VERTICAL AWNINGS

Technology 2026

Excerpt from price list

moveIT

Product configuration tool

Advantages

- Easiest employee training due to intuitive product selection
- Saves time and money
- Reduction of product training through selection options and the saving of default settings
- Graphic support during configuration
- Printed price lists are no longer required
- Products and prices are always up to date
- Ongoing review of products for feasibility thanks to comprehensive integrated checks; in this way products that are not technically feasible are excluded
- Orders are immediately forwarded to HELLA digitally, meaning the completion of forms is no longer necessary and thus no transmission errors can occur and manual input is not required
- Tailor-made interfaces with industrial systems
- Data exchange via XML OpenTrans possible

Configuration of HELLA products

- Powerful product configuration tool for sun protection products
- All HELLA products are available in the system
- Secure and guided recording of product data for offers and orders
- List price and purchase conditions are stored, so that the correct customer-specific stored purchase price and thus the margin for our customer is immediately visible at any time
- A professional offer is immediately available at the click of a button and can be forwarded to the customer

Available systems

moveIT@ISS+

- Advanced possibilities for dealers of sun protection products with their own customer management system
- Management of own articles
- Digital ordering directly from HELLA
- Customer can view products offline

moveIT@EASY

- Web-based solution for small dealers of sun protection products
- Straightforward preparation of offers and digital ordering directly from HELLA
- No software installation

HELLA configuration tool – Integration into industry software solutions such as 3E-LOOK and SBH-Factu

- Increased efficiency: Through seamless integration, our sun protection products can be configured directly in the software used. This saves time, as users do not have to switch between different systems.
- Fewer errors: As the configuration and ordering processes take place within one system, the risk of errors due to manual data entry or duplicate processes is minimised.
- Ordering directly from HELLA: After configuration, the products can be ordered immediately, which speeds up the ordering process considerably and ensures faster delivery.

General **5**
General information 6
Wind resistance 10
Structural-physical parameters 16
Standard colors 18
Limit sizes 28
Guide rails 32
Spacers for guide rails 34
Cable guidings 38
Tensioning elements for cable guidings 39
Crank handle drive 46
Motor drive 50
Model overview 56
Covers **59**
Cover 60
Vertical awnings 62
Things to know about the cover 63
Cover types 65
Window and facade **71**
Overview 74
Type overview 76
Front-mounting systems **78**
Front-mounted awning protect 78
Front-mounted awning cable 94
Build and Renovate **103**
Overview 106
Type overview 108
Shaft systems **110**
Recess awning protect 110
Basic awning cable 122
Plaster systems **130**
Concealed awning protect 130
Concealed awning cable 140
Attachment systems **148**
TOP FOAM screen protect 148
Insect screens **197**
Insect screens 198
Clamping frame 200
Swing frame 212

Pendulum frame 218
Slide frame 228
Pleated blind 234
Roller blind 240
Light shaft cover 246
Doubling profile 252
Fall protection 255
Fall protection 256
Control devices Accessories 277
Functionality obstacle detection 278
Radio system HELLA ONYX SMART HOME 280
Wired control components – Somfy 288
Solar package 290

General information

The products in this document are customised. Returns, changes or exchanges are not possible. Subject to technical modifications. Color deviations between plastic parts and coated surfaces depend on the material or manufacturing process and cannot be ruled out; the same applies for spare part reorders in anodized colors.

Notes on production tolerances

HELLA products are custom-made. Returns, changes or exchanges are not possible. Subject to technical modifications.

Please note that despite millimetre-precise production, tolerances can be found on the finished product. These tolerances refer to the cutting dimensions and not to the finished dimensions of the curtains.

Ordering dimension [mm]	Tolerance [mm]
≤2000	±1.5
≤4000	±2
≤5000	±3
≤6000	±5

Important information for your order of TOP FOAM screen protect top box

- Always indicate complete element dimensions only (window with top-mounted box).
- Width = complete width finished element (usually the outer dimension of the window frame)
- Height = overall height finished element = height of the window frame + box height
- Your finished elements are manufactured based on these dimensions.
- Please observe the required length of the guide rails in accordance with your outer window sill or your lower window frame connection.
- If no special information concerning the length of the guide rails is stated in the order, it is assumed to be lower edge window frame = lower edge guide rail.
- If a guide rail slope is desired, the slope is added starting from this point.
- If the installation situation is not certain yet at the time the order is made, we recommend the indication of a cutting tolerance so that you can adapt the guide rails to the situation.

Plastering the box

The box end profile is not intended for trimming. The regulations stipulate that the building must include joint profiles on the profile extension to prevent cracking and the water ingress that could result.
Refer to guideline "Anschlüsse an Fenster und Rollläden bei Putz, Wärmedämmverbundsystem und Trockenbau (Ausgabe 2021, 3.Auflage)" ["Joints at windows and roller shutters with render, composite thermal insulation systems and drywall (issued 2021, 3rd edition)"] published by German roller shutter and sun protection trade association "Rollladen + Sonnenschutz e.V." and guideline "Anschlüsse an Sonnenschutzprodukten - Schnittstellen Sonnenschutz, Führungsschiene, Fenster und Fensterbank (Ausgabe 2023)" ["Joints at sun protection products – interfaces of sun protection, guide rail, window and window ledge (issued 2023)"] published by German roller shutter and sun protection automation industry body IVRSA.

Assessment of the product features

Our vertical awnings are state-of-the-art, therefore the following guidelines of IVRSA (Industrievereinigung Rollladen-Sonnenschutz-Automation e.V. [Industrial association for roller shutters-sun protection-automation registered association]):

- Guidelines for the evaluation of product features of awnings
- Guidelines for the evaluation of ready-made awning covers
- Guideline - wind loads for the construction of closures and awnings in the retracted condition
- Guideline for cleaning and maintaining awning covers
- Recommendations for use of wind for vertical awnings whose fabric is guided in lateral rails

See homepage **https://ivrsa.de/technische_unterlagen/**



(Source: IVRSA.de)

New IVRSA guideline on side seam guided vertical awnings

The IVRSA has published a new guideline for side seam guided vertical awnings.
This guideline was newly created or extracted and separated from the general guideline on awnings, as this product group is becoming increasingly important.



(Source: IVRSA.de)

Definition RAL-Installation

In practice, the term RAL installation means that the window connection joint as well as the window installation are "carried out in conformity with the standards".

For most craftsmen and constructors this term is a synonym for the correct window installation according to the **state-of-the-art**. Simply said, this standard describes that with regard to the moisture diffusion the joints on the inside (inside the room) must be designed in such a way that they are less permeable to air and water than the ones on the outside. This must also be guaranteed for **extended periods of time**. This means, that the window seal must absorb possible movements between the window and the wall or the roller shutter box, which may occur due to elongation, thermal stress, vibrations or wind.

In detail, companies with the quality label must meet the following requirements:

- Complement of the system description with connection examples that are evaluated by the "ift Rosenheim"
- Appointment of a person in charge of the installation that participates in workshops about the installation as well as an intensive in-house training of the fitters
- External monitoring of the installation at a construction site that was selected by the "ift Rosenheim" as well as object-specific construction documentation with installation details
- Use of suitable and tested materials for further education
- Control and documentation of the quality of work carried out by the head of the installation staff on site, including a randomized control and documentation of the building project
- Verification of the quality controls within the framework of the external monitoring through the "ift Rosenheim"

(Source: Planning and design guidelines for the installation of windows and doors in new buildings and rehabilitation projects)

General information

Definition GEG (Buildings Energy Act)

The **Buildings Energy Act (GEG)** is part of the German economic administrative law. The regulation dictates structural standard requirements for efficient **business energy requirements** of their **building** or **building project** to the builders. The GEG applies to all heated and cooled buildings or building parts.

Roller shutter boxes are mentioned under outer wall in the reference table in line 1.1. **The U-value of 0.28 W/(m²K) indicated there, however, is not to be understood as a requirement for the U-value of the roller shutter box, but the entire wall structure including the roller shutter box must meet this U-value.**
Reference values are no requirements for individual components!
The roller shutter boxes are included, i.e. the roller shutter box surface is not separately considered in the calculation.
As before, the requirements of the currently applicable DIN 4108-2, the Building Rules List, and the DIN 4108 supplementary sheet 2 must be met.

Thus, the planner can use the simplified calculation method with the reduced lump factor ΔU_{WB} = 0.05 W/m²K for the determination of the energy demand, provided that all other thermal bridges present on the construction correspond to the currently applicable DIN 4108 supplementary sheet 2.

Processing guidelines for top-mounted boxes

1. Higher **temperature-related linear expansions** must be allowed for with dark-colored guide rails and roller shutter profiles.

2. With the exception of plastic profiles in white, grey, light grey and beige, we **cannot give any guarantee** for the color and form stability of plastic profiles that are not provided with a surface protection.

3. We recommend to use a **bottom strengthening profile** for split elements with a width above 2000 mm. This must be screwed shear-resistantly to the window frame.

4. **If the curtain of the selected element has more than 20 kg, an additional fixing device has to be provided for the top-mounted box.**
   If the element width exceeds 1600 mm, we recommend to **fix the box every 800 mm to the lintel**, to increase the stability of the complete element (window or door with box) when it is built-in.

5. **Profiles with protective coating** can be used up to a height of 1800 m above sea level and to the north of the 46th parallel (in Europe, incl. Austria and Switzerland). To the south of the 46th parallel the use is limited.

6. The inspection cover is part of the top-mounted box and must be removable without damage.

7. The connections to the building must be carried out in accordance with the **requirements of the structural physics**.

Plaster guidelines

The current plaster guidelines and technical guidelines, such as DIN V18550:2005-04 or the recommendations of the Association of Plasterers, apply. Place the reinforcement fabric over the entire roller shutter box and make sure that the fabric overlaps in the joint area by at least 10 cm. Embed an additional reinforcement made of reinforcement fabric diagonally over the box and into the soffit edges.
The box end profile is used to attach / glue on the plastering strip and should not be plastered on directly. => Guidelines “Connections to windows and roller shutters with plaster, thermal insulation composite system and drywall installation” (date of issue 02/ 2021, 3rd edition)

Tips for plastering EPS:

- Protect the product from moisture during construction or storage
- Cover the boxes with materials that are impervious to light
- Do not use transparent foils, because this can cause the EPS to melt due to the possible lens effect.
- Plastering of the EPS within 2-3 months
- For certain installation situations, cover the top of the box located outdoors (do not use transparent foil!).

HELLA recommends carrying out the plastering work on the EPS within 2-3 months, depending on the local conditions and the prevailing season. Otherwise, apply a suitable rendering base from an ETICS manufacturer to the polystyrene surface for protection. If the polystyrene component has already yellowed due to UV exposure as a result of the delayed construction process, this floury substance must be removed without residue in accordance with the processing guidelines of the ETICS manufacturers and plastering work must be started immediately.

General note regarding plaster joints

These specifications and recommendations are based on the following guidelines:
Germany:
Guidelines for the connection to windows and roller shutter-, outdoor blind box with plaster, thermal insulation composite system and drywall installation. (Date of issue 2021, 3rd edition)
Austria:
Processing guidelines for thermal insulation composite systems VAR 2019 (1st edition, January 2019)
Guidelines for the connection to windows, sun protection and facade. (1st edition, 2017)
Guidelines for the installation of window sills in thermal insulation composite systems and plastered facades as well as in curtain facades (3rd edition, 2015-08)

Definition insect screen

In the guideline “Product characteristics insect screen” provided by the IVRSA Industrial Association / Professional Association Sun Protection Technology, the insect screen is defined as follows:

The insect screen fabric can be lowered, rolled up or pushed shut, if required. To ensure the rolling up, the lowering or the pushing shut, the product may not close completely resulting in a - small - gap between the insect screen fabric and the guide groove towards the adjacent building parts or structure. The often used sealing brushes improve the sealing, but provide only small space for the motions of the gauze. Primarily an insect screen has the function to prevent flying insects from entering the interior. This works best with so called hymenopterans, which due to their filigrane physique can not crawl through the eventually available sealing brush. Bugs, firebugs, woodlouses, spiders and other crawlers can not be kept off completely, because they can enter through the spaces between gauze, sealing brushes or gaps. A 100% protection, quasi the creation of an “insect-free” interior, can therefore not be guaranteed with moveable insect screens. This may also happen with fixed elements like clamping frames or sliding units, but only via the brushes used. As a basic principle, all elements should be planned and designed in such a way, that there is no unprotected gap towards the structure, through which the insect might enter. But it must be stated, that it is not possible to create a 100% insect-free interior, even if the elements are provided with brushes.

Lifespan class according to DIN EN 13659

HELLA products are designed for a particularly long service life. They fulfil service life class 2 or 3 as standard. Our motor-driven HELLA outdoor blinds/Venetian blinds, vertical awnings and roller shutters fulfil the highest service life class (class 3). According to DIN EN 13659, 10,000 cycles of extension/retraction and 20,000 cycles of turning are required. In practice, this corresponds to a service life of 15 years with two cycles per day. This means that our products and technical features meet the highest quality requirements.

Mounting of the products.

The screw material defined in the standard for the respective mounting base is an exemplary recommendation of HELLA, as long as no special requirements, such as ETA certificates, are demanded. Generally already during the planning stage, but before the installation at the latest, it must be checked, if the defined mounting material is suitable of the installation. The processing instructions from the fixing material manufacturer must be observed.

Products in the area of escape routes

Sun protection systems without special equipment must not be installed in the area of escape routes, as they cannot be raised in the event of a power failure, for example, and block escape routes.

There is an IVRSA guideline “Sun protection in escape routes” with recommendations. In principle, there are no clear specifications for the installation of sun protection in escape routes.

The planning of an escape route (including the second escape route) must always be coordinated and approved by the planner responsible for the building with the relevant authorities.

Planning information

The illustrations in this documentation are general recommendations which depict the installation situations schematically. The illustrations do not release anyone form the obligation to check individually, if his project is implementable and complete. Surrounding structures are depicted only schematically.

All allowances and assumptions have to be adapted to local conditions. Plaster or connection of the reinforcement of the base board to the insulation / wall has to be carried out according to the standards and directives by the client.

Wind resistance

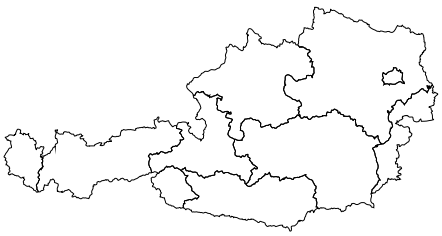
Wind resistance classes and operating classes according to EN 13659

Obligatory application since 01.04.2006

Since 01/04/2006 the outer ends must carry a CE marking pursuant to EN 13659. The following criteria must be observed!

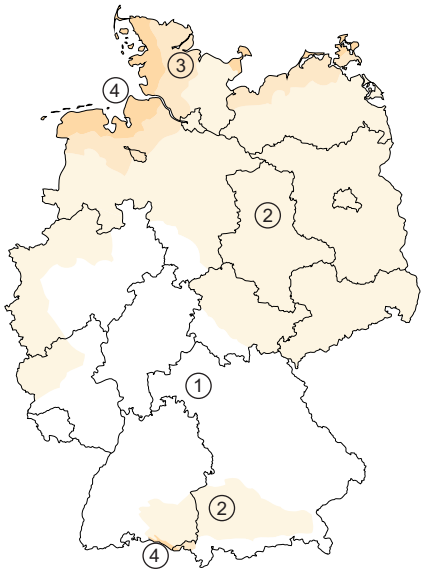
The Federal Association for Roller Shutter & Sun Protection Devices has elaborated the ift guideline that specifies, what wind resistance class is required for which case of application. This guideline "Application recommendation for exterior blinds and shutters" subdivides the federal territory in wind load zones (1) and terrain categories (2). As a result of this zoning, the relevant wind load zone and terrain category can be determined easily via the location of the building. The installation height (3) of the exterior blinds and shutters specifies the third necessary parameter.

1. Determining the wind load zones



Wind load zones in Austria

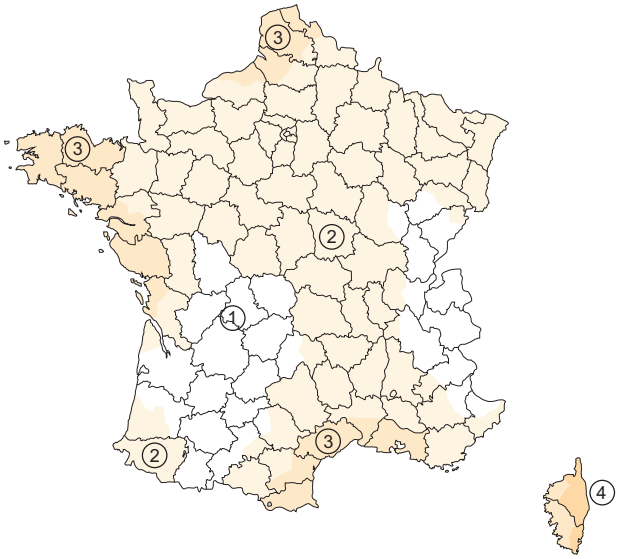
In Austria a calculation of the wind load according to the ÖNORM EN 1991-1-4, ÖNORM B 1991-1-4 must be carried out for each location!



Wind load zones in Germany

- Wind load zone 1 with 22.5 m/s
- Wind load zone 2 with 25.0 m/s
- Wind load zone 3 with 27.5 m/s
- Wind load zone 4 with 30.0 m/s

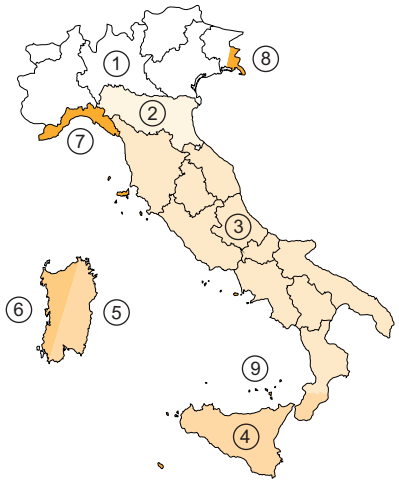
Source: DIN 1055-4:2005-3, DIN EN 1991-1-4/NA



Wind load zones in France

- Wind load zone 1 with 22.0 m/s
- Wind load zone 2 with 24.0 m/s
- Wind load zone 3 with 26.0 m/s
- Wind load zone 4 with 28.0 m/s

Source: Choix des classes de résistance au vent des fermetures (DTU 34.2, NF EN 1991-4/NA)



Wind load zones in Italy

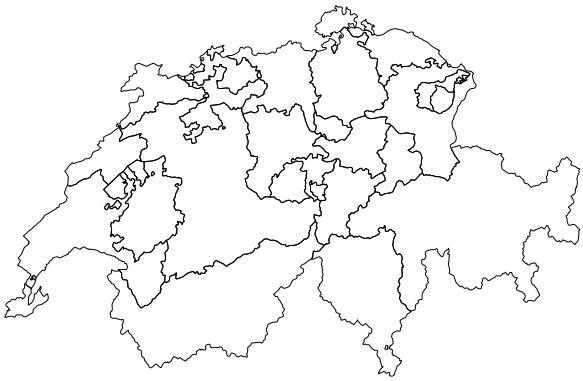
Zone	Description	$V_{b,0}$ [m/s]	a_0 [m]
①	Aosta Valley, Piedmont, Lombardy, Trentino-Alto Adige, Veneto, Friuli (with the exception of Trieste)	25	1000
②	Emilia Romagna	25	750
③	Tuscany, the Marches, Umbria, Latium, the Abruzzi, Molise, Apulia, Campania, Basilicata, Calabria (with the exception of Reggio Calabria)	27	500
④	Sicily and Reggio Calabria	28	500
⑤	East of Sardinia (from Cape Teulada to the isle Maddalena)	28	750
⑥	West of Sardinia (from Cape Teulada to the isle Maddalena)	28	500
⑦	Liguria	28	1000
⑧	Province of Trieste	30	1500
⑨	Isles (with the exception of Sicily and Sardinia) and the open sea	31	500

Source: www.madosoft.it
(CNR-DT 207-2008)

Note:

For regions above 1500 m sea level, specifications regarding the climatic conditions and the location must be made.

$V_{b,0}$ [m/s]	Wind speed
a_0 [m]	Sea level



Wind load zones in Switzerland

For Switzerland, the VSR information sheet (Vertical Systems Reseller) regarding the influence of the wind resistance on sun and weather protection systems and the standard SIA 261 stated therein applies.

For other countries the values must be requested separately from the local weather services!

Wind resistance

Wind resistance classes and operating classes according to EN 13659

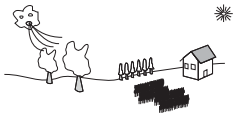
2. Determining the terrain category

Terrain category I



High seas, lakes with at least 5 km of free space downwind, plain country without obstacles

Terrain category II



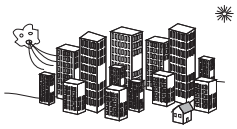
Terrain with hedges, several farm buildings, houses or trees, e.g. agricultural area

Terrain category III



Suburbs, industrial zones or areas zoned for economic activities, forests

Terrain category IV



Urban areas, whereas buildings with an average height of more than 15 m are built on at least 15% of the area.

Source: DIN 1055-4:2005-3

3. Installation height

The following table of the ift guideline gives the recommended wind resistance class on the basis of the installation height:

Terrain category	Installation height of the exterior blinds and shutters in an average range of 0-8 m				Installation height of the exterior blinds and shutters in an average range of >8-20 m				Installation height of the exterior blinds and shutters in an average range of >20-100 m			
	Wind load zone				Wind load zone				Wind load zone			
	1	2	3	4	1	2	3	4	1	2	3	4
I	3	4	4	4	4	4	5	5	4	5	5	6
II	3	3	4	4	3	4	4	5	4	5	5	5
III	2	3	3	4	3	3	4	4	4	5	5	5
IV	2	3	3	3	3	3	3	4	4	4	4	5

The minimum class regarding the application recommendations is the wind resistance class 2. This does not mean, that products with the classes 0 and 1 may not be applied.

To ensure the highest possible quality standard, a product of the appropriate wind resistance class is to be recommended.

Operating forces

In accordance with EN 13659 our products meet the requirements of the guidelines for maximum allowable operating forces.



Operability in case of frost

Vertical awnings must not be operated in case of icing. First the units must be freed from snow and ice to make them viable. We do not accept responsibility for damage to the sun protection device, that results from the operation of a frozen unit.

Recommendation: If control devices are used, turn off the automatic control device during winter and check that the unit has been freed from snow and ice before it is operated manually.

Wind Force according to Beaufort (Beaufort Scale)

The English Admiral Sir Francis Beaufort /1774-1857) elaborated the Beaufort scale in 1806.
With the help of this scale it is possible to estimate the wind force on the basis of the effects of the wind. The scale ranges from wind force 0 (still air) to 12 (hurricane).

The positioning and the number of wind warning devices used are decisive for the relevant selection for the wind speed suitable for the object; especially the building geometry and the building location must be considered.

Wind force (degrees acc. to Beaufort)	Description	Average wind speed in a height of 10 m above open country		Dynamic pressure	Effect of the wind in the interior land
		m/s	km/h	[Pa]	
0	still air	**0-0.2**	**<1**	0	Smoke raises vertically
1	slight draught	**0.3-1.5**	**1-5**	0-1	The draught of the smoke shows the wind direction
2	light breeze	**1.6-3.3**	**6-11**	2-6	Wind is noticeable in the face, leaves and vanes are moving
3	gentle breeze, light wind	**3.4-5.4**	**12-19**	7-18	Wind moves thin twigs and stretches pennants
4	moderate breeze, moderate wind	**5.5-7.9**	**20-28**	19-39	Wind moves twigs and thin branches, whirls up dust and loose paper
5	fresh breeze, fresh wind	**8-10.7**	**29-38**	40-72	Smaller deciduous trees start to sway, white crests are formed on lakes
6	strong wind	**10.8-13.8**	**39-49**	73-119	Strong branches sway, it is difficult to hold an umbrella, telegraph cables sough in the wind
7	near gale	**13.9-17.1**	**50-61**	120-183	Resistance felt when walking against the wind, whole trees in motion
8	stormy wind	**17.2-20.7**	**62-74**	184-268	Branches break off from the trees, walking outside is difficult
9	storm	**20.8-24.4**	**75-88**	269-373	Branches break off from trees, houses are damaged slightly (tiles or smoke hatches were lifted from the roof)
10	heavy storm	**24.5-28.4**	**89-102**	374-505	Trees are broken off by the wind, buildings are damaged to a greater extent
11	violent storm	**28.5-32.6**	**103-117**	506-665	Trees are uprooted by the wind, widespread storm damages
12	hurricane	**from 32.7**	**from 118**	666-853	Heavy devastations

Source: ift Rosenheim

Vertical awnings

Wind resistance classes pursuant to EN 13561:2004+A1:2008	Dynamic pressure [Pa]
0	<40
1	40
2	70
3	110
4	170
5	270
6	400

Wind resistance

Wind limit recommendations for textile vertical awnings without side seam guiding

Design	Facade awning Vertical awning		Markisolette (with sloping projection unit)		Drop-arm awning	
	[bft]	[m/s]	[bft]	[m/s]	[bft]	[m/s]
Guide rail directly (standard clearance) on façade	5	8-10				
Cable/rod guiding directly (standard clearance) on façade	4-5	6-8				
Guide rail on façade clearance 30 - 100 cm	4	6	4	6	4	6
Cable/rod guiding on facade Distance 30 - 100 cm	4	6				
Guide rail on polygonal façade	4	6				
Cable/rod guiding on polygonal facade	4	6				
Guide rail in the soffit	5	8-10	5	8-10	5	8-10
Cable/rod guiding in the soffit	4-5	6-8				

Source: Professional Association Roller Shutter, technical guideline TR 106 External blinds and shutters, wind impacts, issue June 2014

Recommendations of operation for side seam guided, textile vertical awnings according to IVRSA

Wind resistance - side seam guided units:

The side seam guidance for textile, vertical front-mounted blinds ensures a higher wind stability.
Due to the guidance via zip fastener directly into the rail, these blinds withstand higher wind speeds than conventional front-mounted blinds or facade awnings.

DIN EN 13561:

The HELLA vertical awnings with side seam guidance are defined according to CE and are in accordance with DIN EN 13561.
Wind resistance: Class 3-6 - in connection with the regulation - VO (EU) 2019/1188

Wind resistance class*	Vertical awnings - side seam guided VM07/SM07/PM07 Weight [m^2]
6	≤ 5
5	> 5-8
4	> 8-12
3	> 12-18

* The values correspond to the permissible load with completely extended curtain.
The installation must be made directly on the ground and result in a connection that is closed all around.

The wind classes according to DIN EN 13561 do not allow to draw conclusions as regards the usability (extending/retracting/in-between positions) with real wind loads. The requirements that must be met to fulfil the performance requirements are based on static loads and do not observe the dynamic effects of recurrent occurring loads (turbulences), which the cover and the frame are exposed to in the field. Therefore the static pressure can not be used to specify the fastening of the awnings to the building.

Also the subfloor/the distance to the facade/the height/the corner situation influence the maximum possible wind speed and are not considered in the standard (DIN EN 1932:2013-09 External blinds and shutters - Resistance to wind loads - Method of testing and performance criteria) although these influencing factors have a significant influence on the wind resistance of the product.

In the following application recommendations the wind speeds are specified in m/s.

The wind speeds used in the following table only apply with closed windows and if there is no corner situation. Also the positioning and the number of wind warning devices used are decisive for the relevant selection for the wind speed suitable for the object; especially the building geometry and the building location must be considered.

We recommend the use of wind warning systems in combination with the appropriate control devices to retract the sun protection devices with predefined wind forces after a set time delay.
The tables below list the wind limit values for side seam guided, textile vertical awnings as defined by the IVRSA (Industrievereinigung Rolladen-Sonnenschutz-Automation e.V.). The unit should be retracted, when the lower limit value is reached.

Horizontal units, arc-shaped units do not meet the application criteria.

Recommendations of operation for side seam guided, textile vertical awnings according to IVRSA

Table applies for side seam guided units (VM07, SM07, PM07)*

Height [mm] \ Width [mm]	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
1000	24	24	24	24	21	21	21	21	21	17	17
1500	24	24	24	21	21	17	17	17	17	17	17
2000	24	24	21	21	17	17	13	13	13	13	13
2500	24	21	21	17	17	13	13	13	13	13	13
3000	24	21	17	17	13	13	13	13	13	13	10
3500	21	17	17	13	13	13	13	13	10	10	10
4000	21	17	13	13	13	13	13	10	10	10	10
4500	21	17	13	13	13	13	10	10	10	10	10
5000	21	17	13	13	13	10	10	10	10	10	10
5500	21	17	13	13	13	10	10	10	10	10	10
6000	21	17	13	13	10	10	10	10	10	10	10

Maximum speed to move the curtain, specified in m/s (full extension and retraction)

Steps				
24	21	17	13	10

The table only applies if the distance from the cover to the glass surface is < 100 mm.

Source: IVRSA (Industrievereinigung Rolladen-Sonnenschutz-Automation e.V.)

* see small box sizes regarding the remark at the end of the page

In the following case the values given in the table can not be increased:

- With soffit installation the tabular value can be increased to the next higher tabular value (e.g. from 10 to 13) (maximum value 24 m/s) up to a maximum width of 3000 mm and a maximum height of 3000 mm.

In the following cases the values given in the table must be redued:

- If the distance between the cover and the glass surface is > 100 mm ≤ 200 mm, the tabular value must be reduced by 2 levels (e.g. from 24 m/s to 17 m/s)
- If the distance between the cover and the glass surface is > 200 mm ≤ 300 mm, the tabular value must be reduced by 3 levels (e.g. from 24 m/s to 13 m/s)

The table can not be used with larger distances and self-supporting units.

Note:

Based on in-house wind tests, HELLA recommends observing the following information in addition to the official recommendations of the IVRSA:

- For the smaller box types Q85, Q100, E100 and H100, the downward movement to max. 11 m/s (~40 km/h) is only possible to a limited extent due to the lower weight of the drop profile. The full functionality of the systems above the limit value is therefore restricted. A wind monitor is recommended to avoid damage to the installation.

Structural-physical parameters

Fire prevention

The TOP FOAM is made of expanded polystyrene (HBCD-free) with a gross density of 30kg/m³. This material is specified in fire protection class B1 acc. to DIN 4102 or E acc. to EN 13501. Depending on the design option, the side of the box facing towards the interior of the room is plastered and therefore classified as non-inflammable.

Noise insulation

No standardized testing methods exist to determine the emissions for manually operated lift tape or crank handle drives (during operation). As a result, it is not possible to provide the designer with specific values with which the designer can determine the immission occurring in the room requiring protection in advance by means of a transfer function.
For support – until a recognised test procedure exists – the IVRSA (= Industrievereinigung Rollladen - Sonnenschutz - Automation = Industrial Association Roller Shutters - Sun Protection - Automation) provides a leaflet for sun protection in connection with sound insulation in above-ground construction. See homepage www.ivrsa.de under “technical documents”. Leaflet: Information to DIN 4109-1:2018 Sound insulation in above-ground construction - Part 1: Minimum requirements.
The airborne sound insulation values shown in the table “Structural parameters” refer exclusively to the pure top-mounted box without any noise emissions, which are caused by operating the box.
Recommendation: Coordination between professional designer and contractor is recommended to determine on a case-by-case basis the measures (e.g. installation-specific boundary conditions) required to keep the entering of emissions into the building as low as possible.
Source: Information to DIN 4109-1:2018 Sound insulation in above-ground construction - Part 1: Minimum requirements (IVRSA = Industrievereinigung Rollladen - Sonnenschutz - Automation = Industrial Association Roller Shutters - Sun Protection - Automation)

Box type	Thermotechnical characteristics					Noise insulation values	
	Box		Installation situation*			Box	
	U_{sb} [W/(m²K)]	f_{Rsi}	Wall structure	Ψ [W/(mK)]	f_{Rsi}	R_w [dB] Curtain top	R_w [dB] Curtain top
TOP FOAM screen protect							
screen protect 260/300	0.38	0.80	Monolithic brickwork, image 250	0.09	0.80	44	42
			Externally insulated brickwork, image 253	0.10	0.80	44	42
screen protect 300/300	0.32	0.79	Monolithic brickwork, image 250	0.09	0.79		
			Externally insulated brickwork, image 253	0.08	0.79		
screen protect 365/300	0.27	0.79	Monolithic brickwork, image 250	0.11	0.80	45	44
			Externally insulated brickwork, image 253	0.07	0.78	45	44
screen protect 425/300	0.26	0.78	Monolithic brickwork, image 250	0.13	0.79		
			Externally insulated brickwork, image 253	0.06	0.79		
screen protect 260/250	0.40	0.80	Monolithic brickwork, image 250	0.10	0.80	43	42
			Externally insulated brickwork, image 253	0.10	0.80	43	42
screen protect 300/250	0.34	0.79	Monolithic brickwork, image 250	0.13	0.80	46	42
			Externally insulated brickwork, image 253	0.09	0.80	46	
screen protect 365/250	0.30	0.79	Monolithic brickwork, image 250	0.15	0.80	45	43
			Externally insulated brickwork, image 253	0.08	0.80	45	43
screen protect 425/250	0.28	0.79	Monolithic brickwork, image 250	0.14	0.80		
			Externally insulated brickwork, image 253	0.09	0.80		
TOP FOAM screen protect .S							
screen protect .S 243/300	0.38	0.80	Core-insulated brickwork, image 256	0.07	0.78		
			Timber construction, image 259	0.11	0.79		
screen protect .S 283/300	0.32	0.79	Core-insulated brickwork, image 256	0.05	0.79		
			Timber construction, image 259	0.10	0.81		
screen protect .S 348/300	0.27	0.79	Core-insulated brickwork, image 256	0.05	0.79		
			Timber construction, image 259	0.09	0.81		
screen protect .S 243/250	0.40	0.80	Core-insulated brickwork, image 256	0.07	0.79		
			Timber construction, image 259	0.10	0.79		
screen protect .S 283/250	0.34	0.79	Core-insulated brickwork, image 256	0.05	0.79		
			Timber construction, image 259	0.10	0.79		
screen protect .S 348/250	0.30	0.79	Core-insulated brickwork, image 256	0.06	0.79		
			Timber construction, image 259	0.09	0.79		

Note:
The test reports are available upon request.

Explanations

R_w Rated sound reduction index

U_{sb} Thermal transfer coefficient

Ψ [in other words: psi] linear thermal transfer coefficient - Example: installation situation in a monolithic outer wall

f_{Rsi} Temperature factor at the most unfavourable position – transition area between window and box

* Installation situation (picture number) as per DIN4108 Bbl2:2019

Standard colors

General

The colors of the brochure “HELLA Color worlds” are available for all extruded profiles.

Notes:

- With anodized units the visible parts made of cast aluminium are powder coated in an anodising look.
- With anodized units there are longer delivery times (delivery time on request or as per order confirmation).
- As described in standard DIN 17611, slight color differences cannot be avoided with anodized parts. These color deviations are attributable to admissible dispersions depending on the material and processing. Under some circumstances this effect may also occur within one order.

Coating quality

We coat the surfaces in facade quality according to the guidelines of the Gütegemeinschaft für Stückgutbeschichtung (= Quality Control Association for the Coating of Building Components; GSB-Premium).
Regarding color shade and brightness our colors may differ from the original colors of the color charts RAL 840-HR and RAL 841-GL due to different production techniques.

Due to weathering, a natural influence on the color and the gloss level will occur within the warranty period, which, because of its very slow and constant process, do not negatively affect the visual appearance and is therefore not a fault of the product.
The compliance with the coating specifications does not ensure the prevention of filiform corrosion at profile and cutting edges, especially in chloride-containing environments like maritime regions or regions near the coast. Especially under the following conditions, filiform corrosion cannot be excluded:

- On the coast or in regions close to the coast, up to approx. 75 kilometres from the coast.
- In special places with aggressive atmospheres (indoor swimming pools, airports, railway stations)
- Near industrial plants with chemical air pollution
- Near exhaust systems or roads with heavy traffic (de-icing salt)

Comparison VSR/NCS/RAL – Colors

Closest RAL color / variations

Color designation	VSR number	NCS-S number	RAL number	Color variation
White	010	NCS-S 0502-B	9003	ΔE = 2.8
Grey	130	NCS-S 3000-N	7038	ΔE = 3.7
Aluminium	140	-	9006	-
Light beige	240	NCS-S 2010-Y30R	-	-
Beige	110	NCS-S 4010-Y50R	-	-
Brown	071	NCS-S 8010-Y50R	8014	ΔE = 2.7
Moss-green	220	NCS-S 7020-B90G	6005	ΔE = 1.0
Azure blue	440	NCS-S 5040-B	5009	ΔE = 3.5
Bronze	780	IPG 5807E77084S30	-	-
Purple red	330	NCS-S 3560-R	3011	ΔE = 2.4
Terracotta	120	NCS-S 3560-Y80R	3013	ΔE = 2.2
Chrome yellow	720	NCS-S 1080-Y20R	1007	ΔE = 2.3
Pure white	901	NCS-S 0502-Y	9010	ΔE = 0.6
Light grey	904	NCS-S 1502-G	7035	ΔE = 1.8
Green-beige	909	-	1000	ΔE = 1.9
Turquoise blue	908	NCS-S 3040-B40G	5018	ΔE = 3.0
Pigeon blue	903	NCS-S 4030-R90B	5014	ΔE = 3.1
Ultramarine blue	906	NCS-S 4350-R74B	5002	accurate

Attention:
RAL colors are no VSR standard colors
Differences in color of ΔE > 0,5 are for most people recognizable as color differences.

Standard colors

Standard colors for powder-coated aluminium parts

Color designation			Surface quality		
			Silk gloss	matt	matt, fine texture
Anthracite-grey	RAL 7016		●	●	●
Normal white	RAL 9016		●	●	●
White-aluminium	RAL 9006		●	●	●
Grey-aluminium	RAL 9007		●	●	●
Sepia brown	RAL 8014		●	●	●
Moss-green	RAL 6005		●	●	●
Pearl white	RAL 1013		●	●	●
Light grey	RAL 7035		●	●	●
Granite grey	RAL 7012		●	●	●
Slate grey	RAL 7015		●	●	●
Graphite grey	RAL 7024		●	●	●
Grey-brown	RAL 8019		●	●	●
Bronze	VSR 0780		●		
Beige	0003		●		
Dark beige	VSR 0110		●		
Purple red	VSR 0330		●		
Clay brown	RAL 8003		●		
Anthracite iron mica	DB 703			●	●
Marrone 04 Metallic	DM 1000				●
Sparkling Iron Effect	DM 1001				●
Jet black	RAL 9005			●	●

Standard colors for powder-coated aluminium parts

Color designation			Surface quality		
			Silk gloss	matt	matt, fine texture
Colors in anodized look (powder-coated):					
Natural colored anodized	C0PB			●	
Bronze anodized	C33PB			●	
Dark bronze anodised	C34PB			●	

Standard colors

Standard colors for light shaft cover

Color designation			Surface quality	
			Anodic	matt fine texture
Natural coloured anodised	C0		●	
Brown with mica effect	DM1000			●
Grey with mica effect	DM1001			●

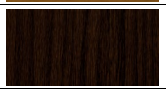
Overview of décors for TOP FOAM attachment system

Color no.	HELLA color designation		HELLA application	Renolit		Hornschuch	
				Color no. (old color no.)	Color designation	Color no.	Color designation
Stock colors							
54	Quartz grey smooth		Renolit	02.11.71.000046.808300 (7039 05-083)	Quartz grey smooth	not available	
92	Anthracite grey		Hornschuch	02.11.71.000041.116700 (7016 05-167)	Anthracite grey	436-5003	tp Anthracite-grey
143	Alux DB703		Hornschuch	not available		436-1014	Alux DB703
Special colors							
11	Mahogany 13		Hornschuch	9.2097.013-116700 (2097 013-167)	Mahogany	436-2085	tp sapeli
13	Walnut		Hornschuch	9.2178.007-116700 (2178 007-167)	Walnut	436-2048	tp staufer oak mocca
16	Bog oak		Renolit	9.2052.089-116700 (2052 089-167)	Oak medium	436-2007	tp montana Oak tobacco
181*	Black brown		Renolit	2.11.81000101.116700 (8518 05-167)	Black brown	436-5071	tp black brown
19	Light oak		Renolit	9.3156003-116700 (3156 003-167)	Rustic oak	not available	
21	Silver-grey		Hornschuch	02.11.71.000047.116700 (7155 05-167)	Silver-grey	436-5049	tp silver-grey
22	Ruby red		Renolit	02.11.31.000013.116700 (3081 05-167)	Dark red	436-5013	tp ruby red
25	Dark oak		Renolit	9.2140006-116700 (2140 006-167)	Bog oak	not available	
26	Oregon 4		Renolit	9.1192.001-116700 (1192 001-167)	Oregon 4	not available	
27	Mountain oak		Renolit	9.2052.090-116700 (2052 090-167)	Mountain oak	426-2005	tp montana Oak natural
28	Oak-maron		Renolit	9.3167.004-116700 (3167 004-167)	Oak dark	426-2046	tp Vermont Oak sepia
29	Office oak		Renolit	9.3167011-116700 (3167 011-167)	Oak natural	not available	
30	Mahogany 21		Hornschuch	9.2065.021-116700 (2065 021-167)	Mahogany	436-2001	tp Cherry mahogany
31	Tobacco oak		Renolit	9.3167002-116700 (3167 002-168)	Light oak	not available	
32	Dark green		Hornschuch	02.11.61.000009.116700 (6125 05-167)	Fir green	436-5021	tp Fir green

* Color no. 181 is the successor décor film to color no. 18. This change became necessary due to a change at the upstream supplier. Color number 18 has expired and is no longer available.

Standard colors

Overview of décors for TOP FOAM attachment system

Color no.	HELLA color designation		HELLA application	Renolit		Hornschuch	
				Color no. (old color no.)	Color designation	Color no.	Color designation
33	Salamander-Douglas fir		Renolit	9.3152.009-116700 (3152 009-167)	Douglas fir	426-2022	tp Aningeria golden brown
34	Winter Douglas fir		Renolit	9.3069037-116700 (3069 037-167)	Winter Douglas fir	not available	
35	Rustic oak		Renolit	9.3149.008-116700 (3149 008-167)	Rustic oak	426-2012	tp Oak sepia
36	Chocolate brown		Renolit	not available		426-5011	tp Chocolate brown
38	Moss green		Renolit	02.11.61.000013-116700 (6005 05-167)	Moss green	426-5014	tp Leaf green
39	Brilliant blue		Renolit	02.11.51.000028-116700 (5007 05-167)	Brilliant blue	425-5026	tp Brilliant blue
40	Chestnut		Renolit	809905-116700 (8099 05-167)	Chestnut brown	425-5025	tp Maron brown
44	Bog oak		Renolit	9.2140005-116700 (2140 005-167)	Oak grey	not available	
45	Golden Oak		Hornschuch	9.2178.001-116700 (2178 001-167)	Golden Oak	436-2036	tp Staufer oak colonial
46	Oregon 3		Renolit	9.2115008-116700 (2115 008-167)	Oregon 3	425-2053	tp Oregon
47	Mountain pine		Hornschuch	9.3069.041-116700 (3069 041-167)	Mountain pine	436-2009	tp Oregon pine natural
51	Black Cherry		Renolit	9.3202.001-116700 (3202 001)	Black Cherry	436-2032	tp Cherry Piedmont
52	Siena Rosso		Renolit	4.0131.005-114800 (49233)	Siena Rosso	not available	
53	Siena Noche		Renolit	4.0131.003-114800 (49237)	Siena Noce	not available	
55	Quartz grey		Renolit	02.11.71.000046.116700 (7039 05-167)	Quartz grey	not available	
67	Montana/Sierra		Renolit	3.0178.001-101100 (49197)	Montana/Sierra	not available	
68	Indian/Nevada		Renolit	3.0178.003-101100 (49198)	Indian/Nevada	not available	
69	Canadian/Nogal T		Renolit	3.0178.002-101100 (49195)	Canadian/Toscana	not available	
89	Cream white		Hornschuch	02.20.11.000001-116700 (1379-05-167)	Cream white	456-5015	tp Beige
93	Steel blue		Renolit	02.11.51.000033.116700 (5150 05-167)	Steel blue	436-5006	tp Steel blue

Color no.	HELLA color designation		HELLA application	Renolit		Hornschuch	
				Color no. (old color no.)	Color designation	Color no.	Color designation
94	Pure white		Hornschuch	02.20.91.000001-116801 (9152-05-168)	White pebbled	456-5053	Old white
130	Birch rose		Hornschuch	not available		436 3031	Birch Rose
131	Basalt grey Sand structure		Hornschuch	not available		436 7048	tp basalt grey SFTN
132	Anthracite grey Sand structure		Hornschuch	not available		436 7003	tp anthracite-grey SFTN
133	Aluminium grey		Hornschuch	not available		436-1001	tp metbrush aluminium
134	Grey Sand structure		Hornschuch	not available		436-7049	tp titanium SFTN
135	Walnut terra		Hornschuch	not available		436-3059	tp walnut terra
136	Walnut amaretto		Hornschuch	not available		436-3058	tp walnut amaretto
140	Basalt grey smooth		Renolit	02.11.71.000039.808300 (7012 05-083)	Basalt grey smooth film	not available	
141	Anthracite-grey smooth		Renolit	02.11.71.000041.808300 (7016 05-083)	Anthracite-grey smooth film	not available	
142	Silver grey smooth		Renolit	02.11.71.000047.808300 (7155 05-083)	Silver-grey smooth film	not available	
144	Slate grey smooth		Renolit	02.11.71.000040.808300 (7015 05-083)	Slate grey smooth	not available	
145	Anthracite-grey smooth 2		Renolit	02.11.71.000041.809700 (7016 05-809700)	Anthracite-grey smooth 2	not available	
150	Basalt grey structure		Renolit	02.11.71.000039.116700 (7012 05-167)	Granite grey	not available	
151	Anthracite-grey ulti-matt		Renolit	02.20.71.000001-504700	Anthracite-grey ulti-matt	not available	
152	Black ulti-matt		Renolit	02.20.01.000002-504700	Black ulti-matt	not available	
153	Anthracite grey Aludec		Hornschuch	not available		470-6003	anthracite-grey mattex
154	DB 703 Aludec		Hornschuch	not available		470-1014	DB 703 mattex
236	Chocolate brown		Renolit	02.11.81.000122.116700 (8875 05-167)	Chocolate brown	not available	

Standard colors

Color assignment for cover caps of drilled holes

Venetian blinds/outdoor blinds, roller shutters, vertical awnings, insect screen



Color Guide rails		Color Cover cap
RAL/ELOX	VSR/Other	
1019, C31, C32	0003 (HELLA specific)	1019
1023		1023
3003, 3011	0330	3003
3004	0120	3004
3020		3020
5002		5002
5014, 5023, 5024		5014
6005	0909	6005
6009		6009
6021		9006
7001		7001
7011, 7012, 7043	SP000007, SP000271	7012
7015	DM02, NCS40	7015
7016	DM03	7016
7035		7035
7038, 7030	C01	7038
7040		7040
8001	6104 (HELLA specific)	8001
8003, 8008	6105 (HELLA specific)	8003
8007		8007
8011	0011 (HELLA specific)	8011
8014, C34		8014
8015		8015
8016		8016
8017, 6768	0010 (HELLA specific)	8017
8022		8022
8025		8025
8028		8028
8077, 8019, C33		8077
9001		9001
9005, 5004, 5008, 5011, 5013, 5020, 6006, 6007, 6008, 6012, 6015, 6022, 7021, 7022, 9004, 9011, 9017	0240, 0110, 0780	9005
9006, C0, 7004	DB704	9006
7039, 9007, 9022	DB701, DB702	9007
9002, 9010	MPU00011, MPU00025	9010
9016, 9003		9016
DB703	SP000148, SP000447	DB703
Colors not listed above		9005

Limit sizes

Front-mounted awning protect

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
Q85	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	5	500	2500	2100
	SOLTIS 92/86/88/96	7	500	2500	2800
	SOLTIS Opaque B92 Antares Blackout (PVC-free, for indoor use only) Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	4	500	2000	2100
	InsectScreen	5	500	2500	2100
Q100 E100 *	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	10	500	3500	3000
	SOLTIS 92/86/88/96	12	500	3500	3500
	SOLTIS Opaque B92 Antares Blackout (PVC-free, for indoor use only) Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	7	500	3000	3000
	InsectScreen	10	500	3500	3000
Q115 E115	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	4000	4000
	SOLTIS 92/86/88/96	12	500	4000	4000
	SOLTIS Opaque B92, SOLTIS Safe B28100 Antares Blackout (PVC-free, for indoor use only) Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	3500
	InsectScreen	12	500	4000	3000
Q130 E130 R130	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	5000	4500
	SOLTIS 92/86/88/96	12	500	5000	4500
	SOLTIS Opaque B92, SOLTIS Safe B28100 Antares Blackout (PVC-free, for indoor use only) Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	4000
	InsectScreen	12	500	5000	3000
Q150	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	18	500	6000	6000
	SOLTIS 92/86/88/96	15	500	5000	6000
	SOLTIS Opaque B92, SOLTIS Safe B28100 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	12 (18 bei SOLTIS Safe B28100)	500	4500	4000
	InsectScreen	18	500	6000	3000

Legend

KG Box size

* Motor only

Notes:

- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)
- Minimum width with crank handle drive 400 mm.

Front-mounted awning cable

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
Q85	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	5	500	2500	2100
	SOLTIS 92/86/88/96 SOLTIS 99 (for indoor use only)	7,5	500	2500	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	5	500	2500	2100
	Acrylic fabric Acrylic Lumera, polyester fabric - no lateral seam (hot cut)	3	500	1250	2700
Q100	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	9	500	3000	3000
	SOLTIS 92/86/88/96 SOLTIS 99 (for indoor use only)	9	500	3000	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	6	500	2500	2500
	Acrylic fabric Acrylic Lumera, polyester fabric - no lateral seam (hot cut)	3,7	500	1250	3000

Legend

KG Box size

Notes:

- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)
- Minimum width with crank handle drive 400 mm.
- VM03 Cable coupled max. 2 units. Q85 max. 5000 mm (max. 12 m^2) and Q100 max. 6000 mm (max. 15 m^2)

Limit sizes

Recess awning protect

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
H100	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	10	500	3500	3000
	SOLTIS 92/86/88/96	12	500	3500	3500
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	7	500	3000	3000
	InsectScreen	10	500	3500	3000
H115	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	3500	4000
	SOLTIS 92/86/88/96	12	500	3500	4000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	3500
	InsectScreen	12	500	3500	3000
H130	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	3500	4500
	SOLTIS 92/86/88/96	12	500	3500	4500
	SOLTIS Opaque B92, SOLTIS Safe B28100 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	4000
	InsectScreen	12	500	3500	3000

Legend

KG Box size

Notes:

- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)
- Minimum width with crank handle drive 400 mm.

Basic awning cable

	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
Exterior use	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl)	9	500	5000	3000
	SOLTIS Veozip	9	500	4000	3000
	SOLTIS 92/86/88/96	9	500	5000	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	6	500	2500	2800
Interior use	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl)	20	500	5000	4000
	SOLTIS Veozip	16	500	4000	4000
	SOLTIS 92/86/88/96	20	500	5000	4000
	SOLTIS 99 Mermet (SATINÉ 5500 LowE)	9	500	3000	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	12	500	4000	3000

Notes:

- Minimum width with motor drive 790 mm (smaller dimensions depending on the box size and type of drive are available upon request).
- Specification of the drive side for external mounting: on the left or right side (seen from the outside).
- Specification of the drive side for external mounting: on the left or right side (seen from the inside)
- Minimum width with crank handle drive 400 mm.
- BM03 coupled max. 2 installations up to 10000 mm width possible with one drive. (max. 18 m^2 outdoor application, max. 40 m^2 indoor application)

Concealed awning protect

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
E100	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	10	500	3500	3000
	SOLTIS 92/86/88/96	12	500	3500	3500
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	7	500	3000	3000
	InsectScreen	10	500	3500	3000
E115	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	3500	4000
	SOLTIS 92/86/88/96	12	500	3500	4000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	3500
	InsectScreen	12	500	3500	3000
E130	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	4000	4000
	SOLTIS 92/86/88/96	12	500	4000	4000
	SOLTIS Opaque B92, SOLTIS Safe B28100 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	4000
	InsectScreen	12	500	4000	3000

Concealed awning cable

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
E115	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	9	500	3000	3000
	SOLTIS 92/86/88/96	9	500	3000	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	6	500	3000	3000

TOP FOAM screen protect

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
250 300	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (Satine 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Comfort and Pearl) SOLTIS Veozip	12	500	3500	3000
	SOLTIS 92/86/88/96	12	500	3500	3500
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	3000

Legend

KG Box size

Notes:

- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)

Guide rails and spacers

Guide rail

Material	Extruded aluminium
Surface	powder-coated
Profile	2-part

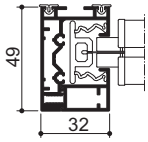
- The inner guide consists of a black co-extruded plastic profile with full-length buffer lips made of foamed material. The zip provided on the cover is inserted into this plastic profile and kept sliding. The lower guide rail end caps are made of powder-coated aluminium sheet and can be used with a diagonal guide rail cut of up to 5°.
- Installation of the guide rail directly to the window frame or laterally in the soffit.
- Optionally, an installation with spacers up to a distance of max. 150 mm is possible with fixed spacers.

Guide rail options

- Single guide rail 32x49
- Soffit rail 32x49
- Single guide rail 32x55
- Soffit rail 32x55
- Single guide rail 44x49
- Deep guide rail 32x97
- Deep guide rail 32x115
- Deep guide rail 32x130

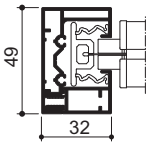
Guide rails

Overview



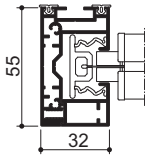
Single guide rail 32x49

Q85/Q100



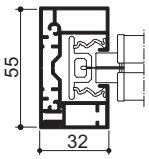
Soffit rail 32x49

Q85/Q100



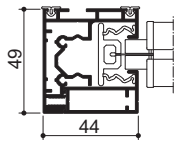
Single guide rail 32x55

E100/115/130,
Q115/130/150,
R130,
H100/115/130



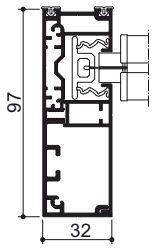
Soffit rail 32x55

E100/115/130,
Q115/130/150,
R130,
H100/115/130



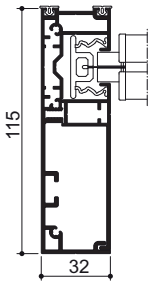
Single guide rail 44x49
Crank drive

Q85/Q100



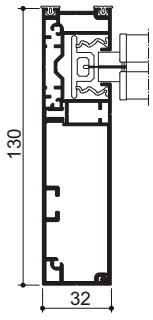
Deep guide rail 32x97

E100, H100



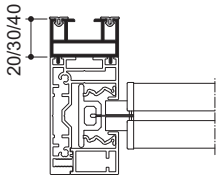
Deep guide rail 32x115

E115, H115



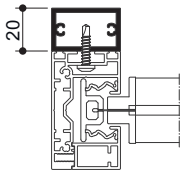
Deep guide rail 32x130

E130, H130

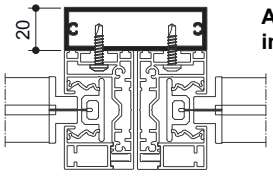


Adapter profile for guide rail spacing

20 mm adapter profile
30 mm adapter profile
40 mm adapter profile



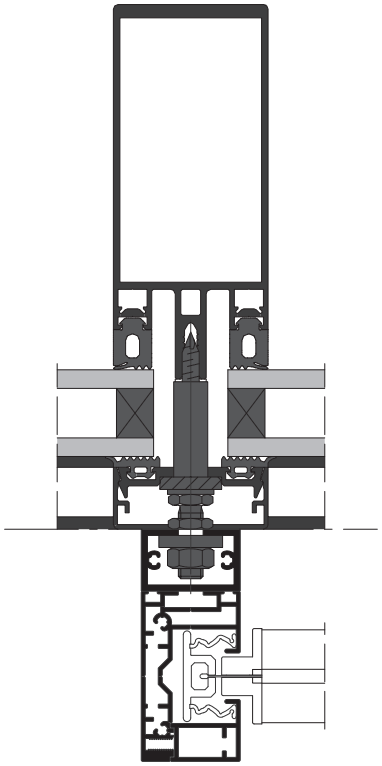
Adapter profile for post and beam installation - single



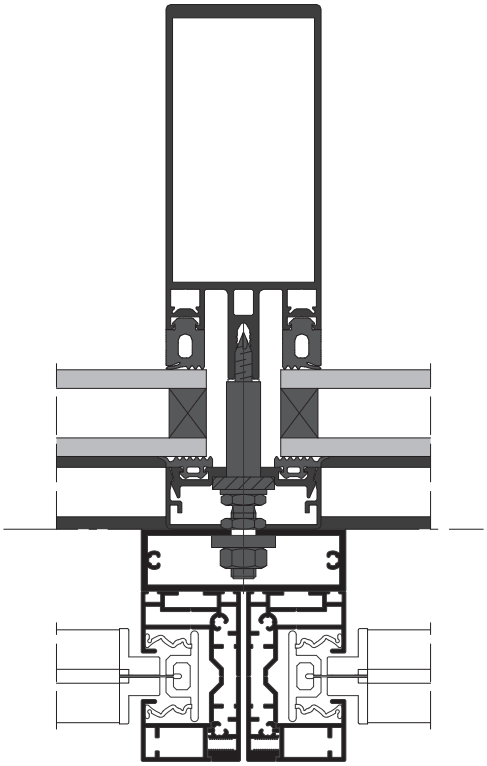
Adapter profile for post and beam installation - double

Installation on post-and-beam façade

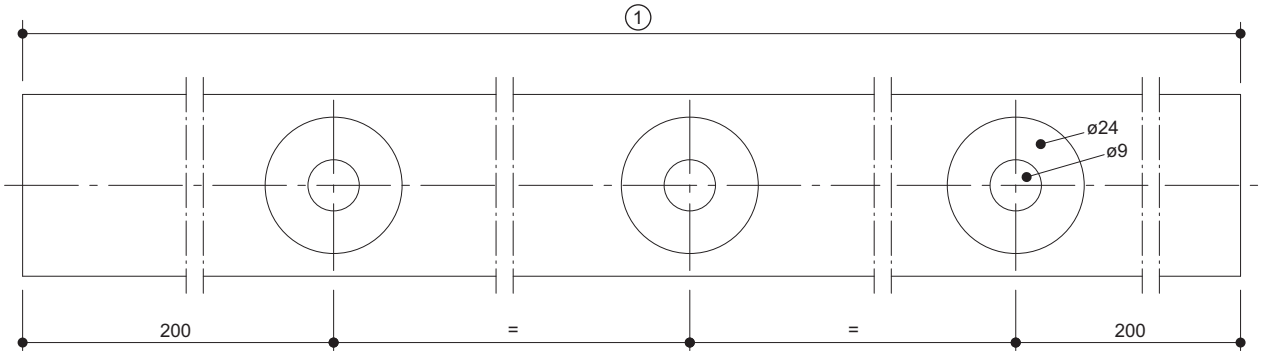
Adapter profile for post and beam installation - single



Adapter profile for post and beam installation - double



Mounting holes



Number of mounting holes

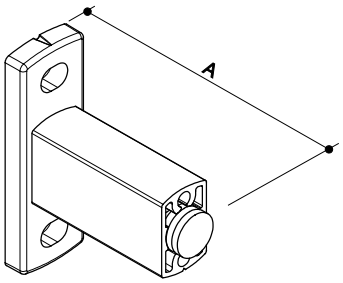
Length of the guide rail [mm]	Number
≤1200	2
1201-2000	4
2001-2900	5
2901-3800	6
3801-4700	7
4701-5600	8
>5600	9

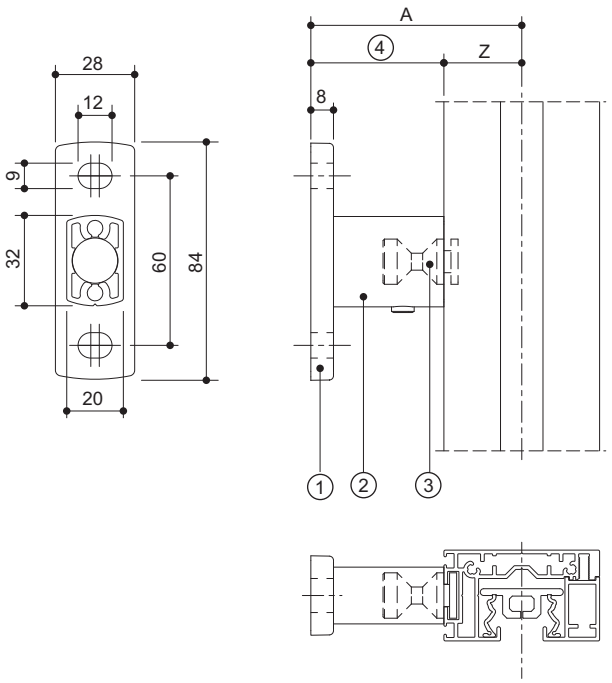
Legend

① Length = length of guide rail (base profile)

Spacers for guide rails

Fixed spacer





Fixed spacer with small base plate

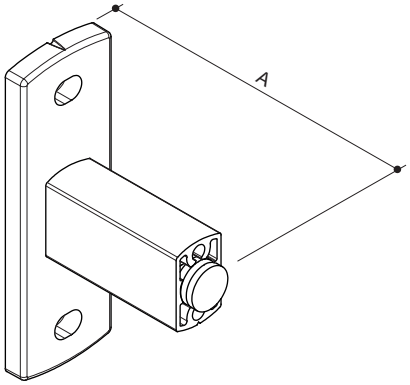
FB2x

Spacer profile made of extruded aluminium; dimensions 32x20 mm.
Base plate made of die-cast aluminium; dimensions 84x28x8 mm.
Fixing of the spacer to the guide rail using a galvanised steel clamping cone.
A noise insulating board at the rear side is optionally available.

Legend

A	Dimension A (mounting surface up to the axis of the guide rail) [mm]
z	Dimension from the spacer up to dimension A
①	Small base plate
②	Distance profile 32
③	Clamping cone
④	Spacer length = A - z

z = 21 mm (for guide rail 32x49 mm/guide rail 44x49 mm)
z = 28 mm (for guide rail 32x55 mm)

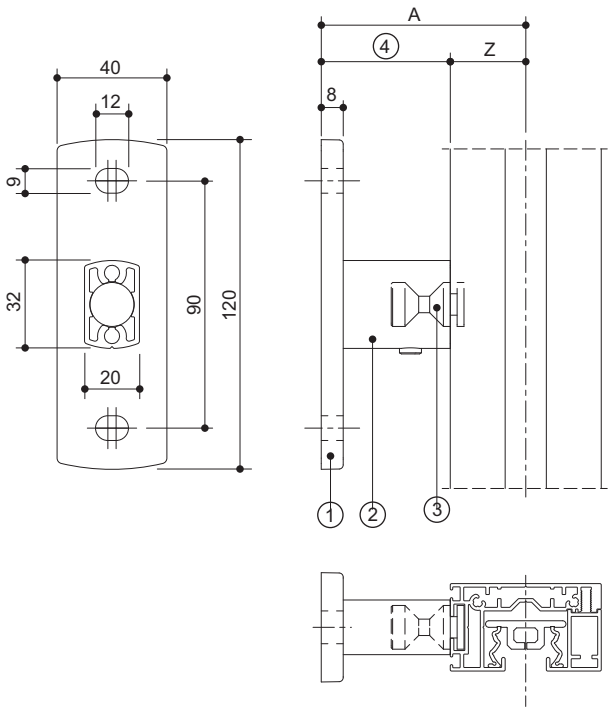


Fixed spacer with large base plate

FB3x

Spacer profile made of extruded aluminium; dimensions 32x20 mm.
Base plate large made of die-cast aluminium; dimensions 120x40x8 mm.
Fixing of the spacer to the guide rail using a galvanised steel clamping cone.

With thermal insulation composite system or pre-assembled M8 threaded bolt.
A noise insulating board at the rear side is optionally available.

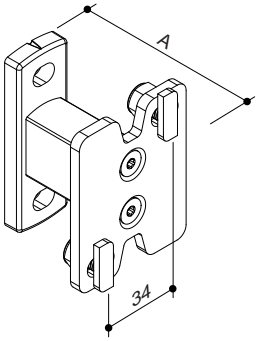


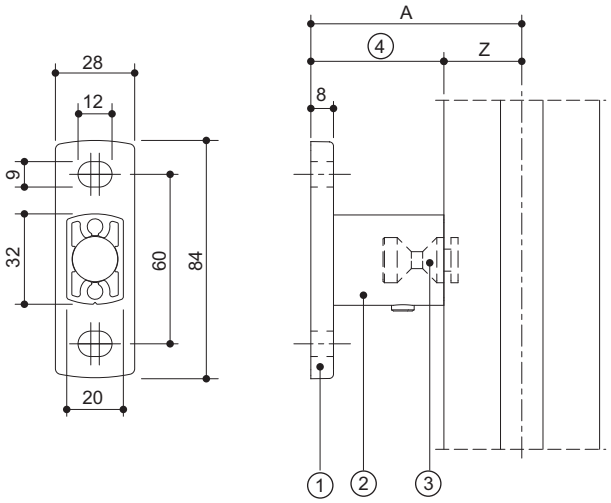
Legend

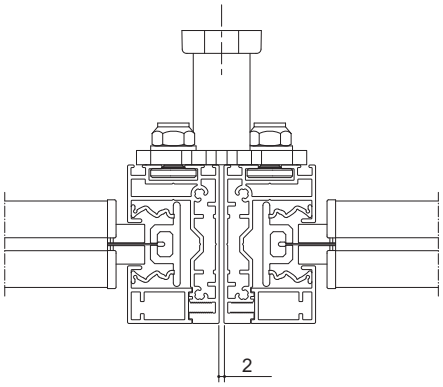
A	Dimension A (mounting surface up to the axis of the guide rail) [mm]
z	Dimension from the spacer up to dimension A
①	Large base plate
②	Distance profile 32
③	Clamping cone
④	Spacer length = A - z

z = 21 mm (for guide rail 32x49 mm/guide rail 44x49 mm)
z = 28 mm (for guide rail 32x55 mm)

Spacers for guide rails







Fixed spacer for combination with small base plate

FK20

34 mm with small base plate
VM07

Legend

A Dimension A (mounting surface up to the axis of the guide rail) [mm]
z Dimension from the spacer up to dimension A
① Small base plate
② Distance profile 32
③ Clamping cone
④ Spacer length = A - z

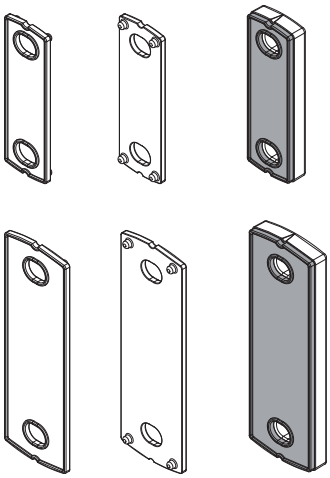
z = 21 mm (for guide rail 32x49 mm/guide rail 44x49 mm)
z = 28 mm (for guide rail 32x55 mm)

Standard dimension A for spacer

Model	Box type	Left roller		Right roller		max. A
		Standard	min. A	Standard	min. A	
VM07	Q85	75	65	70		150
	Q100	75	65	85		150
	E100	75	70	85		150
	Q115 / E115	75	70	100		150
	Q130 / E130	75	70	115		150
	Q150	75	70	135		150
	R130	75	70	-		150

Model	Box type	Left roller		Right roller		max. A
		Standard	min. A	Standard	min. A	
SM07	H100	75	70	85		150
	H115	75	70	100		150
	H130	75	70	115		150

Noise insulating boards for spacers



Noise insulating board

- for small base plate
- for large base plate

Cable guidings

Cable guiding

Material	Polyamide-coated stainless steel wire cable
Color	pearl silver or black
Thickness	ø2.5 mm

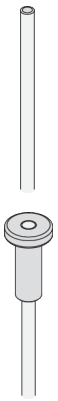
- At the lower end, the wire cable is fixed via strainer clamps or tensioning brackets with clamping screws.
- Cable holders at the bottom are available as an alternative.
- In the upper area, the wire cable is kept under optimal tension via a press-fitted wire cable bushing and a spring integrated in the box.

Strainer clamp

Material	Die-cast aluminium
Surface	powder-coated
Available as:	Central or double tensioning element

optional cable tensioning elements:
- Strainer clamp with threaded fitting M8 (for improved cable clamping)
- Tensioning bracket with small/large base plate
- Tensioning shoe with small base plate
- Threaded fitting M8 - screwed
- Threaded fitting M6 – press-fitted

Cable tensionings



Polyamide-sheathed stainless steel wire cable ø2,5 mm

00620955_PSILB. pearl silver

00620955_SCHW. Black

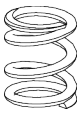
Clamping shell
(press-fitted to the cable)

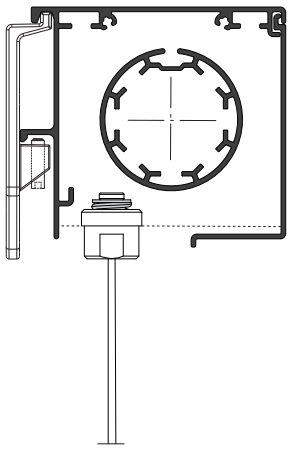
00620943

Note: It is not possible to order a single stainless steel clamping shell; this part is only available in combination with a wire tensioning!

Note:

Systems with cable guiding and M8 threaded fitting are only available in combination with spring tensioning in the top rail.





Hercules spring

00620989

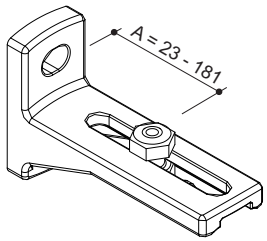
Cable force (per cable)

Pretensioning force:	200 N (with a pre-tension of 5 mm)
Maximum force:	300 N

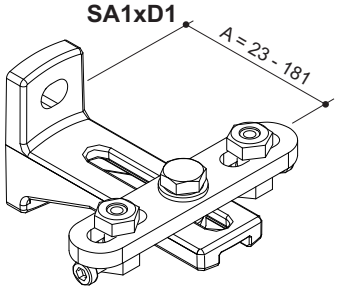
Tensioning elements for cable guidings

Strainer clamp

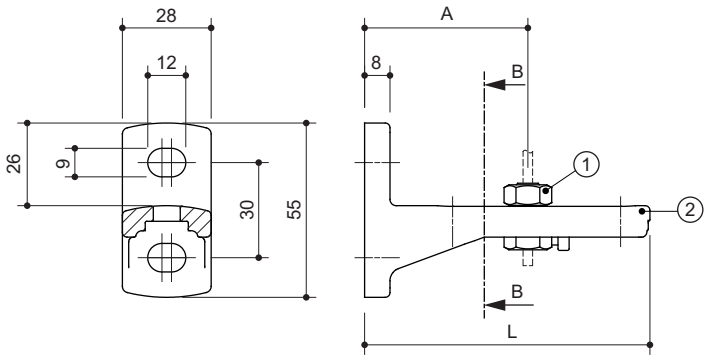
SA1xM1

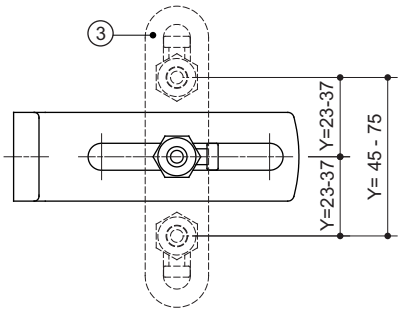


SA1xD1



B-B





Strainer clamp

SA1xx1

Strainer clamp in centre – SA1xM1
Double strainer clamp – SA1xD1

Strainer clamp made of die-cast aluminium; strainer bolt - cable tensioning and transversely mounted board made of aluminium.
A noise insulating board at the rear side is optionally available.

Range of adjustment of the strainer clamp:

Dimension A [mm]	Length of the strainer clamp [mm]
23-40	60
41-77	90
78-122	135
123-181	190

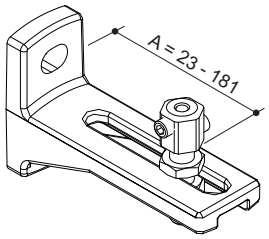
Legend

A Dimension A (mounting surface up to cable axis) [mm]
L Length of the strainer clamp [mm]
Y Dimension Y (distance between cable axis - cable axis) [mm]
① Strainer bolt - cable tensioning
② Strainer clamp
③ Transversely mounted board

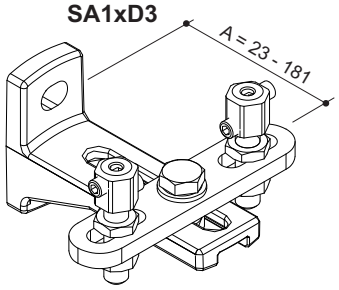
Tensioning elements for cable guidings

Strainer clamp with threaded fitting M8

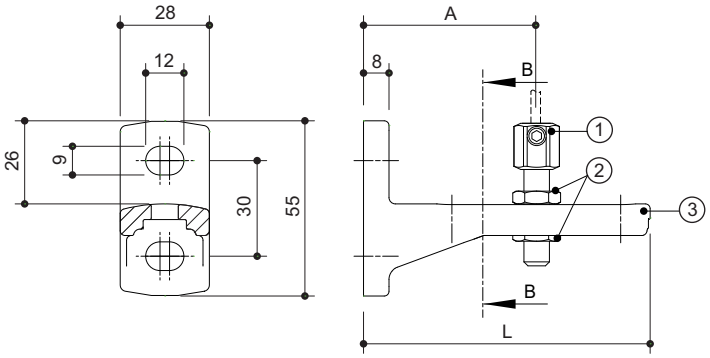
SA1xM3

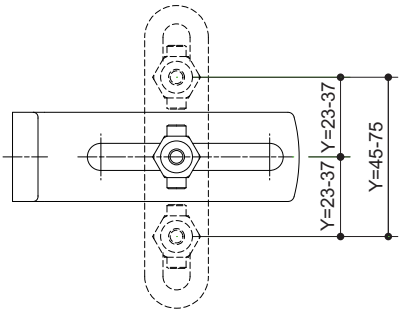


SA1xD3



B-B





Strainer clamp with threaded fitting M8

SA1xx3

Strainer clamp in centre - SA1xM3
Double strainer clamp - SA1xD3

Strainer clamp made of die-cast aluminium; threaded fitting M8 and hexagon nut made of stainless steel; transversely mounted board made of aluminium.
A noise insulating board at the rear side is optionally available.

Range of adjustment of the strainer clamp:

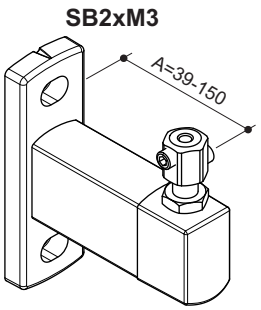
Dimension A [mm]	Length of the strainer clamp [mm]
23-40	60
41-77	90
78-122	135
123-181	190

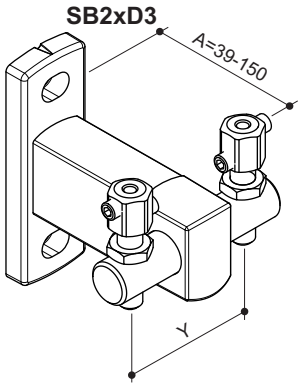
Legend

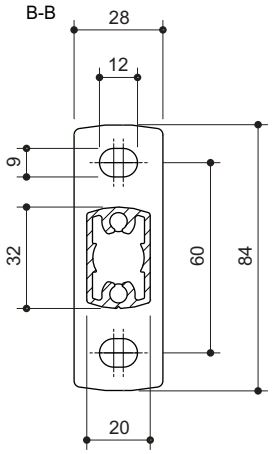
A Dimension A (mounting surface up to cable axis) [mm]
L Length of the strainer clamp [mm]
Y Dimension Y (distance between cable axis - cable axis) [mm]
① Threaded fitting M8
② Hexagon nut
③ Strainer clamp
④ Transversely mounted board

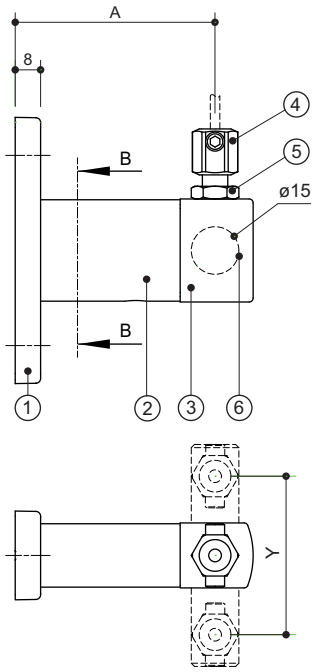
Tensioning brackets with small base plate

small base plate









Tensioning bracket with small base plate

SB2xx3

Tensioning bracket in centre - SB2xM3

Double tensioning bracket - SB2xD3

Spacer profile made of extruded aluminium; dimensions 32x20 mm.
Base plate made of die-cast aluminium; dimensions 84x28x8 mm.
Tensioning device made of die-cast aluminium.
Threaded fitting M8, hexagon nut and cross bolt made of stainless steel.
A noise insulating board at the rear side is optionally available.

Legend

A Dimension A (mounting surface up to cable axis) [mm]

Y Dimension Y (distance between cable axis - cable axis) [mm]

① Small base plate

② Distance profile 32

③ Tensioning device

④ Threaded fitting M8

⑤ Hexagon nut

⑥ Cross bolt

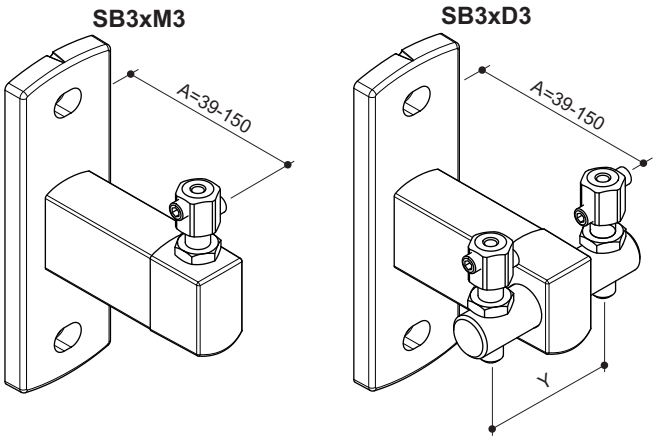
Notes

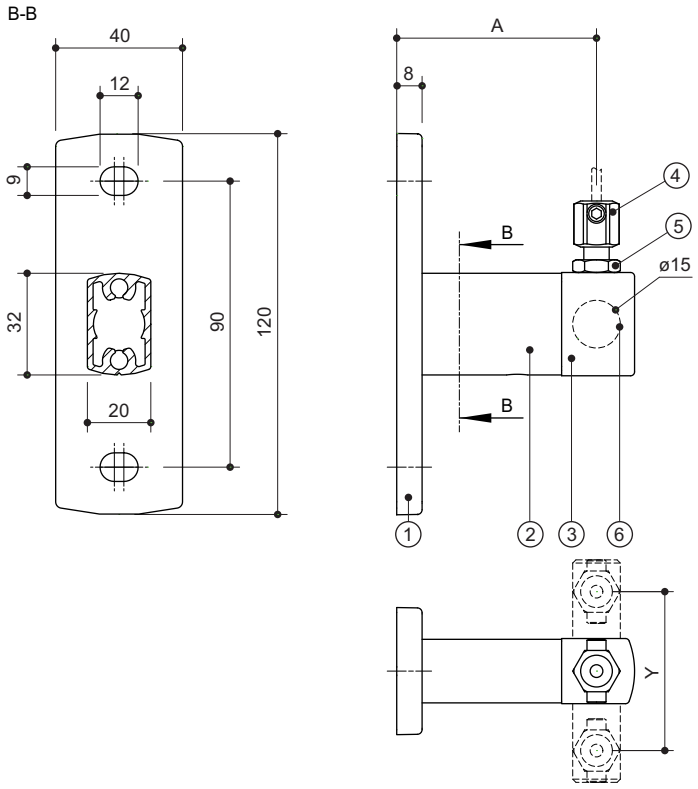
- The minimum dimension A is 39 mm.
- The maximum dimension A is 150 mm.

Y = 50 mm (for VM03 / PM03)
Y = 42 mm (for BM03)

Tensioning elements for cable guidings

Tensioning bracket with large base plate





Tensioning bracket with large base plate

SB3xx3

Tensioning bracket in centre - SB3xM3

Double tensioning bracket - SB3xD3

Spacer profile made of extruded aluminium; dimensions 32x20 mm.
Base plate made of die-cast aluminium; dimensions 120x40x8 mm.
Tensioning device made of die-cast aluminium.
Threaded fitting M8, hexagon nut and cross bolt made of stainless steel.
A noise insulating board at the rear side is optionally available.

Legend

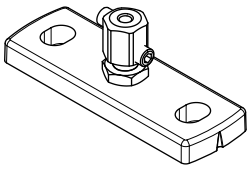
A	Dimension A (mounting surface up to cable axis) [mm]
Y	Dimension Y (distance between cable axis - cable axis) [mm]
①	Large base plate
②	Distance profile 32
③	Tensioning device
④	Threaded fitting M8
⑤	Hexagon nut
⑥	Cross bolt

Notes:

- The minimum dimension A is 39 mm.
- The maximum dimension A is 150 mm.

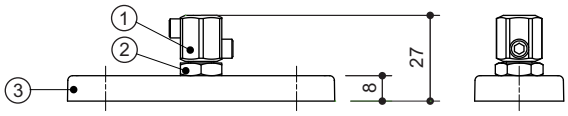
Y = 50 mm (for VM03 / PM03)
Y = 42 mm (for BM03)

Tensioning shoes



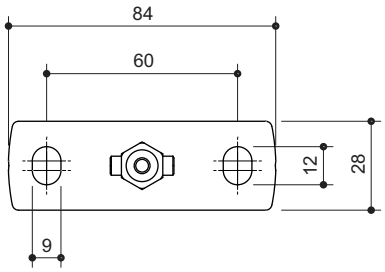
Tensioning shoe with small base plate
SC2xM3

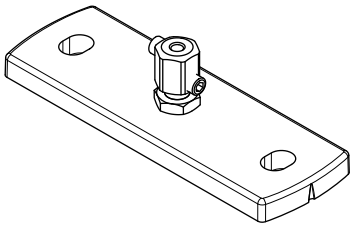
Base plate made of die-cast aluminium; dimensions 84x28x8 mm.
Tensioning shoe made of aluminium.
Threaded fitting M8 and hexagon nut made of stainless steel.
A noise insulating board at the rear side is optionally available.



Legend

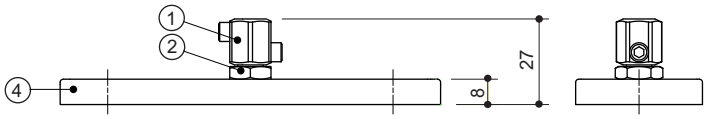
① Threaded fitting M8
② Hexagon nut
③ Small base plate





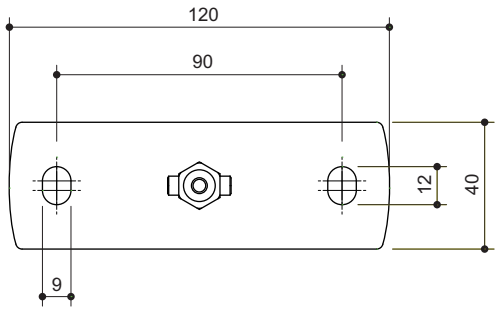
Tensioning shoe with large base plate
SC3xM3

Base plate made of die-cast aluminium; dimensions 120x40x8 mm.
Tensioning shoe made of aluminium.
Threaded fitting M8 and hexagon nut made of stainless steel.
A noise insulating board at the rear side is optionally available.



Legend

① Threaded fitting M8
② Hexagon nut
③ Small base plate
④ Large base plate

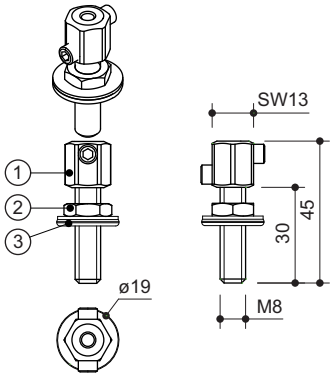


Notes:

- Tensioning shoe with strainer bolt - cable not feasible.

Tensioning elements for cable guidings

Threaded fitting M8 – screwed (tensioning clamped)



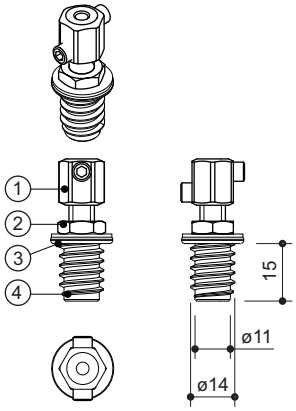
Threaded fitting M8 - screwed

SD00G3

Threaded fitting M8 and hexagon nut made of stainless steel. Sealing washer made of stainless steel with EPDM sealing.

Notes:

- At the top the stainless steel wire cable is press-fitted to the clamping shell made of stainless steel, and at the bottom it is **clamped** with threaded pins in the threaded fitting.
- The minimum screwing-in depth for threaded fitting M8 with steel/aluminium is 12 mm.



Clamping screw with threaded fitting M8 - screwed

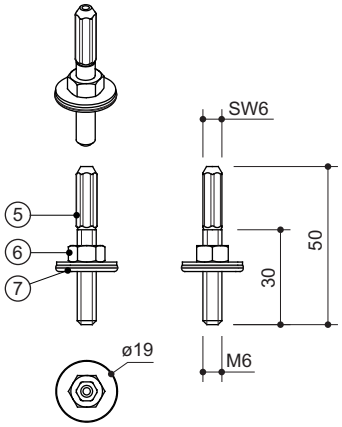
SE00G3

Threaded fitting M8, screwed insert M8 and hexagon nut made of stainless steel. Sealing washer made of stainless steel with EPDM sealing.

Legend

① Threaded fitting M8
② Hexagon nut
③ Sealing disc ø8x19
④ Screwed insert M8

Threaded fitting M6 – press-fitted (tensioning fix press-fitted)



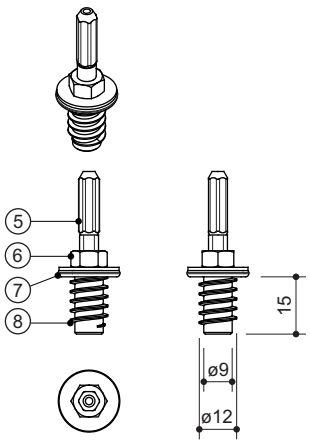
Threaded fitting M6 – press-fitted

SD00G4

Threaded fitting M6 and hexagon nut made of stainless steel. Sealing washer made of stainless steel with EPDM sealing.

Notes:

- At the bottom the stainless steel wire is **fix press-fitted** to the threaded fitting and at the top to the clamping shell made of stainless steel. Please specify the type of stainless steel wire and the length L with your order!
- The minimum screwing-in depth for threaded fitting M6 with steel/aluminium is 9 mm.
- Threaded fitting M6 only available in combination with double spring clip.



Clamping screw with threaded fitting M6 - press-fitted

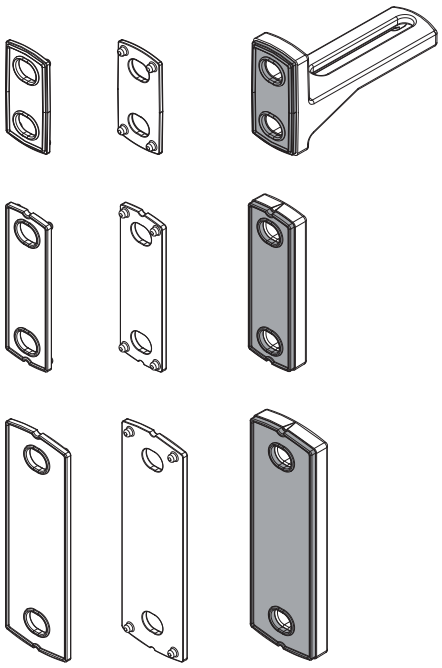
SE00G4

Threaded fitting M6, screwed insert M6 and hexagon nut made of stainless steel. Sealing washer made of stainless steel with EPDM sealing.

Legend

① Threaded fitting M8
② Hexagon nut M8
③ Sealing disc ø8x19
④ Screwed insert M8
⑤ Threaded fitting M6
⑥ Hexagon nut M6
⑦ Sealing disc ø6x19
⑧ Screwed insert M6

Noise insulating boards for cable guidings

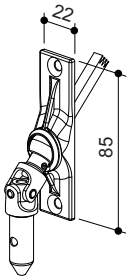


Noise insulating board

- for strainer clamp
- for small base plate
- for large base plate

Crank handle drive

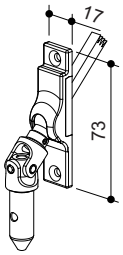
Front-mounted awning protect/front-mounted awning cable - box size 85/100



Spherical bearing inclined by 45° up to 50°
Universal joint made of steel, shiny nickel-plated, with base plate 22x85 mm made of zinc die-cast, shiny nickel-plated

with square 6x6x500 mm
(standard)

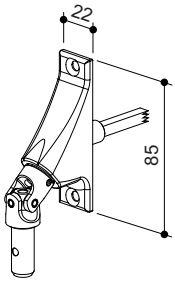
11150214



Spherical bearing inclined by 45° up to 55°
Universal joint made of steel, shiny nickel-plated, with base plate 17x73 mm made of zinc die-cast, shiny nickel-plated

with square 6x6x500 mm

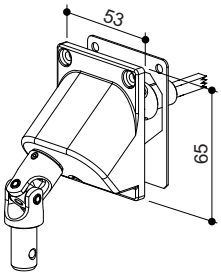
11150210



Spherical bearing horizontal -5° up to 46°
Universal joint made of steel, shiny nickel-plated, with base plate 22x85 mm made of zinc die-cast, shiny nickel-plated

with square 6x6x500 mm

11150215



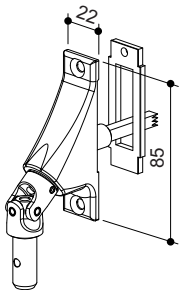
Spherical bearing horizontal 0° up to 46°
Universal joint made of aluminium, anodised with base plate 53x65 mm made of plastic in white color with sealing made of cellular rubber and 22.5 mm lateral offset

with square 6x6x343 mm

11150217 left
11150218 right

The design on the left side is shown. The design on the right side is mirror-reversed.

