with small lintel space

For all door versions, our standard fascia panels always match the door colour or style and can thus be visibly mounted in the opening.



Double-skinned fascia panels

For fitting in the opening with larger gap to the ceiling

A matching, double-skinned additional fascia panel covers the gap between the ceiling and fascia panel. It is available for all surface finishes and colours or designs.

Hörmann's high-quality garage door operators

Reliable, safe and maintenance-free



Hörmann operator technology
Sophisticated and innovative technology that makes your life more convenient and safe.



**Garage door and entrance gate operators:
Everything perfectly matched from a single source**



Garage Door
and Entrance Gate Operators
Alles was Sie brauchen, ist bei uns zu finden.

WIDENMANN

More information can be found in the Garage door and entrance gate operators brochure.

Two operator variants

Security both day and night with automatic locking



SupraMatic P

The supra-fast operator
with many additional functions.



SupraMatic P as standard
With hand transmitter HS 5 BS in black



ProMatic

The good-value starter model
as an introduction to Hörmann's
premium quality



ProMatic as standard
With hand transmitter HSE 4 BS in black

SupraMatic P

- 5-button hand transmitter HS 5 BS (black textured surface) including querying the door position
- Low power consumption
- Extremely easy programming thanks to 2 × 7-segment display
- Halogen lighting can be switched on/off separately
- Additional opening height for a well-ventilated garage
- Operator cover made of brushed aluminium

As standard, SupraMatic P include photocell

Pull and push force: 750 N

Peak force: 1000 N

Opening speed: max. 22 cm/s

Standard for door size > 11 m²

ProMatic

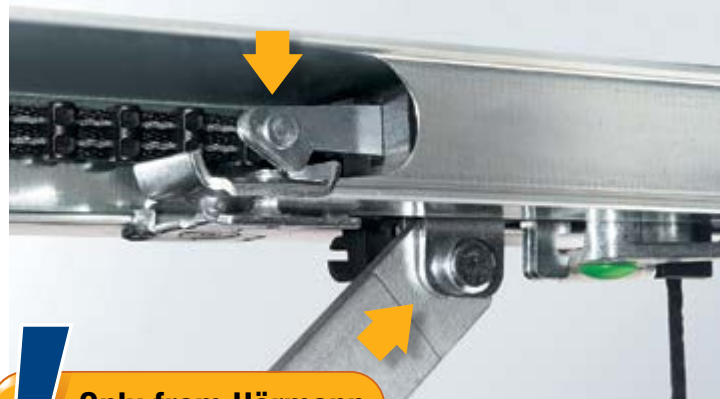
- 4-button hand transmitter HSE 4 BS (black textured surface)
- Additional opening height for a well-ventilated garage

Pull and push force: 600 N

Peak force: 750 N

Opening speed: max. 14 cm/s

Standard for door size ≤ 11 m²



Only from Hörmann

Automatic door locking

The door automatically locks on closing, making it impossible to lever it open. This unique automatic latching system is a mechanical device and therefore remains fully functional even in the event of a power failure.



Photocell EL 101

Increased security

Families with children particularly appreciate extra safety. A photocell installed in the garage opening immediately stops the door before it encounters an obstruction. An extra bit of protection for a minimal cost.



[1]

[2]

Hand transmitter

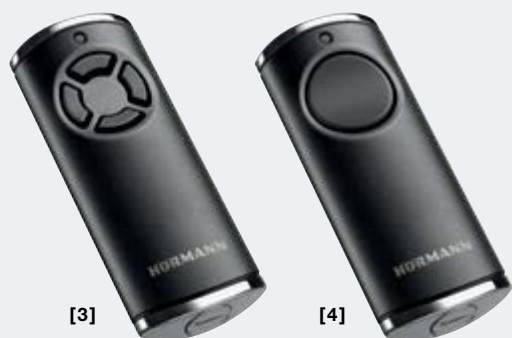
HS 5 BS

4 button functions

plus query button,

[1] High-gloss black or white

[2] Black textured surface **// NEW**



[3]

[4]

