

Technical data

Window awnings



Der SonnenLichtManager

Valid from 01.03.2017

Solflex AB försäljning och service västra Skåne. Showroom och rådgivning;
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General information

Technical data, valid from 01.03.2017.

The publication of this document supersedes all previous corresponding documents.

Our general terms and conditions (GTC) can be viewed and downloaded on our homepage at <http://www.warema.com/gtc>.

We reserve the right to make changes in the interest of technical progress. Particular care was taken in producing the text and graphics in this documentation. In spite of this, we cannot accept liability for any existing (printing) errors, mistakes or the consequences thereof.

Our products are individual or made-to-measure items and therefore cannot be exchanged or returned.

Safety instructions

Please see detailed information in the technical data or in the installation and operating instructions.

Legal details

WAREMA International GmbH
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Germany

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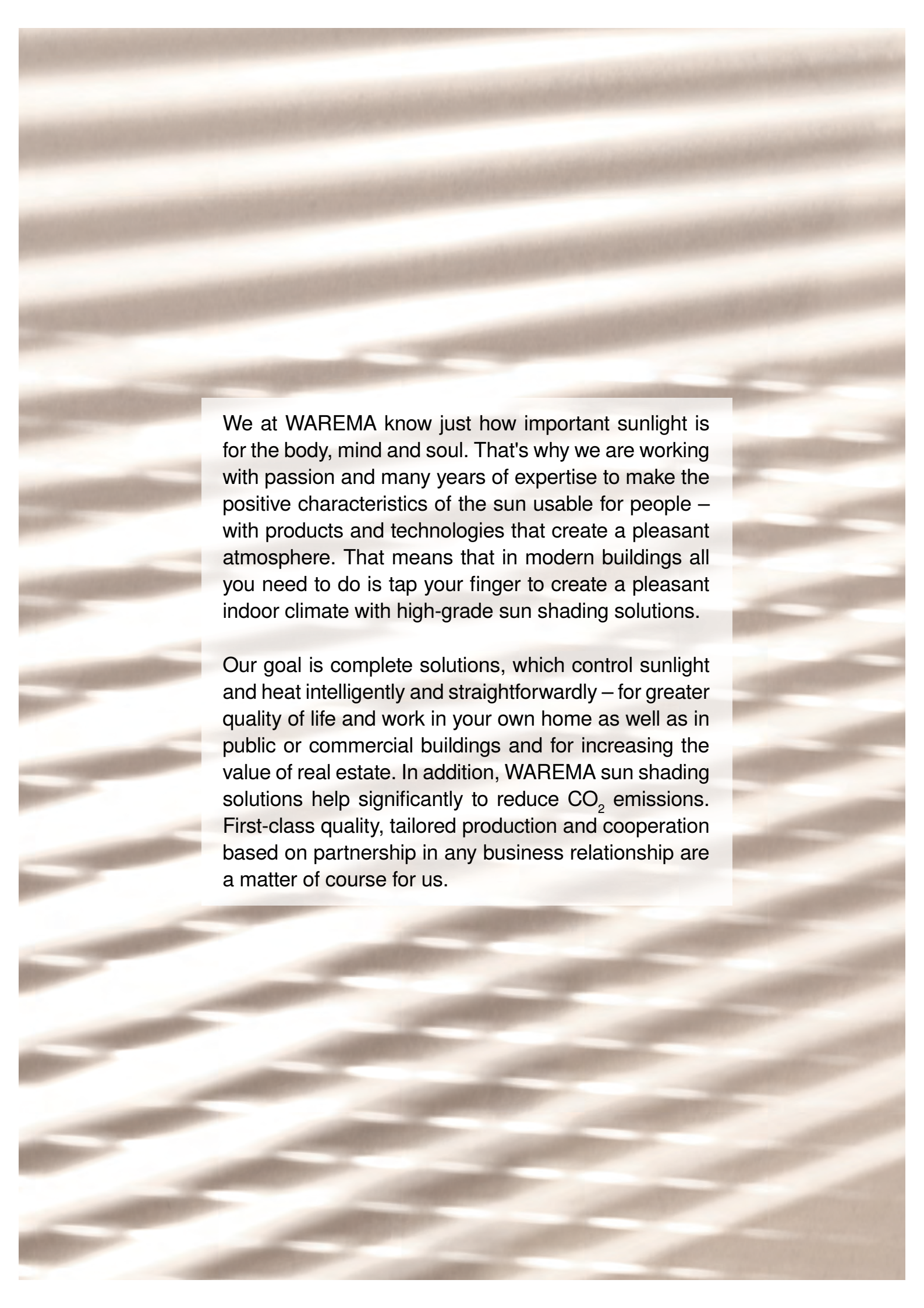
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Drives/control systems

The sun can't be controlled,
but it can be managed.



Der SonnenLichtManager



We at WAREMA know just how important sunlight is for the body, mind and soul. That's why we are working with passion and many years of expertise to make the positive characteristics of the sun usable for people – with products and technologies that create a pleasant atmosphere. That means that in modern buildings all you need to do is tap your finger to create a pleasant indoor climate with high-grade sun shading solutions.

Our goal is complete solutions, which control sunlight and heat intelligently and straightforwardly – for greater quality of life and work in your own home as well as in public or commercial buildings and for increasing the value of real estate. In addition, WAREMA sun shading solutions help significantly to reduce CO₂ emissions. First-class quality, tailored production and cooperation based on partnership in any business relationship are a matter of course for us.



Shape fabric.

Do you want to set unusual accents on the facade? Our window and facade awnings are perfectly suited for stylish shading of large glass surfaces. The wide selection of designs, colours and fabrics ensures maximum design flexibility and harmonious integration into all kinds of building architecture. Thanks to individual daylight control, optimum glare control and a pleasant spatial atmosphere are guaranteed at all times.



References

www.warema.de/referenzen

Whether for a commercial or a private property – we offer you optimum bespoke solutions for every requirement.



Employment Agency (Berlin)

The extremely functional vertical awnings are perfectly suited for providing shade to the large window facades of the administrative building.



BVB FanWelt (Dortmund)

The wind protection of the sun shading system is increased by the use of window awnings with ZIP guidance – at the same time, a disruptive light gap between the fabric and the guide is prevented.



Neumarkt (Dresden)

Tradition meets modern: old and new can be combined in a harmonic and architecturally sophisticated manner with our window awnings.

Innovations

Innovative products from SunLight Manager

The window awning with ZIP guidance and corner solution provides perfect all-round protection. The open awning design without guide rail in the corner area perfectly underlines the modern and transparent construction style. From an architectural perspective, this solution provides discreet integration of the sun shading system into the patio roof and into the facade. Furthermore, the curtains are simultaneously raised or lowered, thus equally creating reliable shade on both glass surfaces and promoting energy efficiency.



New drop-arm awning, type 355

The new drop-arm awning 355 replaces the type 350. The proven functionality and sizes are retained. With the new, smaller size 11 cover panel (dimensions: 110x110 mm), the drop-arm awnings type are now slimmer in design and thus integrate discreetly and unobtrusively into the desired facade situation. A harmonious effect on the building is also created in combination with the window awnings with ZIP guidance due to the uniform cover panel shape and size.



Drop arm awning 330 with clamping posts

The drop-arm awning 330 has been further developed and will be available with clamping posts in future. Hence their intended application is now not only in front of windows, they can also be used as a shading solution for balcony situations. The clamping posts can be fitted up to a max. height of 3000 mm and provide reliable sun shading and perfect visual privacy from the front for the newly-gained outdoor space in combination with the drop-arm awning.



Expanded sizes for window awnings with ZIP guidance

As of now, the window awnings with ZIP guidance are available with size 11 and size 13 cover panels in conjunction with screen fabric up to an order width of 4500 mm. This not only saves money but also improves comfort and design. The wide guide rail is used in the case of order widths greater than 4000 mm. The advantages of ZIP guidance, like high wind stability, are also guaranteed.



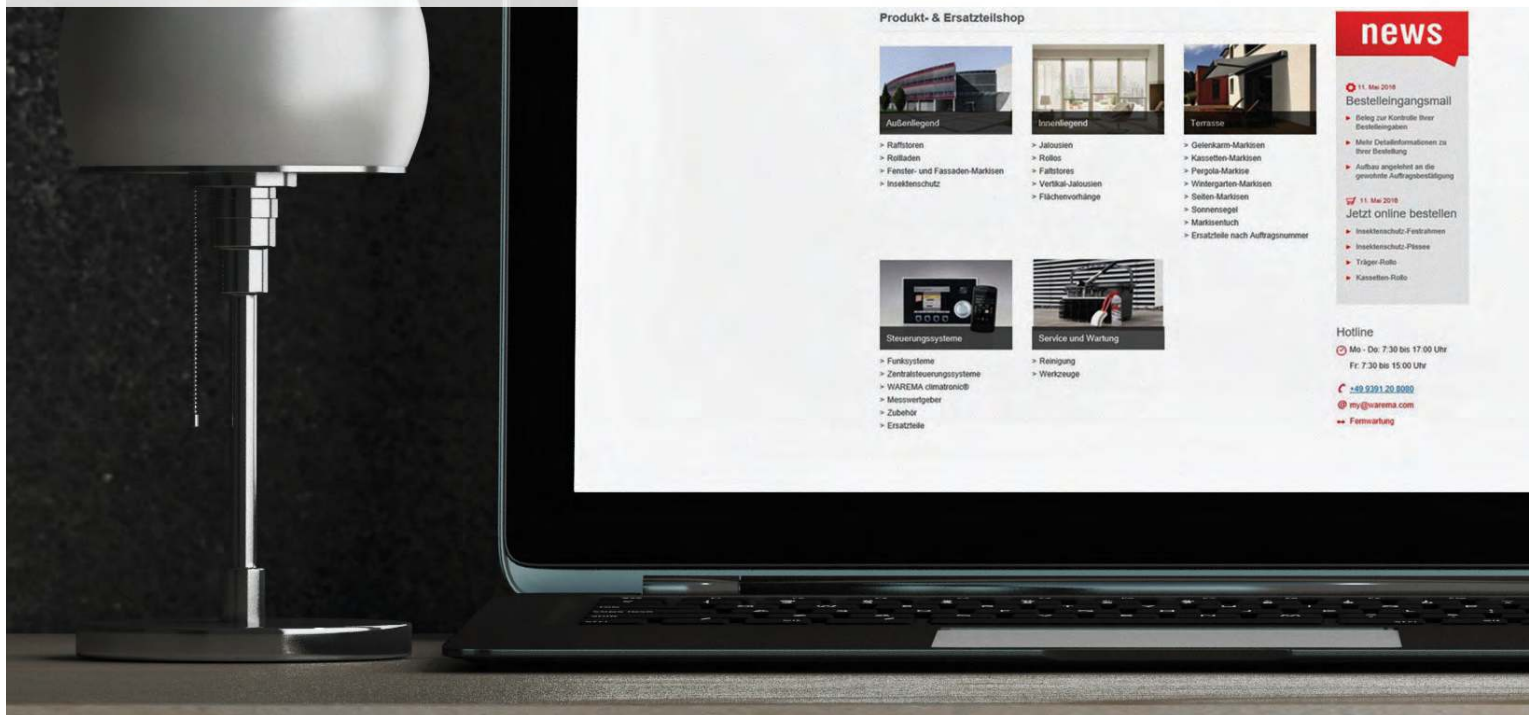
Window awning with ZIP guidance and viewing field

Our window awnings with ZIP guidance now score double points: they not only offer optimum sun and wind protection, they now also offer an even better view to the outside thanks to an integrated viewing field made from PVC film. The combination of proven ZIP guidance with screen fabric below and above the viewing field guarantees high wind stability and safety. In this way, the live out, feel in area invites you to spend time outdoors protected from the wind.

myWAREMA

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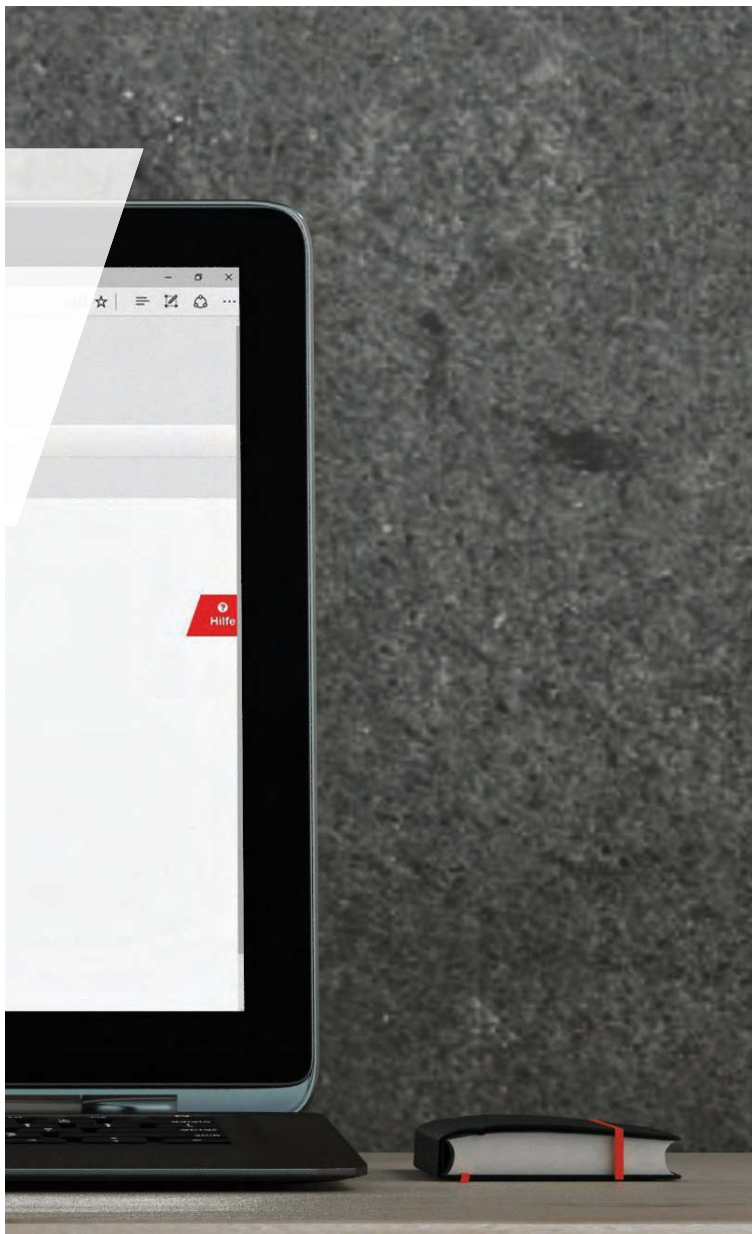


With the innovative online platform myWAREMA, your cooperation with WAREMA will now be even more convenient and efficient. For example, place orders and make calculations for quotations easier than ever before. Save valuable time for day-to-day business and with that time, cash. Register now!



“Handling orders via myWAREMA saves an enormous amount of time and thanks to the plausibility check, no more mistakes can happen. Managing the access of our users is designed very simply and comprehensibly so that we can allocate different levels of authorisation in the company.”

Andreas Kreiling,
Peter Vieweg Sonnen- und Wetterschutz GmbH



What does myWAREMA offer?



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- Place orders securely
- Conveniently manage account details
- Access all information centrally
- Available in English, German and French



Easier

Generate individual customer quotations and make calculations or orders based on your own conditions.



More comfortable

Forget laboriously searching for and ordering products using catalogues. You'll find everything you need in myWAREMA.



Faster

Make the product configuration with a few mouse clicks and take advantage of the significantly faster order processes.



More reliable

Enjoy greater reliability with your orders from the automatic plausibility check. If you have any questions, our myWAREMA hotline my@warema.com is there for you.



More direct

Get a direct view of all quotation, commission and company data in the account management.

Not registered yet? Sign up now at [myWAREMA.com](https://mywarema.com)

Colours



Colours for powder-coated aluminium parts

The complete RAL CLASSIC colour chart range (except camouflage and luminous colours) as well as 6 DB colours and further colours according to WAREMA Colour World are available for the powder-coated aluminium parts of our products.

You can also choose anodised effect colours as well as 8 textured colours with a textured coating in metallic optic in accordance with WAREMA colour specification.

Besides the elegant appearance of the textured colours, these colours have an additional benefit: the fine pore structure of the surface allows water to pearl off easily together with particles of dirt.

Of course aluminium parts can be coated in special colour shades, deviating from the WAREMA colour specification, at a surcharge.

There are no limits to colour accents and adjustment of colour to the building!

The exceptional coating quality ensures longevity – independently tested by the Quality Association for the Coating of Building Materials (GSB). The surface coating with a chrome-free pretreatment complies with the GSB-AL 631 directive.

WAREMA Colour World

The WAREMA Colour World provides information about the colours and relevant colour specification you will receive when you order a product from WAREMA, to enable comparison with the colours used on site. You can obtain the WAREMA Colour World brochure via our advertising service with art. no. 879528.

WAREMA textured colours



MS white aluminium
W 4914



MS grey aluminium
W 4915



MS anthracite
W 4916



MS black grey
W 4917



MS sepia brown
W 4918



MS earth brown
W 4919



MS steel blue
W 4920



MS dark green
W 4921

General information

Awnings



DIN ISO 9001

The certification according to ISO 9001 is an award for the high quality level of WAREMA sun shading technology. The requirement relates to the complete manufacturing process, from design and development through production to mounting and service.

Fixing of products

When ordering, please ensure that the selected fixing accessories are suitable for the respective mounting substructure and that the processing instructions given by the fixing materials manufacturer are complied with.

The standard fixing material for mounting on the following substructures is included in the price:

- Concrete C20/25 (B25)
- Aluminium windows
- Wooden windows
- Plastic windows with steel core

If, in spite of the above information, you do not specify the mounting substructure in your order, we will supply **no** fixing material.

Awning fabrics

Awning fabrics are high-performance products. Nevertheless, even with state-of-the-art technology and due to environmental protection regulations, their perfection is not without limitations. Certain fabric characteristics such as wrinkles, chalk effect and waviness, which laymen occasionally find fault with, may occur in spite of advanced production and processing technology and do not justify any complaints. For more information, please refer to the awning collection and the documentation "Guideline for judging finished awning fabrics" by the Industrieverband Technische Textilien - Rollläden – Sonnenschutz in Mönchengladbach, Germany. For fabric descriptions and colours please see chapter "Fabrics".

Corrosion

WAREMA awnings comply with the corrosion classes described in DIN EN 13561.

Under extreme conditions, however (e.g. in close proximity to the coast), some corrosion of exposed stainless steel, chrome-plated or galvanised components may occur.



CE mark

Motorised external and internal sun shading systems are subject to the Machine Directive 2006/42/EC. An EC Declaration of Conformity is available for these products.

External sun shading systems, regardless of the type of drive, are subject to the Construction Products Regulation 305/2011/EC. Declarations of performance are available for these products for the mandated property: wind resistance when extended.

All products subject to the Machinery Directive and/or the Construction Products Regulation have a CE label.

Manually operated internal sun shading systems are not subject to any of these two directives or regulations and therefore must not be marked with a CE label.

External or internal sun shading systems correspond to the appropriate standard that regulates the details thereof:

DIN EN 13659, DIN EN 13561 or DIN EN 13120.



Durability

All WAREMA products are designed to be especially durable. All WAREMA products fulfil the durability classes 2 and/or 3 of the standard, tested according to DIN EN 14201.

Manufacturing tolerances

Perfection lies in the detail – it's no wonder therefore that at WAREMA we pay a great deal of attention to even the smallest details: each product is manufactured with millimetre precision. Please note that when manufacturing to this degree of precision, small deviations can occur for production-related reasons:

Manufacturing tolerances T	Order width W in mm	T in mm	Order height H in mm	T in mm
Window awnings	W ≤ 2000	±1.5	H ≤ 1500	±2
	2000 < W ≤ 4000	±2	1500 < H ≤ 2500	±3
	W > 4000	±2.5	H > 2500	±5

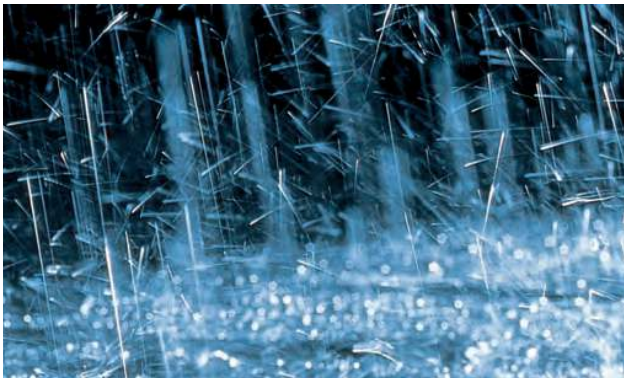
Width-height-ratio window awnings

The width-height-ratio for window awnings may not exceed 1 to 3.

This means: for a width of 800 mm the window awning can be produced only up to a height of 2400 mm without limiting the functionality.

General information

Awnings



Rain

An awning is designed for protection against sun and not against rain. But nevertheless, due to its water-repellent impregnation, light rain will not cause the awning and the awning fabric to lose their shape. If an awning fabric has been retracted when wet, the awning must be extended again as soon as possible for drying. Please note that moisture encourages the formation of creases. To prevent the fabric from getting wet, we recommend automatic control according to sun, wind, rain and time of day, using a WAREMA control unit.

Important information!

Your awning is a sun shading system and to ensure its proper use, it must be retracted in time before any of the following conditions occur:

- Wind exceeding the admissible maximum wind speed limits
- Rain (formation of water pockets)
- Snowfall (snow load)
- Thunderstorms and cold fronts (gusts)
- In the event of moisture or cold weather the awning fabric may become stiff with frost – the motor safety switch may be triggered and may briefly prevent retraction or extending.
- When the cover panel or the guide rail is iced up, the window awning may not be operated. The awning first has to be de-iced in order to make it operable.

To avoid damaging fabric and frame we recommend using a WAREMA control unit designed for use with awnings. Please see our documentation on control systems.



Wind resistance of extended unit

WAREMA awnings correspond to DIN EN 13561 and achieve different wind resistance classes, tested according to EN 1932.

- | | |
|------------------------------------|---|
| – Window awnings with guide rails | 2 |
| – Window awnings with ZIP guidance | 3 |
| – Window awnings with guide rods | 2 |
| – Window awnings with guide cables | 1 |

The installed awnings only meet the requirements of the specified wind resistance class according to DIN EN 13561 provided that

- the awning is mounted with the type and number of consoles recommended by WAREMA, and
- The information from the dowel manufacturer has been observed during installation.

When mounting on timber, no wind resistance class can be specified due to the variations in this building material.

Please note that the brackets and fixing material must always correspond to the respective substructure, awning type and size, and the selected wind resistance class. If in doubt, please consult our application technology department or your dowel supplier.

Wind resistance of retracted unit

All WAREMA products intended for outdoor use are designed for a wind load of 1.1 kN/m². The directive entitled "Wind loads for construction of closures and awnings when retracted"¹⁾ defines the positions at which these products can be installed without requiring special precautions.

Products in the area of escape routes

Awnings must not be mounted in the area of safety installations such as escape doors, since awnings can – e.g. in case of a power failure – not be moved any more and would thus block escape routes.

1) Published by Industrieverband Technische Textilien – Rollläden – Sonnenschutz e.V.
– ITRS and the Bundesverband Rollläden + Sonnenschutz e.V.

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Wind forces

The following Beaufort table contains the wind speeds allocated to Beaufort levels and describes the effect of the wind.

Beaufort level	Designation	Medium wind speed at a height of 10 m above ground in a free area		Back pressure q (average value) in N/m²	Examples of the effects of inland wind
		m/s	km/h		
0	Calm	0–0.2	<1	0	Smoke rises vertically
1	Light air	0.3–1.4	1–5	0.6	Smoke drift indicates wind direction
2	Light breeze	1.5–3.4	6–12	6	Wind felt on exposed skin, leaves rustle, vanes begin to move
3	Gentle breeze Gentle wind	3.5–5.4	13–19	16	Leaves and small twigs constantly moving, light flags extended
4	Moderate breeze Moderate wind	5.5–7.4	20–27	30	Dust and loose paper raised, small branches begin to move
5	Fresh breeze Fresh breeze	7.5–10.4	28–37	60	Small trees in leaf begin to sway, white horses begin to form on lakes
6	Strong wind	10.5–13.4	38–48	110	Large branches in motion, whistling heard in overhead wires; umbrella use becomes difficult
7	High wind	13.5–17.4	49–62	160	Whole trees in motion. Effort needed to walk against the wind
8	Gale	17.5–20.4	63–73	230	Some twigs broken from trees, progress on foot is seriously impeded
9	Storm	20.5–24.4	74–87	330	Some branches break off trees, minor damage to buildings (roof tiles or smoke covers lifted off)
10	Severe storm	24.5–28.4	88–102	460	Wind snaps trees, extensive damage to buildings
11	Violent storm	28.5–32.4	103–117	600	Wind uproots trees, wide-spread storm damage
12	Hurricane-force	from 32.5	from 118	770	Serious devastation

Tab. 1: Wind forces in Beaufort

General information

Awnings

Wind speed limits for window awnings with ZIP guidance

m/s (Beaufort levels in brackets)

Height	Width										
	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
1000	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)
1500	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)
2000	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)
2500	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)
3000	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)
3500	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	x	x
4000	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	x	x	x
4500	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	x	x	x	x
5000	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	x	x	x	x	x
5500	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	x	x	x	x	x	x
6000	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	x	x	x	x	x	x

Tab. 2: Wind speed limits for window awnings with ZIP guidance

Table is valid on the basis of the following criteria:

- Distance between curtain and glass surface **≤100 mm**
- The table values should be reduced in the following cases:
 - Distance between curtain and glass surface **>100 mm and ≤200 mm**, the table value must be reduced by **2 levels** (e.g. from 24 m/s to 17 m/s),

- Distance between curtain and glass surface **>200 mm and ≤300 mm**, the table value must be reduced by **3 levels** (e.g. from 24 m/s to 13 m/s)

The table is not to be used in the case of greater distances

Wind speed limits for window awnings with ZIP guidance on patio roofs with a distance >300 mm to the glass surface

m/s (Beaufort level in brackets)

Height	Width										
	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
1000	20.5-24.4 (9)	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	17.5-20.4 (8)	13.5-17.4 (7)	13.5-17.4 (7)
1500	20.5-24.4 (9)	20.5-24.4 (9)	17.5-20.4 (8)	13.5-17.4 (7)	13.5-17.4 (7)	13.5-17.4 (7)	13.5-17.4 (7)	13.5-17.4 (7)	13.5-17.4 (7)	13.5-17.4 (7)	13.5-17.4 (7)
2000	20.5-24.4 (9)	17.5-20.4 (8)	13.5-17.4 (7)	13.5-17.4 (7)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)
2500	17.5-20.4 (8)	13.5-17.4 (7)	13.5-17.4 (7)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)
3000	17.5-20.4 (8)	13.5-17.4 (7)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	7.5-10.4 (5)
3500	17.5-20.4 (8)	13.5-17.4 (7)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	7.5-10.4 (5)	x	x

Tab. 3: Wind speed limits for window awnings with ZIP guidance on patio roofs

Table is valid on the basis of the following criteria:

- Mounting at ground level on patio roofs and pergolas
- Distance from curtain to a permanent glass surface **>300 mm**
- Distance from curtain to a permanent glass surface **≤300 mm**, the values from table 2 can be used

The wind speed limits specified in table 2 and table 3 are maximum values and only apply **for extended units**. It may not be possible to extend the unit even at wind speeds below the specified maximum value. Due to their design, ZIP products are able to withstand much higher wind speeds when extended than while they are extending.