Front-mounted awning protect/front-mounted awning cable - box size 85/100



Spherical bearing horizontal 0° up to 46°

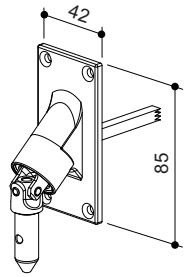
Universal joint made of aluminium, anodised with base plate 22x85 mm made of zinc die-cast, shiny nickel-plated, with sealing made of cellular rubber

with square 6x6x500 mm

Note:

This bearing meets the requirements for air permeability of the Federal Association for Roller Shutter & Sun Protection Devices registered association 53177 Bonn (the testing has been carried out in accordance with DIN EN 12114).

11150010

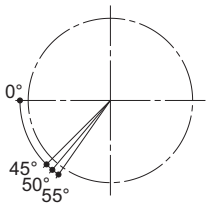


Spherical plain bearing horizontal/inclined by from -5° to 46°

11150011

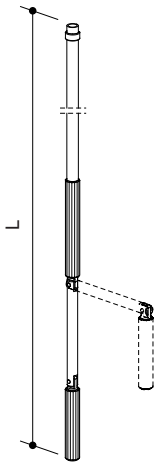
Universal joint made of steel, bright nickel-plated, with base plate 42x85 mm made of die-cast zinc, in color white
(standard for wall installation)

with square 6x6x500 mm



Operative range of the bearing

Crank handle drive



Crank rod standard

Art. no.	Crank handle length L [mm]
11200011	800
11200001	1000
11200002	1100
11200003	1200
11200012	1300
11200004	1400
11200005	1500
11200006	1600
11200007	1800
11200008	2800
	Special length

Note:

Special lengths are made to measure according to order.



Crank rod removable with crank handle funnel

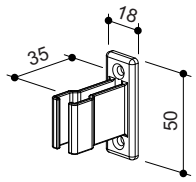
The crank rod is equipped with a crank handle funnel. This is hooked into the spherical bearing that is provided with a dowel pin.



Design without crank rod

for operation with crank handle funnel

Front-mounted awning protect/front-mounted awning cable - box size 85/100

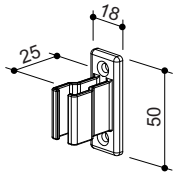


Crank holder 35 mm

11300203

Made of plastic in colors white and grey

Standard for 90° spherical plain bearing

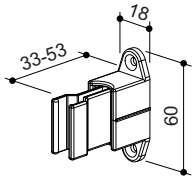


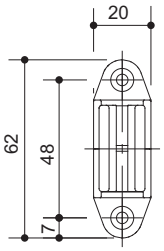
Crank holder 25 mm

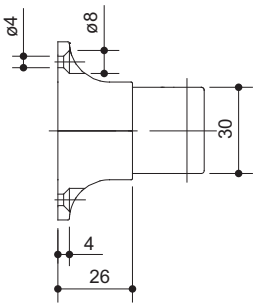
11300003

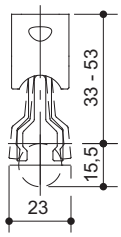
Made of plastic in colors white and grey

Standard for 45° spherical plain bearing









Crank holder adjustable

adjustable in 6 stages from 33 mm to 53 mm. Made of plastic, colors: white and grey

11300004

Motor drive

Motor drive		Identification acquisition	Motor type	End position detection	Obstacle detection (DOWN)	Blocking detection (UP)/ freeze protection	Blind length compensation	Strain relief movement upwards
Wired - short motor								
elero	RolTop K	MEK	mechatronic	auto/manual		●	●	
Wired								
elero	SunTop S	ME	mechatronic	auto/manual		●		
	SunTop M	ME	mechatronic	auto/manual		●		●
	SunTop/Z RH	ME	mechatronic	auto/manual	●	●		●
Somfy	LS Mars 40	MS	mechanical	manual				
	HiPro LT 50	MS	mechanical	manual				
	MAESTRIA WT 50 RH	MS	mechatronic	auto/manual	●	●	●	●
Wired - SMI								
Becker	SMI	-	mechatronic	auto/manual	●	●	●	●
Wireless								
HELLA	ONYX 40 C12	FX0	mechatronic	auto/manual		●	●	●
	ONYX 50 C12	FX0	mechatronic	auto/manual		●	●	●
	ONYX 40 C18	FX0	mechatronic	auto/manual	●	●	●	●
	ONYX 50 C18	FX0	mechatronic	auto/manual	●	●	●	●
Somfy	Sunea 40 io	FIO0	mechatronic	auto/manual		●	●	●
	Sunea 50 io	FIO0	mechatronic	auto/manual		●	●	●
	MAESTRIA+ 50 RH	FIO0	mechatronic	auto/manual	●	●	●	●
Solar package								
Somfy	Sunea io solar	FIOSOL	mechatronic	auto/manual	●	●	●	●
Second emergency route - emergency crank handle								
Somfy	LT50 NHK	N	mechanical	manual				

End position detection

End position adjustment can be manual, automatic, or automatic with a manual option (auto/manual), depending on the motor used.

Obstacle detection (DOWN direction)

Sensitive obstacle detection in the DOWN direction for optimal protection of system and obstacle.

Blocking detection (UP direction)/freeze protection

Blocking detection with multiple testing (for example frozen solid in end position).

Blind length compensation

The drive detects and adjusts for stretching of the blind automatically.

Strain relief movement upwards

The drive reduces wear on the cover by relieving the strain in the upper contact end position. This function can optionally be enabled/disabled.

Notes:

- **Suitable for parallel connection:** With electric motors, it is possible to connect several motors in parallel to one switch. The number of motors depends on the switches used. This is not recommended by HELLA.

Motor drive		VM07		VM03		SM07/PM07	BM03/PM03	TOP FOAM screen protect
		Q85	100/115/130/150	Q85	Q100			
Wired - short motor								
elero	RolTop K	+	+	+	+	+		+
Wired								
elero	SunTop S	●		●				
	SunTop M	+			●		●	
	SunTop/Z RH		●			●		●
Somfy	LS Mars 40	+		+				
	HiPro LT 50				+		+	
	MAESTRIA WT 50 RH		+			+		+
Wired - SMI								
Becker	SMI		+					
Wireless								
HELLA	ONYX 40 C12			●				
	ONYX 50 C12				●		●	
	ONYX 40 C18	●						
	ONYX 50 C18		●			●		●
Somfy	Sunea 40 io	+		+				
	Sunea 50 io				+		+	
	MAESTRIA+ 50 RH		+			+		+
Solar package								
Somfy	Sunea io solar		+*					
Second emergency route - emergency crank handle								
Somfy	LT50 NHK		+**					

Legend

● Standard

\+ Optional

* Only possible with box size E100/115/130

** Only possible with box size Q130

Motor drive

Motor drive		Torque [Nm]	Speed [rpm]	Capacity [Watt]	Motor head	Minimum width [mm] (BM03 only)
Wired - short motor						
elero	RolTop K	10	14	140	Round Head	580
Wired						
elero	SunTop S	8	17	168	Round Head	720
	SunTop M	7	23	140	Sternkopf	665 (580)
	SunTop M	12	23	200	Sternkopf	665 (580)
	SunTop M	20	14	200	Sternkopf	665 (580)
	SunTop/Z RH	7	23	140	Round Head	650
	SunTop/Z RH	12	23	200	Round Head	650
	SunTop/Z RH	18	23	200	Round Head	650
Somfy	LS Mars 40	9	16	100	Round Head	660
	HiPro LT 50	6	17	90	Sternkopf	710 (620)
	HiPro LT 50	15	17	140	Sternkopf	710 (620)
	MAESTRIA WT 50 RH	6	17	90	Round Head	730
	MAESTRIA WT 50 RH	10	17	120	Round Head	730
	MAESTRIA WT 50 RH	15	17	140	Round Head	730
	MAESTRIA WT 50 RH	25	17	170	Round Head	730
Wired - SMI						
Becker	SMI	8	17	100	Round Head	690
	SMI	12	17	110	Round Head	690
	SMI	20	17	160	Round Head	690
Wireless						
HELLA	ONYX 40 C12	9	16	110	Round Head	680
	ONYX 50 C12	18	17	100	Sternkopf	690 (605)
	ONYX 50 C12	12	17	110	Sternkopf	690 (605)
	ONYX 50 C12	20	17	160	Sternkopf	690 (605)
	ONYX 40 C18	9	16	110	Round Head	660
	ONYX 50 C18	18	17	100	Round Head	700
	ONYX 50 C18	12	17	110	Round Head	700
	ONYX 50 C18	20	17	160	Round Head	700
Somfy	Sunea 40 io	9	16	110	Round Head	685
	Sunea 50 io	6	17	90	Sternkopf	810 (720)
	Sunea 50 io	15	17	140	Sternkopf	810 (720)
	MAESTRIA+ 50 RH	10	17	120-170	Round Head	730
	MAESTRIA+ 50 RH	15	17	120-170	Round Head	730
	MAESTRIA+ 50 RH	25	17	120-170	Round Head	730
Solar package						
Somfy	Sunea io solar	6	18	26	Round Head	700
Second emergency route - emergency crank handle						
Somfy	LT50 NHK	8	17	90	Round Head	790
	LT50 NHK	20	17	160	Round Head	790

Cable designs

Cable length	Cable end	VM07 Q85	VM07 100/115/130/150	VM03 Q85	VM03 Q100	SM07/PM07	BM03/PM03	TOP FOAM screen protect
3m	without Hirschmann connector	●	●	●	●	●	●	●
5m	without Hirschmann connector							+
10m	without Hirschmann connector							+
0.5m	with Hirschmann connector	+	+	+	+	+	+	
Special length	with/without Hirschmann connector	+	+	+	+	+	+	
Cable extension*	without Hirschmann connector		+ (E)			+	+	

Note: With drives LS Mars 40 and Sunea io 40, the cable is wired permanently to the drive (not plug-in).

Attention: The open end of the cable extension is led out of the box and serves as direct connection to the façade, without additional plug-in connection. A subsequent inspection can then only be carried out through the inspection opening when the system is mounted!

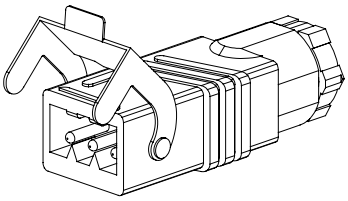
Legend

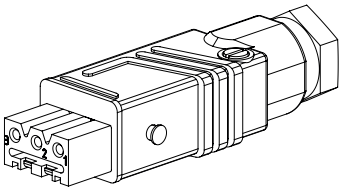
● Standard

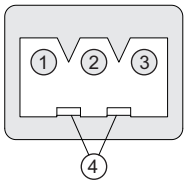
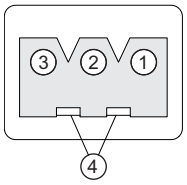
\+ Optional

* if there is a supply to the Hirschmann plug connection in the box

Hirschmann plug connection





Descriptions	Hirschmann connector STAS 3 with retaining clip Art. no. 05350019	Hirschmann cable socket STAK 3 Art. no. 05350020
Installation	on the motor side	on the facade side
Terminal connections without radio (view from the front)		
	① blue (N) ② black (Phase) ③ brown (Phase) ④ yellow/green (PE)	① blue (N) ② black (Phase) ③ brown (Phase) ④ yellow/green (PE)

A 3-pin supply cable is sufficient (connection 3 not used) for wireless Systems.
Only 3 wires are required for wireless drives. See color charts.
In case of 4-wire cable extensions, the brown wire need not be connected or can be cut off/insulated.

Motor drive

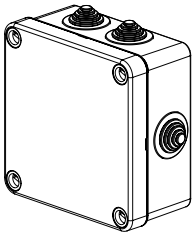
Emergency-up control device + UPS

In combination with an uninterrupted power supply (UPS), the emergency-up control device enables the use of **wired 230V drives** for the so-called **second escape route** (approval by local fire safety officers required).

The control device raises the sun protection product automatically in the following situations:

- Power outage of the 230V network
- Alarm signal from the connected push-button detector, the smoke alarm system or the fire alarm system
- UPS supply outage

Emergency-up control device



UPS unit



Technical data

Emergency-up control device		
Power supply	230 VAC/50 Hz	230 VAC/50 Hz
IP rating	IP 44	IP 44
Installation type	Installation on the wall	Installation on the wall
Dimensions	113x113x58 mm (LxWxH)	113x113x58 mm (LxWxH)
Weight	430 g	430 g
Art. no.	05200036	05200039 (for SMI drives)

The UPS to be used is selected according to the drive type used, the number of motors and the local circumstances.

UPS units available to order

- 42160004 Powerwalker VFD 600 for mechanical drives
- 42160005 Powerwalker VI 600 CSW for electronic drives

The HELLA emergency-up control device functions with a HELLA shading system with standard motor. The module is supplied via the 230 VAC power supply system. The control device is delivered as surface-mounted component. During the normal operation the HELLA emergency-up control device works like a traditional control device. The operation is possible via an additional venetian blind switch or an external motor control device. The emergency-up modus that can be actuated via an emergency push-button or a fire alarm system (BMZ), raises the blind to the upper end position. Afterwards the operating capability of the unit is restored without leaving any mechanical damage to the blind.

HELLA emergency-up control devices consist of an emergency-up control device and an uninterruptible power supply (USV). In the case of an electrical power outage, the power supply of the control device is taken over by the interruptible power supply (USV). After the re-establishment of the power supply, the HELLA emergency-up control device is fully operational again (without manual input).

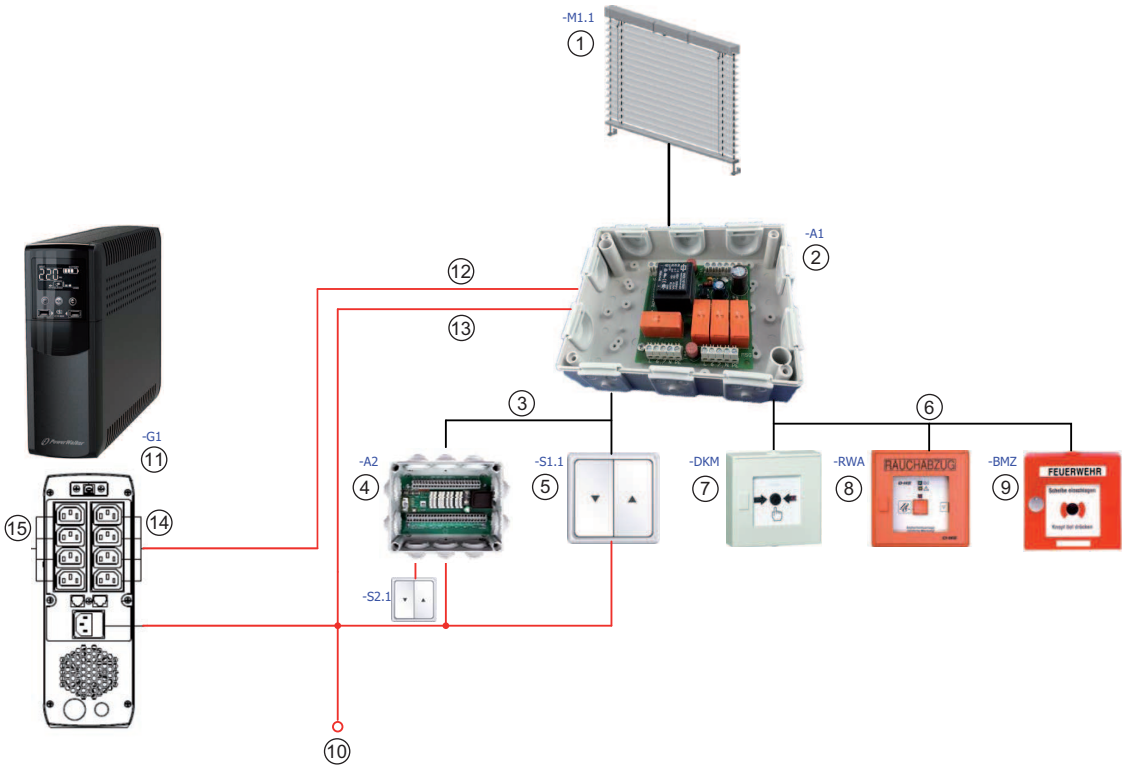
The ongoing sliding of the contacts of smoke alarm device, fire-alarm system or manual fire alarm is not allowed.
Only one HELLA emergency-up module per interruptible power supply (USV) is allowed.

Note:
Take care, that the electrical installation company connects the switch suitable for the correct type of operation. This may spare you a subsequent reconnection of the connecting cable for the direction of rotation at the coupling!

Please note:
<u>This applies for Bussystems e.g. KNX / EIB:</u>
When operating with motor drives, it has to be observed, that between the Up and Down command a minimum transit time of 500 ms is set. Usually, however, only 30-80 ms are intended. The contacts of limit switches of the motor drives can fail (fuse) if the settings are faulty.
In such cases, the company HELLA refuses to honour the guarantee.

Electrical connections must be exclusively carried out by a concessionary electrical installation company and at the expense of the client!

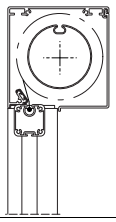
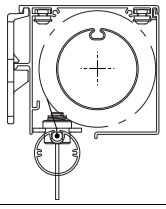
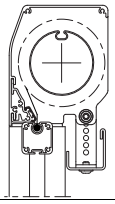
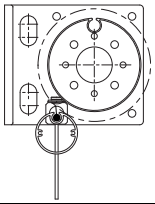
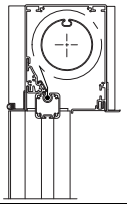
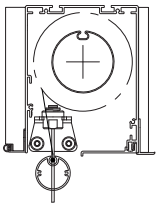
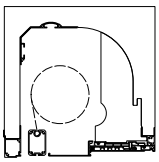
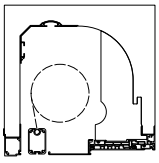
Example for a switching with an emergency-up control device and a UPS unit.



Legend

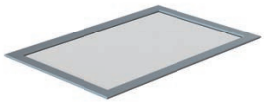
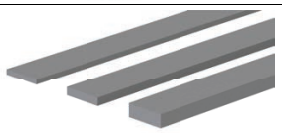
① Motor
② Emergency-up control device
③ Never connect motor control device and local switch in parallel.
④ Motor control device
⑤ Local switch up/down
⑥ Always connect the manual fire alarm, smoke alarm device and fire-alarm system in series.
⑦ Manual fire alarm
⑧ Smoke alarm device
⑨ Fire alarm control panel
⑩ Power supply 230VAC/50Hz
⑪ Uninterruptible power supply (USV)
⑫ UPS net
⑬ Power supply
⑭ UPS- supported connection possibilities (concerns only PowerWalker VI 600 CSW)
⑮ Overvoltage-protected connection possibilities Without UPS! (concerns only PowerWalker VI 600 CSW)

Model overview

Type designation	Image	Model
front-mounted awning protect		VM07
Front-mounted awning cable		VM03
recess awning protect		SM07
Recess awning cable		BM03
Concealed awning protect		PM07
Concealed awning cable		PM03
TOP FOAM screen protect		TOPFOAM
TOP FOAM screen protect		TOPFOAM

Type designation	Image	Model
ISR – clamping frame		ISR
ISD E – swing frame single		ISDE
ISD Z – swing frame with casing		ISDZ
ISP Z – pendulum frame		ISPZ
IST E – sliding frame simple		ISTE
IST Z – sliding frame with casing		ISTZ

Model overview

Type designation	Image	Model
ISPL18 – pleated insect screen		ISPL18
IS13 – roller insect screen		IS13
ISLA – light shaft cover		ISLA
AUFD – doubling profile		AUFD
Fall protection		ABST

COVERS

Cover



A wide range of cover types is available. The covers are available in different shapes and colors and impress with their attractive design as well as their functionality.

Printing on covers

If covers are to be printed, please request our format template catalogue (or download it from the download area of the HELLA website).

The catalogue shows the data format we require for each use case. Cost-effective printing of your cover is possible only if exactly these data formats are used. If the data are not available in the requested form, or if the data must be processed or if a rework is required, we will invoice this service on an hourly basis.

Note:
Printing on cloths only possible up to max. width 3 m.

Cover types

	Openness coefficient	Fire protection class acc. to DIN 4102-1	Front-mounted/recess/concealed awnings		
			protect VM07/SM07/PM07	Cable VM03/BM03/PM03	TOP FOAM screen protect
Glass fibre fabric					
G-Screen	5%	B1	●	●	●
Serge 600	5%	B1	●	●	●
SATINÉ 5500	4%	B1	●	●	●
Serge 600	1%	B1	●	●	●
NATTÉ 4503	3%	B1	●	●	●
SOLTIS Safe B28100	0%	A2	●*		
SATINÉ 5500 LowE (for indoor use only)	3%	B1	●	●	●
Polyester- PVC-coated					
SOLTIS 86	14%	B1	●	●	●
SOLTIS 88	8%	B1	●	●	●
SOLTIS 92	3%	B1	●	●	●
SOLTIS 96	4%	B1	●	●	●
SOLTIS Veozip	5%	B1	●	●	●
SOLTIS 99 (for indoor use only)	3%	B1	●	●	
Polyester fabric - free of PVC					
Twilight Comfort	4%		●	●	●
Twilight Pearl	3%	B1	●	●	●
Twilight Elements	0%		●	●	
Polyester	0%		●	●	●
RECYCLED POLYESTER	0%		●	●	●
Acrylic fabric					
Acrylic	0%		●	●	●
Blackout fabric					
Antares Blackout (PVC-free)	0%	B1	● (VM07 only)		
SOLTIS Opaque B92	0%	B1			
Serge 600 lunar	0%	B1	●	●	●
SATINÉ 21154	0%	B1	●	●	●
Insect screen fabric (protect)					
InsectScreen	45%		● (VM07 only)		

Legend

* VM07: from KG 115
SM07/PM07: from KG 130

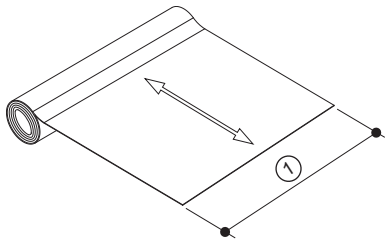
Vertical awnings

Cover manufacture

	Type of finishing		Fabric direction			Lateral seam		Cover connection	
			Transverse with/without seam	Longitudinal with seam	Longitudinal without seam	not SSG	SSG	Roller tube	Front rail
Glass fibre screen	**welding**	**o**	**o**	-	Width dependent	Without	spot-welded	Clip keder	Hemstitch
Acrylic standard, Lumera	**sewing**	**o**	**o** (SSG)	o (not SSG)	Width dependent	sewed	sewed	Clip keder	Hemstitch
	glueing	**+**				glued	glued		
Polyester shiny	**sewing**	**-**							
	glueing	**o**	**o** (SSG)	o (not SSG)	Width dependent	glued	glued	Clip keder	Hemstitch
Polyester PVC-coated	**welding**	**o**	**o**	-	Width dependent	Without	spot-welded	Clip keder	Hemstitch
Polyester PVC free (Twilight)	**sewing**	**o**	**o** (SSG)	o (not SSG)	-	sewed	sewed	Clip keder	Hemstitch
	welding	**-**							

Legend

SSG side seam guided
o Standard
\+ Optional without surcharge
\- not possible
① Roll width

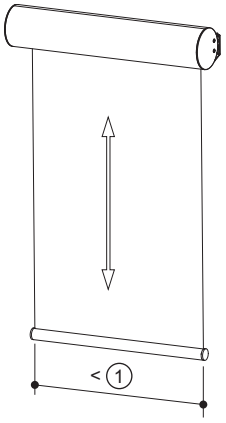


Things to know about the cover

Fabric direction

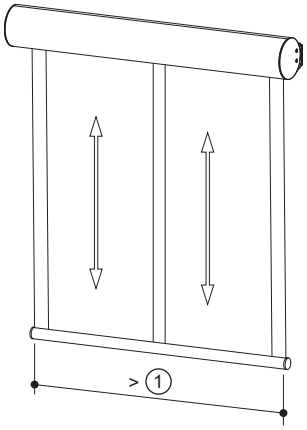
Longitudinal finishing
without seam:

Cover width < roll width



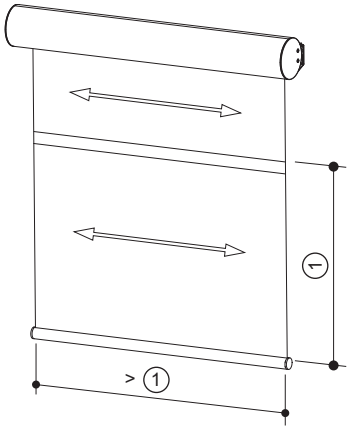
Longitudinal finishing
with seam and side hem:

Cover width > roll width



Transverse finishing
with/without seam, without side hem:

Cover width > roll width



Lateral seam

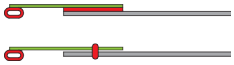
sewed



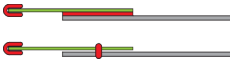
glued

UltraSeam

side seam guided (asymmetrical)

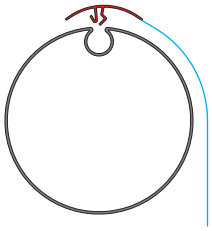


side seam guided (symmetrical)

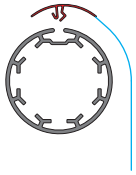


Cover connection roller tube

Clip keder



Clip keder
(Art. No. 15100008)



Clip keder
(Art. No. 15100008)

Cover connection front rail

Hemstitch



Keder PVC rod
ø5.3 mm white
(Art. No. 14700008)

Hemstitch



Keder PVC pipe
ø4.2 mm black
(Art. No. 14700009)

With SOLTIS:

Keder PVC rod
ø5.3 mm white
(Art. No. 14700008)

Things to know about the cover

Appearance of the awning covers

Wave or crease formation in the marginal area of the guide rails are construction related with zipper-guided covers and cannot be avoided as cover and zipper lie on top of each other and cover different paths during winding.
As a result of this, the cover is folded several times over the circumference on the edge during winding. This can be observed as a "wave" or even a "kink" upon unwinding.

This increasingly occurs with SOLTIS covers or rigid covers.

This is state of the art, which is why the directive for the evaluation of ready-made awning covers (version 01/2018) applies (see chapter "Evaluation of product features").



Appearance of SOLTIS Safe B28100

The tough fire resistance requirements represent a great challenge for the SOLTIS Safe B28100 product and limit the feasible optical appeal for a perfect result.

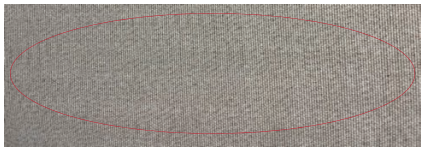
Thread/weaving process:
The manufacture of glass fibres (thread) requires the use of size, which does not initially become visible in the weaving process.

Coating:
The relationship between the coating agent and the visual appearance of the SOLTIS Safe B28100 product is closely linked to the fire safety regulations, which leaves us almost no scope for intervention relative to PVC products.

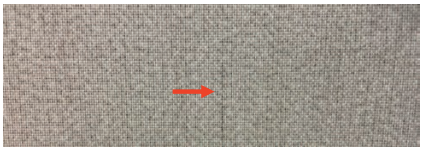
Thermal drying:
The drying process results in the size used in the manufacture of glass fibres becoming visible. This effect is more pronounced with bright and brilliant colors than with darker colors. The mottled weave pattern becomes visible to a variable degree.

Visual examples of the state of the art:

Mottled weave pattern



Differences in the relative amount of size



Bright stripes



Cover types

Glass fibre fabric

HELLA:

G-Screen

Material: Glass fibre fabric, PVC coated
Thickness of the material: 0.73mm
Basis weight: approx. 515 g/m²
Openness coefficient: 5%
Light fastness: min. 7-8
Cover can be labelled: yes (upon request)
Flammability: DIN 4102-1 B1 (additional classifications see collection)
Fabric width*: 2000/2500/2900/3200 millimetres

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)

Copaco:

Serge 600 (5 %)

Material: Glass fibre fabric, PVC coated
Thickness of the material: 0.74mm
Basis weight: approx. 525 g/m²
Openness coefficient: 5%
Light fastness: min. 7-8
Cover webs can be glued: no
Cover to be labelled: suitable to only a limited extent (please contact us)
Flammability: DIN 4102-1 B1 (additional classifications see collection)
Fabric width*: 1600/1900/2200/2500/2700/3200/3500 mm

ATTENTION! From a certain size upwards transverse seams can exist. (production related)
* ... not available for all colors!

Serge 600 (1 %)

Material: Glass fibre fabric, PVC coated
Thickness of the material: 0.80mm
Basis weight: approx. 620 g/m²
Openness coefficient: 1%
Light fastness: min. 7-8
Cover webs can be glued: no
Cover to be labelled: suitable to only a limited extent (please contact us)
Flammability: DIN 4102-1 B1 (additional classifications see collection)
Fabric width*: 2700mm

ATTENTION! From a certain size upwards transverse seams can exist. (production related)
* ... not available for all colors!

Mermet:

SATINÉ 5500

Material: Glass fibre fabric, PVC coated
Thickness of the material: 0.75mm
Basis weight: approx. 520 g/m²
Openness coefficient: 4%
Light fastness: min. 7
Cover webs can be glued: no
Cover can be labelled: yes
Flammability DIN 4102-1 B1 (additional classifications see collection)
Fabric width*: 2000/2500/2850/3200 millimeters

ATTENTION! From a certain size upwards transverse seams can exist. (production related)
* ... not available for all colors!

NATTÉ 4503

Material: Glass fibre fabric, PVC coated
Thickness of the material: 053 mm
Basis weight: approx. 560 g/m²
Openness coefficient: 3%
Light fastness: min. 7
Cover webs can be glued: no
Cover can be labelled: yes
Flammability DIN 4102-1 B1 (additional classifications see collection)
Fabric width: 2500, 3200 mm

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)

SATINÉ 5500 LowE (for indoor use only)

Material: Glass fibre fabric, PVC coated
Thickness of the material: 0.65mm
Basis weight: approx. 520 g/m²
Openness coefficient: 3%
Cover webs can be glued: no
Cover to be labelled: no
Flammability DIN 4102-1 B1 (additional classifications see collection)
Fabric width: 2400mm

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)

Serge Ferrari:

SOLTIS Safe B28100

Material: Glass fibre fabric (DIN 60001) coated
Thickness of the material: 0.30 mm
Basis weight: approx. 410 g/m²
Openness: approximately 0%
Cover webs weldable: yes
Lettering possible on cover: on request
Flammability: A2/DIN 4102-1
Fabric width: 2500 mm

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)

Cover types

Polyester- PVC-coated

Serge Ferrari:

SOLTIS 92

Material: polyester, PVC-coated
Thickness of the material: 045 mm
Basis weight: approx. 420 g/m²
Openness coefficient: 3%
Cover webs weldable: yes
Cover to be labelled: yes (surcharge!)
Flammability: Austrian Standard (ÖNORM) B-3800-1 B1 DIN 4102-1 B1
Cover width*: 1770/2670 mm

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)
* ... not available for all colors!

SOLTIS 88

Material: Backing fabric Polyester, PVC-coated
Thickness of the material: 045 mm
Basis weight: approx. 360 g/m²
Openness coefficient: 8%
Cover webs can be glued: no
Cover to be labelled: yes (surcharge!)
Flammability: DIN 4102-1 B1 (additional classifications see collection)
Fabric width*: 1770/2670 mm

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)
* ... not available for all colors!

SOLTIS 86

Material: polyester, PVC-coated
Thickness of the material: 0.43mm
Basis weight: approx. 380 g/m²
Openness coefficient: 14%
Cover webs weldable: yes
Cover to be labelled: yes (surcharge!)
Flammability: DIN 4102-1 B1 (additional classifications see collection)
Cover width*: 1770/2670 mm

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)
* ... not available for all colors!

SOLTIS 96

Material: polyester, PVC-coated
Thickness of the material: 045 mm
Basis weight: 400 g/m²
Openness coefficient: 4%
Cover webs weldable: yes
Cover to be labelled: yes (surcharge!)
Cover width: 2670mm

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)

SOLTIS Veozip

Material: polyester, PVC-coated
Thickness of the material: 0.90mm
Basis weight: approx. 600 g/m²
Opening factor: ca. 5%
Cover webs weldable: yes
Cover to be labelled: yes (surcharge)
Flammability: M1 (see collection for other classifications), B1/DIN 4102-1, Euro class B-x2,d0
Fabric width: 2900/3200 mm

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)

SOLTIS 99 (for indoor use only)

Material: Backing fabric Polyester, PVC-coated
Thickness of the material: 0.32mm
Basis weight: approx. 290 g/m²
Openness coefficient 3%
Cover webs can be glued: no
Cover to be labelled: yes (surcharge!)
Flammability: DIN 4102-1 B1 (additional classifications see collection)
Fabric width*: 1770/2670 mm

ATTENTION! From a certain size upwards transverse seams can exist. (production related)
* ... not available for all colors!

Polyester - free of PVC

SATTLER:

Twilight Comfort	
Material: Polyester fabric, free of PVC	**Cover webs can be glued:** no
Thickness of the material: 055 mm	**Cover to be labelled:** no
Basis weight: approx. 235 g/m²	**Flammability:** No manufacturer's data
Light fastness: min. 6-7	**Fabric width:** 3000mm
ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)	

Twilight 297 PEARL	
Material: Polyester fabric, free of PVC	**Cover webs can be glued:** no
Thickness of the material: 050 mm	**Cover to be labelled:** no
Basis weight: approx. 330 g/m²	**Flammability:** DIN 4102-1 B1 (additional classifications see collection)
Light fastness min. 6-7	**Fabric width*:** 1800/2600 mm
ATTENTION! From a certain size upwards transverse seams can exist. (production related) * ... not available for all colors!	

Polyester

Parà:

Polyester (Norm 370 XL, Starlight)	
Material: Polyester	**Water resistance:** approx. 300 mm WS
Thickness of the material: 0.44mm	**Water proofing:** mark 100
Basis weight: approx. 300 g/m²	**Cover webs can be glued:** yes (Standard)
Light fastness: min. 7	**Cover to be labelled:** no
	Cover width: 1200mm

RECYCELD Polyester (TEMPOTEST STARLIGHT blue)	
Material: 85% RECYCELD PET / 15% PET	**Water resistance:** approx. 380 mm WS
Thickness of the material: 0.44mm	**Water proofing:** mark 100
Basis weight: approx. 290 g/m²	**Cover webs can be glued:** yes (Standard)
Light fastness: min. 7	**Cover to be labelled:** no
	Cover width: 1200mm

Insect protection fabric - protect

Phifer:

InsectScreen	
Material: vinyl-coated polyester fabric	**Opening factor:** ca. 45 %
Thickness of the material: 0.60 mm	**Fabric width:** up to 3500 mm
Basis weight: 230 g/m²	**Color:** black

Cover types

Blackout fabric (Blackout)

Mermet:

SATINÉ 21154	
Material: Glass fibre fabric, PVC coated	**Cover webs can be glued:** no
Thickness of the material: 0.75mm	**Cover can be labelled:** yes
Basis weight: approx. 710 g/m²	**Flammability** NF P 92-503 – M1 (additional classifications see collection)
Light fastness: min. 8	**Fabric width:** 2100mm
ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)	

Serge Ferrari:

SOLTIS Opaque B92	
Material: Backing fabric Polyester, PVC-coated	**Cover webs can be glued:** no
Thickness of the material: 0.60mm	**Cover to be labelled:** yes (surcharge!)
Basis weight: approx. 650 g/m²	**Flammability:** DIN 4102 B1 (additional classifications see collection)
	Fabric width: 1700mm
ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)	

Copaco:

Serge 600 lunar	
Material: Glass fibre fabric, PVC coated	**Cover webs can be glued:** no
Thickness of the material: 0.73mm	**Cover to be labelled:** no
Basis weight: approx. 678 g/m²	**Flammability** NF P 92-503 – M1 (additional classifications see collection)
Light fastness: min. 7	**Fabric width:** 2100mm
ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)	

Van Clewe:

Antares Blackout (PVC-free)	
Material: Polyester (100 % PES) PVC-free	**Cover webs can be glued:** no
Thickness of the material: 050 mm	**Cover to be labelled:** no
Basis weight: approx. 420 g/m²	**Flammability** DIN 4102: B1 / NF P 92-503-5507: M1
Light fastness: min. 6-7	**Fabric width:** 3000mm
Fabric is suitable for treatment with disinfectant, see cleaning instructions.	

Acrylic

Acrylic fabric (standard 320, standard 30A, standard 364, Urban Design)

Material: Acrylic fibre	**Water resistance:** approx. 350 mm WS
Thickness of the material: 053 mm	**Water proofing:** mark 100
Basis weight: approx. 285 g/m²	**Cover webs can be glued:** yes
Light fastness: min. 7	**Cover to be labelled:** yes (surcharge!)
	Fabric width: 1200mm

Acrylic Lumera

Material: Acrylic fabric (CBA)	**Water resistance:** approx. 460 mm WS
Thickness of the material: 053 mm	**Water proofing:** mark 100
Basis weight: approx. 290 g/m²	**Cover webs can be glued:** yes
Light fastness: min. 7	**Cover to be labelled:** yes (surcharge!)
	Fabric width: 1200mm

Twilight Elements

Material: Acrylic fabric SDA, PVC-free	**Cover webs can be glued:** yes
Thickness of the material: 0.60 mm	**Cover to be labelled:** yes (additional charge)
Basis weight: approx. 290 g/m²	**Fire performance:** no fire protection rating
Light fastness min. 7	**Fabric width:** 2400/2500 mm
Openness coefficient: approx. 0%	

ATTENTION! From a certain size upwards transverse seams can exist. (due to manufacturing)

Comment:

The stated prices are subject to technical clarification concerning the feasibility (box size, limit sizes) and necessities of transverse seams!

Colors as per current, applicable collection.
Longer delivery times must be considered depending on the color and the cover width!

Legend

WS	Water column
B1	Of low flammability

	Controls for accessories	Technology	Additional charges/price reductions/unit prices	Fall protection	Insect screens	**Covers**

Subject to modifications – Date of issue March/2026

WINDOW AND FACADE

Window and facade






Front-mounted awnings consist of extruded boxes, which are mounted in front of small windows or on large façades. As a rule, they are mounted directly or with spacers with side-lined cloths and are therefore particularly suitable for wind-exposed locations. Alternatively, the awnings are also available equipped with cable guides.

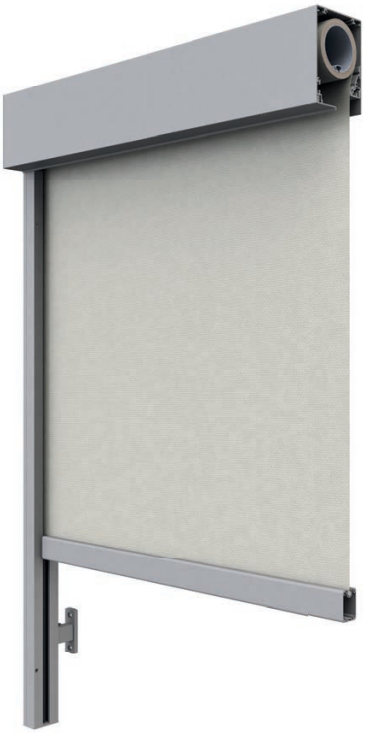


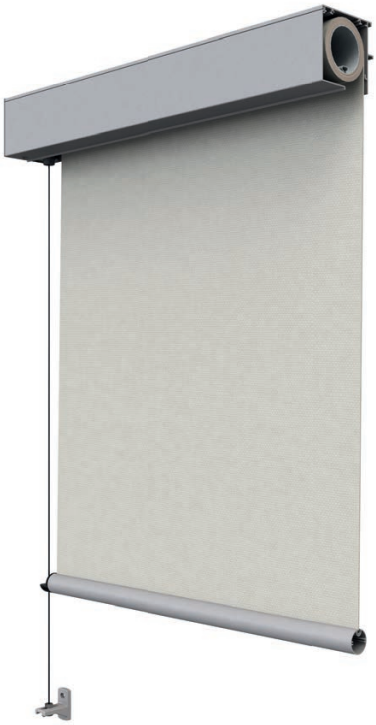
Supplementary equipment options include insect screens or, for floor-to-ceiling window elements, fall protection with glass, grids or bars.

Overview

Front-mounted awnings

Front-mounted awnings consist of extruded boxes that are mounted in front of small windows or on large façades. As a rule, they are mounted with spacers with side-guided cloths and are therefore particularly suitable for wind-exposed locations. Alternatively, the awnings are also available with cable guides.





Front-mounted awning protect

This variant uses a two-piece extruded box. It is possible to fix the guide rails directly or with the help of spacers. The side seam guided covers are especially suitable for wind-exposed locations.

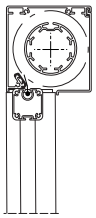
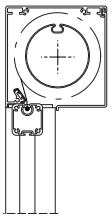
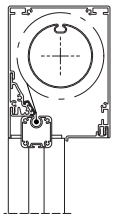
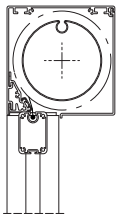
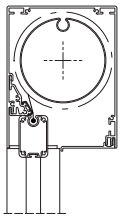
- Self-supporting, simple assembly
- Square box (Q85, Q100, Q115, Q130, Q150)
- Rectangular box (E100, E115, E130)
- Round box (R130)

Front-mounted awning cable guided

With particularly small box, this design can be easily installed in any window soffit with box brackets. The spring integrated in the box keeps the cables under tension at all times.

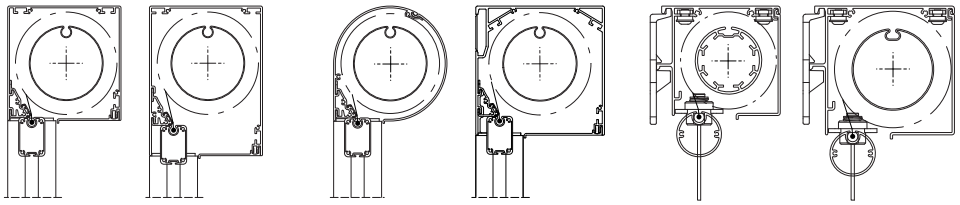
- Easy mounting with variable box beam
- Square box (Q85,Q100)
- Up to 3 m wide and 3 m high
- Spring bracing concealed and integrated in the box

Type overview

	protect front-mounted awning				
Models according to box form and size	Q85	Q100	E100	Q115	E115
					
Max. width [mm]*					
Single unit	2500	3500	3500	4000	4000
Linked	-	-	-	-	-
Max. height [mm]*					
	2800	3500	3500	4000	4000
Max. surface [m²]*					
Single unit	7	12	12	12	12
Linked	-	-	-	-	-
Drive system					
Crank handle	+	+	-	-	-
Motor	o	o	o	o	o
Motor cable 3 m without plug	o	o	o	o	o
Motor cable 0.5 m with plug	+	+	+	+	+
Installation					
Spaced apart from façade	+	+	+	+	+
No spacing (direct installation)	o	o	o	o	o
Guide rails					
Single guide rail 44x49 (crank handle drive)	o	o	-	-	-
Single guide rail 32x49	o	o	-	-	-
Single guide rail 32x55	-	-	o	o	o
Guide rail 32x97	-	-	+	-	-
Guide rail 32x115	-	-	-	-	+
Guide rail 32x130	-	-	-	-	-
Tensioning elements					
Strainer clamp	-	-	-	-	-
Tensioning bracket	-	-	-	-	-
Tensioning shoe (floor)	-	-	-	-	-
Box					
Inspection opening	at the front	at the front	at the bottom	at the front	at the bottom
Box lengthening	+	+	+	+	+
Mitre	+	+	+	+	+
Rear insulation of the box	-	-	+	-	+

Legend

o Standard design
\+ optional - in some cases for a surcharge
\- not possible
* Limit sizes depend on the fabric type (see limit size tables)

	protect front-mounted awning				Front-mounted awning cable	
Models according to box form and size	Q130	E130	R130	Q150	Q85	Q100
						
Max. width [mm]*						
Single unit	5000	5000	5000	6000	2500	3000
Linked	-	-	-		5000	6000
Max. height [mm]*						
	4500	4500	4500	6000	3000	3000
Max. surface [m^2]*						
Single unit	12	12	12	18	7.5	9
Linked	-	-	-		12	15
Drive system						
Crank handle	-	-	-	-	+	+
Motor	o	o	o	o	o	o
Motor cable 3 m without plug	o	o	+	o	o	o
Motor cable 0.5 m with plug	+	+	+	+	+	+
Installation						
Spaced apart from façade	+	+	+	+	o	o
No spacing (direct installation)	o	o	o	o	-	-
Guide rails						
Single guide rail 44x49 (crank handle drive)	-	-	-	-	-	-
Single guide rail 32x49	-	-	-	-	-	-
Single guide rail 32x55	o	o	o	o	-	-
Guide rail 32x97	-	-	-	-	-	-
Guide rail 32x115	-	-	-	-	-	-
Guide rail 32x130	-	+	-	-	-	-
Tensioning elements						
Strainer clamp	-	-	-	-	o	o
Tensioning bracket	-	-	-	-	+	+
Tensioning shoe (floor)	-	-	-	-	+	+
Box						
Inspection opening	at the bottom	at the bottom	at the front	at the bottom	at the front	at the front
Box lengthening	+	+	+	+	+	+
Mitre	+	+	+	+	+	+
Rear insulation of the box	+	+	-	-	-	-

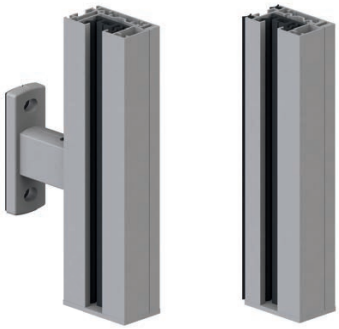
Legend

o Standard design
\+ optional - in some cases for a surcharge
\- not possible
* Limit sizes depend on the fabric type (see limit size tables)

Front-mounted awning protect

Front-mounted awning protect with side seam guiding





- It is possible to fix the guide rails directly or with the help of spacers.
- The side seam guided covers are especially suitable for wind-exposed locations.
- Keder damper effective over the entire height of the guide rail.



- Integrated cover unwinding profile with plastic cover for perfect cover entry into the guide rail.

Limit sizes

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
Q85	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	5	500	2500	2100
	SOLTIS 92/86/88/96	7	500	2500	2800
	SOLTIS Opaque B92 Antares Blackout (PVC-free, for indoor use only) Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	4	500	2000	2100
	InsectScreen	5	500	2500	2100
Q100 E100 *	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	10	500	3500	3000
	SOLTIS 92/86/88/96	12	500	3500	3500
	SOLTIS Opaque B92 Antares Blackout (PVC-free, for indoor use only) Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	7	500	3000	3000
	InsectScreen	10	500	3500	3000
Q115 E115	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	4000	4000
	SOLTIS 92/86/88/96	12	500	4000	4000
	SOLTIS Opaque B92, SOLTIS Safe B28100 Antares Blackout (PVC-free, for indoor use only) Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	3500
	InsectScreen	12	500	4000	3000

Legend

KG Box size

* Motor only

Limit size

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
Q130 E130 R130	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	5000	4500
	SOLTIS 92/86/88/96	12	500	5000	4500
	SOLTIS Opaque B92, SOLTIS Safe B28100 Antares Blackout (PVC-free, for indoor use only) Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	4000
	InsectScreen	12	500	5000	3000
Q150	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	18	500	6000	6000
	SOLTIS 92/86/88/96	15	500	5000	6000
	SOLTIS Opaque B92, SOLTIS Safe B28100 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	12 (18 bei SOLTIS Safe B28100)	500	4500	4000
	InsectScreen	18	500	6000	3000

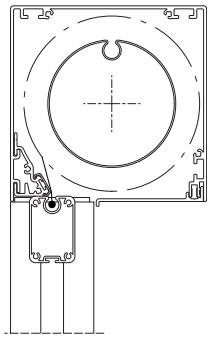
Legend

KG Box size

Notes:

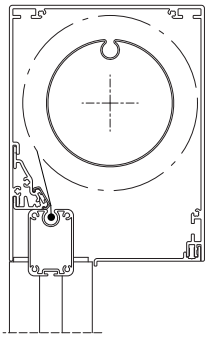
- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)
- Minimum width with crank handle drive 400 mm.

Box forms and box sizes



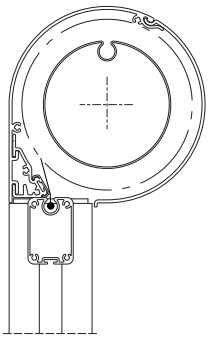
Square design

Q85 – 85 x 85 mm
Q100 – 100 x 100 mm
Q115 – 115 x 115 mm
Q130 – 130 x 130 mm
Q150 – 150 x 150 mm



Rectangular design

E100 – 100 x 130 mm
E115 – 115 x 150 mm
E130 – 130 x 170 mm



Round design

R130 – ø130 mm

Scope of delivery

- Quadratic box
- Guide rail with end caps and piping for side seam guide (without spacer)
- Motor drive 230V, with 3 m cable without Hirschmann connector/cable socket
- Cover glass-fibre fabric HELLA G-Screen, Serge 600 (5%) or SATINÉ 5500 or SOLTIS Veozip side-rail guided
- Weighted drop profile
- Freely selectable profile colors from the HELLA Color worlds

Supplementary equipment

- Rectangular or round box shapes
- Spacers for guide rails
- Alternatively deep guide rails for the rectangular boxes
- Wall-mounted radio transmitter /hand-held radio transmitter
- Adapter, 20, 30 or 40 mm, for guide rails
- Crank handle drive (for Q85/Q100)
- Insect screen fabric side-rail guided with motor
- Blackout version with blackout fabric and sealing brushes
- Solar drive (for E100, E115, E130)
- Emergency crank handle motor (for Q130)
- Sensors
- Integrated fall protection
- Large selection of alternative fabrics from collection

Benefits of the product

- Heat protection
- Privacy
- Glare protection
- Blackout
- For large surfaces
- Wind-stable sun protection
- Energy saving
- Slim and inconspicuous box shape
- Transparency to the outside due to screen fabric
- Large selection of designs as a design element

Front-mounted awning protect

Technical product description

Box size 85/100

Box

Dimension

Q85	85x85 mm
Q100	100x100 mm
E100	100x130 mm

Material	Extruded aluminium
Surface	powder-coated
Profile	2-part

Description

- Box with galvanised side covers made of steel fitted onto the guide rail.
- The powder-coated aluminium side part covers the side cover flush with the outer edge of the guide rail.

Optional:

- Rear-side box insulation with 20 mm, 30 mm or 40 mm EPS for E100 box

Front rail

rectangular profile

Box Q85 / Q100 / E100

Material	Extruded aluminium
Dimension	35x31 mm

Description

- With inserted weighting steel.
- Laterally guided in the guide rails with plastic gliders.

Roller tube

Box Q85

Material	Extruded aluminium
Dimension	ø52 mm

Box Q100 / E100

Material	galvanised steel tube
Dimension	ø63 mm

Description

- Both ends of the roller tube are equipped with adapters made of plastic with which a tapering of the roller tube is achieved. Herewith it is possible to correct the thicker ends of the rolled up zip fastener. An inspection is possible via a spring-loaded telescopic roller cap.

Note:

Due to the different roller tube diameters, the running speeds of the systems differ and therefore, when combining different box sizes, the height of the drop profiles is offset when the systems are moved up and down.

Guide rails

Box Q85 / Q100

Material	Extruded aluminium
Dimension	32x49 mm (with crank handle 44x49 mm)
Profile	2-part

Box E100

Material	Extruded aluminium
Dimension	32x55 mm
Profile	2-part

Optional:

- deep guide rail 32x97 mm
- Extruded guide rail adapter for guide rail spacing, 20 mm, 30 mm or 40 mm

Description

- The inner guide consists of a black co-extruded plastic profile with full-length buffer lips made of foamed material. The zip provided on the cover is inserted into this plastic profile and kept sliding. The lower guide rail end caps are made of powder-coated aluminium sheet and can be used with a diagonal guide rail cut of up to 5°.
- Installation of the guide rail directly to the window frame or laterally in the soffit.
- Optionally, an installation with spacers up to a distance of max. 150 mm is possible with fixed spacers.

Motor drive

Electric motor

Motor	Electric motor 230 V AC, 50 Hz, IP 44
Installation	discreetly hidden in the drive shaft
Linkage	not possible

Description

- Special protective function for the curtain in the Down-direction, and blocking detection in the Up-direction to protect the cover (exception box Q85 blocking detection only up-/down-direction)
- with torque switch-off for the upper end position
- Thermo protective switch to prevent overheating
- As a standard with 3 m cable without Hirschmann connector
- For a surcharge 0.5 m cable with Hirschmann connector (STAS 3 with circlip, wired at the motor) and Hirschmann cable socket (STAK 3) for on-site connection
- Optionally available with integrated radio receiver

Crank handle drive

Only for box Q85 and Q100

Description

- Worm-wheel gear with gear reduction 4:1
- Crank handle exit diagonally or horizontally
- With bearing, powder-coated crank rod, folding handle and crank holder
- Optionally with removable crank handle with crank handle funnel or eyelet

Cover

PVC-coated glass fibre fabric

Weight	approx. 525 g/m²
Openness coefficient	approx. 5 %
Fire class	B1 - according to DIN4102-1

Description

- Design selection according to the HELLA collection
- Optional fabric types as per documents

Surfaces

- Powder-coated aluminium parts in the standard colors without surcharge.
- Special colors according to the brochure "HELLA Color worlds" for a surcharge

Fasteners, mounting material

All screwed connections, fixings and connections are made of stainless steel A2.

Front-mounted awning protect

Technical product description

Box size 115/130/150

Box

Dimension

Q115	115x115 mm
E115	115x150 mm
Q130	130x130 mm
E130	130x170 mm
R130	130x130 mm
Q150	150x150 mm
Material	Extruded aluminium
Surface	powder-coated
Profile	2-part

Description

- Box with galvanised side covers made of steel fitted onto the guide rail.
- The powder-coated aluminium side part covers the side cover flush with the outer edge of the guide rail.

Optional:

- Rear-side box insulation with 20 mm, 30 mm or 40 mm EPS for E115/130 and Q130 boxes

Front rail

rectangular profile

Boxes Q115 / Q130 / Q150 / E115 / E130 / R130

Material	Extruded aluminium
Dimension	30x44 mm

Description

- With inserted weighting steel.
- Laterally guided in the guide rails with plastic gliders.
- Optionally with 20 mm sealing brush for an additional charge (with insect screen fabric standard at no additional charge)

Roller tube

Box Q115 / Q130 / E115 / E130 / R130

Material	galvanised steel tube
Dimension	ø85 mm

Box Q150

Material	galvanised steel tube
Dimension	up to 3 m: ø85 mm >3 m: ø100 mm

Description

- Both ends of the roller tube are equipped with adapters made of plastic with which a tapering of the roller tube is achieved. Herewith it is possible to correct the thicker ends of the rolled up zip fastener. An inspection is possible via a spring-loaded telescopic roller cap.

Note:

Due to the different roller tube diameters, the running speeds of the systems differ and therefore, when combining different box sizes, the height of the drop profiles is offset when the systems are moved up and down.

For the Q150 box size, different roller tubes are also used depending on the width (WW 3000 mm roller tube diameter 85, WW >3000 mm roller tube diameter 100).

Guide rails

For all box dimensions

Material	Extruded aluminium
Dimension	32x55 mm
Profile	2-part

Optional:

- for E115: deep guide rail 32x115 mm
- for E130: deep guide rail 32x130 mm
- Extruded guide rail adapter for guide rail spacing, 20 mm, 30 mm or 40 mm

Description

- The inner guide consists of a black co-extruded plastic profile with full-length buffer lips made of foamed material. The zip provided on the cover is inserted into this plastic profile and kept sliding. The lower guide rail end caps are made of powder-coated aluminium sheet and can be used with a diagonal guide rail cut of up to 5°.
- Installation of the guide rail directly to the window frame or laterally in the soffit.
- Optionally, an installation with spacers up to a distance of max. 150 mm is possible with fixed spacers.

Motor drive

Electric motor

Motor	Electric motor 230 V AC, 50 Hz, IP 44
Installation	discreetly hidden in the drive shaft
Linkage	not possible

Description

- Special protective function for the curtain in the Down-direction, and blocking detection in the Up-direction to protect the cover
- with torque switch-off for the upper end position
- Thermo protective switch to prevent overheating
- As a standard with 3 m cable without Hirschmann connector
- For a surcharge 0.5 m cable with Hirschmann connector (STAS 3 with circlip, wired at the motor) and Hirschmann cable socket (STAK 3) for on-site connection
- Optionally available with integrated radio receiver

Cover

PVC-coated glass fibre fabric

Weight	approx. 525 g/m²
Openness coefficient	approx. 5 %
Fire class	B1 - according to DIN4102-1

Description

- Design selection according to the HELLA collection
- Optional fabric types as per documents

Surfaces

- Powder-coated aluminium parts in the standard colors without surcharge.
- Special colors according to the brochure "HELLA Color worlds" for a surcharge

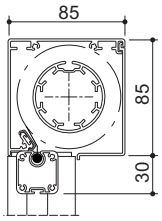
Fasteners, mounting material

All screwed connections, fixings and connections are made of stainless steel A2.

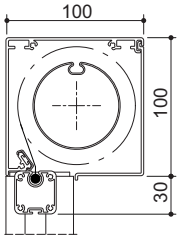
Front-mounted awning protect

Box dimensions

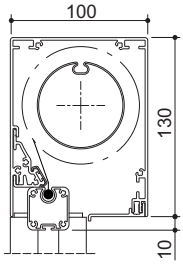
Q85



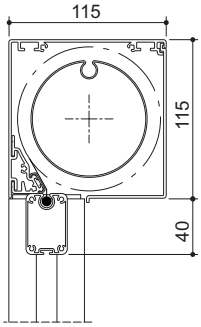
Q100



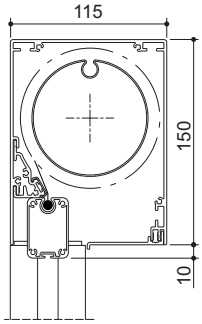
E100



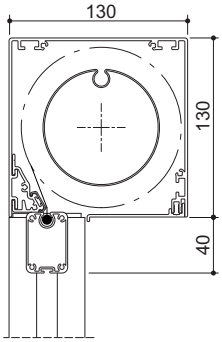
Q115



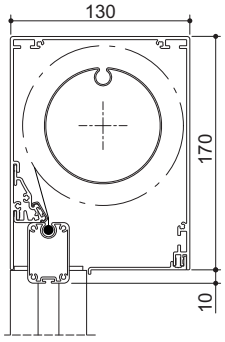
E115



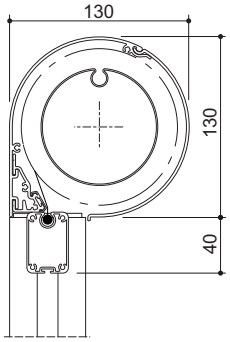
Q130



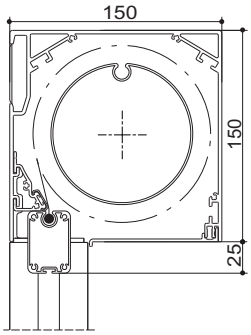
E130



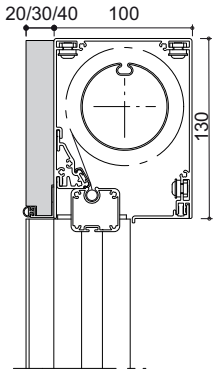
R130



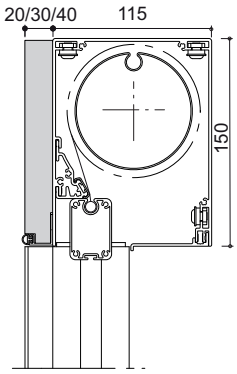
Q150



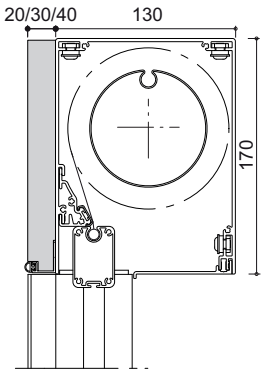
E100



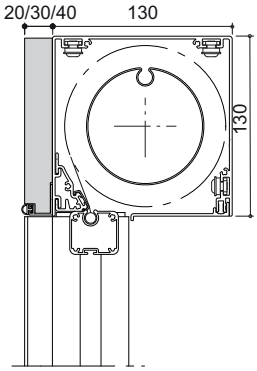
E100



E130

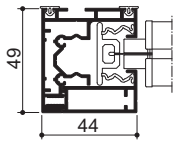


Q130

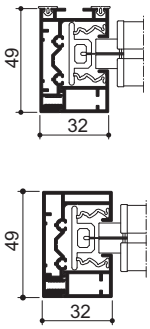


Overview guide rails

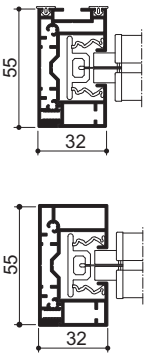
Crank handle
Q85/Q100



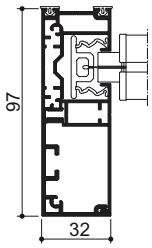
Motor
Q85/Q100



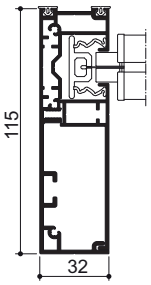
Motor
Q115/130/150
E100/115/130, R130



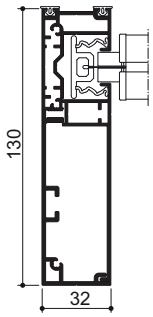
Motor
E100

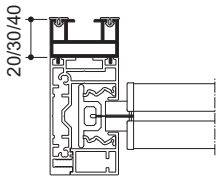


Motor
E115

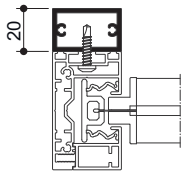


Motor
E130

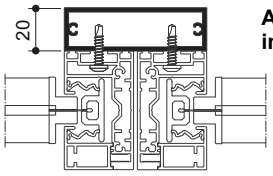




Adapter profile for guide rail spacing
20 mm adapter profile
30 mm adapter profile
40 mm adapter profile



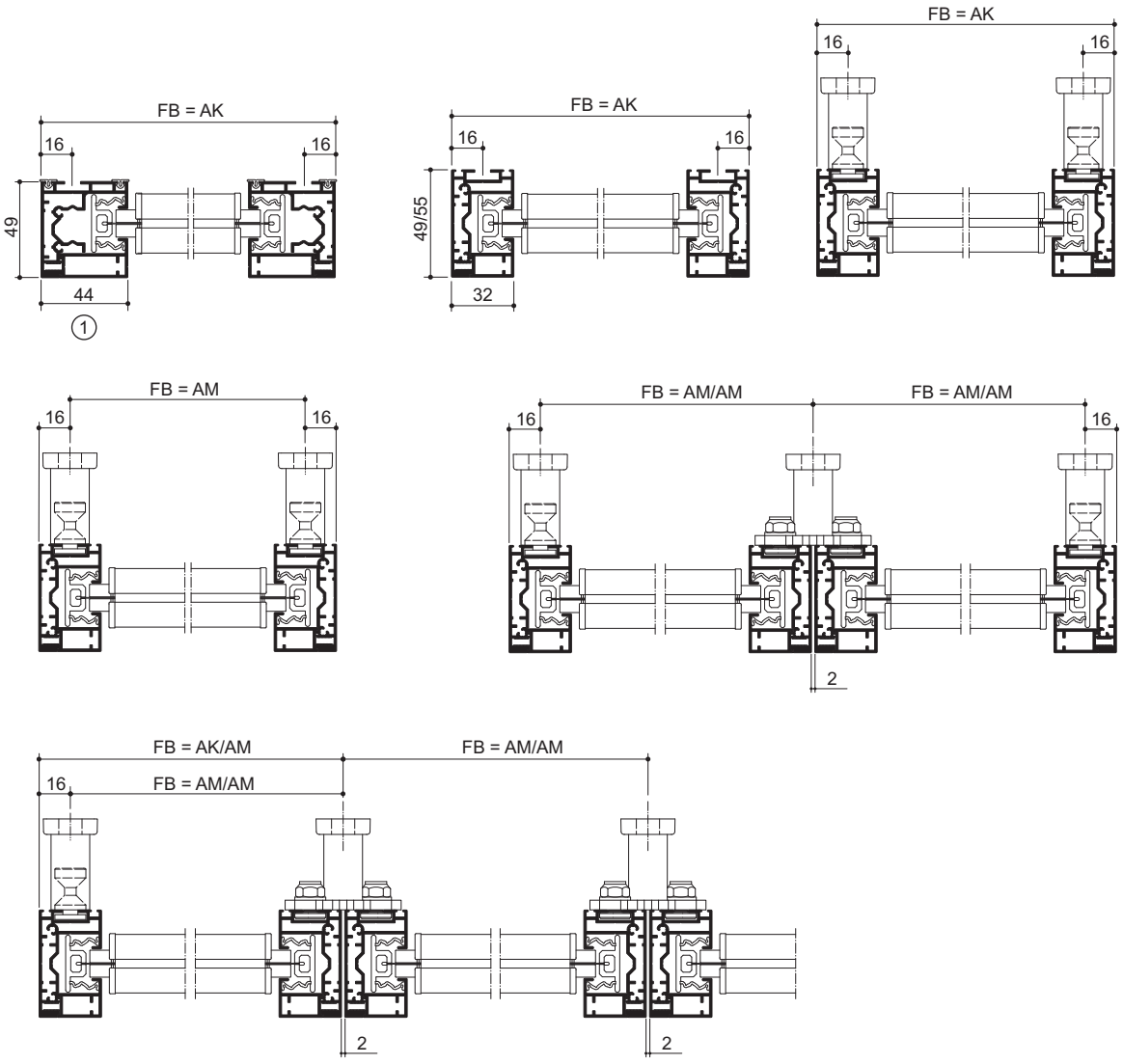
Adapter profile for post and beam installation - single



Adapter profile for post and beam installation - double

Front-mounted awning protect

Dimensioning definition for complete width (= ordering width)



Legend

FB = AK	Complete width = outer edge of the guide rail
FB = AM	Complete width = dimension between axes
FB	Complete width = ordering width

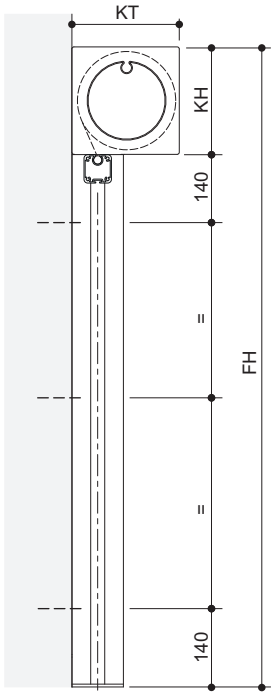
Notes:

- Complete width optionally outer edge of the guiding (AK) or dimension between axes (AM)
- Complete width always dimension between axes with combination

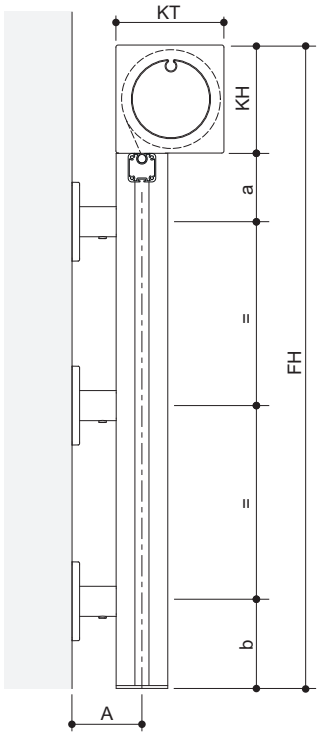
Legend

① Guide rail for crank handle drive

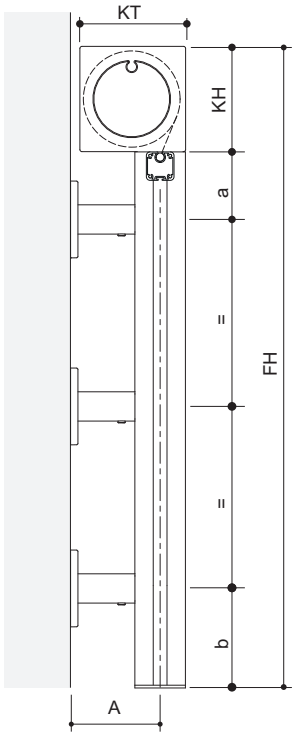
Installation options and dimension definition



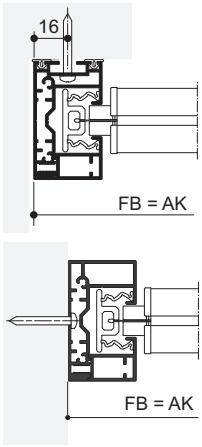
Direct installation - left roller



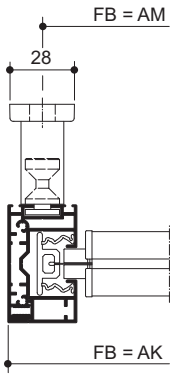
Installation with spacers – left roller
(Not with crank handle drive)



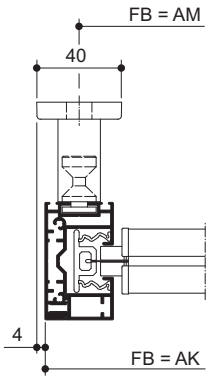
Installation with spacers - right roller
(Not with crank handle drive)



Direct installation
from the front or side in the soffit



Guide rail spacers



Guide rail spacer with large base plate

Attention:
With the spacer with the large base plate (40 mm) the lateral excess length of 4 mm must be considered!

Space between the spacers [mm]				Number of spacers with complete height [mm]					
a		b		Number per guide rail					
min.	max.	min.	max.	2	3	4	5	6	7
100	200	80	200	≤ 2000	2001-3000	3001-4000	4001-5000	5001-6000	> 6000
Box size Q150									
100	100	80	100	≤ 2000	1501-2500	2501-3500	3501-4500	4501-6000	> 6000

Number of mounting holes with guide rail length [mm]						
2	3	4	5	6	7	8
≤ 1200	1201-2000	2001-2900	2901-3800	3801-4700	4701-5600	5601-6500

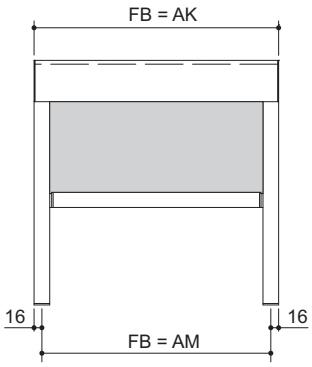
Legend

FB=AK	Complete width = outer edge of the guide rail	FH	Complete height
FB=AM	Complete width = dimension between axes	A	Distance dimension (max. 150 mm)
KT	Box depth	a	Spacer position from the bottom
KH	Box height	b	Spacer position from the bottom

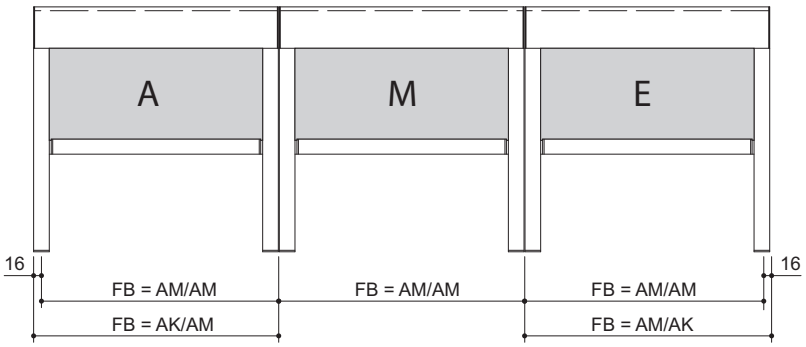
Front-mounted awning protect

Combinations and dimensioning definition

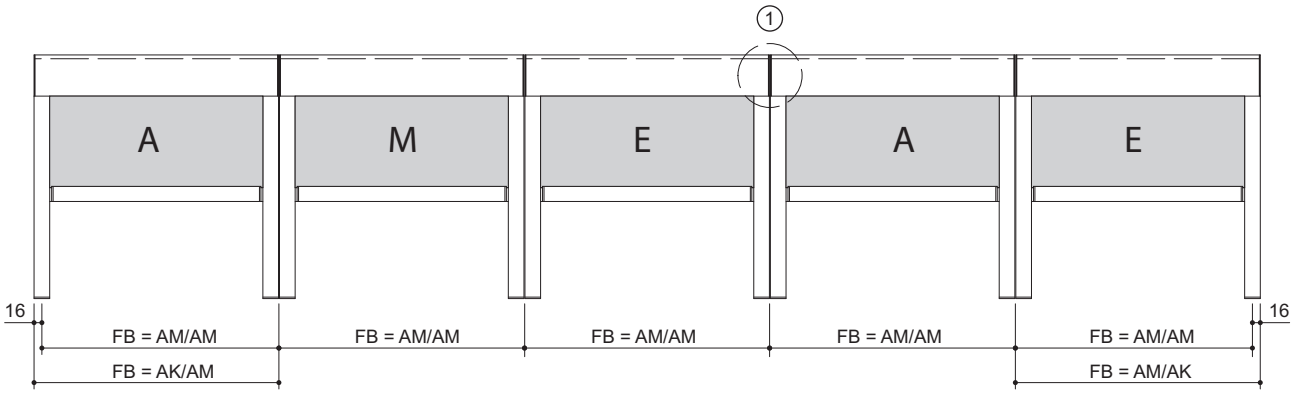
Single unit



Combination in 3 parts - box split



Combination with joint - continuation of the combination after an end element



Legend

FB = AK	Complete width = outer edge of the guide rail	A	Combination start
FB = AM	Complete width = dimension between axes	M	Combination middle
FB = AK/AM	Complete width = outer edge guide rail/dimension between axes	E	Combination end
FB	Complete width = ordering width	①	Joint - continuation of the combination after an end element (only specification of the dimension between axes possible)

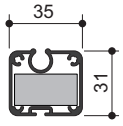
Notes:

- no coupling possible
- Combinations box always split

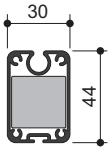
Standard dimension A for spacer

Model	Box type	Left roller		Right roller		max. A
		Standard	min. A	Standard	min. A	
VM07	Q85	75	65	70		150
	Q100	75	65	85		150
	E100	75	70	85		150
	Q115 / E115	75	70	100		150
	Q130 / E130	75	70	115		150
	Q150	75	70	135		150
	R130	75	70	-		150

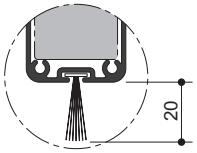
Front rail



Q85/Q100/E100



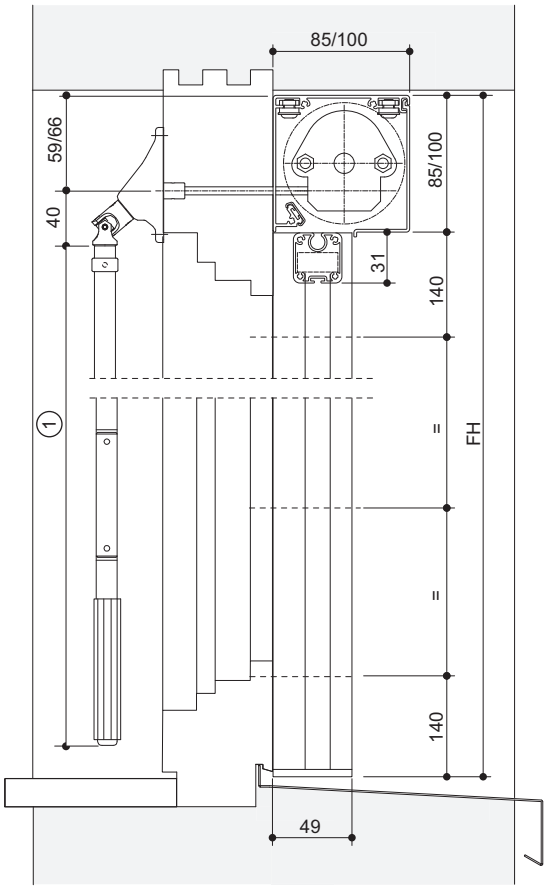
Q115/Q130/Q150, E115/E130, R130



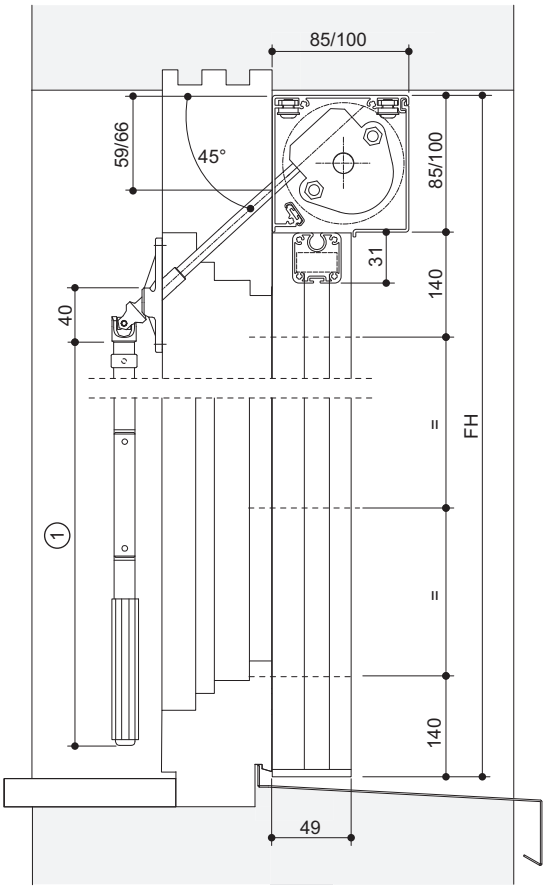
- For insect screen standard
- Without insect screen optional against surcharge

Crank handle drive

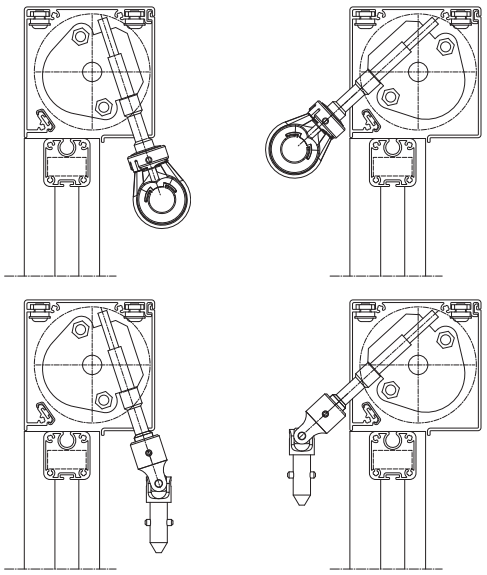
Only for Q85 / Q100



Direct installation - crank handle horizontal

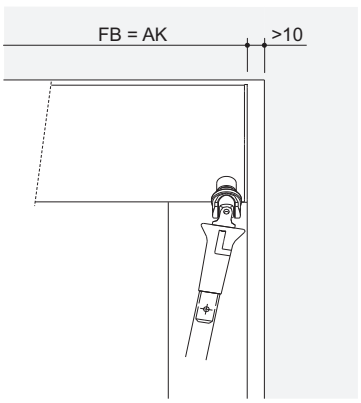


Direct installation - crank handle diagonal

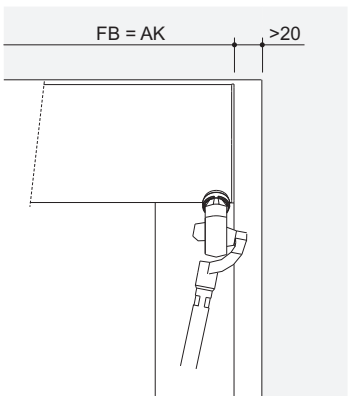


with eyelet/crank handle funnel at the front removable

with eyelet/crank handle funnel at the rear removable



Design crank handle funnel - front view



Design eyelet - front view

Legend

FB = AK	Complete width = outer edge of the guide rail
FH	Complete height
①	Crank handle length

Front-mounted awning protect

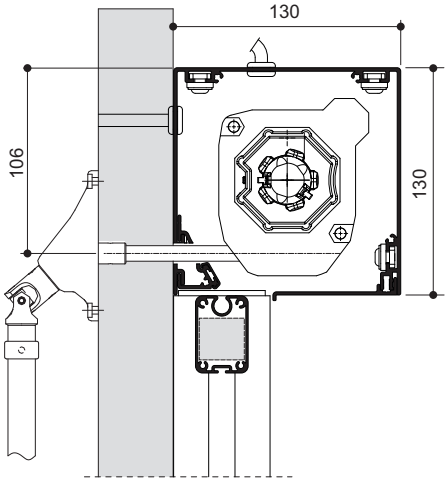
Motor drive with emergency crank handle

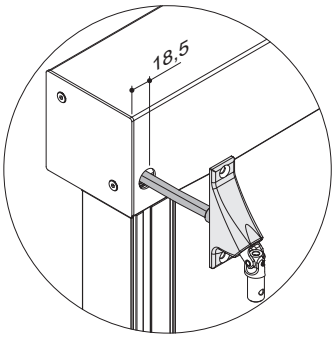
For the 2nd escape route with the front-mounted awning protect, there is now the option of using an emergency crank handle drive. As described in the IVRSA guideline, the use of this solution must always be agreed upon with the person responsible for fire protection in the building project by the customer himself at his own responsibility.

Description of the design:

The Somfy LT50-NHK drive (see Fig. 1) can only be used with the front-mounted awning protect (VM07) and box size Q130. The gear has a gear reduction of 1:27. Larger guide rails (55x45mm) are required, which can only be used for direct mounting. The end positions of the mechanical drive are set using push buttons. The setting differs according to the operating sides (see Figs. 3 and 4)







Limit sizes

KG	Drive system	Max. surface [m²]	Min. width [mm]	max. width [mm]	max. height [mm]
Q130	Somfy LT50-NHK	7,5	790	2500	3000

NHK operating side right

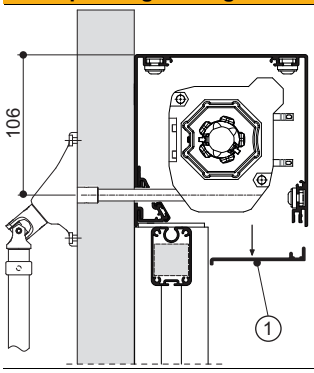


Fig. 2: Dismantling the inspection cover

On the right operating side, remove the inspection cover to set the end positions.

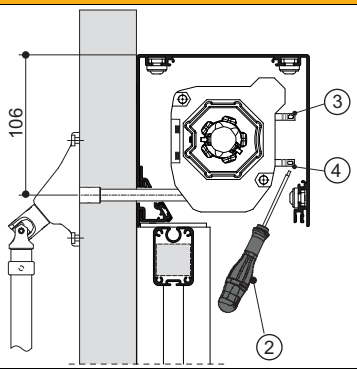


Fig. 3: End position setting for operating side right

The end position is set by “pulling” on the adjustment aids with a slotted screwdriver.

Legend

① Inspection cover
② Slotted screwdriver
③ Adjustment aid upper end position
④ Adjustment aid lower end position

NHK operating side left

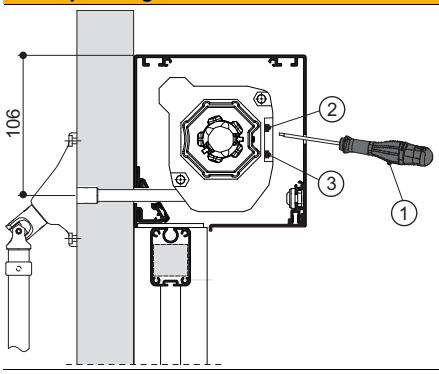


Fig. 4: End position setting for operating side left

The end position is set via the borehole on the front panel of the box.

guide rail

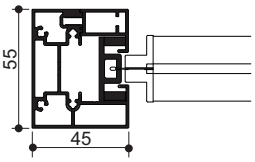


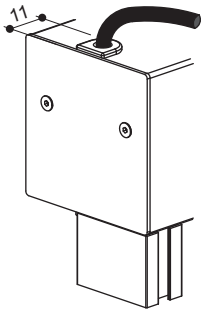
Fig. 5: Guide rail 55x45 mm

Legend

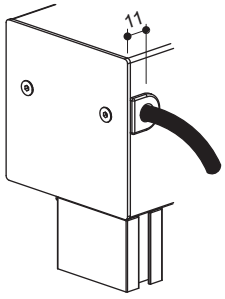
① Slotted screwdriver
② yellow push button for lower end position
③ white push button for upper end position

Front-mounted awning protect

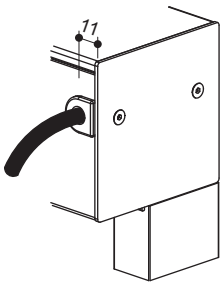
Motor drive - cable exits



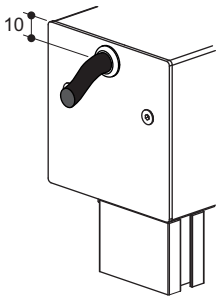
Cable exit towards the top



Cable exit towards the rear

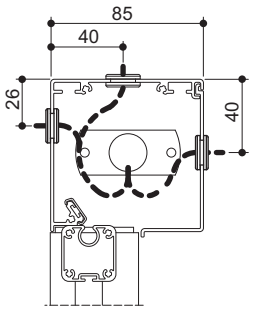


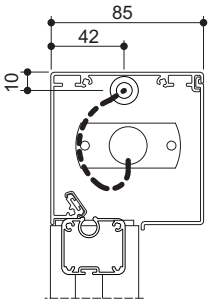
Cable exit towards the front



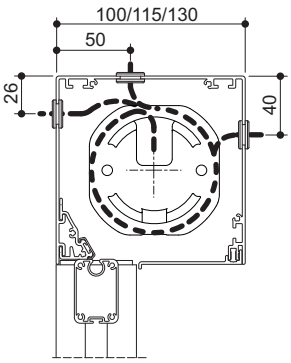
Cable exit towards the side

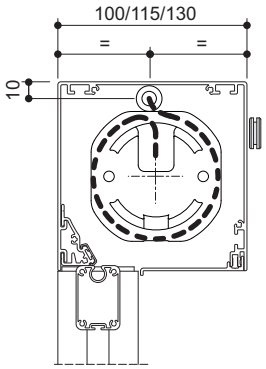
Box detail VM protect:



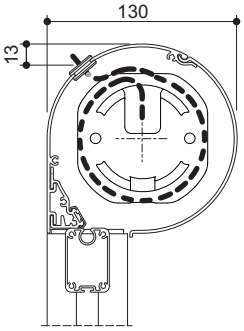


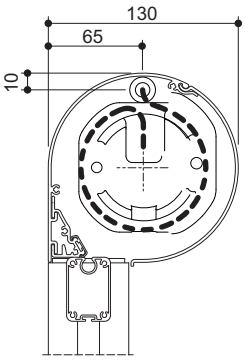
Q85



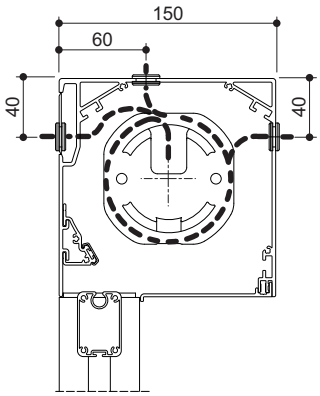


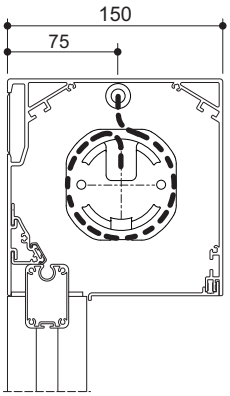
Q100 / Q115 / Q130





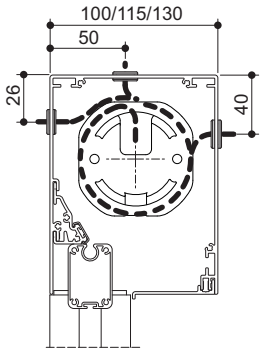
R130

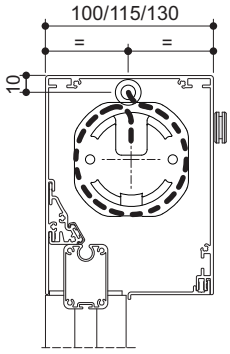




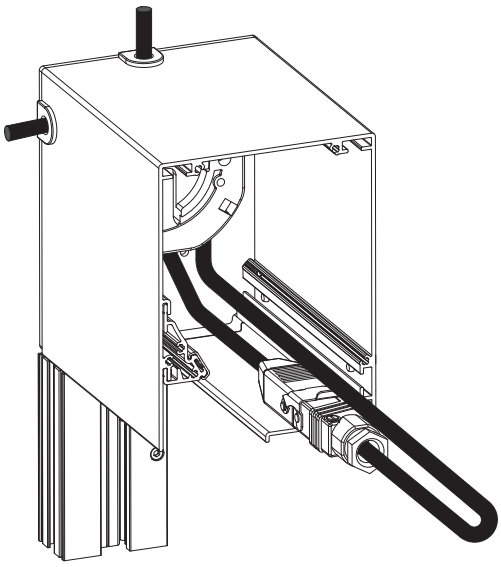
Q150

Box detail VM protect:



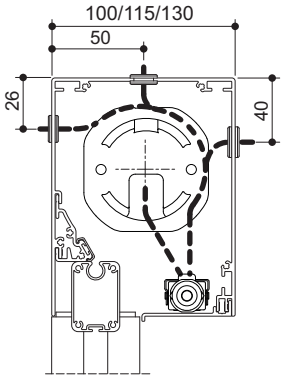


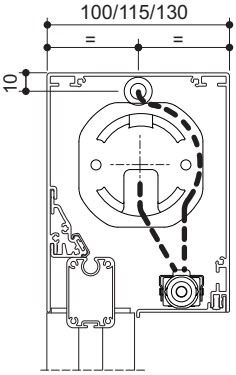
E100/E115/E130



Hirschmann connector stored in the box and cable lengthening towards the outside

Box detail VM protect:



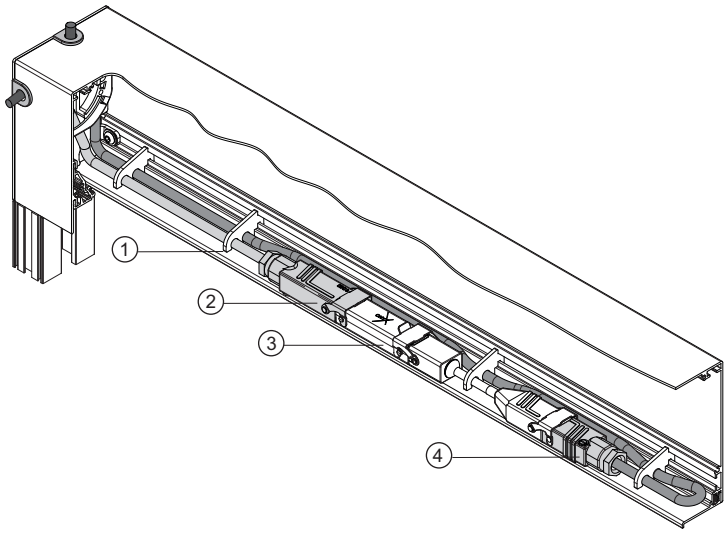


E100/E115/E130

Hirschmann connector stored in the box and cable lengthening towards the outside

Attention: The open end of the cable lengthening is led out of the box and serves as direct connection to the façade, without additional plug-in connection. A subsequent inspection can then only be carried out through the inspection opening when the system is mounted!