Hand transmitter

HS 4 BS

4 button functions,

[3] high-gloss black

Hand transmitter

HS 1 BS

1 button function,

[4] high-gloss black

[5]

[6]

Hand transmitter

HSE 4 BS

4 button functions,

[5] Black textured surface with plastic caps **// NEW**

Hand transmitter

HSE 2 BS

2 button functions

incl. eyelet for key ring

[6] High-gloss black or white

[7] High-gloss green, purple, yellow, red, orange

[8] Decors in silver, carbon, dark rootwood



[7]

[8]



Fingerscan FL 12/FL 100

FL 12:

- Up to 12 fingerprints can be taught in
- Setting / programming via DIL switches on the interior device
- Impulse duration: 0.5 s or 5 s

FL 100:

- Up to 100 fingerprints can be taught in
- Setting / programming via 3 buttons and two 7-segment displays on the interior device
- Impulse duration: programmable from 0.5 s – 90 s



Code switch CTR 1b/3b

CTR 1b: 1 relay output for control of one door operator

CTR 3b: 3 separate relay outputs for the control of 2 operators and/or choosing the direction, second opening height, yard illumination, Stop



Transponder key switch in two versions TTR100/TTR1000

You simply hold the coded transponder key approx. 2 cm in front of the reader. Two keys are included, further keys are available on request.

The comfortable TTR can recognize up to 100 keys and TTR 1000 up to 1000 keys.



Key switch STUP, STAP

For recessed or surface mounting in two versions, each with three keys.



Photocell EL 101

For indoor use as additional safety device



Hörmann Gateway and BiSecur App // NEW

With this App, you can conveniently control your Hörmann garage door and entrance gate operators, Hörmann entrance door* and other devices using your smartphone or tablet. You can also display the door position for your garage door or entrance gate, as well as the locking state of your entrance door* while on the go.

Technically mature

Operating comfort with the highest security



Safety while operating the garage door is top priority for Hörmann. And Hörmann sets the standards for this with its innovative solutions. This has been proven time and time again through numerous Hörmann patents.

And this provides you and your family with safety during daily use.



Hörmann patent

Tension spring assembly with spring-in-spring system

Hörmann sectional doors with double tension springs and double cables per side safeguard the door leaf against crashing to the floor. Thanks to the patented spring-in-spring system, broken springs are prevented from flying out and causing injuries.

Sectional doors up to 3000 mm wide and 2625 mm high include the proven tension spring technology as standard.



Hörmann patent

Torsion spring technology with integrated spring safety device

Hörmann sectional doors incorporate torsion springs on both sides featuring a patented spring safety device. In the event of a spring breaking, they arrest the door immediately, thereby preventing the door leaf from crashing to the floor. Larger sectional doors feature torsion spring technology.



Hörmann patent

Secure guidance of the door in safety tracks

Adjustable, patented track rollers, sturdy roller holders and safety tracks ensure that there is no danger of the door "derailing". The door sections are safely parked under the ceiling.



Finger trap protection on the inside, outside and on the hinges

The unique form of the door sections eliminates trap points, both between the sections and on the hinges. This reliable finger trap protection is only offered by Hörmann.



Trap guard on the side frame

With Hörmann, the frames are completely closed from top to bottom. There are no gaps between the door leaf and frame in which fingers could get trapped!