General information

Awnings

Using the ZM-REA series motor, during the extension movement WAREMA is in a position to detect even brief instances of excessive wind load or a permanent obstacle, and can prevent damage to the product by stopping the unit. After occurrence of the overload or the obstacle, the drive will

make several autonomous attempts to reach its lower limit position. The motor switches off if it is not possible to reach the limit position. Switching off represents a protective function; this protects the unit from possible damage.

Wind speed limits for window awnings with ZIP guidance, corner solution, on patio roofs

m/s (Beaufort level in brackets)

Height	Total width														
	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000
1000	10.5-13.4 (6)	10.5-13.4 (6)	10.5-13.4 (6)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)
1500	10.5-13.4 (6)	10.5-13.4 (6)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	5.5-7.4 (4)	5.5-7.4 (4)
2000	10.5-13.4 (6)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)
2500	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)
3000	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)	5.5-7.4 (4)
3500	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	5.5-7.4 (4)	5.5-7.4 (4)	x	x	x	x	x	x
4000	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	5.5-7.4 (4)	5.5-7.4 (4)	x	x	x	x	x	x	x

Tab. 4: Wind speed limits for window awnings with ZIP guidance, corner solution

Table is valid on the basis of the following criteria:

- Installation location: ground-level installation on patio roofs
- Completely extended unit. During the **movement** the table value must be reduced by **1 level** (e.g. from 13 m/s to 10 m/s)
- Distance from curtain to a permanent glass surface **>100 mm**, the table value must be reduced by **1 level** (e.g. from 13 m/s to 10 m/s),

Responsive obstacle detection is **not possible!**

The table is not to be used in the case of greater distances.

General information

Window awnings

Wind speed limits for vertical, facade, drop-arm awnings and markisolettes

m/s (Beaufort level in brackets)

Fixing type	Vertical awnings	Drop-arm awnings	Facade awnings	Markisolettes
Guide rail directly (standard spacing) on the facade	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)
Cable/rod guidance directly (standard spacing) on the facade	5.5-7.4 (4)		5.5-7.4 (4)	
Guide rail 300 to 1000 mm in front of the facade ¹⁾		3.5-5.4 (3)	3.5-5.4 (3)	3.5-5.4 (3)
Cable/rod guidance 300 to 1000 mm in front of the facade ¹⁾			3.5-5.4 (3)	
Guide rail Polygon facade ¹⁾			3.5-5.4 (3)	3.5-5.4 (3)
Cable/rod guidance Polygon facade ¹⁾			3.5-5.4 (3)	
Guide rail In the reveal	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)	7.5-10.4 (5)
Cable/rod guidance In the reveal	5.5-7.4 (4)		5.5-7.4 (4)	

Tab. 5: Wind speed limits

¹⁾ These mounting situations are not permitted for type 150!

Since the static test according to EN 1932 does not include dynamics, the above mentioned wind speed limits apply to the awnings. For window awnings the recommended wind speed limits depend on the product type. When the wind speed limits are reached, the unit must be retracted. The values in the table are valid for the given facade spacing and the maximum height for each awning type (see construction limit values). Depending on the type, additional measures may be required for larger widths.

It is recommended that the wind sensors are set to the lowest value, e.g. to 7.5 m/s for Beaufort 5.

Contents

Window awnings with ZIP guidance

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Equipment

Window awnings with ZIP guidance



Type V-FM

WAREMA front-mounted window awnings (V-FM) are ideal for direct mounting in reveals or on facades. They are also used as elements of facade design on new buildings. Whether rectangular or half-round – WAREMA front-mounted window awnings can be combined individually to suit any taste.



F-FM type

WAREMA self-supporting window awnings (F-FM) can be integrated into nearly any facade. Self-supporting window awnings are used for heat as well as glare control. The variety of fabric qualities and designs leaves room for any individual design ideas.

The awnings are generally fixed with the guide rails, requiring no additional fixing points for the cover panel.

Equipment

	Window awnings with ZIP guidance	
	V-FM	F-FM
Drive and operation		
– Motor incl. plug-in connector	●	●
– EWFS and/or WMS radio motor	○	○
– Crank	–	–
Mechanically coupled units		
	–	–
Cover panel		
– Aluminium, 90x90 mm, rectangular	●	●
– Aluminium, 110x110 mm, rectangular	●	●
– Aluminium, 110x110 mm, half-round	●	●
– Aluminium, 110x110 mm, round	●	●
– Aluminium, 130x130 mm, rectangular	●	●
– Aluminium, 130x130 mm, round	●	●
– Aluminium, 130x130 mm, plaster	●	–
– Aluminium, 150x150 mm, rectangular	●	●
Lateral guidance		
– ZIP guidance with guide rail	●	●
– ZIP guidance with deep guide rail ¹⁾	○	–

¹⁾ Only available for size 11 and size 13 cover panel, rectangular

- standard
- optional
- not available

	Window awnings with ZIP guidance	
	V-FM	F-FM
Mounting situation		
– with distance (distance mounting)	–	●
– without spacing (direct installation)	●	–
Surface treatment of aluminium parts		
– Powder-coated	according to the WAREMA Colour World	
– Special coating	○	○
– C0 anodised	○	○
– anodised in colour	○	○
Fabric¹⁾		
– Standard/Lumera acrylic fabric ²⁾	●	●
– Acrylic All Weather/Perfora ²⁾	○	○
– Screen fabric	○	○
– Soltis 92 fabric	○	○

¹⁾ Please note the processing information about fabrics on page ff. 273

²⁾ used crosswise, stripe designs used lengthwise

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Description

Window awnings with ZIP guidance Size 9 cover panel (90x90 mm)

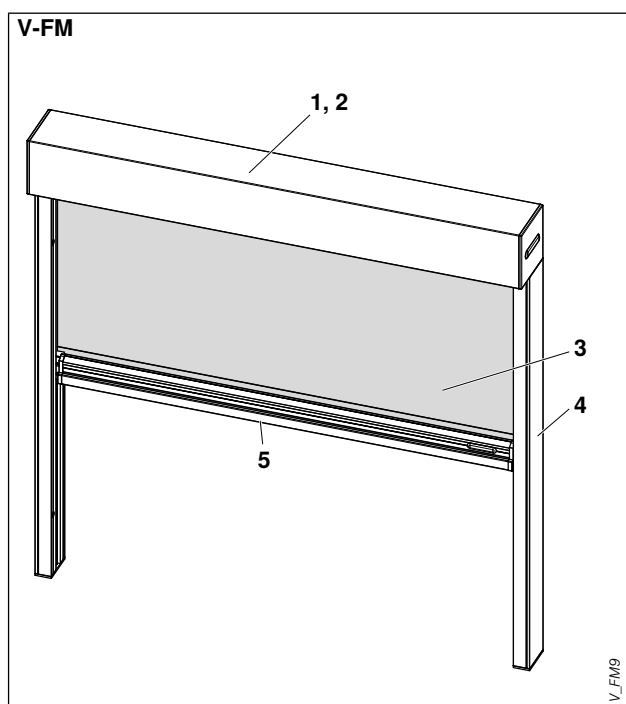


fig. 1: Window awning with ZIP guidance V-FM

- 1 Cover panel (rectangular)
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Drop profile
- 6 Guide rail bracket (only type F-FM)

Application

Textile external sun shading system with particularly small cover panel size for shading vertical punched or element windows as well as for direct mounting in the reveal (type V-FM). Mounting with distance e.g. for mullion and transom facades (type F-FM).

Operation

Basic motor, 230 V, 50 Hz

ZM REA with electronic limit switch-off (optionally with EWFS/WMS radio plug receiver)

WMS radio motor, 230 V, 50 Hz (optionally)

WMS-ZP with electronic limit switch-off

More information about drives from page 278.

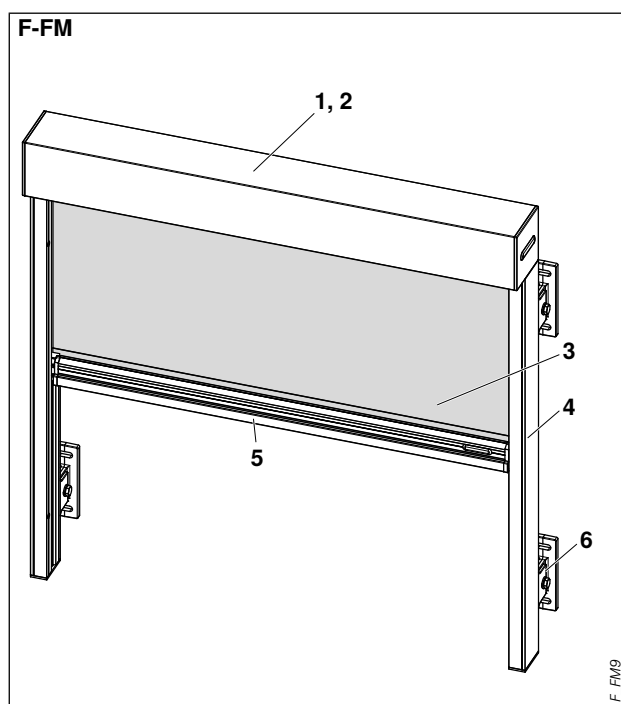


fig. 2: Window awning with ZIP guidance F-FM

Cover panel (1)

With inspection cover, left rolling blind

Material: aluminium, extruded

Material thickness: 1.8 mm

Dimensions HxD: 90x90 mm

Surface: powder-coated, optionally anodised
Fixing: clipped on using consoles on the guide rails

Side covers: aluminium, powder-coated

Shapes: rectangular

Attention: Inspection towards bottom is not possible. In order to inspect the fabric shaft, the unit has to be dismantled. No cover panel protrusions and mitres possible.

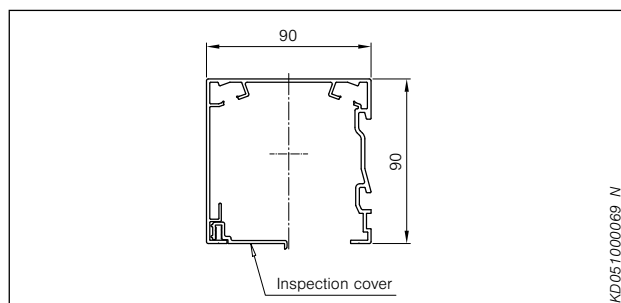


fig. 3: Cover panel

Fabric shaft (2)

Material: aluminium, extruded

Material thickness: 1.6 mm

Dimensions (Ø): 62.2 mm

Profile: groove tube

Surface: plain

With piping groove for fixing the fabric.

Description

Window awnings with ZIP guidance Size 9 cover panel (90x90 mm)

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric
More information about the fabrics on page 273

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge. Acrylic fabrics are generally used crosswise. Exception: when using striped designs the fabrics are used vertically. For further information see page 273.

Lateral guidance (4)

Rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain and for damping

Material: aluminium, extruded
Dimensions (WxH): 25x56 mm
Profile: C-shaped profile
Surface: powder-coated, optionally anodised
Fixing: directly on the facade or in the reveal (type V-FM)
Guide rail bracket (type F-FM)
End closure: plastic, black
Inlay: co-extruded PVC profile

Drop profile (5)

Material: aluminium, extruded
Material thickness: 1.5 mm
Dimensions (WxH): medium, 35x42 mm
large, 35 x 49 mm
Profile: rectangular, internal beading channel
Surface: powder-coated, optionally anodised
End plug: plastic, black

The drop profile is generally visible. The drop profile can optionally be fitted with a brush seal.

Fixing and connecting parts

Within the awning

Material: A2 steel or aluminium

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and anodisation are available on request at a surcharge.

All visible plastic parts are black.

Description

Window awnings with ZIP guidance

Size 9 cover panel (90x90 mm)

Weight tables

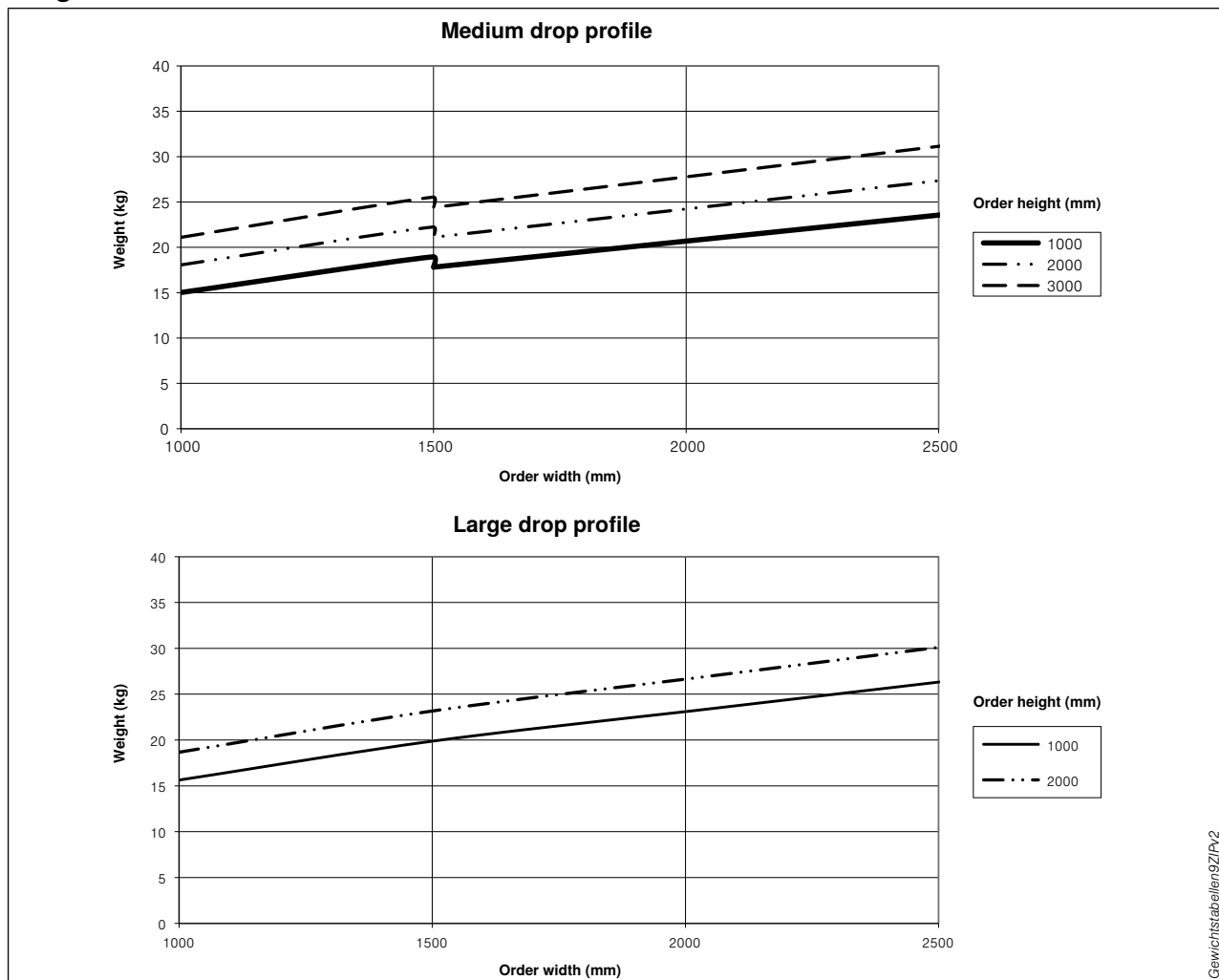


fig. 4: Weight tables

Construction limit values

Window awnings with ZIP guidance Size 9 cover panel (90x90 mm)

Type V-FM and F-FM (size 9 cover panel, rectangular)

Construction limit values in mm

	Type of fabric	Individual unit
		Motor ¹⁾
Min. width	Acrylic fabric – all qualities (used crosswise)	750
	Screen fabric	750
	Soltis 92 fabric	750
Max. width	Acrylic fabric – all qualities (used crosswise)	2500
	Screen fabric	2500
	Soltis 92 fabric	2500
Min. height	Acrylic fabric – all qualities (used crosswise)	650
	Screen fabric	650
	Soltis 92 fabric	650
Max. height ²⁾	Acrylic fabric – all qualities (used crosswise)	2000 ²⁾
	Screen fabric	2000
	Soltis 92 fabric	2000
Max. area (m ²)	Acrylic fabric – all qualities (used crosswise)	5
	Screen fabric	5
	Soltis 92 fabric	5

Attention:

- Only individual units with motor drive available!
- For the stated construction limit values all acrylic fabrics are used crosswise, more information on page 273.
- Radio motor not possible!

¹⁾ only available with motor drive, **no** crank drive

²⁾ Acrylic fabric – used vertically (stripe designs) – up to max. 1400 mm height

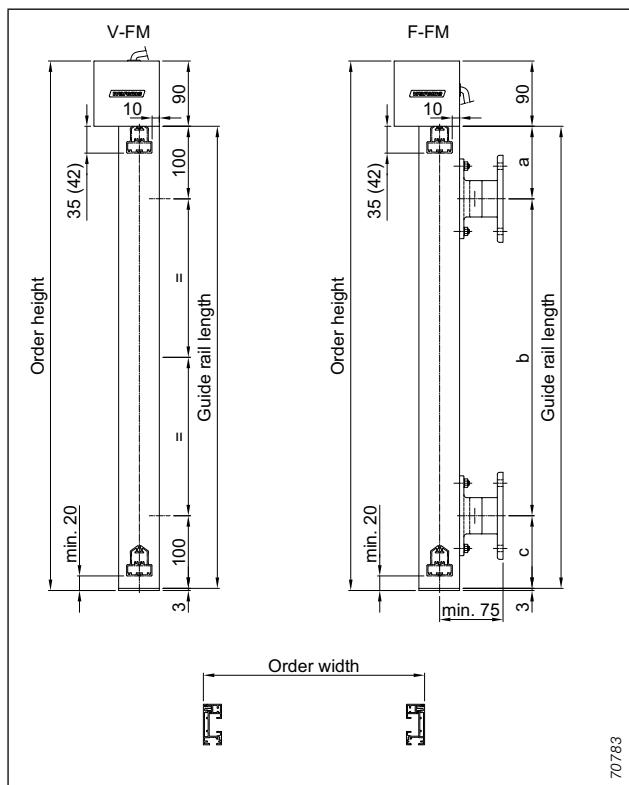


fig. 5: Measuring instructions

Number of drilled holes for direct installation type V-FM

Guide rail length	Fixing holes
–900	2
901–1600	3
1601–1910	4

Spacing and number of brackets for distance installation, type F-FM

Type	Rail type	Bracket spacing in mm					No. of brackets for guide rail length in mm
		a min.	a max.	b max.	c min.	c max.	
Size 9	C 25/56	100	200	2000	70	300	1900

Drives/control systems	Fabrics	Fixing systems	Markisolettes	Facade awnings	Drop-arm awnings	Vertical awnings	Window awnings with ZIP guidance	Overview
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Application example

Window awnings with ZIP guidance

Direct installation, rectangular cover panel size 9

Drop profile 35x42

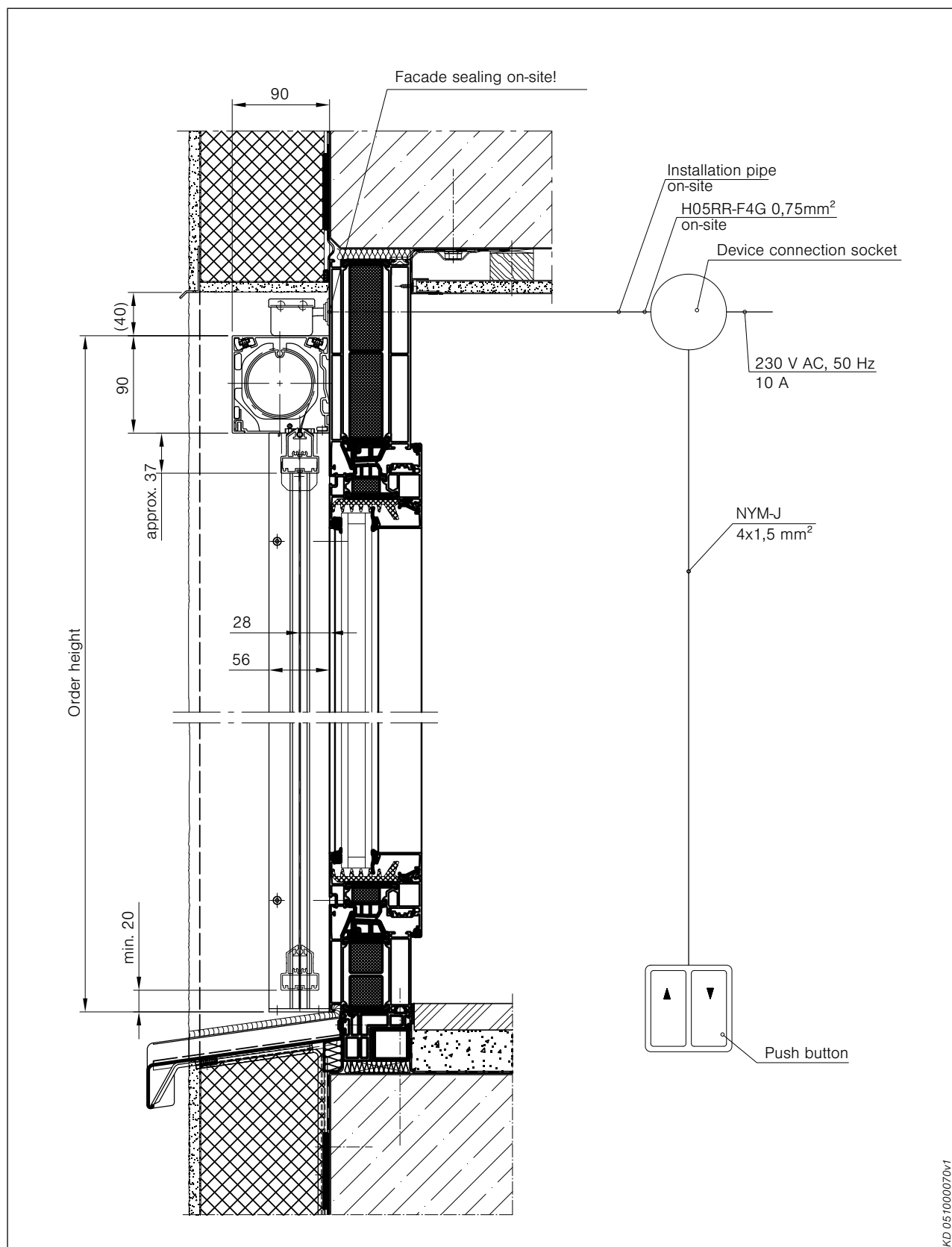


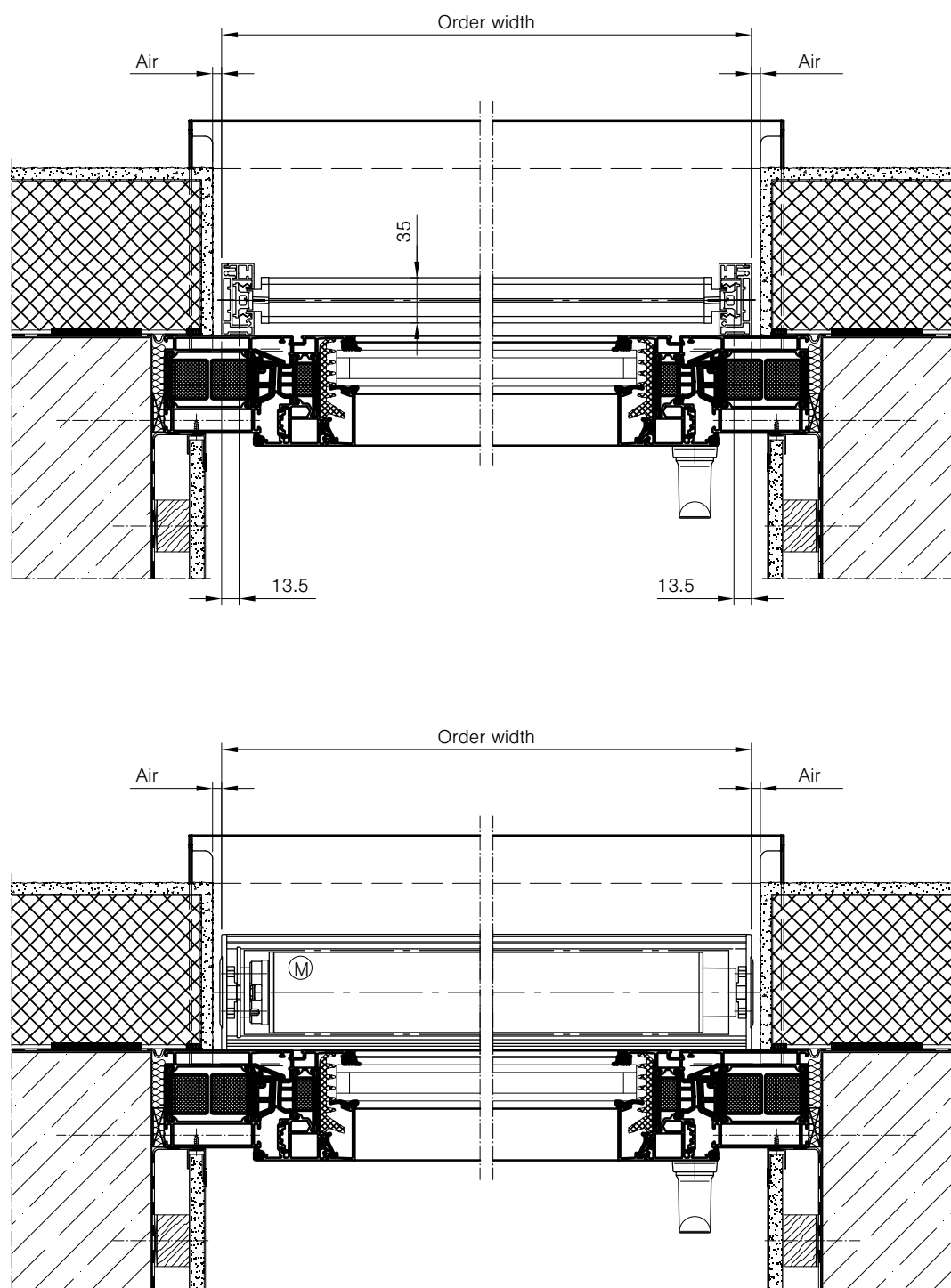
fig. 6: Window awning with ZIP guidance with rectangular size 9 cover panel

Application example

Window awnings with ZIP guidance

Direct installation, rectangular cover panel size 9

Drop profile 35x42



KD 051000071v1

fig. 7: Window awning with ZIP guidance with rectangular size 9 cover panel

Description

Window awnings with ZIP guidance

Size 11 cover panel (110x110 mm)

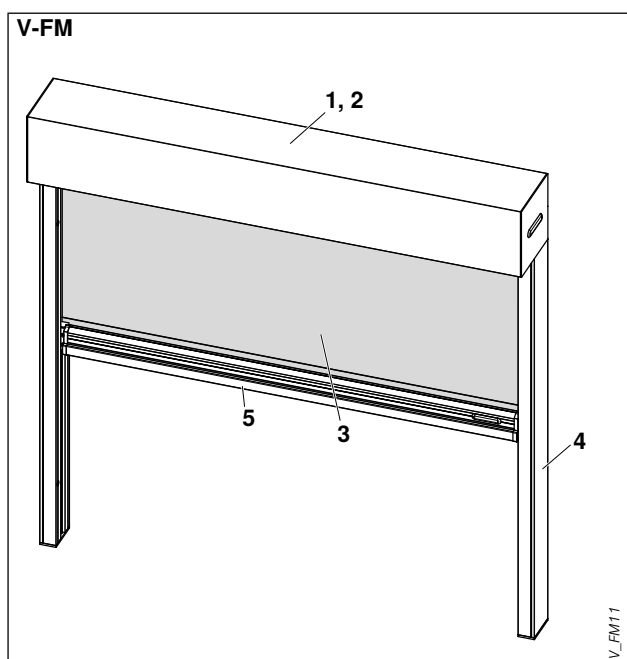


fig. 8: Window awning with ZIP guidance V-FM

- 1 Cover panel (rectangular and half-round)
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Drop profile
- 6 Guide rail bracket (only type F-FM)

Application

Textile external sun shading system with small cover panel size for shading vertical punched or element windows as well as for direct mounting in the reveal (type V-FM). Mounting with distance e.g. for mullion and transom facades (type F-FM).