Motor drive - Stowage ONYX.CONNECTOR

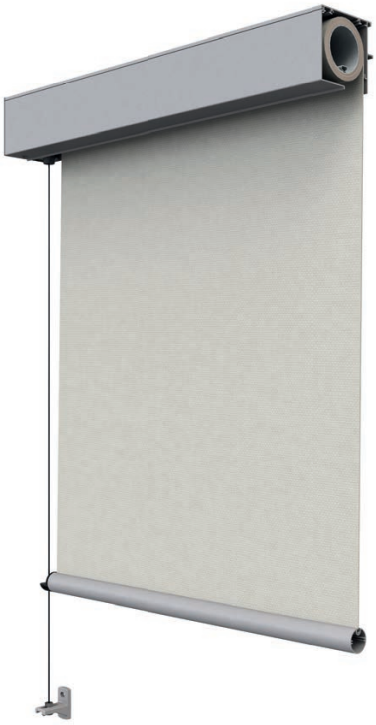


Legend

① Cable holder
② Motor cable with Hirschmann connector
③ ONYX.CONNECTOR
④ Cable extension

Front-mounted awning cable

Front-mounted awning with cable guiding





- Two square box sizes Q85/Q100 available.
- Cover guidance by cable-guided drop profile.
- Wire cable is always kept under tension by spring integrated in the box.



- Wire cables secured by tensioning brackets.
- Large selection of other tensioning brackets and floor cable holders.

Limit sizes

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
Q85	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	5	500	2500	2100
	SOLTIS 92/86/88/96 SOLTIS 99 (for indoor use only)	7,5	500	2500	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	5	500	2500	2100
	Acrylic fabric Acrylic Lumera, polyester fabric - no lateral seam (hot cut)	3	500	1250	2700
Q100	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	9	500	3000	3000
	SOLTIS 92/86/88/96 SOLTIS 99 (for indoor use only)	9	500	3000	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	6	500	2500	2500
	Acrylic fabric Acrylic Lumera, polyester fabric - no lateral seam (hot cut)	3,7	500	1250	3000

Legend

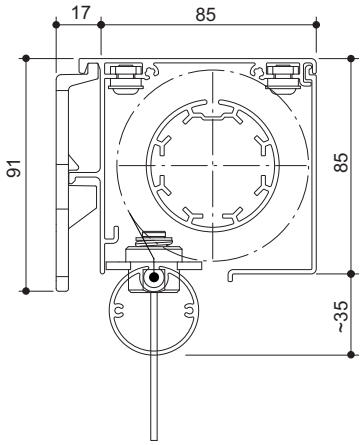
KG Box size

Notes:

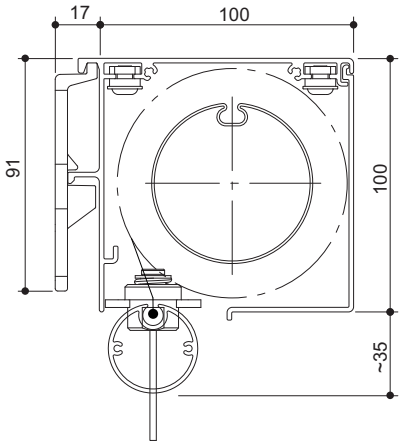
- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)
- Maximum width with full-length box in combination 4500 mm
- Maximum width coupled equals double the maximum width of a single unit (max. two units can be coupled).

Box forms and box sizes

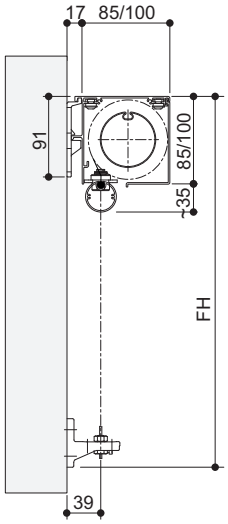
Q85.



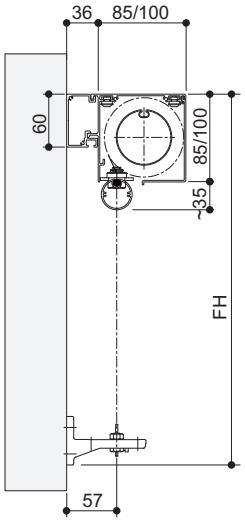
Q100



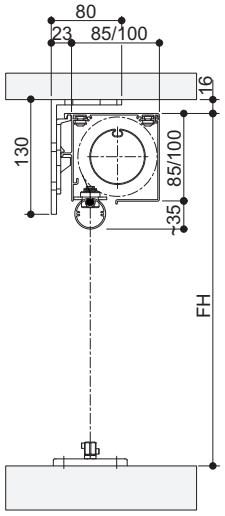
Types of installation



Installation with box bracket



Installation with installation profile



Installation with ceiling bracket

Legend

FH Complete height

Scope of delivery

- Square box with integrated spring for wire cable (Q85/Q100)
- Box bracket
- Cable guide with strainer clamp
- Motor drive 230V, with 3 m cable without Hirschmann connector/cable socket
- Cover glass-fibre fabric HELLA G-Screen, Serge 600 (5%) or SATINÉ 5500 or SOLTIS Veozip
- Weighted drop profile
- Freely selectable profile colors from the HELLA color world

Supplementary equipment

- Box mounting profile continuous or ceiling girder possible
- Large selection of other tensioning brackets and floor cable holders
- Wall-mounted radio transmitter / Hand-held radio transmitter
- Crank handle drive for Q85 / Q100
- Two systems can be coupled
- Large selection of alternative covers according to collection

Benefits of the product

- Heat protection
- Sight screen
- Glare protection
- Energy saving
- Unobtrusive due to cable guides
- Simple assembly by means of box bracket
- Slim and inconspicuous box shape
- Transparency to the outside due to screen fabric
- Large selection of designs as a design element

Front-mounted awning cable

Technical product description

Box

Dimension

Q85	85x85 mm
Q100	100x100 mm

Material	Extruded aluminium
Surface	powder-coated
Profile	2-part

Description

- Installation of the box via the rear box top board, in connection with box bracket or installation profile, that also serves to store the Hirschmann connector

Front rail

Round profile

Material	Extruded aluminium
Dimension	ø35 mm

Description

- With pushed-in weighting steel and plastic end caps
- Laterally guided via the guiding cables

Roller tube

Box Q85

Material	Extruded aluminium
Dimension	ø52 mm

Box Q100

Material	galvanised steel tube
Dimension	ø63 mm

Description

- An inspection is possible via a spring-loaded telescopic roller cap

Note:

Due to the different roller tube diameters, the running speeds of the systems differ and therefore, when combining different box sizes, the height of the drop profiles is offset when the systems are moved up and down.

Cable guiding, strainer clamp

Wire cable

Material	Polyamide-sheathed stainless steel cable
Dimension	ø2,5 mm

Description

- At the lower end, the wire cable is fixed via strainer clamps or tensioning brackets with clamping screws
- Cable holders provided at the bottom are optionally available
- In the upper area, the wire cable is optimally kept under tension via a press-fitted wire cable bushing and a spring integrated in the box

Strainer clamp

Material	Aluminium
Adjusting range	23-181 mm

Options

- Tensioning shoes for the fixing to the bottom
- Tensioning brackets with an adjusting range of 39-150mm
- Threaded fitting M8 or M6

Motor drive

Electric motor

Motor	Electric motor 230 V AC, 50 Hz, IP 44
Installation	discreetly hidden in the drive shaft
Pairing	possible

Description

- Installed in the drive shaft with integrated limit switches for the upper and lower end position
- As a standard with 3 m cable without Hirschmann connector
- For an additional charge 0.5 m cable with Hirschmann connector (STAS 3 with circlip, wired at the motor) and Hirschmann cable socket (STAK 3) for on-site connection
- Optionally available with integrated radio receiver

Crank drive

Only for box Q85 and Q100

Description

- Worm-wheel gear with gear reduction 4:1
- Crank handle exit horizontal
- With spherical plain bearing, powder-coated crank rod, folding handle and crank holder
- Optionally with removable crank handle with crank handle funnel or eyelet

Cover

PVC-coated glass fibre fabric

Weight	approx. 525 g/m²
Openness coefficient	approx. 5 %
Fire class	B1 - according to DIN4102-1

Description

- Design selection according to the HELLA collection
- Optional fabric types as per documents

Surfaces

- Powder-coated aluminium parts in the standard colors without surcharge.
- Special colors according to the brochure "HELLA Color worlds" for a surcharge

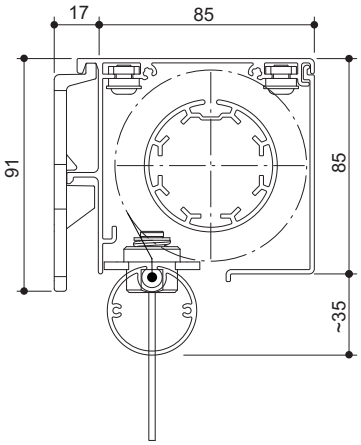
Fasteners, mounting material

All screwed connections, fixings and connections are made of stainless steel A2.

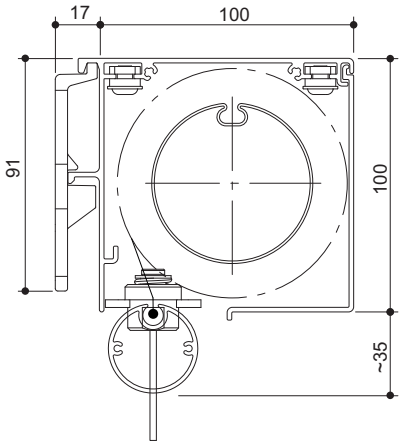
Front-mounted awning cable

Box dimensions

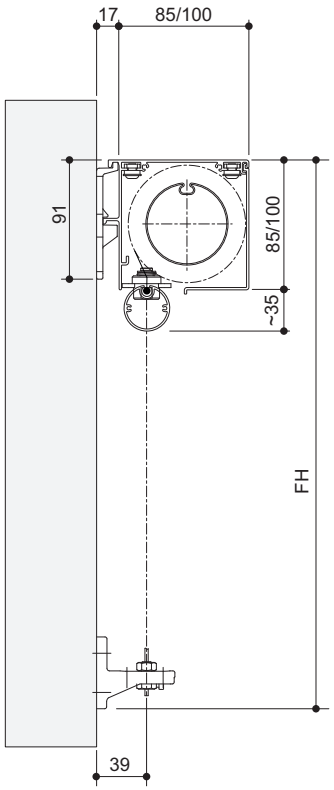
Q85.



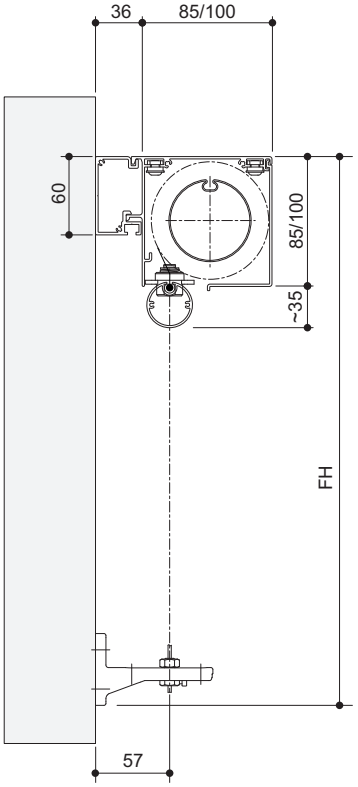
Q100



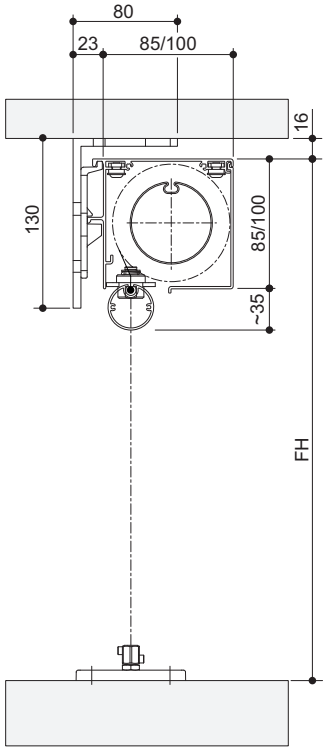
Installation options and dimension definition



Installation with box bracket



Installation with installation profile



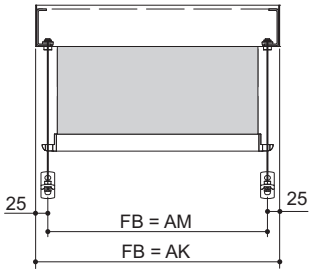
Installation with ceiling bracket

Legend

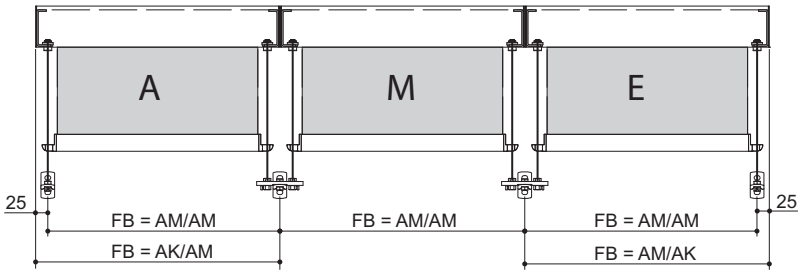
FH	Complete height

Combinations and dimensioning definition

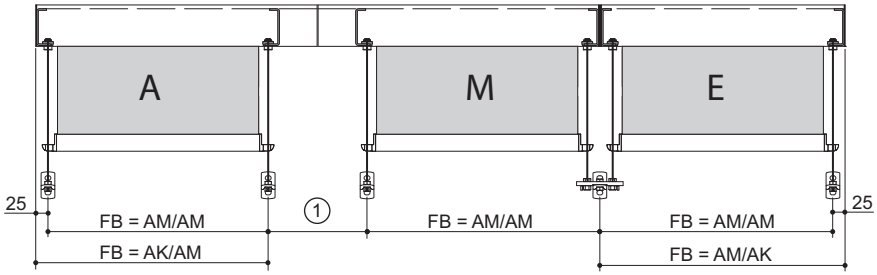
Single unit



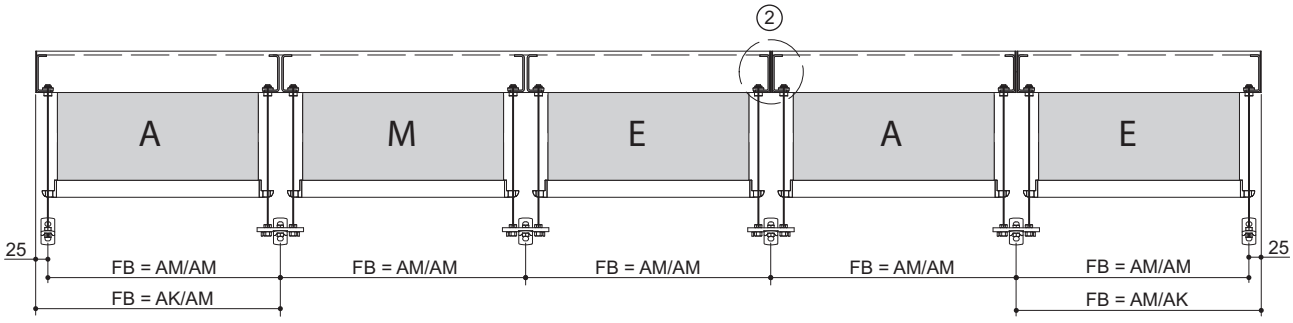
Combination in 3 parts - box split or full-length



Combination in 3 parts with in-between box - box split or full-length



Combination with joint -continuation of the combination after 3 elements

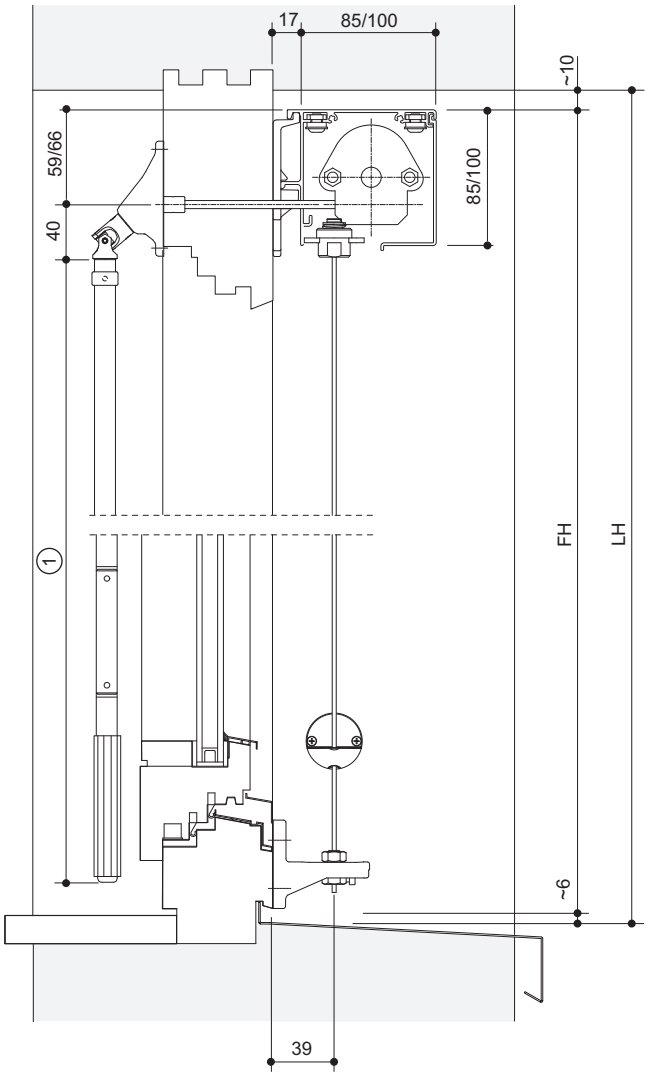


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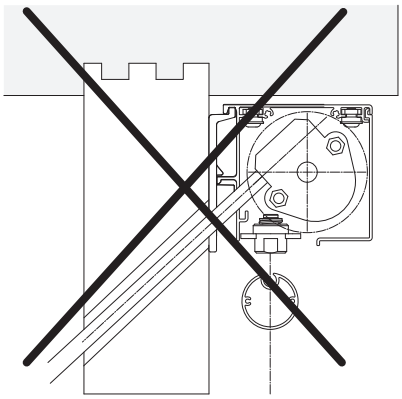
FB = AK	Complete width = outer edge of the box	A	Combination start
FB = AM	Complete width = dimension between axes of the cable holder	M	Combination middle
FB = AK/AM	Complete width = outer edge of the box/dimension between axes of the double cable holder	E	Combination end
FB	Complete width = ordering width	①	Spacer
		②	Joint - continuation of the combination after an end element (only specification of the dimension between axes possible)

Front-mounted awning cable

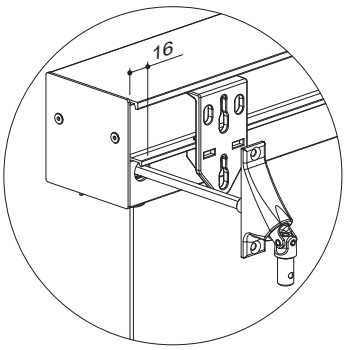
Crank handle drive



Design Crank handle drive horizontal



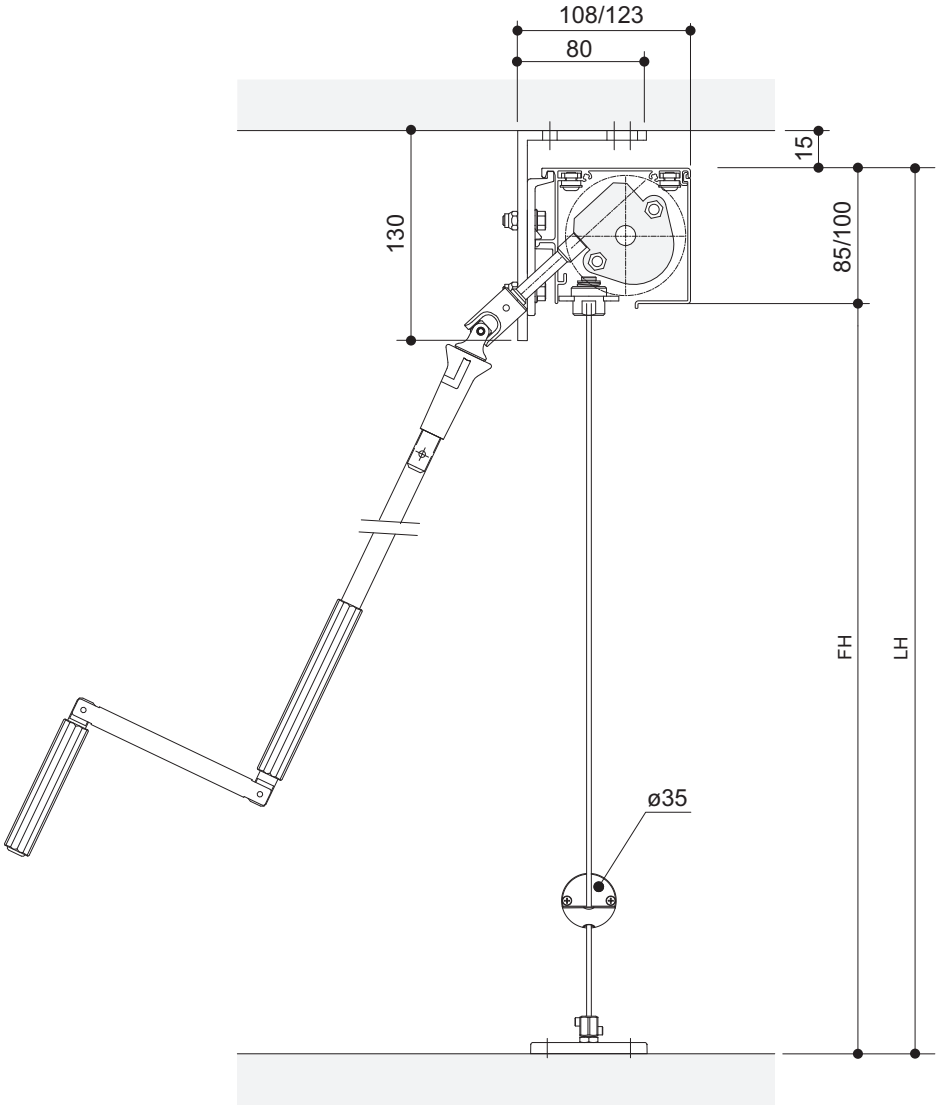
A “diagonal” cable duct is not possible, because the duct boring is not hidden by the box and is therefore visible.



Detail crank handle exit

Legend

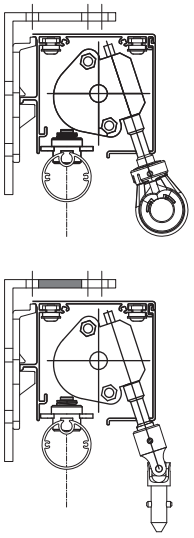
FH	Complete height
LH	Clear height
①	Crank handle length



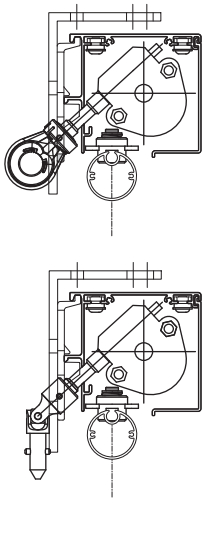
Legend

FH	Complete height
LH	Clear height
FB = AK	Complete width = outer edge of the box

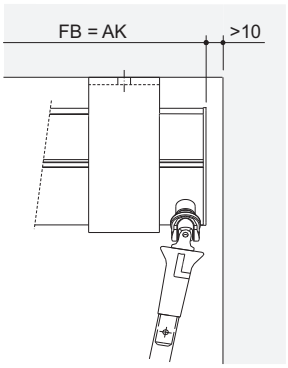
Design Crank handle drive with funnel at the rear side



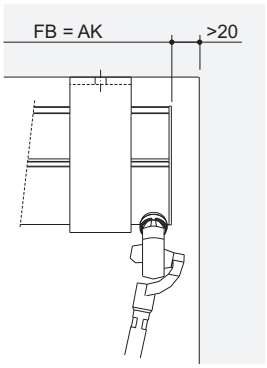
with eyelet/crank handle funnel at the front removable



with eyelet/crank handle funnel at the rear removable



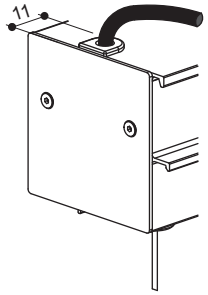
Design crank handle funnel - front view



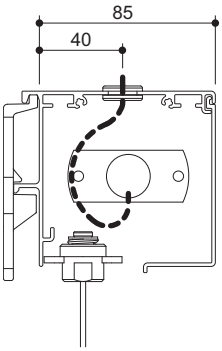
Design eyelet - front view

Front-mounted awning cable

Motor drive - cable exits

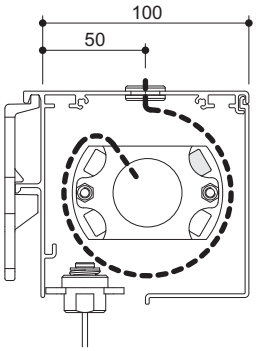


Cable exit towards the top

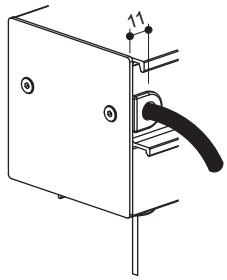


Box detail VW cable - cable exit towards the top

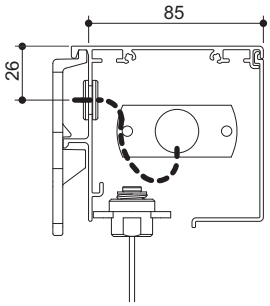
Q85



Q100

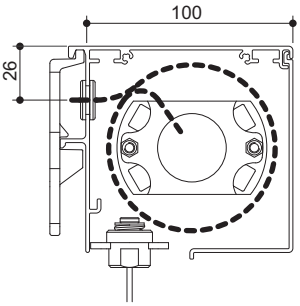


Cable exit towards the rear



Box detail VW cable - cable exit towards the rear

Q85



Q100

BUILD AND RENOVATE

Build and Renovate






Especially for on-site manholes, there are the side-lined cantilever manhole awnings, which are simply mounted on the guides and inserted from below into the planned or existing manhole and thus disappear inconspicuously. As an alternative to the wind-stable rail-guided shaft awnings, cable-guided variants can also be selected.






Flush-mounted awnings are completely plastered over with a plaster base applied to the front and can therefore be perfectly integrated into the wall in new buildings or renovations. Even the guide rails can be integrated laterally into the plastered reveal and the incidence of light is then optimally reduced with a wind-stable side seam guide.

Overview

Recess awnings



Recess awning protect

This side-hem model with self-supported, extruded half-cassettes is ideally suited for integration into on-site recesses.

- Self-supporting, simple installation in on-site recesses
- Three box sizes, half box ,(H100, H115, H130)
- Up to 3,5 m wide and 4,5 m high
- Stowage of the plug-in coupling in the inspection cover
- Cable reserve for a revision of the roller tube
- Fully plasterable guide rails (in combination with deep guide rail)



Basic awning cable-guided

The cable guided classic offers a simple bracket installation of the awning in the recess on site. Thanks to the spring-loaded cable guiding, the covers are always properly tensioned and provide perfect and unobtrusive heat protection.

- Easy mounting with angles (116x50)
- Up to 5 m wide and 3 m high
- Crank handle or motor drive

Concealed awnings





Concealed awning protect

This design is a side seam guided system with plaster base plates on the box. This model is perfect for integration into rendered façades and can be accessed from below for maintenance at any time. As an option, the boxes can be fitted with rear-side insulation to save energy.

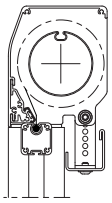
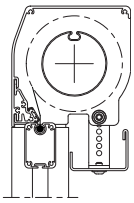
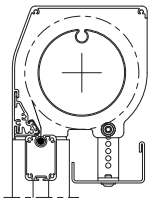
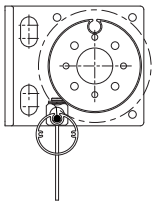
- Rectangular boxes (E100, E115, E130)
- Up to 4 m wide and 4 m high
- Fully plasterable guide rails (in combination with deep guide rail)
- 20/30/40 mm rear-side EPS insulation possible
- Impermeable to driving rain due to sealing profiles at the rear of the box and in the guide rails

Concealed cable-guided awning

This concealed awning is specially designed for insulated rendered façades. Thanks to the easy-to-install box system with plaster base, it integrates inconspicuously into the façade. Optimum insulation behind the box saves energy at the same time.

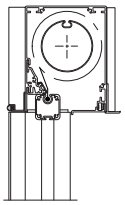
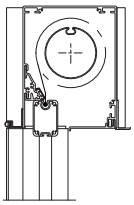
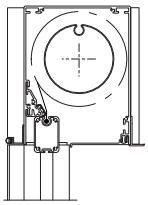
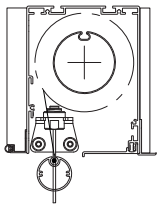
- Easy mounting with angles or directly
- Rectangular box (E115)
- Up to 3 m wide and 3 m high

Type overview

	Recess awning protect			Basic awning cable
Models according to box form and size	H100.	H115	H130	
				
Max. width [mm]*				
Single unit	3500	3500	3500	5000
Linked	-	-	-	10000
Max. height [mm]*				
	3500	4000	4500	3000
Max. surface [m²]*				
Single unit	12	12	12	9
Linked	-	-	-	18
Drive system				
Crank handle	-	-	-	+
Motor	o	o	o	o
Motor cable 3 m without plug	o	o	o	o
Motor cable 0.5 m with plug	+	+	+	+
Installation				
With space towards the facade	+	+	+	-
Without space (direct installation)	o	o	o	o
Guide rails				
Single guide rail 44x49 (crank handle drive)	-	-	-	-
Single guide rail 32x49	-	-	-	-
Single guide rail 32x55	o	o	o	-
Guide rail 32x97	+	-	-	-
Guide rail 32x115	-	+	-	-
Guide rail 32x130	-	-	+	-
Tensioning elements				
Strainer clamp	-	-	-	o
Tensioning bracket	-	-	-	+
Tensioning shoe (floor)	-	-	-	+
Box				
Inspection opening	at the bottom	at the bottom	at the bottom	-
Box lengthening	-	-	-	-
Mitre	-	-	-	-
Rear insulation of the box	-	-	-	-

Legend

o Standard design
\+ optional - in some cases for a surcharge
\- not possible
* Limit sizes depend on the fabric type (see limit size tables)

	Concealed awning protect			Concealed awning cable
Models according to box form and size	E100.	E115	E130	E115
				
Max. width [mm]*				
Single unit	3500	3500	4000	3000
Linked	-	-	-	-
Max. height [mm]*				
	3500	4000	4000	3000
Max. surface [m²]*				
Single unit	12	12	12	9
Linked	-	-	-	-
Drive system				
Crank handle	-	-	-	-
Motor	o	o	o	o
Motor cable 3 m without plug	o	o	o	o
Motor cable 0.5 m with plug	+	+	+	+
Installation				
With space towards the façade	-	-	-	-
Without space (direct installation)	o	o	o	o
Guide rails				
Single guide rail 44x49 (crank handle drive)	-	-	-	-
Single guide rail 32x49	-	-	-	-
Single guide rail 32x55	o	o	o	-
Guide rail 32x97	+	-	-	-
Guide rail 32x115	-	+	-	-
Guide rail 32x130	-	-	+	-
Tensioning elements				
Strainer clamp	-	-	-	o
Tensioning bracket	-	-	-	+
Tensioning shoe (floor)	-	-	-	+
Box				
Inspection opening	at the bottom	at the bottom	at the bottom	at the bottom
Box lengthening	+	+	+	-
Mitre	+	+	+	-
Rear insulation of the box	+	+	+	+

Legend

o Standard design
\+ optional - in some cases for a surcharge
\- not possible
* Limit sizes depend on the fabric type (see limit size tables)

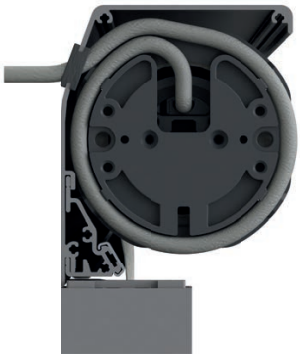
Recess awning protect

Recess awning protect with side seam guiding





- Self-supporting shaft installation with half-box
- Optional inspection cover for shaft covering and cable stowage.
- It is possible to fix the guide rails directly or with the help of spacers. Alternatively deep guide rails available.
- The height of the inspection cover is adjustable



- Cable reserve in the box for a revision of the motor

Limit sizes

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
H100	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	10	500	3500	3000
	SOLTIS 92/86/88/96	12	500	3500	3500
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	7	500	3000	3000
	InsectScreen	10	500	3500	3000
H115	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	3500	4000
	SOLTIS 92/86/88/96	12	500	3500	4000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	3500
	InsectScreen	12	500	3500	3000
H130	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	3500	4500
	SOLTIS 92/86/88/96	12	500	3500	4500
	SOLTIS Opaque B92, SOLTIS Safe B28100 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	4000
	InsectScreen	12	500	3500	3000

Legend

KG Box size

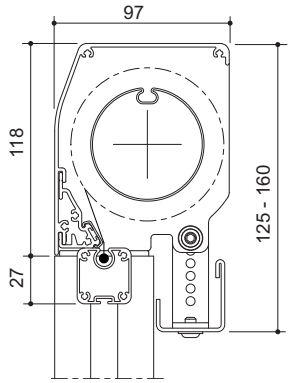
Notes:

- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)

Box forms and box sizes

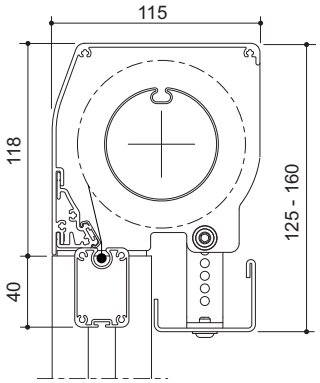
Half-box

H100.



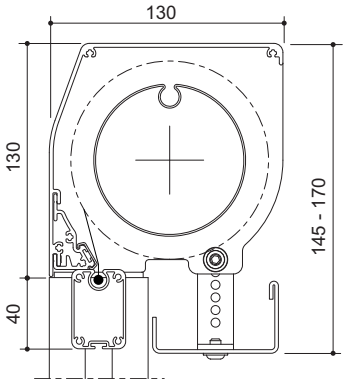
Half-box

H115

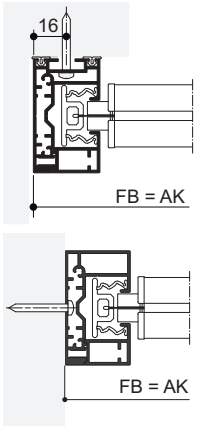


Half-box

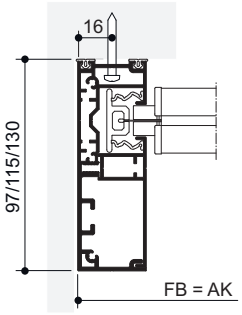
H130



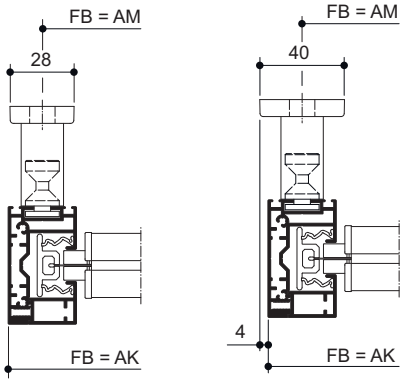
Guide rails



Direct installation



Direct installation with deep guide rail



Spacers for guide rails

Legend

FB = AK	Complete width = outer edge of the guide rail
FB = AM	Complete width = dimension between axes

Scope of delivery

- Half-cassette self-supporting clipped onto the guide rails
- Inspection cover for shaft covering and cable stowage
- Guide rail with end caps and piping for side seam guide (without spacer)
- Motor drive 230V, with 3 m cable without Hirschmann connector/cable socket
- Cover glass-fibre fabric HELLA G-Screen, Serge 600 (5%) or SATINÉ 5500 or SOLTIS Veozip side-rail guided
- Weighted drop profile
- Freely selectable profile colors from the HELLA Color worlds

Supplementary equipment

- Spacers for guide rails
- Alternatively deep guide rails
- Wall-mounted radio transmitter /hand-held radio transmitter
- Adapter, 20, 30 or 40 mm, for guide rails
- Large selection of alternative fabrics from collection

Benefits of the product

- Heat protection
- Privacy
- Glare protection
- Blackout
- Wind-stable sun protection
- Energy saving
- Self-supporting installation in on-site shaft without additional fastening
- Transparency to the outside due to screen fabric
- Large selection of designs as a design element

Recess awning protect

Technical product description

Box

Dimension

H100	97x118 mm
H115	115x118 mm
H130	130x130 mm

Material	Extruded aluminium
Surface	powder-coated
Profile	1-part

Description

- Box with galvanised side covers made of steel fitted onto the guide rail.

Front rail

rectangular profile

Box H100

Material	Extruded aluminium
Dimension	35x31 mm

Box H115 / H130

Material	Extruded aluminium
Dimension	30x44 mm

Description

- With inserted weighting steel.
- Laterally guided in the guide rails with plastic gliders.
- Optionally with 20 mm sealing brush for an additional charge (with insect screen fabric standard at no additional charge)

Roller tube

Box H100 / H115

Material	galvanised steel tube
Dimension	ø63 mm

Box H130

Material	galvanised steel tube
Dimension	ø85 mm

Description

- Both ends of the roller tube are equipped with adapters made of plastic with which a tapering of the roller tube is achieved. Herewith it is possible to correct the thicker ends of the rolled up zip fastener. An inspection is possible via a spring-loaded telescopic roller cap.

Note:

Due to the different roller tube diameters, the running speeds of the systems differ and therefore, when combining different box sizes, the height of the drop profiles is offset when the systems are moved up and down.

Guide rails

Box H100 / H115 / H130

Material	Extruded aluminium
Dimension	32x55 mm
Profile	2-part

Optional:

- deep guide rail 32x97 mm
- deep guide rail 32x115 mm
- deep guide rail 32x130 mm
- Extruded guide rail adapter for guide rail spacing, 20 mm, 30 mm or 40 mm

Description

- The inner guide consists of a black co-extruded plastic profile with full-length buffer lips made of foamed material. The zip provided on the cover is inserted into this plastic profile and kept sliding. The lower guide rail end caps are made of powder-coated aluminium sheet and can be used with a diagonal guide rail cut of up to 5°.
- Installation of the guide rail directly to the window frame or laterally in the soffit.
- Optionally, an installation with spacers up to a distance of max. 150 mm is possible with fixed spacers.

Inspection cover

Description

- Inspection panel made of canted aluminium sheet.
- The height is adjustable to fit the recess dimension on site.
- Suitable to store the cable and the connector in the box.

Motor drive

Electric motor

Motor	Electric motor 230 V AC, 50 Hz, IP 44
Installation	discreetly hidden in the drive shaft
Linkage	not possible

Description

- Special protective function for the curtain in the Down-direction, and blocking detection in the Up-direction to protect the cover
- with torque switch-off for the upper end position
- Thermo protective switch to prevent overheating
- As a standard with 3 m cable without Hirschmann connector
- For a surcharge 0.5 m cable with Hirschmann connector (STAS 3 with circlip, wired at the motor) and Hirschmann cable socket (STAK 3) for on-site connection
- Optionally available with integrated radio receiver

Cover

PVC-coated glass fibre fabric

Weight	approx. 525 g/m²
Openness coefficient	approx. 5 %
Fire class	B1 - according to DIN4102-1

Description

- Design selection according to the HELLA collection
- Optional fabric types as per documents

Surfaces

- Powder-coated aluminium parts in the standard colors without surcharge.
- Special colors according to the brochure "HELLA Color worlds" for a surcharge

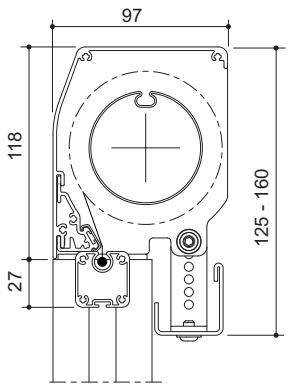
Fasteners, mounting material

All screwed connections, fixings and connections are made of stainless steel A2.

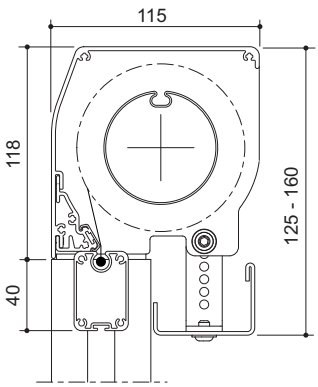
Recess awning protect

Box dimensions

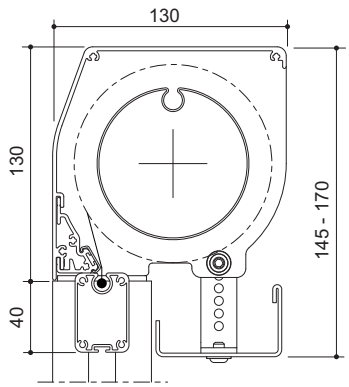
H100.



H115

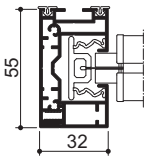


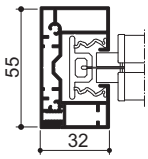
H130



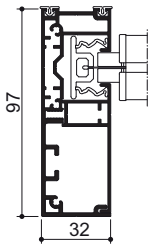
Overview guide rails

Motor
H100/115/130

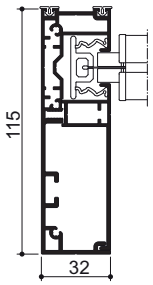




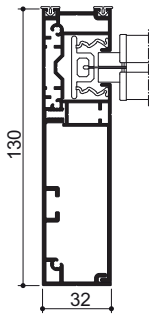
Motor
H100

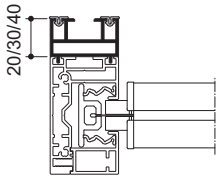


Motor
H115



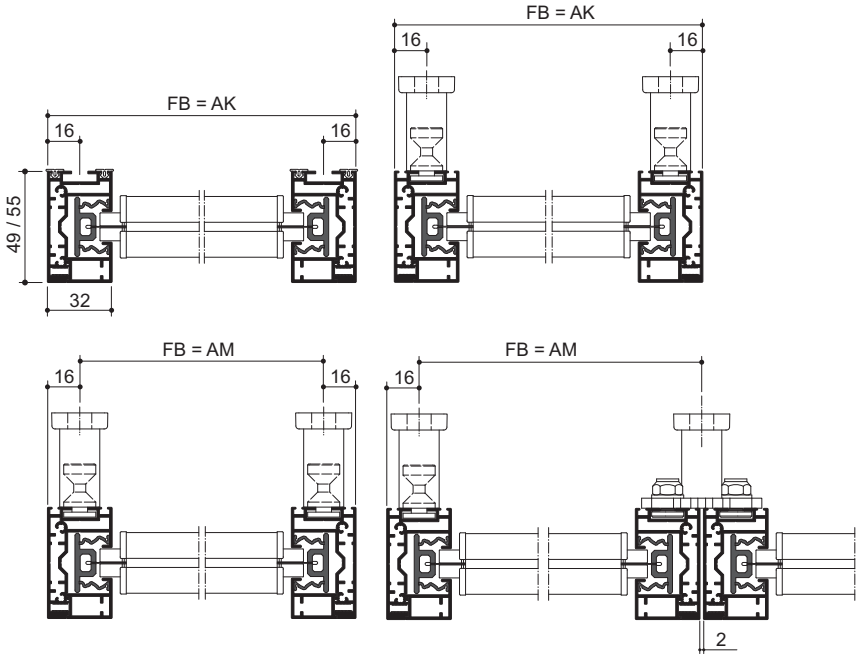
Motor
H130

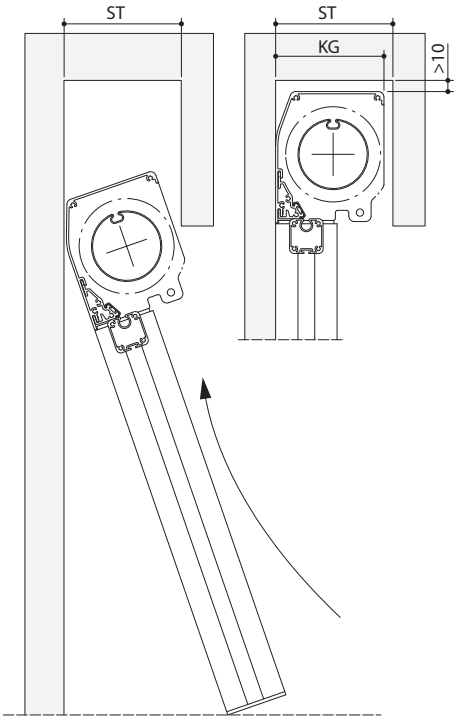




Adapter profile for guide rail spacing
20 mm adapter profile
30 mm adapter profile
40 mm adapter profile

Dimensioning definition for complete width (= ordering width)





Legend

FB = AK	Complete width = outer edge of the guide rail
FB = AM	Complete width = dimension between axes
FB	Complete width = ordering width
ST	Recess depth
KG	Box size

Notes:

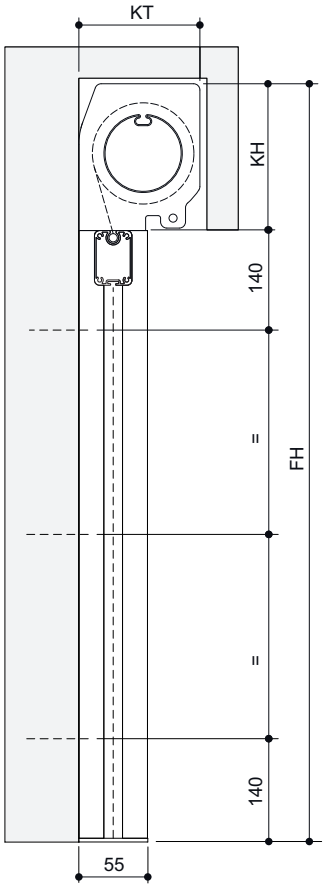
- Complete width optionally outer edge of the guiding (AK) or dimension between axes (AM)
- Complete width always dimension between axes with combination

Minimum shaft depths ST

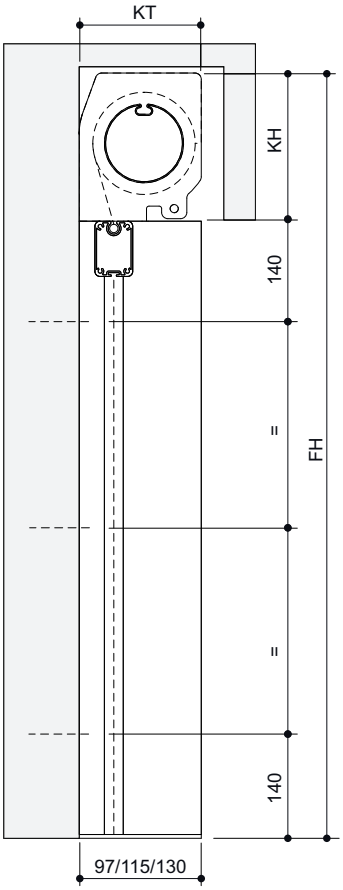
- **Box size 100**
  Guide rail 32x55 = 105 mm
  Guide rail 32x97 = 115 mm
- **Box size 115**
  Guide rail 32x55 = 125 mm
  Guide rail 32x115 = 135 mm
- **Box size 130**
  Guide rail 32x55 = 140 mm
  Guide rail 32x130 = 150 mm

Recess awning protect

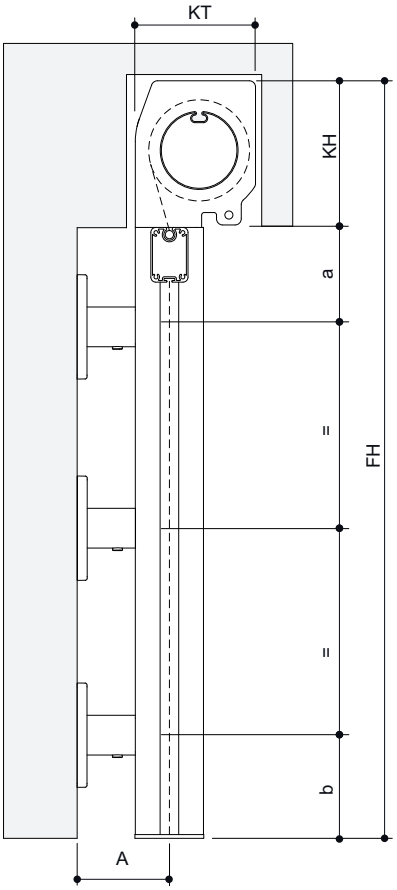
Installation options and dimension definition



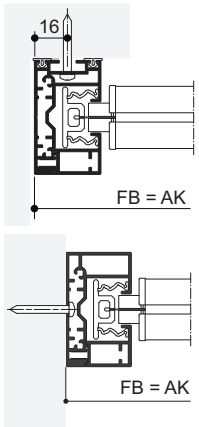
Direct installation



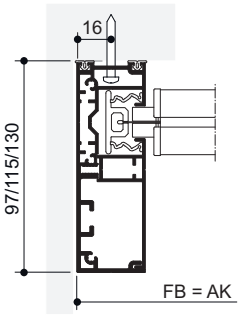
Installation with deep guide rail



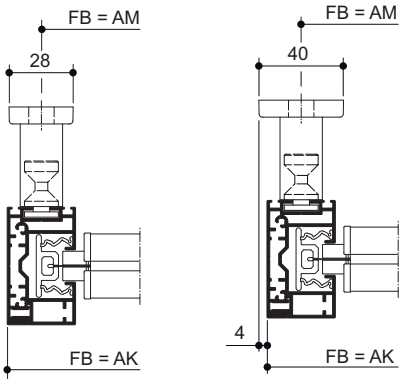
Installation with spacers



Direct installation
from the front or side in the soffit



Direct installation with deep guide rail



Guide rail spacers

Attention:
With the spacer with the large base plate (40 mm) the lateral excess length of 4 mm must be considered!

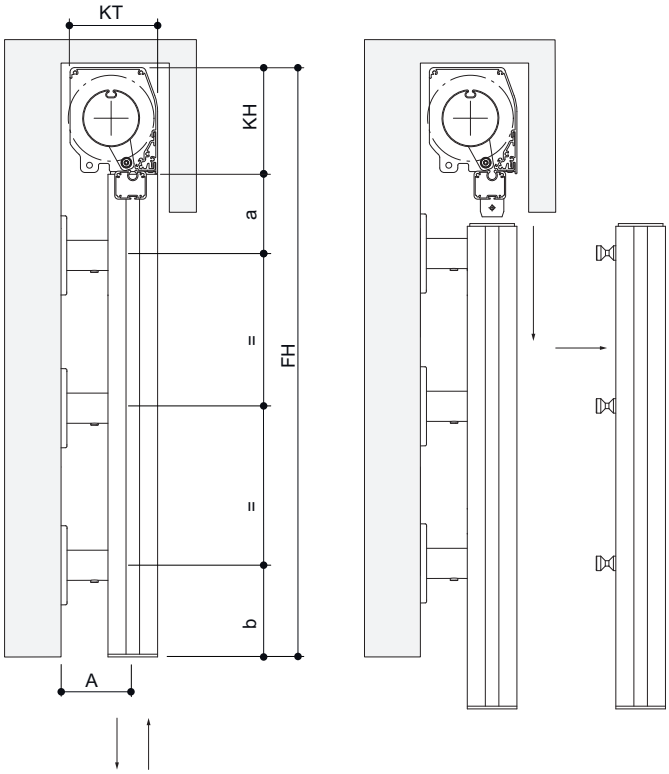
Space between the spacers [mm]				Number of spacers with complete height [mm]			
a		b		Number per guide rail			
min.	max.	min.	max.	2	3	4	5
100	200	80	200	≤ 2000	2001-3000	3001-4000	4001-5000

Number of mounting holes with guide rail length [mm]				
2	3	4	5	6
≤ 1200	1201-2000	2001-2900	2901-3800	3801-4700

Legend

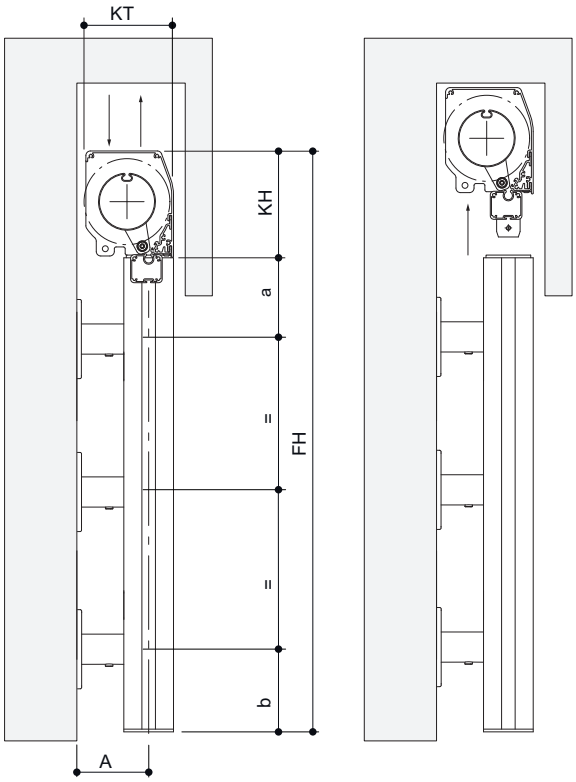
FB=AK	Complete width = outer edge of the guide rail
KT	Box depth
KH	Box height
FH	Complete height
A	Distance dimension (max. 150 mm)
a	Spacer position from the top
b	Spacer position from the bottom

Design Right roller



Removal, variant 1:

Guide rail can be lowered down



Removal, variant 2:

The recess leaves sufficient clearance that the box can be lifted up off the rail. The box can then be angled and guided down out of the recess

Legend

KT	Box depth
KH	Box height
FH	Complete height
A	Distance dimension (max. 150 mm)
a	Spacer position from the top
b	Spacer position from the bottom

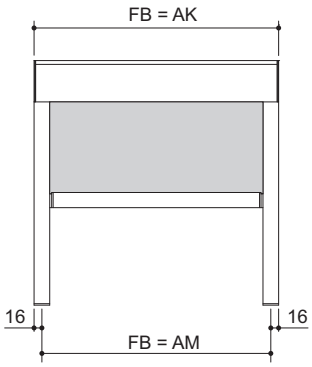
Notes:

- Only with guide rail 32x55mm
- Installation with spacers or direct installation (from the side/front).
- It must be possible to remove the unit completely for inspection.
- The guide rail must not be integrated, recessed or plastered/rendered in.
- Access for removal of the profile insert from the guide rail or to the inspection cover is also difficult with the blind extended.
- It is not possible to inspect the roller tube via the inspection opening with the system in the installed position.

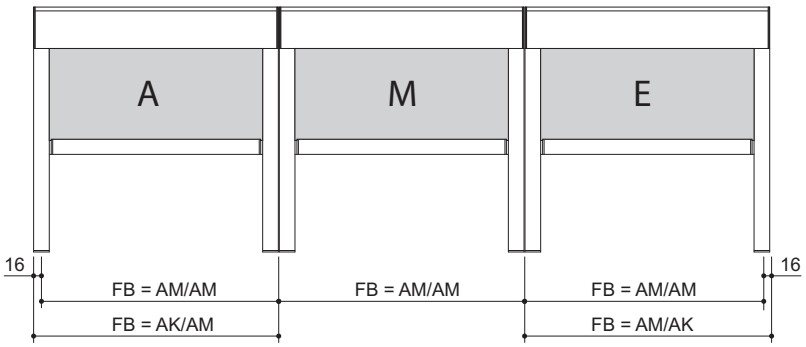
Recess awning protect

Combinations and dimensioning definition

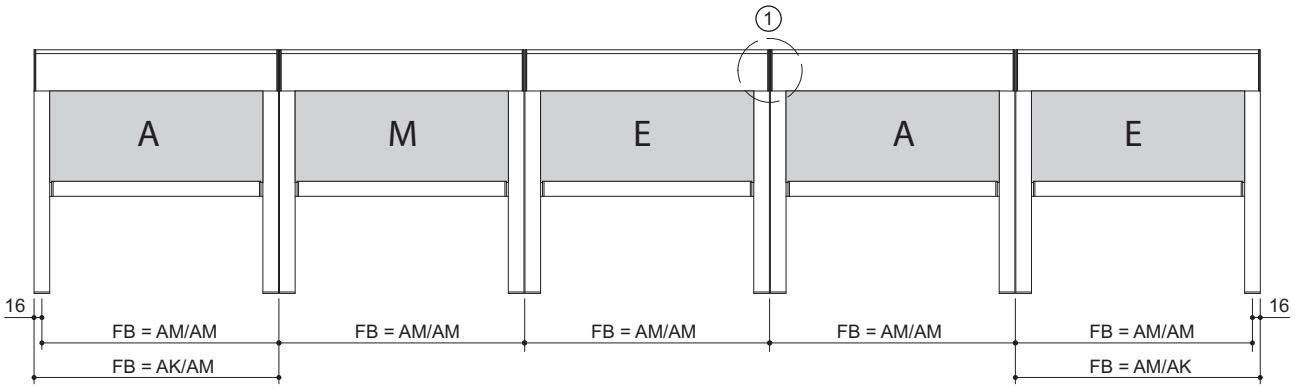
Single unit



Combination in 3 parts - box split



Combination with joint - continuation of the combination after an end element



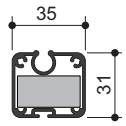
Legend

FB = AK	Complete width = outer edge of the guide rail	A	Combination start
FB = AM	Complete width = dimension between axes	M	Combination middle
FB = AK/AM	Complete width = outer edge guide rail/dimension between axes	E	Combination end
FB	Complete width = ordering width	①	Joint - continuation of the combination after an end element (only specification of the dimension between axes possible)

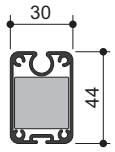
Standard dimension A for spacer

Model	Box type	Left roller		Right roller		max. A
		Standard	min. A	Standard	min. A	
SM07	H100	75	70	85		150
	H115	75	70	100		150
	H130	75	70	115		150

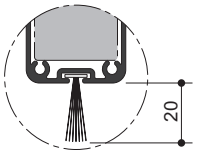
Front rail



H100.



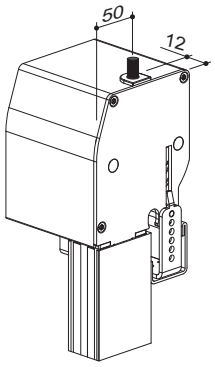
H115/H130



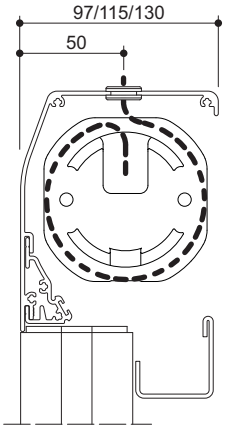
- For insect screen standard
- Without insect screen optional against surcharge

Recess awning protect

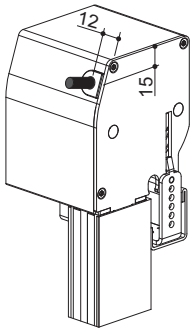
Motor drive - cable exits



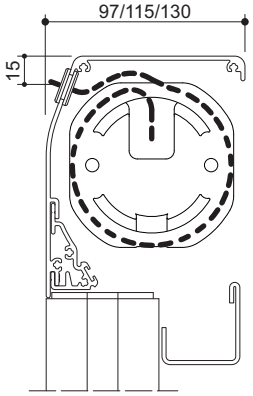
Cable exit towards the top



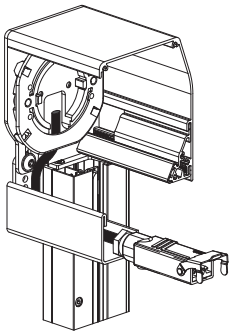
Box detail SM protect - cable exit towards the top
H100 / H115 / H130



Cable exit towards the rear

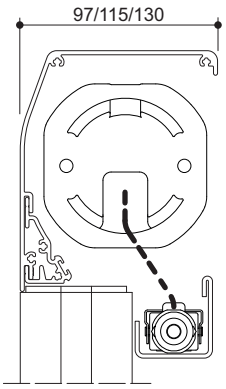


Box detail SM protect - cable exit towards the rear
H100 / H115 / H130



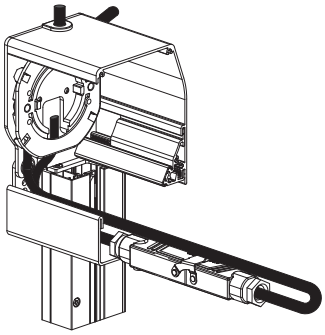
Hirschmann connector in the inspection cover

Box detail SM protect:

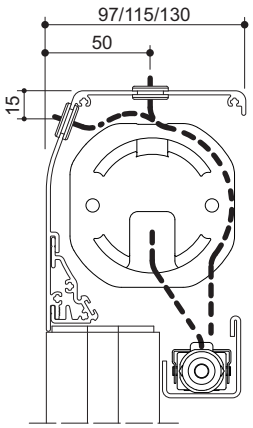


H100 / H115 / H130

Hirschmann connector in the inspection cover



Hirschmann connector stored in the inspection cover and cable lengthening towards the outside

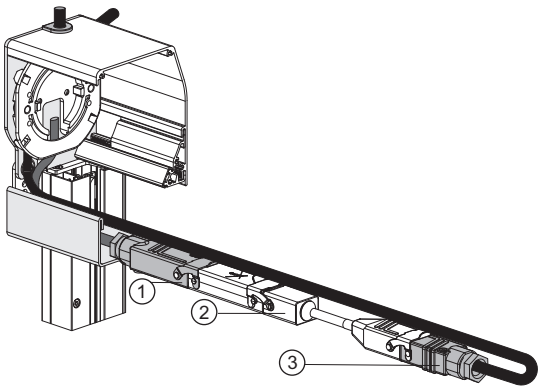


H100 / H115 / H130

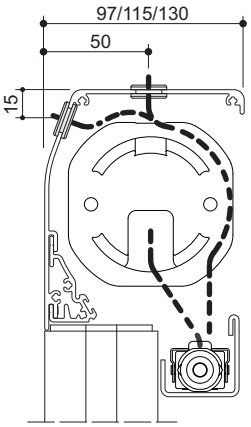
Hirschmann connector stored in the inspection cover and cable lengthening towards the outside

Attention: The open end of the cable lengthening is led out of the box and serves as direct connection to the façade, without additional plug-in connection. A subsequent inspection can then only be carried out through the inspection opening when the system is mounted!

Motor drive - Stowage ONYX.CONNECTOR



Hirschmann connector in the inspection cover with ONYX.CONNECTOR and cable extension towards the outside



Box detail SM protect

H100/H115/H130

Hirschmann connector in the inspection cover with ONYX.CONNECTOR and cable extension towards the outside

Legend

① Motor cable with Hirschmann connector
② ONYX.CONNECTOR
③ Cable extension

Basic awning cable

Recess awning with cable guiding





- Mounting angle for roller tube in case of wall or ceiling installation
- Cover guidance by cable-guided drop profile
- Wire cables are always kept under tension by a spring integrated in the mounting bracket.



- Wire cables secured by cable holders.
- Large selection of tensioning brackets and floor cable holders.

Limit sizes

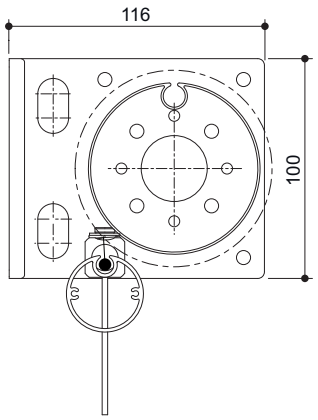
	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
Exterior use	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl)	9	500	5000	3000
	SOLTIS Veozip	9	500	4000	3000
	SOLTIS 92/86/88/96	9	500	5000	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	6	500	2500	2800
Interior use	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl)	20	500	5000	4000
	SOLTIS Veozip	16	500	4000	4000
	SOLTIS 92/86/88/96	20	500	5000	4000
	SOLTIS 99 Mermet (SATINÉ 5500 LowE)	9	500	3000	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	12	500	4000	3000

Notes:

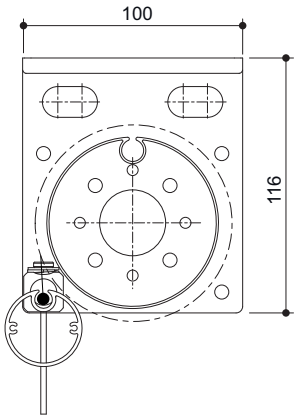
- Minimum width with motor drive 790 mm (smaller dimensions depending on the box size and type of drive are available upon request).
- Specification of the drive side for external mounting: on the left or right side (seen from the outside).
- Specification of the drive side for external mounting: on the left or right side (seen from the inside)
- Minimum width with crank handle drive 400 mm.

Angle dimension

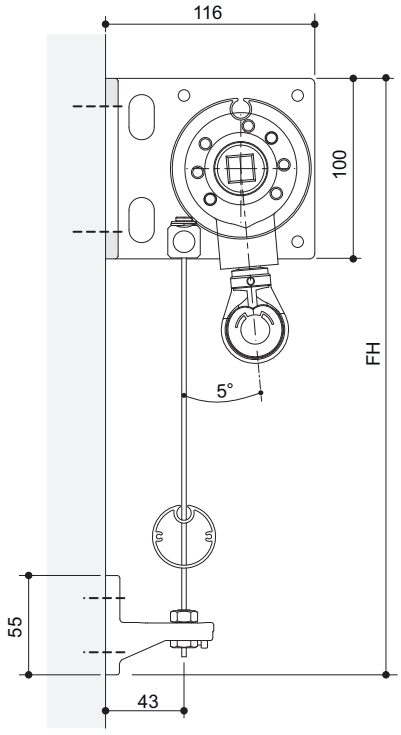
Wall installation



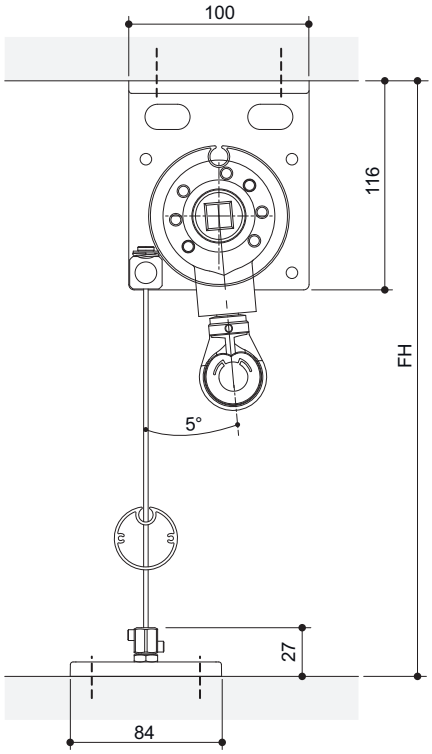
Ceiling installation



Types of installation



Installation of the bracket towards the back



Installation of the bracket towards the top

Legend

FH Complete height

Scope of delivery

- Roller tube with mounting brackets
- Cable guide with tensioning bracket and integrated spring
- Motor drive 230V, incl. 0.4 m cable with Hirschmann connector or 3 m without Hirschmann connector
- Cover glass-fibre fabric HELLA G-Screen, Serge 600 (5%) or SATINÉ 5500 or SOLTIS Veozip
- Weighted drop profile
- Freely selectable profile colors from the HELLA color world.

Supplementary equipment

- Further tensioning brackets and floor cable holders
- Wall-mounted radio transmitter / Hand-held radio transmitter
- Crank drive with eyelets and removable crank handle
- Two systems can be coupled
- Large selection of alternative covers according to collection

Benefits of the product

- Heat protection
- Sight screen
- Glare protection
- Energy saving
- Unobtrusive in the shaft due to cable guides
- Transparency to the outside due to screen fabric
- Large selection of designs as a design element
- Also suitable for indoor use for larger areas

Basic awning cable

Technical product description

Mounting bracket

Material	Die-cast aluminium
Dimension	50x116 mm

Description

- can be used for horizontal or vertical installation

Front rail

Round profile

Material	Extruded aluminium
Dimension	ø35 mm

Description

- With pushed-in weighting steel and plastic end caps
- Laterally guided via the guiding cables

Roller tube

Material	galvanised steel tube
Dimension	ø78 mm (partly ø85 mm)

Description

- Grooved shaft made of sendzimir-galvanised sheet steel with roller capsule made of plastic.

Note:

Due to the different roller tube diameters, the running speeds of the systems differ and therefore, when combining different box sizes, the height of the drop profiles is offset when the systems are moved up and down.

Cable guiding, strainer clamp

Wire cable

Material	Polyamide-sheathed stainless steel cable
Dimension	ø2,5 mm

Description

- At the lower end, the wire cable is fixed via strainer clamps or tensioning brackets with clamping screws
- Cable holders provided at the bottom are optionally available
- In the upper area, the wire cable is optimally kept under tension via a press-fitted wire cable bushing and a spring provided at the mounting bracket

Strainer clamp

Material	Aluminium
Adjusting range	23-181 mm

Options

- Tensioning shoes for the fixing to the bottom
- Tensioning brackets with an adjusting range of 39-150mm
- Threaded fitting M8 or M6

Motor drive

Electric motor

Motor	Electric motor 230 V AC, 50 Hz, IP 44
Installation	discreetly hidden in the drive shaft
Linkage	possible

Description

- Installed in the drive shaft with integrated limit switches for the upper and lower end position
- As a standard with 3 m cable without Hirschmann connector
- For a surcharge 0.5 m cable with Hirschmann connector (STAS 3 with circlip, wired at the motor) and Hirschmann cable socket (STAK 3) for on-site connection
- Optionally available with integrated radio receiver

Crank handle drive

Description

- Bevel gear unit with gear reduction 3:1 without limit stop
- Alternatively (for a surcharge): Bevel gear unit 4.4:1 with variable limit stop adjustable from the outside
- Operation via crank rod with ball hook
- Crank handle lengths 1200, 1400 or 1800 mm

Cover

PVC-coated glass fibre fabric

Weight	approx. 525 g/m²
Openness coefficient	approx. 5 %
Fire class	B1 - according to DIN4102-1

Description

- Design selection according to the HELLA collection
- Optional fabric types as per documents

Surfaces

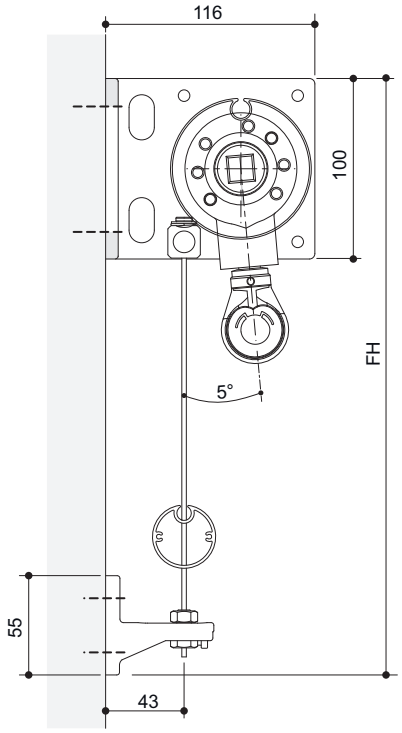
- Powder-coated aluminium parts in the standard colors without surcharge.
- Special colors according to the brochure "HELLA Color worlds" for a surcharge

Fasteners, mounting material

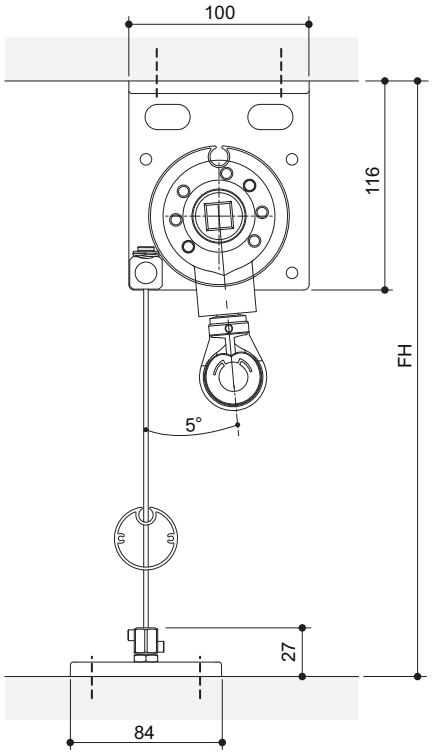
All screwed connections, fixings and connections are made of stainless steel A2.

Basic awning cable

Installation options and dimension definition



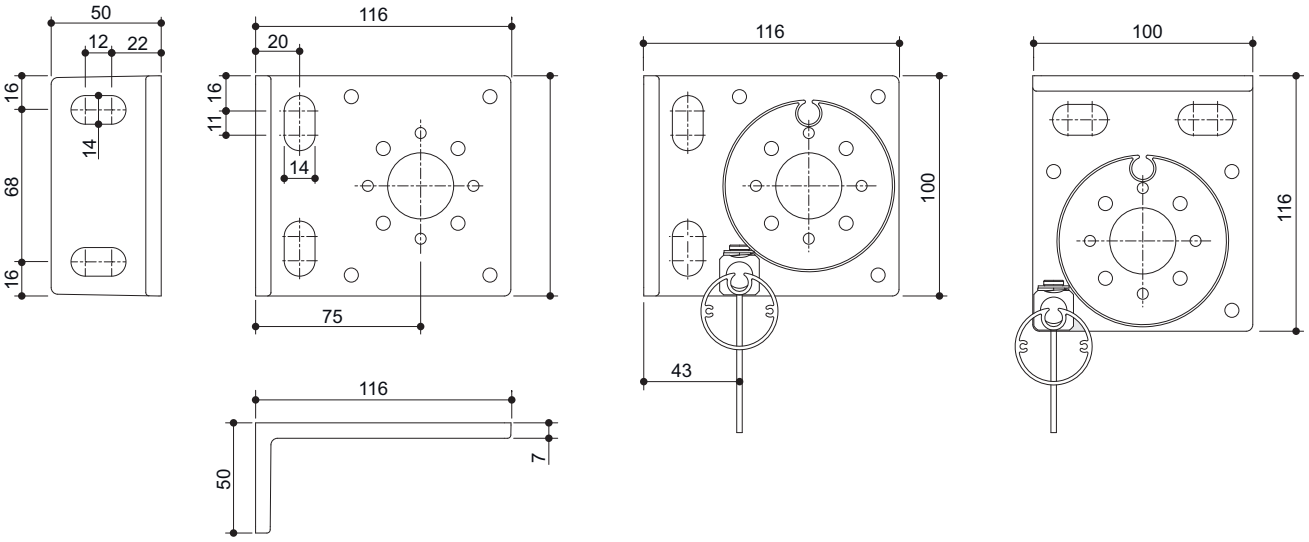
Installation of the bracket towards the back



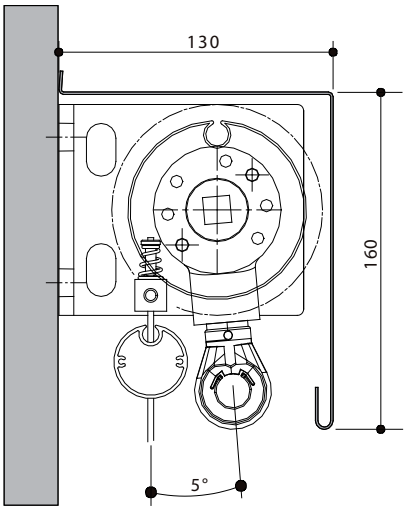
Installation of the bracket towards the top

Legend

FH Complete height



Mounting bracket with cable holder

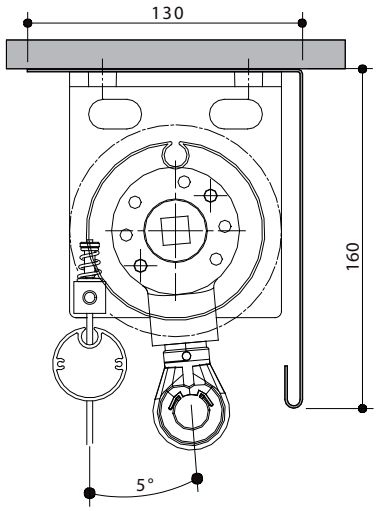


Horizontal installation:

Mounting bracket mounted towards the back.
With crank handle drive:
Gear output 5° forward-facing.

Rain shelter:
(On demand)

The rain shelter is reinforced with additional mounting links.

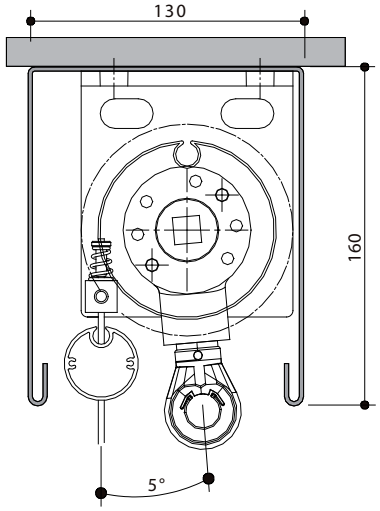


Vertical installation:

Mounting bracket mounted towards the top.
With crank handle drive:
Gear output 5° forward-facing.

Rain shelter:
(On demand)

The rain shelter is reinforced with additional mounting links.



Vertical installation:

Mounting bracket mounted towards the top.
With crank handle drive:
Gear output 5° forward-facing.

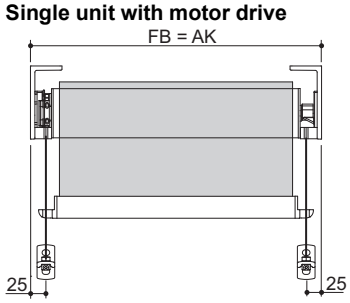
Rain shelter:
Full box:
(On demand)

The rain shelter is reinforced with additional mounting links.

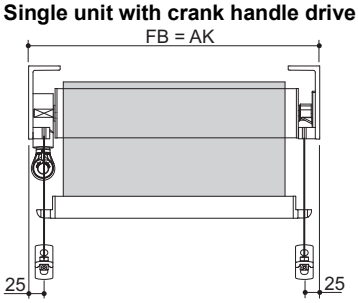
Basic awning cable

Combinations and dimensioning definition

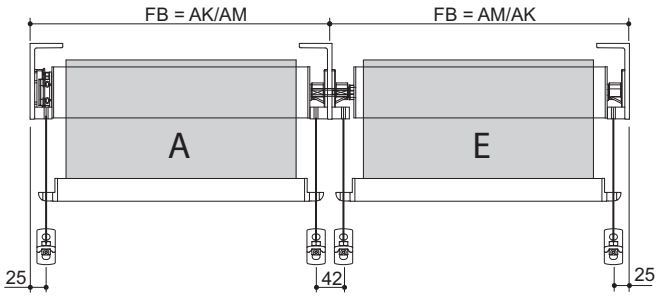
Single unit with motor drive



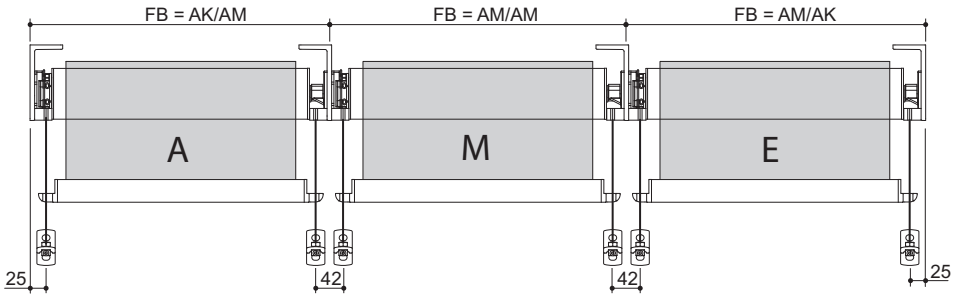
Single unit with crank handle drive



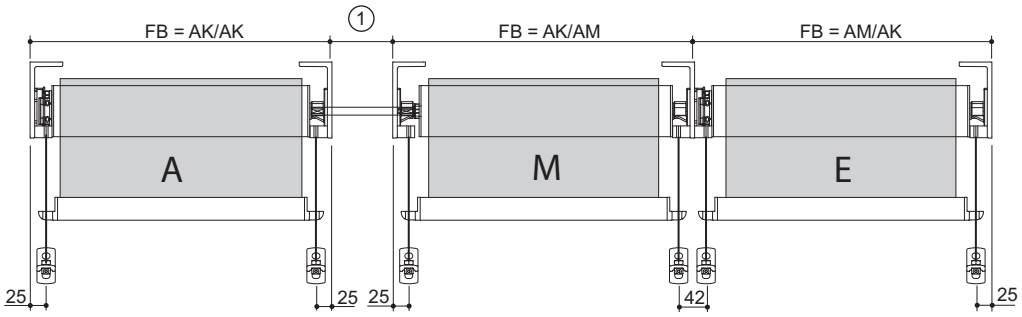
Combination **2-part** linked



Combination 3-part



Combination in 3 parts with spacer - linked



Legend

FB = AK	Complete width = outer edge of the mounting bracket	A	Combination start
FB = AK/AM	Complete width = outer edge of the mounting bracket/dimension between axes of the mounting bracket	M	Combination middle
FB	Complete width = ordering width	E	Combination end
		①	Spacer

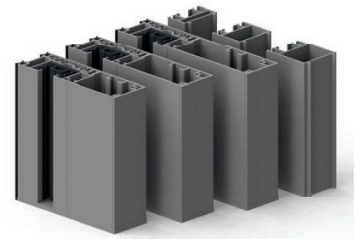
Concealed awning protect

Concealed awning protect with side seam guiding





- Rectangular extruded box with plaster base fitted onto the guides.
- Guide rails mounted directly
- The side seam guided covers are especially suitable for wind-exposed locations.
- Inspection possible through the inspection opening.



- Fully plasterable guide rails with end caps adapted to the box depth.
- With sealing profile for driving rain-proof installation.

Limit sizes

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
E100	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	10	500	3500	3000
	SOLTIS 92/86/88/96	12	500	3500	3500
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	7	500	3000	3000
	InsectScreen	10	500	3500	3000
E115	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	3500	4000
	SOLTIS 92/86/88/96	12	500	3500	4000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	3500
	InsectScreen	12	500	3500	3000
E130	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	12	500	4000	4000
	SOLTIS 92/86/88/96	12	500	4000	4000
	SOLTIS Opaque B92, SOLTIS Safe B28100 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	4000
	InsectScreen	12	500	4000	3000

Legend

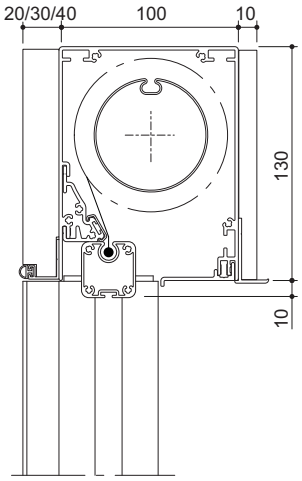
KG Box size

Notes:

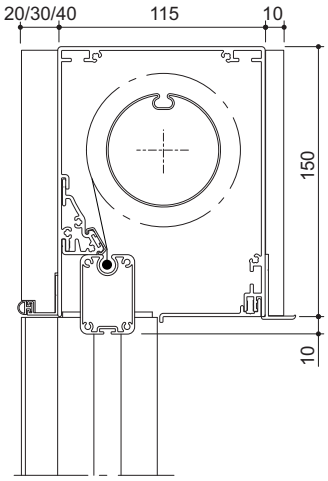
- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)

Box forms and box sizes

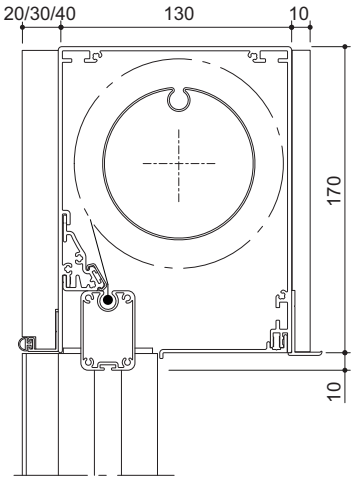
Square design
E100.



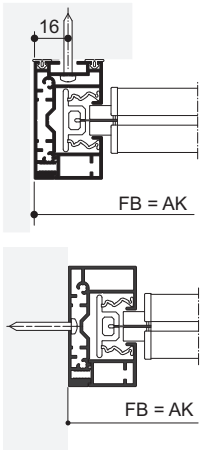
Square design
E115



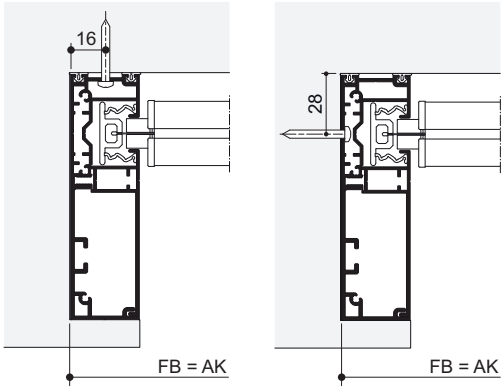
Square design
E130



Guide rails



Direct installation



Direct installation with deep guide rail

Scope of delivery

- rectangular box in three sizes with plaster base and 7 mm plaster nose
- Guide rail for direct installation with end caps (without spacers)
- Motor drive 230V, with 3 m cable without Hirschmann connector/cable socket
- Cover glass-fibre fabric HELLA G-Screen, Serge 600 (5%) or SATINÉ 5500 or SOLTIS Veozip side seam guided
- Weighted drop profile
- Freely selectable profile colors from the HELLA color world

Supplementary equipment

- Rear insulation with EPS in 20, 30 or 40 mm with sealing profile on the box
- Adapter 20, 30 or 40 mm for guide rails with box insulation
- Mitre
- Box lengthening
- deep guide rails per box size
- Various profile noses up to 47 mm in length
- Wall-mounted radio transmitter/Hand-held radio transmitter
- Integrated fall protection
- Large selection of alternative fabrics according to collection

Benefits of the product

- Heat protection
- Sight screen
- Glare protection
- Blackout
- Wind-stable sun protection
- Energy saving
- Integrated in the plastered façade
- Transparency to the outside due to screen fabric
- Large selection of designs as a design element

Concealed awning protect

Technical product description

Box

Dimension

E100	100x130 mm
E115	115x150 mm
E130	130x170 mm

Material	Extruded aluminium
Surface	powder-coated
Profile	2-part

Description

- Box is fitted onto the guide rail with galvanised side covers made of steel
- Box with plaster base board 10 mm and with available plaster flanges 7, 15, 27, 37, 47 mm

Optional:

- Box insulation on the rear side with 20 mm, 30 mm or 40 mm EPS

Front rail

square profile

Box E100

Material	Extruded aluminium
Dimension	35x31 mm

Box E115 / E130

Material	Extruded aluminium
Dimension	30x44 mm

Description

- With inserted weighting steel.
- Laterally guided in the guide rails with plastic gliders.
- Optionally with 20 mm sealing brush at extra cost (with insect screen fabric standard without extra cost)

Roller tube

Box E100 / E115

Material	galvanised steel tube
Dimension	ø63 mm

Box E130

Material	galvanised steel tube
Dimension	ø85 mm

Description

- Both ends of the roller tube are equipped with adapters made of plastic with which a tapering of the roller tube is achieved. Herewith it is possible to correct the thicker ends of the rolled up zip fastener. An inspection is possible via a spring-loaded telescopic roller cap.