Safety features in accordance with European standard 13241-1

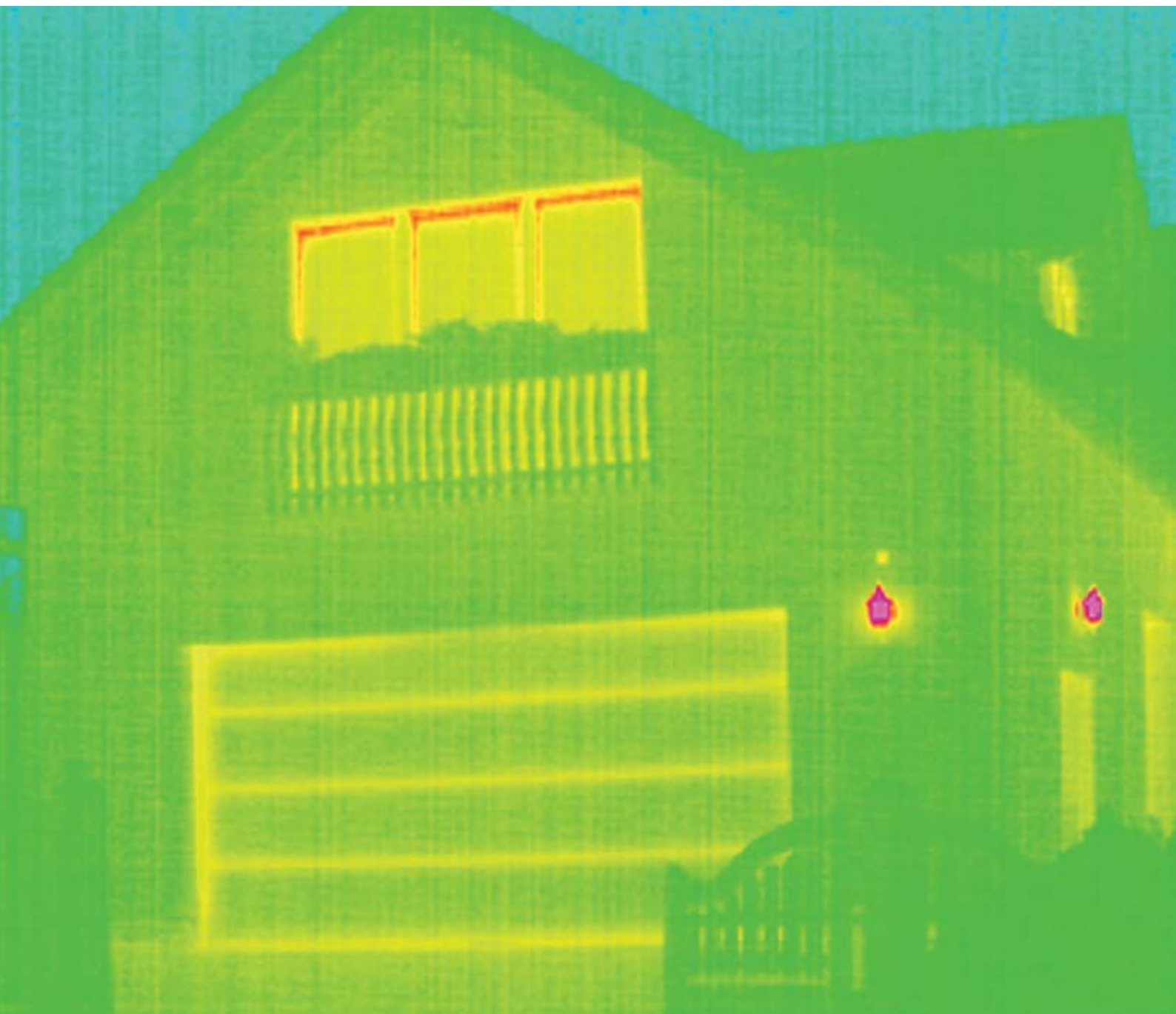
Anti-fall safeguard / trap protection

Hörmann sectional doors are tested and certified in accordance with the high safety requirements of European standard 13241-1, not only on their own but also in combination with operators. It would be hard to find a safer sectional door.

It pays to compare!

Optimum thermal insulation

Tested and certified



A well insulated garage door is always recommended when the garage and the home are directly connected. The ThermoFrame frame connection further improves the already high insulation values of the double-skinned Hörmann sectional garage doors.

This reduces your energy costs.



ThermoFrame Improved thermal insulation for sectional doors

The plastic profile that can be simply fitted together with the door frame, creates a thermal break between the frame and the brickwork, improving the thermal insulation by up to 15 %*.

In addition, extra lip seals on both sides and in the upper section of the door provide better sealing while lowering the loss of heating energy from the garage interior.

The ThermoFrame frame connection is optionally available for all Hörmann sectional garage doors.