Operation

Basis motor, 230 V, 50 Hz

ZM REA with electronic limit switch-off (optionally with EWFS/WMS radio plug receiver)

EWFS radio motor, 230 V, 50 Hz (optionally)

W-ZM with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optionally)

WMS-ZM with electronic limit switch-off

More information about drives from page 278.

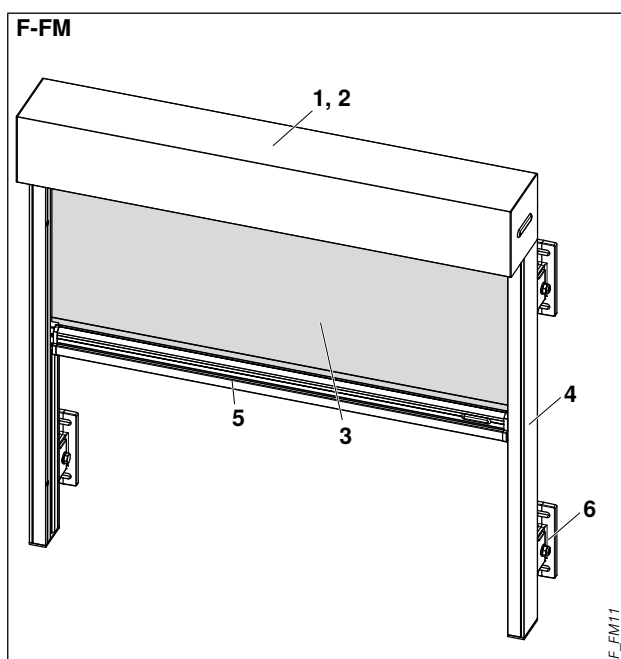


fig. 9: Window awning with ZIP guidance F-FM

Cover panel (1)

With inspection cover, available for left and right rolling blinds

Material: aluminium, extruded

Material thickness: 1.7 mm

Dimensions HxD: 110x110 mm

Surface: powder-coated, optionally anodised

Fixing: clipped on using consoles on the guide rails

Side covers: aluminium, powder-coated

Shapes: rectangular, half-round or round

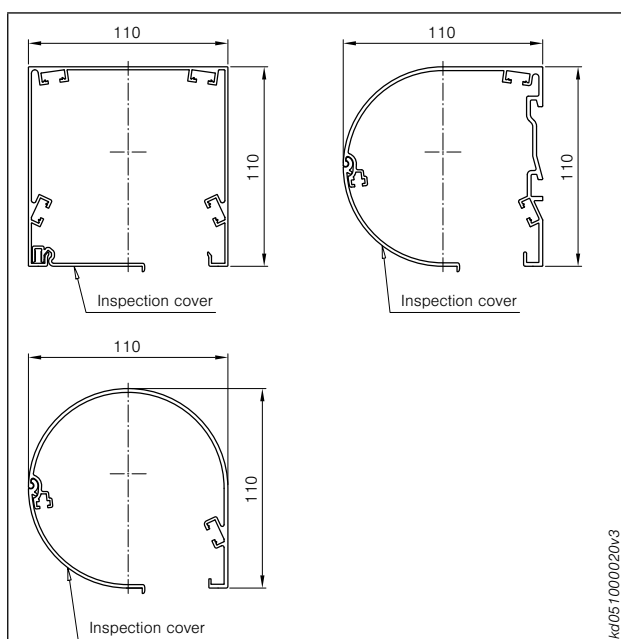


fig. 10: Cover panel

Description

Window awnings with ZIP guidance Size 11 cover panel (110x110 mm)

Fabric shaft (2)¹⁾

Material: aluminium, extruded/steel, galvanised
 Material thickness: 1.6 mm/1.8 mm/1 mm
 Dimensions (Ø): 62.2 mm/70 mm/61 mm
 Profile: groove tube
 Surface: plain
 With piping groove for fixing the fabric. The fabric shaft size depends on the used fabric quality in relation to the relevant sizes.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
 Acrylic Perfora/All Weather
 Soltis 92 fabric
 Screen fabric
 More information about the fabrics on page 273
 Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge. Acrylic fabrics are generally used crosswise. Exception: when using striped designs the fabrics are used vertically. For further information see page 273.

Lateral guide (4)

Rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain and for damping

Material: aluminium, extruded
 Dimensions (WxH): 25x56 mm
 Profile: C-shaped profile
 Surface: powder-coated, optionally anodised
 Fixing: directly on the facade or in the reveal (type V-FM)
 Guide rail brackets (for left or right rolling blind) (type F-FM)
 End closure: plastic, black
 Inlay: co-extruded PVC profile

Deep guide rail, size 11 cover panel

Deep guide rail with ZIP guidance for reveal covering. Lateral guidance via ZIP directly in two-piece deep guide rail with inlay for fabric guiding. The inspection part of the guide rail is provided with a joint for maintenance work.

Material: aluminium, extruded
 Dimensions (WxH): 25x110 mm
 Profile: C-shaped profile
 Surface: powder-coated, optionally anodised
 Fixing: directly on the facade or in the reveal
 End closure: aluminium, black
 Inlay: co-extruded PVC profile

Wide guide rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain.

Material: aluminium, extruded
 Dimensions (WxH): 37x56 mm
 Profile: C-shaped profile
 Surface: powder-coated, optionally anodised
 Fixing: directly on the facade or in the reveal (type V-FM)
 Guide rail bracket (type F-FM)
 End closure: aluminium, black
 Inlay: extruded PVC profile
 Springs: spring steel

Drop profile (5)

Material: aluminium, extruded
 Material thickness: 1.5 mm
 Dimensions (WxH): medium, 35x42 mm
 large, 35x49 mm
 Profile: rectangular, internal beading channel
 Surface: powder-coated, optionally anodised
 End plug: plastic, black

The drop profile is generally visible. The drop profile can optionally be fitted with a brush seal.

Fixing and connecting parts

Within the awning
 Material: A2 steel or aluminium

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and anodisation are available on request at a surcharge.

All visible plastic parts are black.

¹⁾ for Soltis 92 fabric an aluminium shaft with Ø70 mm is used, for widths over 2500 mm for Screen and Acrylic fabrics a steel shaft with Ø61 mm is used

Description

Window awnings with ZIP guidance
Size 11 cover panel (110x110 mm)

Weight tables

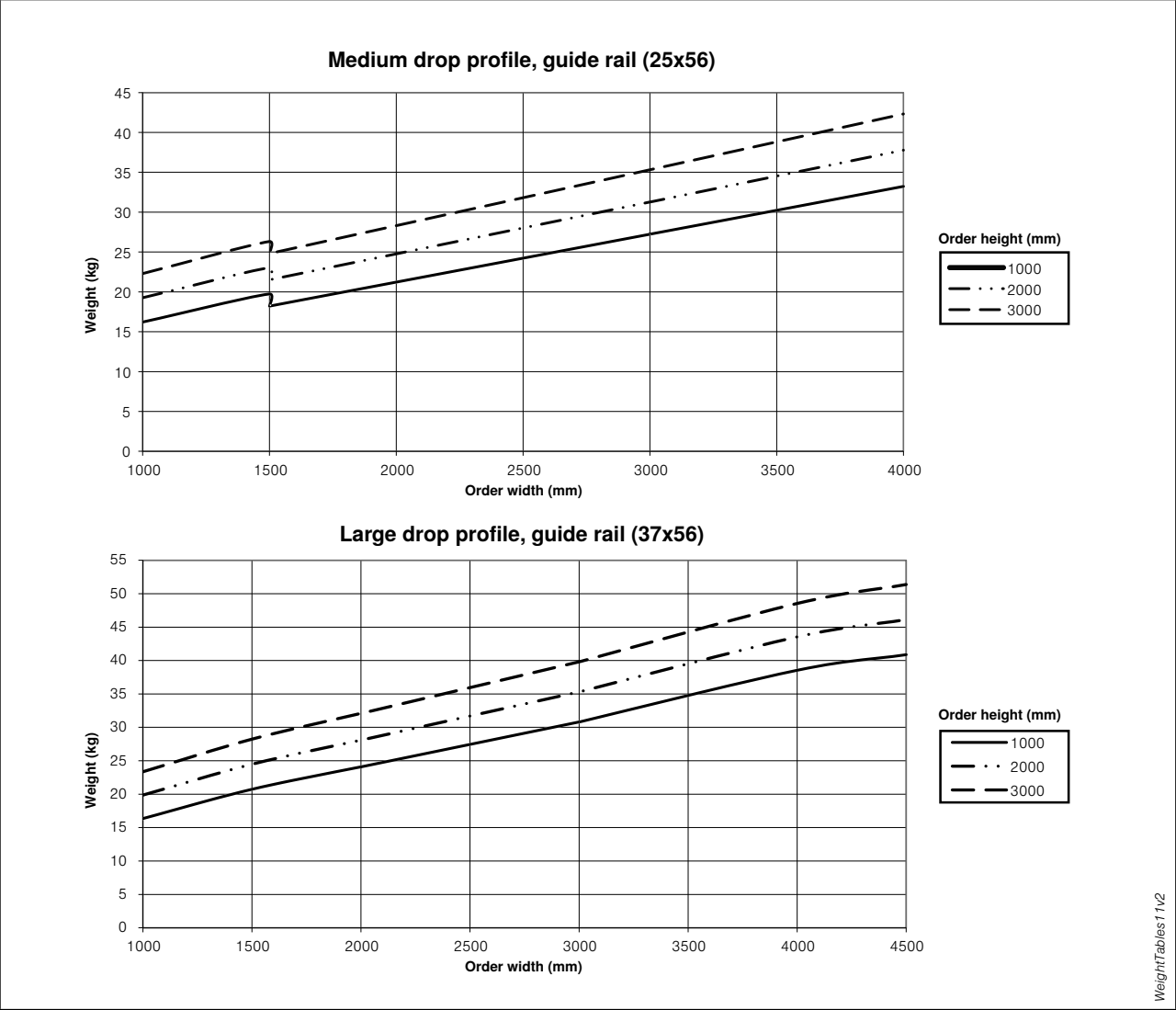


fig. 11: Weight tables

Construction limit values

Window awnings with ZIP guidance Size 11 cover panel (110x110 mm)

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Type V-FM and F-FM (size 11 cover panel, rectangular, half-round or round)

Construction limit values in mm

	Type of fabric	Individual unit
		Motor ¹⁾
Min. width	Acrylic – all qualities (used crosswise)	750
	Screen fabric	750
	Soltis 92 fabric	750
Max. width	Acrylic – all qualities (used crosswise)	3000
	Screen fabric	4500 ²⁾
	Soltis 92 fabric	3000
Min. height	Acrylic – all qualities (used crosswise)	650
	Screen fabric	650
	Soltis 92 fabric	650
Max. height ³⁾	Acrylic – all qualities (used crosswise)	3000 ³⁾
	Screen fabric	3000
	Soltis 92 fabric	3000
Max. area (m ²)	Acrylic – all qualities (used crosswise)	9
	Screen fabric	10.35
	Soltis 92 fabric	9

Attention:

- Only individual units with motor drive available!
- For the stated construction limit values all acrylic fabrics are used crosswise, more information on page 273.

¹⁾ only available with motor drive, **no** crank drive

²⁾ Above 4001 mm only possible with wide guide rail and large drop profile

³⁾ Acrylic fabric – used vertically (stripe designs) – up to max. 2000 mm height

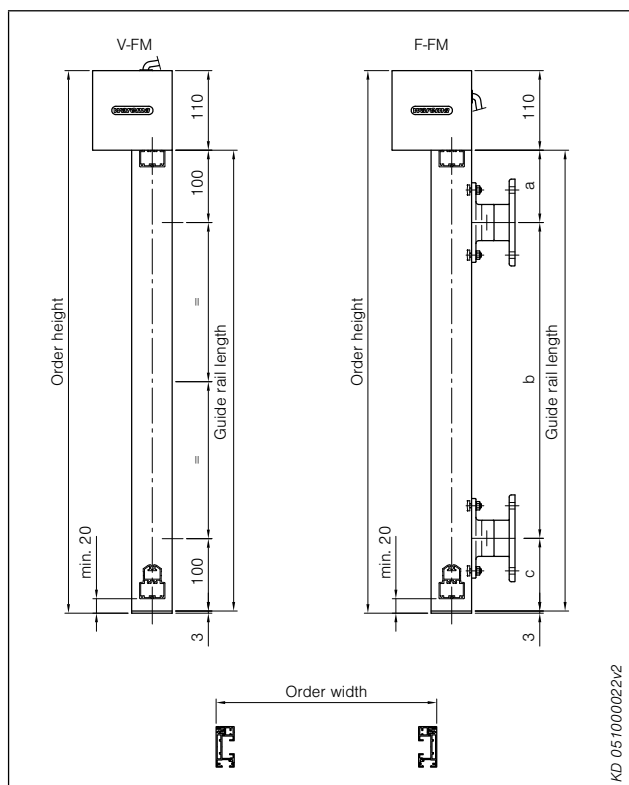


fig. 12: Measuring instructions

Number of drilled holes for direct installation type V-FM

Guide rail length	Fixing holes
–900	2
901–1600	3
1601–2300	4
2301–2900	5

Spacing and number of brackets for stand-off installation, type F-FM

Type	Rail type	Bracket spacing in mm						No. of brackets for guide rail length in mm	
		a		b	c		No. of brackets	2 to	3 to
		min.	max.	max.	min.	max.			
Size 11	C 25/56	100	200	2000	70	300	1900	2900	

Application example

Window awnings with ZIP guidance V-FM

Direct installation, rectangular cover panel size 11

Drop profile 35 x 42

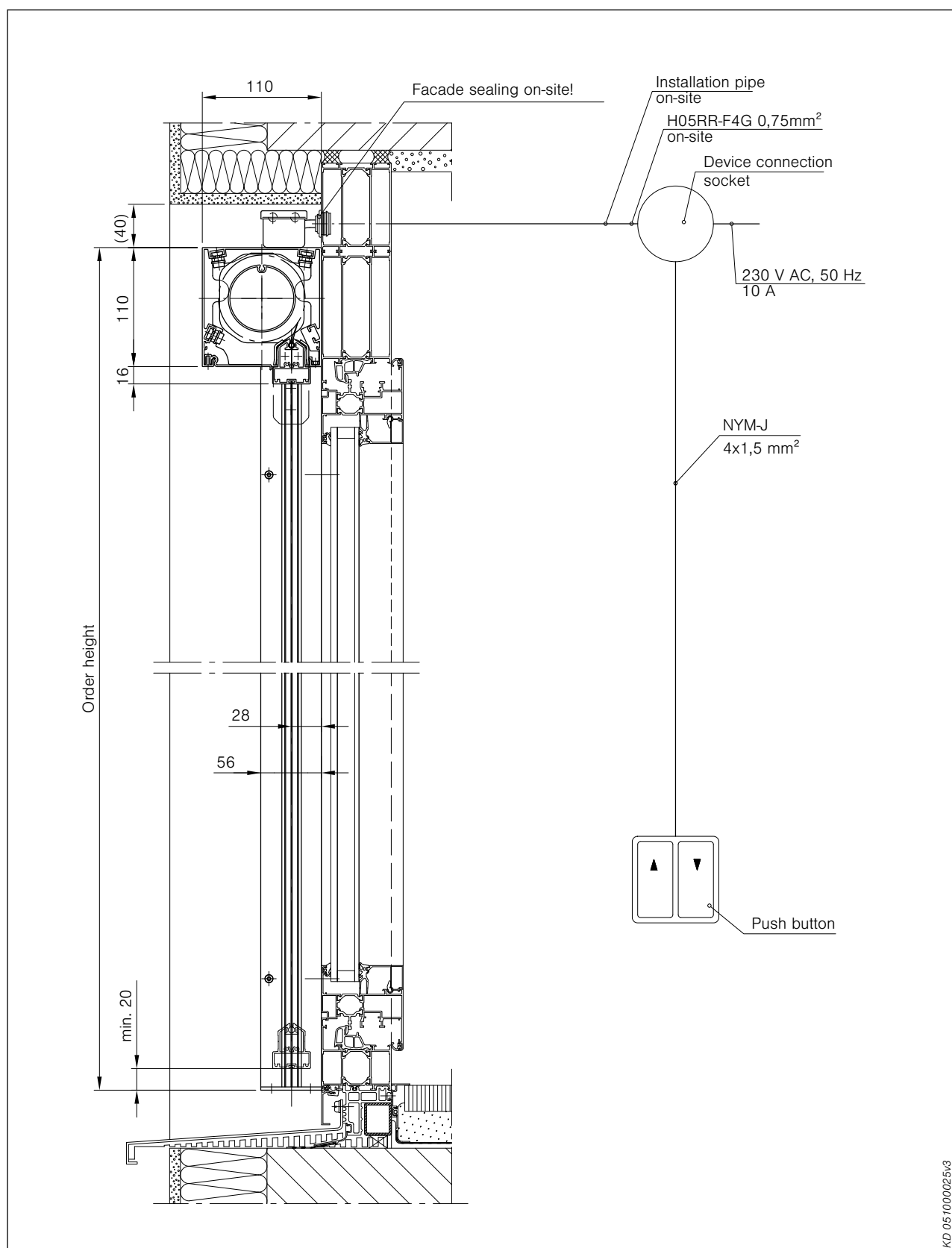


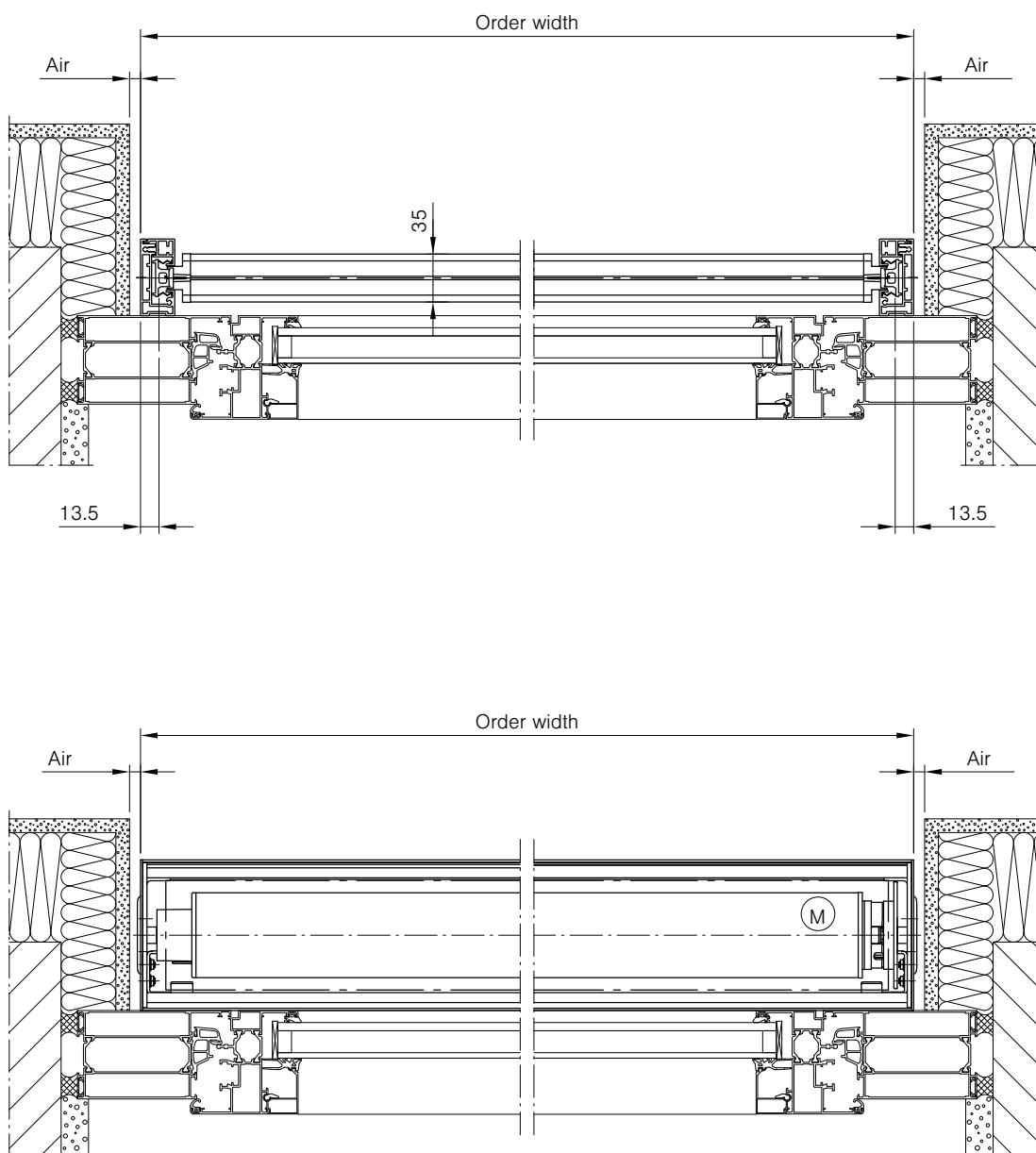
fig. 13: Window awning with ZIP guidance V-FM with rectangular cover panel size 11, direct installation, left rolling blind

Application example

Window awnings with ZIP guidance V-FM

Direct installation, rectangular cover panel size 11

Drop profile 35 x 42



KD 051000026v3

fig. 14: Window awning with ZIP guidance V-FM with rectangular cover panel size 11, direct installation, left rolling blind