Note:

Due to the different roller tube diameters, the running speeds of the systems differ and therefore, when combining different box sizes, the height of the drop profiles is offset when the systems are moved up and down.

Guide rails

Box E100 / E115 / E130

Material	Extruded aluminium
Dimension	32x55 mm
Profile	2-part

Optional:

- deep guide rail 32x97 mm
- deep guide rail 32x115 mm
- deep guide rail 32x130 mm
- Extruded guide rail adapter for distancing of the guide rails with 20 mm, 30 mm or 40 mm

Description

- The inner guiding consists of a black co-extruded plastic profile with full-length buffer lips made of foamed material. The zippener which is provided at the cover, is inserted into this plastic profile and kept sliding. The lower end caps of the guide rails are made of powder-coated aluminium sheet steel and can be used up to a diagonal guide rail cut of 5°.
- Installation of the guide rail directly to the window frame or laterally in the soffit.
- Optionally, an installation with spacers up to a distance of max. 150 mm is possible with fixed spacers.

Motor drive

Electric motor

Motor	Electric motor 230 V AC, 50 Hz, IP 44
Installation	discreetly hidden in the drive shaft
Linkage	not possible

Description

- Special protective function for the curtain in the Down-direction, and blocking detection in the Up-direction to protect the cover
- with torque switch-off for the upper end position
- Thermo protective switch to prevent overheating
- As a standard with 3 m cable without Hirschmann connector
- For a surcharge 0.5 m cable with Hirschmann connector (STAS 3 with circlip, wired at the motor) and Hirschmann cable socket (STAK 3) for on-site connection
- Optionally available with integrated radio receiver

Cover

PVC-coated glass fibre fabric

Weight	approx. 525 g/m²
Openness coefficient	approx. 5 %
Fire class	B1 - according to DIN4102-1

Description

- Design selection according to the HELLA collection
- Optional fabric types as per documents

Surfaces

- Powder-coated aluminium parts in the standard colors without surcharge.
- Special colors according to the brochure "HELLA Color worlds" for a surcharge

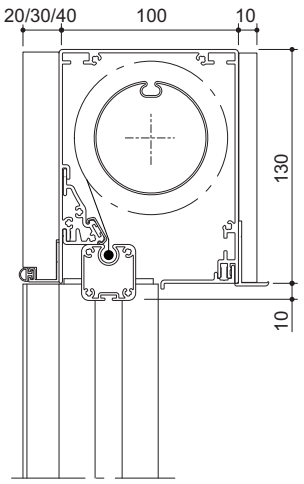
Fasteners, mounting material

All screwed connections, fixings and connections are made of stainless steel A2.

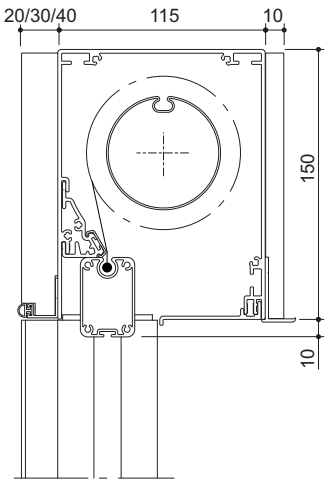
Concealed awning protect

Box dimensions

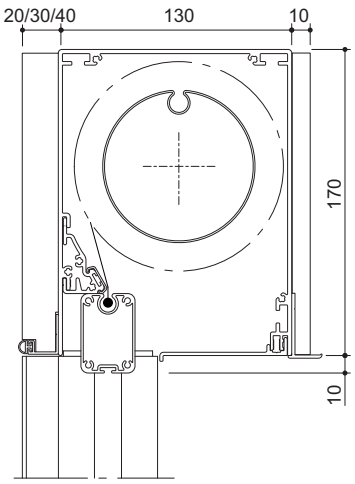
E100.



E115

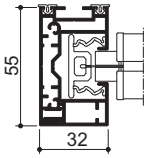


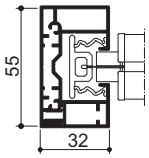
E130



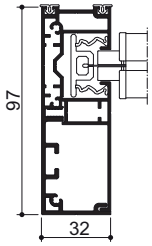
Overview guide rails

Motor
E100/115/130

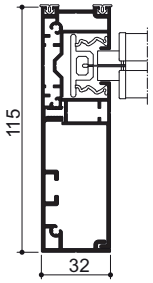




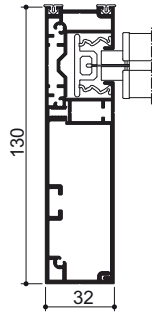
Motor
E100

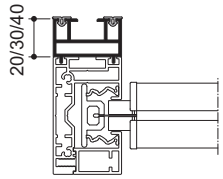


Motor
E115



Motor
E130

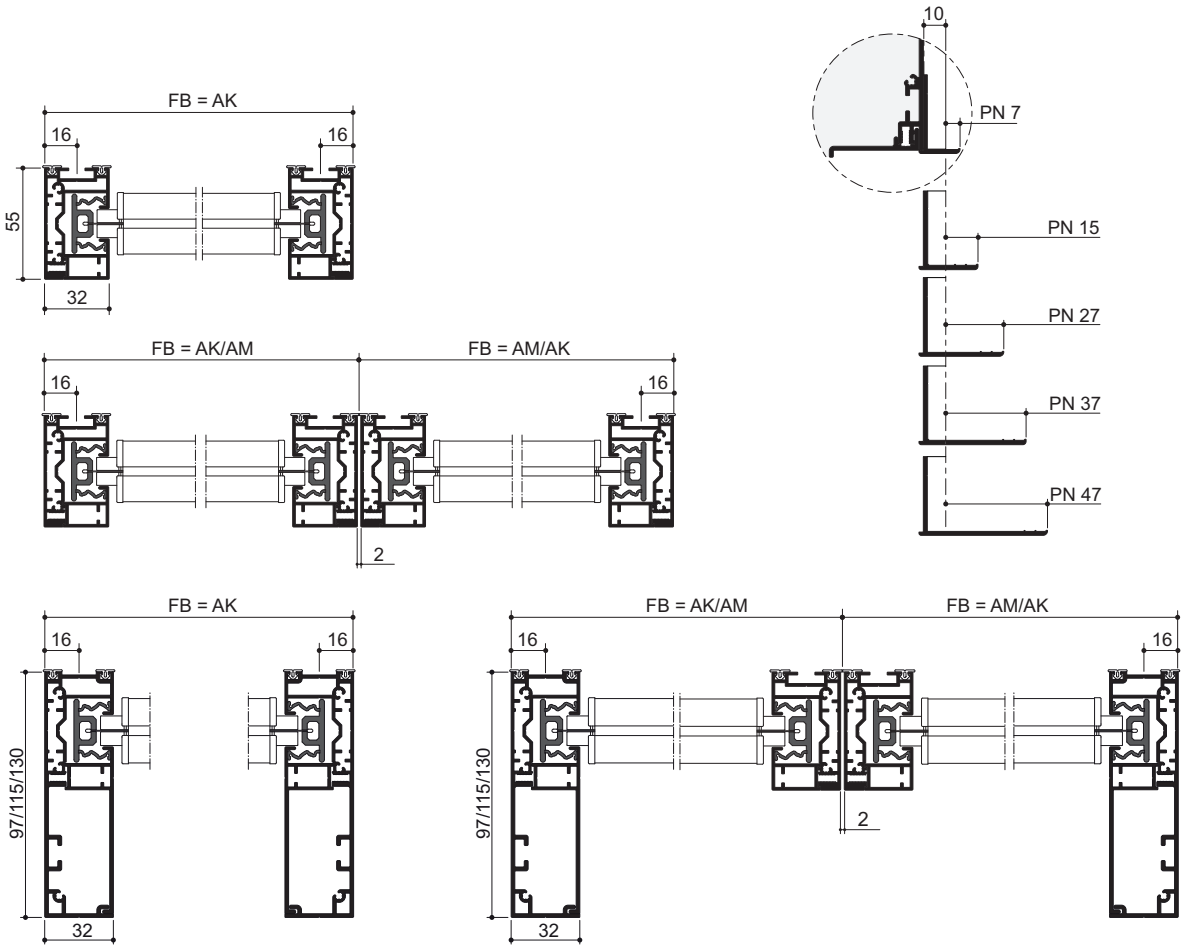




Adapter profile for guide rail spacing

20 mm adapter profile
30 mm adapter profile
40 mm adapter profile

Dimensioning definition for complete width (= ordering width)



Legend

FB = AK	Complete width = outer edge of the guide rail
FB = AM	Complete width = dimension between axes
PN	Plaster flange

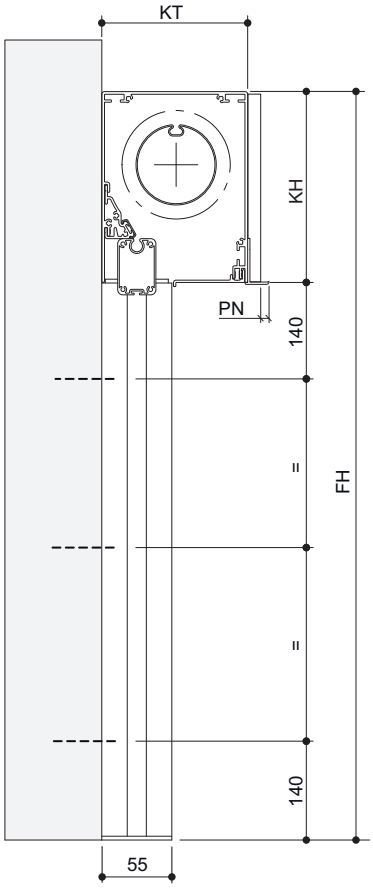
Notes:

The box end profile is available in 5 different leg lengths (17, 25, 37, 47 and 57 mm). In conjunction with a plaster base board of 10 mm, this means a profile nose of 7, 15, 27, 37 and 47 mm.

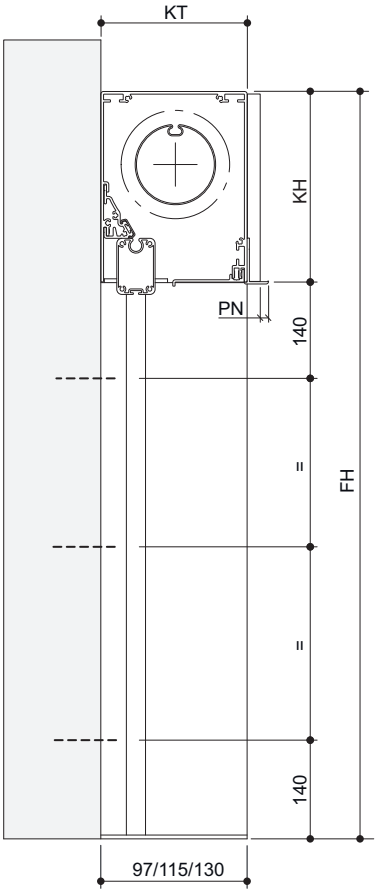
The box end profile is not intended for trimming. The regulations stipulate that the building must include joint profiles on the profile extension to prevent cracking and the water ingress that could result.
Refer to guideline "Anschlüsse an Fenster und Rollläden bei Putz, Wärmedämmverbundsystem und Trockenbau (Ausgabe 2021, 3.Auflage)" ["Joints at windows and roller shutters with render, composite thermal insulation systems and drywall (issued 2021, 3rd edition)"] published by German roller shutter and sun protection trade association "Rollladen + Sonnenschutz e.V." and guideline "Anschlüsse an Sonnenschutzprodukten - Schnittstellen Sonnenschutz, Führungsschiene, Fenster und Fensterbank (Ausgabe 2023)" ["Joints at sun protection products – interfaces of sun protection, guide rail, window and window ledge (issued 2023)"] published by German roller shutter and sun protection automation industry body IVRSA.

Concealed awning protect

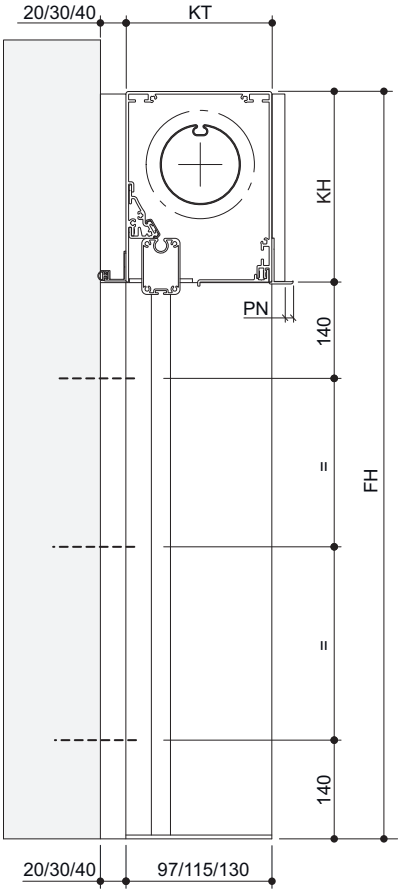
Installation options and dimension definition



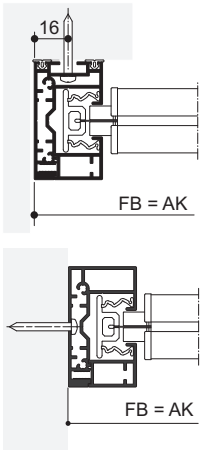
Direct installation



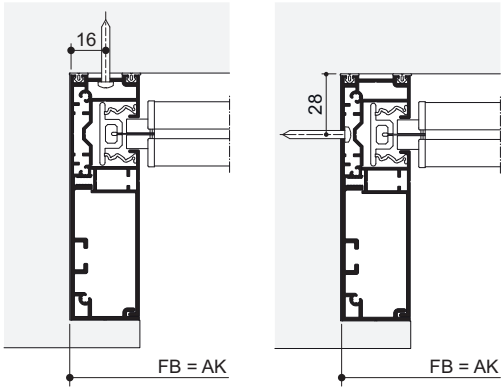
Installation with deep guide rail



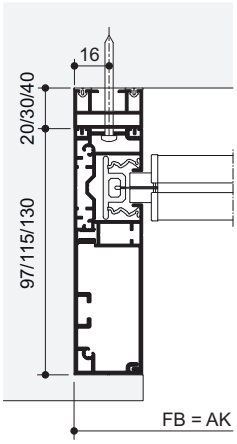
Installation with deep guide rail and insulation on the rear side



Direct installation from the front or side in the soffit



Direct installation with deep guide rail from the front or side in the soffit



Direct installation with deep guide rail and insulation on the rear side

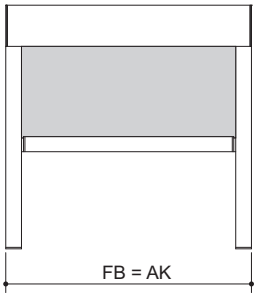
Number of mounting holes with guide rail length [mm]				
2	3	4	5	6
≤ 1200	1201-2000	2001-2900	2901-3800	3801-4700

Legend

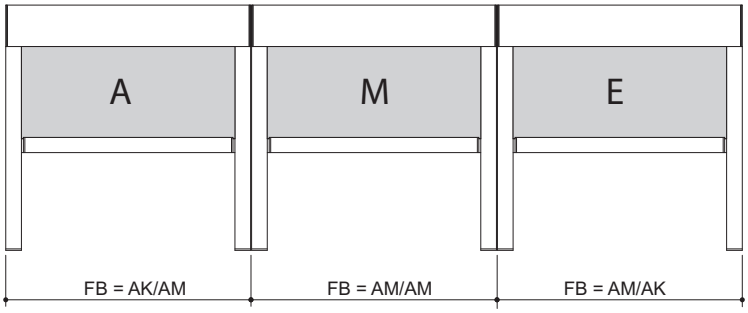
FB = AK Complete width = outer edge of the guide rail
FH Complete height
KT Box depth
KH Box height
PN Plaster flange

Combinations and dimensioning definition

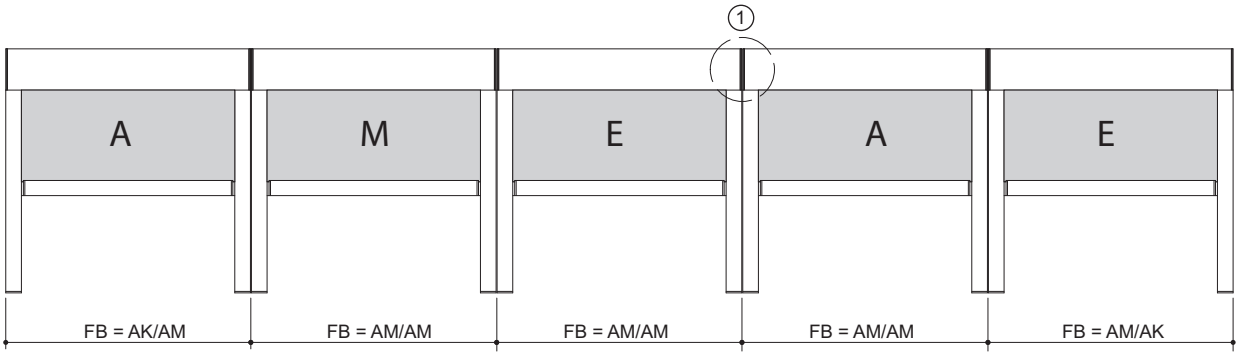
Single unit



Combination in 3 parts - box split



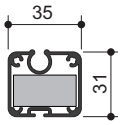
Combination with joint - continuation of the combination after an end element



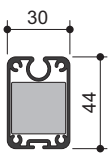
Legend

FB = AK	Complete width = outer edge of the guide rail	A	Combination start
FB = AM	Complete width = dimension between axes	M	Combination middle
FB = AK/AM	Complete width = outer edge guide rail/dimension between axes	E	Combination end
FB	Complete width = ordering width	①	Joint - continuation of the combination after an end element (only specification of the dimension between axes possible)

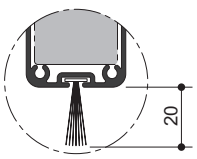
Front rail



E100.



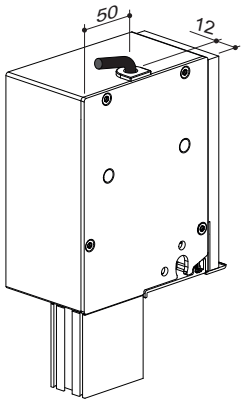
E115/E130



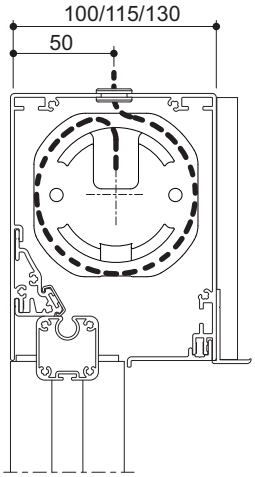
- For insect screen standard
- Without insect screen optional against surcharge

Concealed awning protect

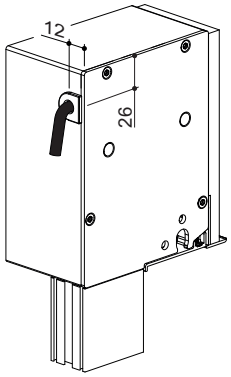
Motor drive - cable exits



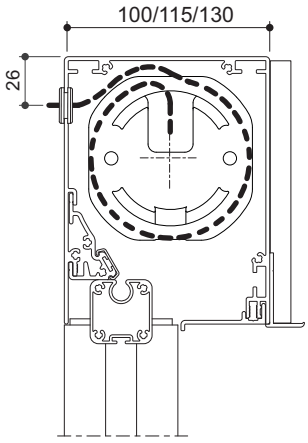
Cable exit towards the top



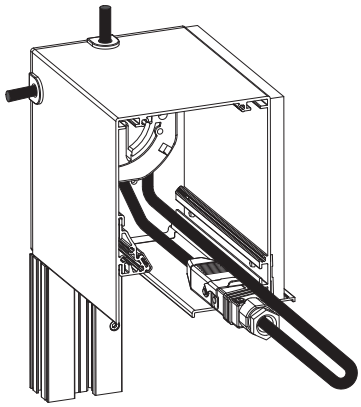
Box detail PM protect - cable exit towards the top
E100 / E115 / E130



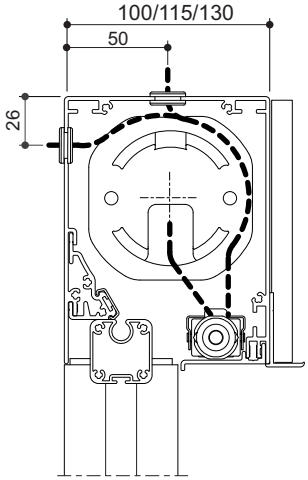
Cable exit towards the rear



Box detail PM protect - cable exit towards the rear
E100 / E115 / E130



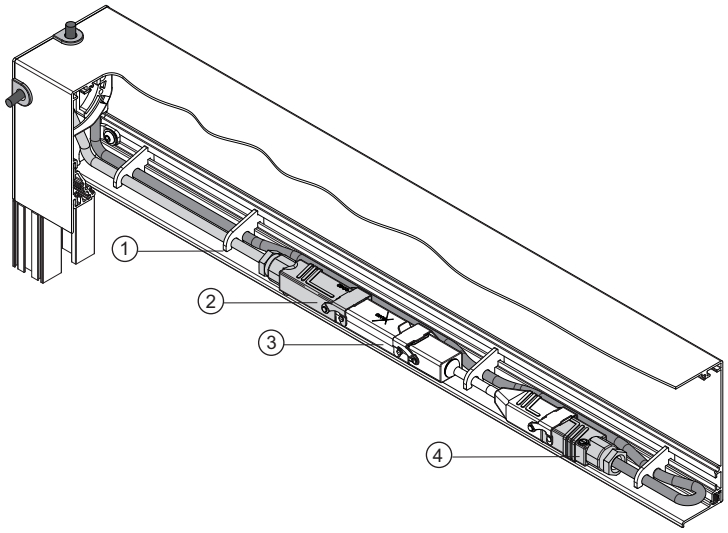
Hirschmann connector stored in the box and cable lengthening towards the outside



Box detail PM protect
E100 / E115 / E130
Hirschmann connector stored in the box and cable lengthening towards the outside

Attention: The open end of the cable lengthening is led out of the box and serves as direct connection to the facade, without additional plug-in connection. A subsequent inspection can then only be carried out through the inspection opening when the system is mounted!

Motor drive - Stowage ONYX.CONNECTOR



Legend

① Cable holder
② Motor cable with Hirschmann connector
③ ONYX.CONNECTOR
④ Cable extension

Concealed awning cable

Concealed awning with cable guiding





- Extruded rectangular box with plaster base and optional insulation
- Grooves on top of box for variable angle position on box
- Alternatively direct mounting from the front through the box (without angle)
- Box with sealing profile for driving rain-proof installation



- Wire cables secured by tensioning bracket and tensioned in box by spring
- Large selection of other tensioning brackets and floor cable holders.

Limit sizes

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
E115	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (SATINÉ 5500, Natte 4503) Acrylic fabric, polyester fabric, Twilight (Elements, Comfort and Pearl) SOLTIS Veozip	9	500	3000	3000
	SOLTIS 92/86/88/96	9	500	3000	3000
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	6	500	3000	3000

Legend

KG Box size

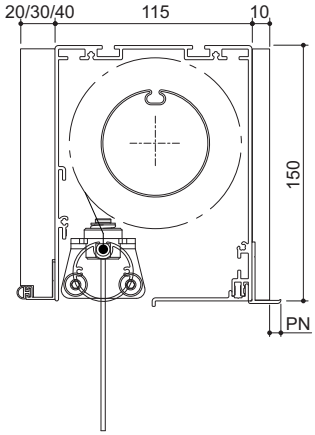
Notes:

- The minimum width with motor drive depends on box size and drive type. Refer to the motor application tables in the technical section.
- Specification of the drive side: on the left or right side (seen from the inside)

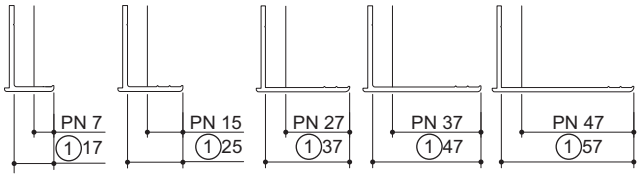
Box forms and box sizes

Square design

E115.



Box end profile



Legend

PN Plaster flange

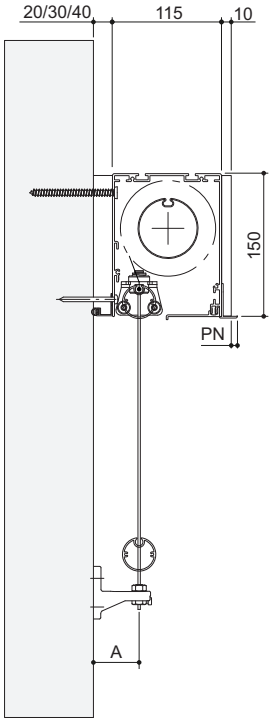
① Box end profile

Notes:

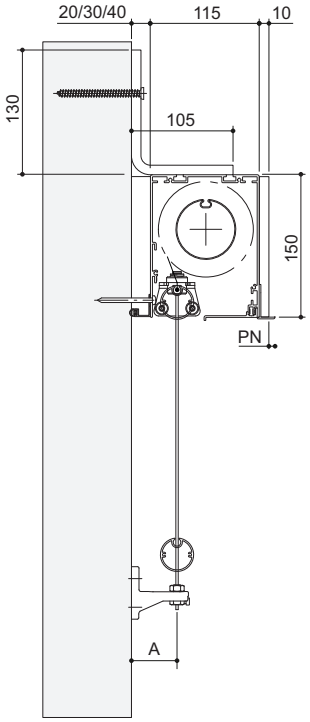
The box end profile is available in 5 different leg lengths (17, 25, 37, 47 and 57 mm). In conjunction with a plaster base board of 10 mm, this means a profile nose of 7, 15, 27, 37 and 47 mm.

The box end profile is not intended for trimming. The regulations stipulate that the building must include joint profiles on the profile extension to prevent cracking and the water ingress that could result.
Refer to guideline "Anschlüsse an Fenster und Rollläden bei Putz, Wärmedämmverbundsystem und Trockenbau (Ausgabe 2021, 3.Auflage)" ["Joints at windows and roller shutters with render, composite thermal insulation systems and drywall (issued 2021, 3rd edition)"] published by German roller shutter and sun protection trade association "Rollladen + Sonnenschutz e.V." and guideline "Anschlüsse an Sonnenschutzprodukten - Schnittstellen Sonnenschutz, Führungsschiene, Fenster und Fensterbank (Ausgabe 2023)" ["Joints at sun protection products – interfaces of sun protection, guide rail, window and window ledge (issued 2023)"] published by German roller shutter and sun protection automation industry body IVRSA.

Types of installation



Installation directly through the box



Installation with a mounting bracket

Scope of delivery

- rectangular box 115x150 mm with plaster base and 7 mm plaster nose
- Cable guide with strainer clamp
- Motor drive 230V, with 3 m cable without Hirschmann connector/cable socket
- Cover glass-fibre fabric HELLA G-Screen, Serge 600 (5%) or SATINÉ 5500 or SOLTIS Veozip
- Weighted drop profile
- Freely selectable profile colors from the HELLA color world

Supplementary equipment

- Box optionally as direct mounting from the front through the box or with additional box angle on the box
- Rear insulation with EPS in 20, 30 or 40 mm with sealing profile on the box
- Various profile noses up to 47 mm in length
- Wall-mounted radio transmitter/Hand-held radio transmitter
- Large selection of alternative fabrics according to collection

Benefits of the product

- Heat protection
- Sight screen
- Glare protection
- Blackout
- Transparency to the outside
- Integrated in the plastered façade
- Unobtrusive due to cable guide and flush mounting
- Large selection of designs as a design element

Concealed awning cable

Technical product description

Box

Dimension

E115	115x150 mm

Material	Extruded aluminium
Surface	powder-coated
Profile	2-part

Description

- Box with plaster base board 10 mm and with available plaster flanges 7, 15, 27, 37, 47 mm
- Due to lateral friezes 15 mm, the inspection cover can be removed and the inspection of the roller tube towards the bottom is possible in the plastered condition
- An installation with brackets via the groove profile on the upper side of the box is possible
- It is possible to screw the box directly via duct borings in the front side
- In retracted state, the front rail is discreetly hidden

Optional:

- Box insulation on the rear side with 20 mm, 30 mm or 40 mm EPS

Front rail

Round profile

Material	Extruded aluminium
Dimension	ø35 mm

Description

- With pushed-in weighting steel and plastic end caps
- Laterally guided via the guiding cables

Roller tube

Box E115

Material	galvanised steel tube
Dimension	ø63 mm

Description

- Grooved shaft made of sendzimir-galvanised sheet steel with roller capsule made of plastic.

Cable guiding, strainer clamp

Wire cable

Material	Polyamide-sheathed stainless steel cable
Dimension	ø2,5 mm

Description

- At the lower end, the wire cable is fixed via strainer clamps or tensioning brackets with clamping screws
- Cable holders provided at the bottom are optionally available
- In the upper area, the wire cable is optimally kept under tension via a press-fitted wire cable bushing and a spring integrated in the box

Strainer clamp

Material	Aluminium
Adjusting range	23-181 mm

Options

- Tensioning shoes for the fixing to the bottom
- Tensioning brackets with an adjusting range of 39-150mm
- Threaded fitting M8 or M6

Motor drive

Electric motor

Motor	Electric motor 230 V AC, 50 Hz, IP 44
Installation	discreetly hidden in the drive shaft
Linkage	possible

Description

- Installed in the drive shaft with integrated limit switches for the upper and lower end position
- As a standard with 3 m cable without Hirschmann connector
- For a surcharge 0.5 m cable with Hirschmann connector (STAS 3 with circlip, wired at the motor) and Hirschmann cable socket (STAK 3) for on-site connection
- Optionally available with integrated radio receiver

Cover

PVC-coated glass fibre fabric

Weight	approx. 525 g/m²
Openness coefficient	approx. 5 %
Fire class	B1 - according to DIN4102-1

Description

- Design selection according to the HELLA collection
- Optional fabric types as per documents

Surfaces

- Powder-coated aluminium parts in the standard colors without surcharge.
- Special colors according to the brochure "HELLA Color worlds" for a surcharge

Fasteners, mounting material

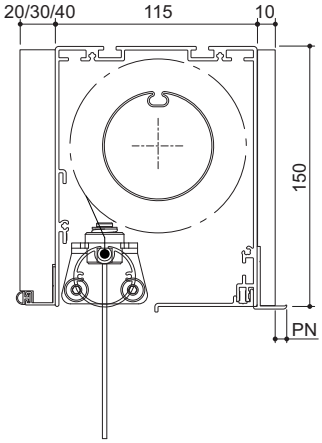
All screwed connections, fixings and connections are made of stainless steel A2.

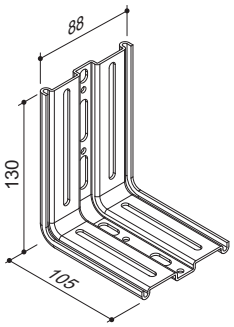
Concealed awning cable

Box dimensions

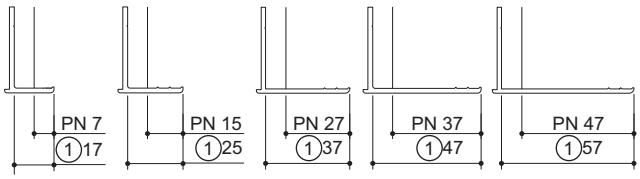
Square design

E115.





Box end profile



Legend

PN Plaster flange

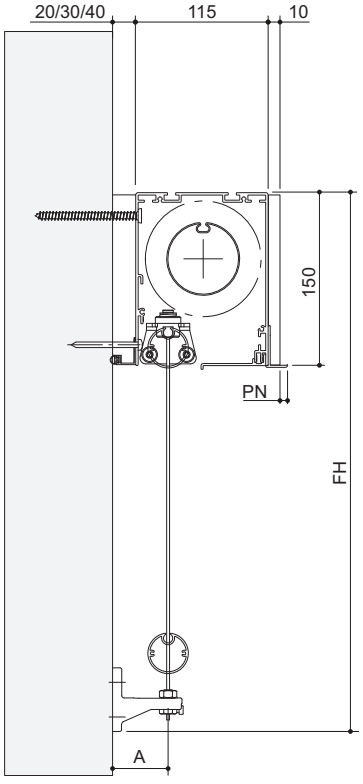
① Box end profile

Notes:

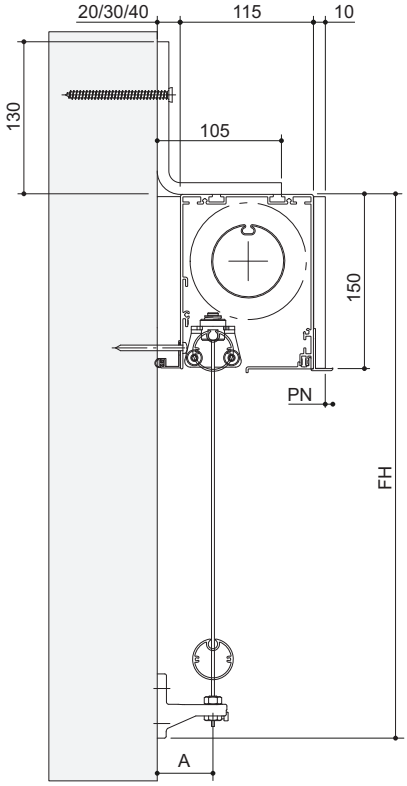
The box end profile is available in 5 different leg lengths (17, 25, 37, 47 and 57 mm). In conjunction with a plaster base board of 10 mm, this means a profile nose of 7, 15, 27, 37 and 47 mm.

The box end profile is not intended for trimming. The regulations stipulate that the building must include joint profiles on the profile extension to prevent cracking and the water ingress that could result.
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Installation options and dimension definition



Direct installation through the box



Installation with mounting bracket

Legend

FH Complete height

PN Plaster flange

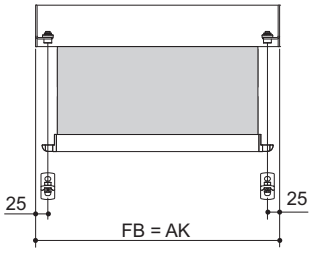
A Dimension A (mounting surface up to cable axis) [mm]

Note:

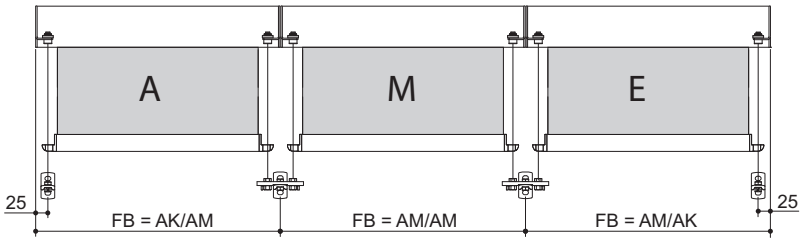
Separate delivery of drive shaft with fabric for subsequent installation after box fixing on site.

Combinations and dimensioning definition

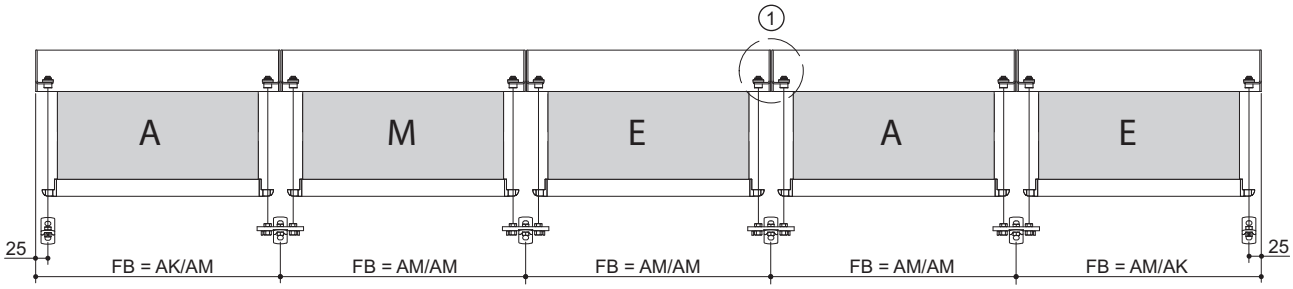
Single unit



Combination in 3 parts - box split



Combination with joint -continuation of the combination after 3 elements

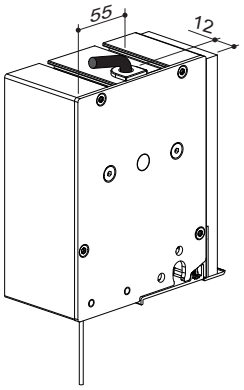


Legend

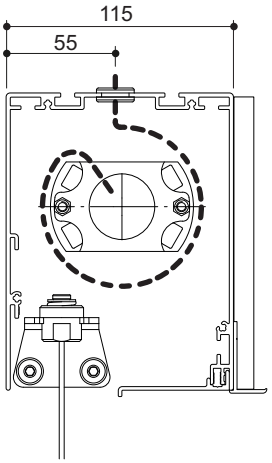
FB = AK	Complete width = outer edge of the box	A	Combination start
FB = AK/AM	Complete width = outer edge of the box/dimension between axes of the double cable holder	M	Combination middle
FB	Complete width = ordering width	E	Combination end
		①	Joint - continuation of the combination after an end element (only specification of the dimension between axes possible)

Concealed awning cable

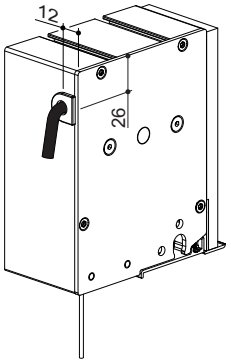
Motor drive - cable exits



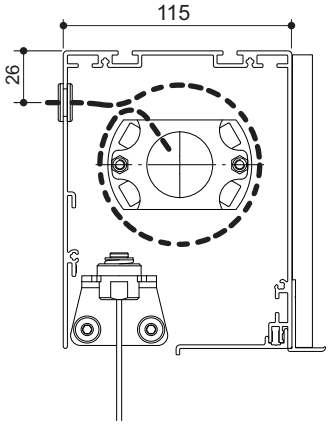
Cable exit towards the top



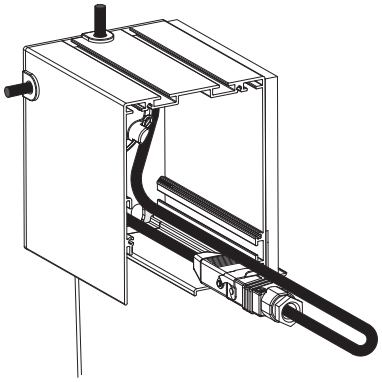
Box detail PM cable - cable exit towards the top
E115.



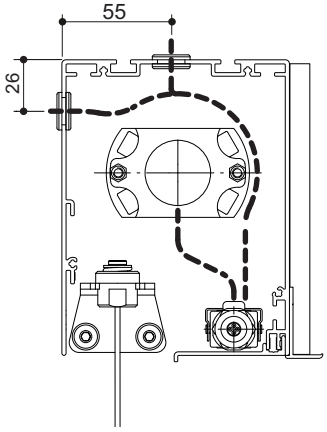
Cable exit towards the rear



Box detail PM cable - cable exit towards the rear
E115



Hirschmann connector stored in the box and cable lengthening towards the outside

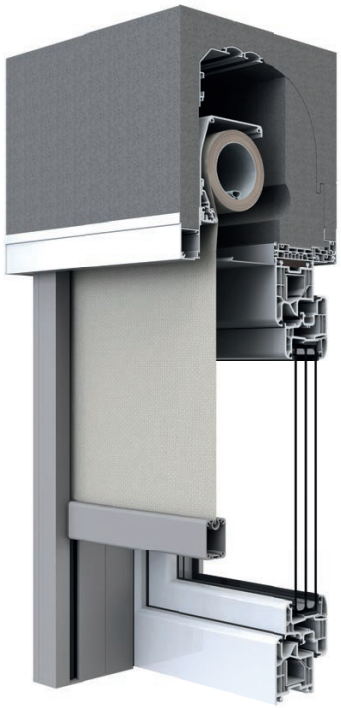


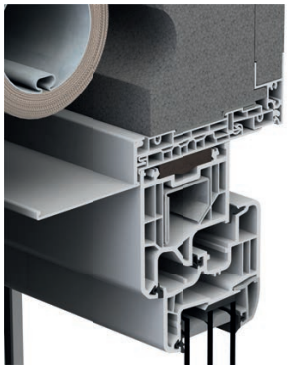
Box detail PM cable
E115
Hirschmann connector stored in the box and cable lengthening towards the outside

Attention: The open end of the cable lengthening is led out of the box and serves as direct connection to the facade, without additional plug-in connection. A subsequent inspection can then only be carried out through the inspection opening when the system is mounted!

TOP FOAM screen protect

TOP FOAM screen protect with side seam guiding







- Easy-to-fit top-mounted made of EPS with universal or window-specific clip adapters
- Stable mounting profile integrated into the box for fixing the factory-preassembled protect vertical awning

Limit sizes

	Max. width [mm]*	Max. height [mm]*	Max. surface [m²]*	Drive system
TOP FOAM screen protect	3500	3500	12	Motor

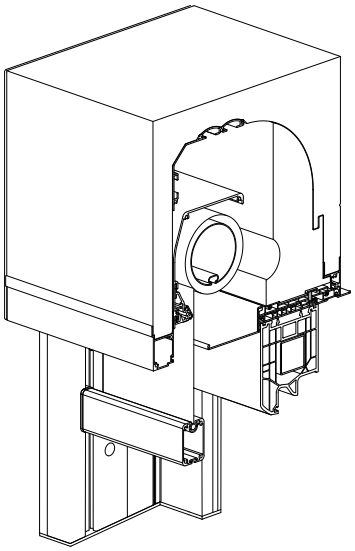
* Observe restrictions as per limit size tables in the relevant chapters.

KG	Cover	Max. surface [m²]	Min. height [mm]	max. width [mm]	max. height [mm]
250 300	Glass fibre fabric HELLA G-Screen, Copaco (Serge 600 5%, 1%) Glass fibre fabric Mermet (Satine 5500, Natte 4503) Acrylic fabric (only plain design), Twilight (Comfort and Pearl) SOLTIS Veozip	12	500	3500	3000
	SOLTIS 92/86/88/96	12	500	3500	3500
	SOLTIS Opaque B92 Mermet (SATINÉ 21154) Copaco (Serge 600 lunar)	9	500	3000	3000

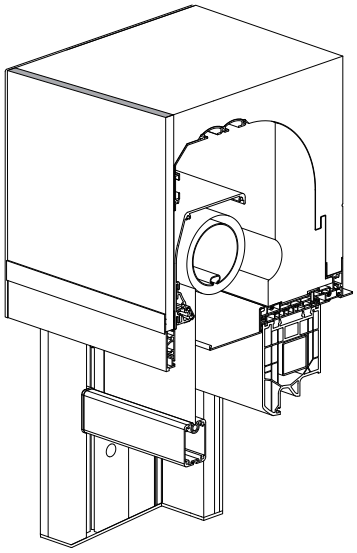
Minimum width	Without wireless	With wireless	Speed [r.p.m]	min. width [mm]	Motor head
elero short drive	x	x	14	630	Round Head
elero	x	x	23	700	Round Head
Somfy	x	x	17	840	Round Head

Attention: linking not possible

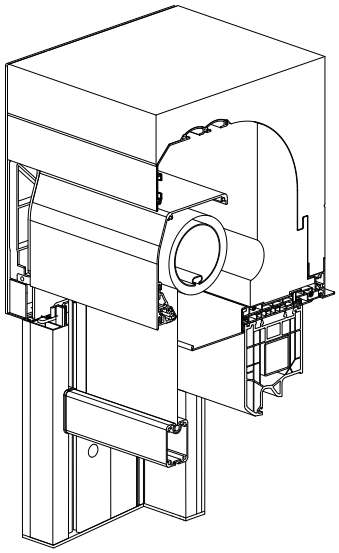
Box forms and box sizes



TOP FOAM screen protect



TOP FOAM screen protect .S
with box top board on a PUR/PIR rigid foam basis



TOP FOAM screen protect.S
without front skirt

Comment:
The S-design describes the top-mounted box with front box top board made of PUR/PIR rigid foam.

TOP FOAM screen protect

Box sizes	260/250	300/250	365/250	425/250	260/300	300/300	365/300	425/300	KT/KH
Box depth	260	300	365	425	260	300	365	425	variable
Box height	250	250	250	250	300	300	300	300	variable

TOP FOAM screen protect .S

Box sizes	243/250	283/250	348/250	243/300	283/300	348/300	KT/KH
Box depth	243	283	348	243	283	348	variable
Box height	250	250	250	300	300	300	variable

Legend

KT Box depth variable, KTmin: 260, KTmax: 500
KH Box height variable, KHmin: 250 or 300, KHmax: 299 or 360

Scope of delivery

- Box element TOP FOAM
- Box heights 250 and 300 mm
- Box depths 260 and 300 mm
- Box end profile uncoated inside and out
- Deep guide rail with end caps and piping for side seam guide Motor drive 230V, with 3 m cable without Hirschmann connector/coupling
- Cover SOLTIS Veozip or glass-fibre fabric HELLA G-Screen, Serge 600 (5%) or SATINÉ 5500 side-rail guided
- Weighted drop profile
- Freely selectable profile colors from the HELLA Color worlds

Supplementary equipment

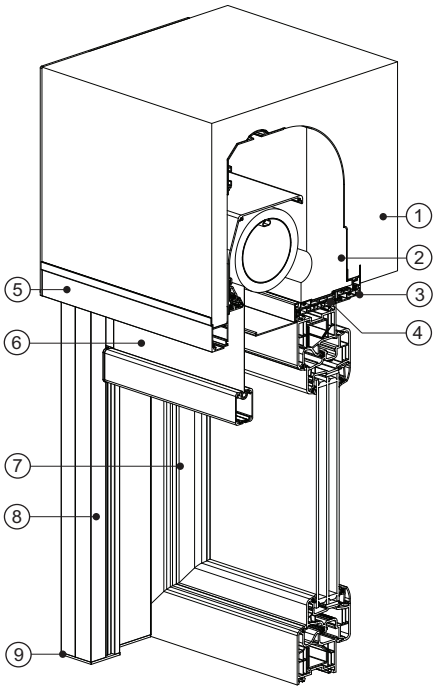
- Box depth 365/425 mm
- Variable box size
- Box for clinker design
- Bottom side of the lintel provided with a cover panel
- Wall-mounted radio transmitter /hand-held radio transmitter
- Window-specific clip adapters
- different box end profiles
- additional possibilities to fix the box
- Bottom strengthening profile
- Statics bracket
- Box end profile powder-coated in HELLA standard colors inside and out
- Fan recesses for Aereco and Siegenia
- Integrated fall protection
- Large selection of alternative fabrics from collection

Benefits of the product

- Heat protection
- Privacy
- Glare protection
- Blackout
- Wind-stable sun protection
- Energy saving
- Integrated into façade
- Transparency to the outside due to screen fabric
- Design element through large selection of designs
- Tests for sound insulation, airtightness and thermal insulation

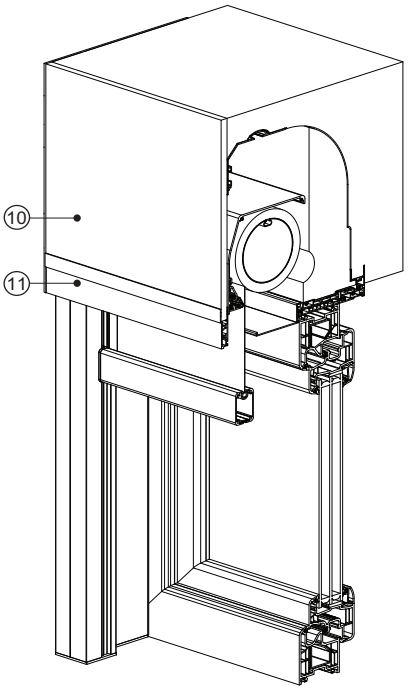
TOP FOAM screen protect

Type overview



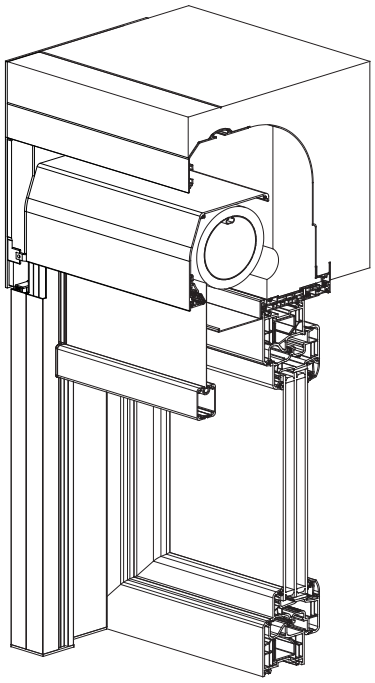
TOP FOAM screen protect

- Monolithic brickwork
- Thermal insulation composite system



TOP FOAM screen protect .S

- Clinker facade
- Timber construction
- Thermal insulation composite system



TOP FOAM screen protect .S without front skirt

- Clinker facade

Legend

①	Box insulating body screen protect/screen protect .S	⑦	Window element
②	Insulation profile	⑧	2-part guide rail
③	Box end rail 0 mm inside, aluminium	⑨	End cap for guide rail
④	Floor base profile and adapter profile	⑩	Box top board on a PUR/PIR rigid foam basis, 10 mm
⑤	Box end profile outside, aluminium	⑪	Box end profile outside, narrow
⑥	Textile shading		

Technical product description

Top-mounted box

Box casing made of expanded, non-shrink polystyrene EPS 032

Insulation elements made of expanded polystyrene EPS 032

- inflammability class in accordance with Austrian standard (ÖNORM) B 3800 or DIN 4102 of at least B1- low flammability (all cladding and insulation elements)
- Top-mounted elements with integrated recess to incorporate textile blinds
- Connection to the window via a clips profile and lateral fastening handles made of 2 mm thick galvanised sheet steel
- Plaster beads made of extruded aluminium, screwed to the side cover
- Plastic headers
- **screen protect:**
  Front top board made of EPS 032, 27 mm with consistent plaster adhesion
- **screen protect .S:**
  Front top board on a PUR/PIR rigid foam basis, 10 mm

Box sizes

screen protect	260/300, 300/300, 365/300, 425/300, 260/250, 300/250, 365/250, 425/250
screen protect .S	243/300, 283/300, 348/300, 243/250, 283/250, 348/250

- .S-design with box top board made of PUR/PIR rigid foam for clinker façades/façades with thermal insulation composite system

Box 100

Dimensions: 97x118 mm

Material	Extruded aluminium
Details	Fixed with headers to the guide rails; extruded aluminium profile as front covering

Roller tube

Material	Sendzimir galvanised steel
Box 100	ø63x0,9 mm

- Both ends of the roller tube are equipped with adapters made of plastic with which a tapering of the roller tube is achieved. Herewith it is possible to correct the thicker ends of the rolled up zip fastener

Floor bracket profile

Material	Made of rigid PVC extruded (as a result no pulling out of shape or swelling of the profiles)

- The hollow chamber structure ensures a high stability and, due to the insulating air cushions, supports the insulating effect.
- The floor bracket profile with brush is designed as window rabbet and serves as holding fixture for the adapter profile
- additional insulation elements made of expanded polystyrene EPS 032 ensure a significantly better insulation effect of the box

Guide rails

Material	In three parts, made of extruded aluminium

- the plastic guidance of the cover is integrated in the removable part of the guide rail
- The plastic guidance consists of a black co-extruded plastic profile with full-length buffer lips made of foamed material. The zip which is provided at the cover, is inserted into this plastic profile and kept sliding. The lower end caps of the guide rails are made of powder-coated aluminium sheet steel and can be used up to a diagonal guide rail cut of 5°.

Front rail

Dimension 30x44 mm

with pushed-in weighting steel laterally guided in the guide rails with plastic gliders

Motor drive

Motor	Tubular motor with 230V operating voltage, 50 Hz, protective system IP 44. Capacity (W) matched to the size of the unit

- Noise emission level <=70dB(A) according to EN ISO 12100-2:2003.
- built into the primary shaft, with torque switch-off for the upper end position
- a programming cable is required to adjust the end positions. Optionally available with integrated radio receiver.

Cover

- **Glass fibre fabric:**
  PVC coated, flame-retardant, with high transparency and view to the outside
- **Polyester fabric - PVC coated:**
  PVC-coated, high resistance to tearing, flame resistant, dirt repelling, with high light and thermal protection
- **Blackout fabric (Blackout):**
  Polyester fabric or glass fibre fabric PVC coated with darkening layer
- **Polyester fabric - free of PVC:**
  PVC-free with high light and thermal protection
- **Acrylic fabric:**
  100% branded acrylic fabric, light- and weather-resistant, dirt and oil repelling, water repelling as well as resistant to tearing and rotting

With all covers, a continuous zip fastener is welded onto the entire lateral height of the cover. This guarantees a precise guiding of the cover in the guide rail.

Note: See chapter "Cover types" for technical values of the covers.

Colors

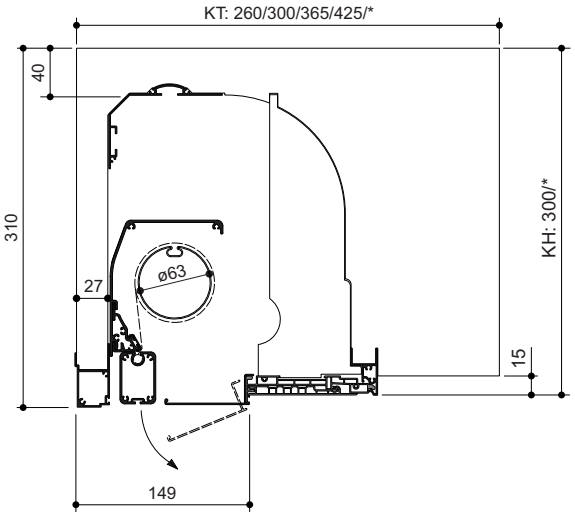
powder-coated aluminium parts

Color	in standard colors without surcharge
Special colors	as per "HELLA Color worlds" for a surcharge

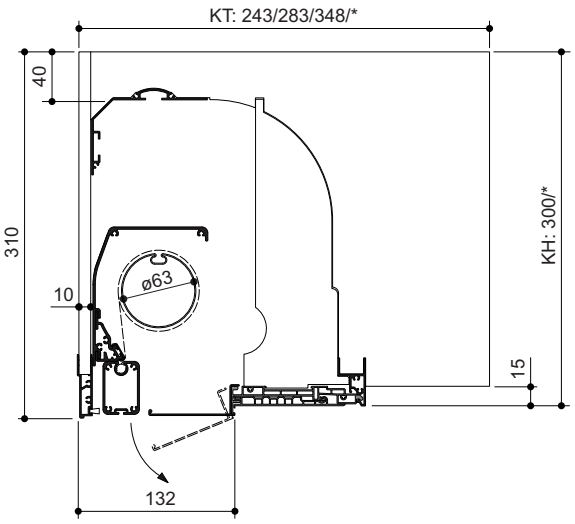
TOP FOAM screen protect

Design options:

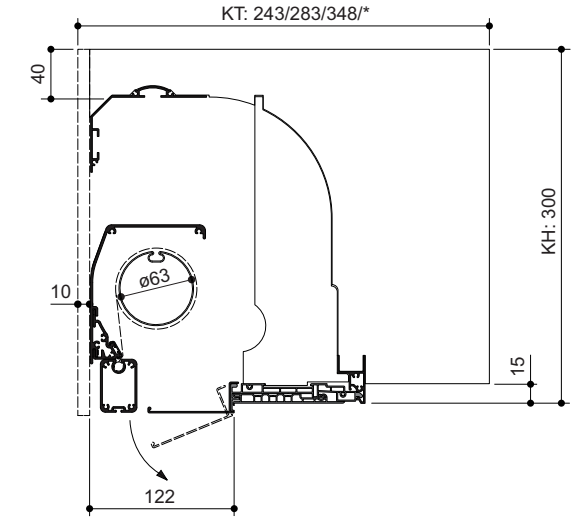
TOP FOAM screen protect - Box height 300



TOP FOAM screen protect .S - box height 300 with front skirt



TOP FOAM screen protect .S - box size 300 without front skirt



Box
Box casing made of expanded polystyrene EPS 032 with especially high stability.

Plaster beads
The plaster beads are made of extruded aluminium and screwed to the cheek. Standard without plaster flange.

Side covers
made of plastic and provided to fasten the inspection cover.

Insulation elements
Made of expanded polystyrene EPS 032 for an optimum thermal insulation in the area of the junction of the box with the window and in the area of the inspection cover.

Box dimensions
Depth x height on the inside

screen protect

- Dimension 260x300 mm
- 300x300 mm
- 365x300 mm
- 425x300 mm
- KTxKH variable
- KTmin: 260, KTmax: 500
- KHmin: 300, KHmax: 360

screen protect .S

- Dimension 243x300 mm
- 283x300 mm
- 348x300 mm
- KTxKH variable
- KTmin: 243, KTmax: 500
- KHmin: 300, KHmax: 360

Note:

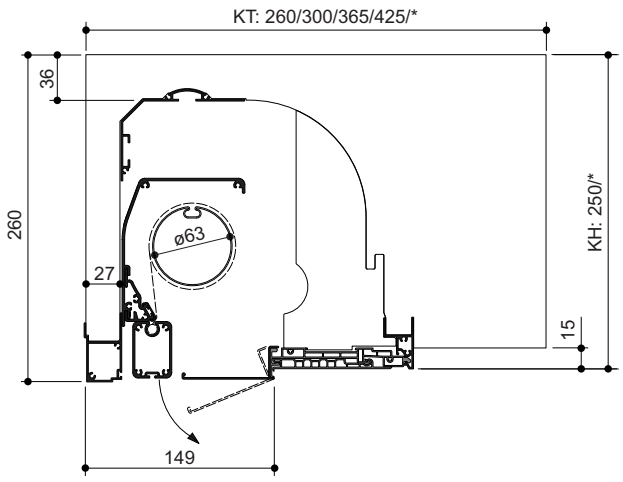
For version “without front skirt” the .S-box depth is 10mm shorter.

Window frame thickness
max. 92 mm

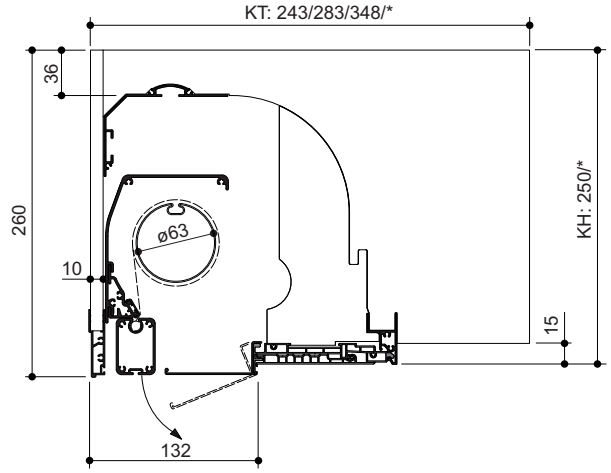
Legend

KT Box depth
KH Box height
* Box depth/box height variable

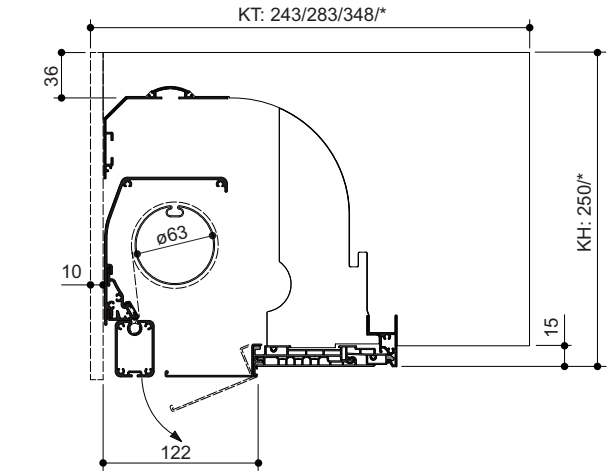
TOP FOAM screen protect - Box height 250



TOP FOAM screen protect .S - box size 250 with front skirt



TOP FOAM screen protect .S - box size 250 without front skirt



Box
Box casing made of expanded polystyrene EPS 032 with especially high stability.

Plaster beads
The plaster beads are made of extruded aluminium and screwed to the cheek. Standard without plaster flange.

Side covers
made of plastic and provided to fasten the inspection cover.

Insulation elements
Made of expanded polystyrene EPS 032 for an optimum thermal insulation in the area of the junction of the box with the window and in the area of the inspection cover.

Box dimensions
Depth x height on the inside

screen protect

- Dimension 260x250 mm
- 300x250 mm
- 365x250 mm
- 425x250 mm
- KTxKH variable
- KTmin: 260, KTmax: 500
- KHmin: 250, KHmax: 299

screen protect .S

- Dimension 243x250 mm
- 283x250 mm
- 348x250 mm
- KTxKH variable
- KTmin: 243, KTmax: 500
- KHmin: 250, KHmax: 299

Note:

For version “without front skirt” the .S-box depth is 10mm shorter.

Window frame thickness
max. 92 mm

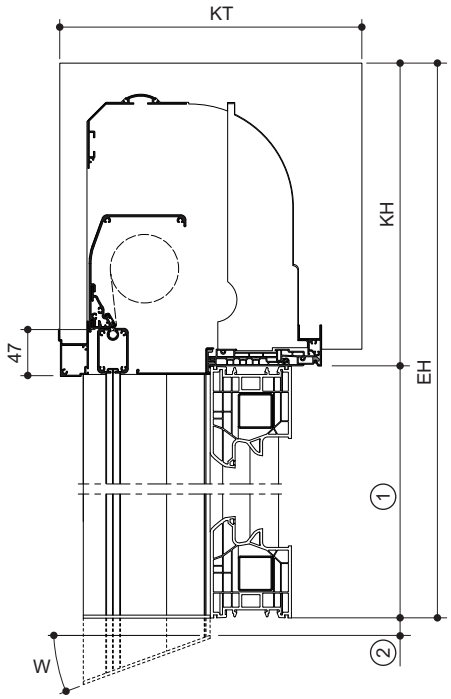
Legend

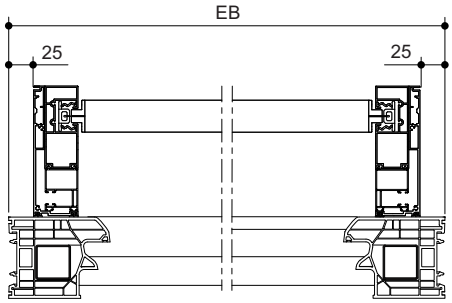
KT Box depth
KH Box height
* Box depth/box height variable

TOP FOAM screen protect

Taking of measurements

General





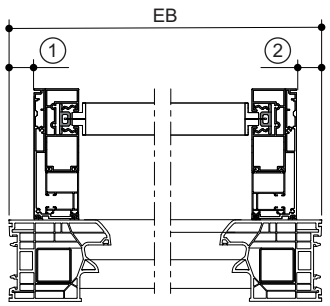
Determination of dimensions
The dimensions are determined via the dimensions of the elements. The element height can also be determined via the height of the window frame.
Element height = window frame height + box height

Attention:
The external guide rail is always designed with an offset entry guide of at least 25 mm. Please refer to the following page for additional details regarding offset mounted guide rails. A guide rail lengthening lengthens the guide rail, but not the element height. An insulation of the ceiling due to variable box size KT/KH can increase the element height. The designs excess length of the box and mitre cut extend the box dimensions, but not the complete element width.

Legend

EB	Element width = window frame width
EH	Element height
KT	Box depth
KH	Box height
W	Specification diagonal cut in degrees
①	Window frame height
②	Guide rail lengthening

Guide rail offset

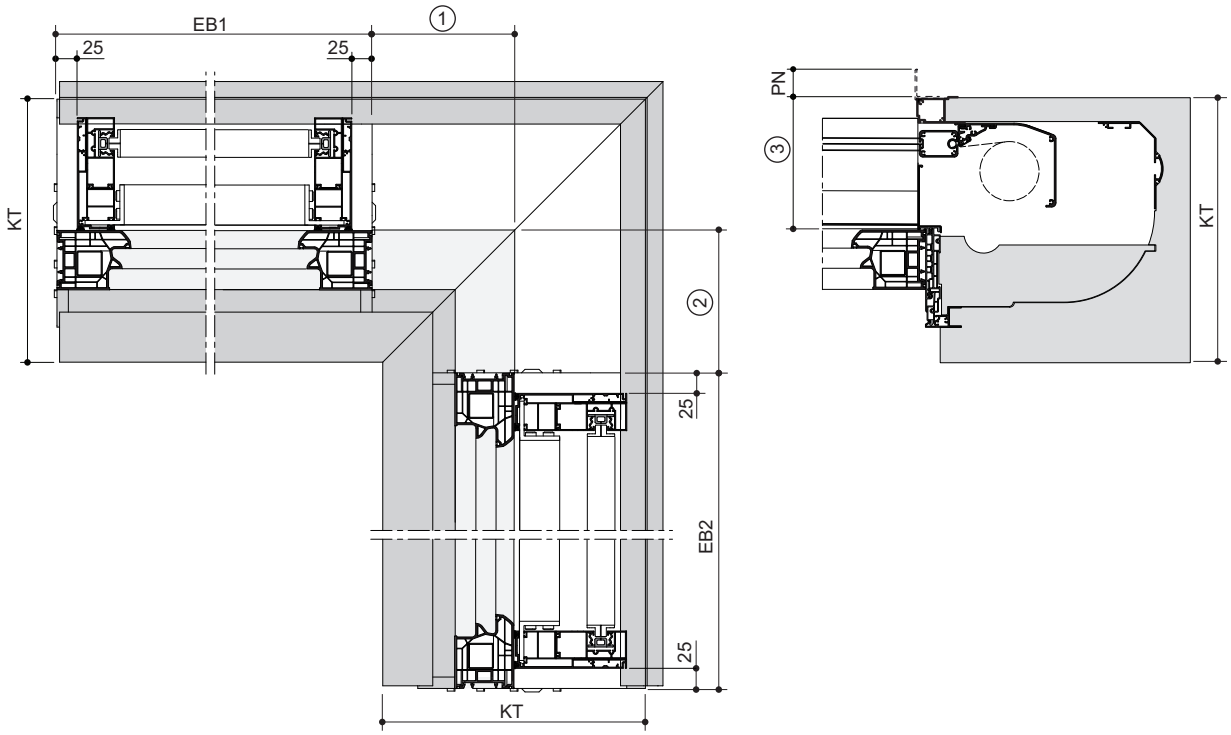


An offset guide rail makes the insulation of the window frame possible. The minimum dimension of 25 mm must be observed with external guide rails. For each element the guide rail can be mounted offset on the left side, on the right side or on both sides.

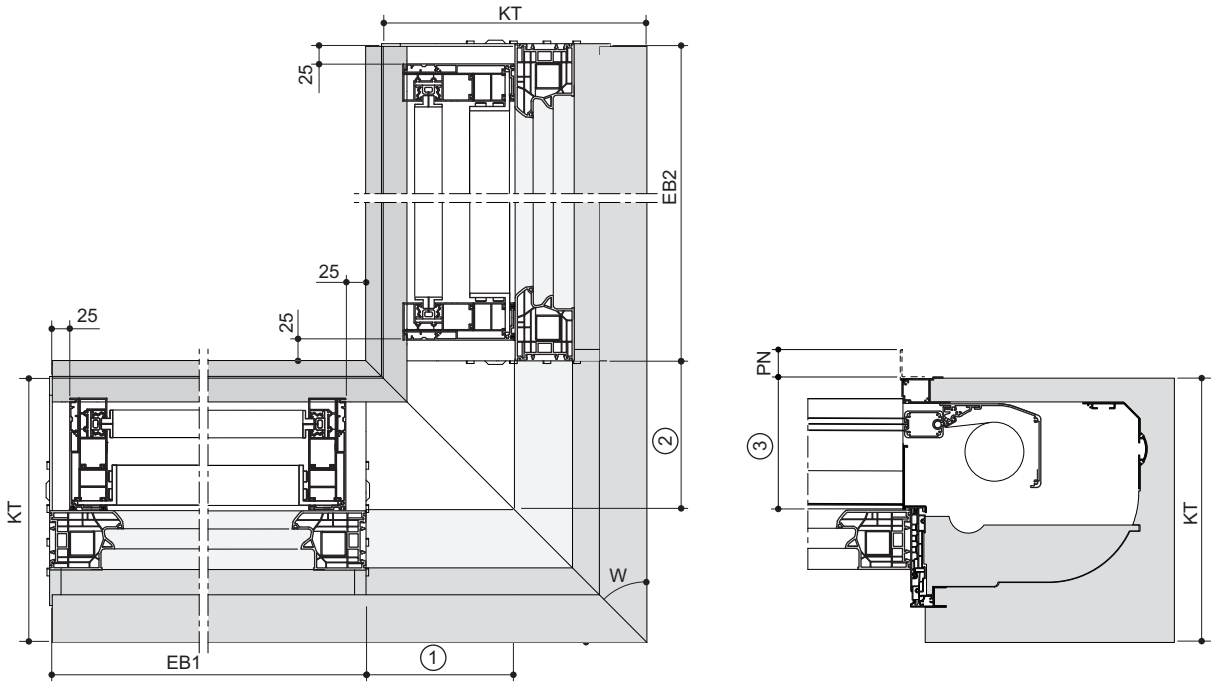
Legend

EB	Element width
①	Guide rail offset on the left side Standard 25 mm
②	Guide rail offset on the right side Standard 25 mm

Mitre cut - outer corner



Mitre cut - inner corner



Legend

EB	Element width
KT	Box depth
W	Mitre angle
PN	Plaster flange (optional)

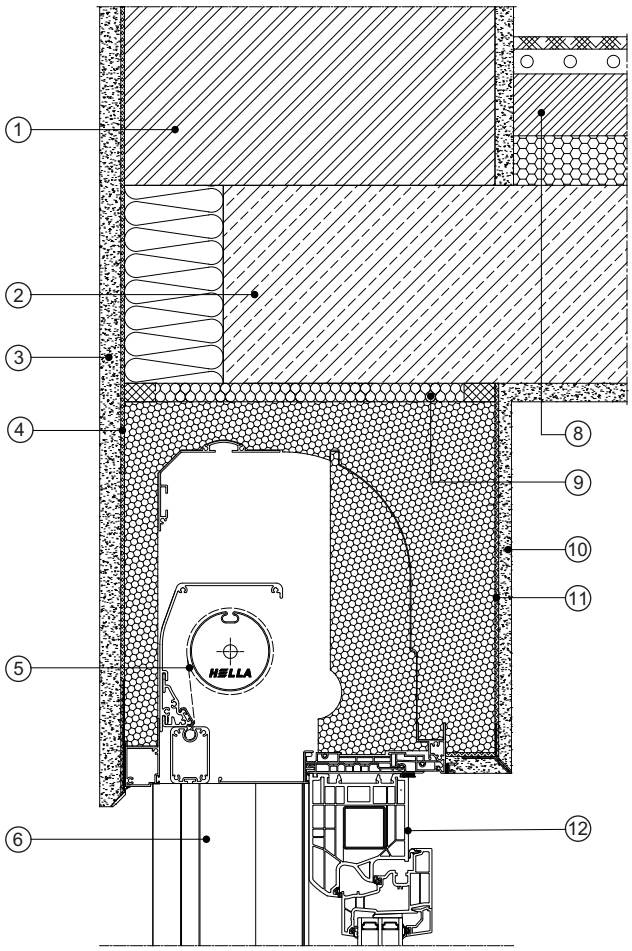
① Mitre lengthening on the right side: at 90° outer mitre ≥ 105 mm
② Mitre lengthening on the left side: at 90° inner mitre ≥ 132 mm
③ Window position from outside of box
- 148 for standard box
- 131 for .S box
- 121 for .S box without front skirt

Note:
The mitre area must be covered (provided by the client).

TOP FOAM screen protect

Installation situation for different wall constructions

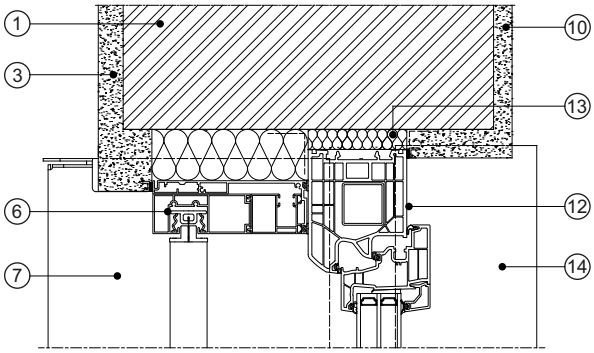
Wall structure
Monolithic brickwork for windows with floor-to-ceiling element height



Legend

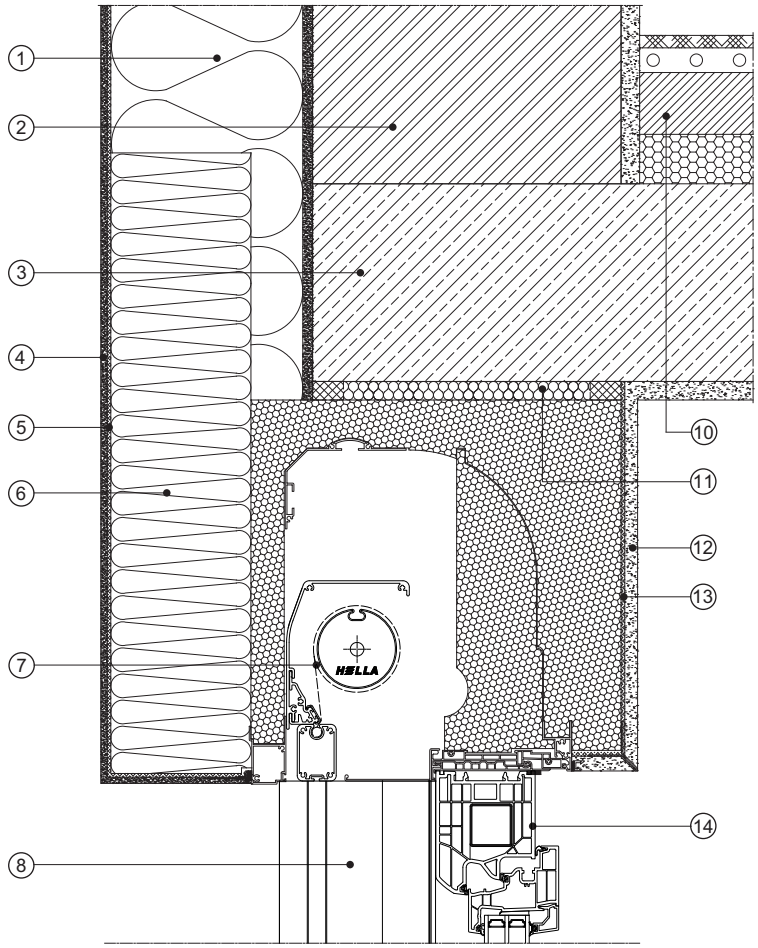
① Brickwork
② Reinforced concrete ceiling with ceiling face insulation
③ External rendering
④ Reinforcement on the outside
⑤ TOP FOAM screen protect 300/300
⑥ Guide rail
⑦ Aluminium window sill system, 2-part
⑧ Floor construction
⑨ Connection joint
Providing the functional levels analogue to the window connection joint
⑩ Interior wall finish
⑪ Reinforcement on the inside
⑫ Blind frame
⑬ Connection joint
⑭ Window sill on the inside

with frame insulation



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Wall structure
Brickwork with thermal insulation composite system for windows with floor-to-ceiling element height

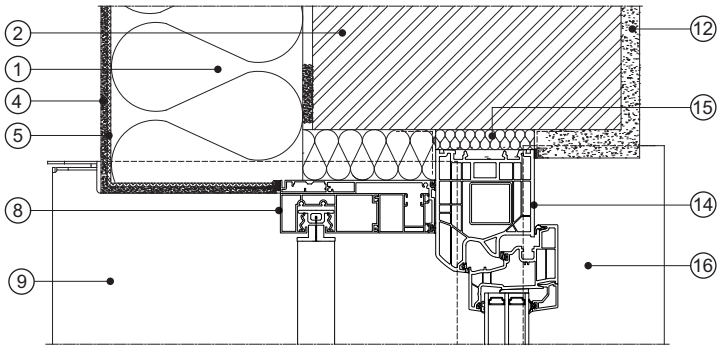


Legend

① Insulation
② Brickwork
③ Reinforced concrete ceiling
④ External rendering
⑤ Reinforcement on the outside
⑥ Insulation of the top-mounted box
- Thickness ≥ 40 mm
- laterally and at the top ≥ 200 mm overlapped

⑦ TOP FOAM screen protect 300/300
⑧ Guide rail
⑨ Aluminium window sill system, 2-part
⑩ Floor construction
⑪ Connection joint
Providing the functional levels analogue to the window connection joint
⑫ Interior wall finish
⑬ Reinforcement on the inside
⑭ Blind frame
⑮ Connection joint
⑯ Window sill on the inside

with frame insulation

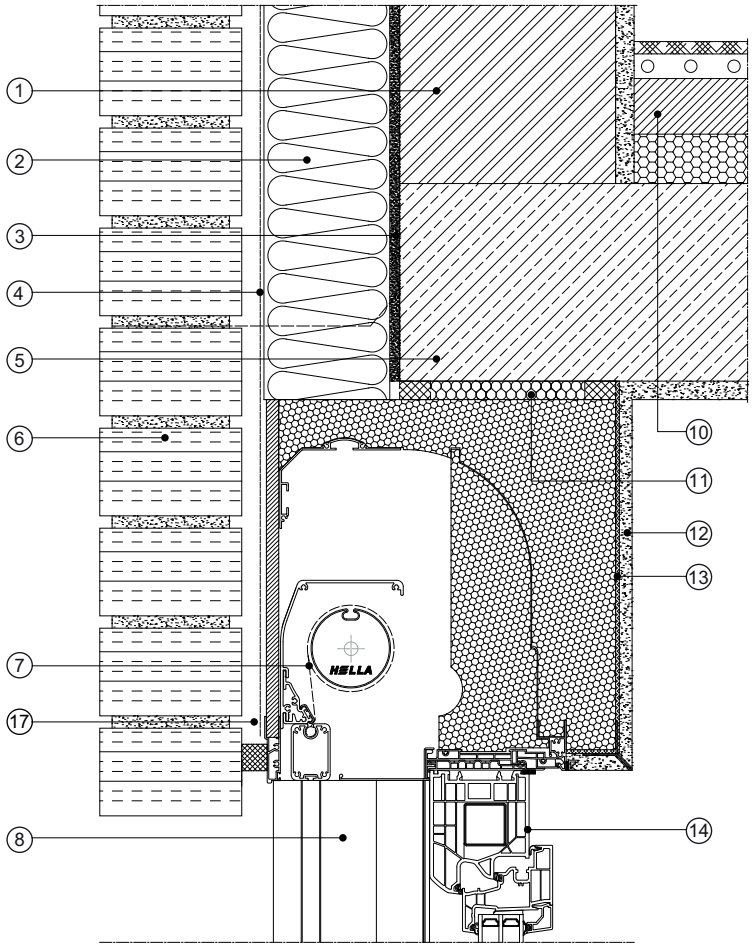


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TOP FOAM screen protect

Installation situation for different wall constructions

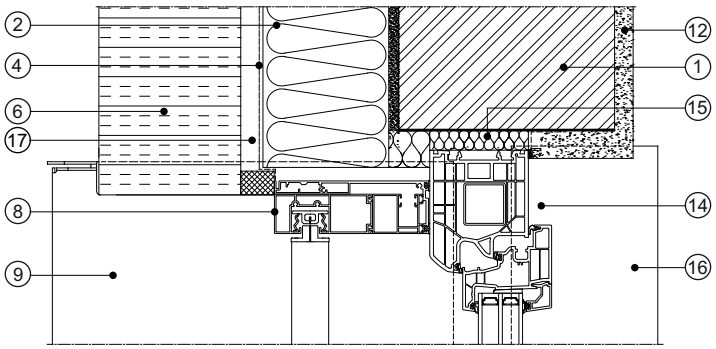
Wall structure
Core-insulated brickwork with clinker facade, rear-ventilated, for windows with floor-to-ceiling element height



Legend

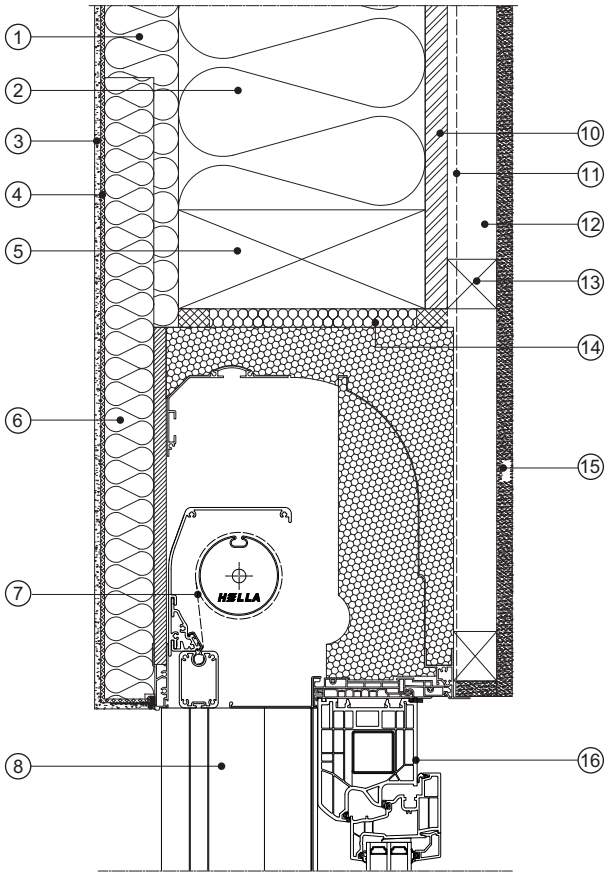
① Brickwork
② Insulation
③ Sealing level
④ sealing level
⑤ Reinforced concrete ceiling
⑥ Clinker façade
⑦ TOP FOAM screen protect .S 283/300
⑧ Guide rail
⑨ Aluminium window sill system, 2-part
⑩ Floor construction
⑪ Connection joint
Providing the functional levels analogue to the window connection joint
⑫ Interior wall finish
⑬ Reinforcement on the inside
⑭ Blind frame
⑮ Connection joint
⑯ Window sill on the inside
⑰ Compriband (on-site)

with frame insulation



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Wall structure
Wood frame construction with external rendering and installation level on the inside

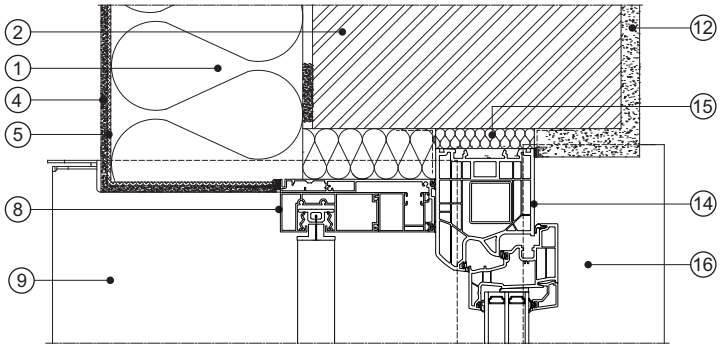


Legend

① Exterior insulation
② Core insulation
③ External rendering
④ Reinforcement
⑤ Nogging piece
⑥ Insulation of the top-mounted box
- Thickness ≥ 40 mm
- laterally and at the top ≥ 200 mm overlapped

⑦ TOP FOAM screen protect .S 243/300
⑧ Guide rail
⑨ Aluminium window sill system, 2-part
⑩ Wood-based material board
⑪ Vapour retarder/airtight level
⑫ Substructure on the inside
⑬ Substructure
⑭ Connection joint
Providing the functional levels analogue to the window connection joint
⑮ Interior panelling
⑯ Blind frame
⑰ Connection joint
⑱ Window sill on the inside

with frame insulation

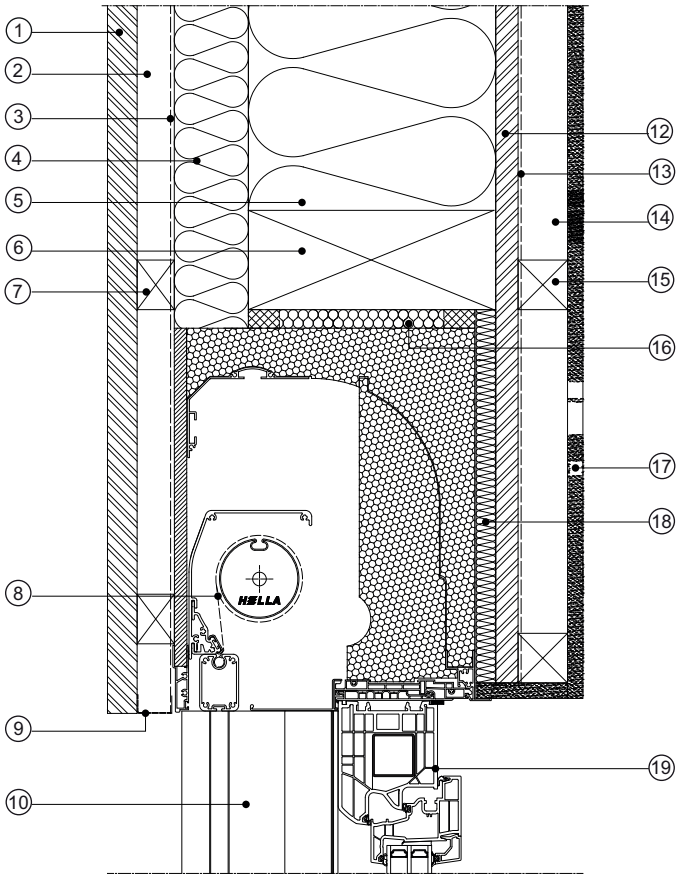


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TOP FOAM screen protect

Installation situation for different wall constructions

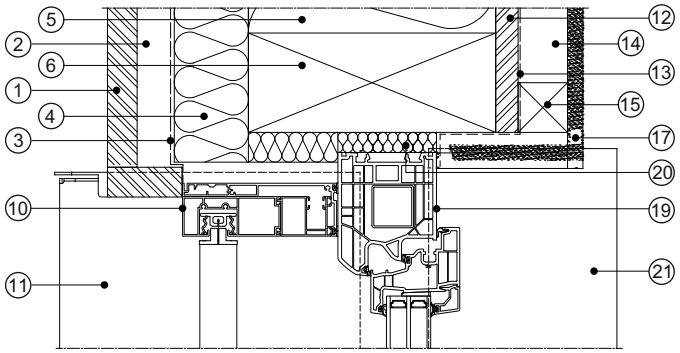
Wall structure
Wood frame construction with rear-ventilated curtain facade and installation level



Legend

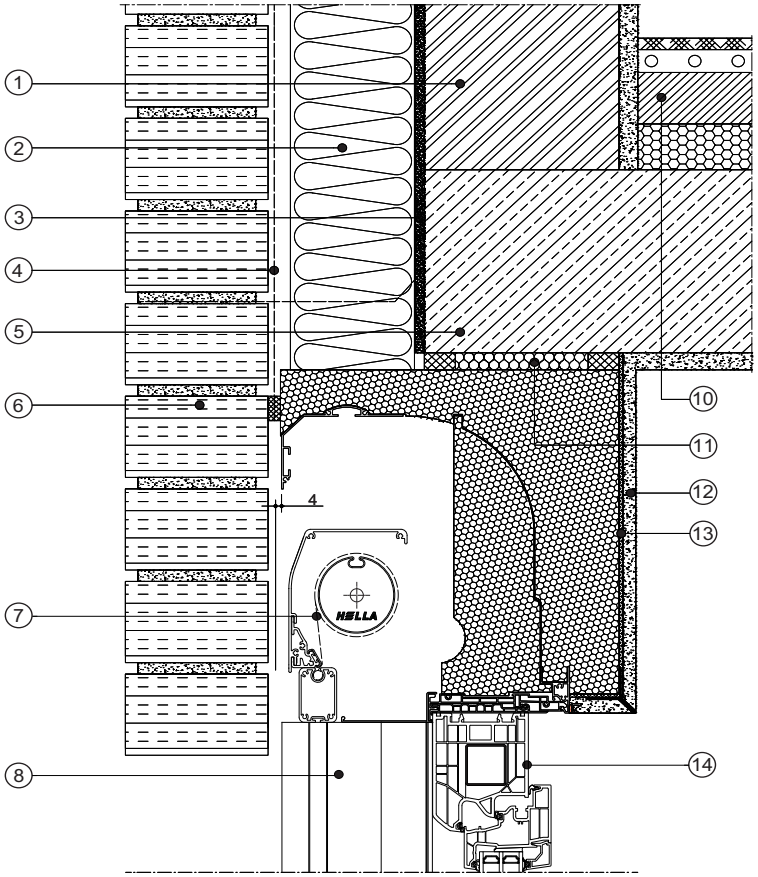
① Exterior wall covering
② Rear ventilation level
③ Sealing level/draughtproof foil
④ Insulation
⑤ Core insulation
⑥ Nogging piece
⑦ Substructure on the outside
⑧ TOP FOAM screen protect .S 243/300
⑨ Ventilation grille
⑩ Guide rail
⑪ Aluminium window sill system, 2-part
⑫ Wood-based material board
⑬ Vapour retarder/airtight level
⑭ Installation level
⑮ Substructure on the inside
⑯ Connection joint
Providing the functional levels analogue to the window connection joint
⑰ Interior panelling
⑱ Insulation
⑲ Blind frame
⑳ Connection joint
㉑ Window sill on the inside

with frame insulation



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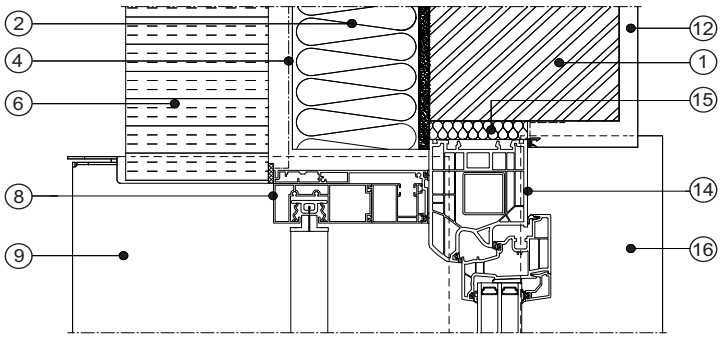
Wall structure
Core-insulated brickwork with clinker facade, rear-ventilated, for windows with floor-to-ceiling element height



Legend

① Brickwork
② Insulation
③ Sealing level
④ sealing level
⑤ Reinforced concrete ceiling
⑥ Clinker façade
⑦ TOP FOAM screen protect .S 283/300
⑧ Guide rail
⑨ Aluminium window sill system, 2-part
⑩ Floor construction
⑪ Connection joint
Providing the functional levels analogue to the window connection joint
⑫ Interior wall finish
⑬ Reinforcement on the inside
⑭ Blind frame
⑮ Connection joint
⑯ Window sill on the inside

with frame insulation



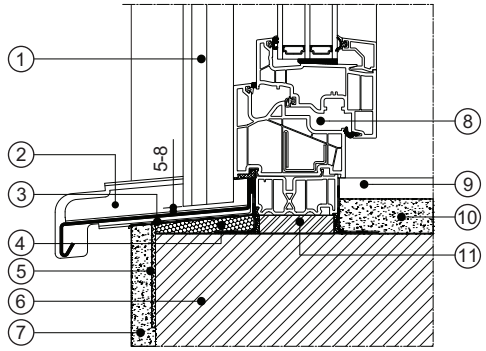
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TOP FOAM screen protect

Installation situation for different wall constructions

The window sill system must ensure that the water can easily drain away towards the outside and that in this way no water runs behind the outer sealing level. Window sill systems can be designed with one or two water-bearing levels. If only one water-bearing sealing level is designed, no forces - e.g. occurring due to a linear expansion - may be transferred into the adjacent brickwork. For this purpose, multi-part and tested window sill systems must be used. For a technically correct installation and the timely coordination on-site, it is recommend to apply the current guidelines “Guidelines for the installation of window sills - 3rd edition 08-2015”.