Performance characteristics according to European standard 13241-1

At Hörmann, the four important characteristics of thermal insulation, acoustic insulation, tightness and sealing, and wind load for garage doors are tested and certified.

Thermal insulation

Section	$U = 0.5 \text{ W/(m}^2 \cdot \text{K)}$
Door leaf	$U = 0.9 \text{ W/(m}^2 \cdot \text{K)}$
Fitted door ¹⁾	$U = 1.4 \text{ W/(m}^2 \cdot \text{K)}$

Acoustic insulation

$R = \text{approx.} 25 \text{ dB}$

Air	M-ribbed	Class 2
	L-ribbed and Panelled	Class 3

Water

Class 3 ²⁾

Wind load

Class 3

* For door size 5000 x 2125 mm

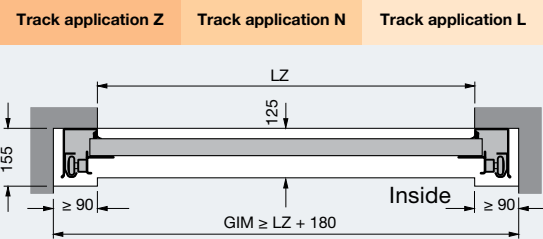
¹⁾ The U-values apply to fitted doors without glazing in the size: 5000 x 2125 mm

²⁾ Up to 70 Pa water pressure

Dimensions and fitting data

Track applications and fitting dimensions

Horizontal view

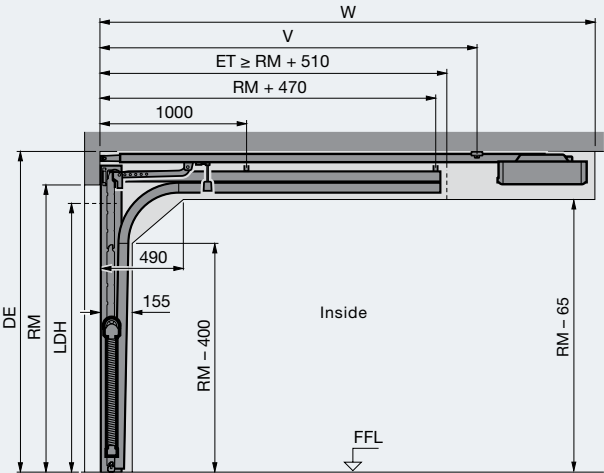


Fitting with track applications Z, N, L

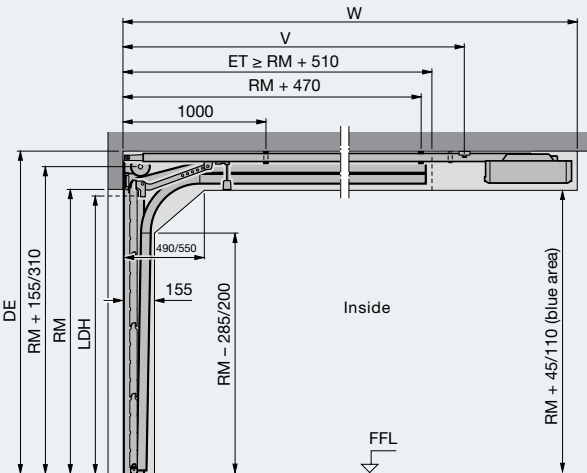
Overall length operators	Track application Z	Track application N	Track application L
FS-K (3200 mm)	1820-2125	1820-2250	1820-2125
FS-M (3450 mm)	2126-2375	2251-2503	2126-2375
FS-L (4125 mm)	2376-2579	2504-3034	2376-3034