Application example

Window awnings with ZIP guidance F-FM

Distance installation, rectangular cover panel size 11

Drop profile 35 x 49

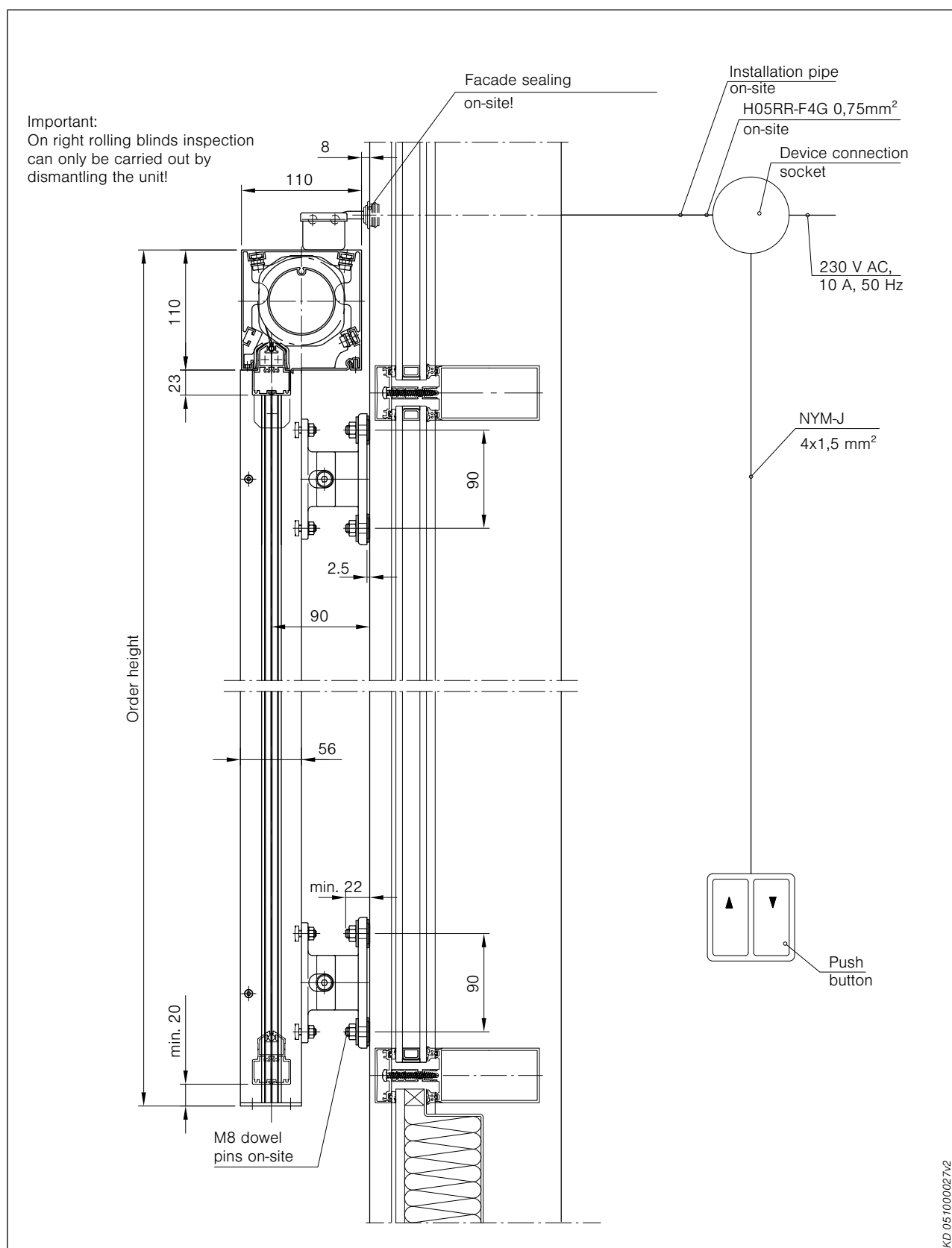


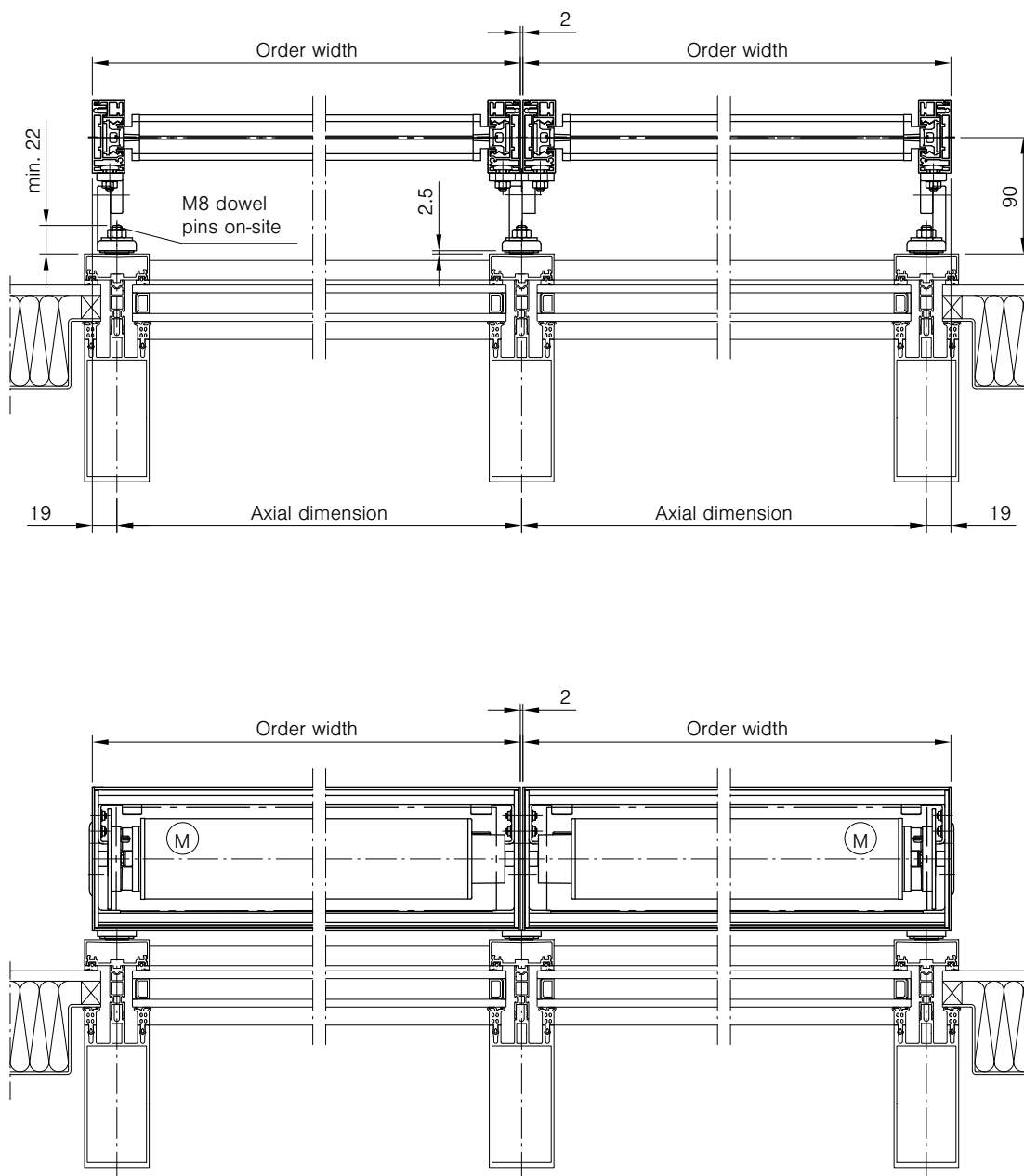
fig. 15: Window awning with ZIP guidance F-FM with rectangular cover panel size 11, distance installation, right rolling blind

Application example

Window awnings with ZIP guidance F-FM

Distance installation, rectangular cover panel size 11

Drop profile 35 x 49



KD 051000028v2

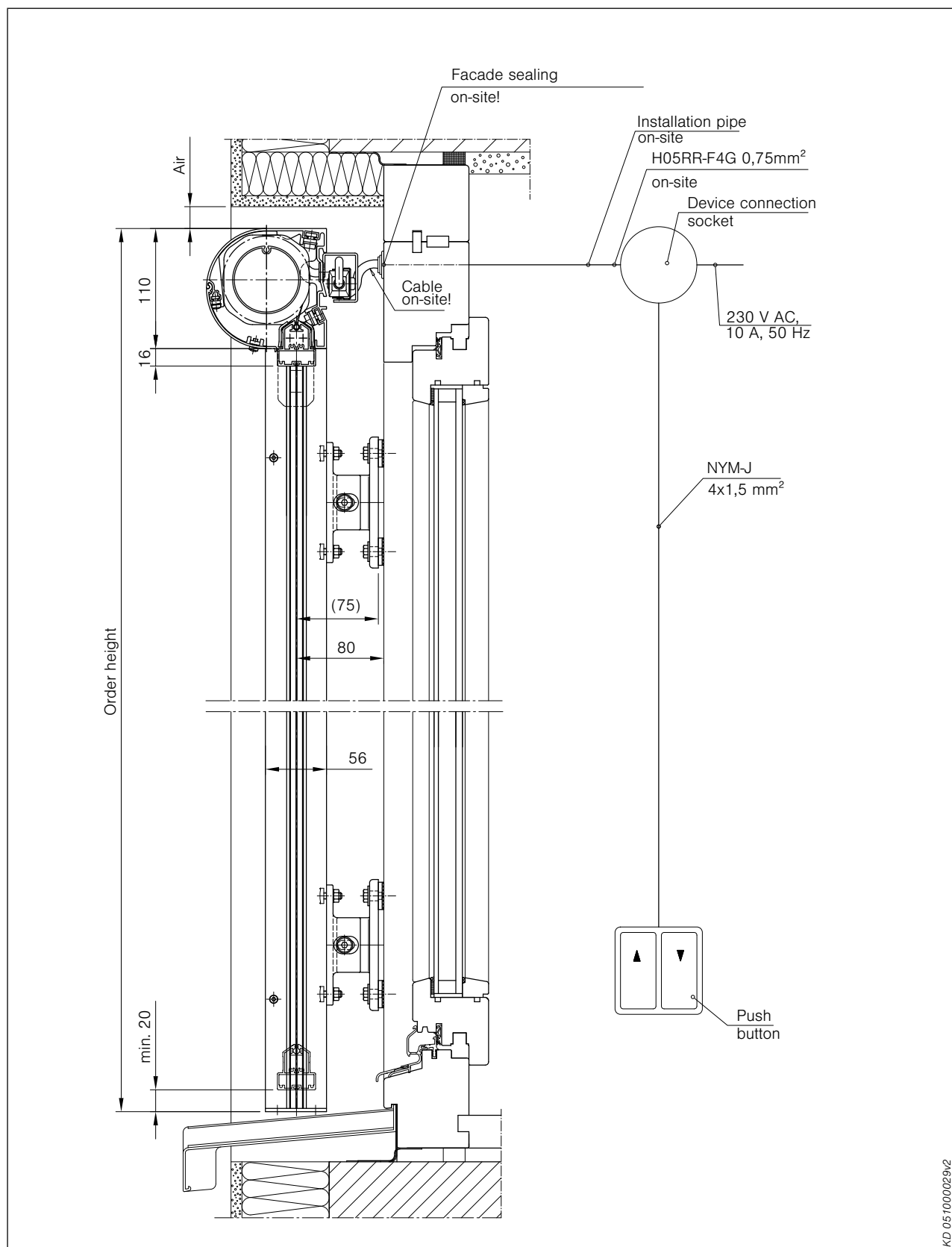
fig. 16: Window awning with ZIP guidance F-FM with rectangular cover panel size 11, distance installation, right rolling blind

Application example

Window awnings with ZIP guidance F-FM

Distance installation, half-round cover panel size 11

Drop profile 35 x 42



KD 051000029v2

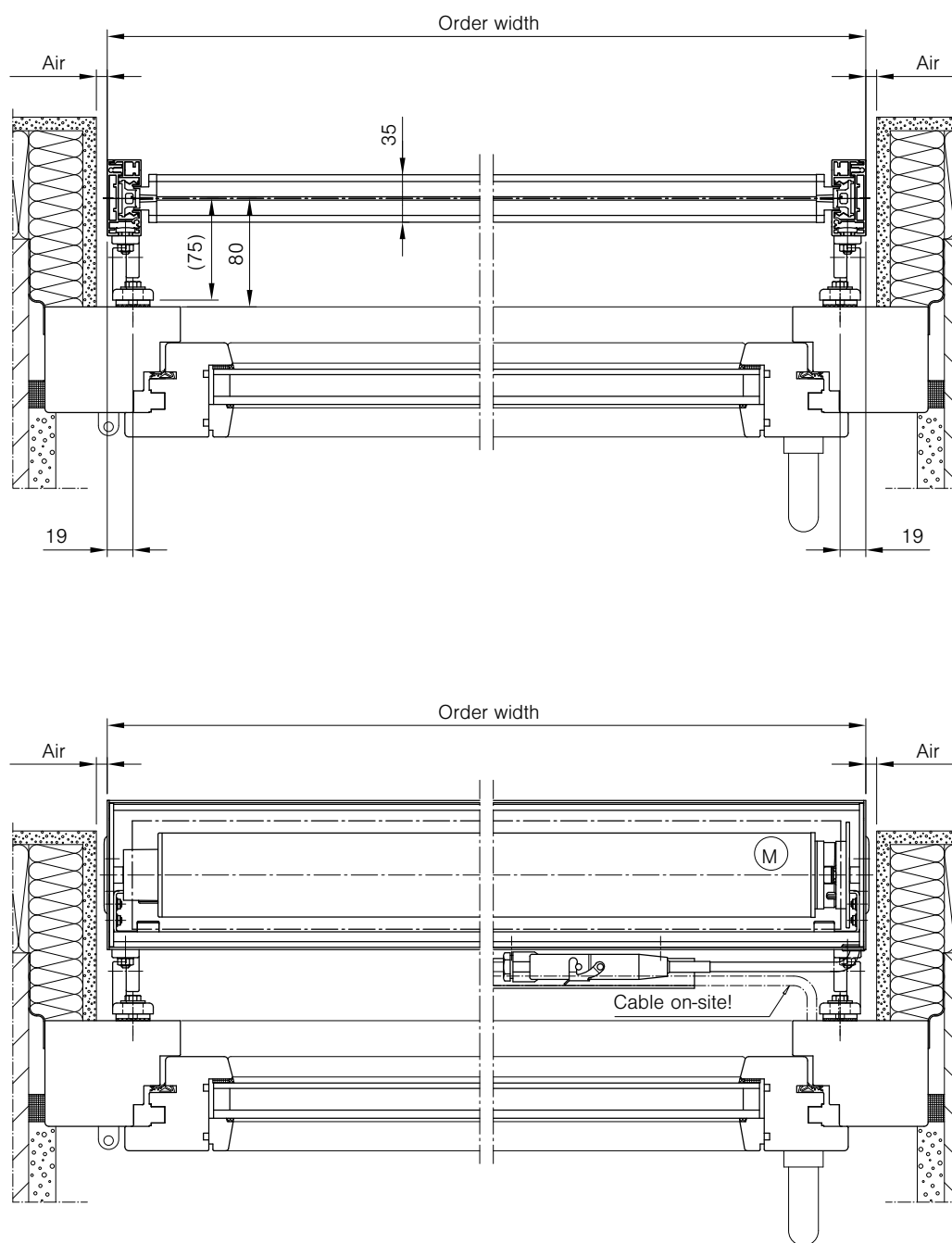
fig. 17: Window awning with ZIP guidance F-FM with half-round cover panel size 11, distance installation, left rolling blind

Application example

Window awnings with ZIP guidance F-FM

Distance installation, half-round cover panel size 11

Drop profile 35 x 42



KD 051000030v3

fig. 18: Window awning with ZIP guidance F-FM with half-round cover panel size 11, distance installation, left rolling blind

Description

Window awnings with ZIP guidance Size 13 cover panel (130x130 mm)

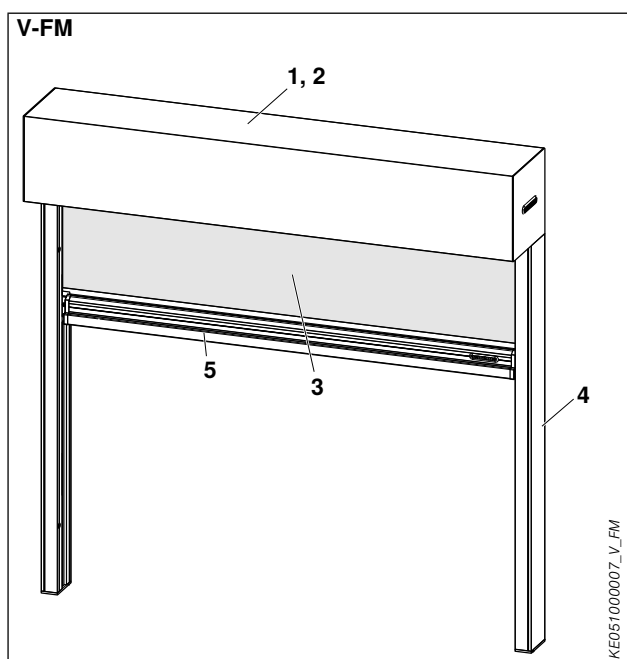


fig. 19: Window awning with ZIP guidance V-FM

- 1 Cover panel size 13 (rectangular)
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Drop profile
- 6 Guide rail bracket (only type F-FM)

Application

Textile external sun shading system for large area shading of vertical punched or element windows as well as for direct mounting in the reveal (type V-FM). Mounting with distance e.g. for mullion and transom facades (type F-FM).

Operation

Basic motor, 230 V, 50 Hz

ZM REA with electronic limit switch-off (optionally with EWFS/WMS radio plug receiver)

EWFS radio motor, 230 V, 50 Hz (optionally)

W-ZM with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-ZM with electronic limit switch-off

More information about drives from page 278.

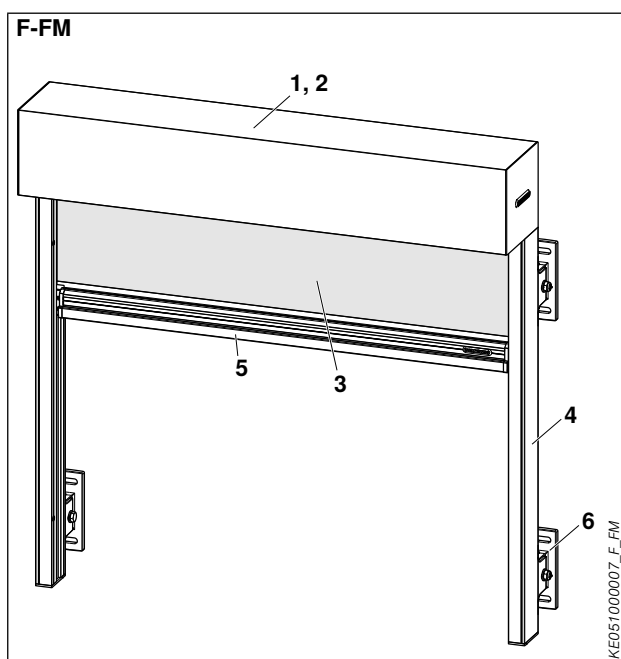


fig. 20: Window awning with ZIP guidance F-FM

Cover panel (1)

With revision cover, available as left and right rolling blinds

Material: aluminium, extruded

Material thickness: 2 mm

Dimensions (HxD): 130x130 mm

Surface: powder-coated, optionally anodised

Fixing: clipped on using consoles on the guide rails

Side covers: none

Shapes: rectangular or round

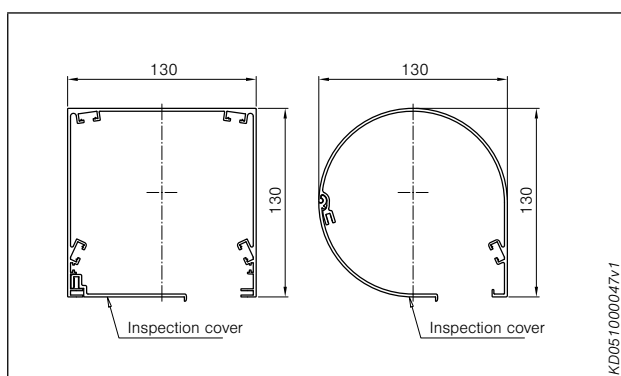


fig. 21: Cover panel

Fabric shaft (2)

Material: steel, galvanised

Material thickness: 1 mm

Dimensions (Ø): 85 mm

Profile: groove tube

Surface: plain

With piping groove for fixing the fabric.

Description

Window awnings with ZIP guidance Size 13 cover panel (130x130 mm)

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric
More information about the fabrics on page 273

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge. Acrylic fabrics are generally used crosswise. Exception: when using striped designs the fabrics are used vertically. For further information see page 273.

Lateral guidance (4)

Rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain and for damping

Material: aluminium, extruded
Dimensions (WxH): 25x56 mm
Profile: C-shaped profile
Surface: powder-coated, optionally anodised
Fixing: directly on the facade or in the reveal (type V-FM)
Guide rail brackets (for left or right rolling blind) (type F-FM)

End closure: plastic, black
Inlay: co-extruded PVC profile

Deep guide rail, size 13 cover panel

Deep guide rail with ZIP guidance for reveal covering. Lateral guidance via ZIP directly in two-piece deep guide rail with inlay for fabric guiding. The inspection part of the guide rail is provided with a joint for maintenance work.

Material: aluminium, extruded
Dimensions: 25x130 mm
Profile: C-shaped profile
Surface: powder-coated, optionally anodised
Fixing: directly on the facade or in the reveal
End closure: aluminium, black
Inlay: co-extruded PVC profile

Wide guide rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain.

Material: aluminium, extruded
Dimensions (WxH): 37x56 mm
Profile: C-shaped profile
Surface: powder-coated, optionally anodised
Fixing: directly on the facade or in the reveal (type V-FM)
Guide rail bracket (type F-FM)

End closure: aluminium, black
Inlay: extruded PVC profile
Springs: spring steel

Drop profile (5)

Material: aluminium, extruded
Material thickness: 1.5 mm

Dimensions (WxH): medium, 35x42 mm
large, 35x49 mm

Profile: rectangular, internal beading channel
Surface: powder-coated, optionally anodised
End plug: plastic, black

The drop profile is generally visible. The drop profile can optionally be fitted with a brush seal.

Fixing and connecting parts

Within the awning

Material: A2 steel or aluminium

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and anodisation are available on request at a surcharge.

All visible plastic parts are black.

Description

Window awnings with ZIP guidance

Size 13 cover panel (130x130 mm) Plaster

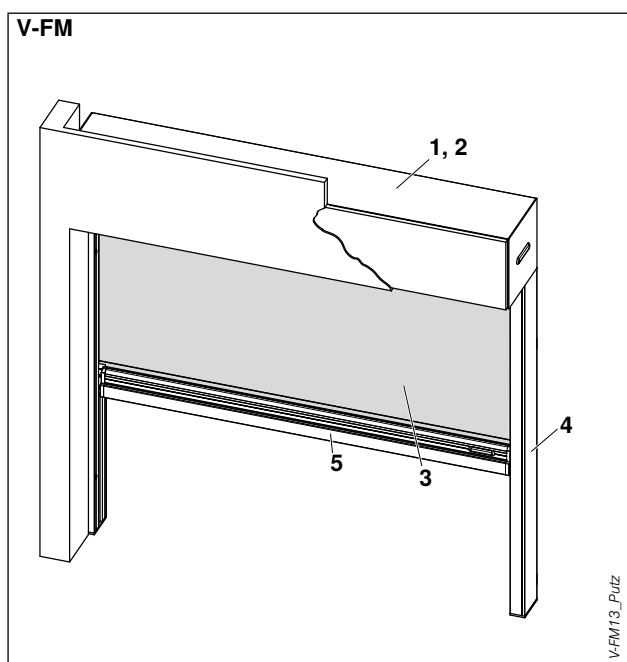


fig. 22: Window awning with ZIP guidance Plaster

- 1 Cover panel size 13 Plaster
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Drop profile

Application

Textile external sun shading system for large area shading of vertical punched windows with cover panel and guide rails for setting in plaster.

Operation

Basic motor, 230 V, 50 Hz

ZM REA with electronic limit switch-off (optionally with EWFS/WMS radio plug receiver)

EWFS radio motor, 230 V, 50 Hz (optionally)

W-ZM with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-ZM with electronic limit switch-off

More information about drives from page 278.

As standard, the Hirschmann coupling is placed within the cover panel with clamped 1 m cable whip. Optionally also with line extension in different lengths available (surcharge).

Cover panel (1)

With inspection cover, lateral sections to receive plastering and plaster base squares comprising plaster base plate (8 mm), only as left-rolling blind

Material: aluminium, extruded

Material thickness: 2 mm

Dimensions (HxD): 130x130 mm plus plaster base square

Surface: powder-coated

Fixing: clipped on using consoles on the guide rails

Side covers: none

Shapes: rectangular

Plaster base profile: 10, 15, 20, 25 or 40 mm distance (the plaster base profile can also be optionally omitted)

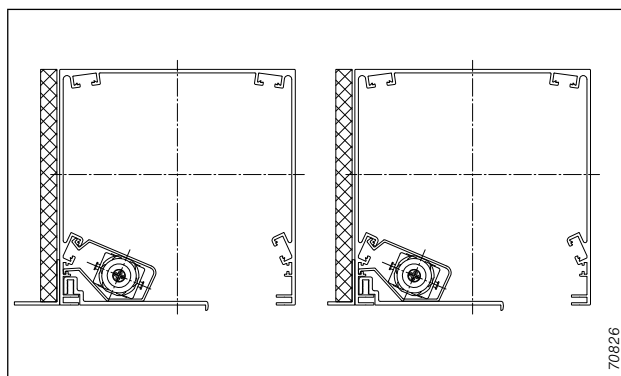


fig. 23: Cover panel

Fabric shaft (2)

Material: steel, galvanised

Material thickness: 1 mm

Dimensions (Ø): 85 mm

Profile: groove tube

Surface: plain

With piping groove for fixing the fabric.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric

Acrylic Perfora/All Weather

Soltis 92 fabric

Screen fabric

More information about the fabrics on page 273

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge. Acrylic fabrics are generally used crosswise. Exception: when using striped designs the fabrics are used vertically. For further information see page 273.

Description

Window awnings with ZIP guidance

Size 13 cover panel (130x130 mm) Plaster

Lateral guidance (4)

Rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain and for damping

Material:	aluminium, extruded
Dimensions (WxH):	25x56 mm
Profile:	C-shaped profile
Surface:	powder-coated
Fixing:	directly on the facade or in the reveal (type V-FM)
End closure:	plastic, black
Inlay:	co-extruded PVC profile

Plaster lathing (optional)

For attaching to guide rail

Material:	plastic
Material thickness:	2 mm
Dimensions (WxH):	17x17 mm
Profile:	L angle
Surface:	white

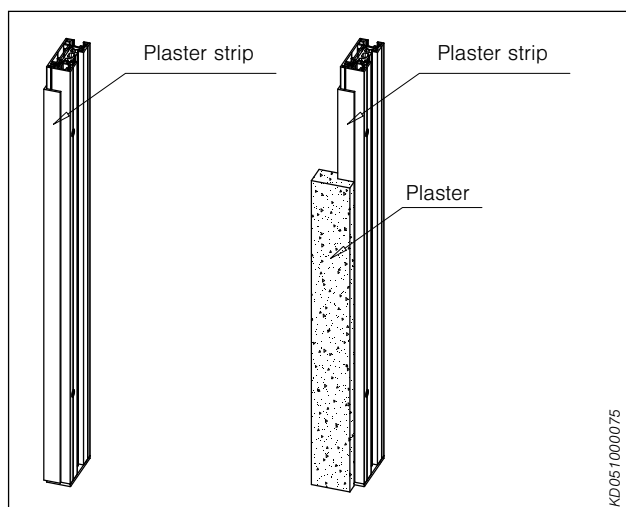


fig. 24: Plaster lathing

Drop profile (5)

Material:	aluminium, extruded
Material thickness:	1.5 mm
Dimensions (WxH):	medium, 35x42 mm large, 35x49 mm
Profile:	rectangular, internal beading channel
Surface:	powder-coated
End plug:	plastic, black

The drop profile is generally visible. The drop profile can optionally be fitted with a brush seal.