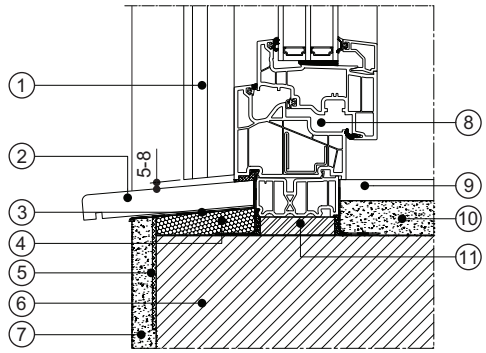
Window sill connection
Aluminium window sill



Legend

① Diagonal guide rail cut and guide rail lengthening
② Aluminium window sill system, in two parts, slope > 5° first water-bearing level
③ Sealing strip second water-bearing level
④ Insulation
⑤ Reinforcement, on the outside
⑥ Brickwork
⑦ External rendering
⑧ Window element
⑨ Interior window sill
⑩ Subconstruction/interior plaster
⑪ Connection joint

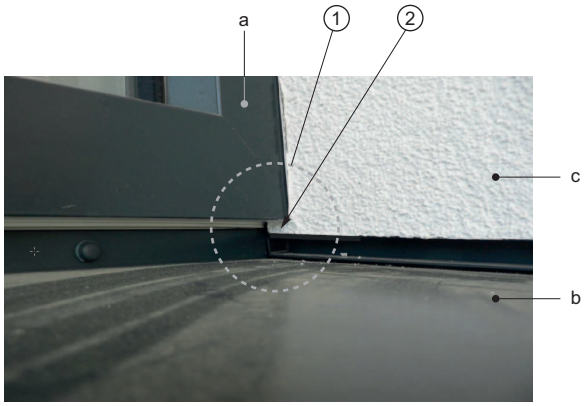
Window sill connection
Window sill made of stone



Legend

① Guide rail
② Window sill made of stone, in two parts, slope >°5 first water-bearing level
③ Sealing strip second water-bearing level
④ Insulation
⑤ Reinforcement, on the outside
⑥ Brickwork
⑦ External rendering
⑧ Window element
⑨ Interior window sill
⑩ Subconstruction/interior plaster
⑪ Connection joint

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Source: Guidelines Window sill - Austrian Working Group Window Sill

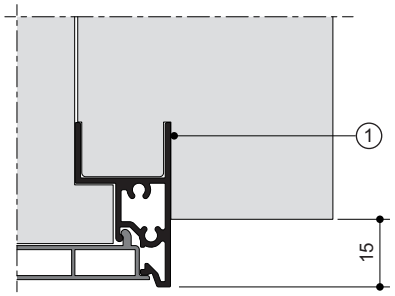
The term interface gap describes an opening, which always occurs at the cutting points of window frame (1), window sill with lateral sliding closures (b). soffit (c) and - if available - roller shutter guide rail in the corner area. Depending on the correct order of the structural works, the facade manufacturer, the window sill fitter or the fitter for the sun protection products is responsible for the correct sealing of the interface gap.

Legend

a	Blind frame
b	Lateral sliding closures
c	Soffit
①	Area of the interface gap
②	Professional closure of the interface gap

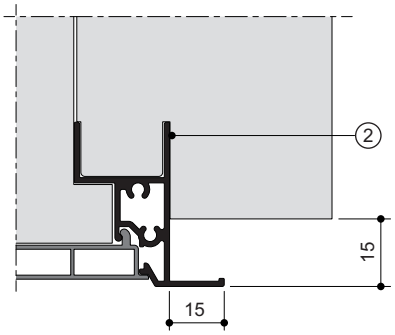
TOP FOAM screen protect

Box end profile inside



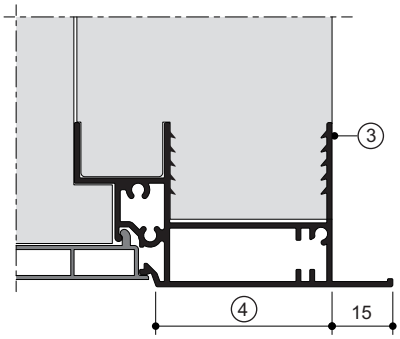
Box end profile inside
straight

Box end profile made of extruded aluminium with powder-coated visible surface For a plaster joint via plaster strip, if the bottom view of the lintel is plastered.



Box end profile inside
Plaster flange 15 mm

Box end profile made of extruded aluminium with powder-coated visible surface and plaster flange 15 mm. Ideal to mask joints between the panels with interior panelling in dry construction.



Box end profile inside
lintel bottom view with a cover panel, plaster flange 15 mm

Powder-coated lintel bottom view made of extruded aluminium and plaster flange 15 mm. No addition works are required at the lintel bottom view.

Legend

① Box end profile inside, straight
② Box end profile inside, plaster flange 15 mm
③ Box end profile inside, lintel bottom view with a cover panel, plaster flange 15 mm
④ Visible surface made of aluminium, powder-coated: Box depth 300 = 43 mm; box depth 365 = 108 mm

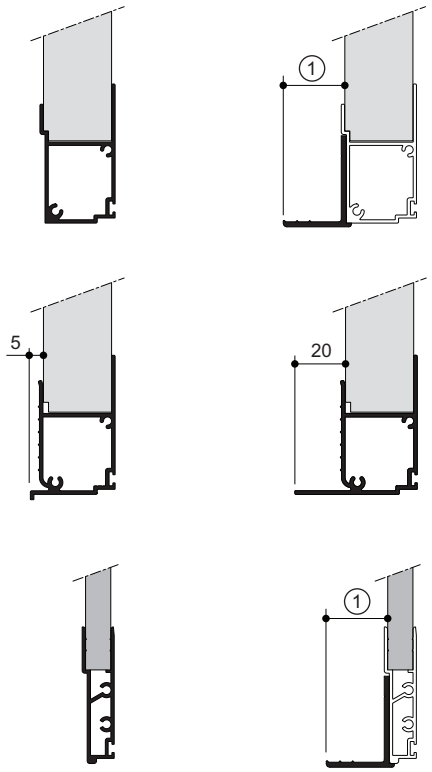
Design options

Box end profile	Box depth				
	260	300	365	425	variable
①	●	●	●	●	●
②	●	●	●	●	●
③	●	●	●	-	-

Note:

Please refer to the chapter “Installation details” for detailed information regarding the design and the surrounding structures.

Box end profile outside



Legend

① Plaster flange

TOP FOAM screen protect

- Standard with box end profile outside, 0 mm

On smooth aluminium surfaces, a clean plaster end bead can be provided with customary plaster sealing strips. For plaster sealing strips with adhesive tape it is necessary to test the adhesive on the mounting base.

For additional cases of application, the following plaster flange sizes are available:

- Box end profile outside, plaster flange 5 mm
- Box end profile outside, plaster flange 20 mm
- Box end profile outside, optional with plaster flanges: 15, 23, 35, 45, 55, 65, 75, 85, 95, 105, 115, 125, 135 or 145 mm

These serve for a direct plastering according to the current plaster guidelines and the fitting of plaster end bead profiles.
A powder-coated lower visible surface serves for a visually attractive closure.

TOP FOAM screen protect .S

- Standard with box end profile outside, 0 mm

On smooth aluminium surfaces, a clean plaster end bead can be provided with customary plaster sealing strips. For plaster sealing strips with adhesive tape it is necessary to test the adhesive on the mounting base.

For additional cases of application, the following plaster flange sizes are available:

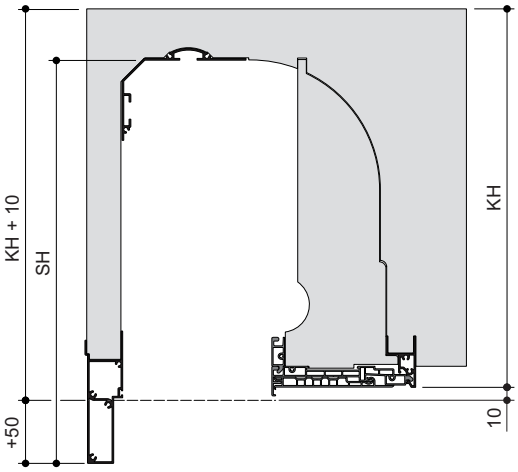
- Box end profile outside, optional with plaster flanges: 15, 23, 35, 45, 55, 65, 75, 85, 95, 105, 115, 125, 135 or 145 mm

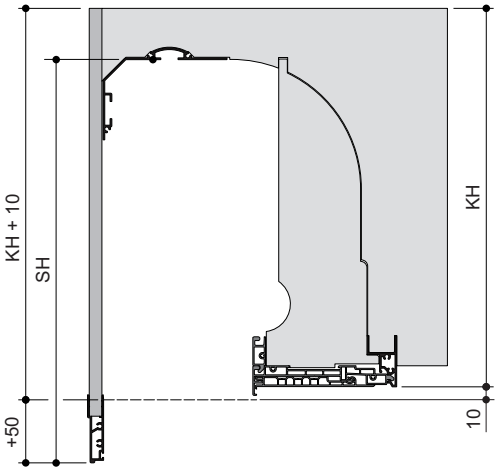
Plaster joint

The plaster joint towards the aluminium profile can be provided via customary plaster beads/slip-on profiles from divers system providers. Checking and use of the suitable plaster bead profile/slip-on profile must be decided on-site and has to be adapted to the structural conditions. The plaster flange must be laterally recessed/notched up to the ready plastered soffit surface and is not allowed to extend into the plaster.

TOP FOAM screen protect

Box end profile outside, lengthened





The box end profile on the outside is lengthened by 50 mm. This increases the recess height or the package height of the outdoor blind/Venetian blind by 50 mm each. This allows for higher element heights. See chapter "Package heights".

Note:
Plaster flange lengths of 5 and 20 mm are not possible.

The lengthened box end profile on the outside is only available for the design TOP FOAM store/store.S. Due to the different visual appearance, a combination with the elements RvU, RvA or screen within the same order is not possible.

Legend

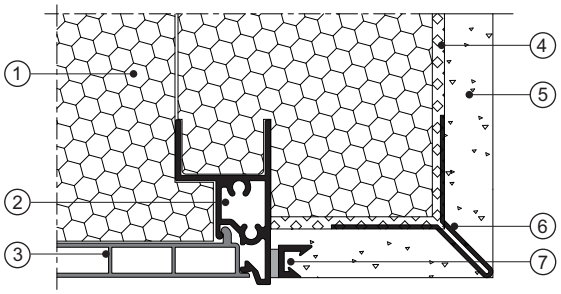
KH Box height

SH Recess height
- with standard box height 300 mm: SH = 320 mm
- with standard box height 250 mm: SH = 270 mm

TOP FOAM screen protect

Installation situation for different wall constructions

Lintel view from below on the inside
Plaster (standard)

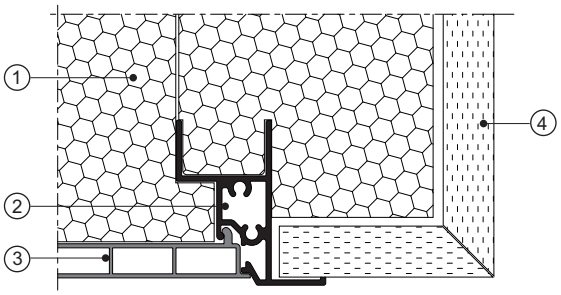


Connection to the box via plaster connection strip for a visually attractive plaster joint and to minimize the risk of plaster crack formation.

Legend

① TOP FOAM box insulation
② Box end profile straight
③ Inspection cover
④ Reinforcement
⑤ Interior wall finish
⑥ Plaster edge profile provided by the client
⑦ Plaster connection strip provided by the client

Lintel view from below on the inside
Gypsum board

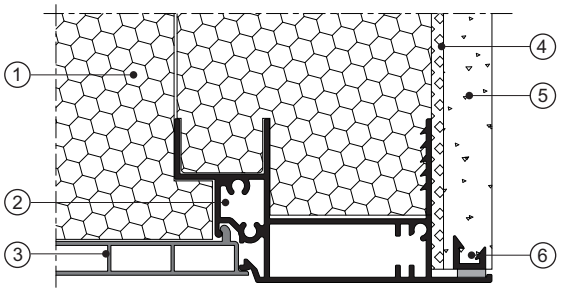


Connection joint between gypsum board and top-mounted box is hidden via a powder-coated aluminium tabs, 15 mm.

Legend

① TOP FOAM box insulation
② Box end profile with plaster flange 15 mm
③ Inspection cover
④ gypsum plasterboard

Lintel view from below on the inside
Aluminium

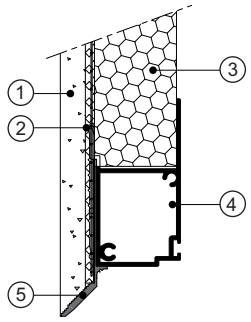


The powder-coated lintel bottom view made of extruded aluminium serves for a ready-made solution ex works. No plaster works are required at the lintel bottom view. The 15 mm thick plastered surface is enclosed by a customary plaster connection strip, which moreover minimizes the risk of plaster crack formation.

Legend

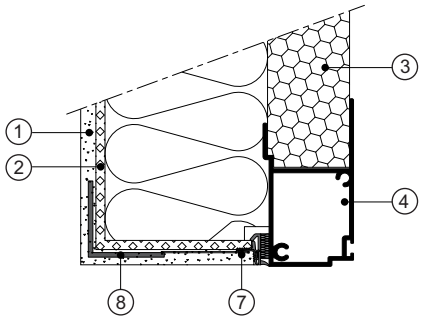
① TOP FOAM box insulation
② Box end profile with plaster flange 15 mm
③ Inspection cover
④ Reinforcement
⑤ Interior wall finish
⑥ Plaster connection strip provided by the client

Box end profile outside, 0 mm (Standard)
Monolithic brickwork



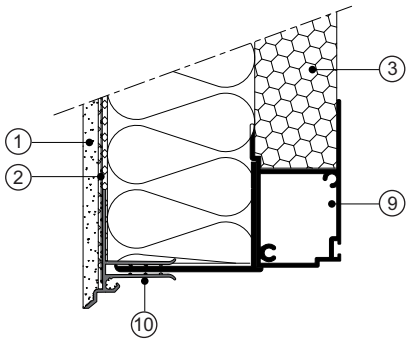
External plaster end bead via plaster bead with drip edge incorporated into the basic plaster.

Box end profile outside, 0 mm
Thermal insulation composite system with box insulation



External plaster joint via plaster bead for the exterior and formation of edges via edge profile.

Box end profile outside with lengthened plaster flange profile
Thermal insulation composite system with box insulation



Plaster end bead via slip-on profile with integrated drip edge. The extended, powder-coated profile soffit provides a finished and high-quality look.

Legend

① External rendering
② Reinforcement
③ TOP FOAM box insulation
④ Box end profile outside, straight
⑤ Plaster bead with drip edge
⑥ Plaster bead for the outside
⑦ Mesh corner angle
⑧ Box end profile on the outside with extended profile soffit
⑨ Slip-on profile with integrated drip edge

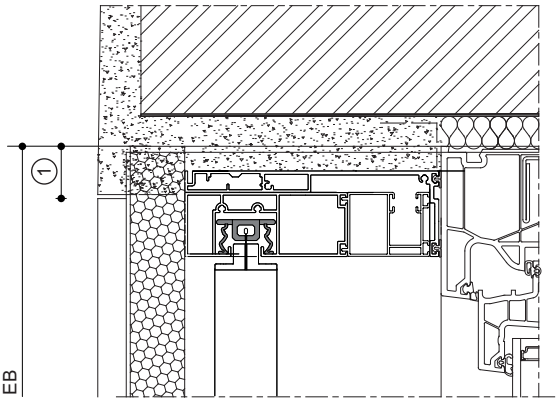
Notes:

The box end profile is not intended for trimming. The regulations stipulate that the building must include joint profiles on the profile extension to prevent cracking and the water ingress that could result.
Refer to guideline "Anschlüsse an Fenster und Rollläden bei Putz, Wärmedämmverbundsystem und Trockenbau (Ausgabe 2021, 3.Auflage)" ["Joints at windows and roller shutters with render, composite thermal insulation systems and drywall (issued 2021, 3rd edition)"] published by German roller shutter and sun protection trade association "Rollladen + Sonnenschutz e.V." and guideline "Anschlüsse an Sonnenschutzprodukten - Schnittstellen Sonnenschutz, Führungsschiene, Fenster und Fensterbank (Ausgabe 2023)" ["Joints at sun protection products – interfaces of sun protection, guide rail, window and window ledge (issued 2023)"] published by German roller shutter and sun protection automation industry body IVRSA.

TOP FOAM screen protect

Plaster connections with box end profiles

Dimension for recess area plaster flange variable



Recess area plaster flange

The plaster flange must be recessed on site at least up to the inner edge of the soffit plastering to prevent the water from entering at the side into the brickwork.

Legend

①	Recess area plaster flange
EB	Element width

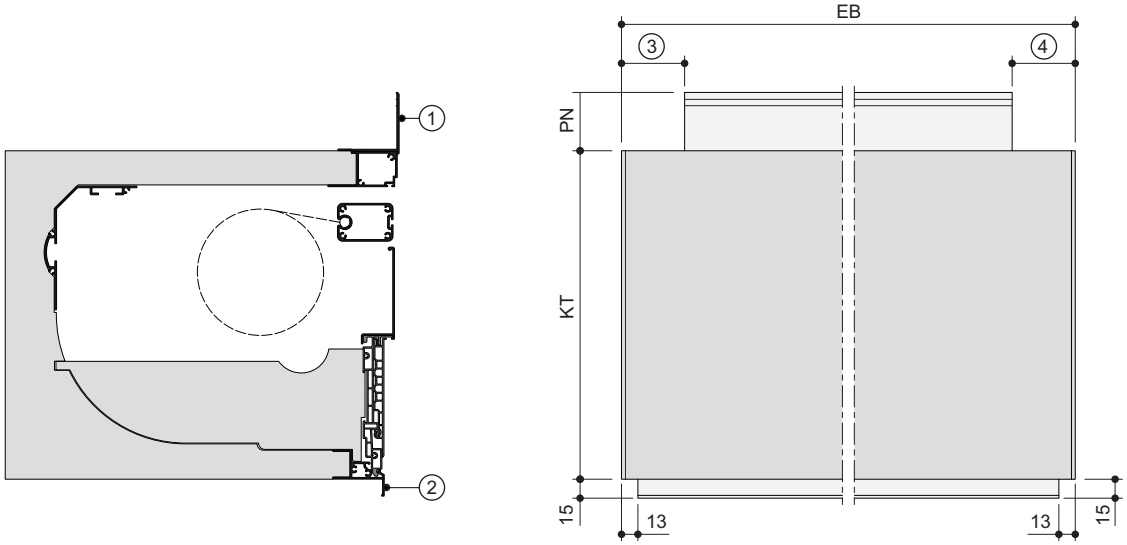
Recess area box end profile outside/inside

recess area box end profile outside

Optionally, the box end profile on the outside is recessed ex works to the desired dimension and can be specified for each side. Starting point for the dimensioning specification is the outer edge of the element width. The depth is the complete plaster flange depth. To calculate the correct dimension, a design of the installation situation is recommended. As a standard, the box end profile is not recessed.

Recess area box end profile inside

Optionally, the box end profile inside is recessed ex works with a fixed dimension of 13 mm from the outer edge of the element width. Design applicable for all box end profiles on the inside with a 15 mm plaster flange. As a standard, the box end profile is not recessed.



Box with recess area for box end profile on the outside and on the inside

Legend

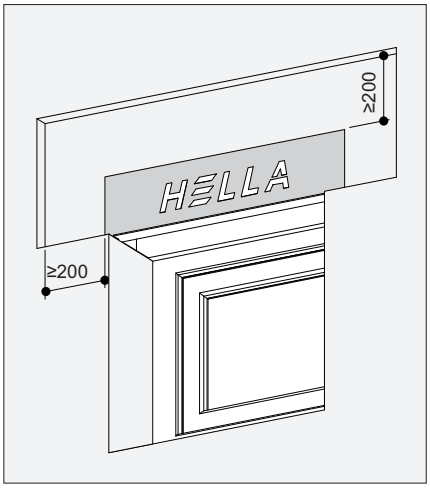
EB	Element width
KT	Box depth
PN	Plaster flange
①	Box end profile outside
②	Box end profile inside
③	Dimension of the recess area for the box end profile on the outside to the left
④	Dimension of the recess area for the box end profile on the outside to the right

Installation situation with thermal insulation composite system

Design of the plaster flange with thermal insulation composite systems

Depending on the box end profile, connection profiles are available, which are to be used in accordance with the information given by the system providers. If top boards are designed with a plaster flange facing towards the outside, the plaster flange may not extend to the finished façade.
(Source: Guidelines for connections to windows and roller shutters with plaster, thermal insulation composite system and drywall installation, date of issue 2021, 3rd revised edition)

Box insulation with thermal insulation composite system

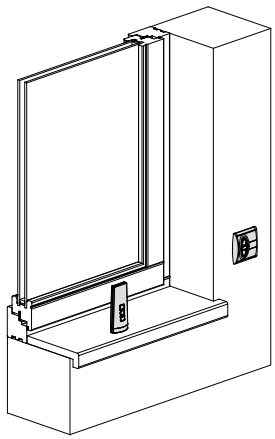


The box insulation must have a thickness of at least 40 mm and must on three sides overlap by at least 200 mm.

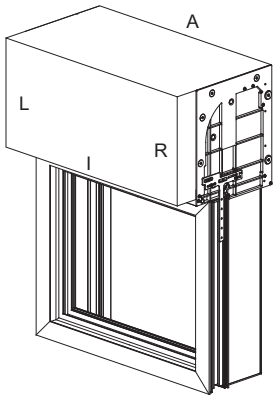
TOP FOAM screen protect

Motor drive

Motor drive



Definition drive side



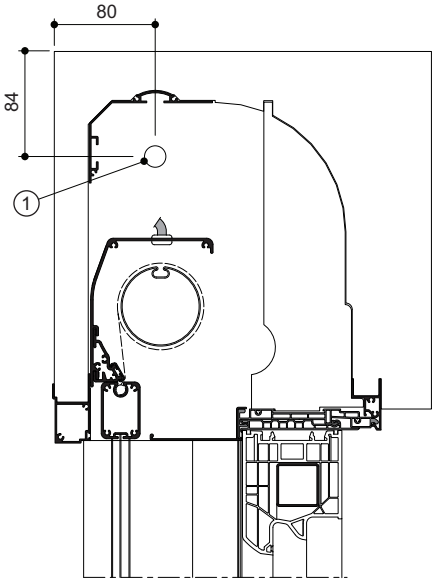
Individual element

The drive side determines whether the drive is installed in the left or right side cover of an element.

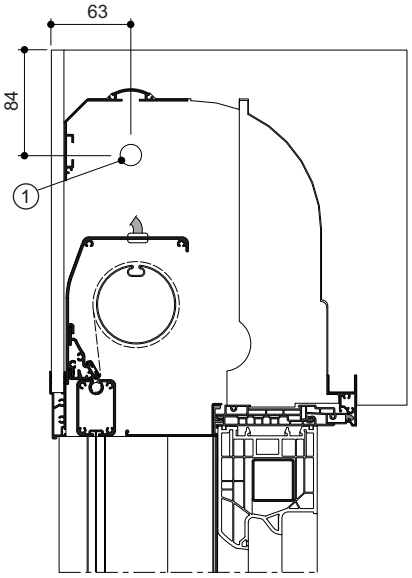
The primary view of the element is seen from the interior towards the exterior.

Legend

①	Element 1
②	Element 2
L	on the left side
R	On the right
I	inside
A	Outside



TOP FOAM screen protect



TOP FOAM screen protect .S

Operation
Opening and closing of the curtain by operating a switch or a hand-held radio transmitter or by programming an automatic device (e.g. time switch).

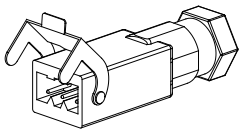
Motor cable exit
The motor cable is led laterally through the side cover.

Note:
If the box height differs from the standard box height, the difference must be added to the 84 mm.

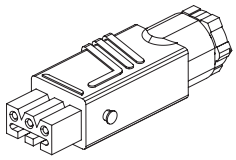
Legend

① Opening for lateral cable exit

Hirschmann connector



STAS 3 connector with bracket



STAK 3 linkage

In order to make the motor cable pluggable, a Hirschmann plug connection can be ordered optionally.

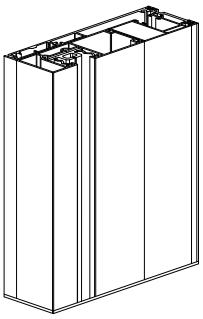
This meets the protection class IP 54:

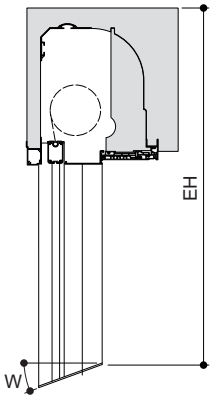
- Protection against dust in harmful quantity
- Complete protection against contact
- Protection against splashing water on all sides

The Hirschmann plug connection must be placed outside the box.

TOP FOAM screen protect

Guide rails

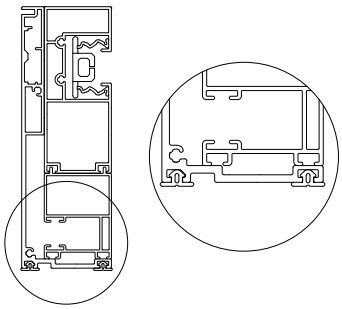




Diagonal cut and end cap
The end of the guide rail is always provided with an end cap. As a standard the end caps of the guide rails are designed with an inclination angle of 0°. To adjust the guide rail to the inclination angle of the window sill, the guide rails can be ordered with a diagonal cut of 1°-5°. The guide rail is always lengthened by the angular dimension.

Legend

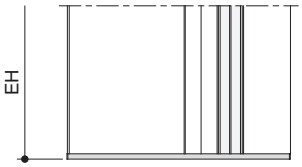
EH	Element height
W	Specification diagonal cut in degrees



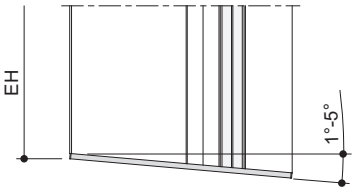
Guide rail impermeable to driving rain (standard)
Sealing profiles inserted into the guide rail serve for the sealing between the guide rail and the window frame.

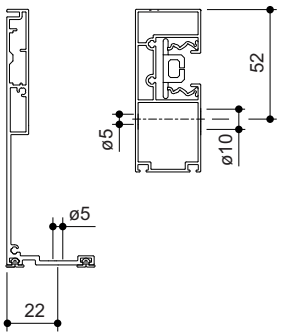
Guide rail end as a standard with end cap

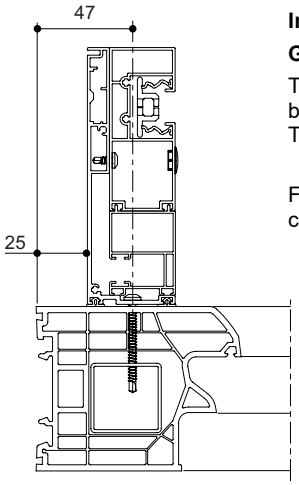
End cap straight design



End cap 5°







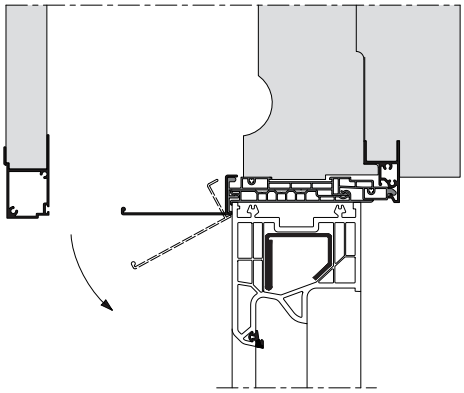
Installation of the guide rail, screwed from the front

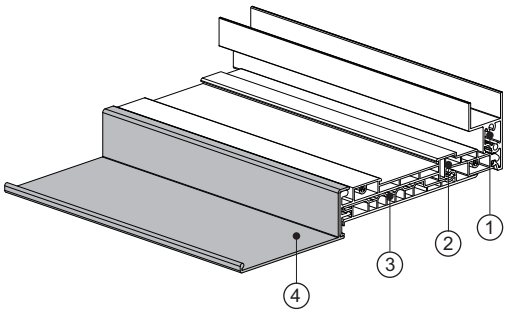
Guide rail type FUP

The base profile is fixed to the mounting base through the closest bar. An offset dimension of at least 25 mm must be observed. Then the guide profile is screwed to the base profile.

For an easy installation, a commercially available bit extension can be used.

Inspection





Inspection cover
Made of extruded aluminium 1.3 mm. The inspection cover is screwed laterally to the side cover.

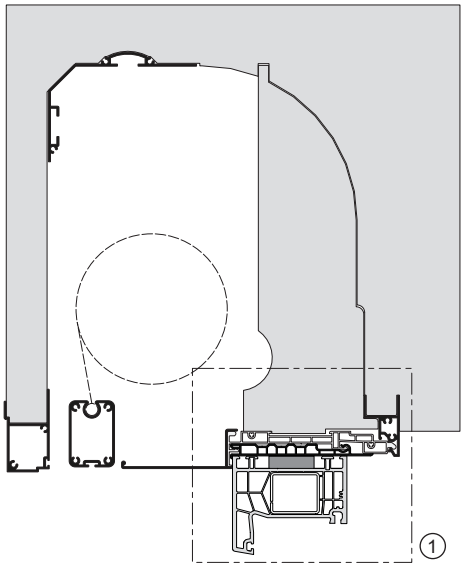
Maintenance
In the case of maintenance works, the guide rail has to be removed first. Then the screws can be loosened and the inspection cover can be removed.

Legend

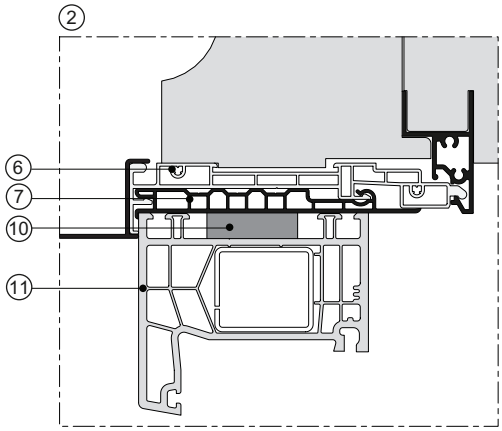
① Box end profile 0 mm, aluminium
② Floor bracket profile
③ Adapter profile universal
④ Inspection cover on the outside

TOP FOAM screen protect

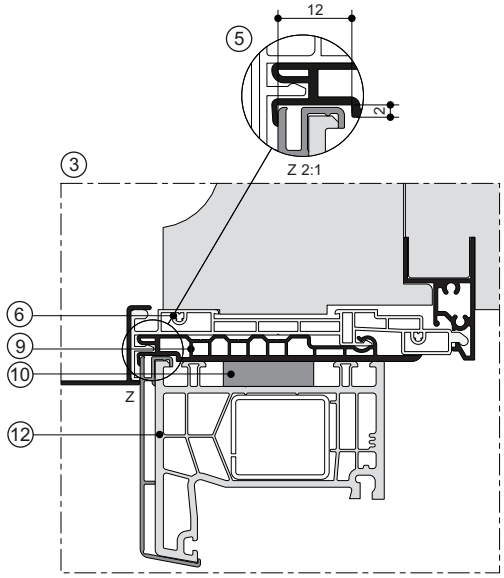
Clip technology



Clip technology
The connection between window and top-mounted box is provided via clips adapter, which serves for a solid connection. A sealing between the floor base profile and the clip adapter is no longer necessary.



Clip adapter universal
With window frames made of wood/wood-aluminium or another unknown plastic window system, the clip adapter universal is used. The clips adapter universal is fixed to the window frame. The smooth transition must be sealed in line with the connection joint. Than you can clip the window frame to the box.

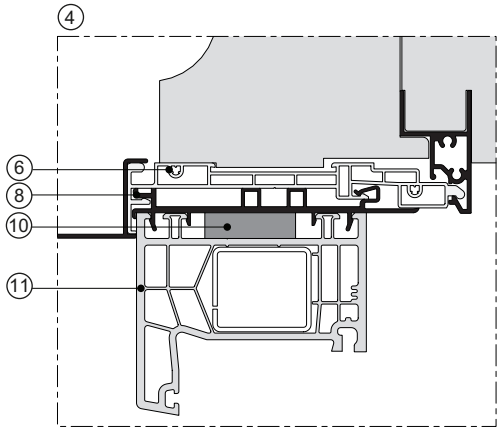


Universal clip adapter for frames with aluminium shells

For frames with an aluminium shell projecting upwards, the clip adapter universal aluminium shell is used. The clips adapter is fixed to the window frame. The smooth transition must be sealed in line with the connection joint. Than you can clip the window frame to the box.

Note:

A recess of
12x2 mm has been provided for the aluminium shell. Check in advance that the recess is large enough for the aluminium shell of the relevant frame.



Available clip adapter systems:

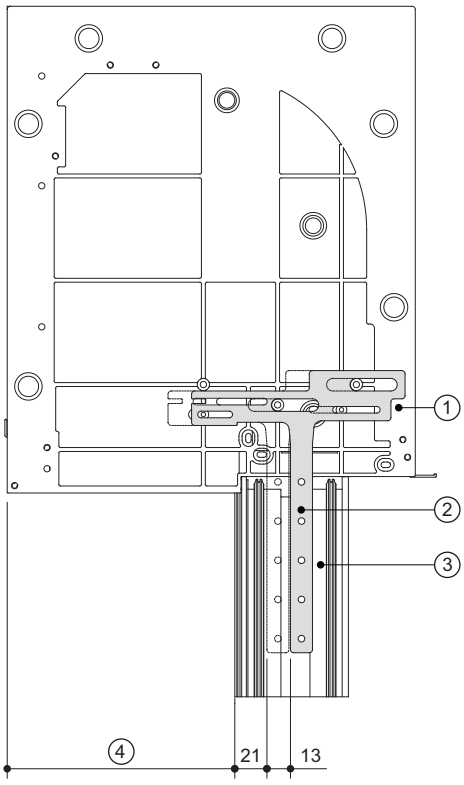
- Aluplast Ideal 7000/8000
- Gealan S600/S 9000
- Salamander 76
- Schüco Living 82 mm
- Veka SL 76
- Profine 76/88 (KBE, Trocal, Kömmerling)
- Veka SL 82

Clip adapter system
In the case of known plastic window systems, the corresponding clip adapters can be used. It matches the shape of the plastic window frame and therefore can clipped-on easily. Than you can clip the window frame to the box. Clip adapters are available for the most well-known window systems.

Legend

① Detailed view
② Detailed view with clip adapter universal
③ Detailed view with clip adapter universal, aluminium shell
④ Detailed view with clip adapter system
⑤ Recess in clip adapter for aluminium shell
⑥ Floor bracket profile
⑦ Clip adapter universal
⑧ Clip adapter system
⑨ Clip adapter universal, aluminium shell
⑩ Sealing in line with the connection joint is recommended
⑪ Blind frame
⑫ Top board frame with aluminium shell

Fastening handle



Standard fastening handle

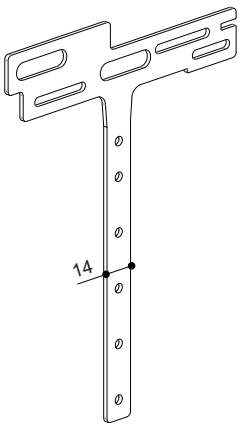
Fastening handle
The box is fixed to the window frame via the fastening handles made of galvanized sheet steel, 2 mm.

Due to the predefined boreholes in the fastening handle, it is possible to fasten various types of plastic, wooden and aluminium window frames. The fastening handle is clipped into the groove of the window and serves for an optimal stability when the window is built in. A crank of the fastening handle is allowed and facilitates the installation.

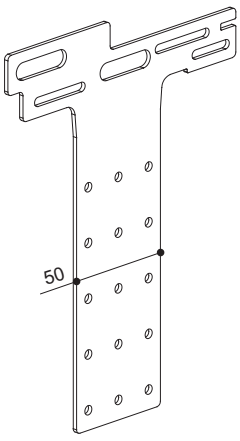
For positioning an adjustable range of 15 mm is available.

Legend

① Side cover
② Fastening handle
③ Blind frame
④ Distance from the front edge of the box to the window rabbet
screen protect: 149Mm mm / screen protect .S: 132 mm



Standard fastening handle



Fastening handle strengthened (optional)

Fastening handle strengthened (optional)
Especially recommended with linkages or with wooden windows with small groove in the frame profile.

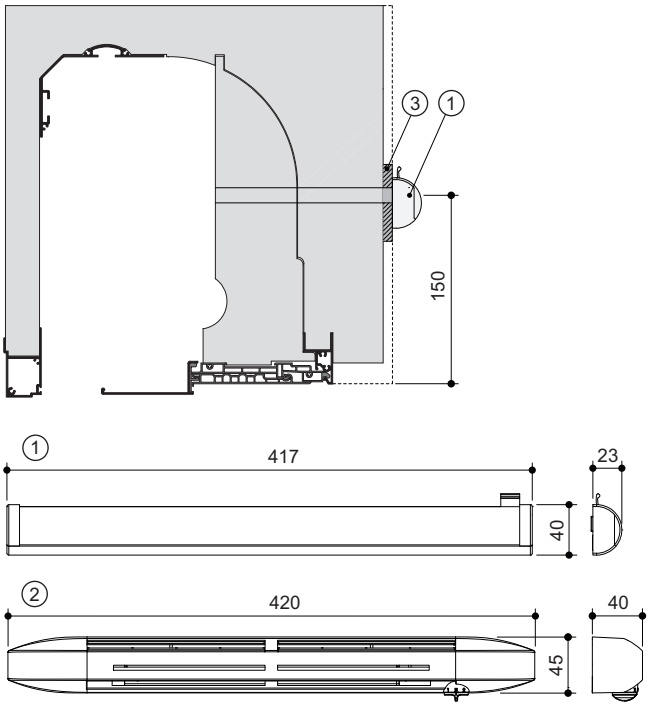
TOP FOAM screen protect

Window fan systems

General
A well-controlled, healthy indoor climate fulfils multiple tasks: It enhances not only the well-being and the productivity, but also protects the basic structure of the building against moisture and infestation with mould. To make sure that the ventilation of buildings convinces also under energy aspects, smart solutions are required. Because in this case the conventional airing by opening the window meets its limits Integrated window fans serve for a minimal user-independent airing to retain protection against moisture.

Siegenia AEROMAT midi/AEROMAT midi HY (inlet air element)

The AEROMAT midi especially impresses with its intelligent structure with the double locking mechanism. But also the volumetric flow limitation by means of a valve convince. Thanks to its high airflow rate on the basis of the natural pressure difference and the effective noise insulation, the passive fan element enables a user-independent ventilation, which, however, meets the high demands in comfort. The AEROMAT midi is also perfectly suitable as after-flow opening for a central air escape.



Legend

① Fan element Siegenia AEROMAT midi (not included in the delivery)
② Fan element Siegenia AEROMAT midi HY (not included in the delivery)
③ Plaster frame (not included in the scope of delivery)

Advantages

- Intelligent internal structure with double locking mechanism
- Volumetric flow limitation
- Visually attractive appearance due to concealed fastening screws
- Tool-free removal to clean the fan
- Plaster frame with defined space deduction for easy installation (not included in the scope of supply)

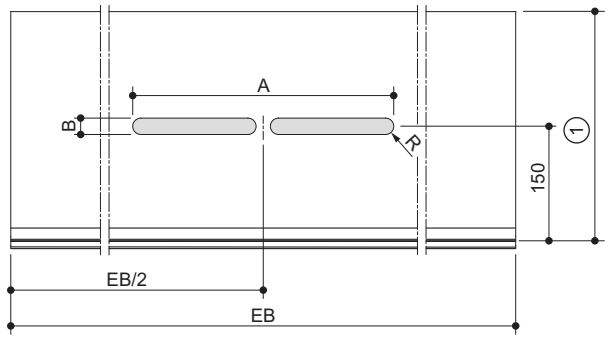
Notes:

- **Design and concept of the window fan as well as the ensuring of the air exhaust are in the responsibility of the designer/orderer.**
- The van element is fixed after plastering.
- According to the designer, it may be necessary to install a larger fan or a second fan if the flow area is reduced. It would also be an alternative measurement to shift the fan or the static console.
- All technical data are available in the data sheet.

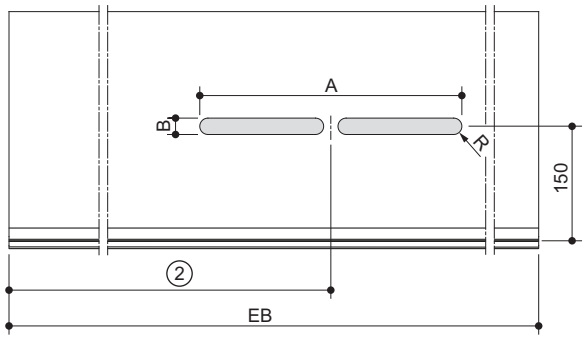
Ventilation slot
For window fan systems that are provided by the client, ventilation slots may be prepared in the top-mounted box. Please note, that we assume no responsibility for the correct selection or functionality of the window fan element when it is built in.

Dimensions and positions of the fan recess

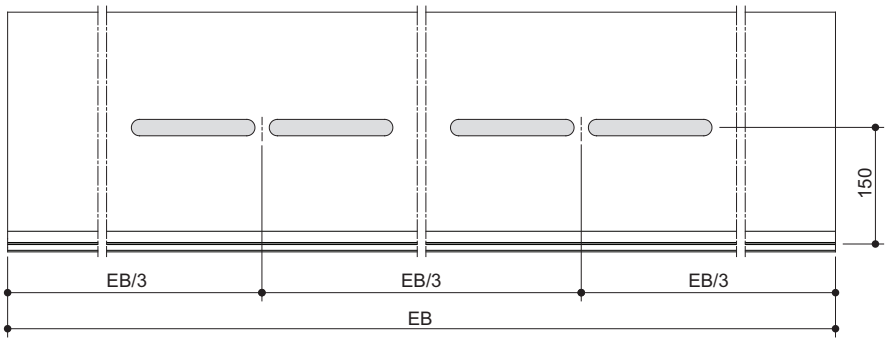
1 Fan recess



1 Fan recess - position horizontally variable



2 Fan recesses



Legend

①	Box height
②	Fan recess position
EB	Element width

Window ventilator system	A	B	R
Siegenia AEROMAT midi	386	12	6
Siegenia AEROMAT midi HY	354	12	6

Notes:

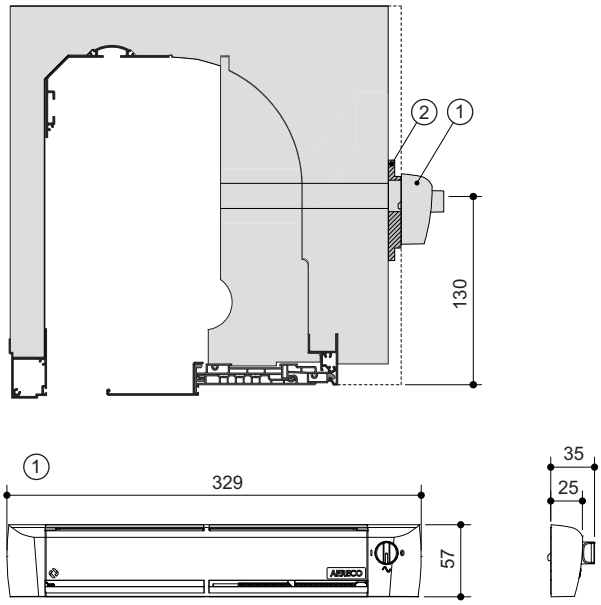
- **Design and concept of the window fan as well as the ensuring of the air exhaust are in the responsibility of the designer/orderer.**
- The van element is fixed after plastering.
- According to the designer, it may be necessary to install a larger fan or a second fan if the flow area is reduced. It would also be an alternative measurement to shift the fan or the static console.
- All technical data are available in the data sheet.

Ventilation slot
For window fan systems that are provided by the client, ventilation slots may be prepared in the top-mounted box. Please note, that we assume no responsibility for the correct selection or functionality of the window fan element when it is built in.

TOP FOAM screen protect

Aereco ZUROH 110 (air inlet)

With its flat design and air channel the air inlet ZUROH 110 is perfectly suitable for use at the top-mounted box. The after-flow of air is provided via an opening, which is not visible for the resident. Thanks to the Aereco humidity sensor, the air volume flows are adjusted to the relative interior air humidity - automatically and without external auxiliary energy. Due to the use of the lever for opening and closing, the element can be opened or closed completely (basic ventilation).



Legend

① Fan element Aereco ZUROH 110 (not included in the delivery)

② Plaster frame (not included in the scope of delivery)

Advantages

- Humidity sensor: adjusts the air volume flows to the relative air moisture
- With lever for opening and closing
- Vertical airflow for more living comfort
- Opening for the incoming airflow not visible for the resident
- Easy installation, screws are not visible
- Easy maintenance, no recalibration required, only cleaning
- Plaster frame with defined space deduction for easy installation (not included in the scope of supply)

Notes:

- **Design and concept of the window fan as well as the ensuring of the air exhaust are in the responsibility of the designer/orderer.**
- The van element is fixed after plastering.
- According to the designer, it may be necessary to install a larger fan or a second fan if the flow area is reduced. It would also be an alternative measurement to shift the fan or the static console.
- All technical data are available in the data sheet.

Ventilation slot

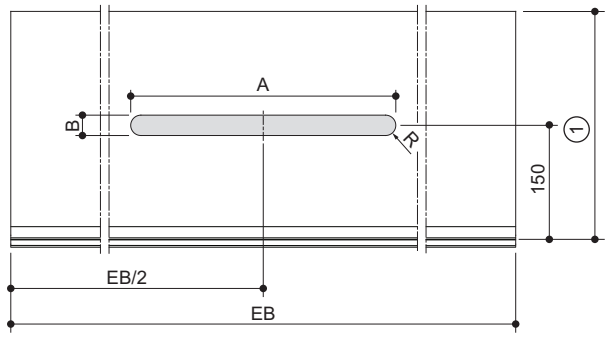
For window fan systems that are provided by the client, ventilation slots may be prepared in the top-mounted box. Please note, that we assume no responsibility for the correct selection or functionality of the window fan element when it is built in.

Sound insulation test certificates

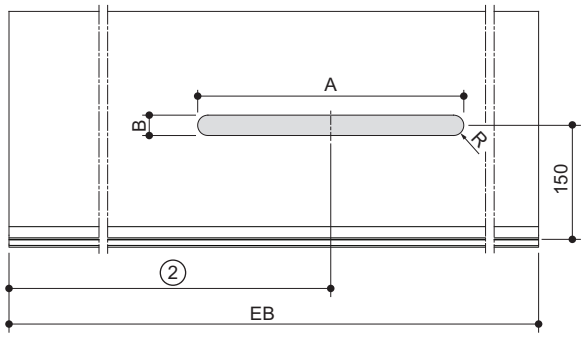
Box size	R_w[dB] Blind position			
	at the top		at the bottom	
	Fan open	Fan closed	Fan open	Fan closed
RvU 300/300	36	37	38	39
RvA 300/300	36	37	40	42

Dimensions and positions of the fan recess

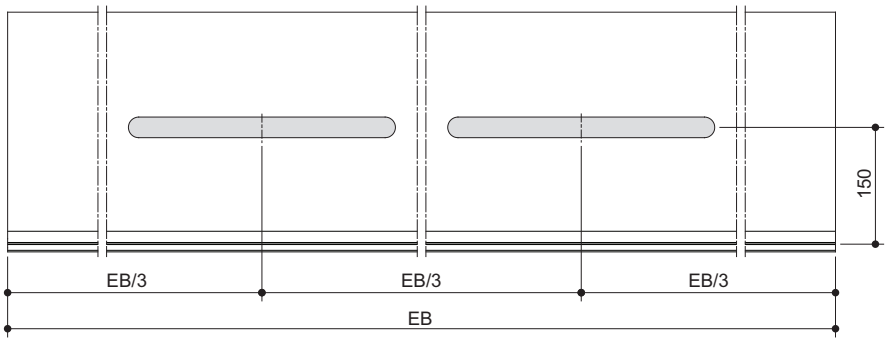
1 Fan recess



1 Fan recess - position horizontally variable



2 Fan recesses



Legend

①	Box height
②	Fan recess position
EB	Element width

Window ventilator system	A	B	R
Aereco ZUROH 110	255	20	10
Aereco ZUROH 110 with air duct ROLK	275	25	12.5
Aereco ZUROH 110 with metal duct ROMK	289	39	3

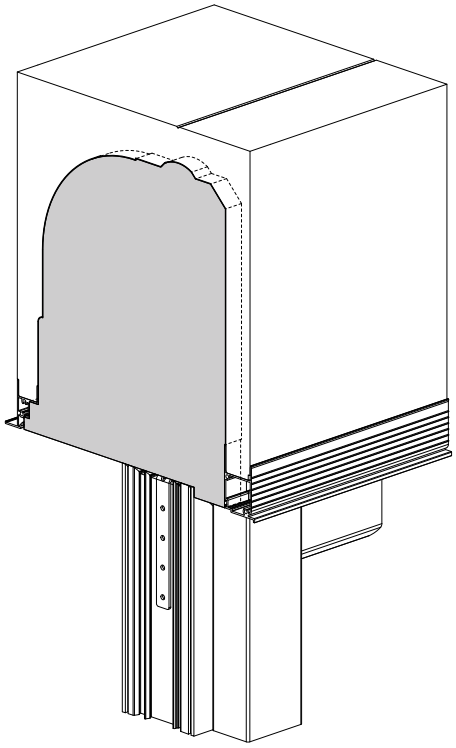
Notes:

- **Design and concept of the window fan as well as the ensuring of the air exhaust are in the responsibility of the designer/orderer.**
- The van element is fixed after plastering.
- According to the designer, it may be necessary to install a larger fan or a second fan if the flow area is reduced. It would also be an alternative measurement to shift the fan or the static console.
- All technical data are available in the data sheet.

Ventilation slot
For window fan systems that are provided by the client, ventilation slots may be prepared in the top-mounted box. Please note, that we assume no responsibility for the correct selection or functionality of the window fan element when it is built in.

TOP FOAM screen protect

Exterior insulation for side cover

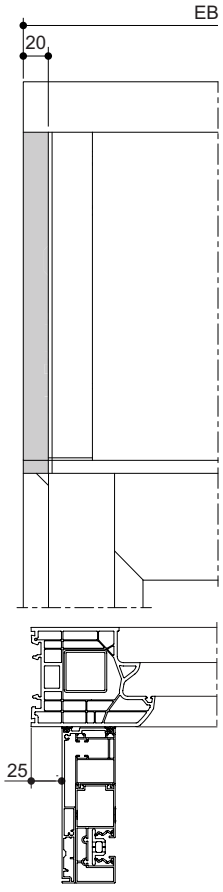


External side cover insulation
The external side cover insulation consists of polystyrene EPS 032 with a thickness of 20 mm.

If an external side cover insulation is provided, only the standard fastening handle (handle width 14 mm) may be used. Depending on the window frame profile, it must be cranked accordingly on-site.

The element width refers up to the outer edge of the box and includes the insulation of the side cover. The guide rails are additionally mounted offset by 20 mm per side (see chapter “Dimensioning specification”).

An external side cover insulation is possible with a box height of 250 and 300 mm.



The external insulation for the side cover is loosely enclosed in the delivery and must be mounted to the side cover after the installation of the box.

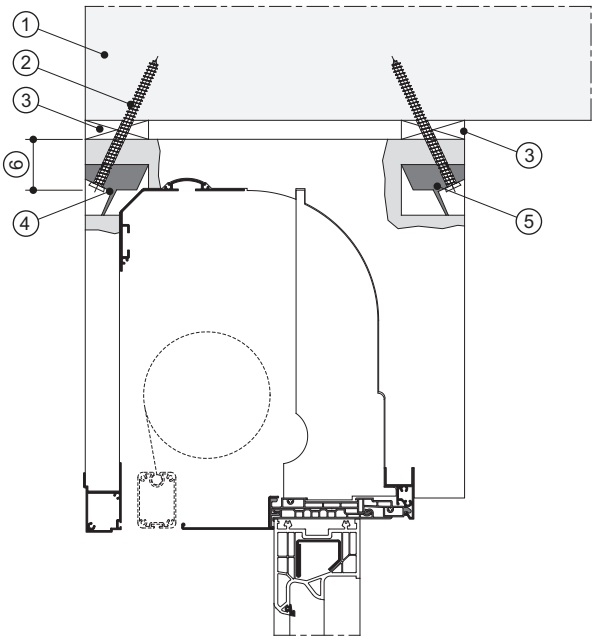
Legend

EB Element width

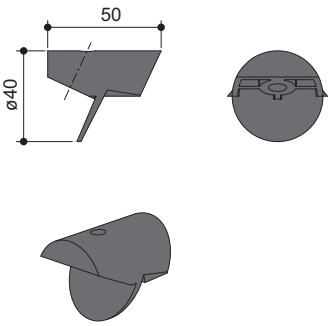
Note:

Usually easier to solve with a doubling! Otherwise a cranked handle is required, the straight handle is then bent while mounting.

Fixing of the box



Box fixing round, on the outside and on the inside screwed to a load-bearing and pressure-resistant mounting base.



Box fixing round

Legend

① Load-bearing mounting base, e.g. reinforced concrete ceiling
② Mounting material* (not included in the delivery)
③ Spacer blocks, pressure-resistant (not included in the delivery)
④ Box fixing round, made of plastic, on the outside
⑤ Box fixing round, made of plastic, on the inside
⑥ Box height 300: 40 mm
Box height 250: 36 mm

* If the mounting base is made of reinforced concrete, the fastening can be done via customary window frame screws (e.g.: WÜRTH AMO III, Type 3, 7.5x72 mm). Checking and use of the suitable mounting material must be decided on-site and has to be adapted to the structural conditions.

Depending on the width, box fastenings round are used in addition to the fastening handle.

The fastenings connect the box with the load-bearing mounting base. This results in a higher stability and the danger of crack formation when opening and closing the window is reduced. Herewith a “sagging” or “swinging back and forth” of the box when closing or opening the window is reduced.

The box fixing round consists of plastic and the corresponding dowels and screws, which are included in the delivery.

The box fastening round is permanently fixed to the box.

Advantages of the box fixing:

- Quick installation
- Significantly higher stability

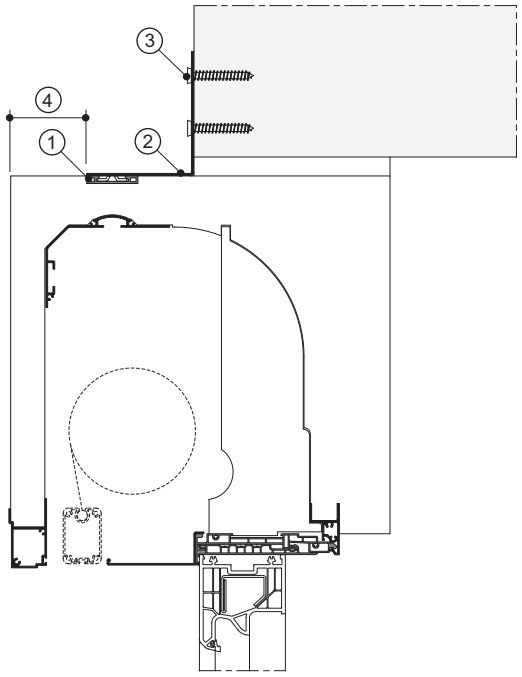
Number
Standard: see table (recommendation)
Optional: according to customer request

Element width [mm]	Number
800-1599	1
1600-2399	2
2400-3199	3
3200-3999	4
4000-4799	5
4800-5000	6

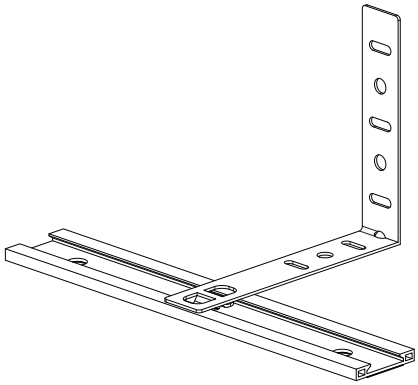
screen protect .S
No lintel mounting round, on the outside possible.

TOP FOAM screen protect

Fixing of the box



Box fixing on the outside via screw-in anchor for a simple connection with the box.



Screw-in anchor and connection profile when connected

Legend

① Connection profile
② Screw-in anchor
③ Mounting material* (not included in the delivery)
④ screen protect = 60 mm
screen protect .S = 43 mm

* If the mounting base is made of reinforced concrete, the fastening can be done via customary window frame screws (e.g.: WÜRTH AMO III, Type 3, 7.5x72 mm). Checking and use of the suitable mounting material must be decided on-site and has to be adapted to the structural conditions.

Fixing of the box with screw-in anchor on the outside
Depending on the width, one or more screw-in anchors are used in addition to the box fastening.

The fastenings connect the box in the exterior with the load-bearing mounting base. This results in a higher stability and the danger of crack formation when opening and closing the window is reduced. Herewith a “sagging” or “swinging back and forth” of the box when closing or opening the window is reduced.

This box fastening on the outside consists of an screw-in anchor (2 mm, steel sheet), the connection profile and the appropriate screws supplied.

It is possible to bend the screw-in anchor according to the installation situation/installation depth and/or cut it to length and fix it to the brickwork by using commercially available dowels (8 mm or 5 mm) and screws.

The connection profile is permanently fixed to the box.

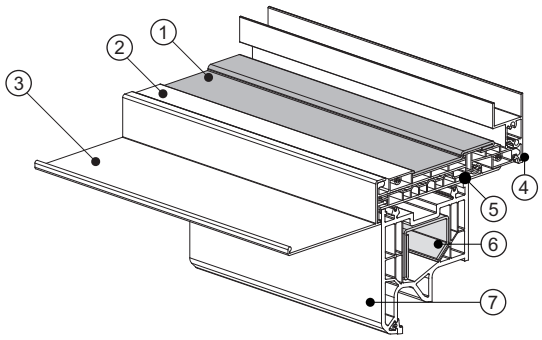
Advantages of the box fixing:

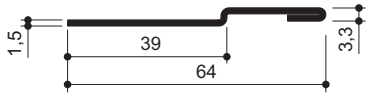
- Quick installation
- Flexible position
- Significantly higher stability

Number
Standard: see table (recommendation)
Optional: according to customer request

Element width [mm]	Number
to 800	0
800-1599	1
1600-2399	2
2400-3199	3
3200-3999	4
4000-4799	5
4800-5000	6

Bottom strengthening profile





Legend

① Bottom strengthening profile, 1.5 mm, galvanized
② Floor bracket profile
③ Inspection cover
④ Box end profile 0 mm, inside
⑤ Adapter profile
⑥ Window frame reinforcement
⑦ Blind frame

Bottom strengthening profile
We recommend to use a bottom strengthening profile for split elements with a width above 2000 mm. This must be screwed shear-resistantly to the window frame. In the case of occurring wind loads, the bending of the frame is minimized.

Technical details
Bottom strengthening profile I_y = 4.17 cm^4

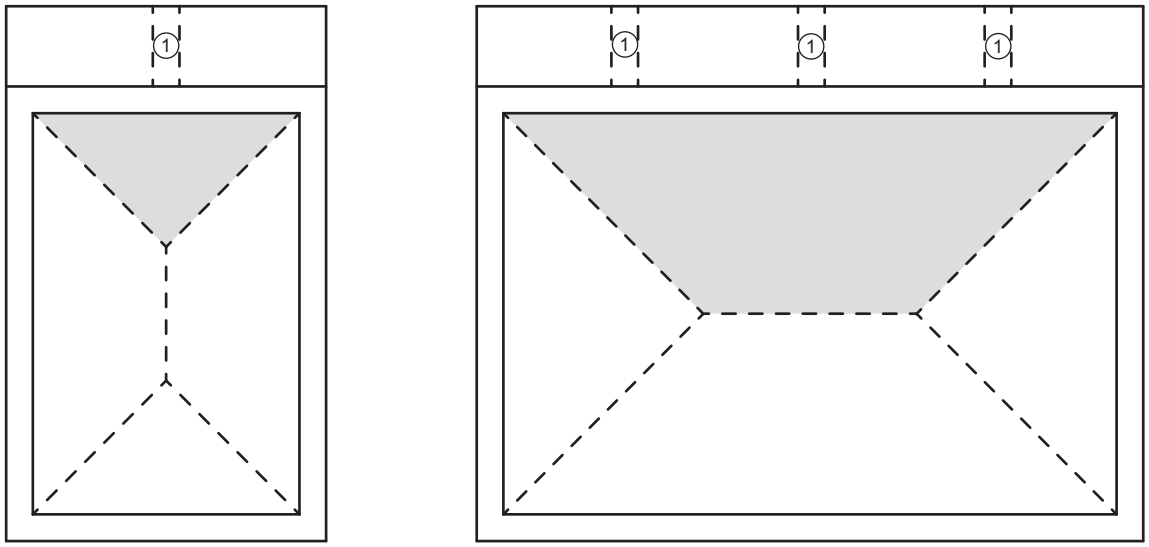
Window frame stabilization
If the option window frame stabilization is ordered, the box is always delivered with the bottom strengthening profile.

TOP FOAM screen protect

Statics bracket

If the window is provided with a top-mounted box, the upper window frame can not be fixed to the ceiling. This is done with a static bracket. This is a multi-part statics bracket, which transfers the wind-load, which puts pressure on the window frame, directly into the lintel or the ceiling.

The static brackets ensure the correct load transfer of the window frame towards the top via the top-mounted box into the lintel or the ceiling.
The brackets are only designed for the load-bearing capacity of the upper load triangle or load trapeze (grey-shaded). It is mandatory to screw the window frame laterally towards the outside.



Legend

① Statics bracket

In this case it must be proofed, that the bending of the upper window frame is less than the maximum allowable bending. The bending of the window frame is specified in dependency on the test pressure.

A window element with top-mounted box can be tested according to DIN EN 12211 and be classified according to DIN EN 12210. According to the norm, the results can be transferred over to smaller elements.

Classification of windows with regard to the wind load resistance DIN EN 12210 Table 1

Test class	Test pressure [Pa]
1	400
2	800
3	1200
...	...

Classification of the relative frontal bending DIN EN 12210 Table 2

Test class	Relative frontal bending
A	< l/150
B	< l/200
C	< l/300

Example:

Class B3

Wind load resistance - Window frame bending l/200:	Class B
Wind load resistance - Test pressure 1200 Pa:	Class 3
Classification of the window element:	B3

In this case Class B3 means, that at a test pressure of 1200 Pa a maximum upper window frame bending of l/200 may not be exceeded. Important: The window must meet the requirements for the classification according to DIN EN 12210 too. The maximum bending of frame parts is limited to l/200 or max. 15 mm as given in the “Technical rules for the use of linear mounted glazing (TRLV)”. The minor value is decisive.

Which class a window must show at a given installation location? For this purpose the wind pressure that affects the window must be determined. This depends on a variety of factors such as installation height, installation location, form of the building, position of the windows in the building etc. The resultant wind pressure is calculated according to DIN EN 1991-1-4 (Eurocode 1).

This calculation of the affecting loads is the basic requirement for the dimensioning of the window, regardless whether the window is provided with a top-mounted box or not.

Note:

The **wind resistance according to EN 13659** defines the wind resistance classes for **roller shutters**. This wind capability depends mainly on the type of the roller shutter profile, the guide rail/the depth of the guide rail groove and the width of the roller shutter.

The **wind resistance according to DIN EN 12210** defines the wind resistance classes for **window elements with top-mounted boxes**. The classification regarding the wind resistance is classified in two classes: on the one hand the class of the maximum allowable window frame bending and on the other hand in classes, which result from the applied test pressure.

These two norms must be observed independently of each other!

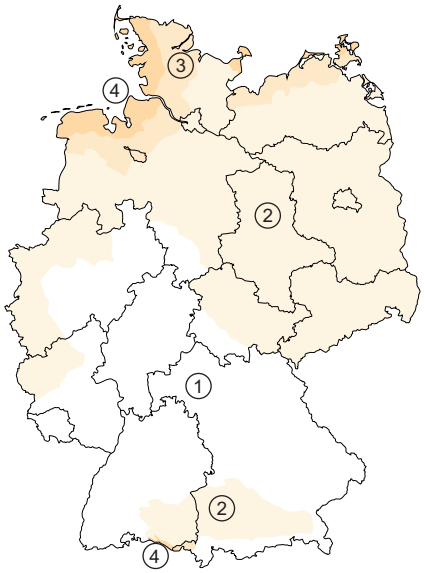
TOP FOAM screen protect

Statics bracket

The function of the statics bracket is the load transfer of the window towards the ceiling or the lintel. For the required number of statics brackets, the wind load zone (e.g. 2 or 3) of the local conditions must be determined and the building height must be known.

Classification of the window element

1. Determination of the wind load zone (example: Germany)



Wind load zones in Germany

- Wind load zone 1 with 22.5 m/s
- Wind load zone 2 with 25.0 m/s
- Wind load zone 3 with 27.5 m/s
- Wind load zone 4 with 30.0 m/s

Source: DIN 1055-4:2005-3, DIN EN 1991-1-4/NA

2. Determination of the wind intensity class for windows (DIN 18055:2014-11)

Building height	Wind zone	0-10 m	>10-18 m	>18-25 m
Interior land				
Resistance to wind loads according to DIN EN 14351-1	1	B2	B2	B3
	2	B2	B3	B3
	3	B3	B3	B4
	4	B3	B4	B4
Coasts and Baltic Sea islands				
Resistance to wind loads according to DIN EN 14351-1	2	B3	B3	B4
	3	B3	B4	B4
	4	B4	B4	B5

The classification of the window resulting from the above is a reference value only and serves already in the offer phase as help for the determination of the required number of statics brackets for the respective element. The final demands on the window are given by the client or the window fitter.

Recommended number of statics brackets depending on the element height and element width

Basis of the window and door norm
DIN EN 12210:2016

Calculation basis
Reinforcement in the window frame: Tube 30x30x1.5 I_y = 2.26 cm^4
Bottom strengthening profile I_y = 4.28 cm^4

Wind protection class B2

- Frame deflection < 1/200 of the window frame width
- Test pressure 800 Pa

Element height including box [mm] \ Element width [mm]	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000
1000	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
1200	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
1400	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
1600	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2
1800	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2
2000	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2
2200	0	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2
2400	0	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2
2600	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2
2800	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2
3000	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2
3200	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2
3400	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2
3600	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	3
3800	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	3
4000	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	3
4200	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	3
4400	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	3

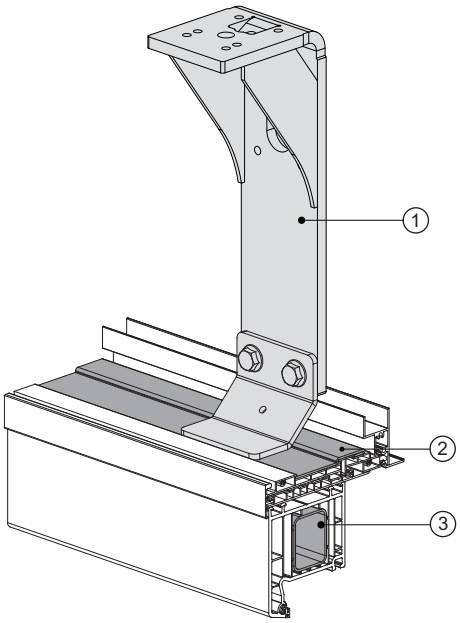
Wind protection class B3

- Frame deflection < 1/200 of the window frame width
- Test pressure 1200 Pa

Element height including box [mm] \ Element width [mm]	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000
1000	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2
1200	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2
1400	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2	2
1600	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2	2
1800	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2	2
2000	0	0	0	0	0	1	1	1	2	2	2	2	2	2	2	3
2200	0	0	0	0	0	1	1	1	2	2	2	2	2	2	3	3
2400	0	0	0	0	0	1	1	1	2	2	2	2	2	3	3	3
2600	0	0	0	0	0	1	1	1	2	2	2	2	2	3	3	3
2800	0	0	0	0	0	1	1	1	2	2	2	2	3	3	3	4
3000	0	0	0	0	0	1	1	1	2	2	2	2	3	3	4	4
3200	0	0	0	0	0	1	1	1	2	2	2	2	3	3	4	4
3400	0	0	0	0	0	1	1	1	2	2	2	2	3	3	4	4
3600	0	0	0	0	0	1	1	1	2	2	2	2	3	3	4	4
3800	0	0	0	0	0	1	1	1	2	2	2	2	3	3	4	4
4000	0	0	0	0	0	1	1	1	2	2	2	2	3	3	4	4
4200	0	0	0	0	0	1	1	1	2	2	2	2	3	3	4	4
4400	0	0	0	0	0	1	1	1	2	2	2	2	3	3	4	4

TOP FOAM screen protect

Statics bracket



The static bracket is a multi-part static bracket that transfers the force of the wind acting on the window frame directly to the lintel or ceiling. Special insulations and the geometry serve for the thermal separation of the bracket and for excellent heat-insulating characteristics despite the COMPACT design. The static bracket is always used in combination with the bottom strengthening profile.

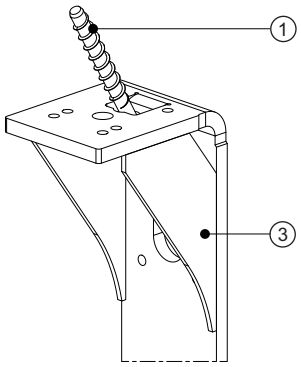
Mounting material
The selection of the suitable installation type and the use of the suitable mounting material must be checked on-site and has to be adapted to the structural conditions.

Example - mounting base made of reinforced concrete:
Fisher concrete screw ULTRACUT FBS II 8 x 130 80/65 US TX

Note:
The static bracket is possible for the standard box heights 250 and 300 mm.
The static bracket is already pre-mounted at the factory.

Legend

① Statics bracket (multiple parts)
② Bottom reinforcing profile
③ Window frame reinforcement



Installation from below/direct installation

The static bracket fixed part is permanently attached to the box and in further consequence connected with the installation base.

Connection to the window frame

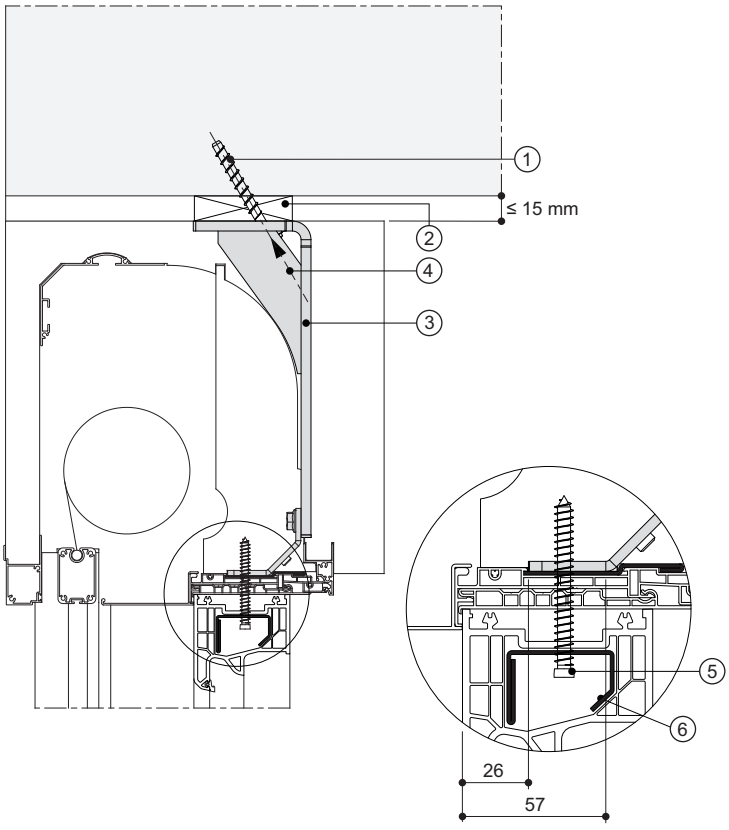
The window frame must be screwed to the static bracket using appropriate mounting material to enable optimal distribution of forces.

Mounting material

The suitable mounting material must be checked on-site and has to be adapted to the structural conditions.

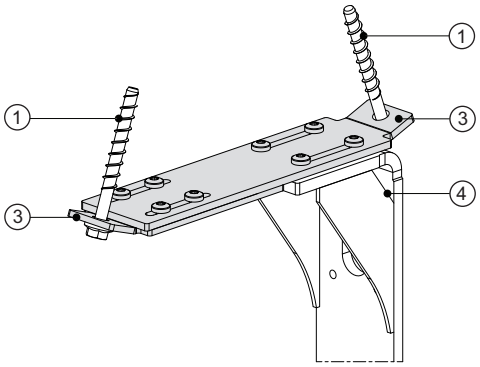
Legend

① Mounting material (not included in the delivery)
② Spacer blocks pressure-resistant (not included in the delivery)
③ Statics bracket
④ Installation direction
⑤ The screw connection from the window frame must be directly in the static bracket (mounting material not included in the delivery)
⑥ Window frame reinforcement



TOP FOAM screen protect

Statics bracket



Mounting with fastening lugs

The connection of the static bracket with the wall lintel or the reinforced concrete ceiling is provided via fastening lugs from the outside and from the inside.

Connection to the window frame

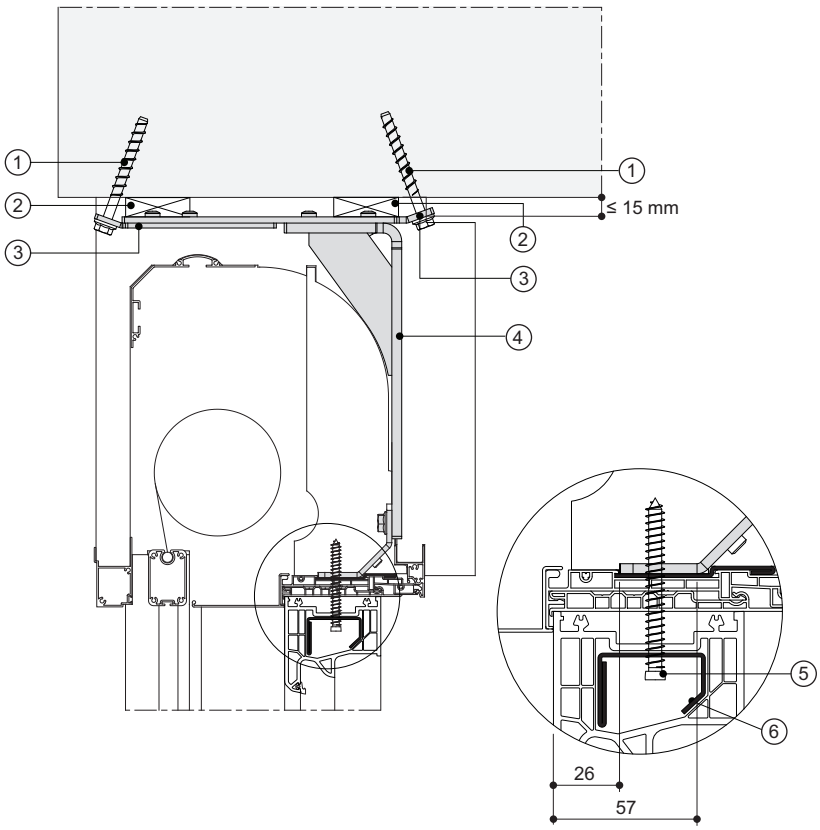
The window frame must be screwed to the static bracket using appropriate mounting material to enable optimal distribution of forces.

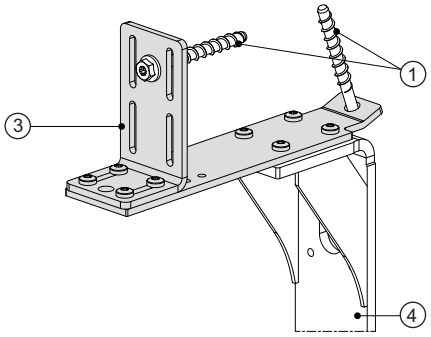
Mounting material

The suitable mounting material must be checked on-site and has to be adapted to the structural conditions.

Legend

① Mounting material (not included in the delivery)
② Spacer blocks pressure-resistant (not included in the delivery)
③ Fastening lugs
④ Statics bracket
⑤ Mounting material, connection of the window frame to the box (not included in the delivery)
⑥ Window frame reinforcement





Mounting with mounting bracket and mounting lug

The connection of the static bracket with the wall lintel or the reinforced concrete ceiling is provided via mounting bracket from the outside. Principally the mounting bracket is screwed to the statics brackets and the brickwork after the installation of the windows.

Connection to the window frame

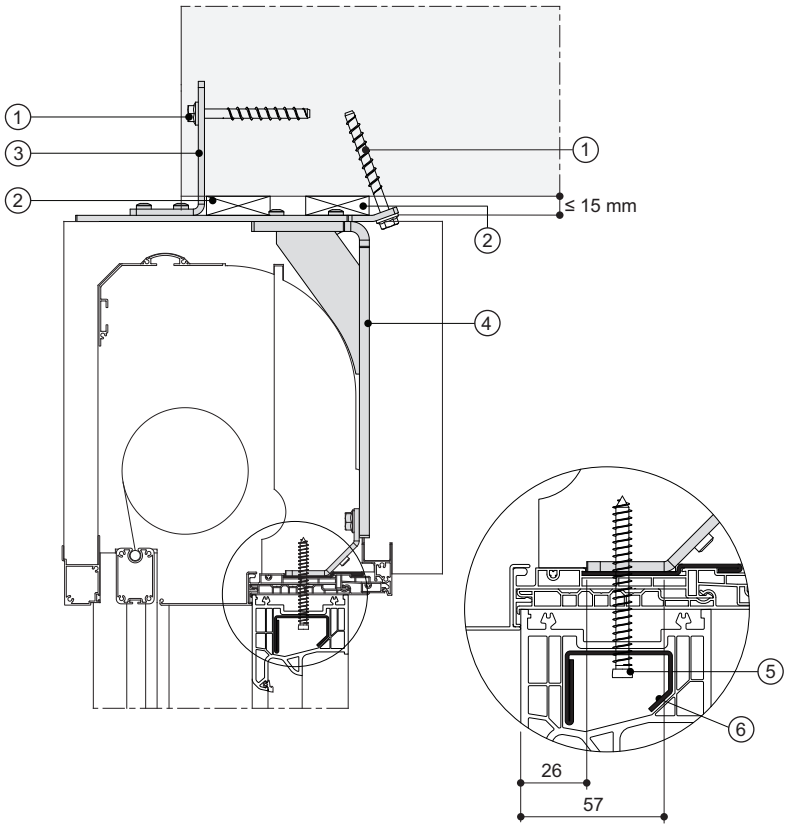
The window frame must be screwed to the static bracket using appropriate mounting material to enable optimal distribution of forces.

Mounting material

The suitable mounting material must be checked on-site and has to be adapted to the structural conditions.

Legend

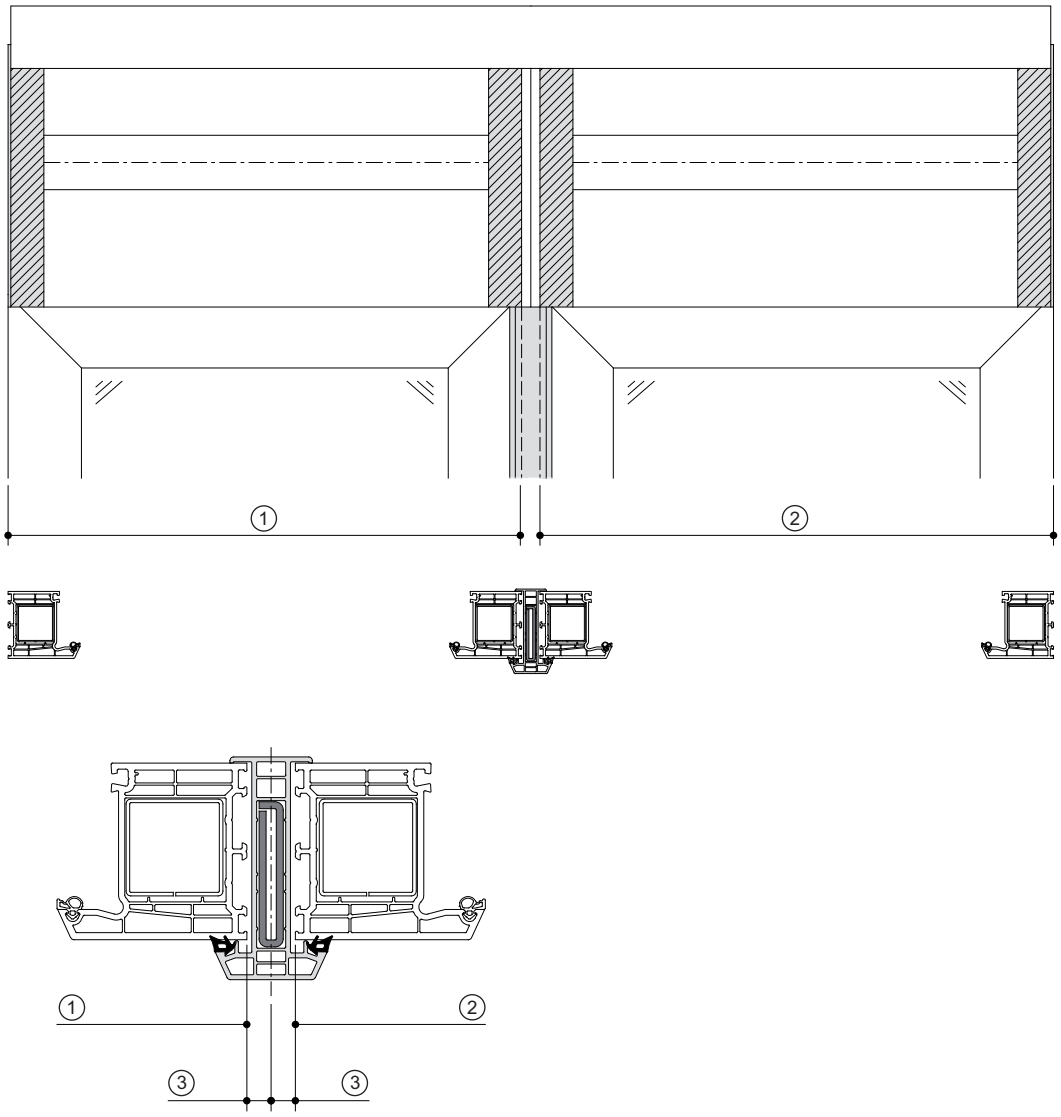
① Mounting material (not included in the delivery)
② Spacer blocks pressure-resistant (not included in the delivery)
③ Assembly bracket 108x60 mm (both lugs can be used for installation)
④ Statics bracket
⑤ Mounting material, connection of the window frame to the box (not included in the delivery)
⑥ Window frame reinforcement



TOP FOAM screen protect

Recess for post

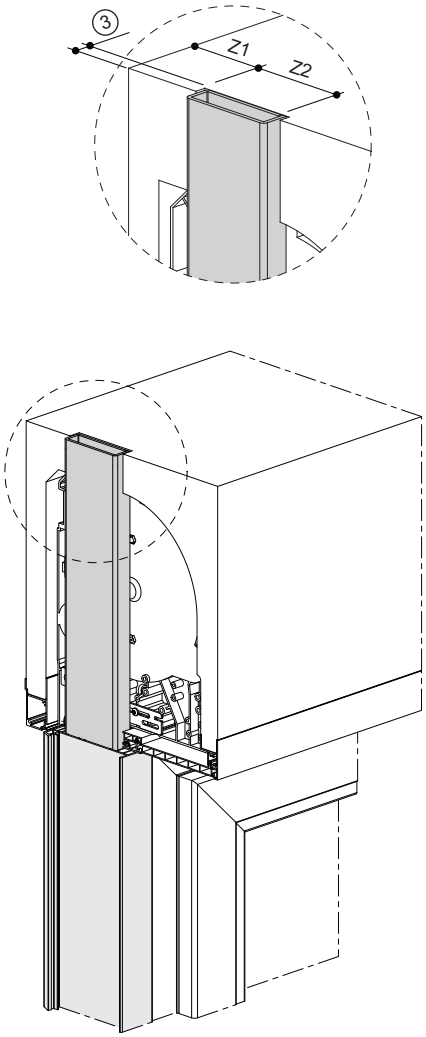
Often supporting or reinforcing posts between both window elements are used with statics window linkages. In this case a recess area can be provided at the box.