Vertical views

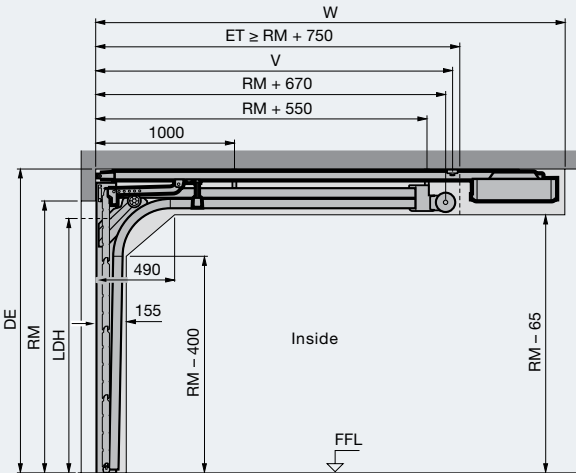
Track application Z



Track application N



Track application L



Dimensions in mm



Experience Hörmann quality

For every application involving new construction and modernisation

Hörmann provides an excellent basis for comprehensive planning. Carefully matched solutions offer you the very best in perfectly designed products for every area.

Garage doors

Perfectly match your personal architectural style: up-and-over or sectional doors with colourful coatings or a Decograin surface.

Door operators

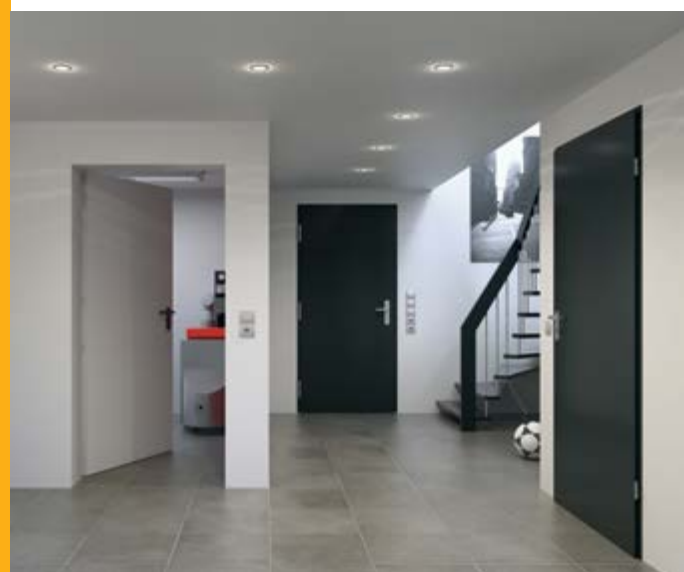
Enjoy extra convenience and security: Hörmann operators for garage doors and entrance gates.

Steel security doors

Hörmann provides you with safe and sturdy security doors in various grades. There will be one to fit your needs.

Steel doors

Sturdy doors for your entire home, from the basement to the roof.



www.hoermann.com

All rights reserved. No part may be reproduced without our prior permission. Subject to changes.

Hörmann: Quality without Compromise



Hörmann KG Amshausen, Germany



Hörmann KG Antriebstechnik, Germany



Hörmann KG Brandis, Germany



Hörmann KG Brockhagen, Germany



Hörmann KG Dissen, Germany



Hörmann KG Eckelhausen, Germany



Hörmann KG Freisen, Germany



Hörmann KG Ichtershausen, Germany



Hörmann KG Werne, Germany



Hörmann Alkmaar B.V., Netherlands



Hörmann Legnica Sp. z o.o., Poland



Hörmann Beijing, China



Hörmann Tianjin, China



Hörmann LLC, Montgomery IL, USA



Hörmann Flexon LLC, Burgettstown PA, USA



Shakti Hörmann Ltd. India

Hörmann is the only manufacturer worldwide that offers you a complete range of all major building products from one source. We manufacture in highly-specialized factories using the latest production technologies. The comprehensive manufacturing, sales and service network in Europe, Asia and America makes Hörmann your strong international partner for the high-quality construction. "Quality without Compromise".

GARAGE DOORS
OPERATORS
DOORS
PARTITION WALLS
INDUSTRIAL DOORS
LOADING TECHNOLOGY

www.hoermann.com

Copyright. No part of this brochure may be reproduced without our permission. Subject to changes.

Print: 07.2017 (Issue: 07.2017)
Some of the doors shown in this brochure have special features and therefore do not always represent the standard version.

HÖRMANN