Fixing and connecting parts

Within the awning

Material:	A2 steel or aluminium
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Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and anodisation are available on request at a surcharge.

All visible plastic parts are black.

Description
Window awnings with ZIP guidance
Size 13 cover panel (130x130 mm)

Weight tables

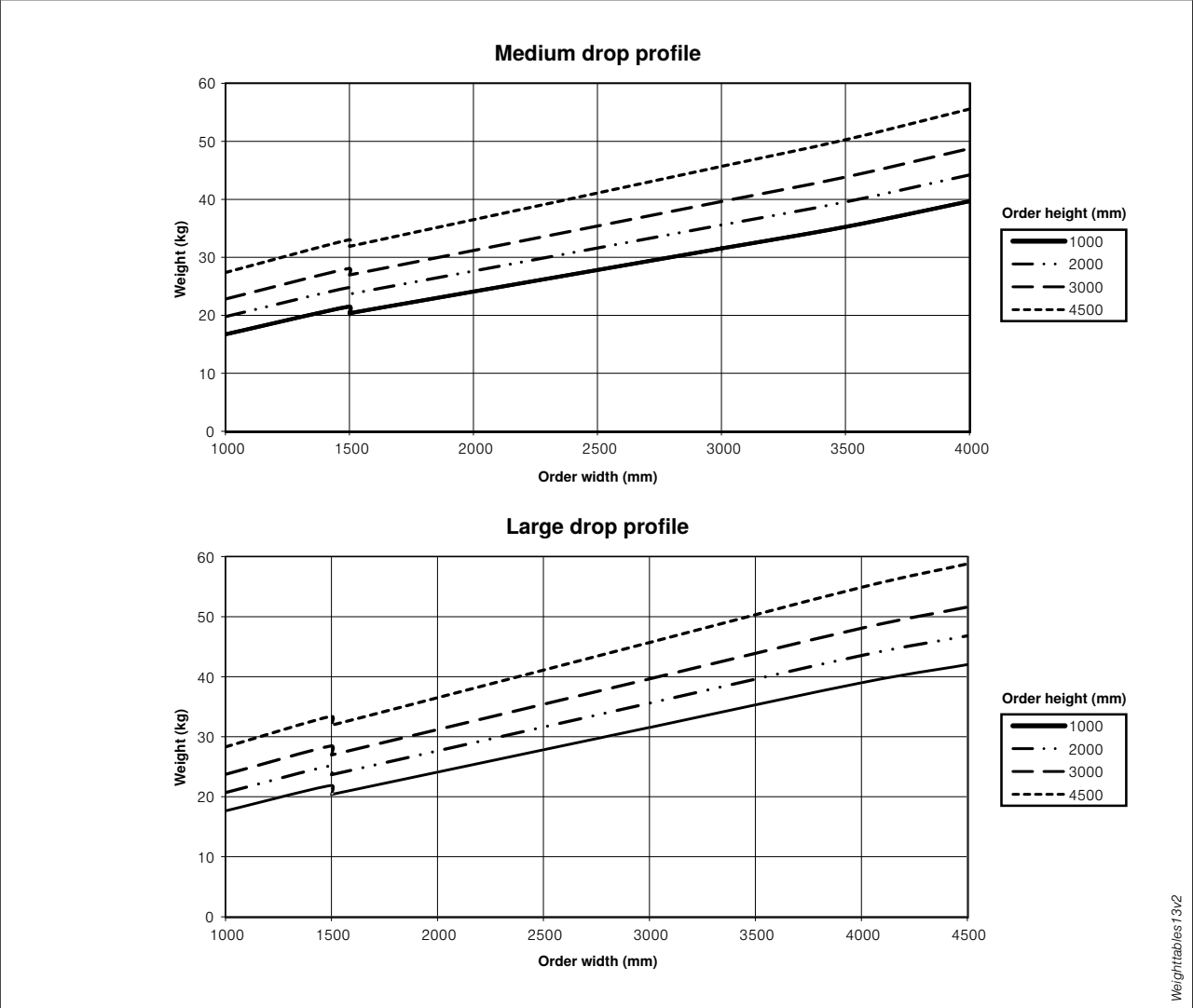


fig. 25: Weight tables

Construction limit values

Window awnings with ZIP guidance Size 13 cover panel (130x130 mm)

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Types V-FM and F-FM (size 13 cover panel, rectangular, round or plaster)

Construction limit values in mm

	Type of fabric	Individual unit
		Motor ¹⁾
Min. width	Acrylic fabric – all qualities (used crosswise)	750
	Screen fabric	750
	Soltis 92 fabric	750
Max. width	Acrylic fabric – all qualities (used crosswise)	4000
	Screen fabric	4500 ²⁾
	Soltis 92 fabric	4000
Min. height	Acrylic fabric – all qualities (used crosswise)	750
	Screen fabric	750
	Soltis 92 fabric	750
Max. height ³⁾	Acrylic fabric – all qualities (used crosswise)	4500 ³⁾⁴⁾
	Screen fabric	4500 ⁴⁾
	Soltis 92 fabric	4500 ⁴⁾
Max. area (m ²)	Acrylic fabric – all qualities (used crosswise)	18 ⁵⁾
	Screen fabric	18 ⁵⁾
	Soltis 92 fabric	18 ⁵⁾

Attention:

- Only individual units with motor drive available!
- For the stated construction limit values all acrylic fabrics are used crosswise, more information on page 273.

¹⁾ Only available with motor drive, **no** crank drive

²⁾ Above 4001 mm only possible with wide guide rail and large drop profile

³⁾ Acrylic fabric – used vertically (stripe designs) – up to max. 2500 mm height

⁴⁾ Cover panel shape Plaster up to max. height 4000 mm

⁵⁾ Cover panel shape plaster up to max. 16 m²

Construction limit values

Window awnings with ZIP guidance

Size 13 cover panel (130x130 mm)

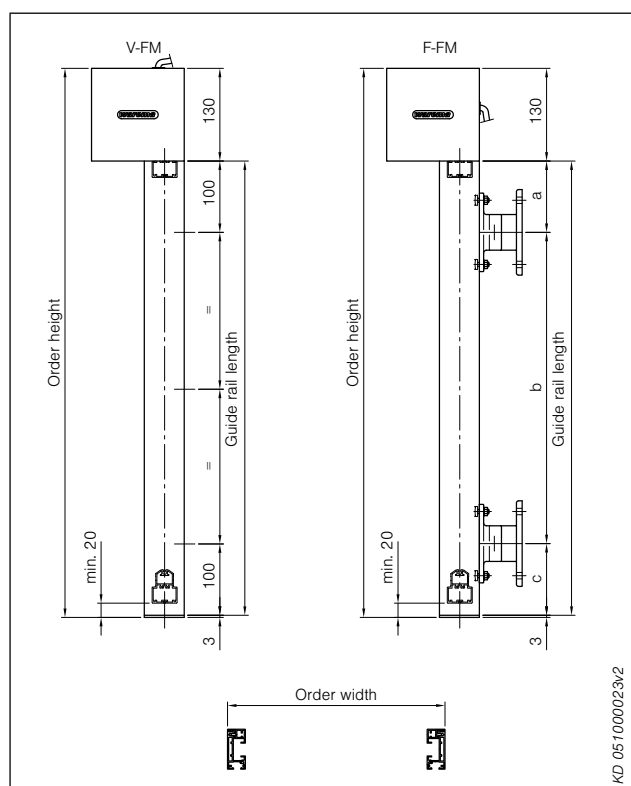


fig. 26: Measuring instructions

Number of drilled holes for direct installation type V-FM

Guide rail length	Fixing holes
–900	2
901–1600	3
1601–2300	4
2301–3000	5
3001–3700	6
3701–4370	7

Spacing and number of brackets for distance installation, type F-FM

Type	Rail type	Bracket spacing in mm					No. of brackets for guide rail length in mm			
		a		b	c		No. of brackets			
		min.	max.	max.	min.	max.	2 to	3 to	4 to	5 to
Size 13	C 25/56	100	200	2000	70	300	1900	2900	3900	4370

Application example

Window awnings with ZIP guidance V-FM

Direct installation, rectangular cover panel size 13

Drop profile 35x42

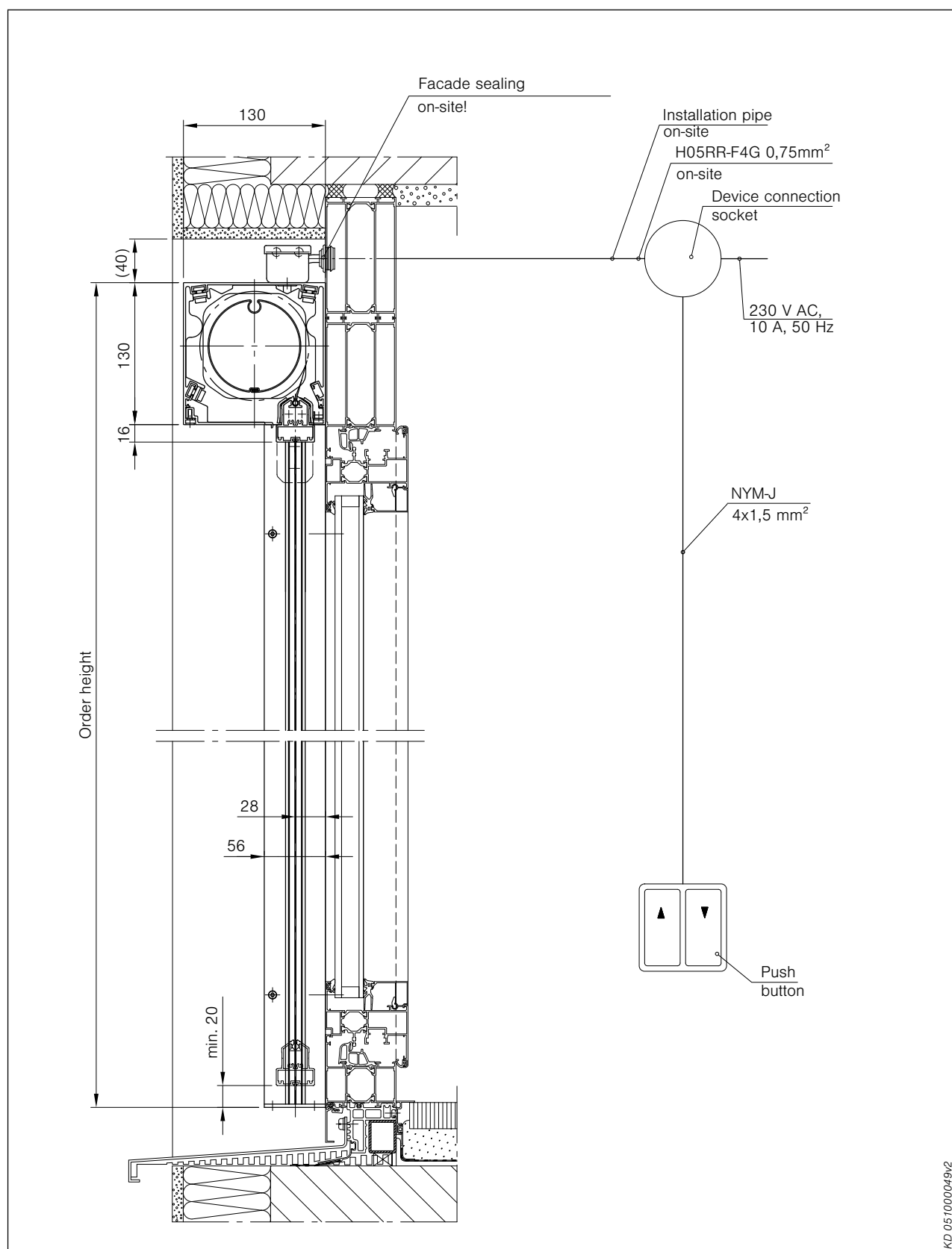


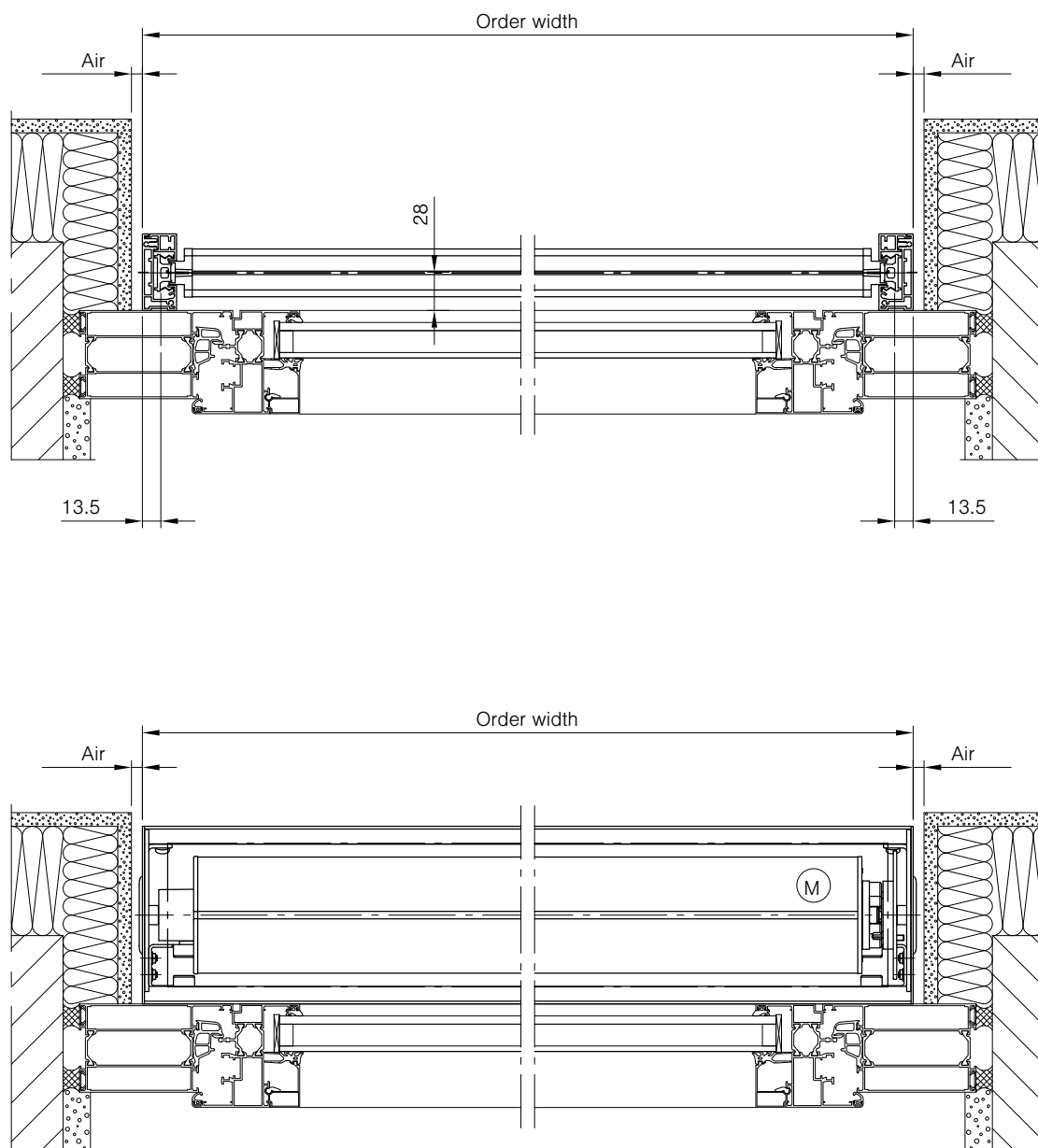
fig. 27: Window awning with ZIP guidance V-FM with rectangular cover panel size 13, direct installation, left rolling blind

Application example

Window awnings with ZIP guidance V-FM

Direct installation, rectangular cover panel size 13

Drop profile 35x42



KD 051000050v2

fig. 28: Window awning with ZIP guidance V-FM with rectangular cover panel size 13, direct installation, left rolling blind

Application example

Window awnings with ZIP guidance F-FM

Distance installation, rectangular cover panel size 13

Drop profile 35x49

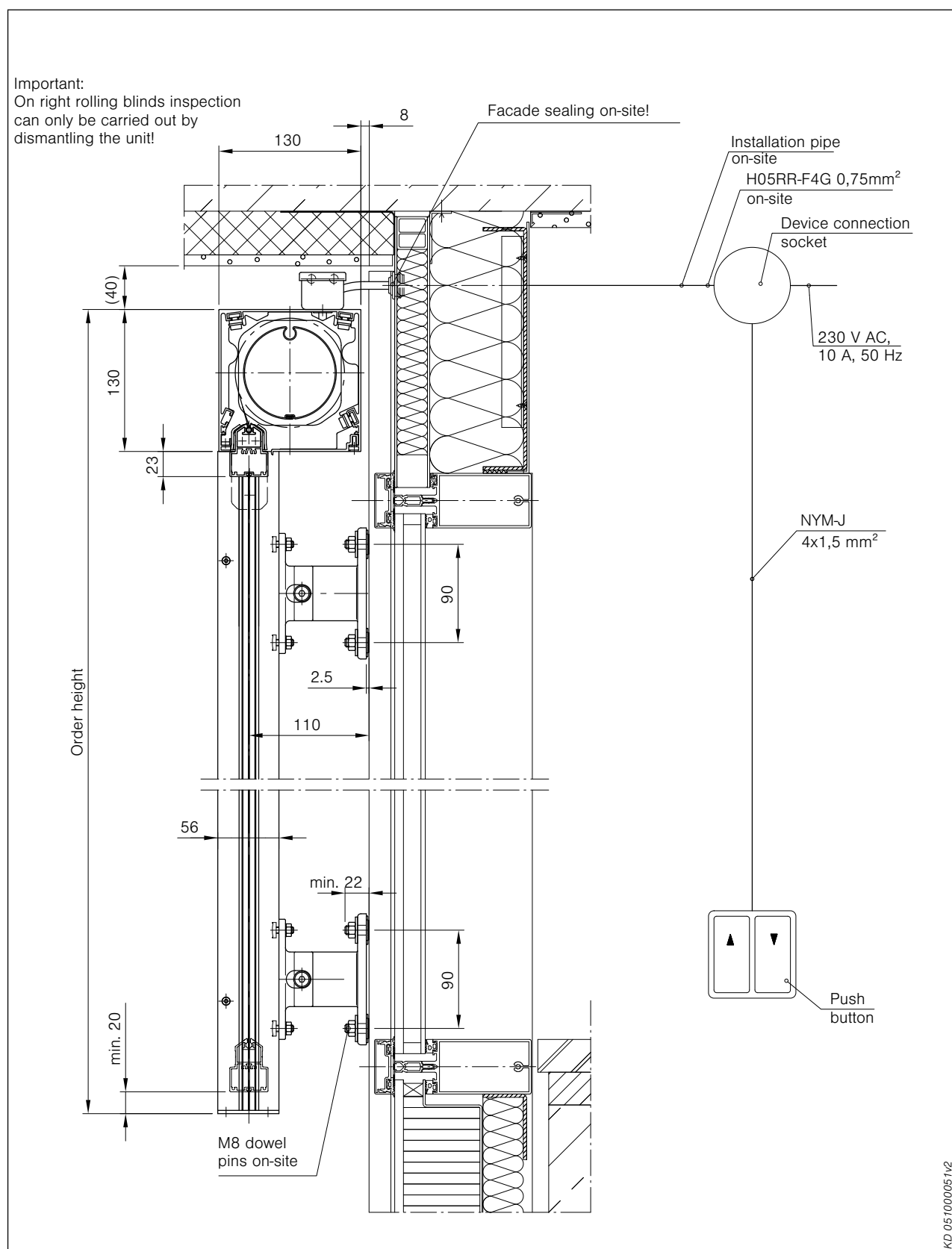


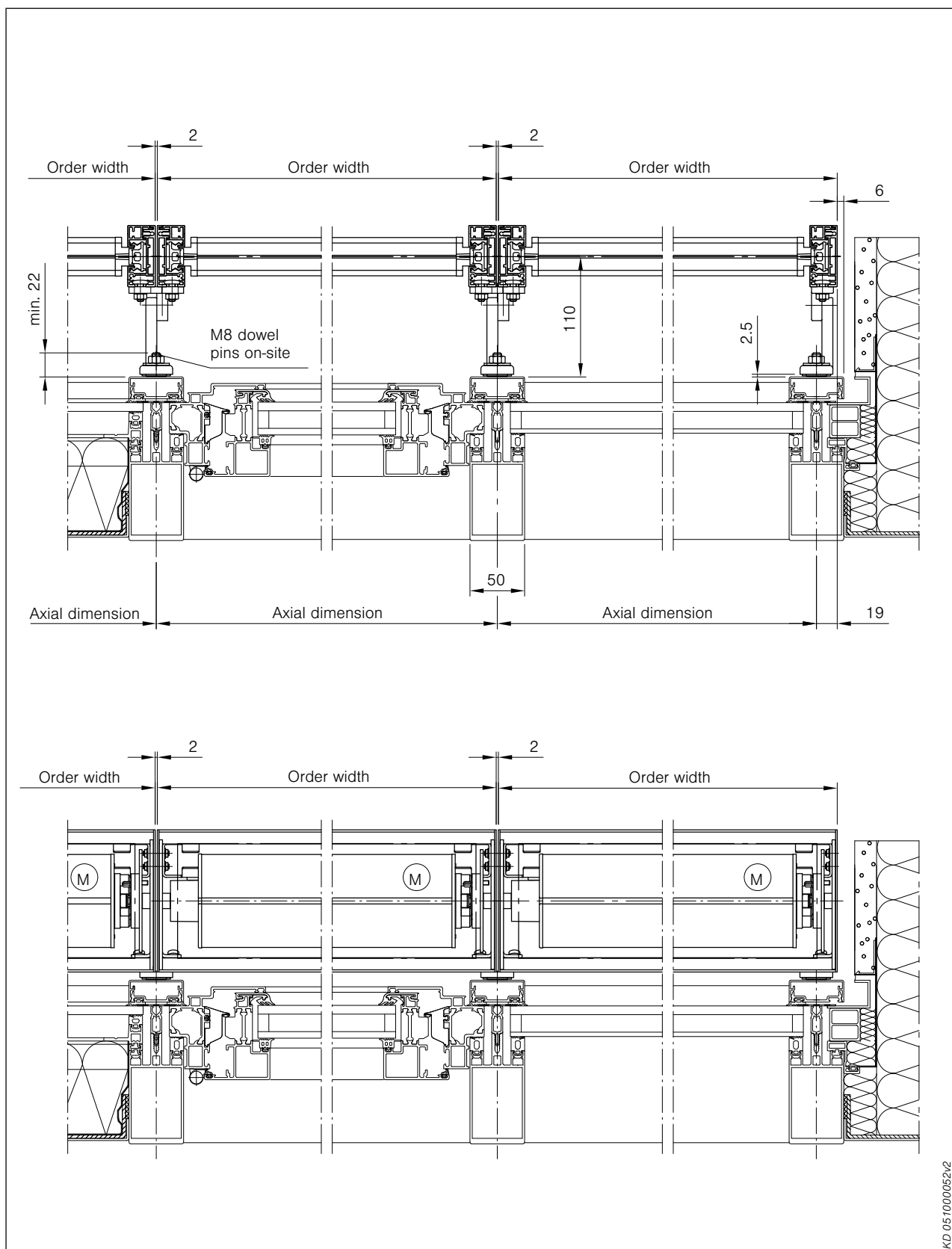
fig. 29: Window awning with ZIP guidance F-FM with rectangular cover panel size 13, distance installation, right rolling blind

Application example

Window awnings with ZIP guidance F-FM

Distance installation, rectangular cover panel size 13

Drop profile 35x49



KD 051000052v2

fig. 30: Window awning with ZIP guidance F-FM with rectangular cover panel size 13, distance installation, right rolling blind