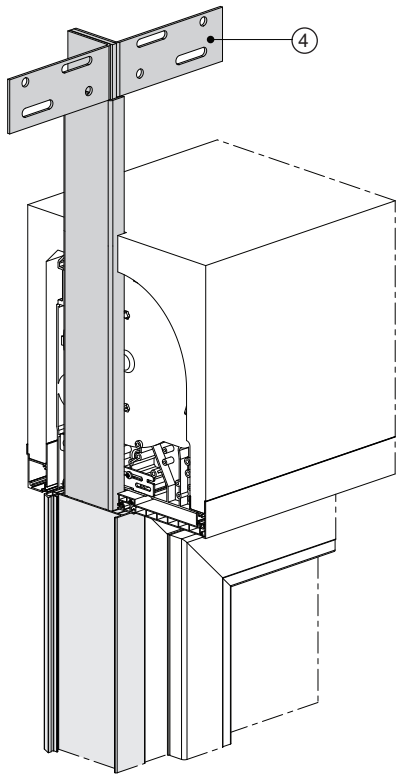
View: Detail with statics linkage element and steel insert

Legend

①	Order dimension Element width 1
②	Order dimension Element width 2
③	Excess length of the box



View: Detail recess area at the box



View: Detail with box connection to the brickwork

Legend

③	Excess length of the box
④	Example of a statics linkage element of the window
Z1	Offset dimension from the outer edge of the box Z2 ...
Z2	Depth of the recess area

TOP FOAM screen protect

Mounting material

Guide rails
The installation of the guide rails to the mounting base is provided via screw connection from the front. The mounting holes are closed with color-coordinated covering caps (ø10).

Guide rail installation, screwed

Guide rail types 92, 93

Mounting base	Mounting material	Art. no.
Wood	Pan head screw ASSY 4.5x35 AW20 VZ	80060067_VZ
Plastic	Self drilling head screw DIN7504N 4.8x38 AW25 VZ	80030188_VZ
Metal	Self drilling head screw DIN7504N 4.8x22 AW25 VZ	80030187_VZ
Aluminium shell	Self drilling head screw DIN7504N 4.8x50 AW25 VZ	80030161_VZ
all	Pan-headed drilling screw DIN7504N AW20	3.9x9.5
all	Covering cap	ø10

Box attachment

The box is installed using the positive-locking clip connection. In addition, the box is screwed laterally to the window frame via the mounting rod.

Mounting rod on window frame

Mounting base	Mounting material	Art. no.
Wood	Pan head screw ASSY 4.0x35 AW20	80060057
Metal/plastic	Self drilling head screw DIN7504N 3.9x25 AW20	80030163

Mounting rod on box

Mounting base	Mounting material	Art. no.
all	Self drilling head screw DIN7504N 3.9x13 AW20	80030033

Note:
The above-mentioned mounting material is an exemplary recommendation of the company HELLA, as long as no other special requirements, such as ETA certificates, are claimed. Generally already during the planning stage, but before the installation at the latest, it must be checked, if the defined mounting material is suitable of the installation.

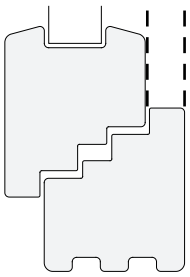
INSECT SCREENS

Insect screens

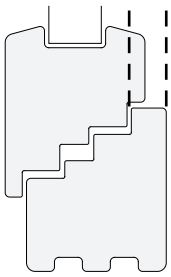
	Insect screen fabric Standard	Insect screen fabric VistaScreen	Pollen screen	Insect screen fabric Aluminium	Insect screen fabric Stainless steel	Petable pet fabric	SOLTIS 86/ SOLTIS 92
Material	Plastic-sheathed fibreglass	Plastic-sheathed fibreglass	PVC (47 %), fibreglass (32 %), PET (21 %)	Aluminium	Stainless steel V2A	Polyester	Plastic-sheathed polyester
Mesh density [threads/inch]	18 x 16	18 x 18		18 x 16	18 x 16	15 x 11	
Mesh size	1.41 x 1.58 mm	1.41 x 1.41 mm		1.41 x 1.58 mm	1.5 x 1.5 mm	1.49 x 2.54 mm	
Denier	0.28mm	0.22 mm		0.26 mm	0.60 mm	0.64 mm	
Color	black with ISPL others grey	Black	Outside grey, inside black	Grey	Silver	Black	optional
Open area	60%	70%		68%	51%	43%	
Specific features	high tearing strength and weather resistance.	Improved view and air permeability compared with the standard insect screen fabric.	Minimises penetration of pollen and other air pollutants such as particulate content of smog.	Increased protection against small rodents, blocks less of the view than the standard insect screen fabric.	Sturdy fabric, as it is wear-resistant and durable.	High tearing strength for pets.	Privacy, glare protection Cover shortened and therefore not guided in the guide rail.
Fabric width	2000mm	2130 mm	1500 mm	1500 mm		1520 mm	1500 mm
ISR	●	●	●	●		●	●
ISD	●	●	●	●		●	
ISP Z	●	●	●	●		●	
IST	●	●	●	●		●	
IS13	●	●					●
ISPL	●						
ISLA					●		

Definition of window designs

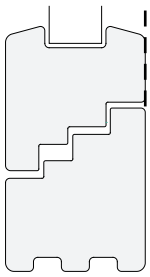
Recessed



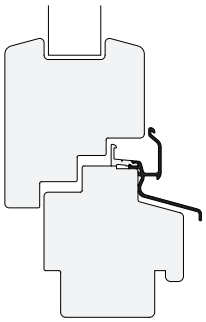
Half recessed



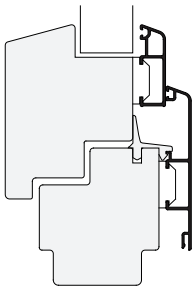
Flush with the adjacent areas



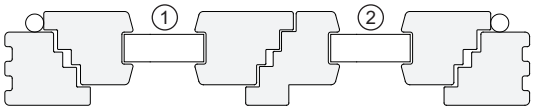
Weatherboard
(with windows made of wood-profiles)



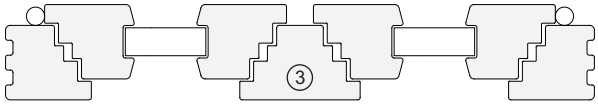
Aluminium tray
(with wooden or plastic windows frames)



Double-winged with active leaf ① and non-active leaf ②



Double-winged with middle transom ③



Sealing brushes

Color: black

Base width 4.8-5 mm
for sliding frame, roller blind box and end rod sealing inwards

- 15010018 4.8 x 6 mm
- 15010026 4.8 x 9 mm
- 15010023 5 x 15 mm
- 15010033 5 x 20 mm
- 15010032 4.8 x 25 mm with seam

Base width 6.5 - 6.7mm
for clamping frame, swing frame, pendulum frame and end rod seal facing downwards

- 15010010 6.7 x 6 mm
- 15010025 6.5 x 11 mm
- 15010014 6.5 x 15 mm
- 15010037 6.7 x 25 mm with seam

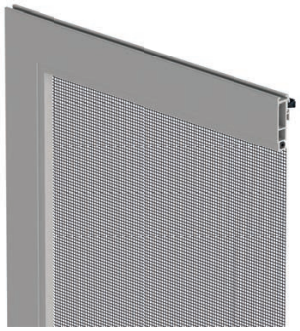
The effective brush length of a built-in brush is by 3 mm less then the brush length given.

Clamping frame





With the spring-loaded suspension bracket made of 8x1 mm thick stainless steel, the vast majority of mounting situations are covered.



Large selection of different insect screens.

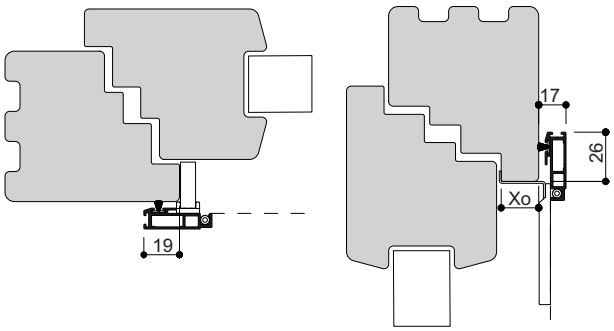
Limit sizes

Insect screen fabric	Min. width [mm]	Max. width [mm]	Min. height [mm]	Max. height [mm]	Max. side length without sash-bars [mm]	Max. side length reinforced profile without sash-bars [mm]
Standard	300	2300*	300	2300	1500	2000
VistaScreen	300	2300*	300	2300	1500	2000
Aluminium	300	2000*	300	2000	1300	1500
Petable	300	2000*	300	2000	1300	1500
Pollen screen	300	2000*	300	2000	1000	1500

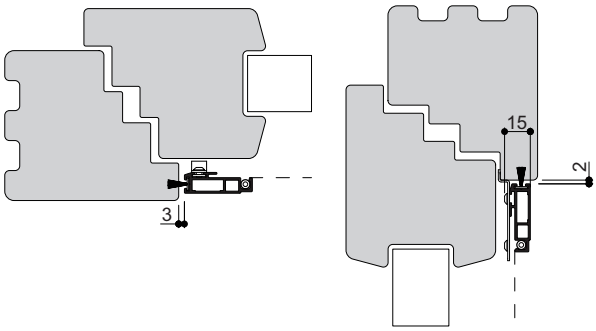
* With element widths exceeding 1500 mm the lateral handles often can not be reached by a person. Therefore two persons are required for hinging and unhinging. Maximum surface see price list.

Cross-section profile

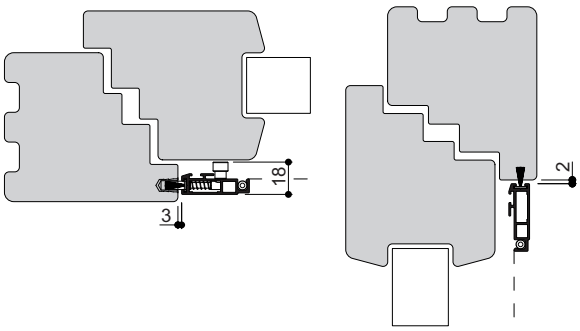
ISR A



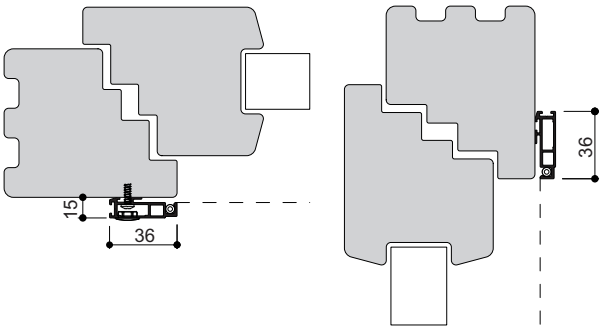
ISR B



ISR C



ISR D



Legend

X_O	Thickness of the window frame rabbet at the top

Scope of delivery

- Frame with rolled-in, plastic-sheathed fibreglass fabric
- Centre sash bar from a side length of 1501 mm (with standard profile) or no sash bar with reinforced profile
- Brush strips
- Operating and fastening elements
- Aluminium parts as per color definition "HELLA Color worlds"
- Mounting material

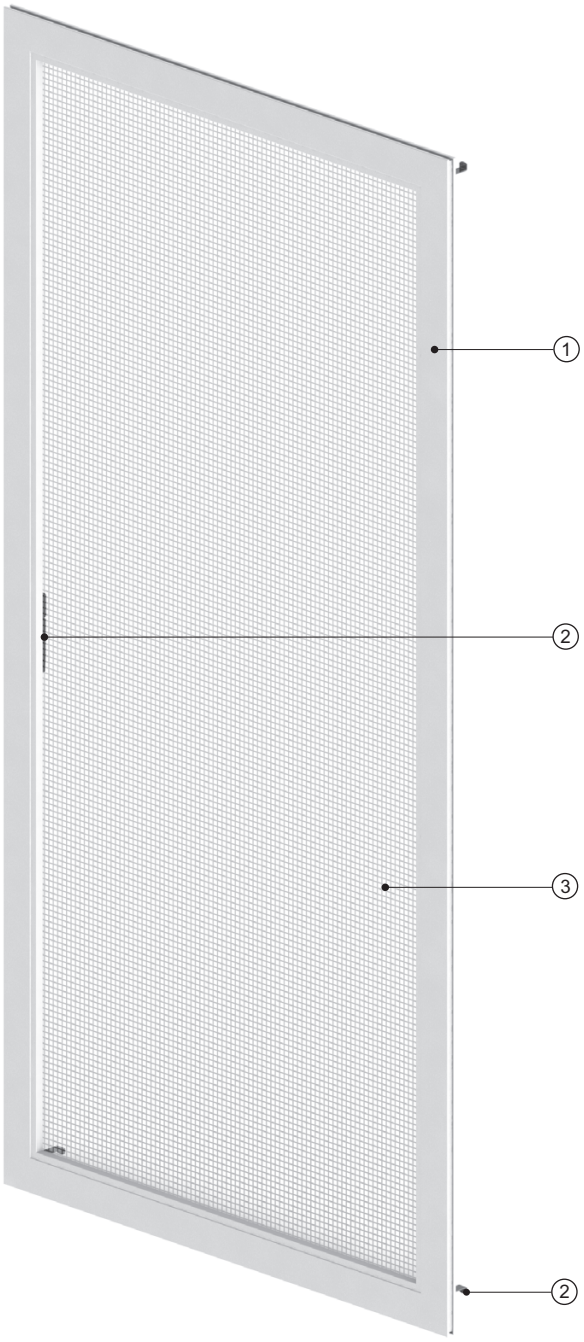
Supplementary equipment

- Additional sash bars
- Aluminium fabric
- Pollen screen
- Insect screen fabric VistaScreen
- Petable pet fabric
- alternative brush lengths

Benefits of the product

- Insect screen optionally demountable for seasonal use or fixed for all-year use
- Comfort
- Health
- High-quality construction elements guarantee a long lifespan and convenient operation
- Pollen screen (optional)

Clamping frame



Field of application

All window types, can be integrated in front-mounted roller shutters or outdoor blinds.

Installation

Four types of installation can be selected:

- Suspension bracket spring-mounted
- Suspension bracket outside
- Spring pins
- Screw-mounted

Legend

① Frame profile standard or reinforced

② Operating and fastening elements (depending on the type of installation)

③ Insect screen fabric

Technical product description

Frame

Material	Extruded aluminium
Dimension	36x11 mm or 43x11 mm

Description

- Corner detail with mitre cut and concealed corner joint made of aluminium (press-fitted).
- Sealing brushes depending on the type of installation at the rear side or at the front, black coloured

Sash bar

Material	Extruded aluminium
Dimension	33 x 10 mm

Description

- Screwed to frame profile, use depends on insect screen fabric and frame dimensions
- not with reinforced profile 43x11 mm

Brush (black)

ISR A

- optionally per side 6, 11 (Standard), 15 or 25 mm facing towards the inside; in addition optionally per side 6, 11, 15 or 25 mm on the front side facing towards the outside

ISR B/C

- optionally all around 11 (Standard), 15 or 25 mm

ISR D

- Standard without brush, optionally per side 6, 11, 15 or 25 mm facing towards the inside and/or on the front side facing towards the outside

Hinged handle

Material	High-quality plastic
Color	Black

Installation

- **ISR A:** suspension bracket spring-mounted made of 8 x 1 mm thick stainless steel, brush strip facing inwards
- **ISR B:** suspension bracket outside made of 8 x 1 mm thick stainless steel, front-side brush strip facing outwards
- **ISR C:** Spring pins shiny nickel-plated with operation from the inside, front-side brush strip facing outwards
- **ISR D:** Vertical frame profile can be screwed to the window frame from the outside (not demountable)

Insect screen fabric

- Insect screen fabric made of fibreglass, plastic-sheathed, color grey
- Insect screen fabric VistaScreen made of fibreglass, plastic-coated, black color, improved light and air permeability compared with the standard fibreglass fabric
- Pollen screen made of PVC, fibreglass and PET, outside color grey, inside color black; prevents penetration of over 90% of pollen of all types
- Insect screen fabric made of aluminium, blank
- Petable insect screen fabric made of reinforced fibreglass, black color, withstands pet claws

Colors

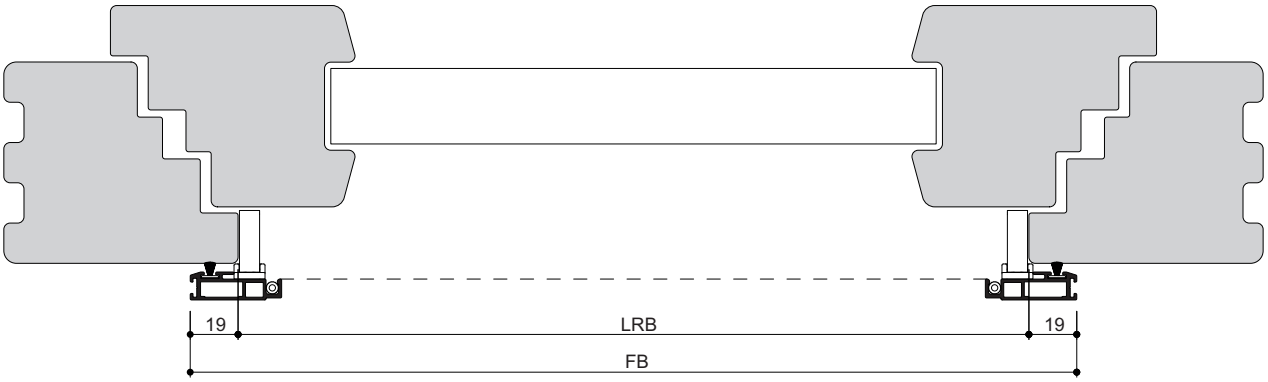
Aluminium parts	powder-coated as per color definition "HELLA Color worlds"
End pieces	Black

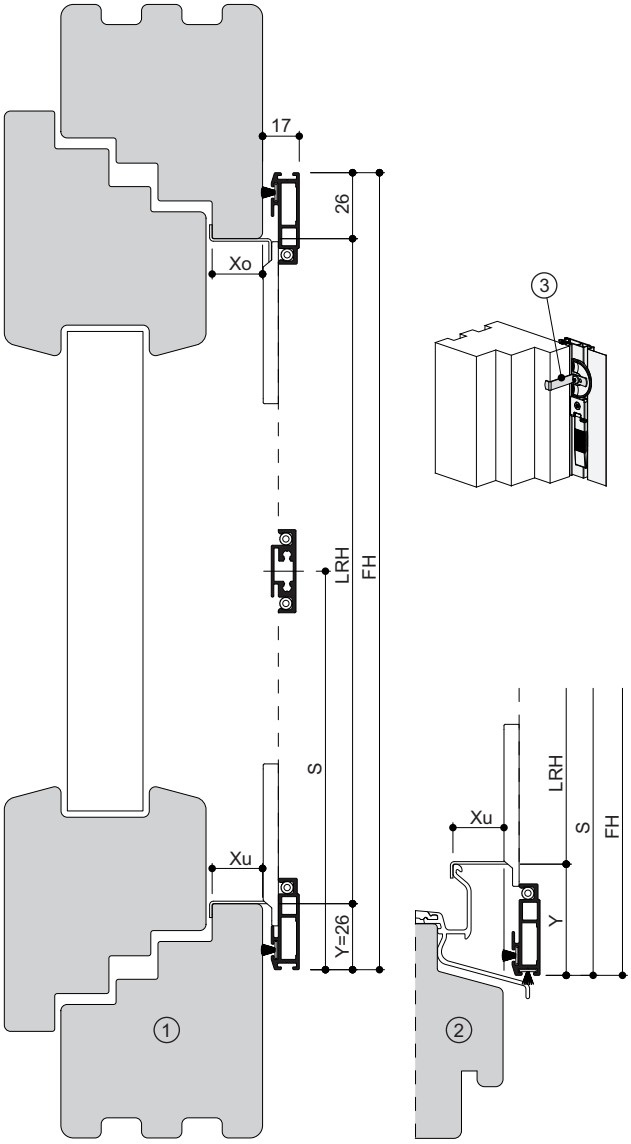
Special designs

on demand

Clamping frame

Type: ISR A – suspension bracket spring-mounted, standard frame profile





Notes:

- Works with all types of windows
- Space required 17 mm in front of the window
- 10 mm space required above the frame for unhinging
- Sealing brushes inserted at the front side enlarge the final dimensions on the outside and must therefore be taken into account when specifying the dimensions:
  - 10 mm gap with 15 mm sealing brush
  - 15 mm gap with 25 mm sealing brush
- Via the final dimensions in your order, the lateral support surface of 19 mm can be reduced down to 12 mm, if required. If a brush on the front side is used for lateral sealing, the lateral support surface at the window can be reduced down to 0 m.

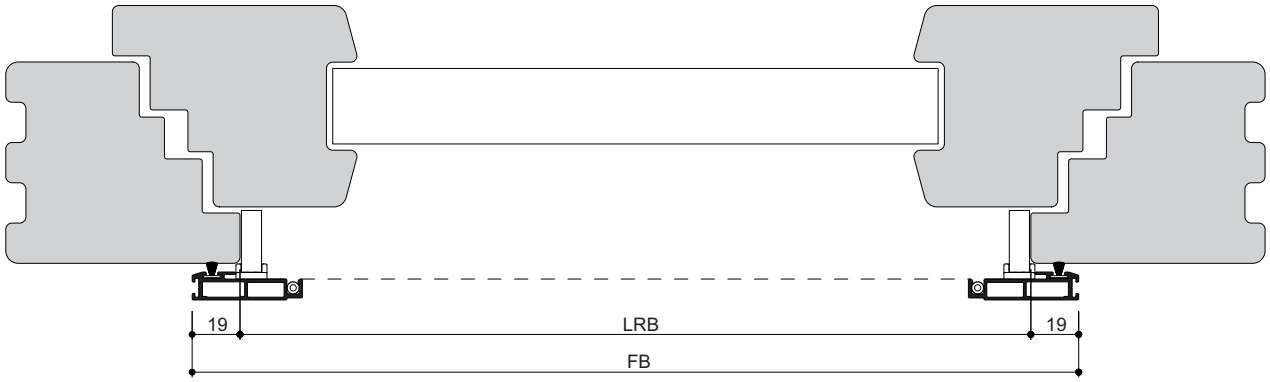
Legend

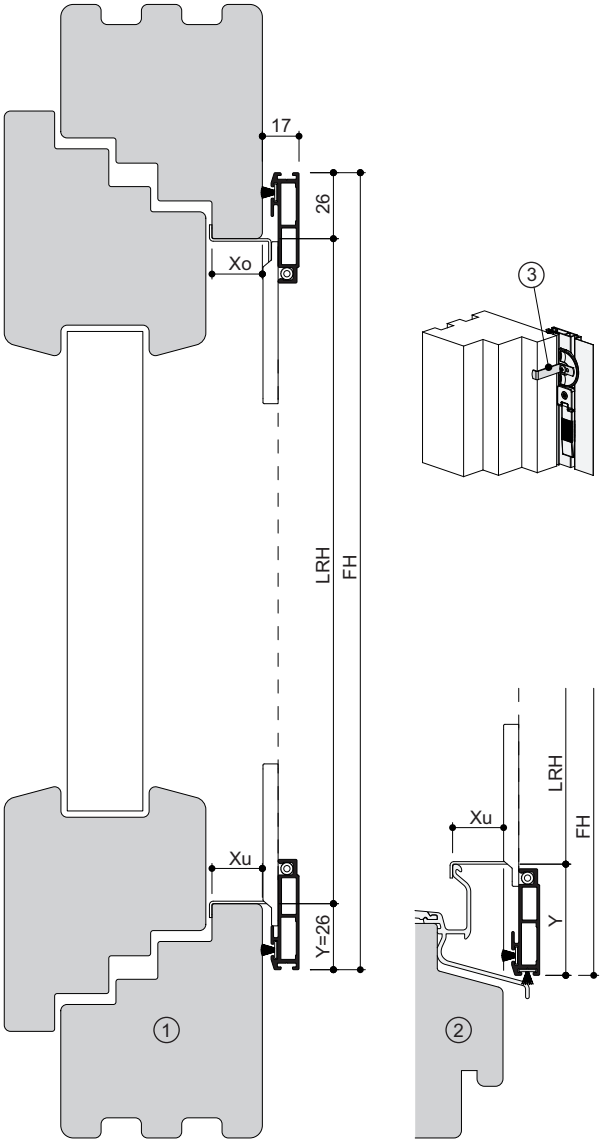
①	Window without weatherboard
②	Window with weatherboard and special brush 6 mm at the bottom on the front side
③	Loose side locking from FH 1700 mm
FB	Complete width (FB = LRB + 38)
FH	Complete height (FH = LRH + Y + 26)
LRB	Clear frame width of the window
LRH	Clear frame height of the window
S	Sash bar position
X_O/X_U	Thickness of the window frame rabbet at the top/bottom

- 1 mm: Suspension bracket 5 mm
- 2-3 mm: Suspension bracket 7 mm
- 4-5 mm: Suspension bracket 9 mm
- 6-7 mm: Suspension bracket 11 mm
- 8-9 mm: Suspension bracket 13 mm
- 10-11 mm: Suspension bracket 15 mm
- 12-13 mm: Suspension bracket 17 mm
- 14-15 mm: Suspension bracket 19 mm
- 16-17 mm: Suspension bracket 21 mm
- 18-19 mm: Suspension bracket 23 mm
- 20-21 mm: Suspension bracket 25 mm
- 22-24 mm: Suspension bracket 28 mm
- 25-26 mm: Suspension bracket 30 mm
- 27-28 mm: Suspension bracket 32 mm
- 29-30 mm: Suspension bracket 34 mm

Y	Position of the suspension bracket at the bottom (standard 26 mm)

Type: ISR A – suspension bracket spring-mounted, reinforced frame profile





Notes:

- Works with all types of windows
- Space required 17 mm in front of the window
- 10 mm space required above the frame for unhinging
- Sealing brushes inserted at the front side enlarge the final dimensions on the outside and must therefore be taken into account when specifying the dimensions:
  - 10 mm gap with 15 mm sealing brush
  - 15 mm gap with 25 mm sealing brush
- Via the final dimensions in your order, the lateral support surface of 19 mm can be reduced down to 12 mm, if required. If a brush on the front side is used for lateral sealing, the lateral support surface at the window can be reduced down to 0 m.

Legend

① Window without weatherboard

② Window with weatherboard and special brush 6 mm at the bottom on the front side

③ Loose side locking from FH 1700 mm

FB Complete width (FB = LRB + 38)

FH Complete height (FH = LRH + Y + 26)

LRB Clear frame width of the window

LRH Clear frame height of the window

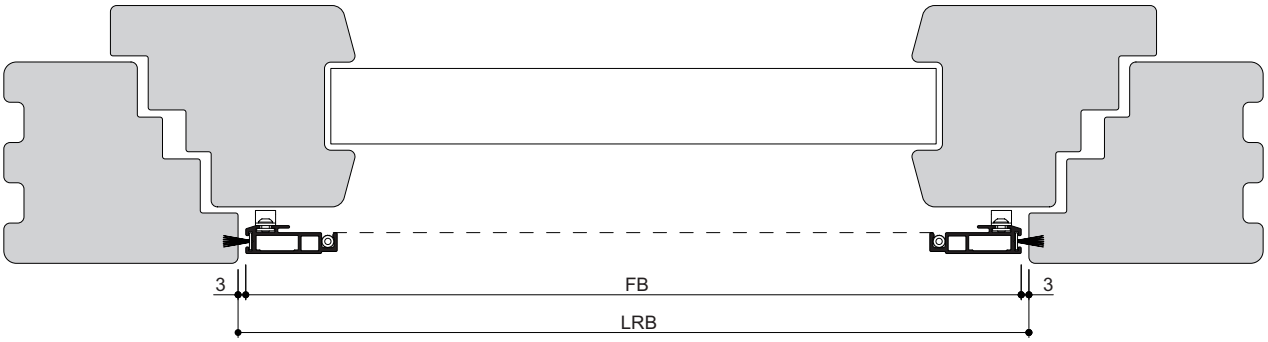
X_O/X_U Thickness of the window frame rabbet at the top/bottom

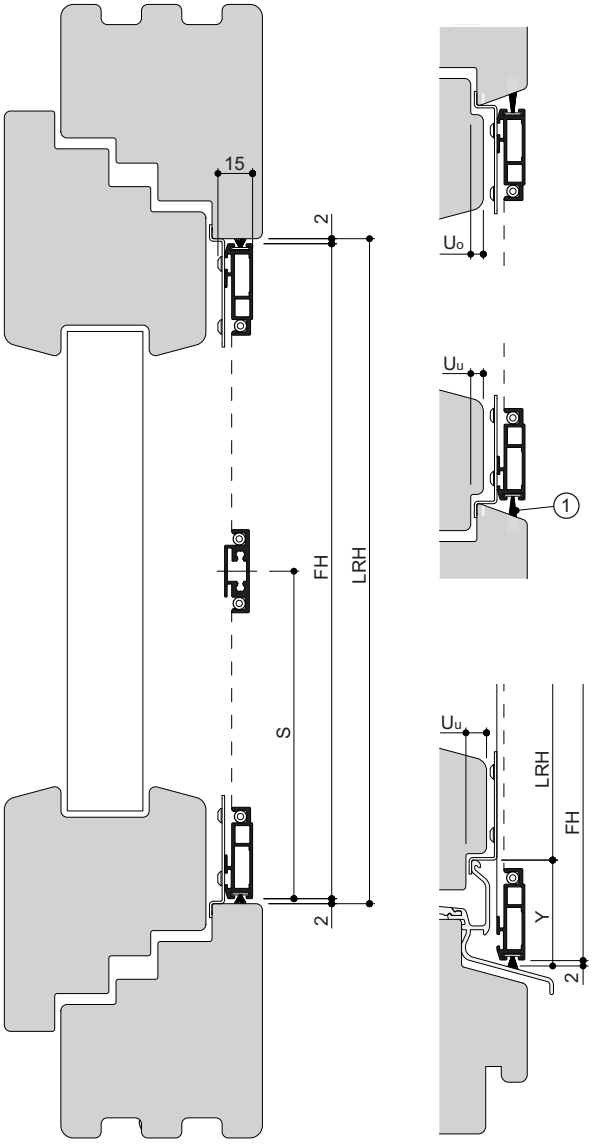
- 1 mm: Suspension bracket 5 mm
- 2-3 mm: Suspension bracket 7 mm
- 4-5 mm: Suspension bracket 9 mm
- 6-7 mm: Suspension bracket 11 mm
- 8-9 mm: Suspension bracket 13 mm
- 10-11 mm: Suspension bracket 15 mm
- 12-13 mm: Suspension bracket 17 mm
- 14-15 mm: Suspension bracket 19 mm
- 16-17 mm: Suspension bracket 21 mm
- 18-19 mm: Suspension bracket 23 mm
- 20-21 mm: Suspension bracket 25 mm
- 22-24 mm: Suspension bracket 28 mm
- 25-26 mm: Suspension bracket 30 mm
- 27-28 mm: Suspension bracket 32 mm
- 29-30 mm: Suspension bracket 34 mm

Y Position of the suspension bracket at the bottom (standard 26 mm)

Clamping frame

Type: ISR B – suspension bracket outside, standard frame profile





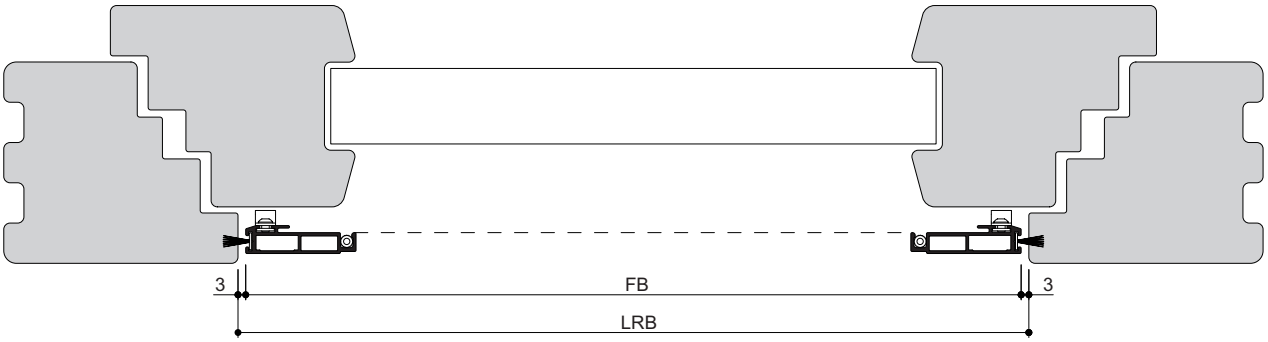
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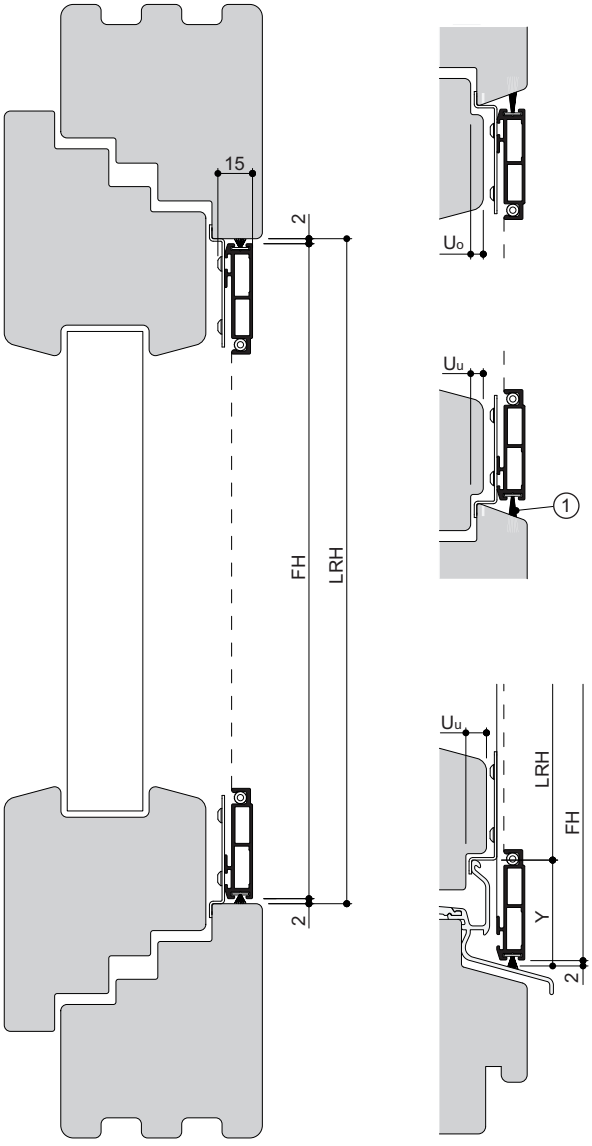
- Works with recessed and half recessed windows
- Space required 15 mm inside the window frame
- Window frame undrilled

Legend

①	11 mm Standard brush. Special brush (15 or 25 mm) all around for windows with a large window frame slant as well as with a large protruding window leaf
FB	Complete width (FB = LRB - 6)
FH	Complete height (FH = LRH - 4 + Y)
LRB	Clear frame width of the window
LRH	Clear frame height of the window
S	Sash bar position
Y	Position of the suspension bracket at the bottom (standard 0 mm)
Uo/Uu	Excess length of the window leaf at the top/bottom ▪ 0-3 mm: Suspension bracket 5 mm ▪ 4-5 mm: Suspension bracket 7 mm ▪ 6-7 mm: Suspension bracket 9 mm ▪ 8-9 mm: Suspension bracket 11 mm ▪ 10-11 mm: Suspension bracket 13 mm ▪ 12-13 mm: Suspension bracket 15 mm

Type: ISR B – suspension bracket outside, reinforced frame profile





Notes:

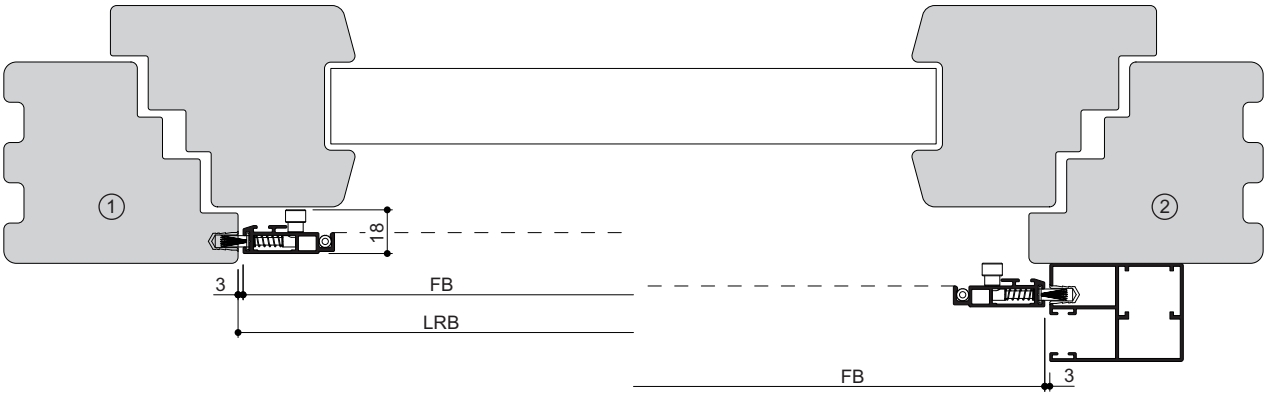
- Works with recessed and half recessed windows
- Space required 15 mm inside the window frame
- Window frame undrilled

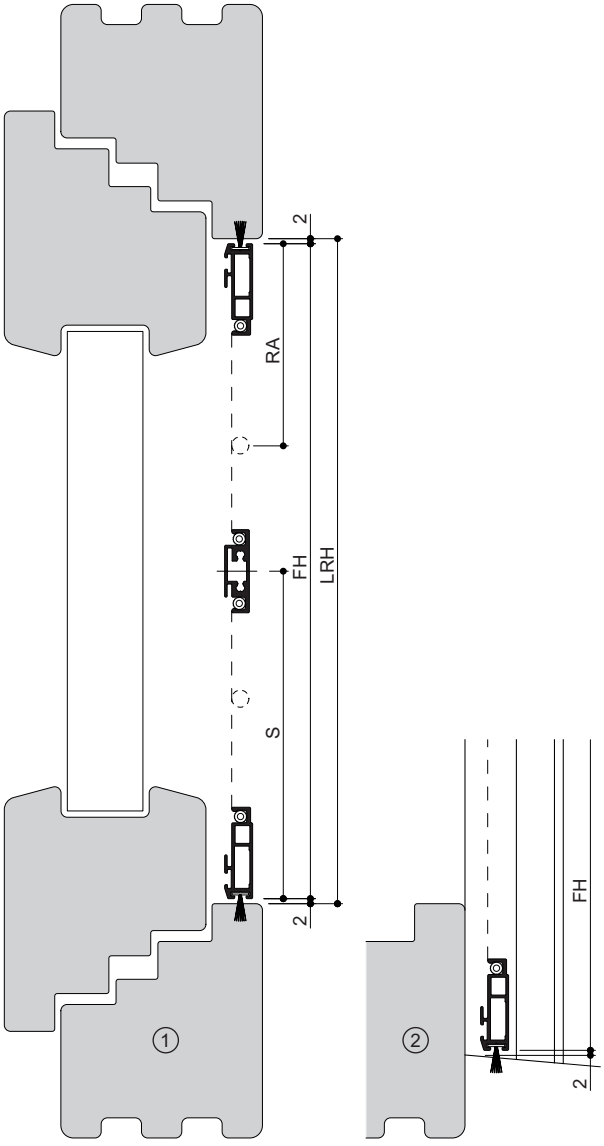
Legend

①	11 mm Standard brush. Special brush (15 or 25 mm) all around for windows with a large window frame slant as well as with a large protruding window leaf
FB	Complete width (FB = LRB - 6)
FH	Complete height (FH = LRH - 4 + Y)
LRB	Clear frame width of the window
LRH	Clear frame height of the window
Y	Position of the suspension bracket at the bottom (standard 0 mm)
Uo/Uu	Excess length of the window leaf at the top/bottom ▪ 0-3 mm: Suspension bracket 5 mm ▪ 4-5 mm: Suspension bracket 7 mm ▪ 6-7 mm: Suspension bracket 9 mm ▪ 8-9 mm: Suspension bracket 11 mm ▪ 10-11 mm: Suspension bracket 13 mm ▪ 12-13 mm: Suspension bracket 15 mm

Clamping frame

Type: ISR C – spring pins, standard frame profile





Notes:

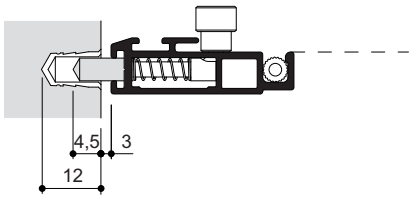
- Works with all types of windows
- Space required 18 mm inside the window frame with recessed windows or in front of the window with windows that are flush with the adjacent areas (installation in the guide rail)

Legend

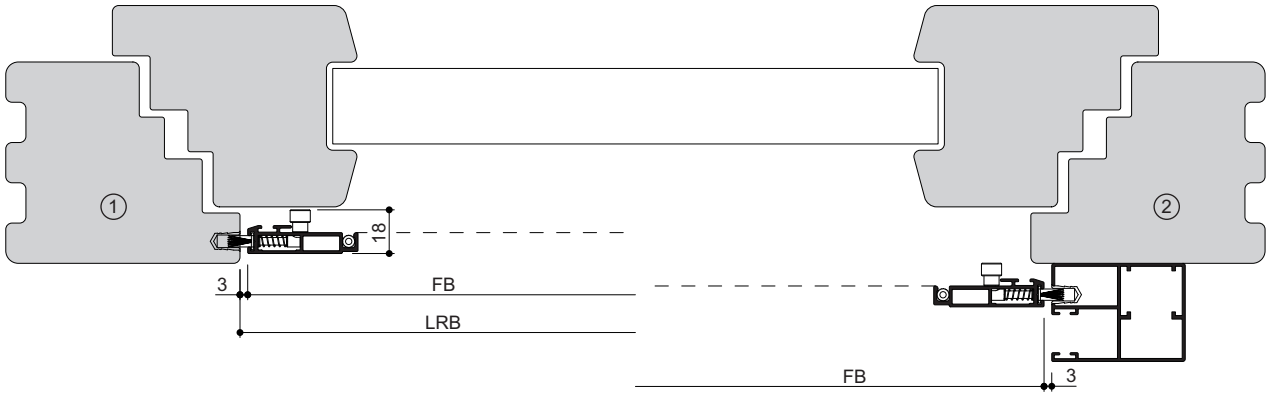
①	Installation inside the window frame rabbet
②	Installation in the guide rail
FB	Complete width (FB = LRB - 6)
FH	Complete height (FH = LRH- 4)
LRB	Clear frame width of the window
LRH	Clear frame height of the window
S	Sash bar position
RA	Distance from the edge

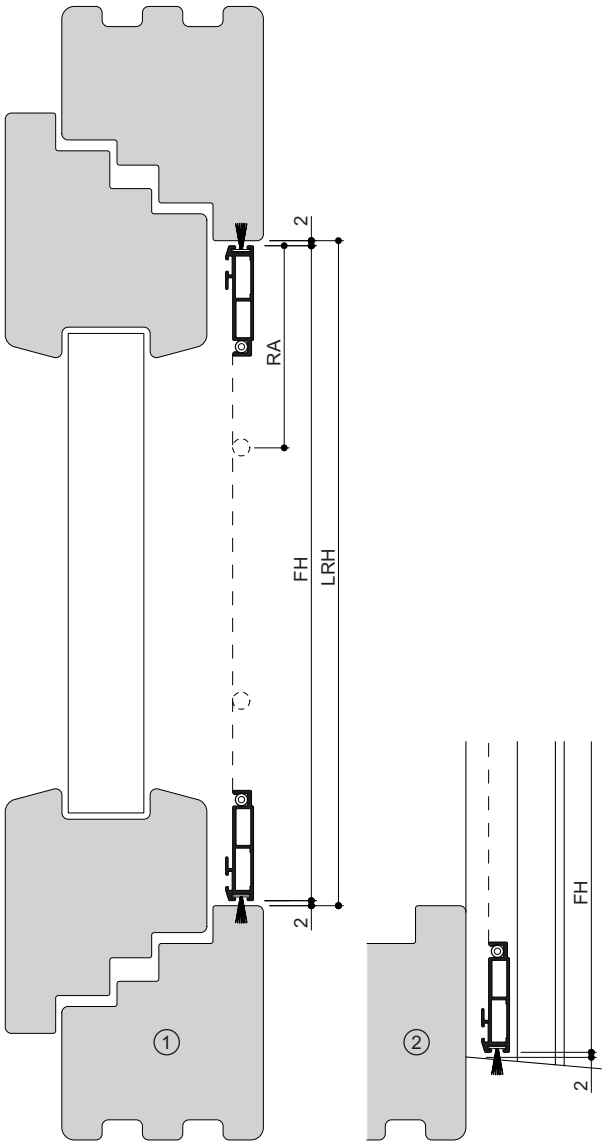
- 90 mm till frame height 599 mm
- 125 mm from frame height 600 mm

Detail spring pin



Type: ISR C – spring pins, reinforced frame profile





Notes:

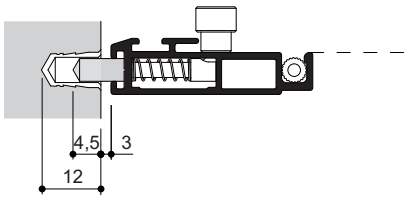
- Works with all types of windows
- Space required 18 mm inside the window frame with recessed windows or in front of the window with windows that are flush with the adjacent areas (installation in the guide rail)

Legend

①	Installation inside the window frame rabbet
②	Installation in the guide rail
FB	Complete width (FB = LRB - 6)
FH	Complete height (FH = LRH- 4)
LRB	Clear frame width of the window
LRH	Clear frame height of the window
RA	Distance from the edge

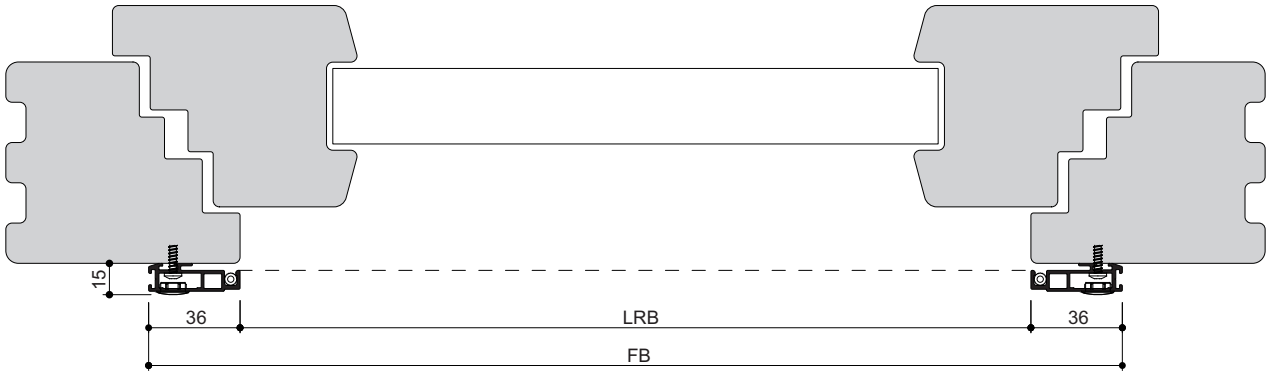
- 90 mm till frame height 599 mm
- 125 mm from frame height 600 mm

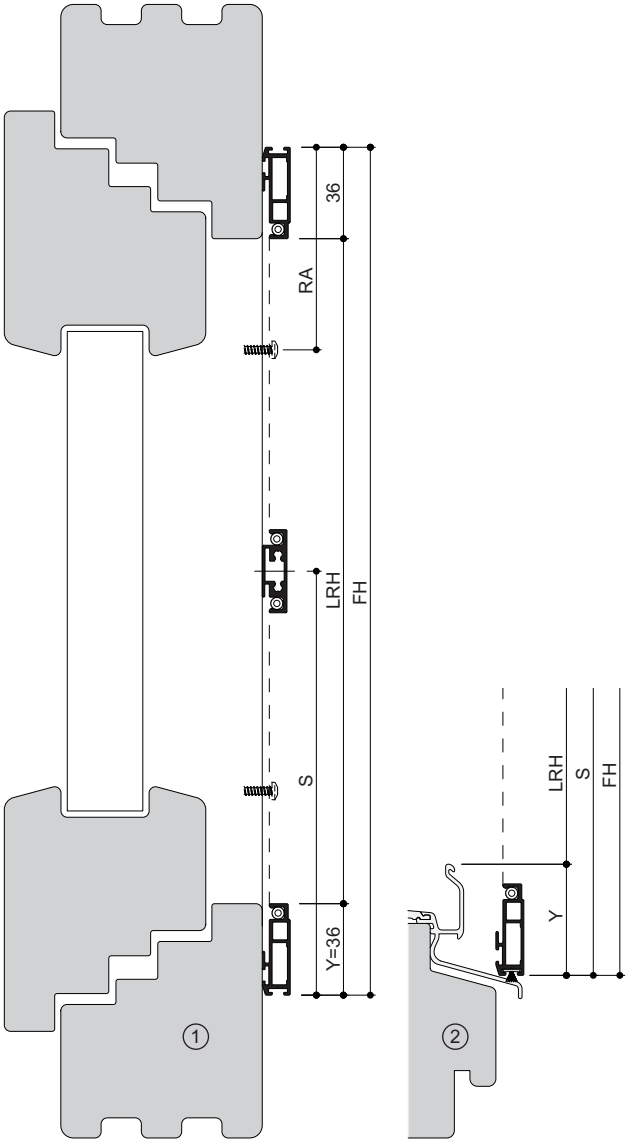
Detail spring pin



Clamping frame

Type: ISR D – screw-mounted, standard frame profile





Notes:

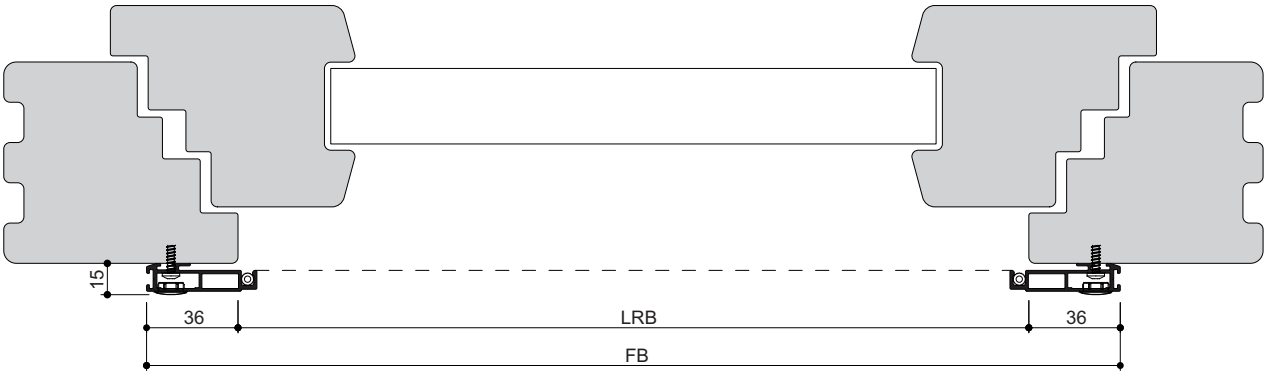
- Works with all types of windows
- Space required 15 mm in front of the window
- Frame must be accessible from the outside
- As a standard without sealing brushes
- Sealing brushes inserted at the front side enlarge the final dimensions on the outside and must therefore be taken into account when specifying the dimensions:
  - 10 mm gap with 15 mm sealing brush
  - 15 mm gap with 25 mm sealing brush

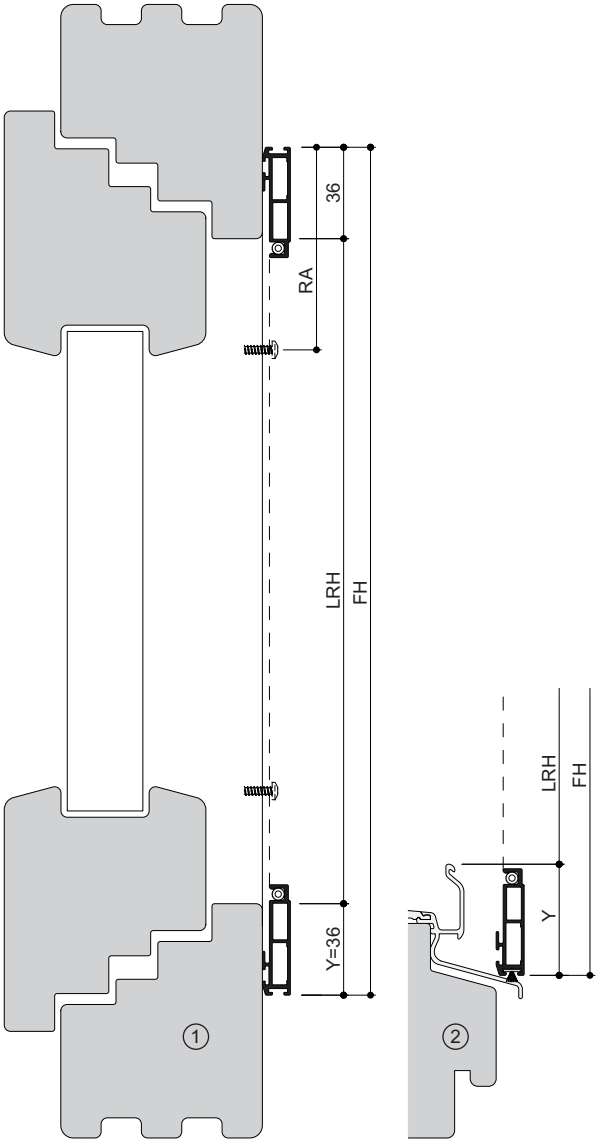
Legend

①	Window without weatherboard
②	Window with weatherboard and special brush 6, 11, 15 or 25 mm facing downwards on the front side
FB	Complete width (FB = LRB + 72)
FH	Complete height (FH = LRH + Y + 36)
LRB	Clear frame width of the window
LRH	Clear frame height of the window
S	Sash bar position
Y	Protrusion of the frame at the bottom
RA	Distance from the edge

- 90 mm till frame height 599 mm
- 125 mm from frame height 600 mm

Type: ISR D – screw-mounted, reinforced frame profile





Notes:

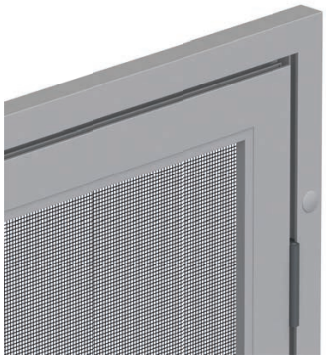
- Works with all types of windows
- Space required 15 mm in front of the window
- Frame must be accessible from the outside
- As a standard without sealing brushes
- Sealing brushes inserted at the front side enlarge the final dimensions on the outside and must therefore be taken into account when specifying the dimensions:
  - 10 mm gap with 15 mm sealing brush
  - 15 mm gap with 25 mm sealing brush

Legend

①	Window without weatherboard
②	Window with weatherboard and special brush 6, 11, 15 or 25 mm facing downwards on the face side
FB	Complete width (FB = LRB + 72)
FH	Complete height (FH = LRH + Y + 36)
LRB	Clear frame width of the window
LRH	Clear frame height of the window
Y	Protrusion of the frame at the bottom
RA	Distance from the edge ▪ 90 mm till frame height 599 mm ▪ 125 mm from frame height 600 mm

Swing frame





Mounting option with additional frame profile.



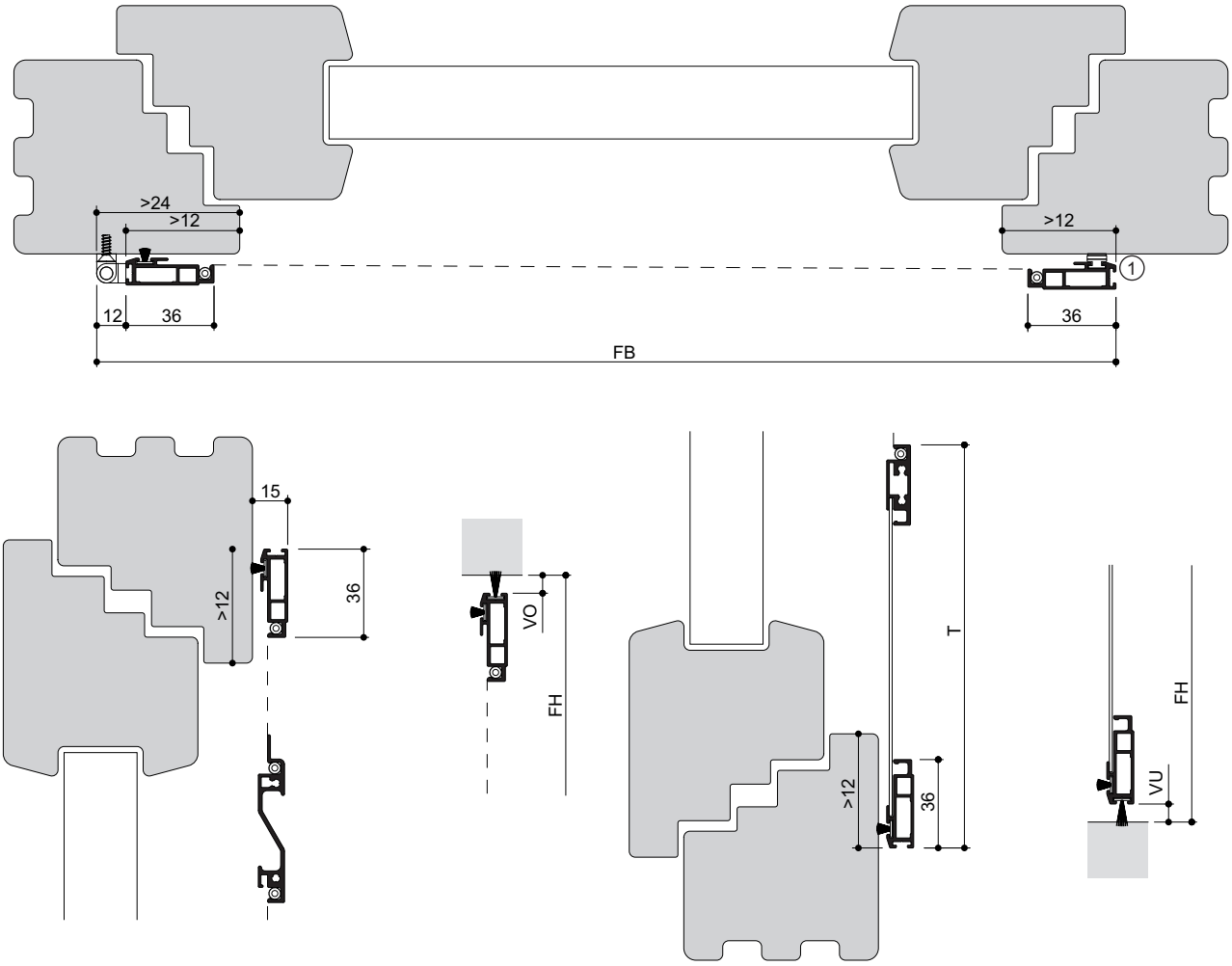
Optionally with kick plate or integrated small pet flap.

Limit sizes

Type	Min. width [mm]	Max. width [mm]	Min. height [mm]	Max. height [mm]	Max. surface [m²]
ISD E	300	1500	400	2850	3.5
ISD Z - single-leaf	300	1500	500	2850	3.5
ISD Z - double-leaf	600	3000	500	2850	7

Cross-section profile

ISD E



Legend

FB	Complete width
FH	Complete height
T	Kick plate (optional) 156 mm, 301 mm with small pet flap
VO	Shortening at the top (10 mm with 15 mm brush or 15 mm with 25 mm brush)
VU	Shortening at the bottom (10 mm with 15 mm brush or 15 mm with 25 mm brush)
①	Self-bonding magnetic tape (standard) or screwed stainless steel tape (optional)

Scope of delivery

- Frame with handle bar rolled-in and plastic-sheathed fibreglass fabric
- Brush strips
- Anodised hinges and magnetic profile
- Casing for design IDS Z
- Aluminium parts as per color definition "HELLA Color worlds"
- Mounting material

Supplementary equipment

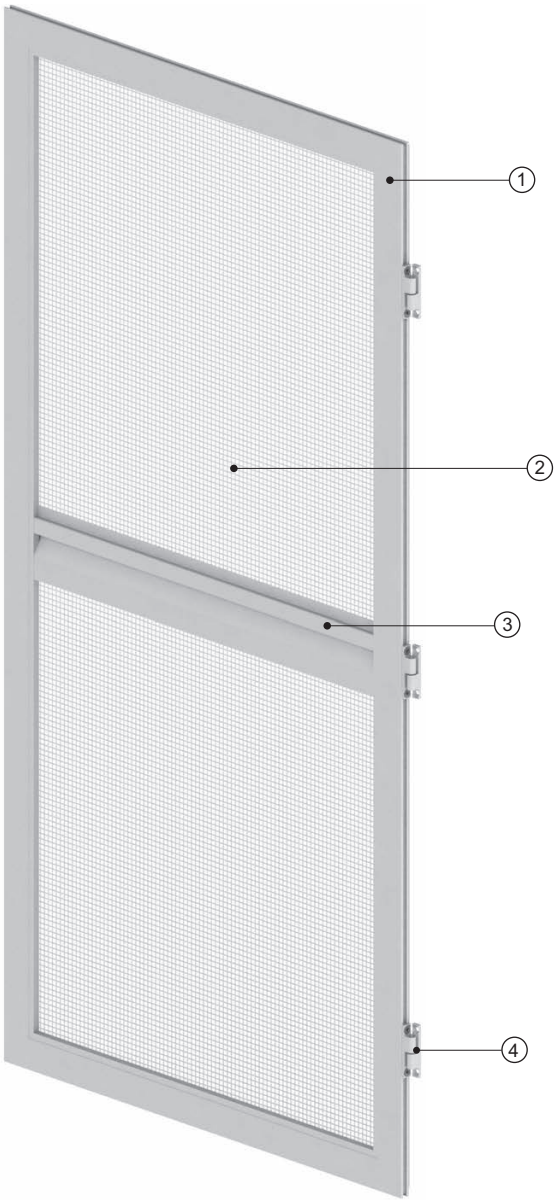
- Spring closer/cord closer loose
- Kick plate per unit
- Kick plate with four-way small pet flap
- Stainless steel tape instead of self-bonding magnetic profile
- Operating handle loosely enclosed
- Additional sash bars
- Aluminium fabric
- Pollen screen
- Insect screen fabric VistaScreen
- Petable pet fabric

Benefits of the product

- Rollable insect screen for seasonal use
- Comfort
- Health
- High-quality construction elements guarantee a long lifespan and convenient operation
- Pollen screen (optional)

Swing frame

ISD E



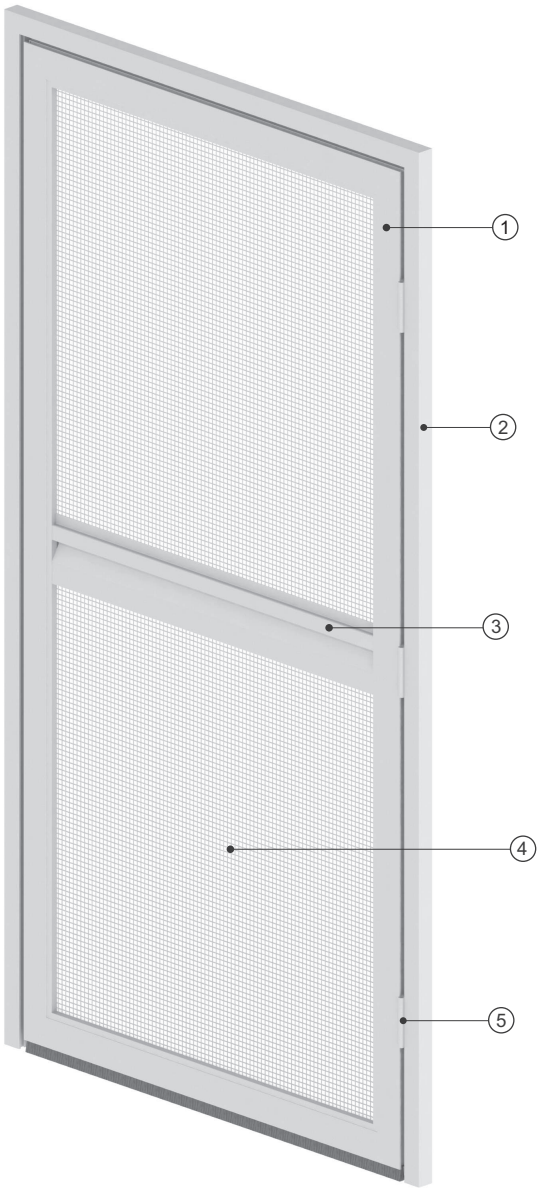
Field of application

All balcony and terrace doors without protruding fittings and handles.

Legend

① Frame profile
② Insect screen fabric
③ Sash-bar profile with gripping groove on both sides
④ Hinge

ISD Z



Field of application

All balcony and terrace doors can be integrated in front-mounted roller shutters or outdoor blinds.

Legend

① Frame profile
② Frame profile
③ Sash-bar profile with gripping groove on both sides
④ Insect screen fabric
⑤ Hinge

Technical product description

Frame

Material	Extruded aluminium
Dimension	36 x 11 mm

Description

- Corner detail with mitre cut and concealed corner joint made of aluminium (glued in place and press-fitted).
- Sealing brushes depending on the type of installation at the rear side or at the front.

Casing

ISD Z

Material	Extruded aluminium
Dimension	39 x 18 mm

Description

- Circumferential casing profile, realised as a stop profile with integrated supporting surfaces for hinges and magnets for the closing function.

Sash bar

Material	Extruded aluminium
Dimension	69 x 11 mm

Description

- Screwed to frame profile, with flush pulls on both sides

Brushes (black)

ISD E

- optionally per side 6 (Standard), 11, 15 or 25 mm facing towards the inside; in addition optionally 15 or 25 mm on the front side facing towards the top and/or bottom

ISD Z single-leaf

- 6 mm brush facing inwards between frame and casing.
- For design without casing, 15 mm brush (standard) or 25 mm brush at bottom. As standard without brush facing inwards (optionally with 11, 15 or 25 mm brush).

ISD Z double leaf

- 6 mm brush facing towards the inside between frame and casing

Hinge

Material	Aluminium with stainless steel bolt pressed in on one side
Color	black anodised

Description ISD E

- screwed into frame-side brush groove

Description ISD Z

- Inserted an clamped in brush groove on frame and sash side

Kick plate (optional)

Material	Aluminium 1.2 mm

Description

- Powder-coated from both sides
- Optionally available in special height or with four-way small pet flap

Operating handle (optional)

Material	Plastic
Color	Black

Spring lock (optional)

Material	Base plate made of aluminium
Color	White, black or anodised

Description

- Torsion spring made of stainless steel
- On the hinge-side at the top with right-hand door, on the hinge-side at the bottom with left-hand door

Installation

ISD E

- By means of three hinges and self-bonding magnetic tape at the window frame; optional: stainless steel tape screwed
- Can be unhinged without tools after the first installation

ISD Z

- Screwing of the frame to the door/window frame or laterally in the soffit
- Can be unhinged without tools after the first installation

Insect screen fabric

- Insect screen fabric made of fibreglass, plastic-sheathed, color grey
- Insect screen fabric VistaScreen made of fibreglass, plastic-coated, black color, improved light and air permeability compared with the standard fibreglass fabric
- Pollen screen made of PVC, fibreglass and PET, outside color grey, inside color black; prevents penetration of over 90% of pollen of all types
- Insect screen fabric made of aluminium, blank
- Petable insect screen fabric made of reinforced fibreglass, black color, withstands pet claws

Colors

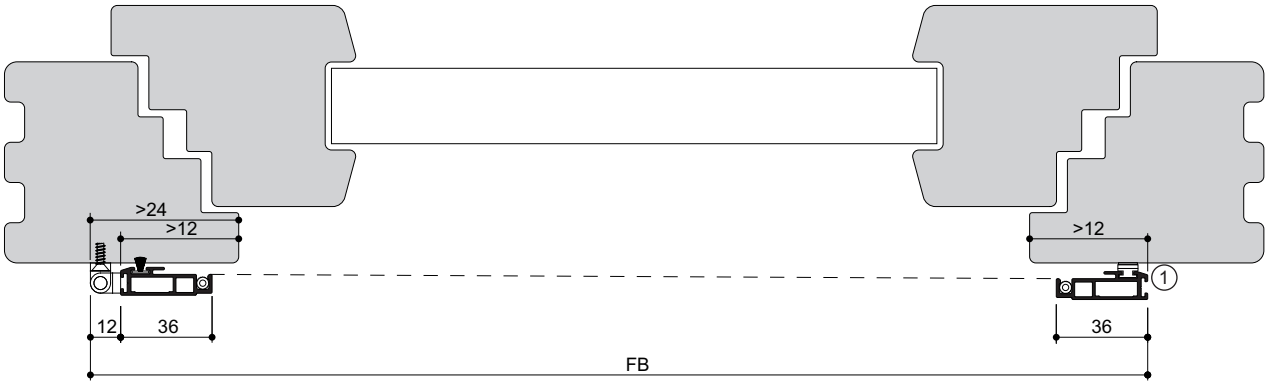
Aluminium parts	powder-coated as per color definition "HELLA Color worlds"
End pieces	Black

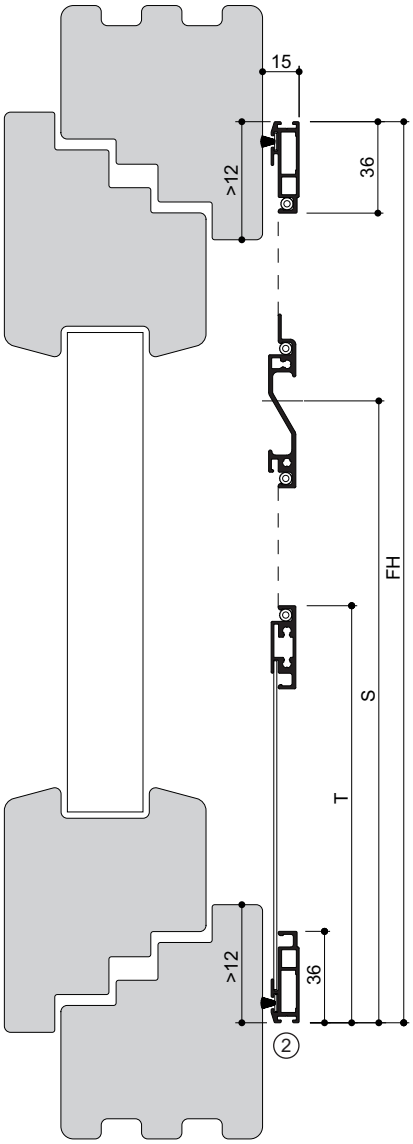
Special designs

on demand

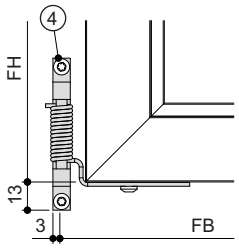
Swing frame

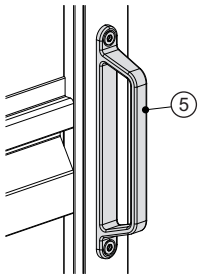
Type: ISD E

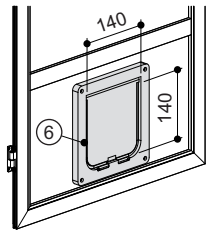


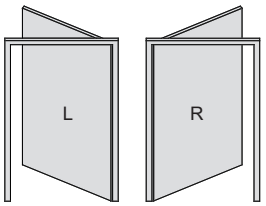












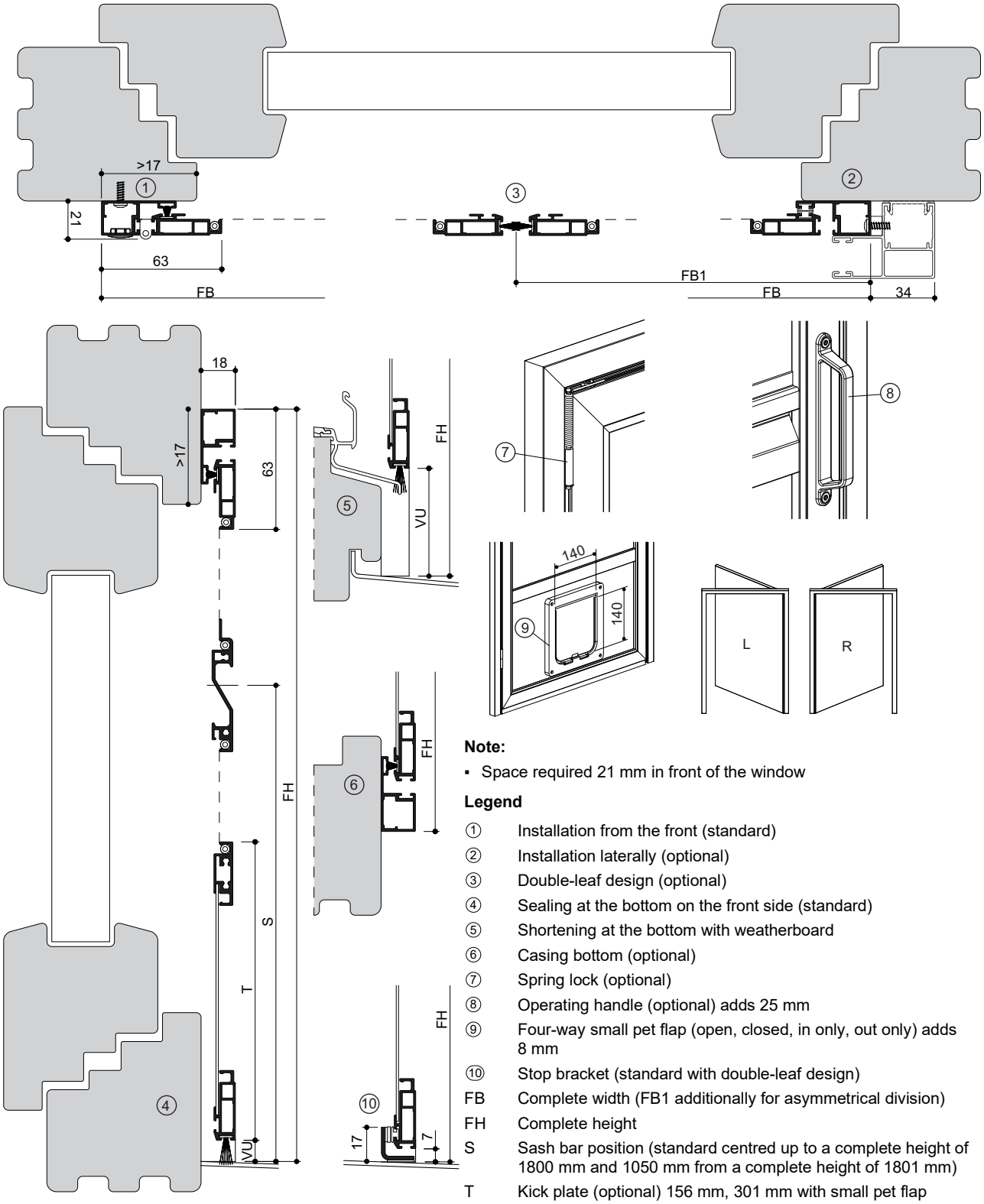
Notes:

- For doors without protruding fittings and handles
- Space required 15 mm in front of the window
- 15 mm space required above for unhinging

Legend

①	Self-bonding magnetic tape (standard) or screwed stainless steel tape (optional)
②	Sealing towards the inside (standard)
③	Special brush at the bottom side or at the front side
④	Spring lock (optional) adds another 3 mm to width and 13 mm to height
⑤	Operating handle (optional) adds 25 mm
⑥	Four-way small pet flap (open, closed, in only, out only) adds 8 mm
FB	Complete width (including hinge)
FH	Complete height
VO	Shortening at the top (10 mm with 15 mm brush or 15 mm with 25 mm brush)
VU	Shortening at the bottom (10 mm with 15 mm brush or 15 mm with 25 mm brush)
S	Sash bar position (standard centred up to a complete height of 1800 mm and 1050 mm from a complete height of 1801 mm)
T	Kick plate (optional) 156 mm, 301 mm with small pet flap
L	Left-hand door
R	Right-hand door

Type: ISD Z



Note:

- Space required 21 mm in front of the window

Legend

①	Installation from the front (standard)
②	Installation laterally (optional)
③	Double-leaf design (optional)
④	Sealing at the bottom on the front side (standard)
⑤	Shortening at the bottom with weatherboard
⑥	Casing bottom (optional)
⑦	Spring lock (optional)
⑧	Operating handle (optional) adds 25 mm
⑨	Four-way small pet flap (open, closed, in only, out only) adds 8 mm
⑩	Stop bracket (standard with double-leaf design)
FB	Complete width (FB1 additionally for asymmetrical division)
FH	Complete height
S	Sash bar position (standard centred up to a complete height of 1800 mm and 1050 mm from a complete height of 1801 mm)
T	Kick plate (optional) 156 mm, 301 mm with small pet flap
L	Left-hand door
R	Right-hand door
VU	Shortening at the bottom (Standard 10 mm with 15 mm brush; 15 mm with 25 mm brush)

Pendulum frame





The easily maintained closing system enables the door leaf to be removed for the winter without tools.

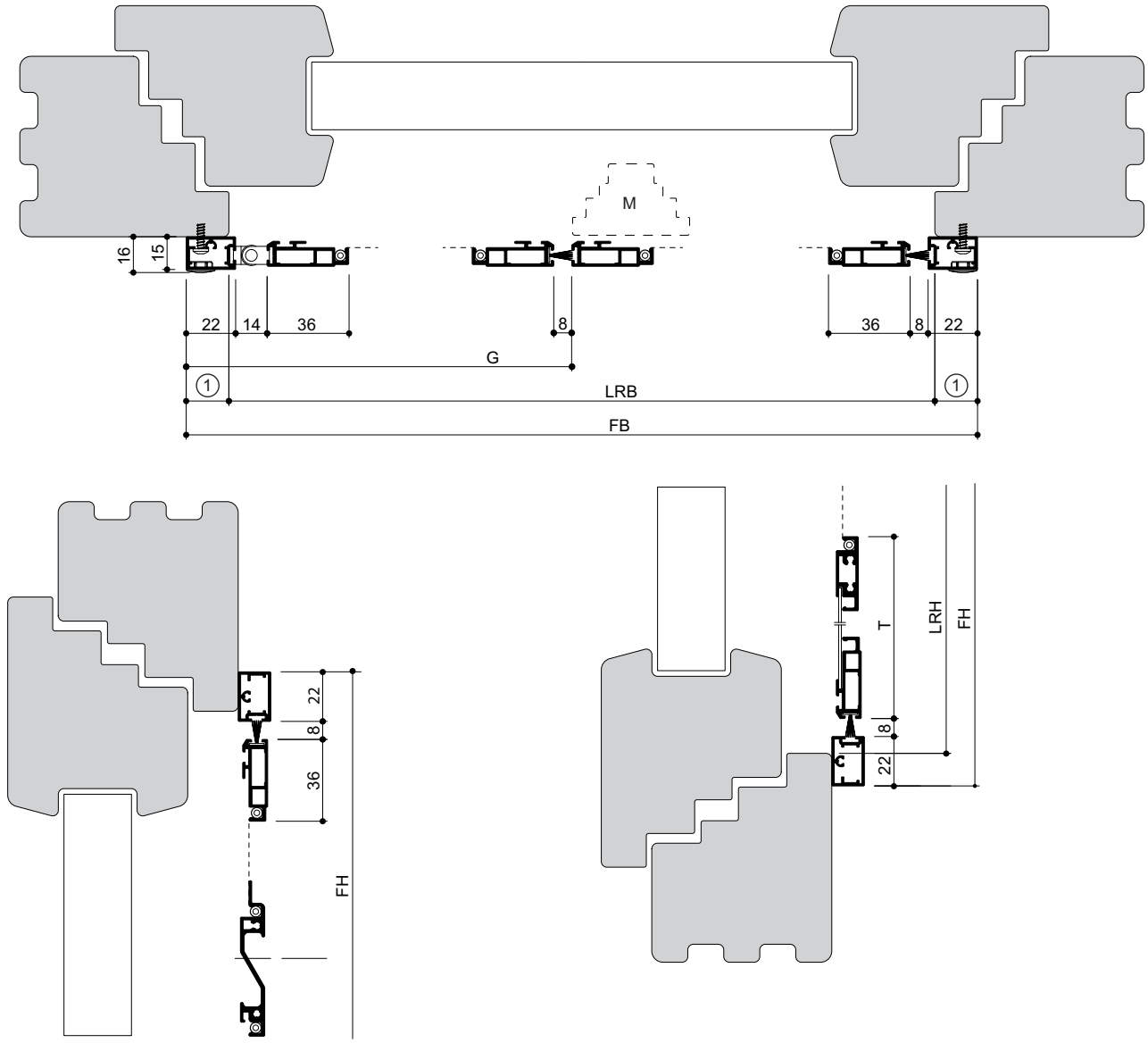


The many different versions available for the lower section and additional features such as the small pet flap make the pendulum frame a true all-rounder without compromising its aesthetic appeal.

Limit sizes

Type	Min. width [mm]	Max. width [mm]	Min. height [mm]	Max. height [mm]	Max. surface [m²]
ISP Z – single-leaf	350	1500	500	2850	3.5
ISP Z - double-leaf	700	3000	500	2850	7

Cross-section profile



Legend

①	Supporting surface left/right 15-20 mm
FB	Complete width
FH	Complete height
G	Wide active leaf with double-leaf design from complete width
LRB	Clear frame width
LRH	Clear frame height
T	Kick plate 156 mm, 301 mm with small pet flap (optional)
M	Middle transom

Scope of delivery

- Frame with handle bar rolled-in and plastic-sheathed fibreglass fabric
- Brush strips
- Casing profile hinges, magnets and cord closer
- Kick plate
- Aluminium parts as per color definition "HELLA Color worlds"
- Mounting material

Supplementary equipment

- Kick plate with four-way small pet flap
- Aluminium fabric
- Insect screen fabric VistaScreen
- Pet-proof screen material
- Passive leaf lock with double-leaf design
- Leaf separation cut

Benefits of the product

- Insect screen for seasonal use that can be operated from both sides
- Quiet
- Comfort
- Health
- High-quality construction elements guarantee a long lifespan and convenient operation
- Pollen screen (optional)

Pendulum frame



Field of application

Frequent use door types.

Legend

① Frame profile
② Insect screen fabric
③ Sash bar profile with flush pull on both sides
④ Kick plate
⑤ Hinge

Technical product description

Frame

Material	Extruded aluminium
Dimension	36 x 11 mm

Description

- Corner detail with mitre cut and concealed corner joint made of aluminium (press-fitted).
- Sealing brushes all round at the front.
- Also available in a double-leaf option.

Casing

Material	Extruded aluminium
Dimension	22 x 15 mm without flange, 40 x 15 mm with flange Casing profile 8 x 14 mm or L-bracket 20 x 15 mm for bottom of lower section

Description

- Corner detail with mitre cut with concealed corner joint made of aluminium (press-fitted).
- Sealing brushes on hinged side

Sash bar

Material	Extruded aluminium
Dimension	69 x 11 mm

Description

- Screwed to frame profile, with flush pulls on both sides

Brushes (black)

ISP Z

Dimension	6.5 x 11 mm

Hinge

Material	Aluminium with stainless steel bolt pressed in on one side
Color	black anodised

Description ISP Z

- screwed into brush groove on frame and casing side

Operation

- Hinge opens inwards and outwards.
- Cord closer ensures automatic closing.
- Internal block magnets retain the frame in the closed position.
- Operated using handle bar or kick plate (can optionally be omitted).
- Optional lock with double-leaf pendulum frames to fix the passive leaf in place.

Kick plate

Material	Aluminium 1.2 mm

Description

- Powder-coated from both sides
- Optionally available in special height or with four-way small pet flap

Installation

- Screws onto the soffit from the front or into the soffit from the side.