Application example

Window awnings with ZIP guidance V-FM

Direct installation, cover panel size 13 plaster

Drop profile 35x49

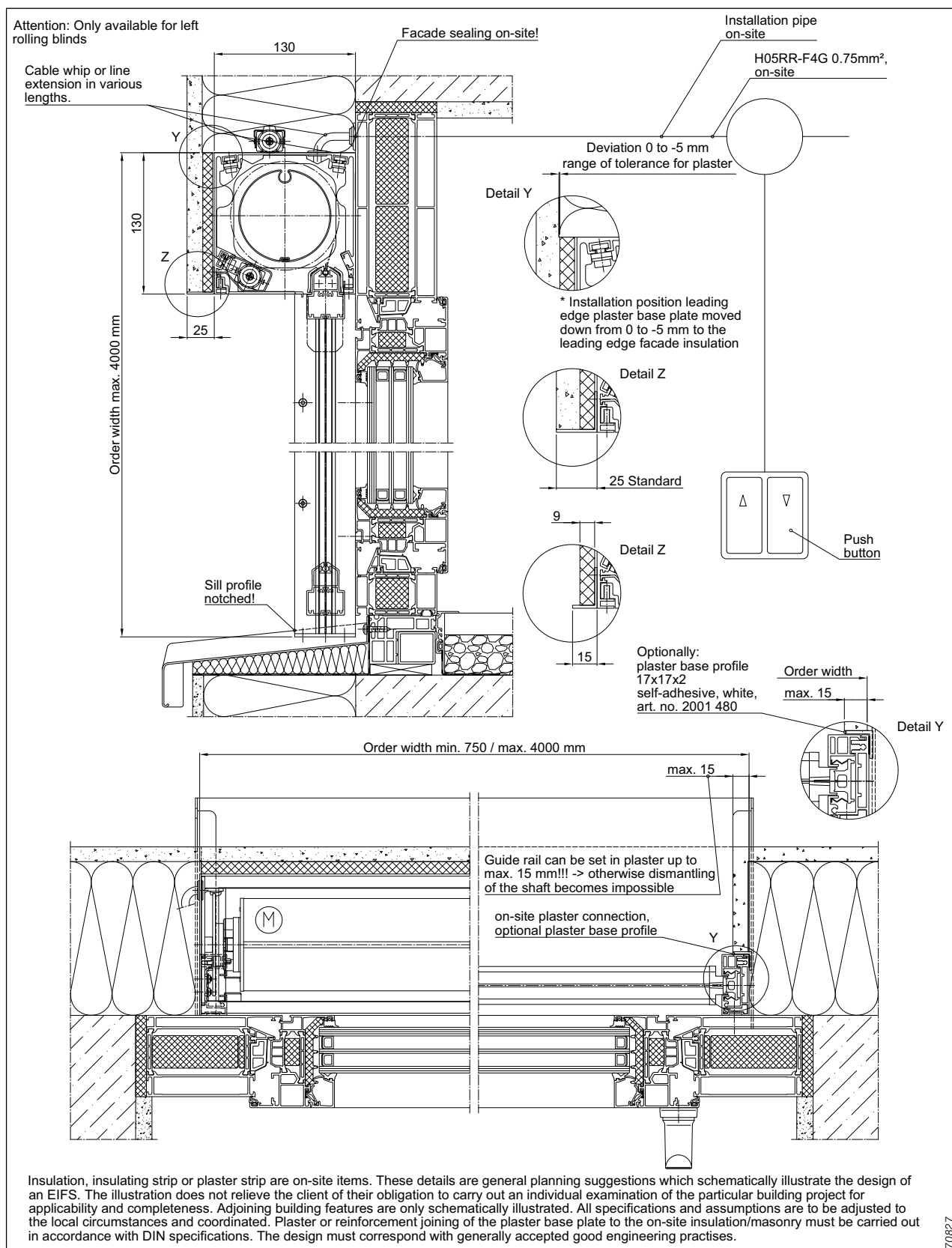


fig. 31: Window awning with ZIP guidance V-FM

Notes

Description

Window awnings with ZIP guidance Size 15 cover panel (150x150 mm)

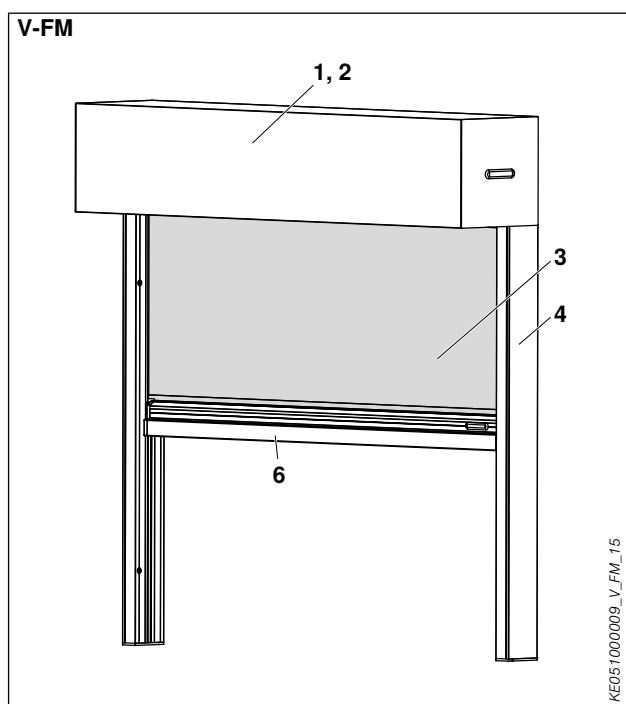


fig. 32: Window awning with ZIP guidance V-FM

- 1 Cover panel (rectangular)
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Guide rail bracket (only type F-FM)
- 6 Drop profile

Application

Textile external sun shading system with large cover panel size for shading particularly large vertical punched or element windows as well as for direct mounting in the reveal (type V-FM). Mounting with distance e.g. for mullion and transom facades (type F-FM).

Operation

Basic motor, 230 V, 50 Hz

ZM REA with electronic limit switch-off (optionally with EWFS/WMS radio plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-ZM with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-ZM with electronic limit switch-off

More information about drives from page 278.

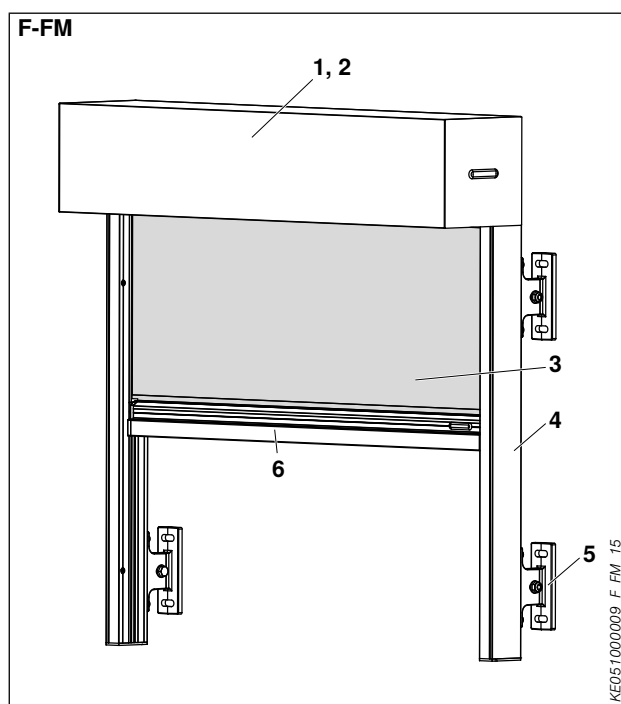


fig. 33: Window awning with ZIP guidance F-FM

Cover panel (1)

With revision cover, available as left and right rolling blinds

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions HxD: 150x150 mm

Surface: powder-coated, optionally anodised
clipped on using consoles on the guide rails

Fixing:
Side covers: aluminium, powder-coated
Shapes: rectangular

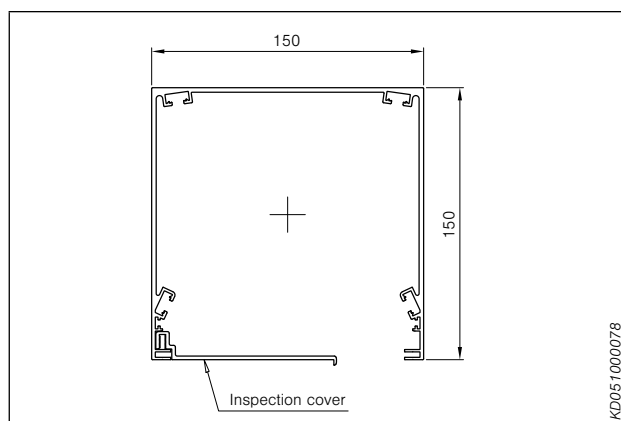


fig. 34: Cover panel

Fabric shaft (2)¹⁾

Material: aluminium, extruded

Material thickness: 2.1 mm/2.3 mm

Dimensions (Ø): 108 mm/120 mm

¹⁾ for Soltis 92 fabric, a aluminium shaft with Ø120 mm is used

Description

Window awnings with ZIP guidance Size 15 cover panel (150x150 mm)

Profile: groove tube
Surface: plain

With piping groove for fixing the fabric. The fabric shaft size depends on the used fabric quality in relation to the relevant sizes.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric
PVC film, for viewing field (only in combination with screen fabric, wide guide rail and large drop profile)
More information about the fabrics on page 273

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge. Acrylic fabrics are generally used crosswise. Exception: when using striped designs the fabrics are used vertically. From a width of 4001 mm, only unicoloured designs used crosswise are possible.

For further information see page 273.

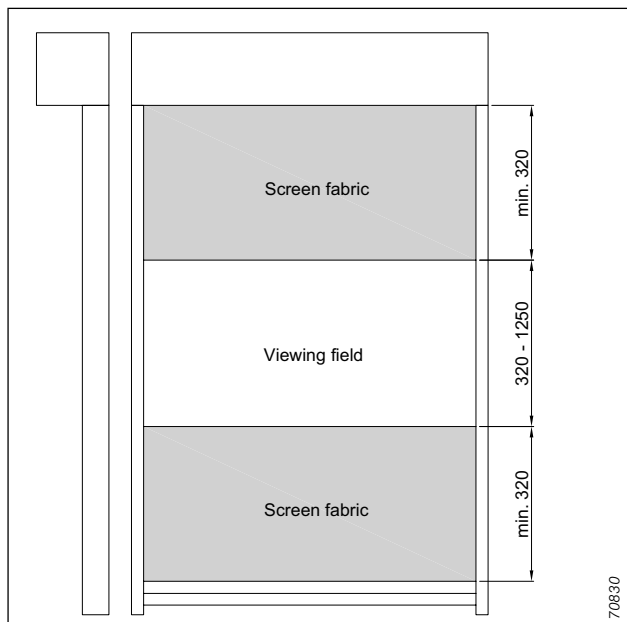


fig. 35: Viewing field made from PVC film

Lateral guidance (4, 5)

Rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain and for damping

Material: aluminium, extruded
Dimensions (WxH): 25x56 mm
Profile: C-shaped profile
Surface: powder-coated, optionally anodised
Fixing: directly on the facade or in the reveal (type V-FM)
Guide rail bracket (type F-FM)
End closure: plastic, black
Inlay: co-extruded PVC profile

Wide rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain.

Material: aluminium, extruded
Dimensions (WxH): 37x56 mm
Profile: C-shaped profile
Surface: powder-coated, optionally anodised
Fixing: directly on the facade or in the reveal (type V-FM)
Guide rail bracket (type F-FM) on request
End closure: aluminium, black
Inlay: co-extruded PVC profile
Springs: spring steel

Drop profile (6)

Material: aluminium, extruded
Material thickness: 1.5 mm
Dimensions (WxH): medium, 35x42 mm (up to max. 4000 mm order width)
large, 35x49 mm
Profile: rectangular, internal beading channel
Surface: powder-coated, optionally anodised
End plug: plastic, black

The drop profile is generally visible. The drop profile can optionally be fitted with a brush seal.

Fixing and connecting parts

Within the awning

Material: A2 steel or aluminium

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours in accordance with WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours or anodisation are available on request for a surcharge.

All visible plastic parts are black.

Description
Window awnings with ZIP guidance
Size 15 cover panel (150x150 mm)

Weight tables

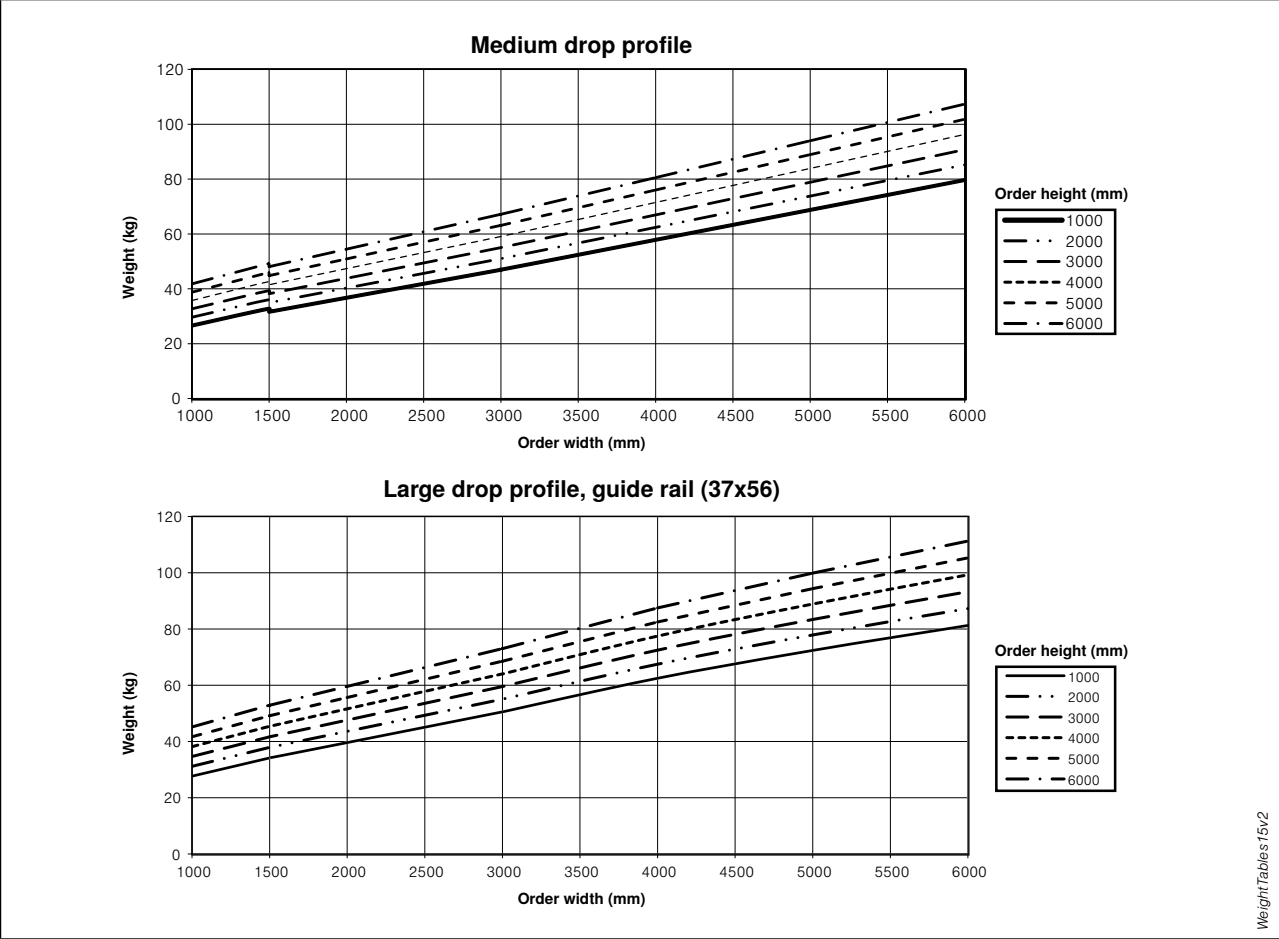


fig. 36: Weight tables

Construction limit values

Window awnings with ZIP guidance Size 15 cover panel (150x150 mm)

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Type V-FM and F-FM (size 15 cover panel, rectangular)

Construction limit values in mm

	Type of fabric	Individual unit
		Motor ¹⁾
Min. width	Acrylic – all qualities (used crosswise)	750
	Screen fabric	750
	Soltis 92 fabric	750
Max. width	Acrylic – all qualities (used crosswise)	6000 ²⁾
	Screen fabric	6000 ³⁾
	Screen fabric with PVC viewing field	4000
	Soltis 92 fabric	4000
Min. height	Acrylic – all qualities (used crosswise)	950
	Screen fabric	950
	Soltis 92 fabric	950
Max. height ⁴⁾	Acrylic – all qualities (used crosswise)	6000 ⁴⁾
	Screen fabric	6000
	Screen fabric with PVC viewing field	3000
	Soltis 92 fabric	6000
Max. area (m ²)	Acrylic – all qualities (used crosswise)	18
	Screen fabric	18
	Screen fabric with PVC viewing field	12
	Soltis 92 fabric	18

Attention:

- Only individual units with motor drive available!
- For the stated construction limit values all acrylic fabrics are used crosswise, more information on page 273.

¹⁾ only available with motor drive, **no** crank drive

²⁾ Acryl All Weather only available up to 4000 mm

³⁾ Above 4001 mm only possible with wide guide rail and large drop profile.

⁴⁾ Acrylic fabric – used vertically (stripe designs) – up to max. 4000 mm height

Number of drilled holes for direct installation type V-FM

Guide rail length	Fixing holes
–900	2
901–1600	3
1601–2300	4
2301–3000	5
3001–3700	6
3701–4400	7
4401–5100	8
5101–5800	9
5801–5850	10

Construction limit values

Window awnings with ZIP guidance Size 15 cover panel (150x150 mm)

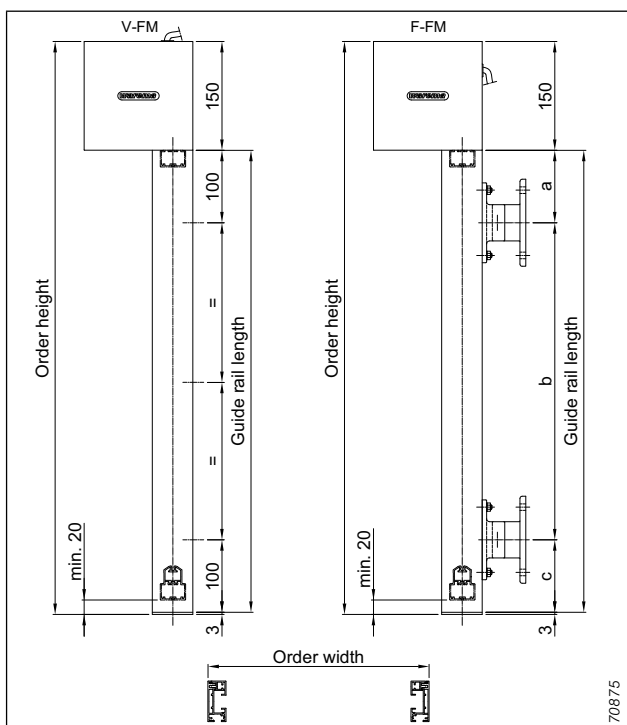


fig. 37: Measuring instructions with narrow guide rail

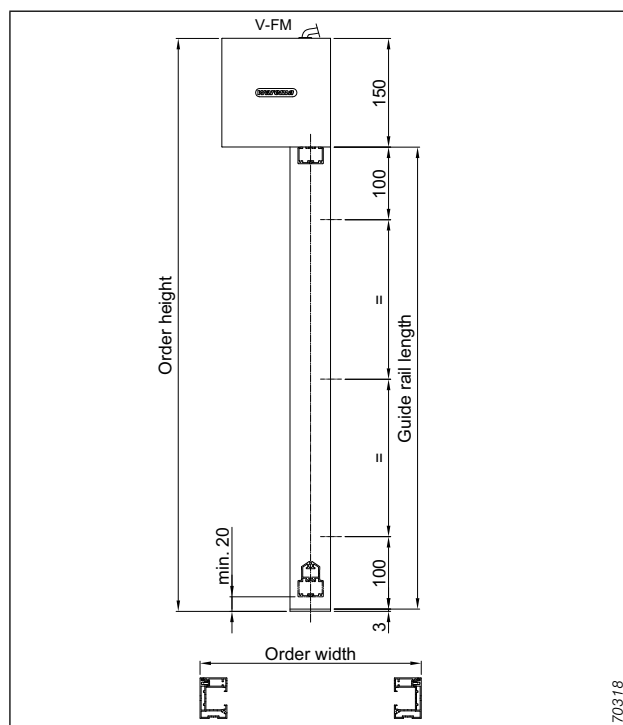


fig. 38: Measuring instructions with wide guide rail

Spacing and number of brackets for distance installation, type F-FM

Type	Rail type	Bracket spacing in mm					No. of brackets for guide rail length in mm				
		a		b	c		No. of brackets				
		min.	max.	max.	min.	max.	2 to	3 to	4 to	5 to	6 to
Size 15	C 25/56	100	200	2000	70	300	1900	2900	3900	4900	5850

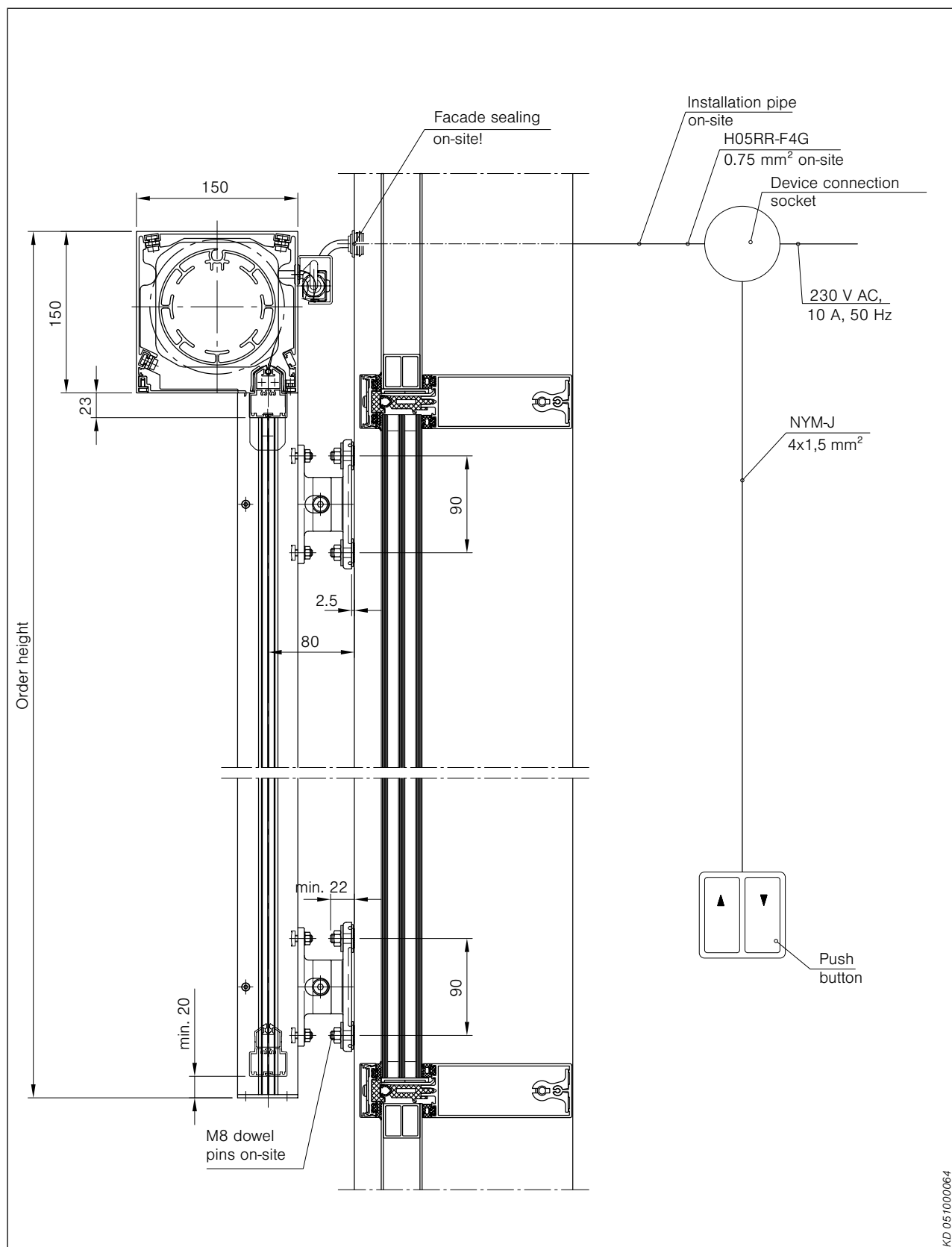
Application example

Window awnings with ZIP guidance F-FM

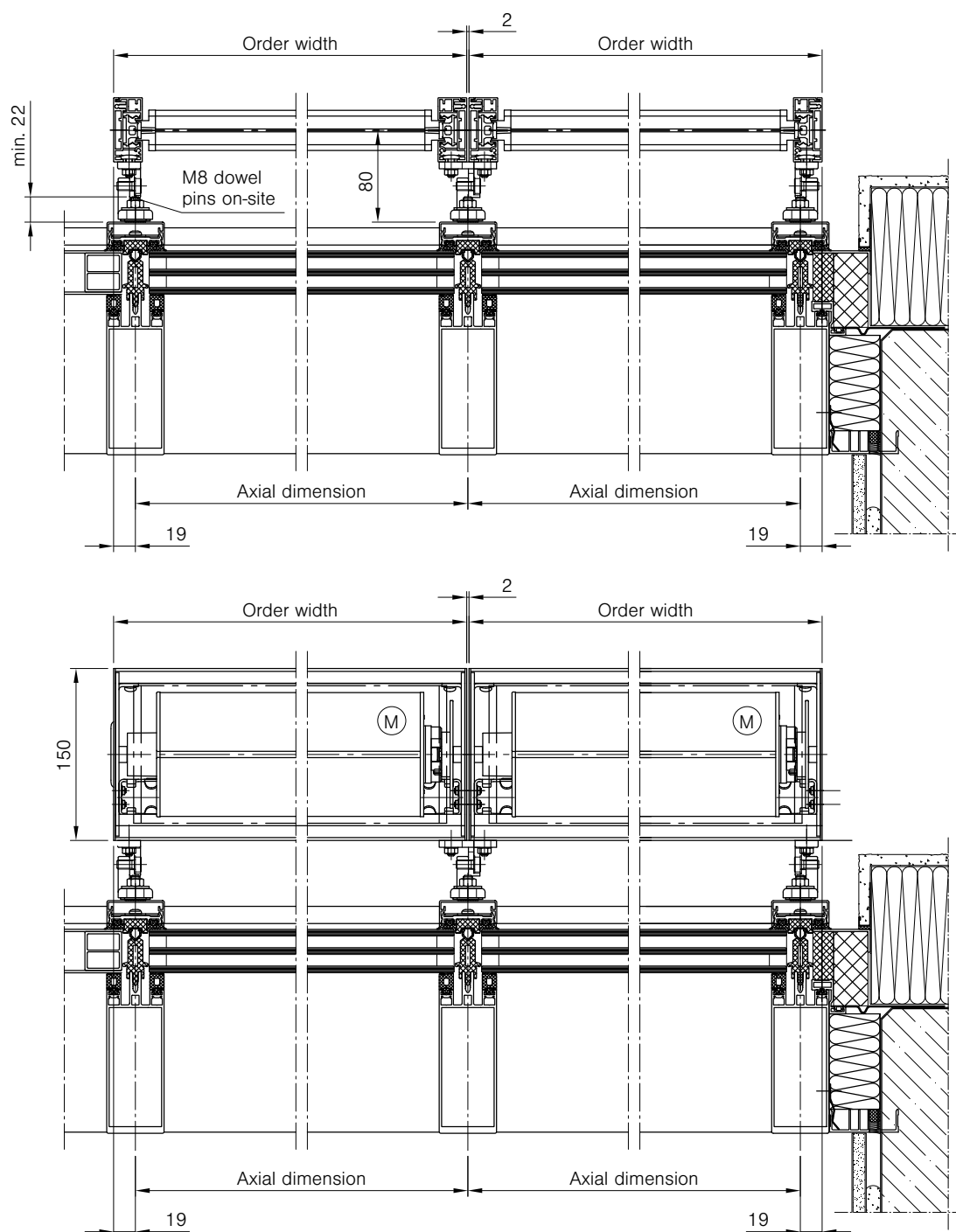
Distance installation, rectangular cover panel size 15

Guide rail (25x56 mm)

Drop profile 35x49



KD 051000064

Application example**Window awnings with ZIP guidance F-FM****Distance installation, rectangular cover panel size 15****Guide rail (25x56 mm)****Drop profile 35x49**

KD 051000065

fig. 40: Window awning with ZIP guidance F-FM

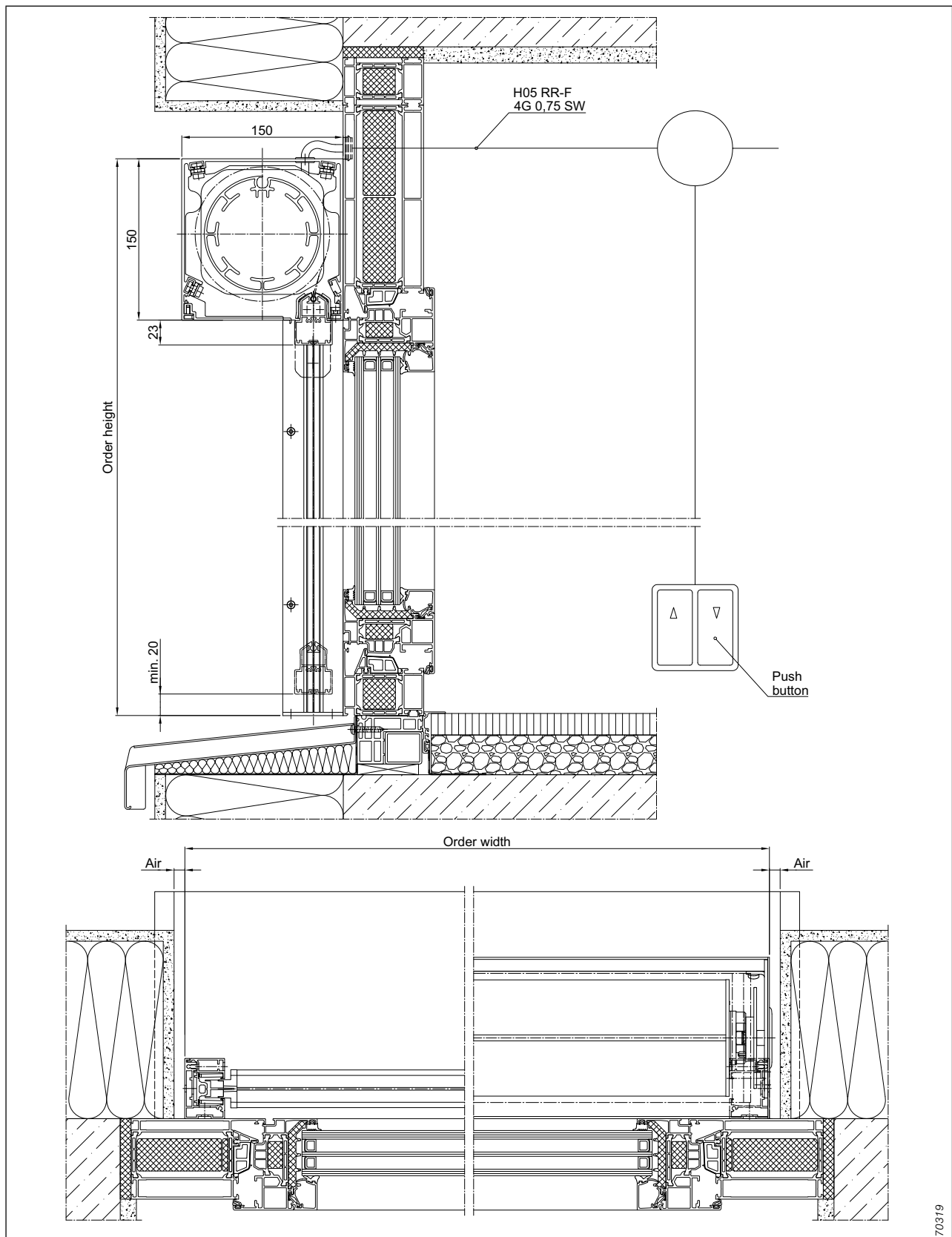
Application example

Window awnings with ZIP guidance F-FM

Distance installation, rectangular cover panel size 15

Wide guide rail (37x56 mm)

Drop profile 35x49



70319

fig. 41: Window awning with ZIP guidance F-FM, wide guide rail

Details

Guide rails

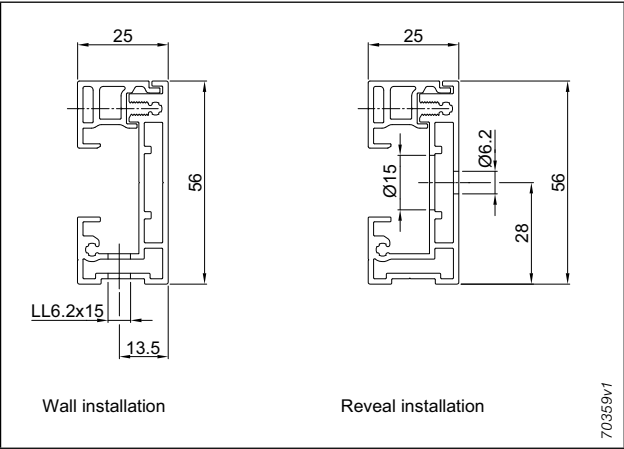


fig. 42: Guide rail, V-FM

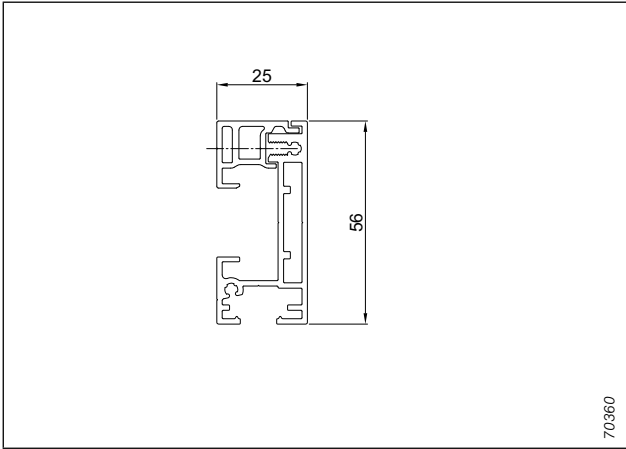


fig. 43: Guide rail, F-FM

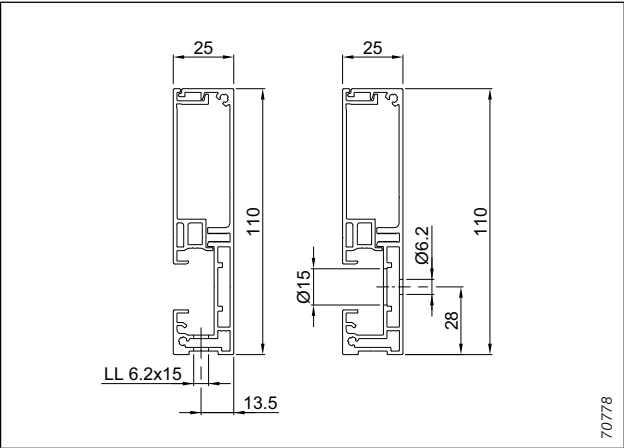


fig. 44: Deep guide rail, size 11 cover panel

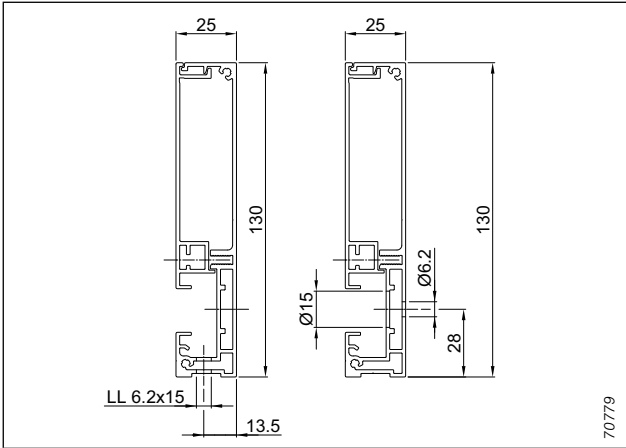


fig. 45: Deep guide rail, size 13 cover panel

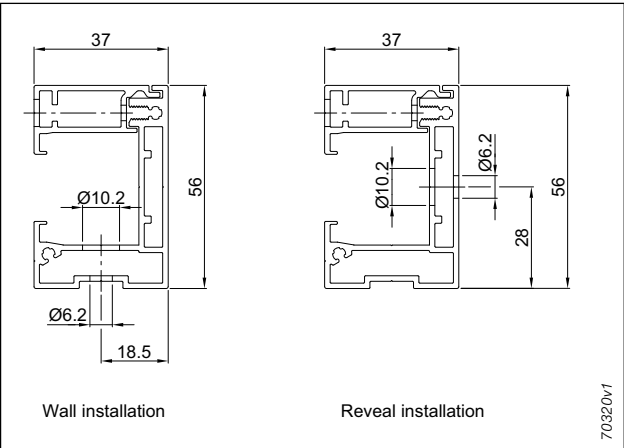


fig. 46: Wide guide rail 37x56 mm, V-FM

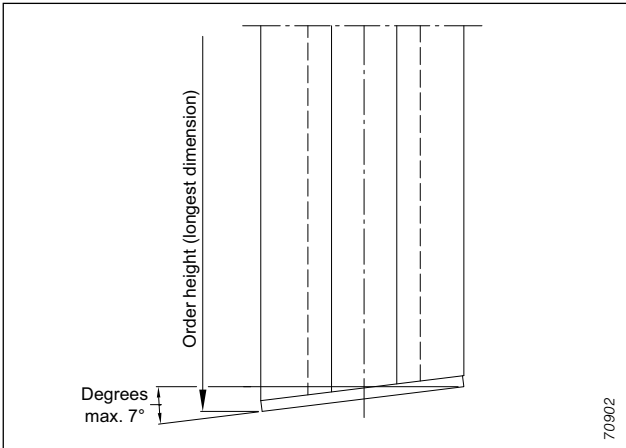


fig. 47: Diagonal cross section of guide rails

Details

Guide rail bracket for distance mounting (type F-FM)

Guide rail bracket no. 7

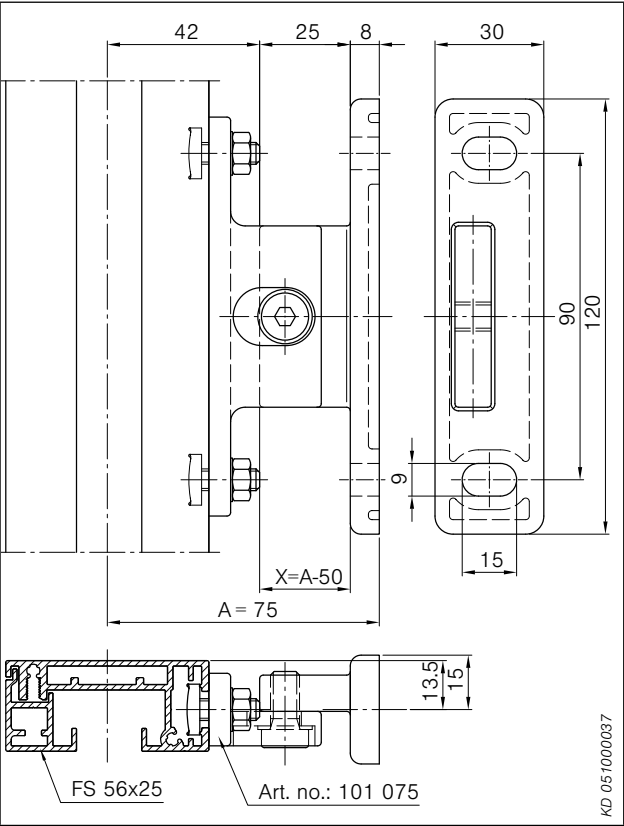


fig. 48: Guide rail bracket no. 7

Guide rail	Distance "A" in mm	Length of bracing "X" (X=A-50)	Shifting range
56x25	75	25	+0.5 -6.5
56x25	max. 150	100	+0.5 -6.5

Guide rail bracket no. 8

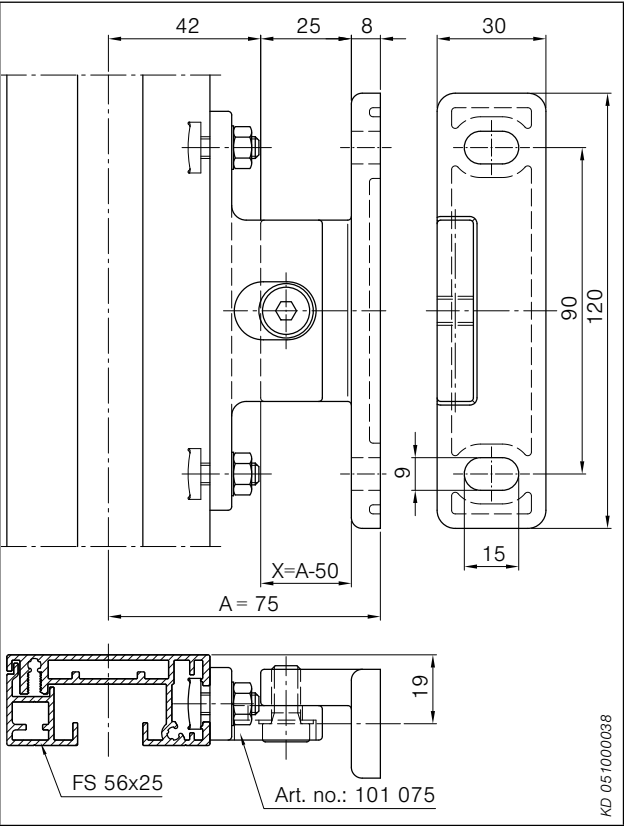


fig. 49: Guide rail bracket no. 8

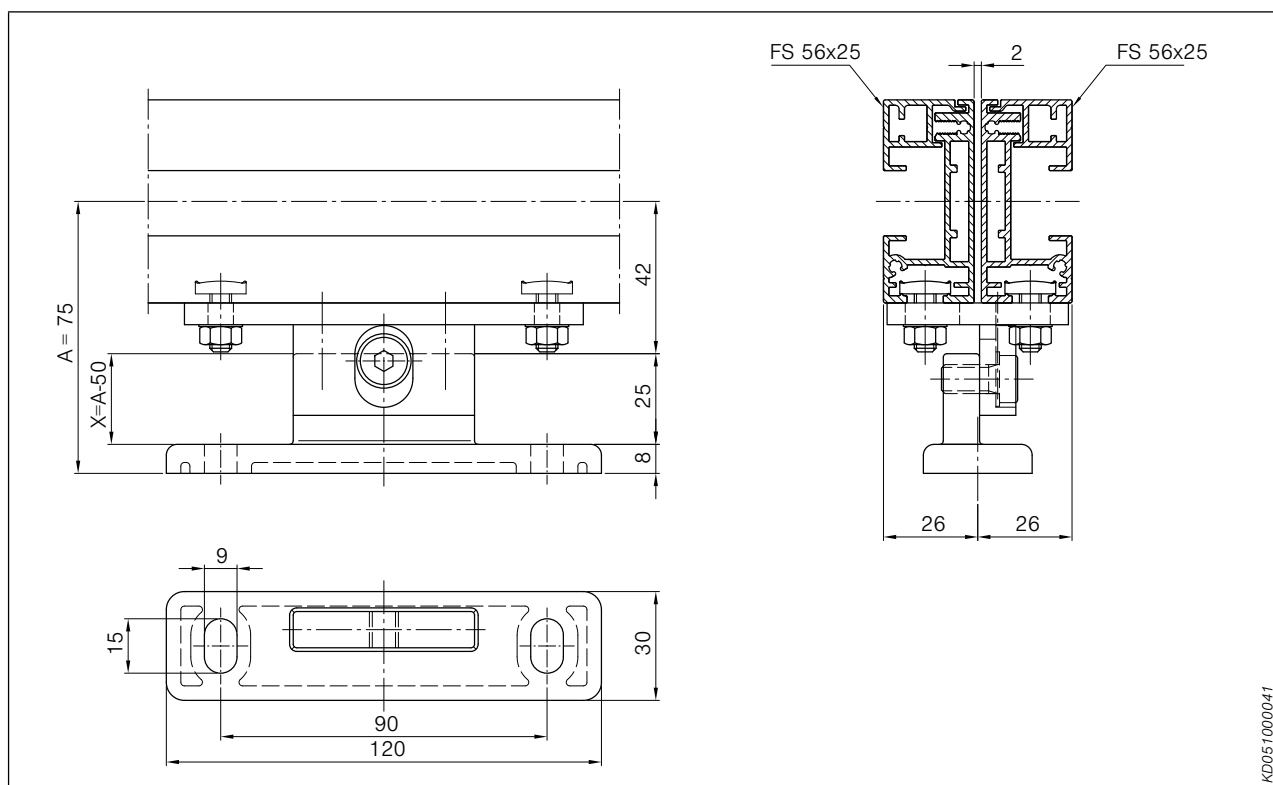
Guide rail	Distance "A" in mm	Length of bracing "X" (X=A-50)	Shifting range
56x25	75	25	+0.5 -6.5
56x25	max. 150	100	+0.5 -6.5

Details

Guide rail bracket for distance mounting (type F-FM) Serial mounting

Bracket 9 is available for serial mounting. Two guide rails can be mounted over one bracket.

Guide rail bracket no. 9



KD051000041

fig. 50: Guide rail bracket no. 9 – mounting two guide rails on one bracket

Guide rail	Distance "A" in mm	Length of bracing "X" (X=A-50)	Shifting range
56x25	75	25	+0.5 -6.5
56x25	max. 150	100	+0.5 -6.5

Details

Window awning with ZIP guidance

Possible cable exits (applies for all cover panel sizes)

Drop profile

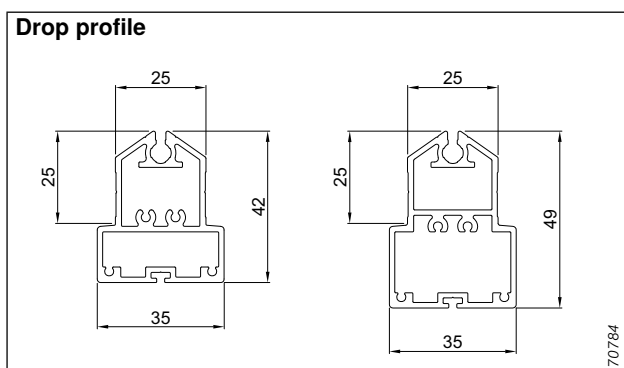
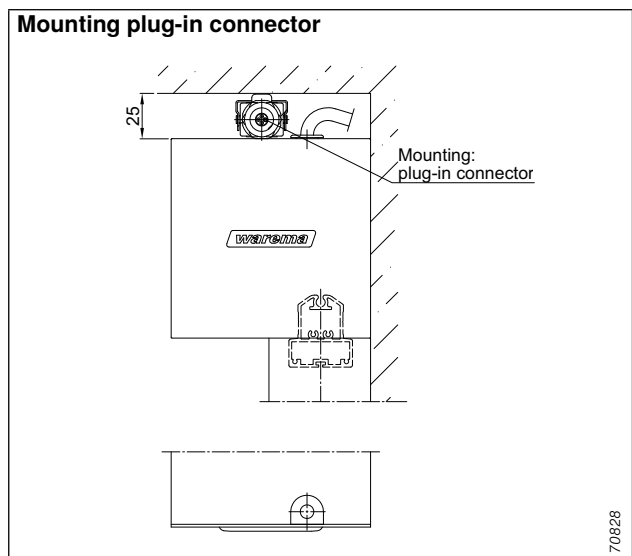
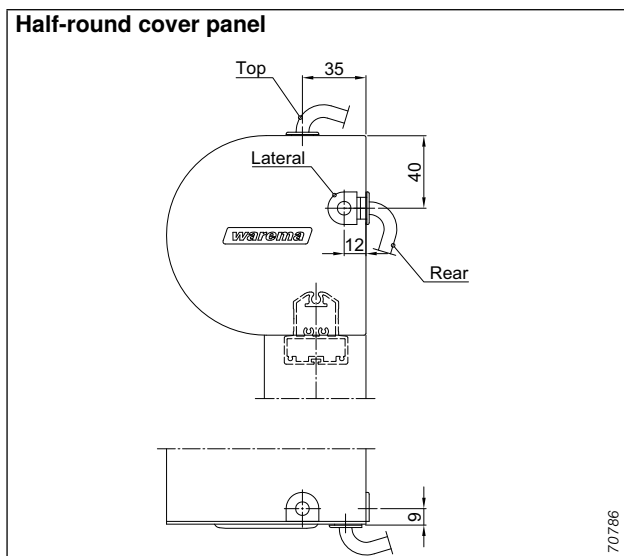
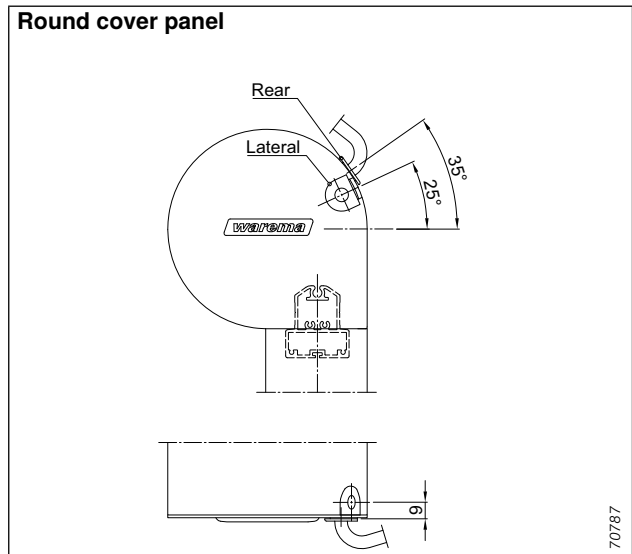
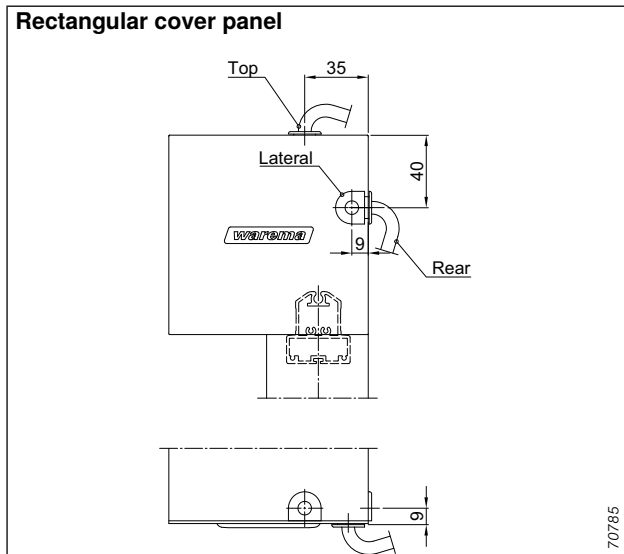


fig. 51: Drop profiles 35x42 mm and 35x49 mm

Drives/control systems	Fabrics	Fixing systems	Markisolettes	Facade awnings	Drop-arm awnings	Vertical awnings	Window awnings with ZIP guidance	Overview
------------------------	---------	----------------	---------------	----------------	------------------	------------------	----------------------------------	----------

Details

Integrated lintel insulation

Lintel insulation

- Optimal cover panel insulation
- Thermal bridges in lintel area are avoided
- Insulation at top or rear of header possible
- Insulation already mounted at the factory
- Ideal solution for integration into the insulation layer of a facade

Types

Optional for window awnings with ZIP guidance

- Size 13 cover panel, rectangular or plaster
- Size 15 cover panel, rectangular

Available insulation thicknesses

15 mm, 20 mm, 30 mm, 40 mm, 50 mm and 60 mm.

Intermediate sizes are not possible.