Insect screen fabric

- Insect screen fabric made of fibreglass, plastic-sheathed, color grey
- Insect screen fabric VistaScreen made of fibreglass, plastic-coated, black color, improved light and air permeability compared with the standard fibreglass fabric
- Pollen screen made of PVC, fibreglass and PET, outside color grey, inside color black; prevents penetration of over 90% of pollen of all types
- Insect screen fabric made of aluminium, blank
- Petable insect screen fabric made of reinforced fibreglass, black color, withstands pet claws

Colors

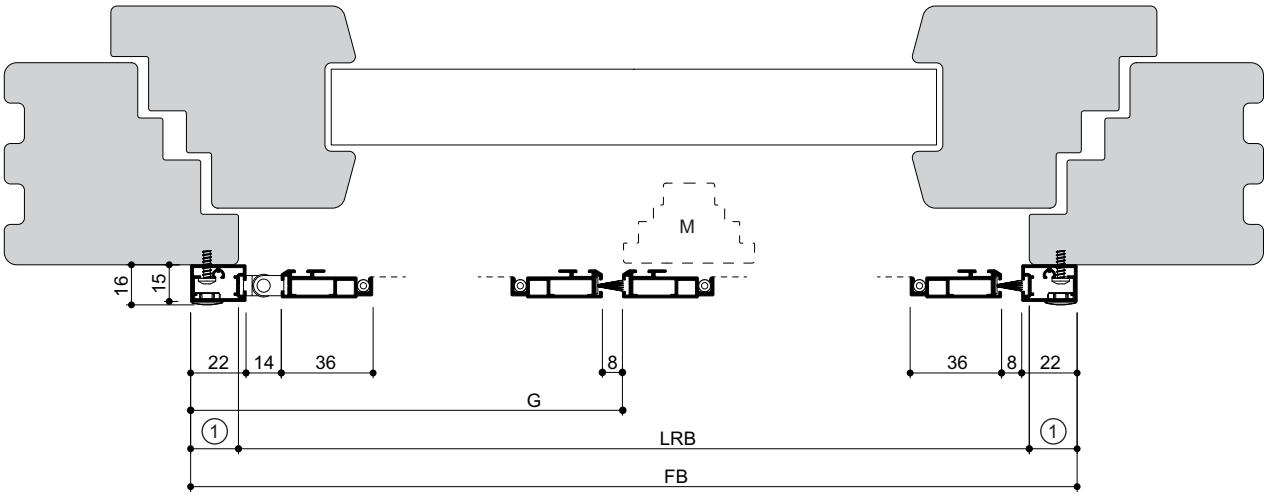
Aluminium parts	powder-coated as per color definition "HELLA Color worlds"
End pieces	Black

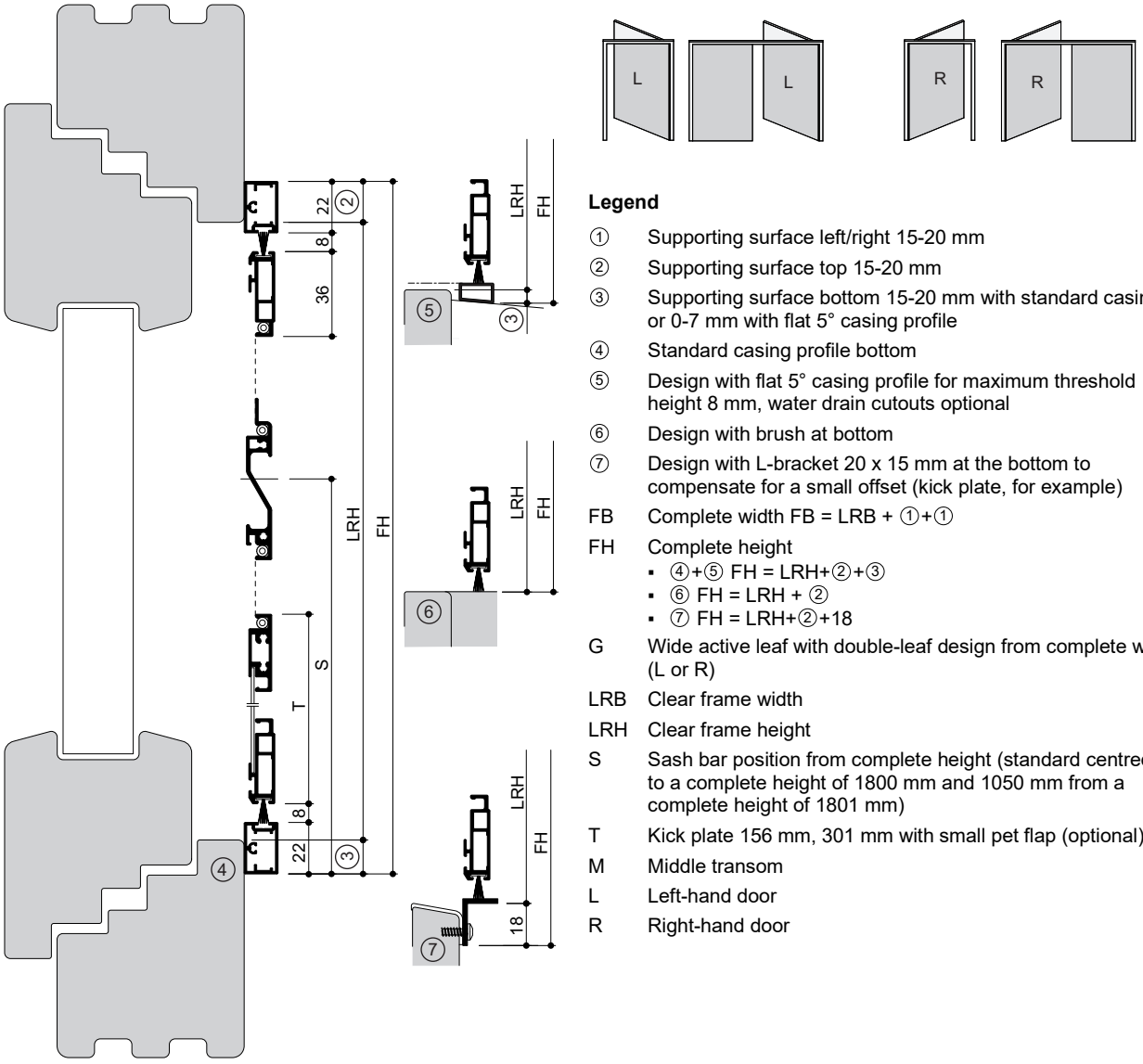
Special designs

on demand

Pendulum frame

Type: ISPZ – standard casing in front of window frames

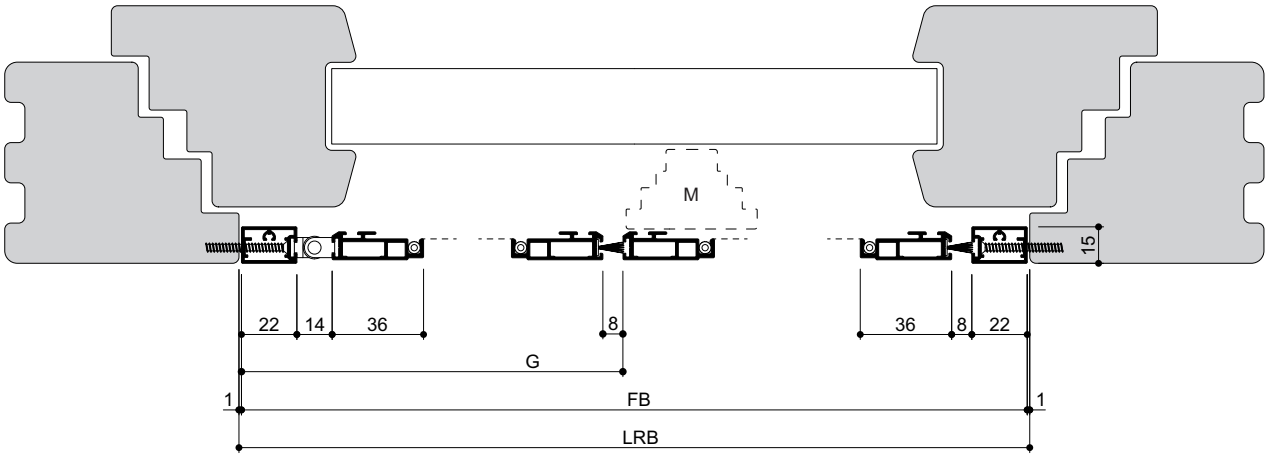


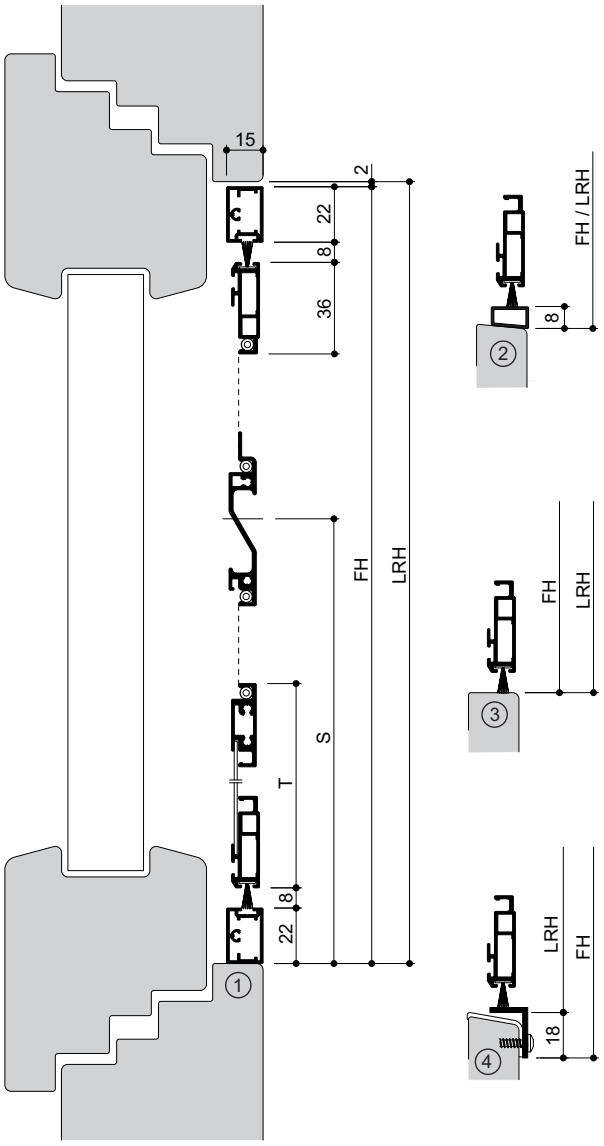


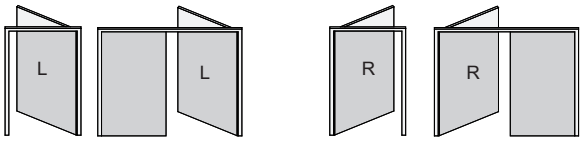
Legend

①	Supporting surface left/right 15-20 mm
②	Supporting surface top 15-20 mm
③	Supporting surface bottom 15-20 mm with standard casing or 0-7 mm with flat 5° casing profile
④	Standard casing profile bottom
⑤	Design with flat 5° casing profile for maximum threshold height 8 mm, water drain cutouts optional
⑥	Design with brush at bottom
⑦	Design with L-bracket 20 x 15 mm at the bottom to compensate for a small offset (kick plate, for example)
FB	Complete width FB = LRB + ①+①
FH	Complete height ▪ ④+⑤ FH = LRH+②+③ ▪ ⑥ FH = LRH + ② ▪ ⑦ FH = LRH+②+18
G	Wide active leaf with double-leaf design from complete width (L or R)
LRB	Clear frame width
LRH	Clear frame height
S	Sash bar position from complete height (standard centred up to a complete height of 1800 mm and 1050 mm from a complete height of 1801 mm)
T	Kick plate 156 mm, 301 mm with small pet flap (optional)
M	Middle transom
L	Left-hand door
R	Right-hand door

Type: ISPZ – standard casing inside window frame





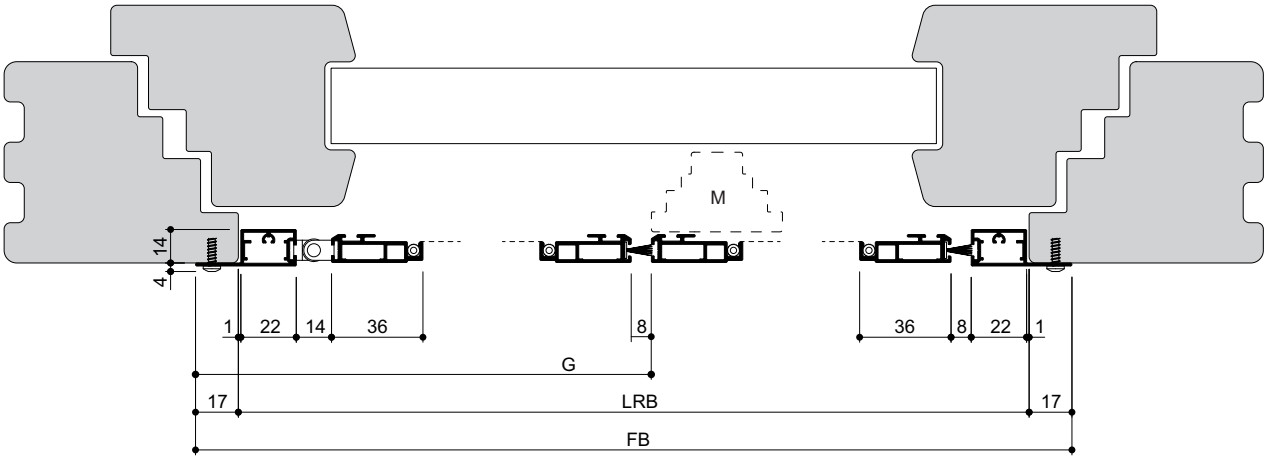


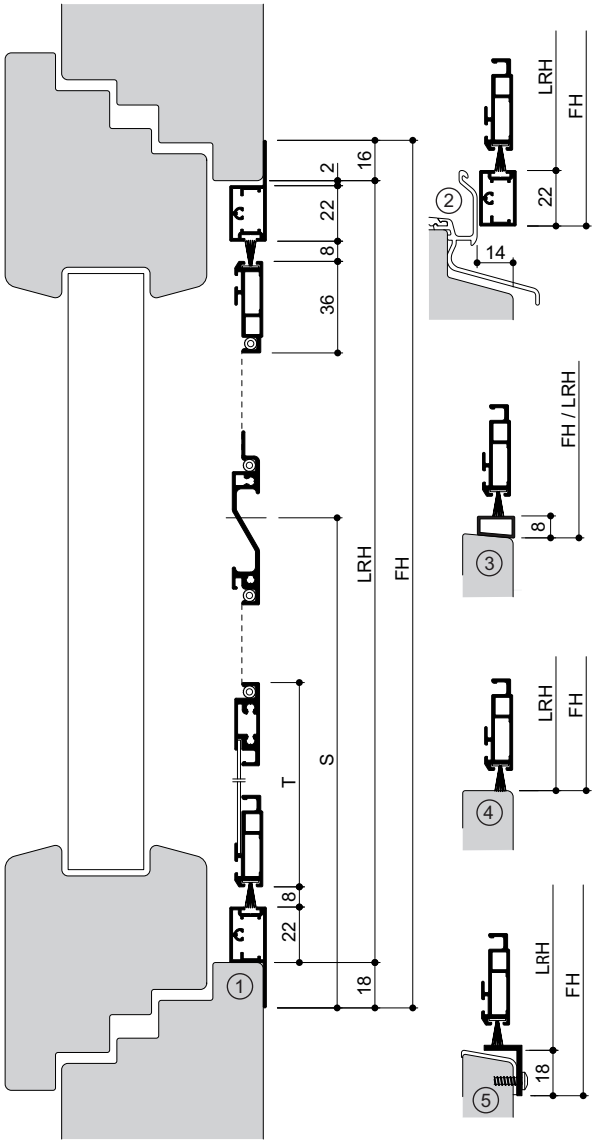
Legend

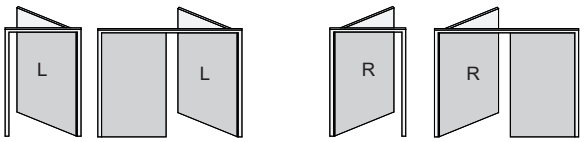
①	Standard casing profile bottom
②	Design with flat 5° casing profile, water drain cutouts optional
③	Design with brush at bottom
④	Design with L-bracket 20 x 15 mm at the bottom to compensate for a small offset (kick plate, for example)
FB	Complete width FB = LRB-2
FH	Complete height ▪ ①+③+④ FH = LRH-2 ▪ ② FH = LRH+16
G	Wide active leaf with double-leaf design from complete width (L or R)
LRB	Clear frame width
LRH	Clear frame height
S	Sash bar position from complete height (standard centred up to a complete height of 1800 mm and 1050 mm from a complete height of 1801 mm)
T	Kick plate 156 mm, 301 mm with small pet flap (optional)
M	Middle transom
L	Left-hand door
R	Right-hand door

Pendulum frame

Type: ISPZ – Flanged casing inside window frame





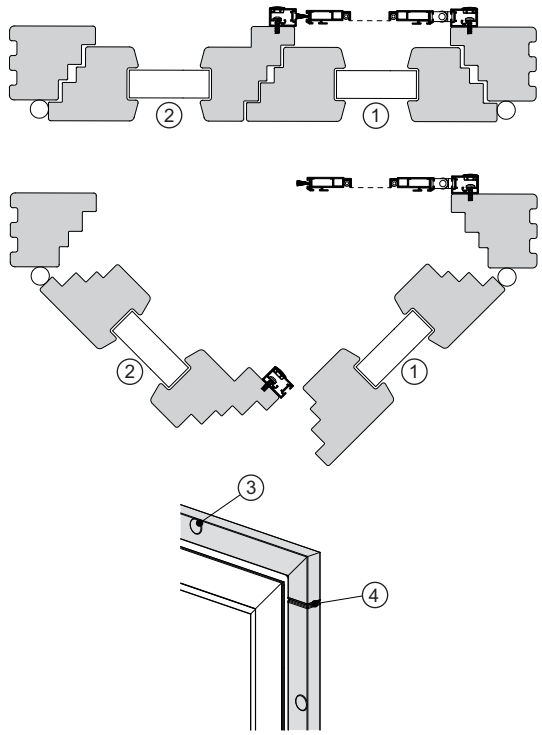


Legend

①	Design with flanged casing at bottom
②	Design with standard casing at bottom (weatherboard offset 14 mm or corresponding doubling)
③	Design with flat 5° casing profile, water drain cutouts optional
④	Design with brush at bottom
⑤	Design with L-bracket 20 x 15 mm at the bottom to compensate for a small offset (kick plate, for example)
FB	Complete width FB = LRB+34
FH	Complete height ▪ ①+④ FH = LRH+34 ▪ ② FH = LRH+38 ▪ ③+⑤ FH = LRH+16
G	Wide active leaf with double-leaf design from complete width (L or R)
LRB	Clear frame width
LRH	Clear frame height
S	Sash bar position from complete height (standard centred up to a complete height of 1800 mm and 1050 mm from a complete height of 1801 mm)
T	Kick plate 156 mm, 301 mm with small pet flap (optional)
M	Middle transom
L	Left-hand door
R	Right-hand door

Equipment options

Leaf separation

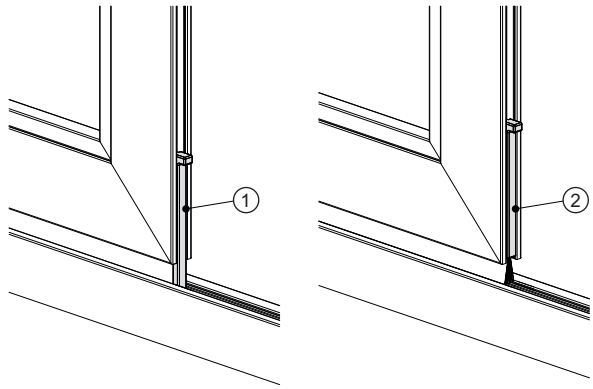


The leaf separation design is required if a single-leaf pendulum frame is to be installed in front of the active leaf of a double-leaf door element and this door element has no middle transom.
In this design, the magnet-side casing is installed on the passive leaf, which can still be opened as usual thanks to the separation cut.
Designs with a flat casing or L-bracket have no separation cut, as in this case all that needs to be done on installation is undo the screwed connection in the corner.

Legend

① Active leaf of door element with installed pendulum frame
② Passive leaf of door element with separately installed magnet-side casing profile
③ Additional fastening point with leaf separation
④ Separation cut in casing profile with cover caps

Passive leaf lock

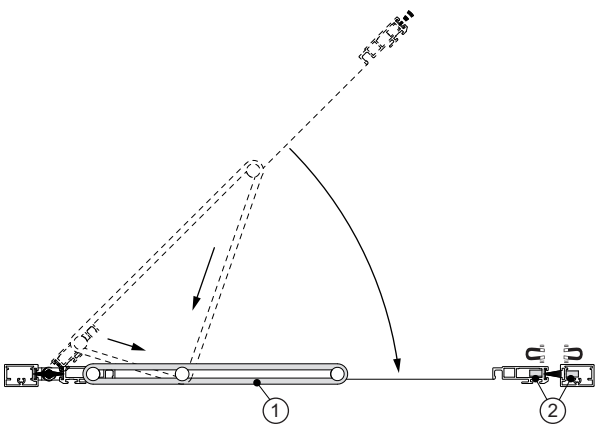


With double-leaf pendulum frames, it is possible to order a passive leaf lock as an option. The passive leaf is then equipped with sliding bolts top and bottom on the magnet side. These latch in the groove on the casing profile or in a corresponding hole in the flat casing or L-bracket.

Legend

① Sliding bolt latched in casing profile
② Lock released so that passive leaf can open

Closer system



There is a rubber ring installed on two stop bolts at the top of the hinged side of the frame so that the pendulum frame will close automatically. A third stop bolt installed on the casing profile pulls on the rubber ring when the door is open, and this provides the force necessary to close the door again.
Strong block magnets are fitted in the frame profile and casing profile opposite the hinged side to keep the pendulum frame firmly in the closed position even in draughty locations. Plastic fittings retain these magnets in the correct position.

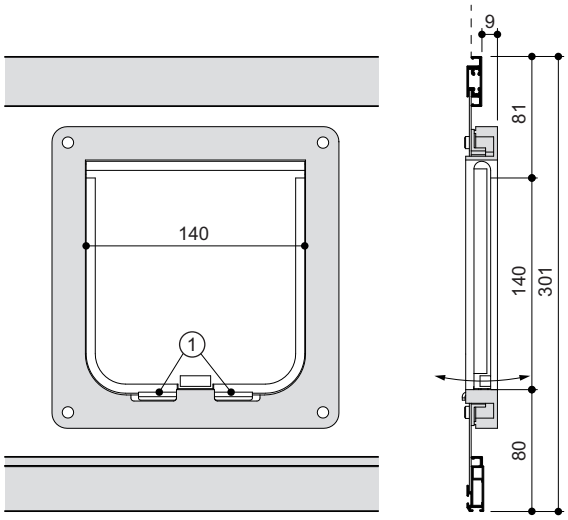
Legend

① Rubber ring on stop bolt
② Block magnets

Pendulum frame

Equipment options

Small pet flap

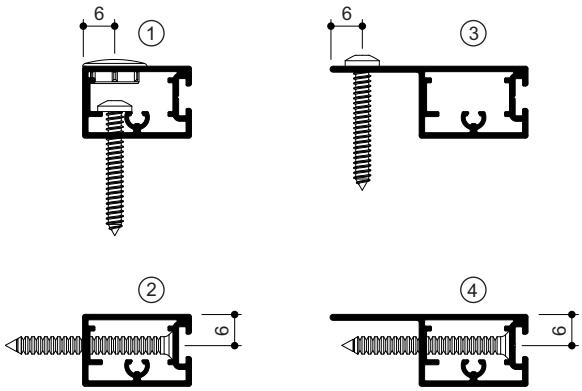


The kick plate can optionally have a small four-way pet flap fitted in its centre.
In the case of the double-leaf design, the small pet flap is installed in the centre of the active leaf and the passive leaf is fitted with a kick plate of exactly the same height.
Available in color white.

Legend

① Sliders to control the four opening modes (open, closed, in only, out only)

Mounting holes

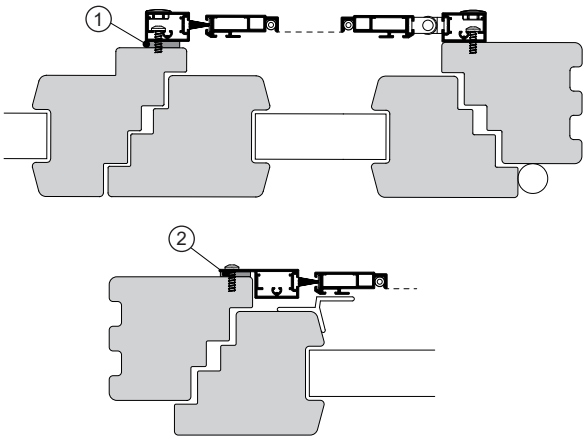


The vertical casing profiles are always used for the screwed connection. In the case of the double-leaf frame, there are also screwed connections in the centre of the horizontal casing profiles.
L-bracket and flat casing are always supplied without mounting holes and must be drilled at the site of installation if necessary.
The vertical casing profiles feature two mounting holes up to a complete height of 1400 mm and three mounting holes for complete heights of 1401 mm or more.

Legend

① Standard casing installation from the front with cover cap
② Standard casing installation from the side with countersunk screw
③ Flanged casing installation from the front
④ Flanged casing installation from the side with countersunk screw

Doubling profiles

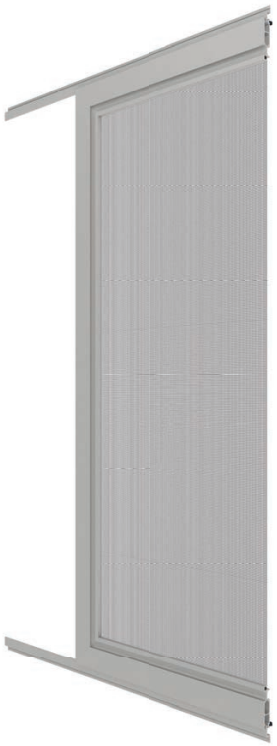


Powder-coated aluminium doubling profiles with a width of 15 mm and thickness of 2-10 mm can be ordered in the standard color 9005M, and also uncoated and in special color, using the AUFD model.
The doubling profiles can be used to even out a leaf offset or increase the gap to the insect screen product to accommodate handle fittings or weatherboards.
The profiles are undrilled and are provided with a double-sided adhesive strip to simplify installation.

Legend

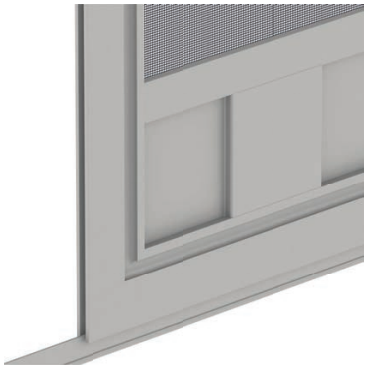
① Doubling for leaf offset
② Doubling to bridge a handle recess

Slide frame





Mounting option with additional frame profile.



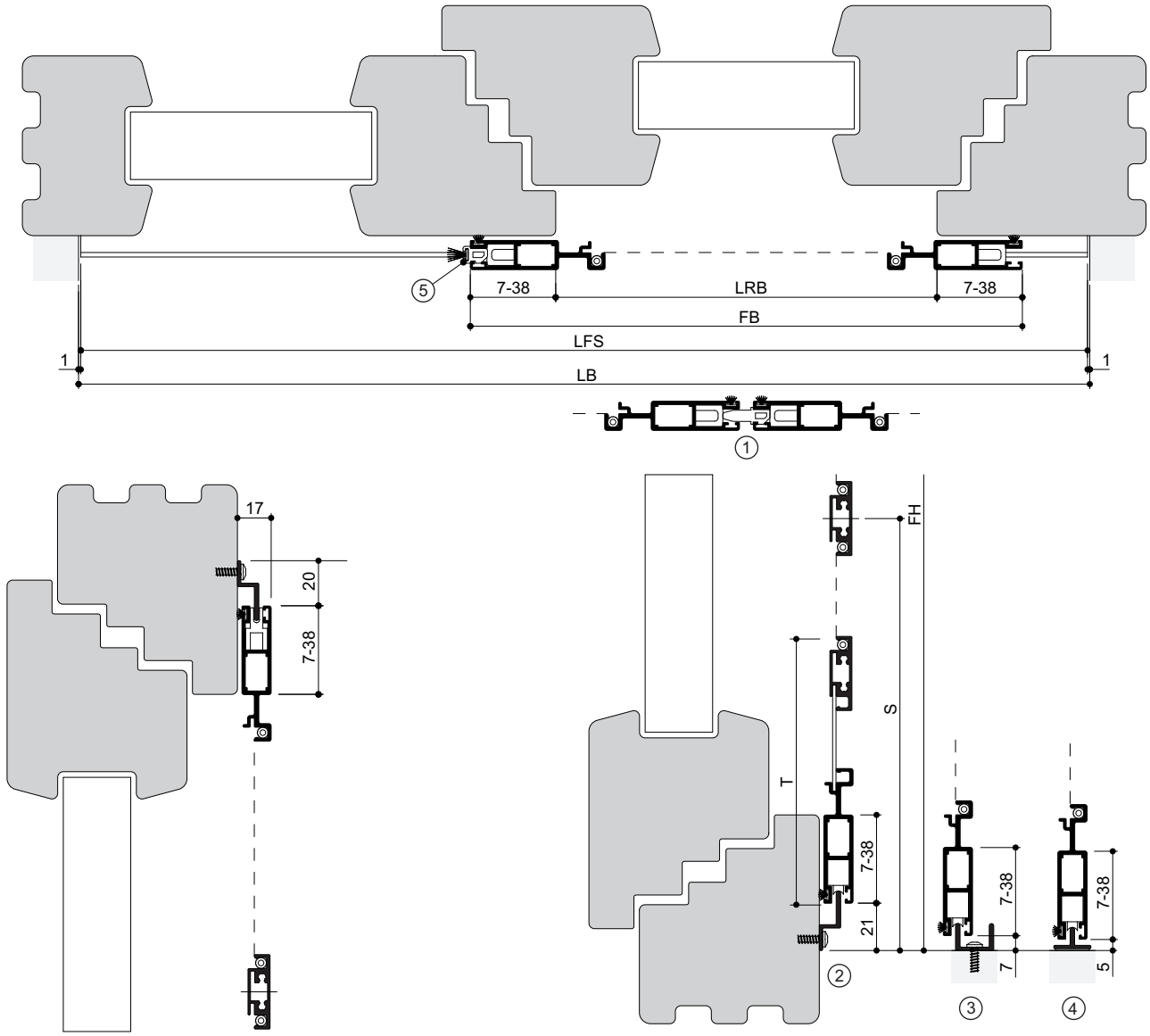
Smooth-running sliding frame due to concealed guide rollers. This is now also available with an optional kick plate for foot operation. It can also have a small pet flap integrated into it.

Limit sizes

Insect screen fabric	Min. width [mm]	Max. width [mm]	Min. height [mm]	Max. height [mm]	Max. height without sash bars [mm]
IST E single-leaf					
Standard	300	2000	500	2500	2500
VistaScreen	300	2000	500	2500	2500
Aluminium	300	1500	500	2500	1500
Petable	300	1500	500	2500	1500
Pollen screen	300	1500	500	2500	1500
IST E double-leaf/IST Z					
Standard	600	4000	500	2500	2500
VistaScreen	600	4000	500	2500	2500
Aluminium	600	3000	500	2500	1500
Petable	600	3000	500	2500	1500
Pollen screen	600	3000	500	2500	1500

Cross-section profile

IST E



Legend

FB	Complete width (FB1 additionally for asymmetrical division)	①	Double-leaf design (optional) with sealing profile in the middle
FH	Complete height	②	Z-shaped profile at the bottom for installation from the front
LB	Clear width	③	U-shaped profile at bottom for installation facing downwards (sloping installation base up to 10°)
LRB	Clear frame width of the window		
S	Sash bar position	④	T-shaped profile at bottom for adhesive-bonding facing downwards
LFS	Length of guide rails	⑤	Front-side seal (optional)
T	Kick plate (optional) 193 mm, 338 mm with small pet flap		

Scope of delivery

- Frame with integral handle groove and rolled-in, plastic-sheathed fibreglass fabric
- Brush strips
- Guide rollers and guide rails
- Casing for design IST Z
- Aluminium parts as per color definition "HELLA Color worlds"
- Mounting material

Supplementary equipment

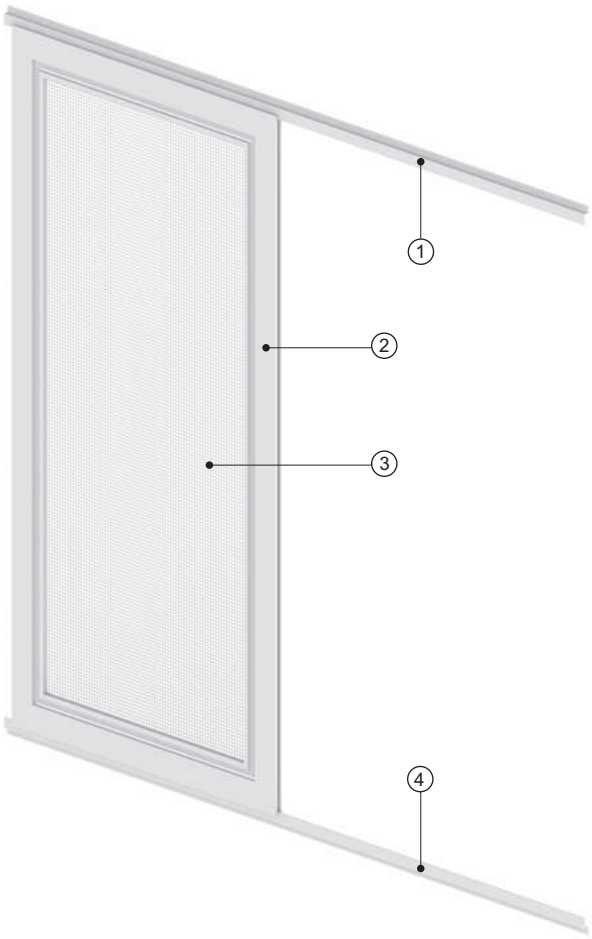
- Additional sash bars
- Kick plate per unit
- Kick plate with four-way small pet flap
- Front-side brush (IST E)
- Aluminium fabric
- Pollen screen
- Insect screen fabric VistaScreen
- Petable pet fabric

Benefits of the product

- Rollable insect screen for seasonal use
- Comfort
- Health
- High-quality construction elements guarantee a long lifespan and convenient operation
- Pollen screen (optional)

Slide frame

IST E



Field of application

Multi-leaf balcony and terrace doors without protruding weatherboards, where the vertical frame profiles seal towards the door frame and middle transom, can be integrated into front-mounted roller shutters and outdoor blinds.

Legend

① Guide rail at top (Z-shaped profile)
② Frame profile with handle groove on both sides
③ Insect screen fabric
④ Guide rail at bottom (Z-, U- or T-shaped profile)

IST Z



Field of application

Multi-leaf balcony and terrace doors; opening dimension up to the half element width at maximum; can be integrated into front-mounted roller shutters and outdoor blinds.

Legend

① Frame profile
② Frame profile with handle groove on both sides
③ Insect screen fabric

Technical product description

Frame

Material	Extruded aluminium
Dimension	60 x 13 mm

Description

- Corner detail with mitre cut and concealed corner joint made of aluminium (glued in place and press-fitted).
- Sealing brushes all round at the rear side.
- Also available in a double-leaf option.

Casing

IST Z

Material	Extruded aluminium
Dimension	25 x 35 mm

Description

- Corner detail with mitre cut and concealed corner joint made of aluminium (clamped with threaded pins), U-shaped profile 17 x 12 mm, optionally as lower guide rail for installation facing downwards

Sash bar

Material	Extruded aluminium
Dimension	33 x 10 mm

Description

- Positioned with sash bar connector, use depends on insect screen fabric and frame dimensions

Brushes (black)

IST E

- Side 4, 6 (standard), 9, 15 or 25 mm facing inwards
- Top/bottom 4 (standard), 6, 9, 15 or 25 mm facing inwards
- Optional front-side brush 9 mm

IST Z

- 4 mm brush at top and bottom facing inwards
- 6 mm brush at side facing inwards

Slide kit

- consisting of lifting protection as well as smoothly running rollers

Guide rail at top

IST E

Material	Extruded aluminium
Dimension	Z-shaped profile 27x10 mm

Description

- screwed from the front

Guide rail at bottom

IST E

Material	Extruded aluminium
Dimension	optionally Z-shaped, U-shaped or T-shaped profile

Description

- Z-shaped profile 27 x 10 mm screwed from the front
- U-shaped profile 17 x 12 mm screwed facing downwards
- T-shaped profile 17 x 10 mm glued facing downwards

IST Z

Material	Extruded aluminium
Dimension	Optionally casing profile or U-shaped profile

Description

- Z-shaped profile 25 x 35 mm screwed from the front or facing downwards
- U-shaped profile 17 x 12 mm screwed facing downwards

Kick plate (optional)

Material	Aluminium 1.2 mm

Description

- Powder-coated from both sides
- Optionally with four-way small pet flap

Installation

IST E

- Screwed connection of the guide rails from the front on the frame or facing downwards

IST Z

- Screwed connection of the guide rails from the front on the frame or facing upwards/downwards into the soffit

Insect screen fabric

- Insect screen fabric made of fibreglass, plastic-sheathed, color grey
- Insect screen fabric VistaScreen made of fibreglass, plastic-coated, black color, improved light and air permeability compared with the standard fibreglass fabric
- Pollen screen made of PVC, fibreglass and PET, outside color grey, inside color black; prevents penetration of over 90% of pollen of all types
- Insect screen fabric made of aluminium, blank
- Petable insect screen fabric made of reinforced fibreglass, black color, withstands pet claws

Colors

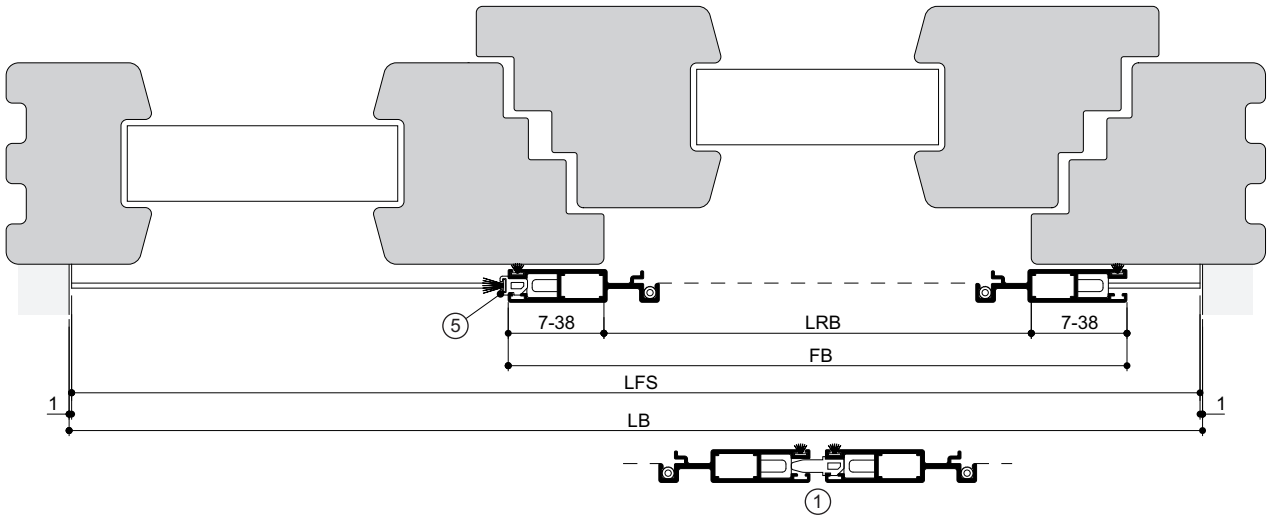
Aluminium parts	powder-coated as per color definition "HELLA Color worlds"
End pieces	Black

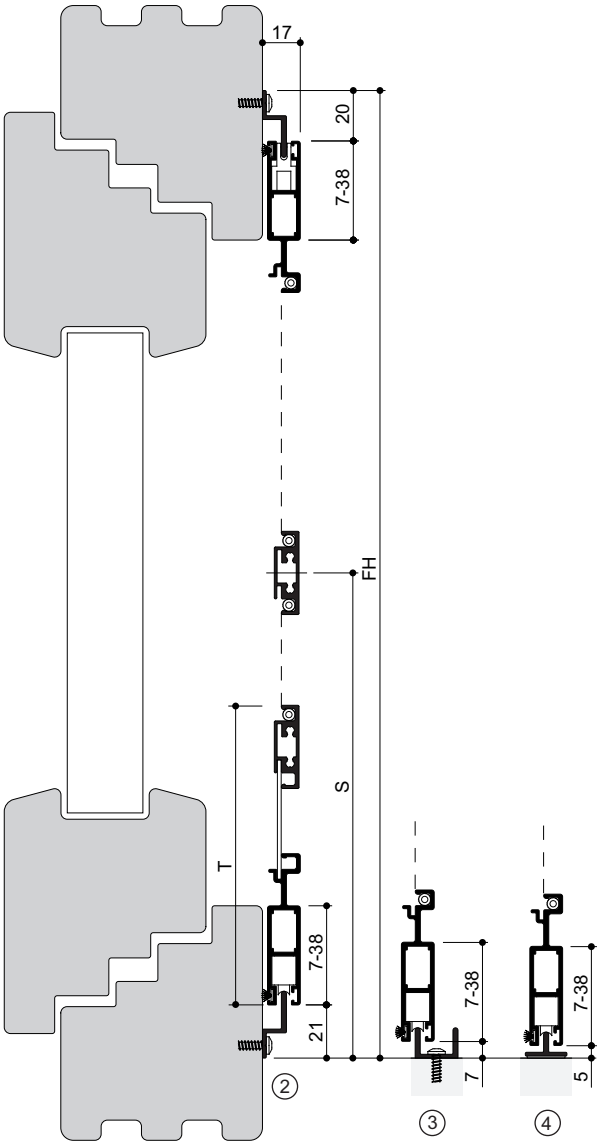
Special designs

on demand

Slide frame

Type: IST E





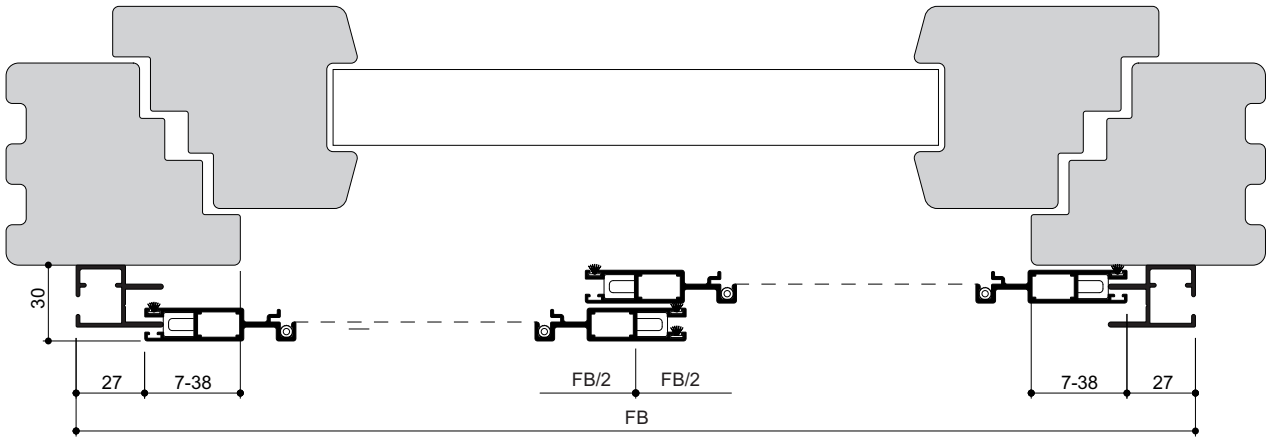
Notes:

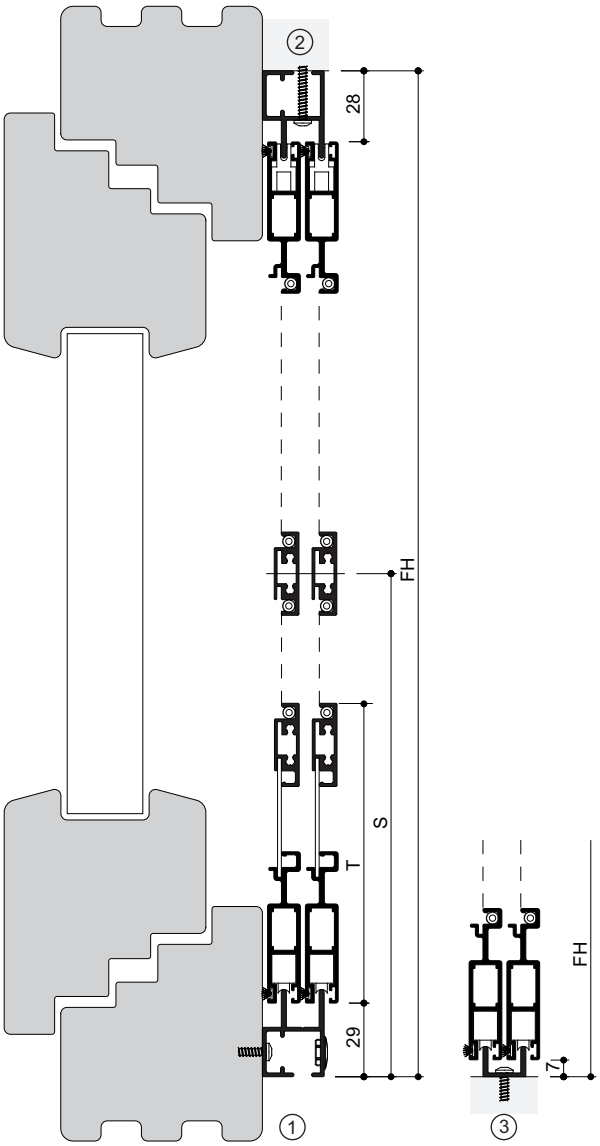
- If the size of the minimum contact surface is too small, the frame does not seal towards the window.
- If the size of the maximum contact surface is exceeded, the recessed grips to operate the frame profile are out of reach.

Legend

①	Double-leaf design (optional) with sealing profile in the middle
②	Z-shaped profile at the bottom for installation from the front
③	U-shaped profile at the bottom for installation facing downwards (slope of installation base up to 10°)
④	T-shaped profile at the bottom for adhesive-bonding facing downwards
⑤	Front-side brush strip (optional)
FB	Complete width (FB1 additionally for asymmetrical division)
FH	Complete height (including guide rails)
LB	Clear width
LRB	Clear frame width of the window
S	Sash bar position
T	Kick plate (optional) 193 mm, 338 mm with small pet flap
LFS	Length of guide rails

Type: IST Z





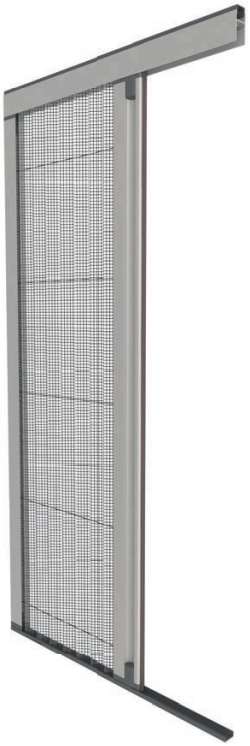
Notes:

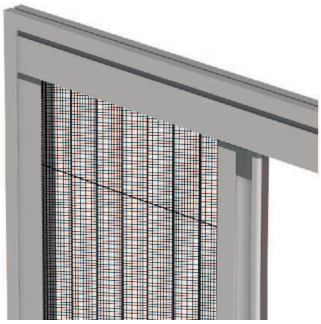
- If the size of the minimum contact surface is too small, the frame does not seal towards the window.
- If the size of the maximum lateral contact surface is exceeded, the recessed grips to operate the frame profile are out of reach.

Legend

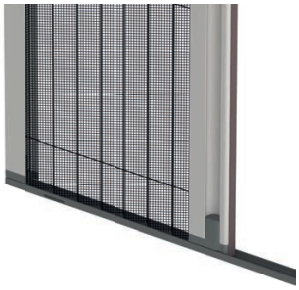
①	Screwing of the frame profile from the front (standard)
②	Screwing of the frame profile to the top/bottom in the soffit (optional)
③	U-shaped profile at bottom for installation facing downwards
FB	Complete width (standard design with symmetrical division or, optionally, asymmetric division by specifying one fixed dimension FB1)
FH	Complete height
S	Sash bar position
T	Kick plate (optional) 193 mm, 338 mm with small pet flap

Pleated blind





Alternatively with mounting frame with defined seal.



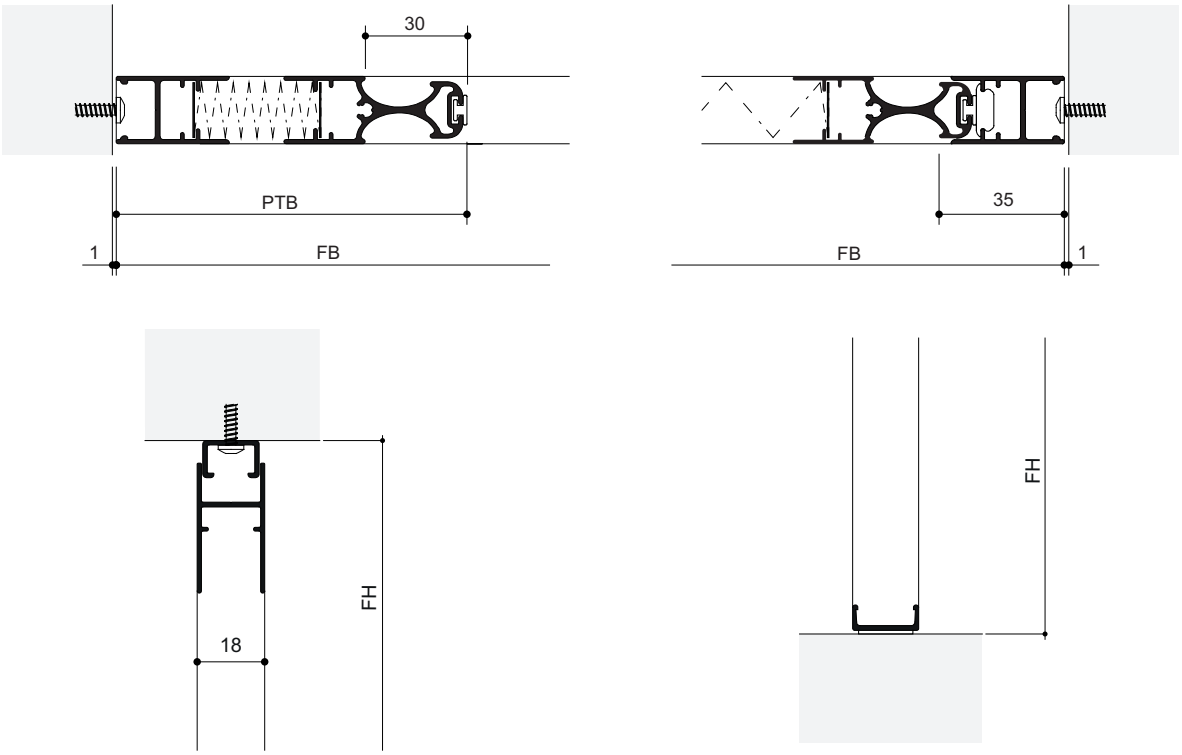
Pleated fabric enables high stability.

Limit sizes

Type	Min. width [mm]	Max. width [mm]	Min. height [mm]	Max. height [mm]
ISPL18	500	2200	850	2850

The limit sizes only apply for the pleated insect screen. If an installation frame is used, 16 mm per frame profile must be added to the limit sizes.

Cross-section profile



Legend

FB	Complete width
FH	Complete height
PTB	Package width

Scope of delivery

- Plastic-coated, pleated fibreglass fabric
- Guide rails
- Powder-coated aluminium parts per "HELLA Color worlds"
- Mounting material

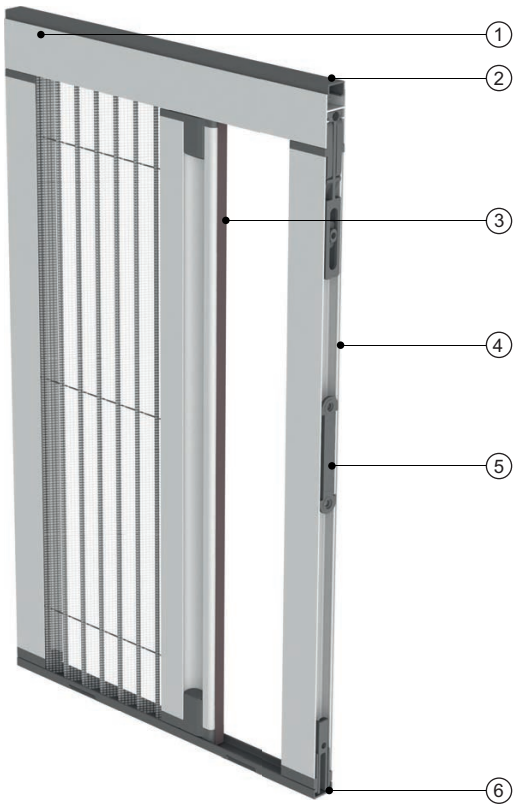
Supplementary equipment

- Installation frame screwed
- Installation frame glued
- Operation rod pivoting
- Lower guide rail powder-coated in C0PB

Benefits of the product

- Pleated insect screen for seasonal use
- Comfort
- Health
- The pleated blind is designed symmetrically to the operating level and can therefore been used for both opening directions
- High-quality construction elements guarantee a long lifespan and convenient operation

Pleated blind

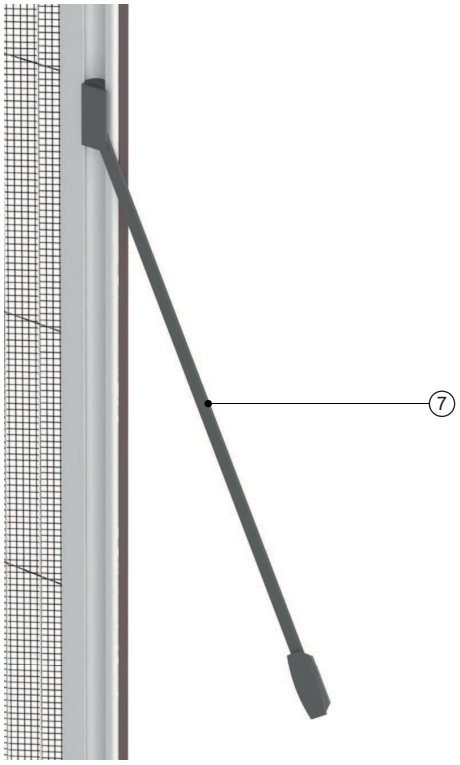


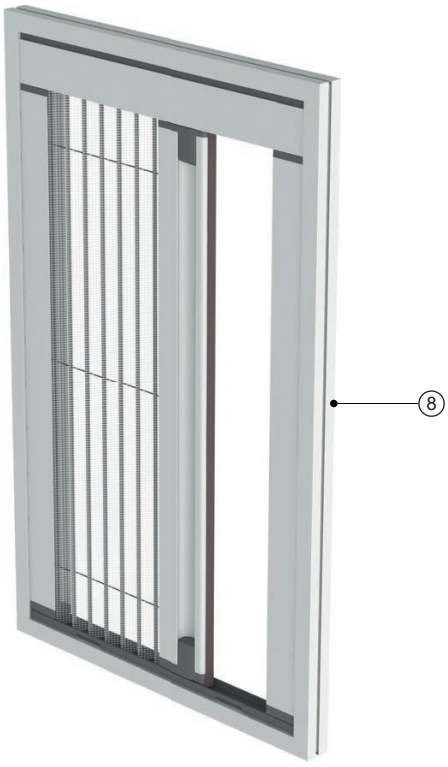
Field of application

All balcony and terrace doors can be integrated in front-mounted roller shutters or outdoor blinds.

Legend

① Slide rail at the top
② Installation profile at the top
③ Handle profile with magnetic profile
④ Wall profile with magnetic profile
⑤ Fastening clip for wall profile
⑥ Slide rail at the bottom with punchings for water drainage
⑦ Operating rod (optional)
⑧ Installation frame for installation from the front (can be selected for each side)





Technical product description

Guide rail at top

Material	Extruded aluminium
Dimension	35 x 18 mm

Description

- Attached to mounting profile of extruded aluminium, dimension 15x10 mm

Guide rail at bottom

Material	Extruded aluminium
Dimension	18 x 7 mm

Description

- Powder-coated in deep black 9005 or anodised look C0PB including double-sided adhesive strip 16 x 1 mm

Grip profile

Material	Extruded aluminium
Dimension	48 x 18 mm

Description

- Operable via recessed grips on both sides, fixed in the closed position by means of retracted magnetic profile

Wall profile

Material	Extruded aluminium
Dimension	18 x 31 mm

Description

- On the hinge side with retracted magnet profile, in order to fix the closed position

Installation frame (optional)

Material	Extruded aluminium
Dimension	22 x 15 mm

Description

- For frontal installation onto the soffit, can be selected separately for each side, cut to mitre and stuck together using corner joints; the installation frame can either be fixed with screws or a double-sided adhesive strip

Installation

- Laterally in the soffit or from the front using installation frames (optional)

Insect screen fabric

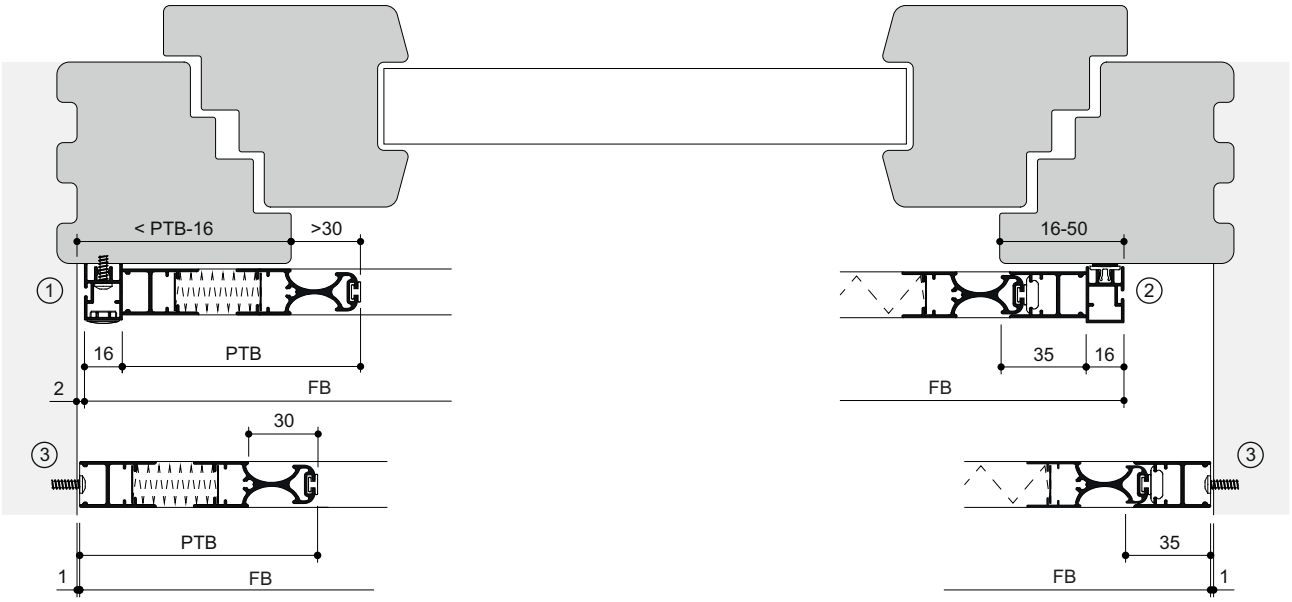
- Pleated insect screen fabric made of plastic-sheathed fibreglass in color black, guided via cords

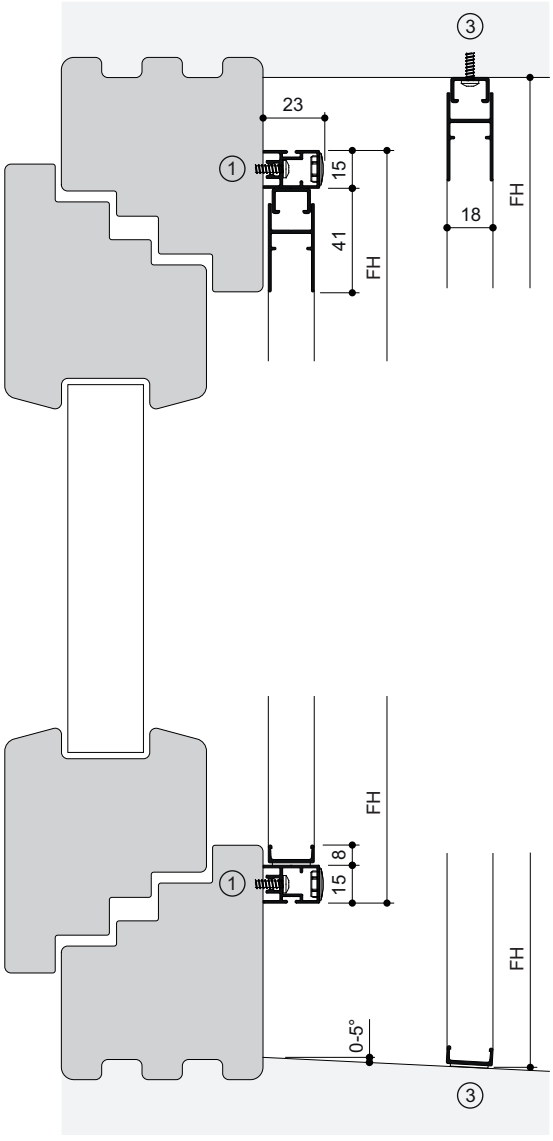
Colors

Aluminium parts	powder-coated as per color definition "HELLA Color worlds"
End pieces	Black

Pleated blind

Type: ISPL18 - pleated insect screen 18 mm





Notes

- The pleated blind is designed symmetrically to the operating level and can therefore been used for both opening directions.
- The side where to place the installation frame is changeable.
- To ensure that the recessed grips are accessible in each position, the complete width must be reduced accordingly.
- Lower guide rail can be installed angled by up to 5°.
- Space required 18 mm for lateral installation
  Space required 23 mm for installation from the front with optional installation frame

Legend

①	Installation from the front with installation frame screwed
②	Installation from the front with installation frame glued
③	Installation towards the outside without installation frame
FB	Complete width
FH	Complete height
PTB	Package width

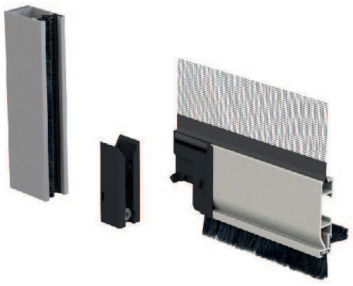
- 92 mm with FB 500-1000 mm
- 102 mm with FB 1001-1300 mm
- 112 mm with FB 1301-1600 mm
- 121 mm with FB 1601-1900 mm
- 131 mm with FB 1901-2200 mm

Profiles provided

- 06210301 Wall profile 18x30 mm
- 06210201 Handle profile 18x48 mm
- 06210901 Guide rail at top 18 x 35 mm
- 06210902 Guide rail at bottom 18 x 7 mm
- 06210501 Installation profile at the top 15x10 mm
- 06210502 Installation frame 16x22 mm (optional)

Roller blind





Easy-Click locking mechanism concealed in the guide rail.

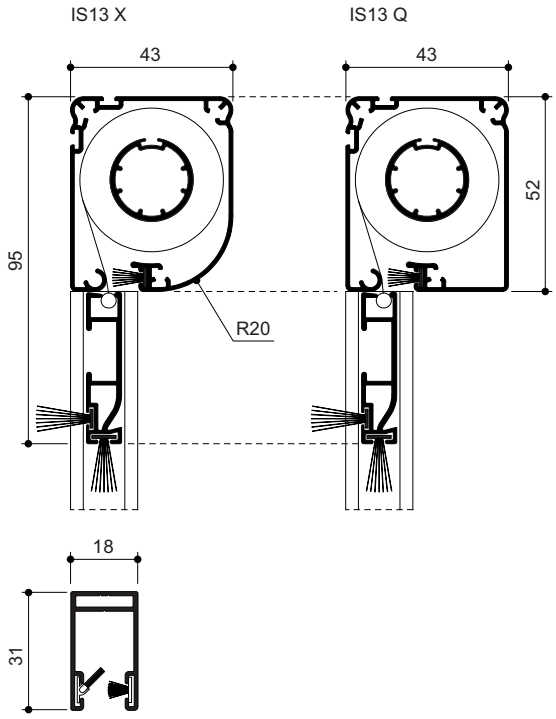


The integrated brake ensures slow upward travel from the end bar, which minimizes noise and eliminates the risk of injury.

Limit sizes

Type	Min. width [mm]	Max. width [mm]	Min. height [mm]	Max. height [mm]	Max. surface [m²]
IS13	500	2200	200	2800	4

Cross-section profile



Scope of delivery

- Insect screen box square or quarter round with box sealing brush
- Drive with spring balancer and brake system
- Pull cord included loose
- Guide rail with guide rail inserts and integrated Easy-Click locking system
- Plastic-coated fibreglass fabric
- Aluminium parts as per "HELLA Color worlds"
- Mounting material

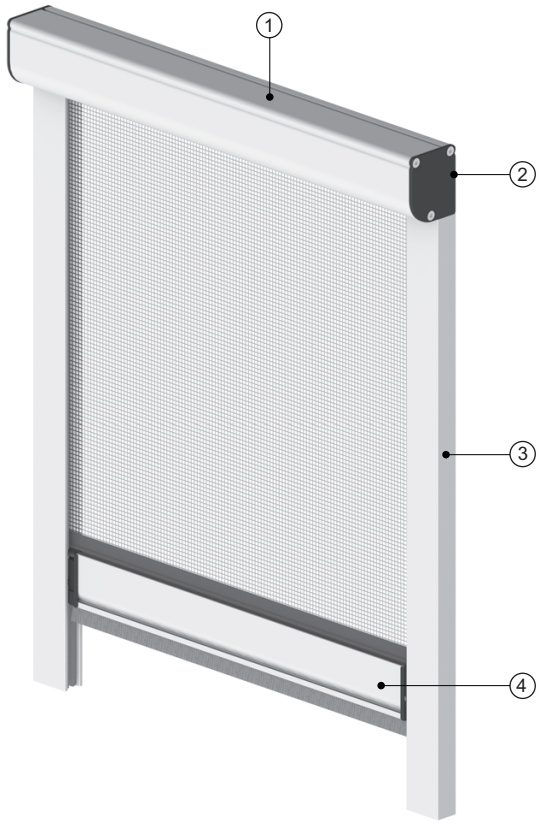
Supplementary equipment

- Inset type handle at the outside
- Stop at the top
- Additional box brushes for better seal against window or wall
- Insect screen fabric VistaScreen
- Cover SOLTIS 86/92

Benefits of the product

- Rollable insect screen for seasonal use
- Comfort
- Health
- High-quality construction elements guarantee a long lifespan and convenient operation
- Privacy (optional)
- Angled brush for better fabric retention even in strong winds

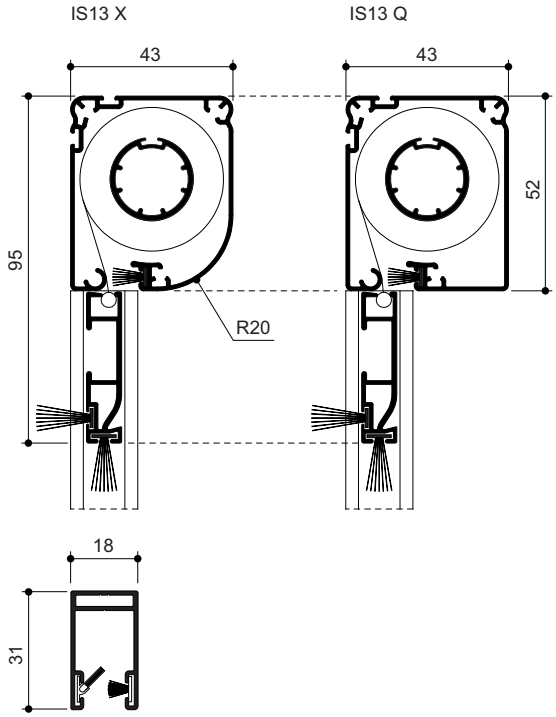
Roller blind



Field of application
All window types.

Legend

① Box profile 43 x 52 quarter round/quadratic
② End cap quarter round/quadratic
③ Guide rail 31 x 18 mm
④ End rod



Technical product description

Box

Material	Extruded aluminium
Dimension	43 x 52 mm
Box profile	quarter round or quadratic

Description

- Sealing via unwinding edges of the fabric at the rear side and inserted sealing brush at the front side.
- Plastic box end to accommodate the spring mechanics, with struts to be placed onto the guide rails.

Insect screen shaft

Material	Extruded aluminium
Dimension	Ø23.2 mm

Guide rails

Material	Extruded aluminium
Dimension	31 x 18 mm

Description

- With brush strips from both sides for fabric guiding

End rod

Material	Extruded aluminium
Dimension	40 x 9 mm

Description

- Sealing via inserted brush strips
- Easy-Click locking system, including pull cord

Operation

Description

- Raising and lowering the blind via concealed spring mechanics and integrated brake

Installation

- From the front onto the window frame or lateral in the soffit

Insect screen fabric

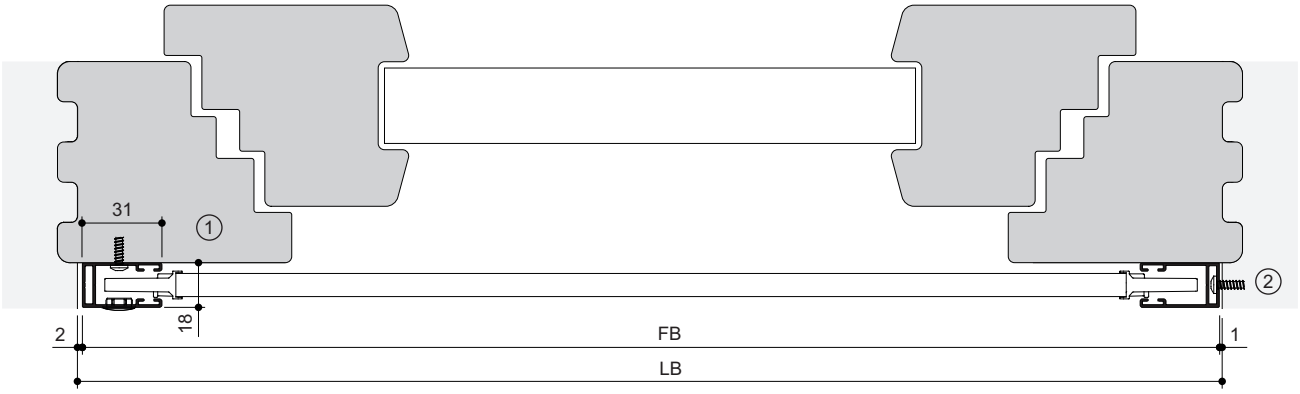
- Insect screen fabric made of fibreglass, plastic-sheathed, color grey
- Insect screen fabric VistaScreen made of fibreglass, plastic-coated, black color, improved light and air permeability compared with the standard fibreglass fabric
- Cover SOLTIS 86 or SOLTIS 92, colors according to current collection (**Attention:** max. width 1200 mm, max. height 1600 mm); cover shortened and not guided in the guide rail. Serves as view and glare protection, not as insect screen.

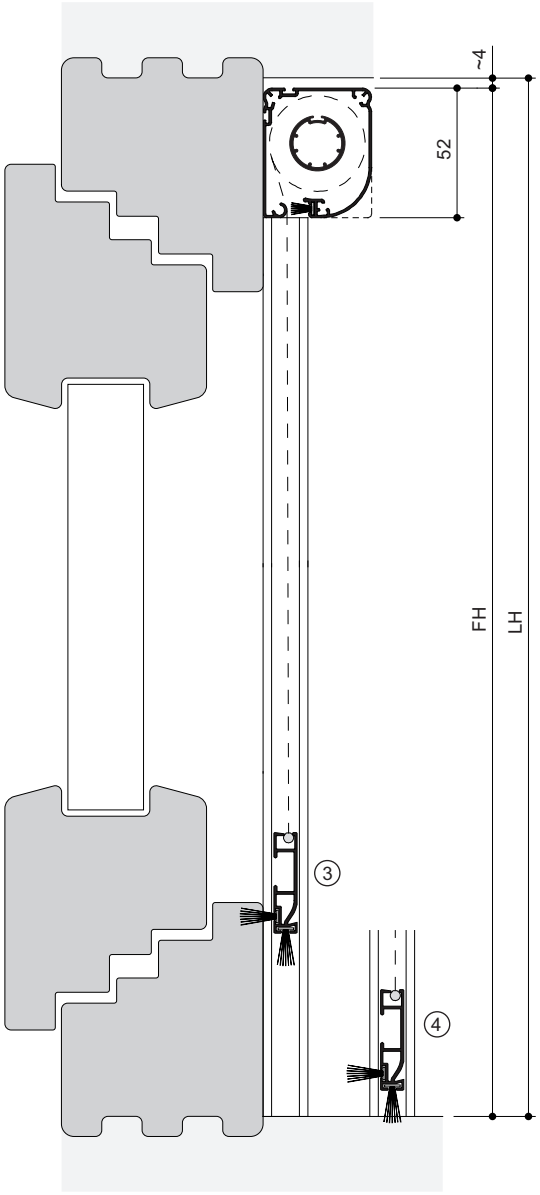
Colors

Aluminium parts	powder-coated as per color definition "HELLA Color worlds"
End pieces	grey or black

Roller blind

Type: IS13 - X quarter round/Q quadratic





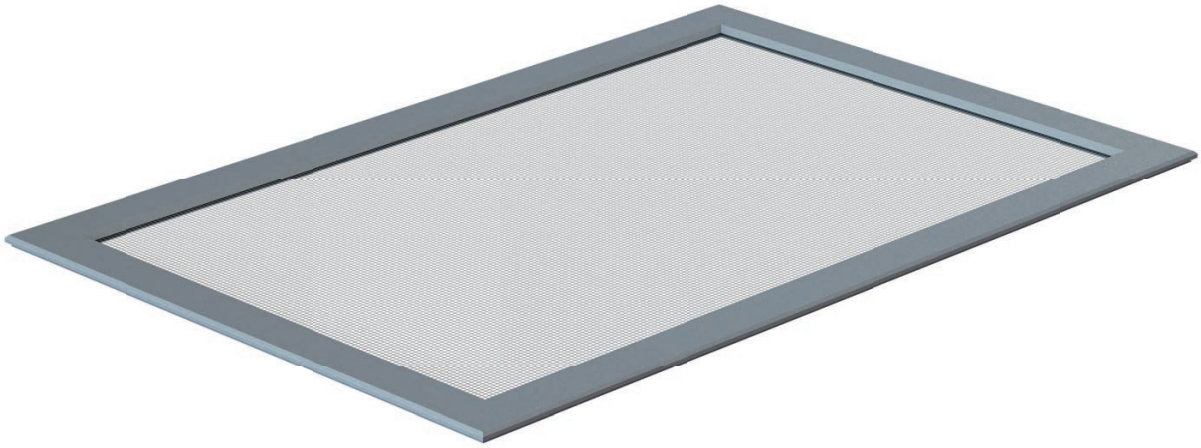
Legend

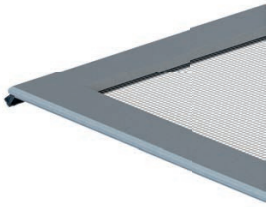
FB	Complete width
FH	Complete height
LB	Clear width
LH	Clear height
①	Installation from the front (standard)
②	Installation laterally (optional)
③	Sealing towards the inside
④	Seal facing downwards

Profiles provided

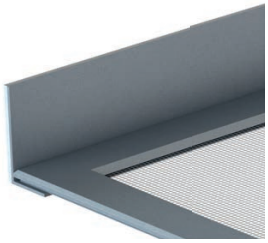
- 06040407/8 Box profile X/Q 43 x 52 mm
- 06040905 Guide rail 31 x 18 mm
- 06040807 End rod 40 x 9 mm

Light shaft cover

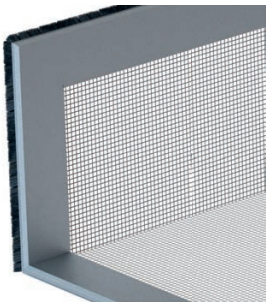




ISLA 2 with brush to wall



ISLA 3 with L-bracket



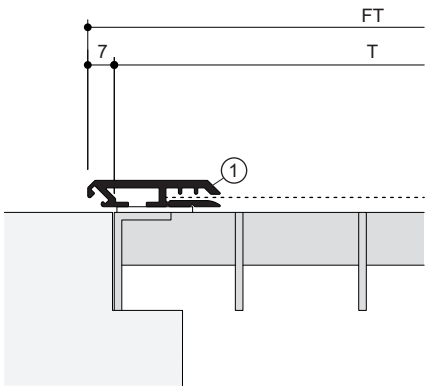
ISLA 4 with upstand

Limit sizes

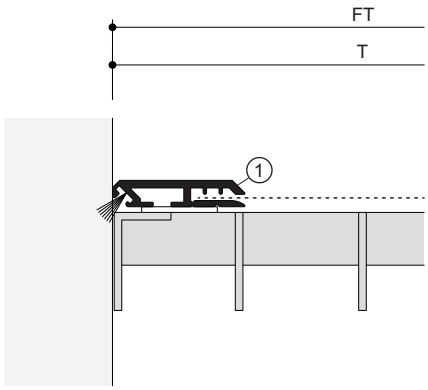
Insect screen fabric	Min. width [mm]	Max. width [mm]	min. depth [mm]	max. depth [mm]	Max. surface [m²]
Stainless steel fabric	400	2000	300	1300	2.6

Cross-section profile

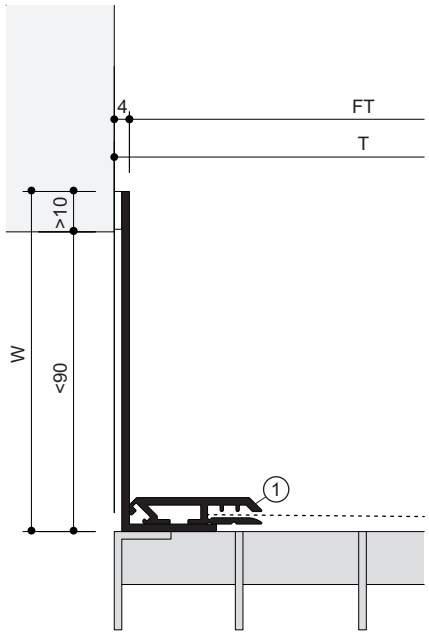
ISLA 1



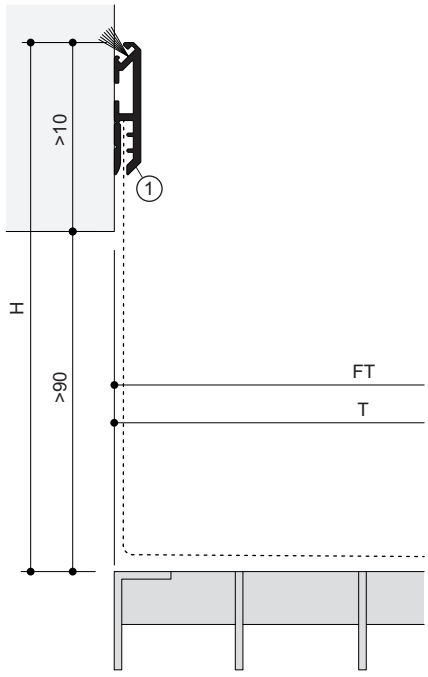
ISLA 2



ISLA 3



ISLA 4



Legend

FB	Complete width (500-2000 mm)	B	Grating width
FT	Complete depth (100-1000 mm)	T	Grating depth
W	Bracket height 30, 60 or 100 mm	H	Upstand height (140-300 mm)
①	Profile 35 x 7 mm (height 8 mm including adhesive strip)		

Scope of delivery

- Frame with pressed-in stainless steel mesh
- Aluminium profiles C0 anodised or powder-coated DM1000 matt fine texture, DM1001 matt fine texture
- Corner joint A2 clamped with threaded pins
- Mounting material (glued with rubber strap or screw fastening)

Supplementary equipment

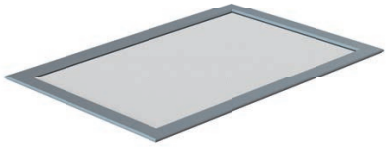
- Sealing brushes
- Angled profile for wall connection
- Upstand for wall connection

Benefits of the product

- Protection against insects and small animals
- Protection against dirt and leaves
- Allows light and air through
- Long-lasting and weatherproof
- Easy to install (easy to retrofit)
- Helps to block intruders

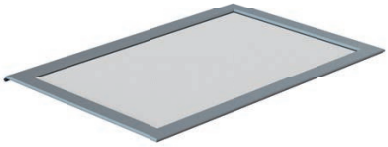
Light shaft cover

ISLA 1
Frame with seal facing downwards



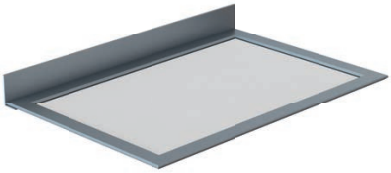
Field of application and use
Light shafts with ground level grating

ISLA 2
Frame with wall-side brush



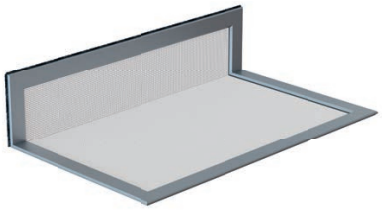
Field of application and use
Light shafts with wall connection

ISLA 3
Frame with wall-side L-bracket



Field of application and use
Light shafts with projecting window opening up to 90 mm

ISLA 4
Frame with wall-side upstand



Field of application and use
Light shafts with projecting window opening from 90 mm

Technical product description

Frame

Material	Extruded aluminium
Dimension	35x7 mm

- Corner detail with mitre cut and concealed corner joint made of stainless steel, clamped with threaded pins.
- Sealing brush black in all profiles for installation design.

ISLA 2

- Sealing brush black in wall-side profile or, optionally, in other profiles.

ISLA 3

- Aluminium angled profile 30 x 25 x 2 mm, 60 x 30 x 2 mm or 100 x 20 x 2 mm screwed to the wall-side frame profile to seal projecting window openings.

ISLA 4

- Light shaft cover extended upwards by additional concealed corner joints on the wall side to seal further projecting window openings.

Cover

- Insect screen fabric made of stainless steel V2A, silver color

Installation

- Adhesive bonded to grating with rubber strap or
- screwed to grating with stainless steel screw fittings (grating mesh size at least 14 x 12 mm)

Colors

Aluminium parts	Natural anodised in C0 or powder-coated with mica effect in DM1000 matt fine texture brown or DM1001 matt fine texture grey

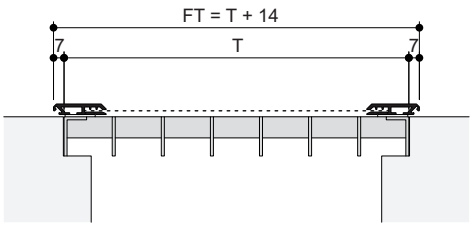
Special designs

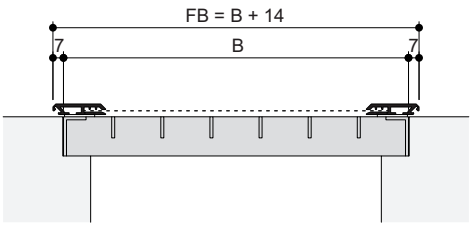
on request

Light shaft cover

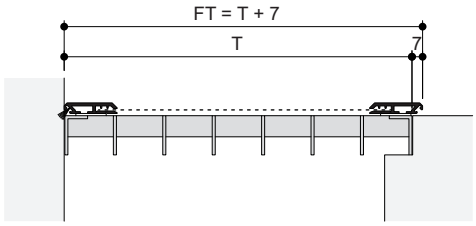
Type: Light shaft cover

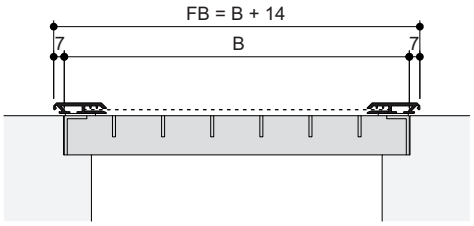
ISLA 1 for light shafts with ground level grating



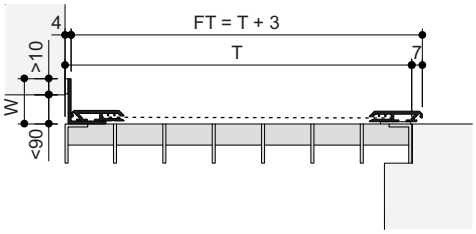


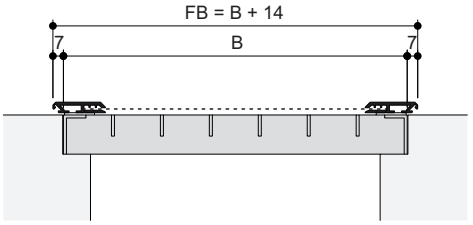
ISLA 2 for light shafts with ground level grating and wall connection



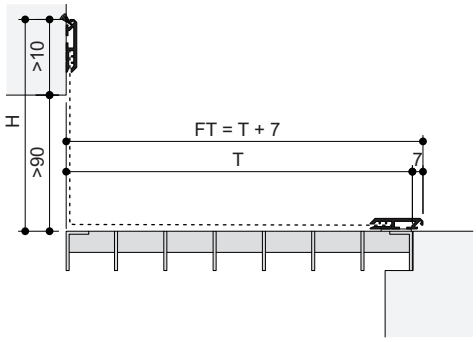


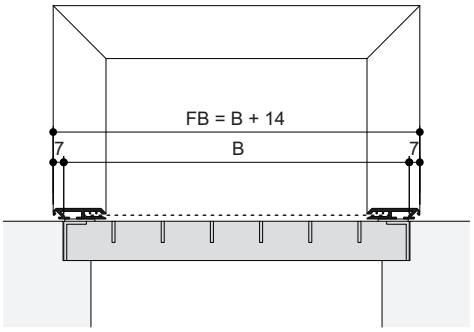
ISLA 3 for light shafts with projecting window opening up to 90 mm height





ISLA 4 for light shafts with projecting window opening from 90 mm height



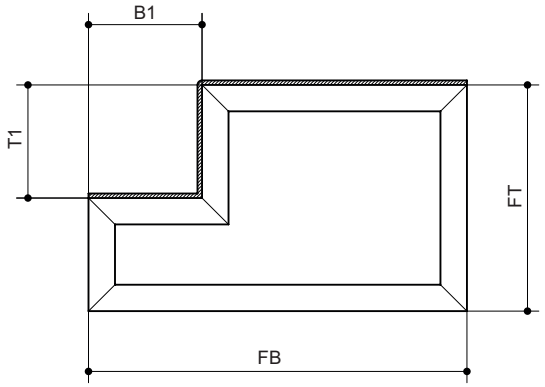


Legend

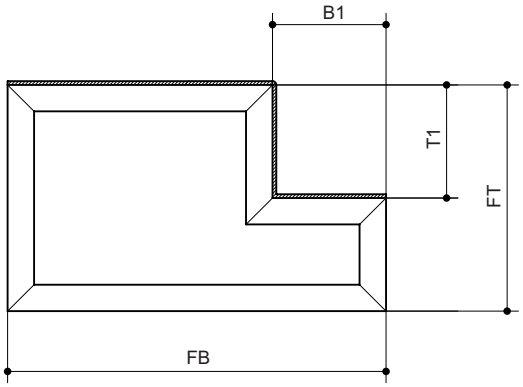
FB	Complete width (500-2000 mm)	B	Grating width
FT	Complete depth (100-1000 mm)	T	Grating depth
W	Bracket height 30, 60 or 100 mm	H	Upstand height (140-300 mm)

Type: ISLA 2 light shaft cover with wall-side brush

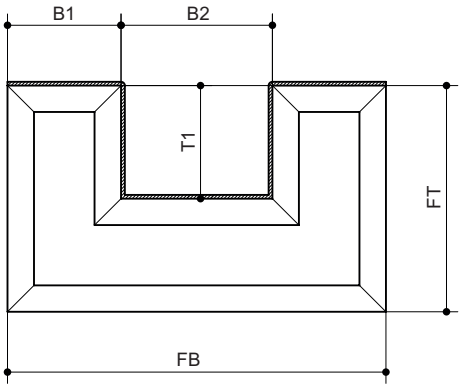
Special design 2A



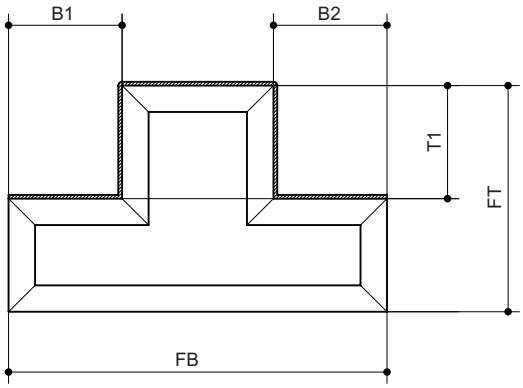
Special design 2B



Special design 2C



Special design 2D



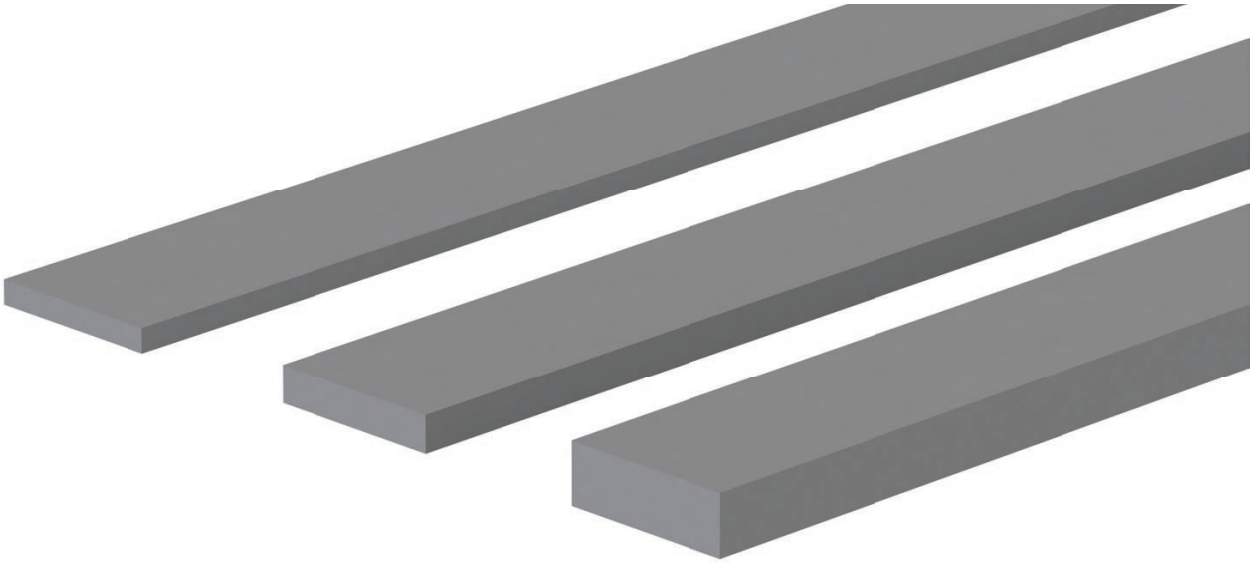
Legend

FB	Complete width
FT	Complete depth
B1	Width 1
B2	Width 2
T1	Depth 1

Notes:

- Outside view from above
- Brush top (wall-side) standard
- Brush optionally left/right/bottom

Doubling profile

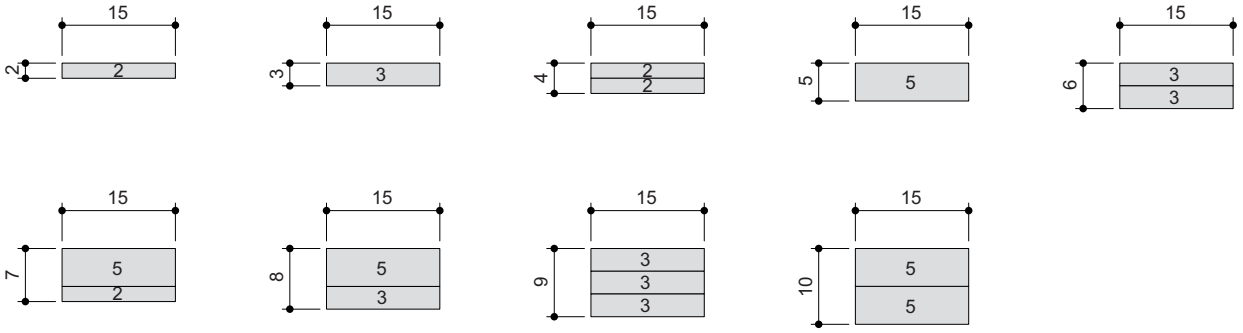


The doubling profiles are used if there are small changes in level at the window or door element that need to be evened out to create a flat installation base for the insect screen or if the insect screen needs to be spaced further away from the window due to projecting window fittings

Limit sizes

	min. length [mm]	max. length [mm]	Min. height [mm]	Max. height [mm]
AUFD	50	4800	2	10

Cross-section profile



Scope of delivery

- Aluminium flat profiles 15 x 2 mm, 15 x 3 mm and 15 x 5 mm
- Double-sided adhesive strip to simplify installation
- Powder-coated 9005M

Supplementary equipment

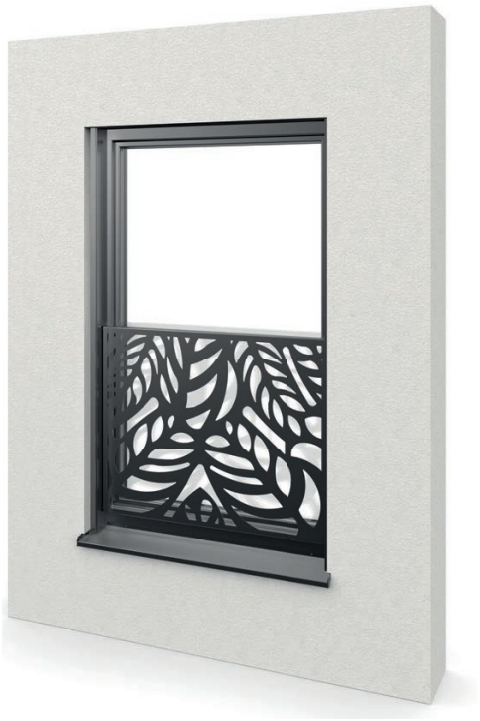
- Uncoated or powder-coated per "HELLA Color worlds" color definition

Benefits of the product

- Spacer profile to compensate for variations in building surface level
- Spacing of insect screen system to accommodate projecting window fittings

FALL PROTECTION

Fall protection



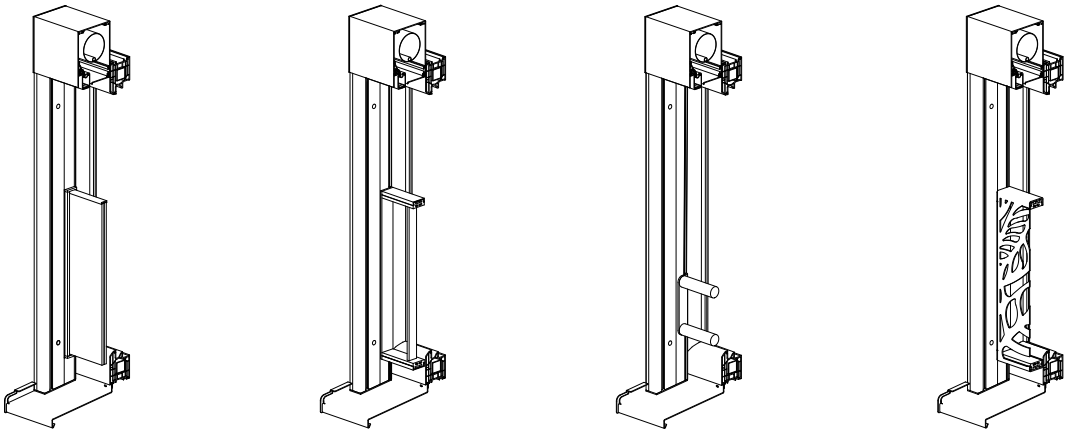


Universal rail enables lateral over-insulation of the window frame and has a very small distance to the fixing.

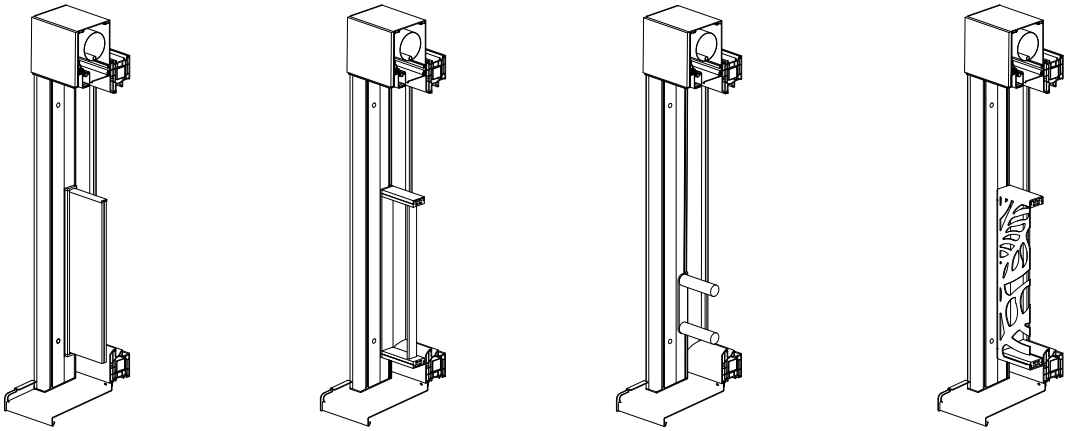


Possibility of integrating different types of fall protection, shown here with individual pattern plate.

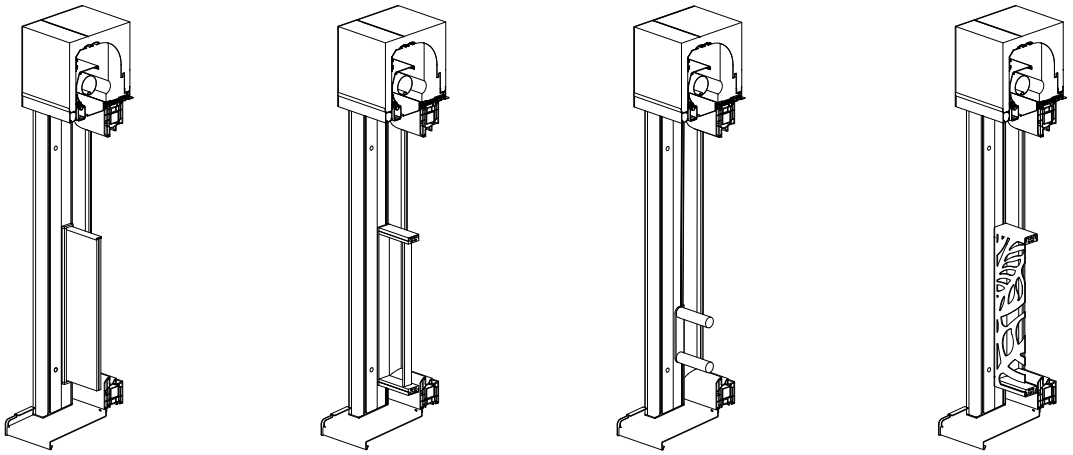
Combinations with front-mounted awnings



Combinations with plaster awnings



Combinations with TOP FOAM screen protect



Scope of delivery

- Guide rail prepared for various fall protection systems
- Aluminium parts as per "HELLA Color worlds"
- Certified mounting material according to requirements

Supplementary equipment

- Fall protection aluminium grille
- Steel mesh fall protection
- Fall protection rod
- Fall protection panel with individual design
- Bracket for glass fall protection

Benefits of the product

- Safety through tested systems
- Comfort
- Design element
- Clean, defined plaster connections
- High-quality construction elements guarantee a long lifespan

Fall protection

Limit sizes

Type: Fall protection grid and rods

Beam load [kN/m]	Maximum width in mm			
	Glass	Steel grid	Aluminium grid	Rods
0.5	see wind-load chart	2500	2500	2400
1	see wind-load chart	2000	1500	1700

Type: Glass fall protection

The glass dimensions required can be found in the order confirmation.

Permissible wind load in kN/m² depending on glass thickness and dimensions for a permissible beam load of 0.5 kN/m - private area

HAS min [mm] \ Glass width [mm]	600	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
200	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,25	3,75	3,25	2,75	2,25	2,00	1,75					
300	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,25	3,50	2,75	2,25	1,25	0,75	3,75	3,25	3,00	2,50	2,25	1,50	1,25	1,00	0,75	0,75
400	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,00	3,25	2,75	2,25	2,00	1,50	1,00	3,25	3,00	2,50	1,50	1,25	1,00	0,75	0,75
500	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,00	3,50	3,00	2,50	2,25	1,75	1,50	1,25	1,25	1,00	0,75	1,75	1,50	1,25	1,00	0,75	0,75
600	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,25	3,50	3,00	2,50	2,25	2,00	1,75	1,50	1,25	1,00	1,00	0,75	1,50	1,50	1,25	1,00	0,75
700	4,50	4,50	3,75	2,75	2,25	1,75	2,50	2,00	1,75	1,50	1,25	1,00	0,75	0,75	1,50	1,25	1,25	1,00	0,75	1,75	1,50	1,25	1,00	0,75
800	4,50	4,50	3,75	3,00	2,25	1,75	2,50	2,00	1,75	1,50	1,25	1,00	1,00	0,75	1,50	1,50	1,25	1,00	0,75	0,75	1,50	1,25	1,00	1,00
900	4,50	4,50	3,75	3,00	2,25	1,75	2,50	2,00	1,75	1,50	1,25	1,00	1,00	0,75	1,75	1,50	1,25	1,00	0,75	0,75	1,50	1,25	1,25	1,00
1000	4,50	4,50	3,75	3,00	2,25	1,75	2,50	2,00	1,75	1,50	1,25	1,00	1,00	0,75	1,75	1,50	1,25	1,00	1,00	0,75	1,50	1,50	1,25	1,00
1100	4,50	4,50	3,75	3,00	2,25	1,75	2,50	2,00	1,75	1,50	1,25	1,00	1,00	0,75	1,75	1,50	1,25	1,00	1,00	0,75	1,50	1,50	1,25	1,00
1200	4,50	4,50	3,75	3,00	2,25	1,75	2,50	2,00	1,75	1,50	1,25	1,00	1,00	0,75	1,75	1,50	1,25	1,00	1,00	0,75	1,50	1,50	1,25	1,00

Permissible wind load in kN/m² depending on glass thickness and dimensions for a permissible beam load of 1 kN/m - public area

HAS min [mm] \ Glass width [mm]	600	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
200	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,00	3,00	1,75						
300	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,25	3,50	2,75	2,25	1,25	2,50	2,50	2,00	1,25		
400	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,50	4,00	3,25	2,75	2,25	2,00	1,50	2,25	2,25	2,00	1,50
500	4,50	4,50	4,50	4,50	4,50	4,50	4,00	3,25	2,75	0,25	1,75	1,25	0,75	2,25	2,00	1,50	1,25	2,00	2,00
600	4,50	4,50	4,50	4,50	4,50	4,50	4,25	3,50	2,75	2,25	2,00	1,50	1,25	1,00	2,00	1,75	1,50	1,25	1,00
700	4,50	3,75	2,75	2,00	1,00	1,00	1,75	1,50	1,00	2,50	2,00	1,75	1,50	1,25	1,00	2,00	1,75	1,50	1,25
800	4,50	3,75	3,00	2,00	1,00	1,00	1,75	1,50	1,00	0,75	2,25	1,75	1,50	1,25	1,00	0,75	1,75	1,50	1,25
900	4,50	3,75	3,00	2,00	1,00	1,00	1,75	1,50	1,25	0,75	2,25	2,00	1,50	1,25	1,25	1,00	0,75	1,75	1,50
1000	4,50	3,75	3,00	2,25	1,25	1,25	2,00	1,50	1,25	1,00	0,75	2,00	1,75	1,50	1,25	1,00	0,75	1,75	1,50
1100	4,50	3,75	3,00	2,25	1,25	1,25	2,00	1,50	1,25	1,00	0,75	2,00	1,75	1,50	1,25	1,00	1,00	0,75	1,50
1200	4,50	3,75	3,00	2,25	1,25	1,25	2,00	1,50	1,25	1,00	0,75	2,00	1,75	1,50	1,25	1,00	1,00	0,75	1,50

Note:

The determination of the wind load required for each region can be seen in the technical part/fall protection.

Legend

	VSG10.
	VSG12
	VSG16
	VSG20
	VSG24



Design glass



Version art - individual pattern (upon request)



Design aluminium grid/steel grid



Design of the rods

Fall protection

Technical product description

Type: Steel grid

Material	Galvanized powder-coated steel
Dimension	Tie-bar profile 40x10 mm Lateral bracket profiles 40x40x5 mm Grille profiles 40x8 mm

Description

Welded frame construction made of steel profiles according to DIN EN 1090. Standardisation and technical specifications: Design for spar load up to 1.0 kN; static proof for spar load; type statics for public and private areas; proof of static live load according to DIN EN 1990; DIN EN 1991, DIN EN 1993-1 and Euro code 3 EC 3.
The sufficient load-bearing capacity of the components/window frames existing on site with regard to impact load is assumed.
The height of the fall protection must be dimensioned according to the respective state building regulations. Depending on the state building code, an existing parapet with insufficient height counts as a step, which is why the fall protection must be dimensioned based on this step. In the case of a lattice fall protection, the height of the fall protection must be increased by the height of the rail if the lower rail also counts as a step.

Type: Rods

Material	Extruded aluminium
Dimension	2 piece tie-bar profiles ø34 mm Lateral bracket profiles 45x40x5 mm

Description

Bolted frame construction made of extruded aluminium profiles. Aluminium balustrade for windows with low balustrade height. Standardisation and technical specifications: Design for spar load up to 1.0 kN; static proof for spar load; type statics for public and private areas; proof of static live load according to DIN EN 1990; DIN EN 1991, DIN EN 1993- 1.
The sufficient load-bearing capacity of the components/window frames existing on site with regard to impact load is assumed.
The height of the fall protection must be dimensioned according to the respective state building regulations. Depending on the state building code, an existing parapet with insufficient height counts as a step, which is why the fall protection must be dimensioned based on this step.

Type: Panels individual

Panels with art and individual design

Material	Canted and lasered aluminium sheet 3 mm
Dimension	Lateral bracket profiles 45x45x5 mm

Description

Bolted frame construction made of extruded aluminium profiles. Aluminium balustrade for windows with low balustrade height: Design for spar load up to 1.0 kN; static proof for spar load; type statics for public and private areas; proof of static live load according to DIN EN 1990; DIN EN 1991, DIN EN 1993- 1.
The sufficient load-bearing capacity of the components/window frames existing on site with regard to impact load and wind load (depending on open area of the panels) is assumed.
The height of the fall protection must be dimensioned according to the respective state building regulations. Depending on the state building code, an existing parapet with insufficient height counts as a step, which is why the fall protection must be dimensioned based on this step. The height of the fall protection must be increased by the height of the rail if the lower rail also counts as a step.

Type: Aluminium grid

Material	Extruded aluminium
Dimension	Tie-bar profile 45x20 mm Lateral bracket profiles 45x45x5 mm Grille profiles 30x8 mm

Description

Bolted frame construction made of extruded aluminium profiles. Standardisation and technical specifications: Design for spar load up to 1.0 kN; static proof for spar load; type statics for public and private areas; proof of static live load according to DIN EN 1990; DIN EN 1991, DIN EN 1993- 1.
The sufficient load-bearing capacity of the components/window frames existing on site with regard to impact load is assumed.
The height of the fall protection must be dimensioned according to the respective state building regulations. Depending on the state building code, an existing parapet with insufficient height counts as a step, which is why the fall protection must be dimensioned based on this step. In the case of a lattice fall protection, the height of the fall protection must be increased by the height of the rail if the lower rail also counts as a step.

Type: Glass

Glass (not included in the scope of delivery)

10.76mm/12.76mm/17.52mm/21.52mm/25.52mm

Depending on requirements

Material	Laminated safety glass

Description

Standardisation and technical specifications: Design for spar load up to 1.0 kN; static proof for spar load; type statics for public and private areas; proof of static live load according to DIN EN 1990, DIN EN 1991, DIN EN 1993-1 and DIN 18008-4.
The sufficient load-bearing capacity of the components/window frames existing on site with regard to impact load and wind load is assumed.
The height of the fall protection must be dimensioned according to the respective state building regulations. Depending on the state building code, an existing parapet with insufficient height counts as a step, which is why the fall protection must be dimensioned based on this step.

Glass edge protection

Material	Extruded aluminium
Dimension	10mm height Profile width to match the glass thickness
Color	C0 anodised

Glass clamping profile

Material	Extruded aluminium
Dimension	45x32 mm for glass thickness 10.76-17.52 mm 45x40 mm for glass thickness 21.52-25.52 mm

Description

- Clamping profile including glazing rubber, screw material and end caps. Number of fixing holes depending on requirements.

Guide rails

For front-mounted venetian blinds, vertical awnings and top-mounted elements

Material	Extruded aluminium
Dimension	125x43 mm
Profile	Multiple parts

Description

Base profile of the guide rail designed to be driving rain-proof with rear sealing profiles and lower end cap, sun and insect protection guide rails designed according to selection, position and number of holes for fastening elements according to requirements for fall protection.

For front mounted venetian blinds

Description

Through-holes in the roller shutter guide rail for frontal fastening of the fall protection in front of the roller shutter guide rail, position and number of holes for fastening elements designed according to the requirement for fall protection.

Surfaces

- Powder-coated aluminium parts in the standard colors without surcharge.
- Special colors according to the brochure "HELLA Color worlds” for a surcharge

Spacer pad for split fall protection

Material	Extruded aluminium
Dimension	45x5 mm
Profile	one-piece

Description

For split fall protection, an extruded aluminium profile in the same surface color is supplied as a spacer for the central fixing.

Fasteners, mounting material

Certified fasteners and mounting material made of A2 stainless steel.

Fall protection

General

The guide rail 125x43 mm enables the beautifully designed integration of the fall protection system of the company ABEL METALLSYSTEME (www.abelsystem.de) in combination with the corresponding sun protection element from HELLA.

The fall protection is available in different variant, offering individual design options:

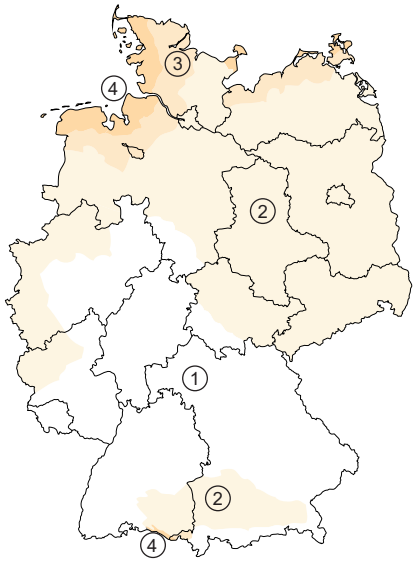
- Glass fall protection with laminated safety glass 10.76 mm, 12.76 mm,17.52 mm, 21.52 mm or 25.52 mm
- Vertical railing fall protection made of steel or aluminium
- Fall protection in bar design to increase the existing parapet height
- Fall protection made of aluminium sheet steel with individual pattern (upon request)

The integrated fall protection is screwed through the guide rail to the window frame, therefore the guide rail has no static function regarding the fall protection.
The general building inspectorate test certificates and the type statics regarding fall protection systems are available in the download area.

To facilitate the installation, boreholes in the window frame should be provided ex works.

The required parapet height can be found in the respective state building codes and must be kept. Glass is not included in the delivery and must be provided by the customer.

The sufficient load-bearing capacity of the existing building components/window frames on-site is a precondition. Multi-part units upon request. According to the ETB Guidelines, tie-bar loads of 1kN/m must be observed for areas accessible to the public; in areas which are not accessible to the public tie-bar loads of 0.5kN/m are sufficient.



Assignment of wind zones as per administrative borders: www.dibt.de

Besides the above mentioned tie-bar loads, fall protection systems made of glass must withstand the occurring wind loads.

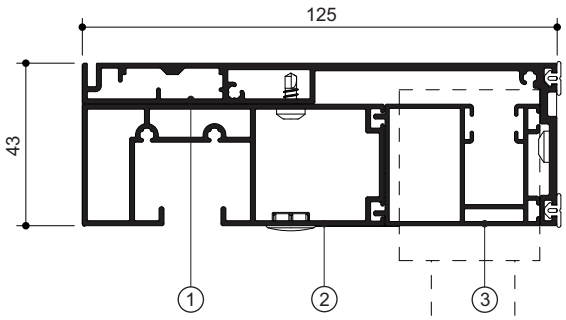
As explained in the chapter wind load, country-specific building regulations exist to determine the respective wind loads.

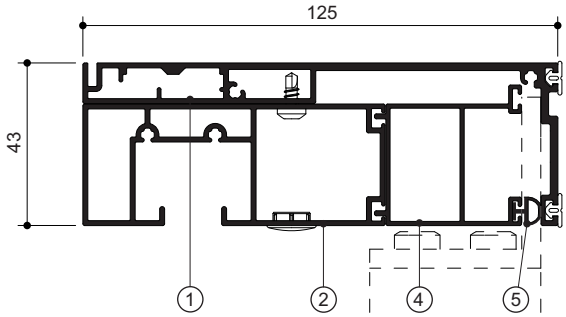
For Germany DIN EN 1991-1-4 applies, which includes the table below (simplified procedure to determine the wind load for building up to a height of 25 m):

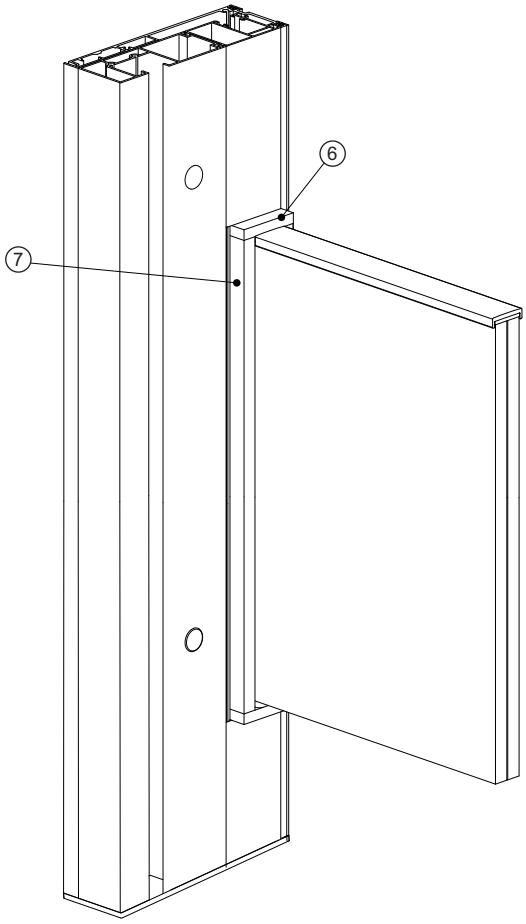
Speed pressure in kN/m²	up to 10 m	10-18 m	18-25 m
Zone 1 Interior land	0.5	0.65	0.75
Zone 2 Interior land	0.65	0.8	0.9
Zone 2 Coasts and Baltic Sea islands	0.85	1	1.1
Zone 3 Interior land	0.8	0.95	1.1
Zone 3 Coasts and Baltic Sea islands	1.05	1.2	1.3
Zone 4 Interior land	0.95	1.15	1.3
Zone 4 Coasts of the North Sea and the Baltic Sea / Baltic Sea islands	1.25	1.4	1.55
Zone 4 Baltic Sea islands	1.4		

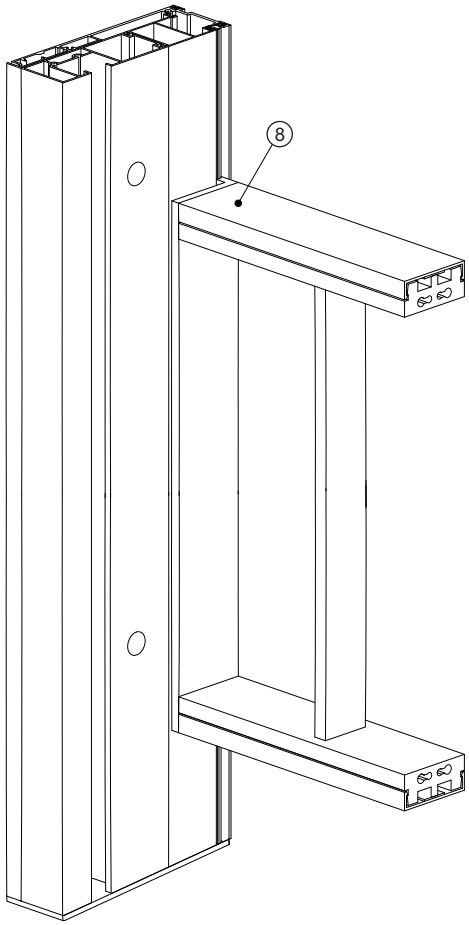
For other countries the values must be requested separately from the local weather services or taken from the window manufacturer!

The guide rail 125x43 mm consists of several profiles, which can be assembled depending on the type of sun protection.





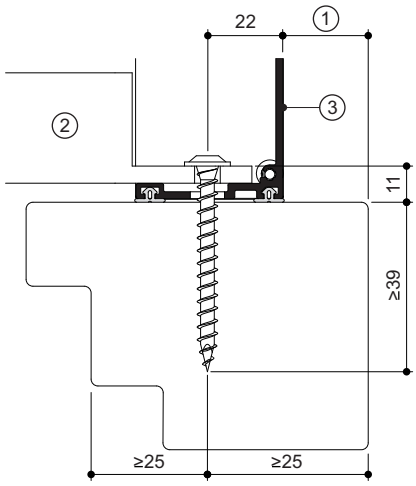




Fall protection

Types of installation

Installation on wood window frame



Screw

80060104 Pan head wood screw with flange 6.0 x 60 mm TX30 blank A2

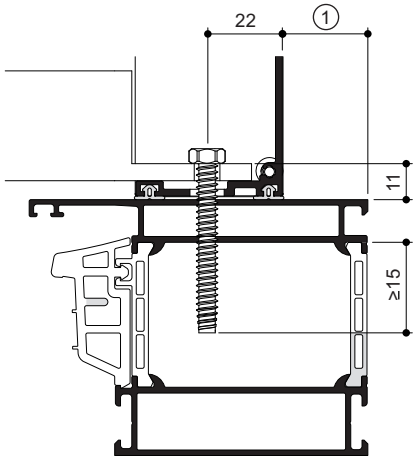
Notes:

- Pre-drill window with ø4 mm
- Extend drill hole in aluminium tray to ø7 mm, may be increased to maximal 10 mm.

Legend

① Offset dimension guide rail 25 mm with RvA
② Fall protection serves as an example
③ Guide rail Basic profile

Installation on aluminium window



Screw

Façade construction screw FABA type BZ SW3/8 blank A2

- Design short: 80160036 6.3x50 mm
- Design long: 80160037 6.3x64 mm

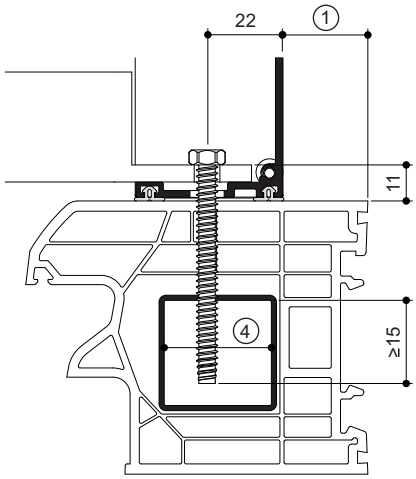
Notes:

- Pre-drill window with ø4.5 mm
- Minimum bar thickness 1x2 mm or 3.2 mm in total
- Tightening torque 5Nm

Legend

① Offset dimension guide rail 25 mm with RvA

Installation in steel core of plastic windows



Screw

Façade construction screw FABA type BZ SW3/8 blank A2

- Design short: 80160036 6.3x50 mm
- Design long: 80160037 6.3x64 mm

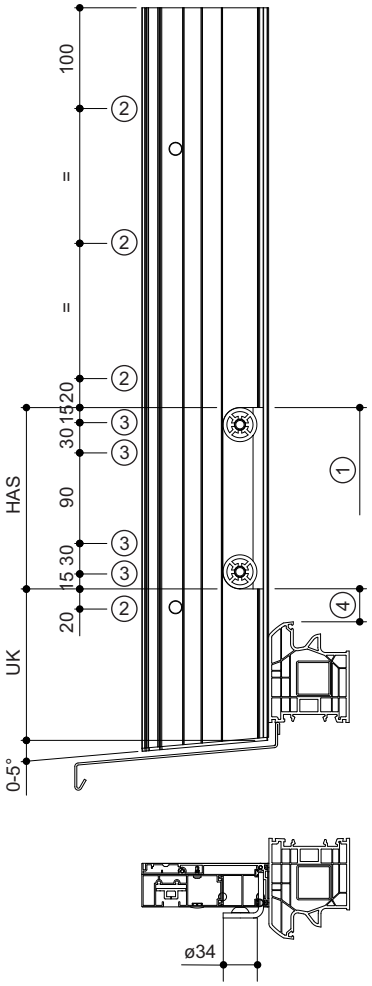
Notes:

- Pre-drill window
  - ø5mm with steel core thickness 1.5-2.4 mm
  - ø5,3mm with steel core thickness 2.5-5.3 mm
  - Extend drill hole in aluminium tray with ø7 mm
- Steel core thickness 1.5- 5.3mm, the steel core must not have any opening or welded joint in the mounting direction
- Tightening torque 5Nm

Legend

① Offset dimension guide rail 25mm with RvA
④ Permissible fixing area in steel core

Type: Bars to increase the existing parapet height

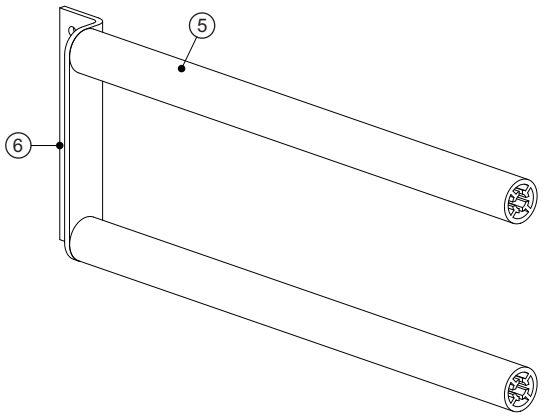


Design

- Aluminium parts screwed with A2-screws and powder-coated
- Maximum width
  - 2400 mm with tie-bar load 0.5kN/m
  - 1700 mm with tie-bar load 1kN/m

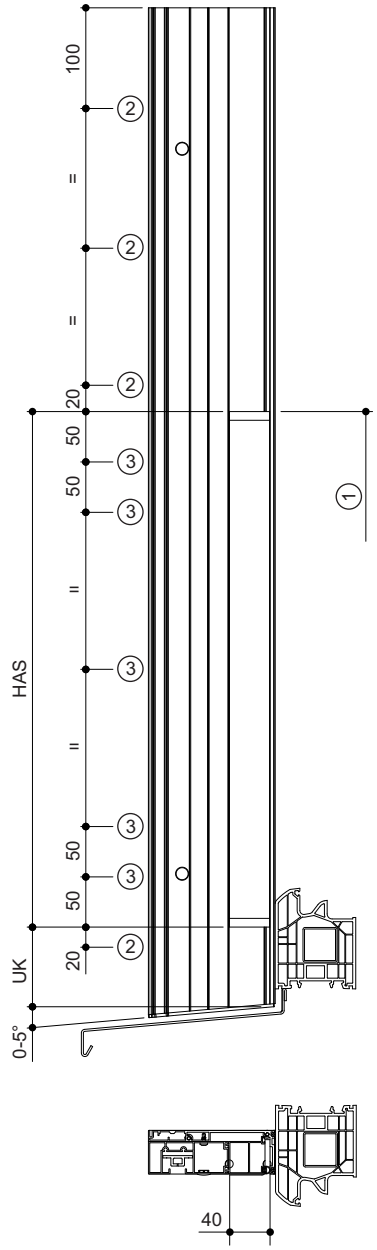
Legend

HAS	Height fall protection 180mm
UK	Position of lower edge of the fall protection 40-200 mm
①	Parapet height as per State Building Code
②	Fastening point guide rail ø5
③	Fastening point fall protection ø10
④	Distance beneath maximal 112 mm
⑤	ø34 mm round tubes extruded
⑥	45x40x5 mm mounting bracket canted with 4 mounting holes ø7.5



Fall protection

Type: Steel grid



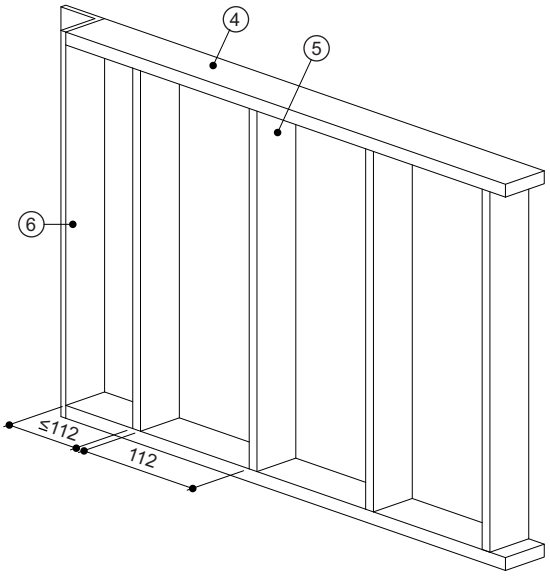
Design

- Steel profiles welded, galvanised and powder-coated
- Maximum width
  - 2500 mm with tie-bar load 0.5kN/m
  - 2000 mm with tie-bar load 1kN/m

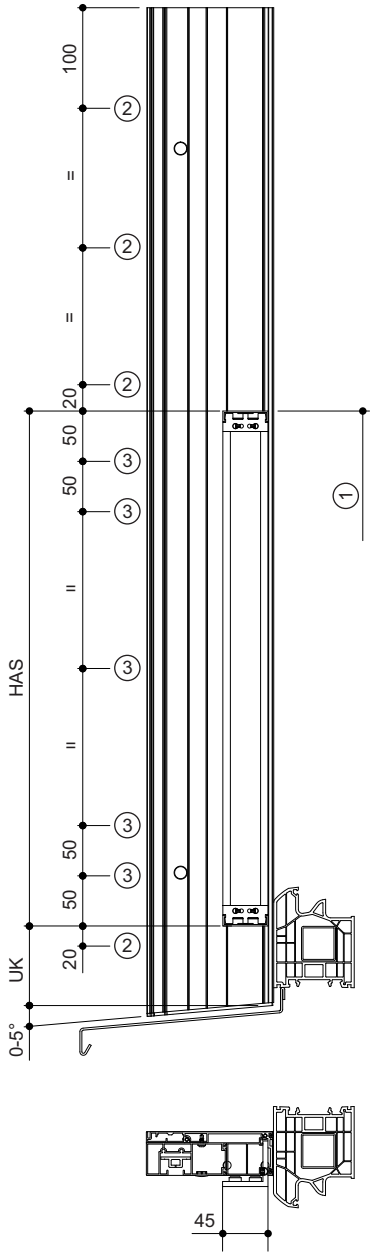
Legend

HAS	Height fall protection 500 500-1200mm
UK	Position of lower edge of the fall protection 40-200 mm
①	Parapet height as per State Building Code
②	Fastening point guide rail ø5
③	Fastening point fall protection ø10
④	40x10 mm flat steel as tie-bar
⑤	40x8 mm flat steel as vertical infill
⑥	40x40x5 mm mounting bracket laterally with 5 mounting holes ø7.5

The lower edge of the grid may only be positioned max. 120 mm above the window frame.



Type: Aluminium grid



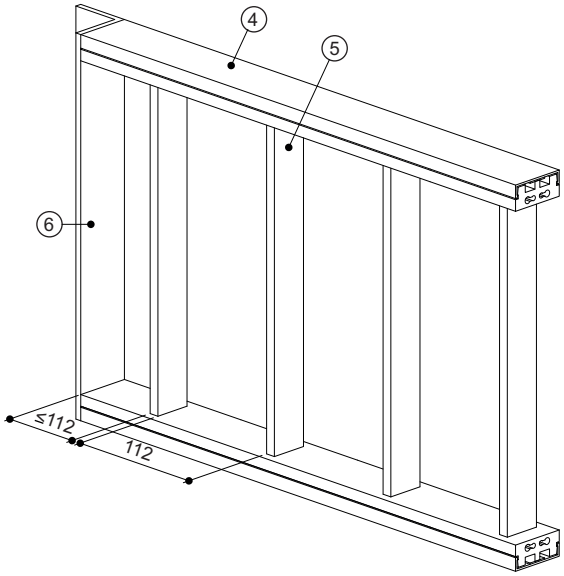
Design

- Aluminium profiles screwed with A2-screws and powder-coated
- Maximum width
  - 2500 mm with tie-bar load 0.5kN/m
  - 1500 mm with tie-bar load 1kN/m

Legend

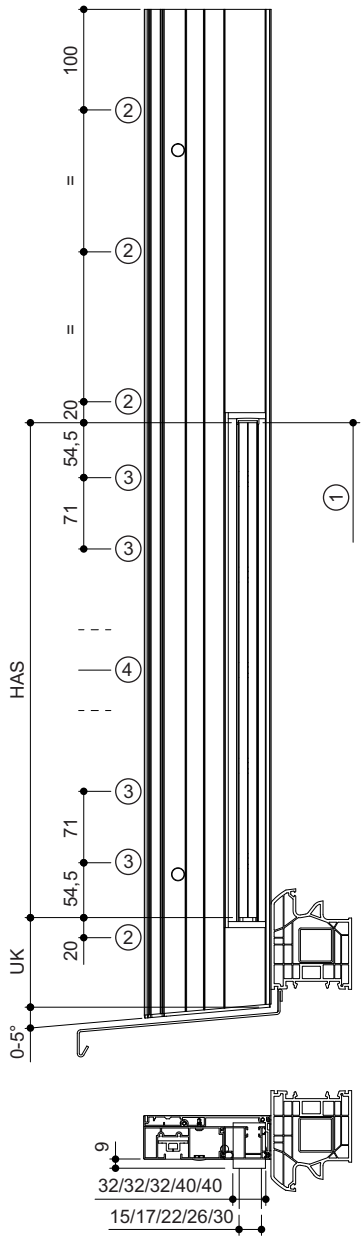
HAS	Height fall protection 500 500-1200mm
UK	Position of lower edge of the fall protection 40-200 mm
①	Parapet height as per State Building Code
②	Fastening point guide rail ø5
③	Fastening point fall protection ø10
④	45x20 mm tie-bars, 2-part, extruded
⑤	30x8 mm infill, extruded
⑥	45x45x5 mm mounting bracket laterally with 5 mounting holes ø7.5

The lower edge of the grid may only be positioned max. 120 mm above the window frame.



Fall protection

Type: Glass fall protection



The lower edge of the glass may only be positioned max. 112 mm above the window frame. If the distance between the lower edge of the glass and the window frame exceeds 30 mm, a glass edge protection for the bottom side must be ordered as well.

Integrable thickness of the laminated safety glass VSG

- VSG10: 10.76 mm (2x5 mm ESG; 0.76 mm PVB - foil)
- VSG12: 12.76 mm (2x6 mm ESG; 0.76 mm PVB - foil)
- VSG16: 17.52 mm (2x8 mm ESG; 1.52 mm PVB - foil)
- VSG20: 21.52 mm (2x10 mm ESG; 1.52 mm PVB - foil)
- VSG24: 25.52 mm (2x12 mm ESG; 1.52 mm PVB - foil)

Legend

HAS Height of the fall protection (glass height)

- 700-1200 mm with VSG10 and VSG12
- 500-1200 mm with VSG16
- 300-1200 mm with VSG20
- 200-1200 mm with VSG24

UK Position of lower edge of the fall protection 40-200 mm

① Parapet height as per State Building Code

② Fastening point guide rail ø5

③ Fastening point fall protection ø10

④ Fastening point fall protection ø10

- 1x centred with HAS up to 1068 mm
- 2x centred with HAS from 1069 mm

⑤ Glass holder for VSG10/12/16/20/24 with end caps and 5 - 6 mounting holes ø7.5

⑥ Clamping strip with countersunk holes

⑦ Countersunk screw M8x25 for clamping strip

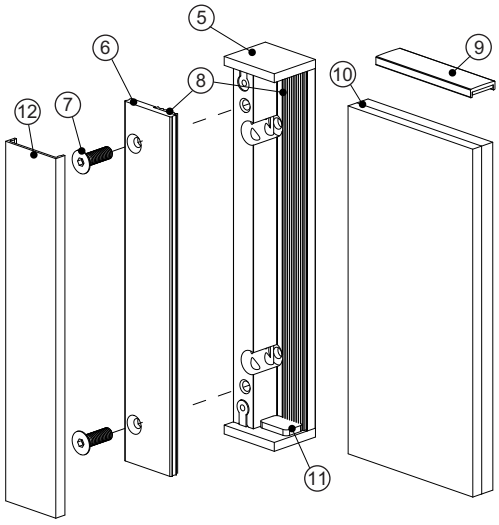
⑧ Glazing rubber

⑨ Glass edge protection C0 self-adhesive

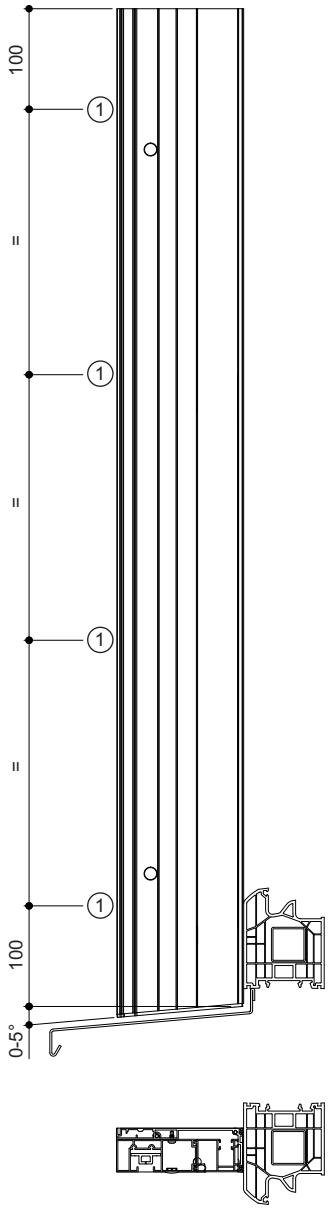
⑩ VSG10/12/16/20/24 (not included in the delivery)

⑪ Rubber pad

⑫ Cover bar



Type: Guide rail 125x43 mm without fall protection



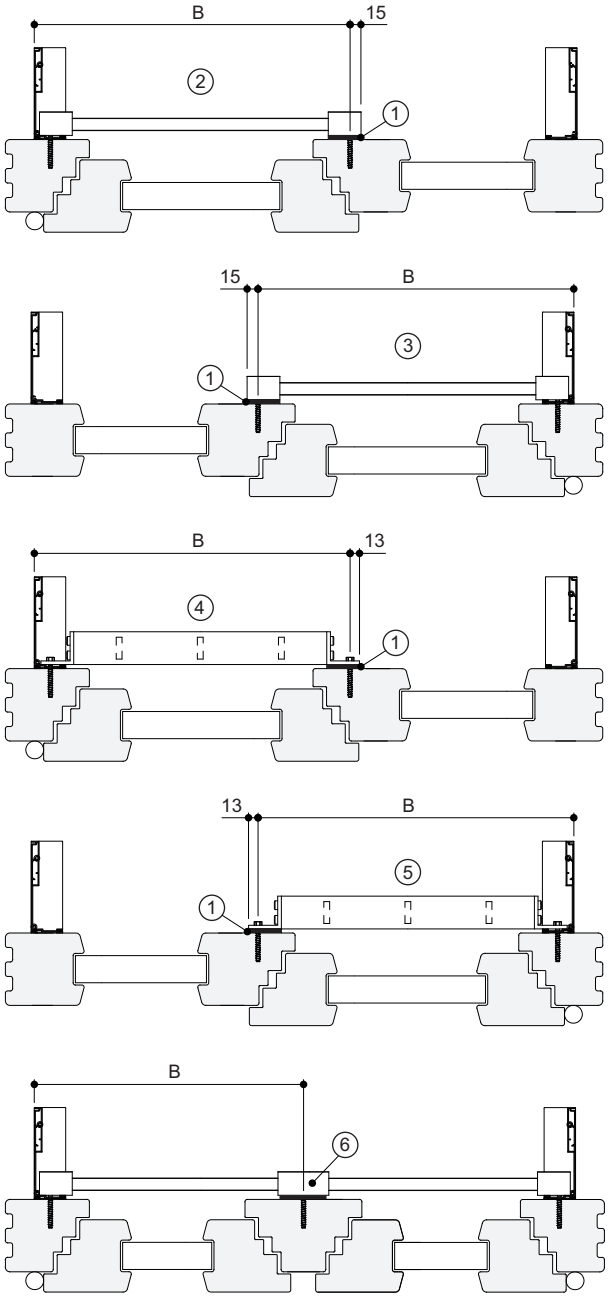
To ensure an homogeneous visual appearance, the guide rail 125x43 mm can optionally be ordered without fall protection.

Legend

① Fastening point guide rail ø5

Fall protection

Type: Safety barrier divided



In the case of floor-to-ceiling windows with fixed glazing on the side, it is possible to make the fall protection smaller than the sun protection.

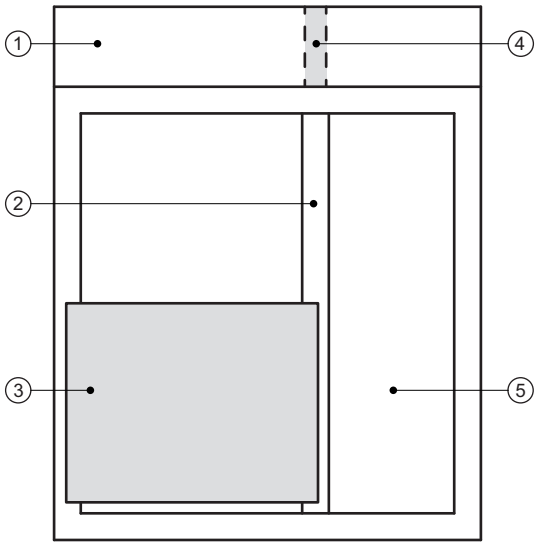
In case of a split fall protection no insect roller screen is possible.

Legend

B	Width of the fall protection (outer edge guide rail FUP125 until middle screw point)
①	Flat aluminium as 5mm spacer basis
②	Glass fall protection split on the left side
③	Glass fall protection split on the right side
④	Vertical railing fall protection split on the left side
⑤	Vertical railing fall protection split on the right side
⑥	Double glass holder for two-piece glass fall protection 10.76/12.76/17.52

Note:

With split units, the load transfer of the fall protection is provided via the lateral window frame profiles and the middle transom. Consequently, the middle transom and its connections towards the window frame must bear the static substitute load of 2.8 kN (as required by the ETB guideline) and must be able to transfer it via the fastening elements into the brickwork.



In the case of top-mounted elements with split fall protection, the load of the fall protection is transferred via the centre transom at the top into the window frame and via the static bracket into the mounting base.

The static bracket is therefore one of the fastening elements of the fall protection, which must withstand a load of 2.8kN according to the ETB guideline. A corresponding test certificate of the RvA static bracket confirms the sufficient stability.

An additional static bracket must therefore be positioned on the transom or directly next to it.

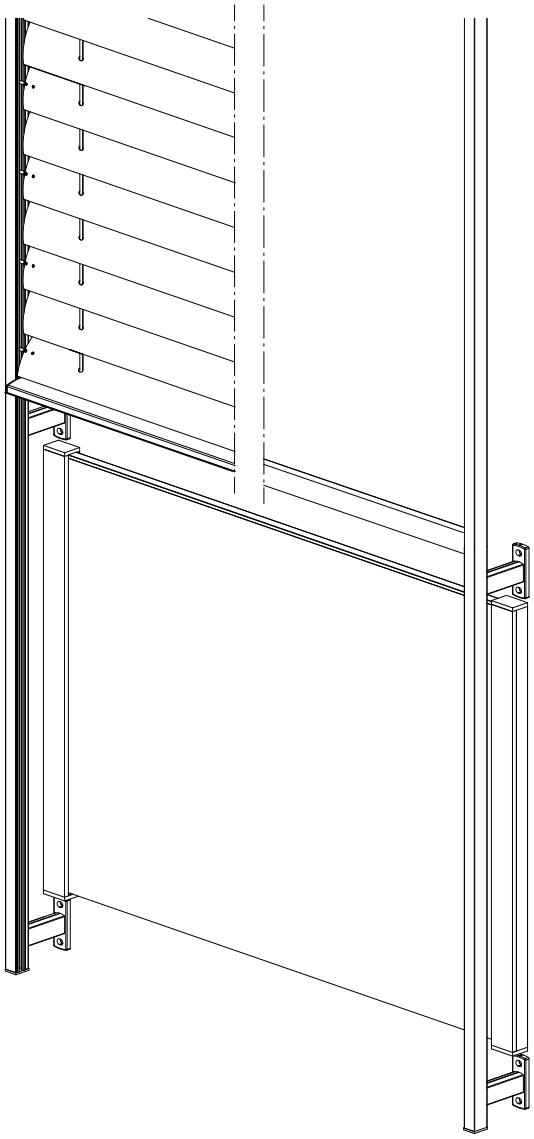
Legend

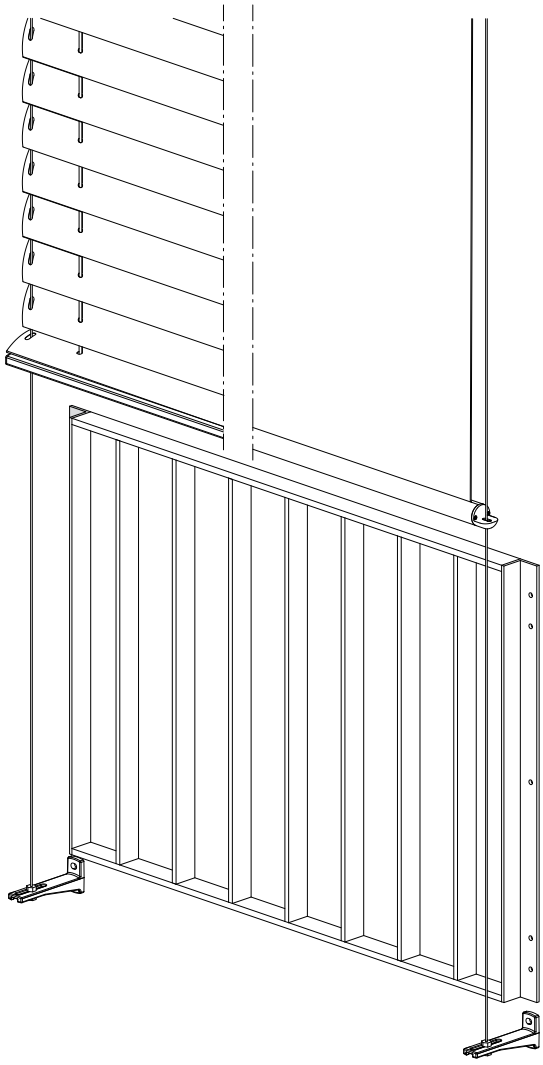
① Top-mounted box
② Middle transom
③ Fall protection in the area of window sash
④ Static console for load suspension from the centre transom
⑤ Fixed glazing without the need for fall protection

Fall protection

Type: Fall protection without FUP125

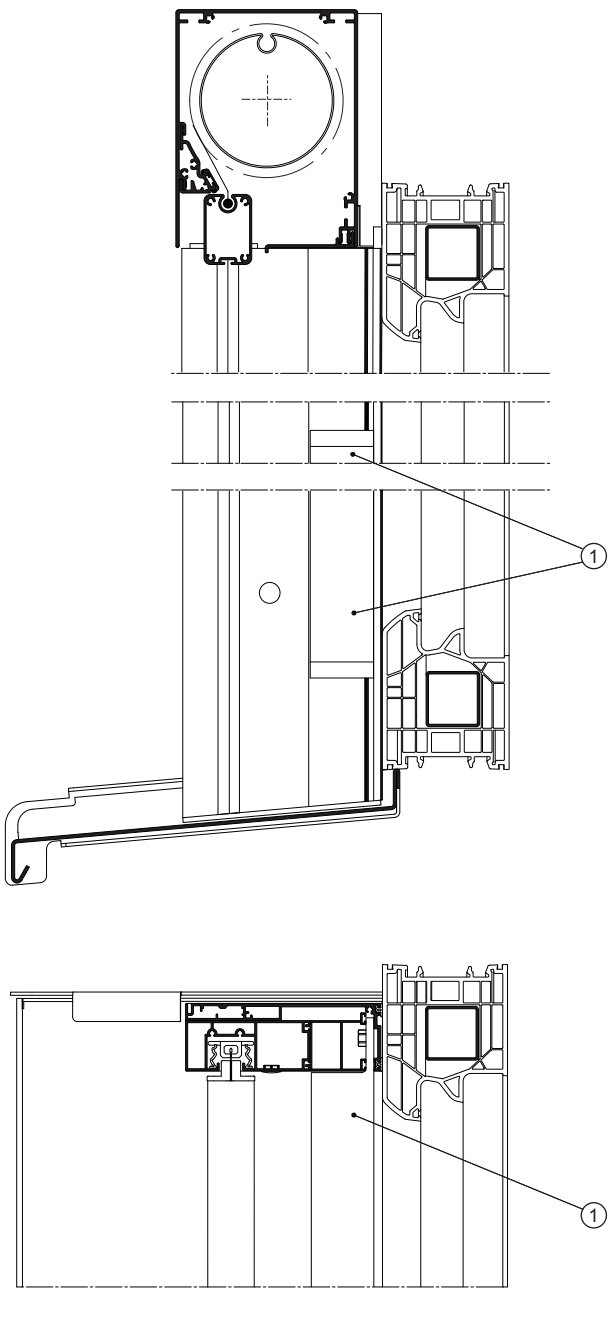
With outdoor blinds and vertical awnings with cable tensioning or guide rails, it is possible to create space for the fall protection being positioned behind by increasing the so-called A-dimension.



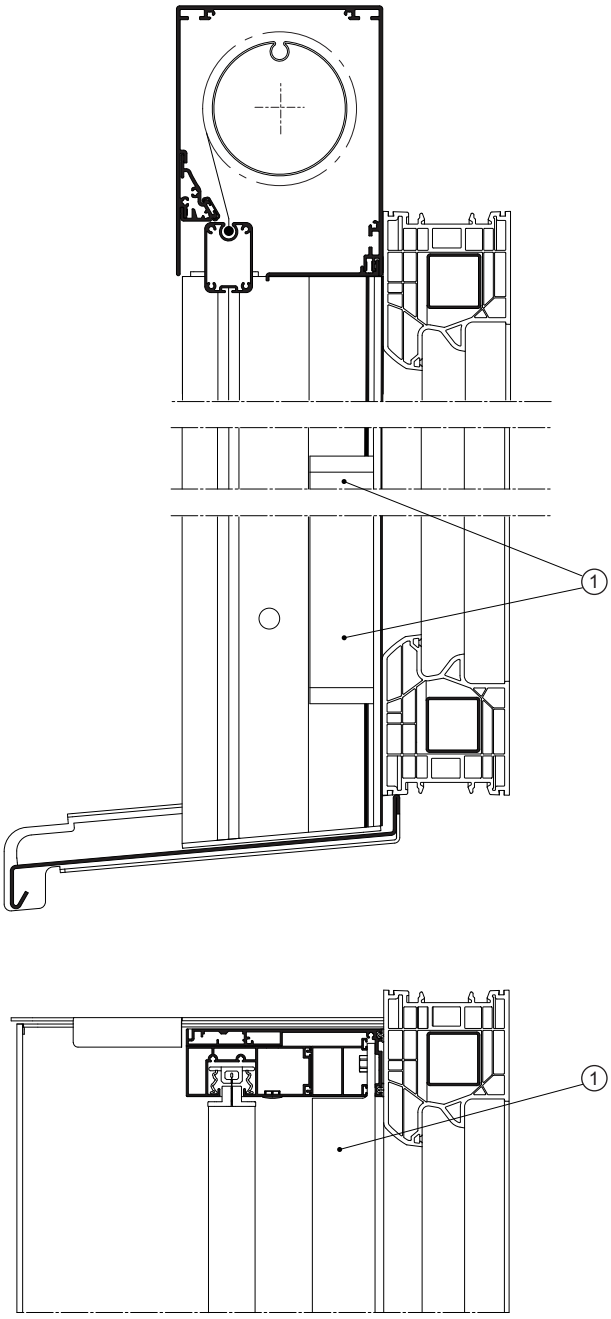


Front-mounted awnings protect

Box size E115



Box size E130



Legend

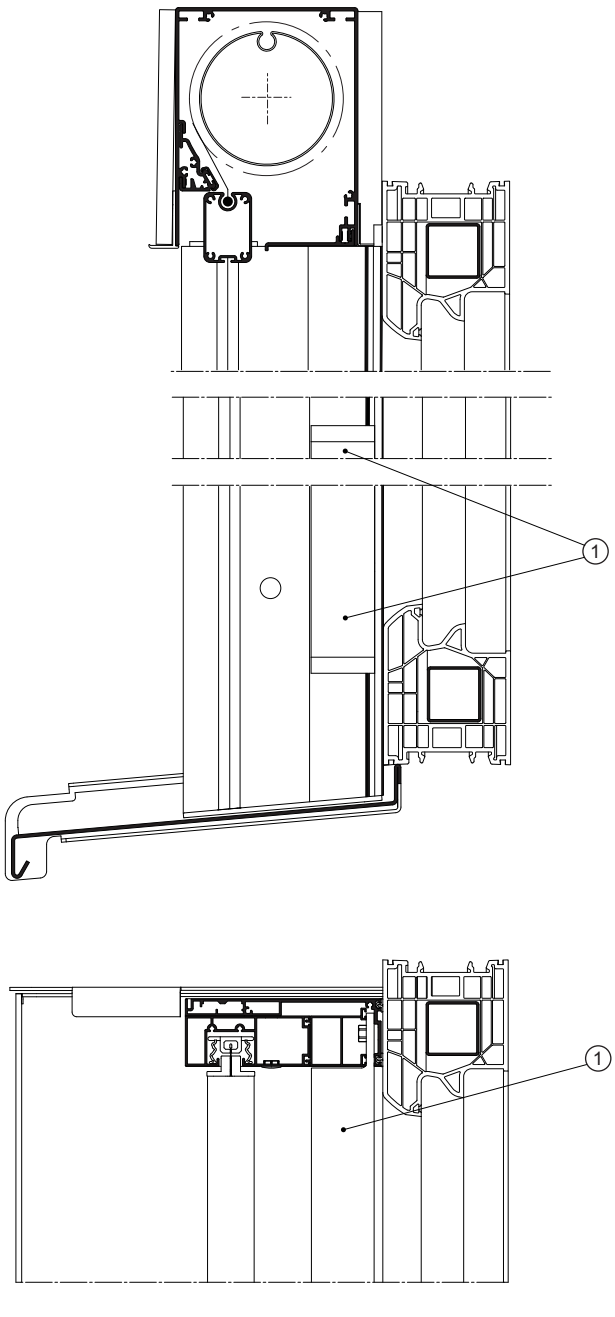
① Fall protection

- VM07 as right roller only possible with E115 or E130
- E115 always with insulation at the rear side
- E130 without insulation at the rear side

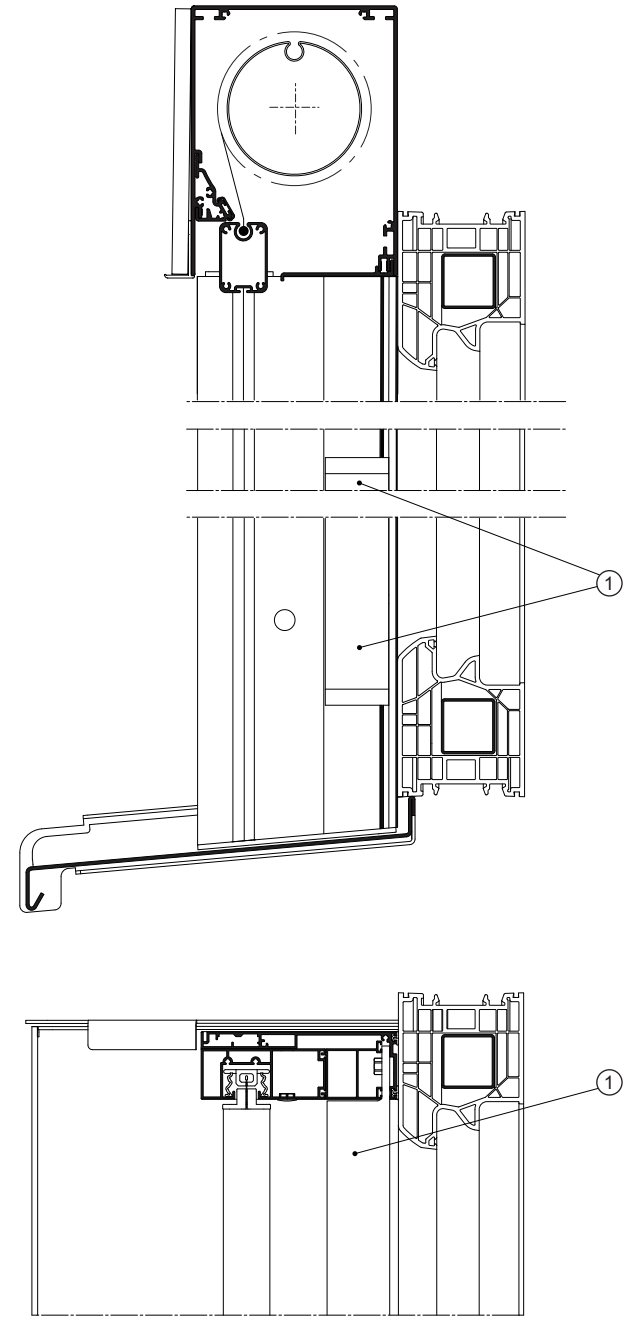
Fall protection

Concealed awnings

Box size E115



Box size E130



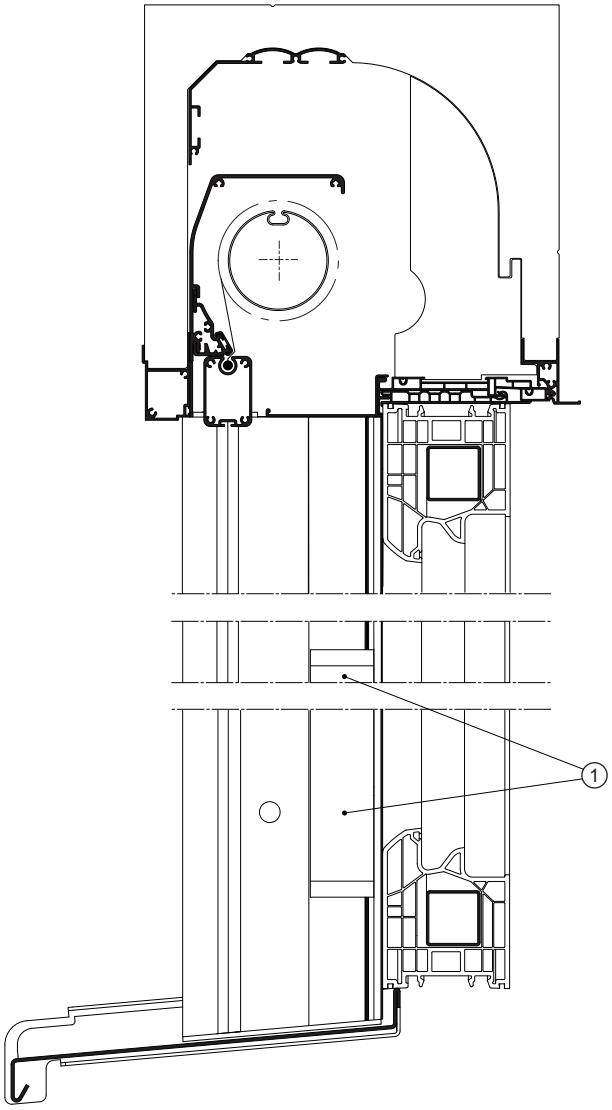
Legend

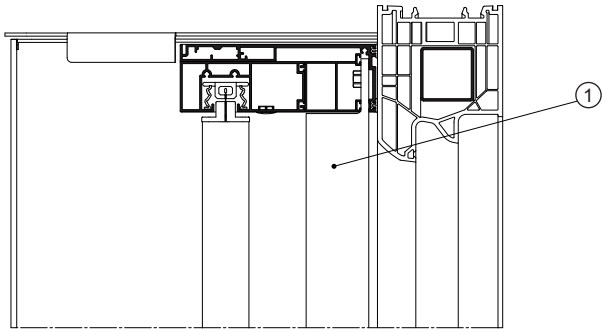
① Fall protection

- VM07 as right roller only possible with E115 or E130
- E115 always with insulation at the rear side
- E130 without insulation at the rear side

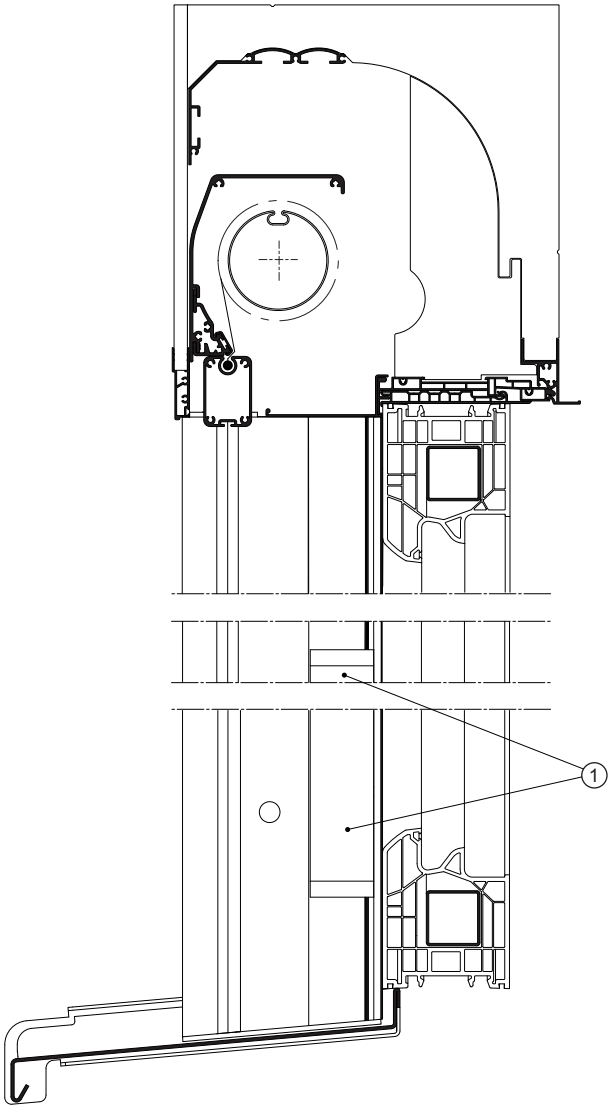
TOP FOAM screen protect

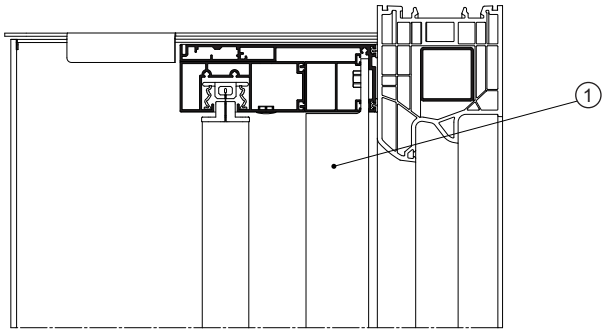
Box size 250





Box size 300





Legend

① Fall protection

- VM07 as right roller only possible with E115 or E130
- E115 always with insulation at the rear side
- E130 without insulation at the rear side

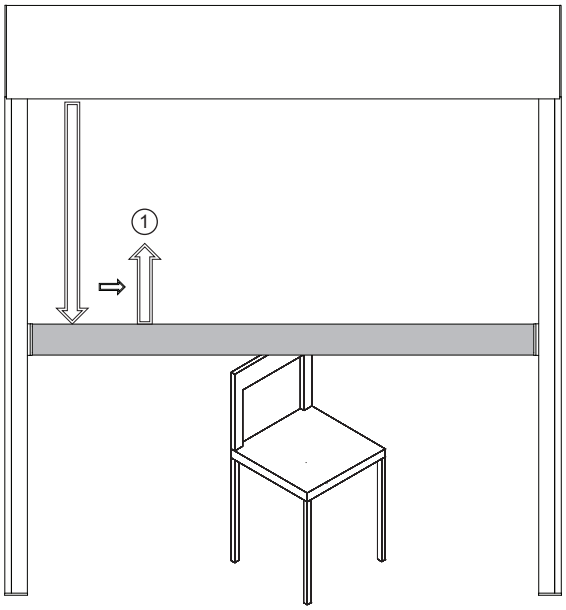
CONTROL DEVICES ACCESSORIES

Functionality obstacle detection

Motor drive

Operating principle Somfy Maestria+ 50 io

Obstacle detection in **down direction**:

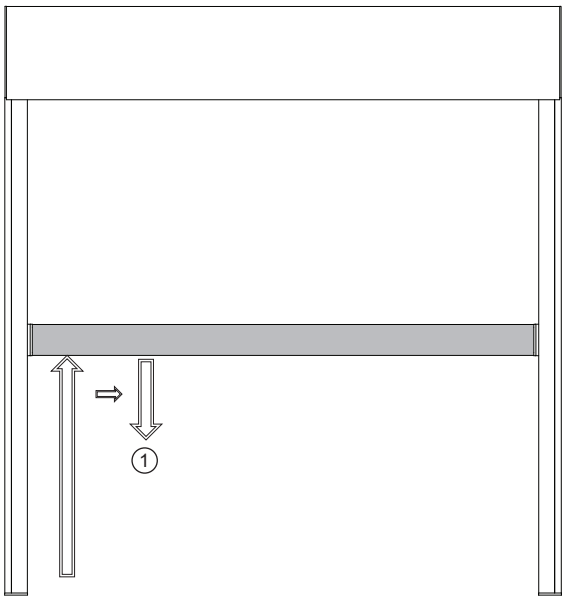


- System moves downwards
- Obstacle
- Unit stops and moves back half a drive rotation in order to relieve the obstacle
- Unit remains in this position

Notes:

- The obstacle detection is active during the entire downward movement.
- If the lower end position is set too low, it is treated like an obstacle.

Blocking detection in **Up direction**:



- System moves up
- Obstacle
- System stops and relieves load
- System remains in this position

Notes:

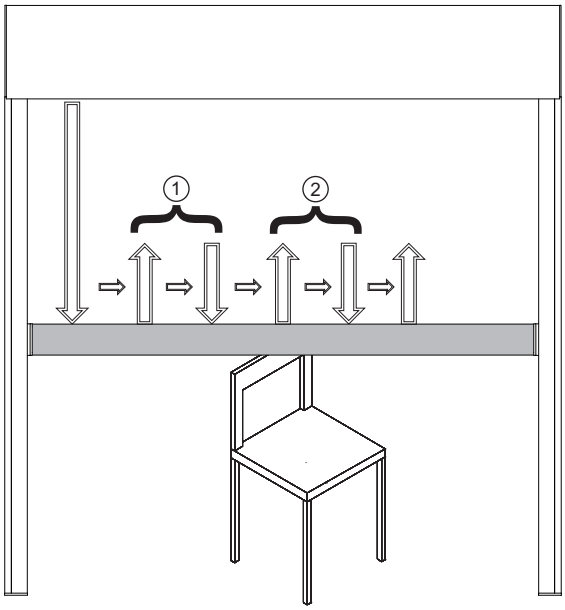
- A direct Up command is not admissible after that.
- The obstacle detection is active during the entire upward movement.

Legend

① STOP

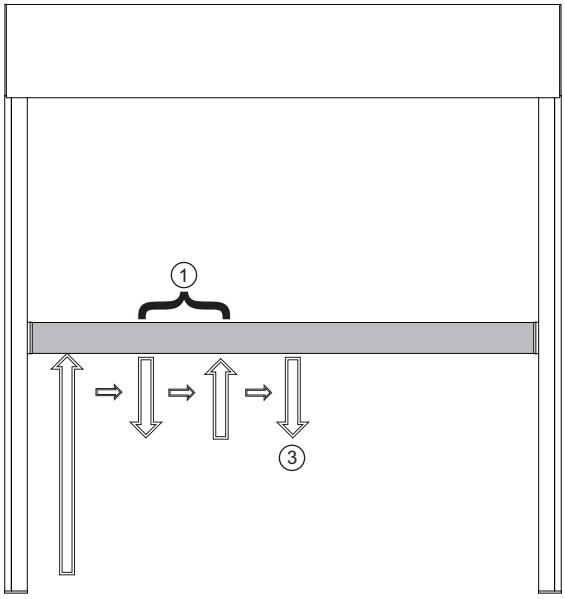
Operating principle of HELLA drives

Obstacle detection in the **Down direction** (if the obstacle remains in place):



- System moves downwards
- Obstacle
- System stops and slightly moves back
- System moves down again
- Obstacle still present
- System stops and slightly moves back
- System moves down again
- Obstacle still present
- System stops and slightly moves back

Blocking detection in the **Up direction** (if the obstacle remains in place):



- Unit moves up
- Obstacle
- System stops and slightly moves back
- Unit moves up again
- Obstacle still present
- System stops and slightly moves back
- Unit remains in this position

Legend

① 1st repetition
② 2nd repetition
③ STOP

Radio system HELLA ONYX SMART HOME

The ONYX.HOME control system was specially developed for the operation of sun protection products. Outdoor blinds/Venetian blinds, awnings, over-/under-glass awnings, roller shutters, interior blinds, vertical awnings and pergolas are conveniently controlled via smart phone, tablet or an automatic system. The sun protection products can of course also be operated using conventional buttons or hand-held radio/wall-mounted radio transmitters.
All shading elements are displayed graphically in the free ONYX app. The position of the sun protection is already visible during control. All products can be visually marked with colors in the app. Each individual blind can be assigned a name to simplify identification and operation.
The ONYX SMART HOME system works either in standalone mode – with the ONYX.CLICK hand-held radio transmitter or ONYX.SWITCH wall-mounted radio transmitter – or via the Smart Home controller with the ONYX.CENTER center box. Only if ONYX.CENTER is used can all shading elements be controlled via the free ONYX app.

Stand-Alone System

- Easy configuration
- Live feedback at the hand-held radio transmitter
- Automatic functions individually adjustable for each shading element (wind/sun/rain)
- Automatic sun control on/off by a button combination on the radio hand-held or wall-mounted radio transmitter

Smart Home

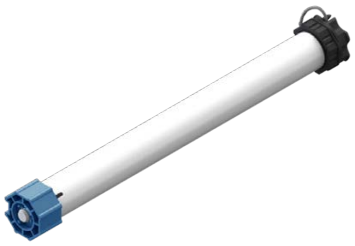
- Easy configuration
- Live feedback on position and movement of the shading element via the app
- Automatic functions individually adjustable for each shading element (wind/sun/rain/time)
- Remote access via the smart phone app
- Security through transparent access control
- Support for Alexa voice control from Amazon, and compatible with Google Assistant and IFTTT
- Updateable (updates several times a year with new functions)
- Routing capability (radio commands are transmitted by the individual devices to increase the range)

ONYX motor

Development continues with a series of wireless motors for the ONYX system. Following on from a roller shutter motor, we can now present a range of different motors for almost every HELLA product group and torque. This means that it is now possible to fit just about any HELLA product with an ONYX motor at the factory.

Advantages

- Optimal matching of ONYX motors to all HELLA products.
- Some locations are more suitable and practical than others for mounting smart plugs. Wireless motors have an edge here, because the wireless system is integrated into the motor electronics.
- Plug&Play for roller shutters.
- All settings (such as the end positions, for example) can be configured using the ONYX App.
- All motors have plug-in cables for easier installation.



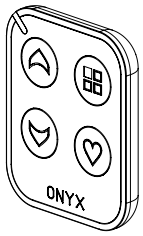
Comfort

- Very quiet operation in all situations.
- Configuration using the ONYX App: All settings can be configured easily in the app.

Safety

- Intelligent obstacle detection: reliably detects obstacles and adapts to the conditions.
- Encryption in the ONYX system.
- Blind length compensation: The drive detects and adjusts for stretching of the blind automatically.

Radio transmitter

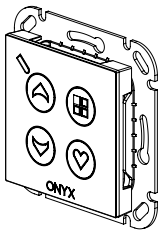


Hand-held radio transmitter ONYX.CLICK

to control one or more ONYX control device(s), with 5 channels, 5 devices per channel at a maximum; with ONYX.CENTER the number of devices per channel is not limited

Length x width x height: 56x45x10,8 mm

50680501



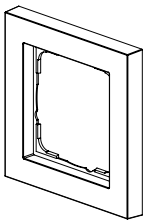
Wall-mounted radio transmitter ONYX.SWITCH

to control one or more ONYX control devices, with 5 channels, 5 devices per channel at a maximum; with ONYX.CENTER the number of devices per channel is not limited, without frame, compatible with all standard 55 frames

Length x width x height: 55x55x9,5 mm

50680601

Accessories

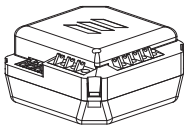


Plastic frame

suitable for ONYX.SWITCH wall-mounted radio transmitter , pure white, grey or black

05140130

Receiver

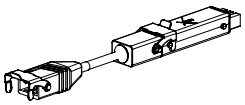


Control device ONYX.NODE

is controlled via radio with hand-held radio transmitters and wall-mounted radio transmitters and/or Gateway only suitable for the interior, connecting a pushbutton is possible, necessary per drive

Length x width x height: 49x49x24,5 mm

50680002



Adapter plug ONYX.CONNECTOR

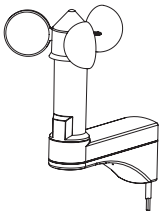
is plugged between the power supply and the motor; is controlled via radio with hand-held radio transmitters and wall-mounted radio transmitters and/or Gateway, suitable for the exterior, necessary per drive

Length x width x height: Dimension 132x29x24 mm

50680302

Radio system HELLA ONYX SMART HOME

Sensors

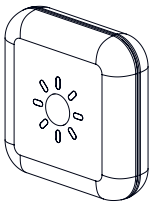


Wind/sun sensor ONYX.WEATHER

Weather sensor with wind and sun sensor; controls the entire sun protection unit automatically and weather-dependent

Length x width x height: Dimension 180x100x180 mm

50680202

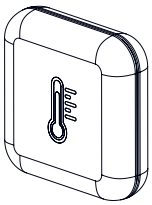


Brightness sensor ONYX.TAG sun

Radio, sun and brightness sensor, controls the entire sun protection system automatically and depending on the brightness, black

Length x width x height: Dimension 40x40x12 mm

50680711

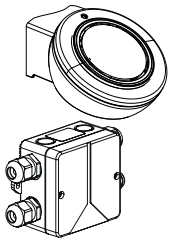


Temperature sensor ONYX.TAG temperature

Radio, temperature and humidity sensor, controls the entire sun protection system automatically and depending on the temperature, black

Length x width x height: Dimension 40x40x12 mm

50680721



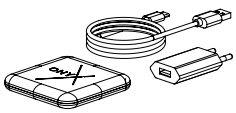
ONYX control unit with rain sensor

ONYX control unit (in surface box), controls the entire sun protection systems automatically and depending on precipitation, incl. external precipitation sensor with 2.5m cable, incl. mounting material (2 fillister head screws 4x35 mm + 2 dowel SX6)

Length x width x height of the control unit: Dimension 157x94x57 mm
Length x width x height of the precipitation sensor: Dimension 115x100x85 mm

05200114

Central controls



Gateway ONYX.CENTER

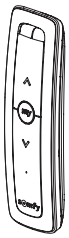
serves as interface between the smart phone and the individual control devices, forwards radio commands bi-directionally, also in combination with all other ONYX hand-held radio transmitters/wall-mounted radio transmitters

Length x width x height: 78x78x13.6 mm

50680103

Radio system io – Somfy

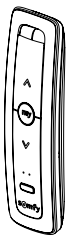
Radio transmitter



Hand-held radio transmitter Situo 1 io II

to manually activate one or more io-products (io-drives or io-radio receivers) at the same time, 1-channel hand-held radio transmitter, unidirectional, pure, iron, natural or arctic

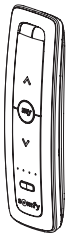
05140101



Hand-held radio transmitter Situo 1 A/M io II

to manually activate one or more io-products (io-drives or io-radio receivers) at the same time, switching on/off the automatic control, 1-channel hand-held radio transmitter, unidirectional, pure

05140127_PURE



Hand-held radio transmitter Situo 5 io II

to manually activate up to 5 io-products (io-drives or io-radio receivers) at the same time or individually, 5-channel hand-held radio transmitter, unidirectional, pure, iron, natural or arctic

05140102



Hand-held radio transmitter Situo 5 Variation A/M io II

to manually activate up to 5 io-products (io-drives or io-radio receivers) at the same time or individually, 5-channel hand-held radio transmitter, with scroll wheel, switching on and off of the automatic control for all channels, unidirectional, pure or iron

05140104



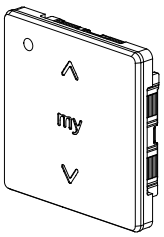
Ysia 16 Patio io hand-held radio transmitter

for the manual control of up to 16 io products (io drives or io wireless receivers) simultaneously or individually, 16-channel hand-held radio transmitter , with scroll wheel, Automatic mode on/off for all channels, two-way, anthracite

05140133

Note:

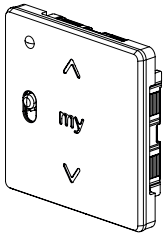
For further color options see price list “Control devices”.



Wall-mounted radio transmitter Smoove 1 IN io

manual control of one io radio drive/io radio receiver or multiple io radio drives/io radio receivers simultaneously by radio, without frame

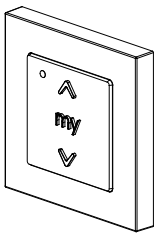
05140056_PURE Pure



Wall-mounted radio transmitter Smoove A/M IN io Pure Shine

manual control of one io radio drive/io radio receiver or multiple io radio drives/io radio receivers simultaneously by radio, switch for turning the automatic mode on/off, without frame

05140065_PURE Pure

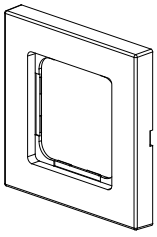


Wall-mounted radio transmitter Smoove Origin io

to manually activate one or more io-products (io-drives or io-radio receivers) at the same time, with frame, unidirectional, pure

05140052_PURE

Accessories



Frame for switch programme Smoove

suitable for all Smoove products, pure, silver matt, black

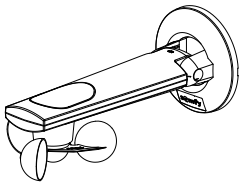
05140057

Note:
For further color options see price list “Control devices”.

Radio system io – Somfy

Receiver

Sensors

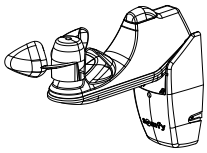


Radio-controlled wind sensor Eolis WireFree io

automatic (wind dependent) control of one drive or multiple drives via radio, battery-powered

Width x height: Dimension 216x95 mm

05200030

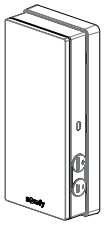


Radio-controlled wind sensor Eolis io 230V, rain option

automatic (wind dependent and optionally rain dependent) control of one or more io-drives and io-receivers per radio, rain sensor only in combination with Ondeis 230 V AC, grey

Width x height: Dimension 236x160 mm

05200009



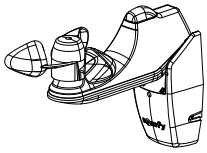
Sunteis solar-operated wireless sensor for sun and outside temperature

automatic (brightness dependent) wireless control of one or more drives, solar-operated

Note:
Automatic mode can be switched on and off using the A/M slide switch on the hand-held radio or wall-mounted radio transmitter .
Temperature control can only be realised in combination with Tahoma Switch!

Length x width x height: Dimension 78 x 78 x 37 mm

05200096



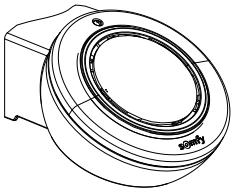
Soliris io 230 V wireless wind/sun sensor, rain option

automatic (wind dependent, brightness dependent and, optionally, rain dependent) wireless control of one or more io drives and io receivers (rain detection only in combination with Ondeis), 230 V AC, grey
Also compatible with Sunea 40 Solar io solar plug-in drive from Version D.

Width x height: Dimension 236 x 160 mm

05200113

Sensors

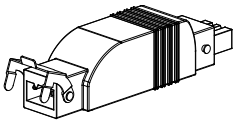


Precipitation sensor Ondeis 230 V AC

Sensor for precipitation, can be used in combination with Eolis io 230 V, Soliris io 230 V, and Soliris Smoove

Length x width x height: Dimension 115x100x85 mm

05200035



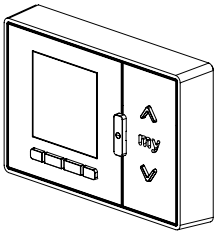
Radio receiver Screen Slim Receiver io

io radio receiver/transmitter (as adapter plug) for the io-activation of a drive, black

Length x width x height: Dimension 115x32x33 mm

05140034

Central controls



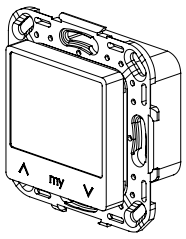
Radio-controlled timer switch Chronis io

Automatic (time dependent) and manual control of multiple io radio drives/io radio receivers in one channel with up to 4 time commands per day

05200090

Wired control components – Somfy

Switch

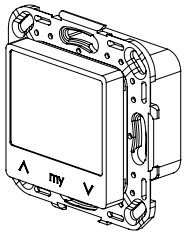


Programme time switch Chronis Smoove Uno S Pure with brightness control

Programme time switch with sun and automatic twilight function, automatic and manual control of one drive, without frame, pure

Compatible with radio-controlled sun sensor Sunis WireFree II io.

05200098_PURE

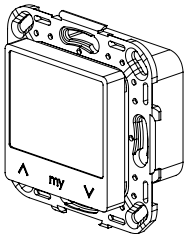


Programme timer switch Chronis Smoove Uno IB+ with brightness control

Programme time switch with sun and automatic twilight function, automatic and manual control of several drives, a Smoove Uno IB+ single drive control device is additionally required per drive, without frame, pure

Compatible with radio-controlled sun sensor Sunis WireFree II io.

05200099_PURE

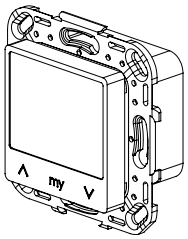


Programme timer Soliris Smoove Uno

Programme time switch with wind/sun and rain automatic, automatic and manual control of one drive, without frame, pure

Compatible with wind/sun sensor Soliris and rain sensor Ondeis.

05200101_PURE

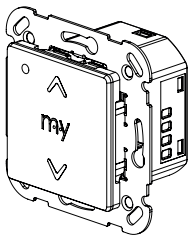


Programme timer Soliris Smoove IB+

Programme time switch with wind, sun and rain automatic, automatic and manual control of several drives, a Smoove Uno IB+ single drive control device is additionally required per drive, without frame, pure

Compatible with wind/sun sensor Soliris and rain sensor Ondeis.

05200103_PURE



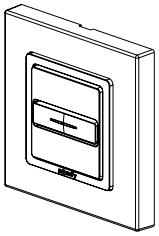
Single drive control device Smoove Uno IB+ without frame

for manual control of a 230V drive for roller shutters, textile shading systems and Venetian blinds, without frame

05140083_PURE Pure

Note:

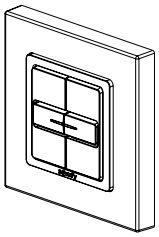
For further color options see price list “Control devices”.



Switch Smoove Uno with frame

Switch Smoove Uno, for the direct activation of a motor, with frame, white

05120020

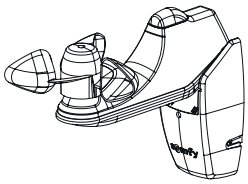


Switch Smoove Duo with frame

Switch Smoove Duo, for the direct activation of two motors, with frame, white

05120021

Sensors



Wind/sun sensor Soliris

Wind/sun sensor for Soliris Smoove Uno Pure and Soliris Smoove IB+, without cable, pure

Width x height: Dimension 236x160 mm

EL040603

Solar package

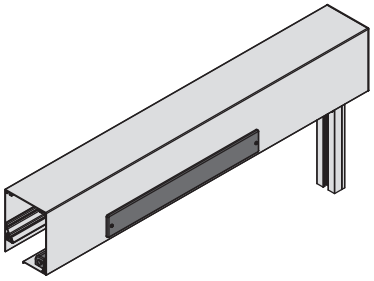
Radio system io – Somfy

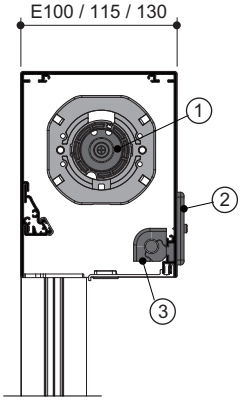
Description of the solar package:

The solar package consists of a solar panel, the battery and the Sunea io solar drive.
The radio remote control is not included in the package and has to be ordered separately.

Legend

① Sunea Solar Motor
② Solar panel
③ Battery





Limit sizes

KG	Drive system	Max. surface [m²]	Min. width [mm]	max. width [mm]	max. height [mm]
E100	Somfy Sunea io Solar	9	700	3000	3000
E115 E130	Somfy Sunea io Solar	10,5		3000	3500

Product definition and notes:

- Available for boxes E100/115/130 in model VM07.
- Minimum width: 700mm
- Solar panel (500 mm wide) is always pre-assembled on the front side of the box at the factory.
- Battery installed behind the box front panel below the roller tube.
- The drive and solar panel are always installed on the left side, when viewed from the inside.
- Motor Somfy Sunea io Solar 6 Nm or 10 Nm up to maximum area of 10.5 m^2.
- Detection of obstacles in the up direction via torque detection, in the down direction with freewheel driver.
- Hand-held radio transmitter not included in the package, all io hand-held and wall-mounted radio transmitters compatible.
- Compatible io wind/sun sensor available.

Note:

Before commissioning, the motor must be connected to the Y-cable of the solar panel/battery. The inspection cover must be removed for this.

EVERYTHING FROM A SINGLE SOURCE

Thanks to its innovative strength, HELLA is a full service provider and offers a broad portfolio of customised sun protection solutions. Premium quality is the benchmark here. Be it refitting, refurbishment or new construction – HELLA has the right solution for every building project!

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Window & Façade



Build & Renovate



Control devices



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