Insulating material: polyurethane rigid foam (PUR) with aluminium lamination on both sides

Thermal conductivity $\lambda = 0.024 \text{ W/(mK)}$

Thermal resistance R per insulation thickness

R	Insulation thickness in mm					
	15	20	30	40	50	60
	0.6	0.8	1.2	1.6	2	2.4

Variants and dimensions for each cover panel shape

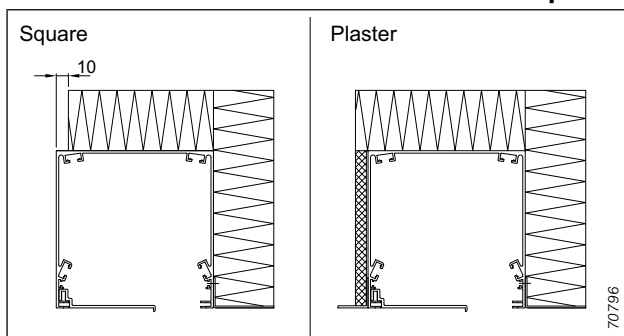


fig. 52: Variants and dimensions for each cover panel shape

Dimension determination using the example of cover panel shape plaster

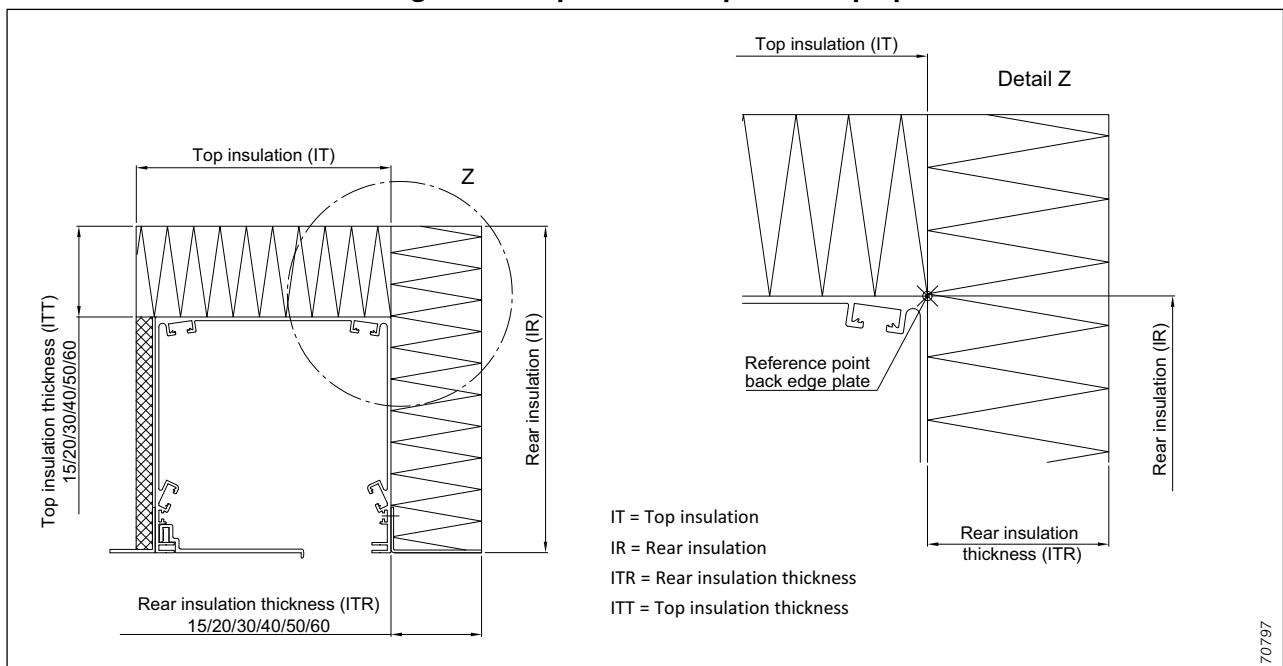




fig. 53: Dimension determination using the example of cover panel shape plaster

Details

Integrated lintel insulation

Important information on insulation measuring:

1. The reference point  is located at the cover panel back edge in general, see fig. 53, detail Z
2. Available insulation thicknesses are defined as ITT (insulation thickness top) or ITR (insulation thickness rear). An overview of available insulation thicknesses is shown on the top left.
3. If only one side and/or surface of the cover panel is insulated, the insulation always ends at the reference point  (= cover panel back edge)
4. In the case of the cover panel shape plaster, IT (top insulation) always finishes flush to the leading edge of the plaster base plate.
5. If the IT (insulation top) is to be drawn-in at the front or the IR (insulation rear) at the bottom, this dimension shall be reduced in each case (see also the mounting example fig. 54: here the dimension "IR" is drawn-in, for example)

Cable exit lateral is recommended.

An aluminium angle bracket to the lower optical closure of the rear insulation (IR) is available on request.

Mounting example

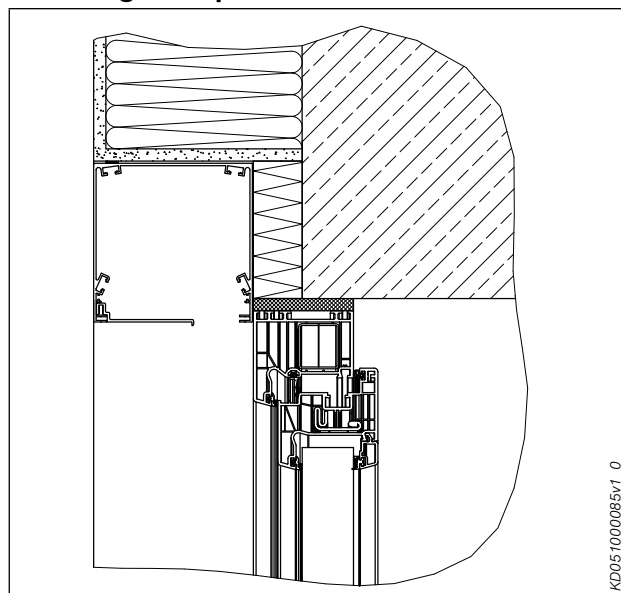


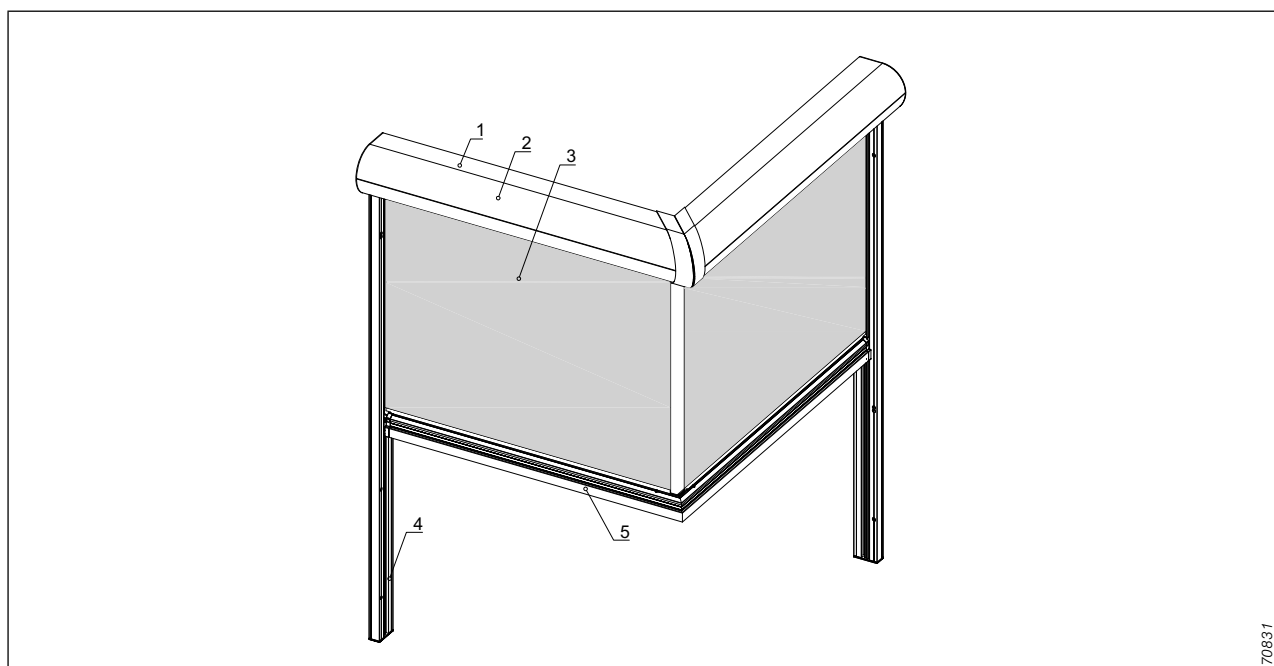
fig. 54: Mounting example

Accessories for proper connection of the awning to the facade

Designation		Art. no.	Unit
Foam sealing strip	– 20x2-6, self-adhesive, black	811007	12 m reel
	– 20x5-12, self-adhesive, black	811023	5.6 m reel
	– 20x4-9, self-adhesive, black	811039	8 m reel

Details

Window awnings with ZIP guidance, corner solution



70831

fig. 55: Window awnings with ZIP guidance, corner solution

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Drop profile

of the corner via supports on the side cover of the eaves

Side covers: aluminium, powder-coated
Shapes: rectangular, half-round

Application

Textile external sun shading system specially for corner installation without disruptive guidance elements such as guide rails or cables in the corner. Particularly suitable for patio roofs with drawn-in poles.

Operation

Basis motor, 230 V, 50 Hz

ZM with electronic limit switch-off (optionally with EWFS/WMS radio plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-ZM with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

For more information on the drives see the technical documentation for window awnings with ZIP guiding, page 277.

The motor must always be positioned on the outside of the long side.

The responsive obstacle detection function is not possible with the corner solution.

Cover panel (1)

With inspection cover, as left rolling blind, cut to mitre incl. mitre cover

Material: aluminium, extruded
Material thickness: 1.7 mm
Dimensions (HxD): 110x110 mm
Surface: powder-coated, optionally anodised
Fixing: clipped on using consoles on the guide rails. Additional fixing in the area

Fabric shaft (2)

Material: aluminium, extruded/steel, galvanised
Material thickness: 1.6 mm/1.8 mm/1 mm
Dimensions (Ø): 62.2 mm/70 mm/61 mm
Profile: groove tube
Surface: plain

Fabric (3)

Fabric qualities: screen fabric
Designs: according to current WAREMA collection

For more information about the fabrics, see page 273.

Lateral guide (4)

Rail with ZIP guidance

Lateral guidance using ZIP (zipper) directly in the two-piece rail. Internal flexible PVC inlay for guiding the curtain and for damping. Mounting on the long side on a mounting profile (15x25 mm).

Material: aluminium, extruded
Dimensions (WxH): 25x56 mm
Profile: C-shaped profile
Surface: powder-coated, optionally anodised
Fixing: directly on the facade or in the reveal (type V-FM)
End closure: plastic, black
Inlay: co-extruded PVC profile

Details

Window awnings with ZIP guidance, corner solution

Drop profile (5)

Material: aluminium, extruded
 Material thickness: 1.5 mm
 Dimensions (WxH): large, 35x49 mm
 Profile: rectangular, internal beading channel
 Surface: powder-coated, optionally anodised
 End plug: plastic, black
 The drop profile is generally visible. The drop profile can optionally be fitted with a brush seal.

Fixing and connecting parts

Within the awning

Material: A2 steel or aluminium

Colours

Powder coating of the aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in DB 701, 702 and 703 as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours in accordance with the WAREMA Colour World.

Other colour specifications, special colours and anodisation are available on request at a surcharge.

Construction limit values in mm

	Type of fabric	Motor ¹⁾
Min. width	Screen fabric	750
Max. width – short side		1200
Max. width – long side		4500
Min. height		650
Max. height		3000 ²⁾
Max. surface (m ²) – short side		11
Max. surface (m ²) – long side		13

¹⁾ only available with motor drive, **no** crank drive

²⁾ Above a width of 3001 mm, the max. height is 2300 mm

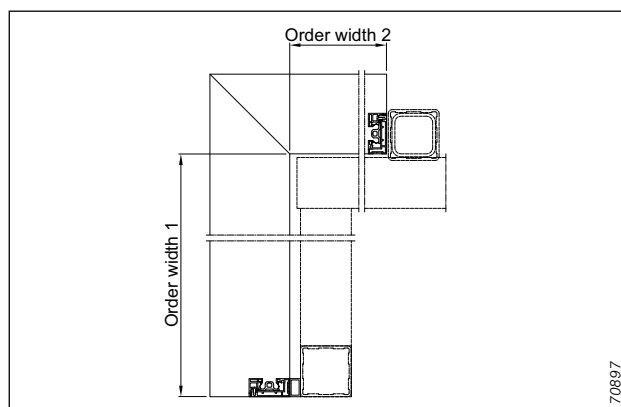


fig. 56: Order widths, corner solution

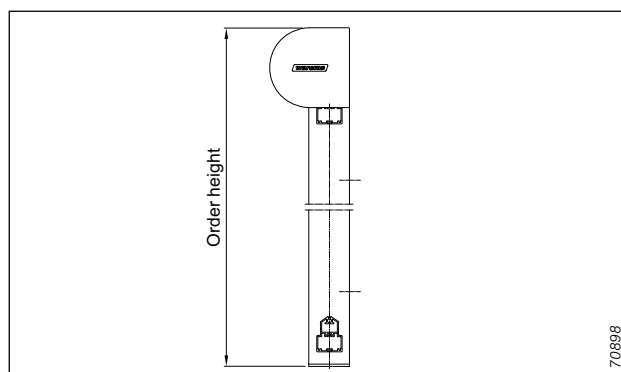


fig. 57: Order heights, corner solution

Number of holes for direct installation

Guide rail length	Fixing holes
– 900	2
901 – 1600	3
1601 – 2300	4
2301 – 2900	5

Details

Window awnings with ZIP guidance, corner solution

Attachment to patio roof

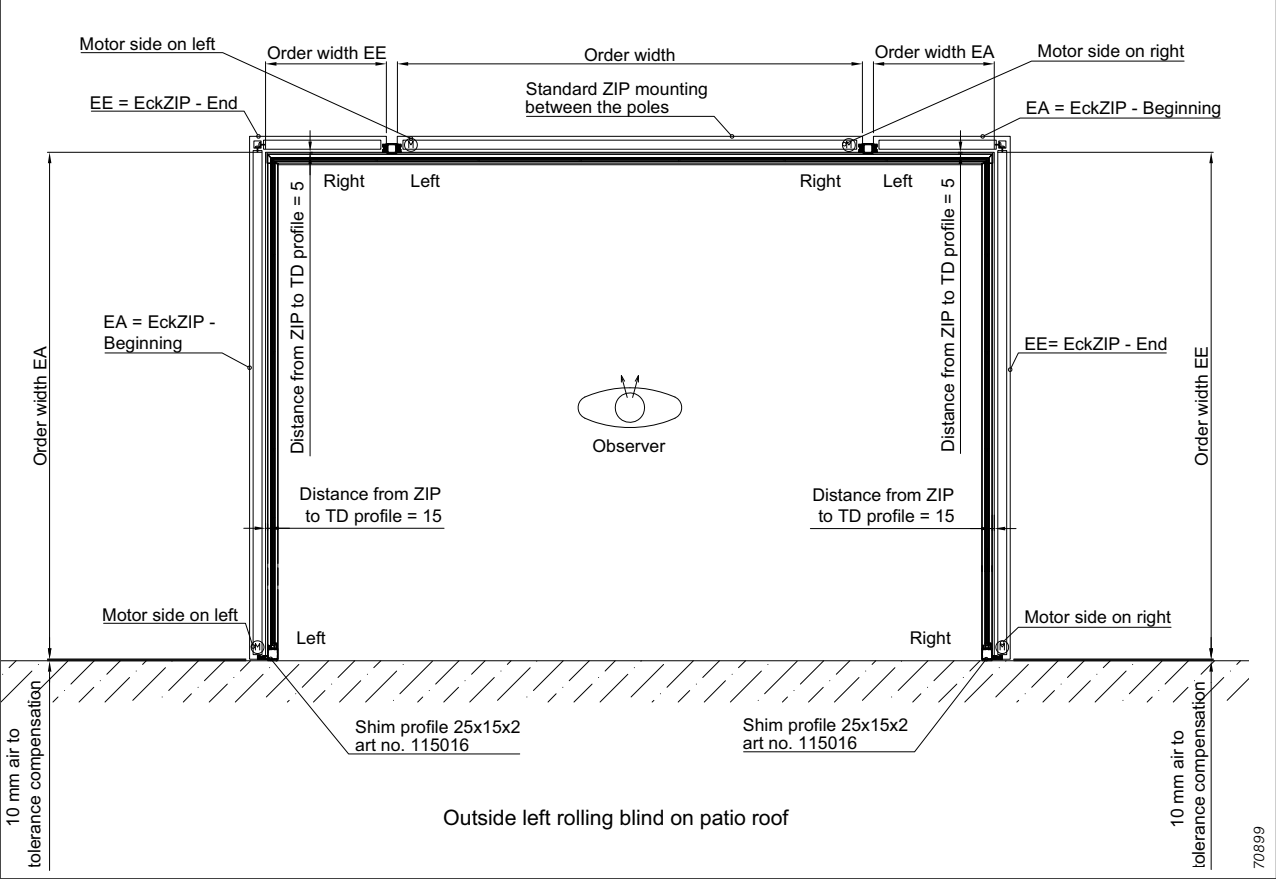


fig. 58: Attachment to patio roof

Details

Mitred corners

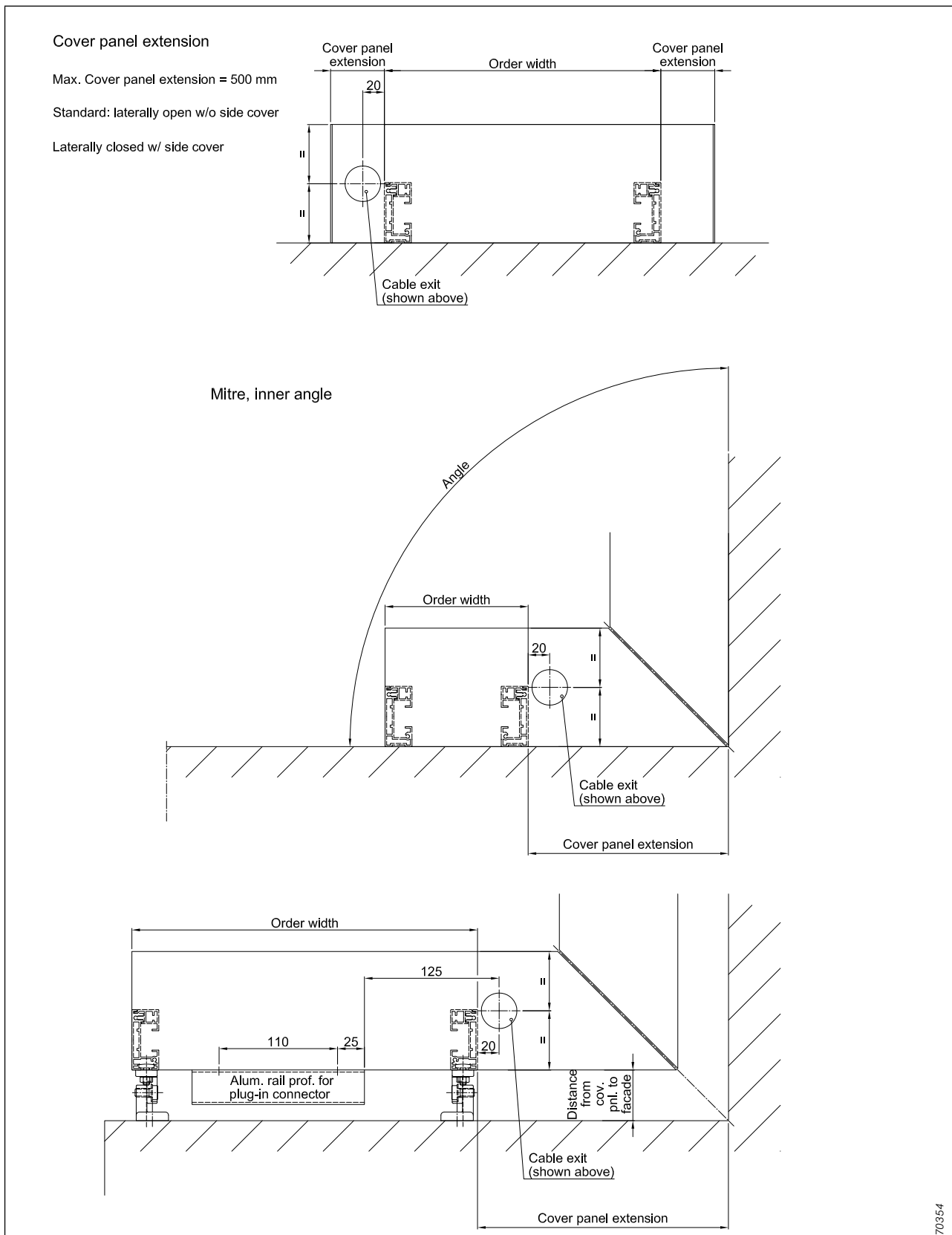


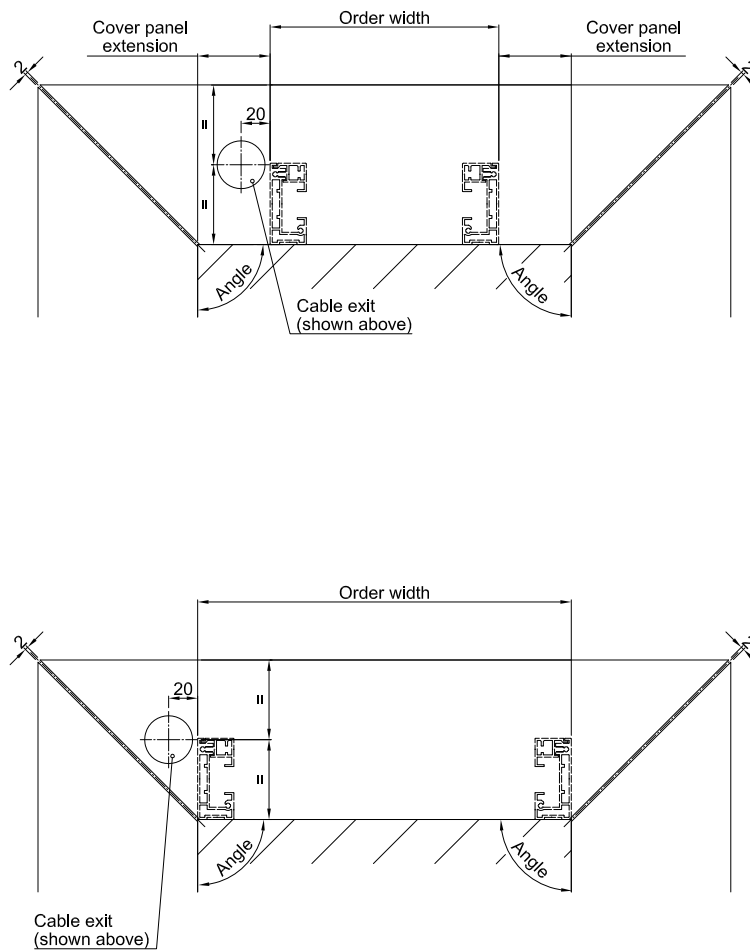
fig. 59: Dimension determination of cover panel overhang and mitred corner

Details

Mitred corners

Mitre, outer angle

Direct mounting



70355

fig. 60: Dimension determination of cover panel overhang and mitred corner; outer angle; V-FM

Details
Mitred corners

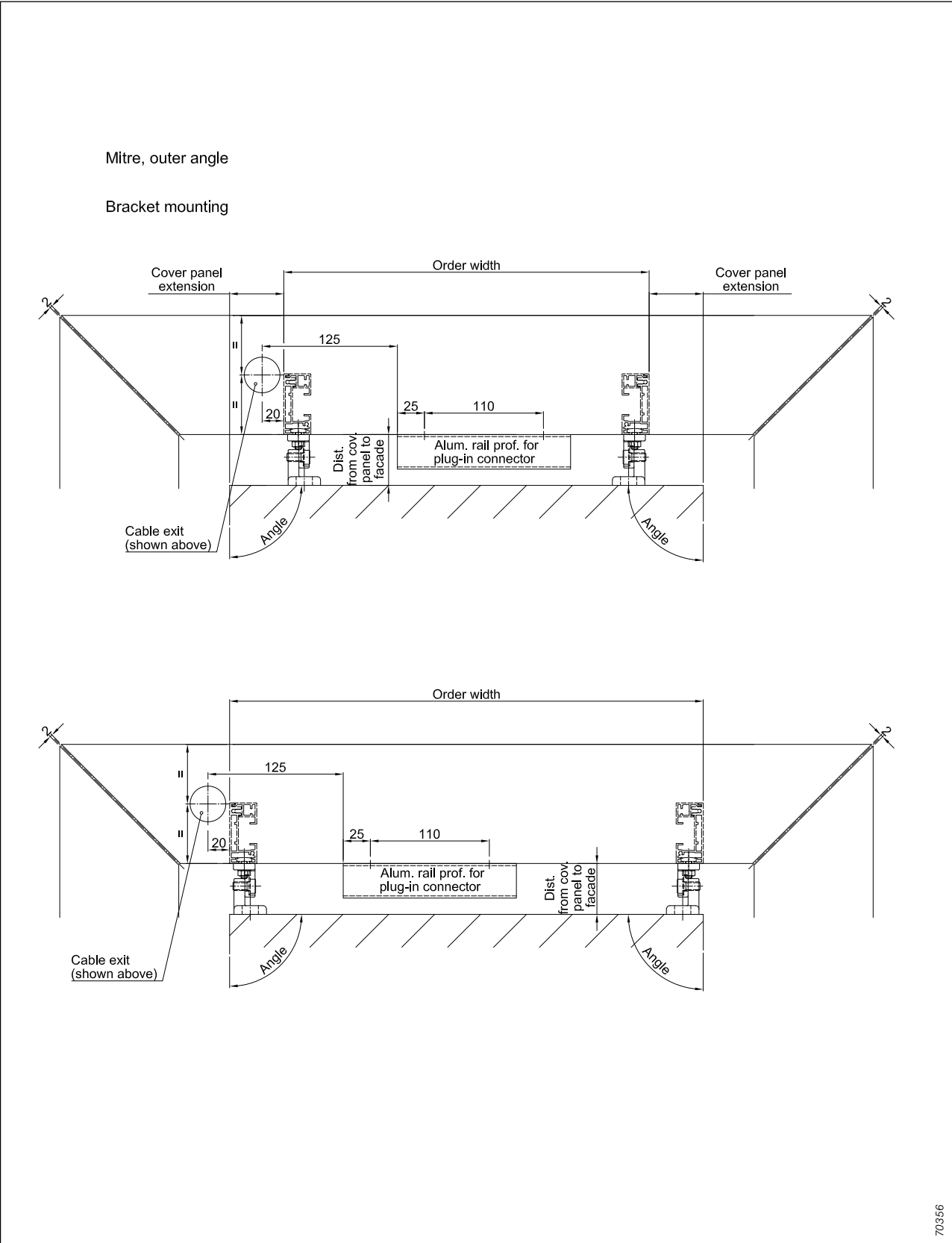


fig. 61: Dimension determination of cover panel overhang and mitred corner; outer angle; F-FM

Notes

Contents

Vertical awnings

Equipment	74
Vertical awning 470	75
Vertical awning 490	86
Vertical awning 499	106
Vertical awning 450	129

Solflex AB försäljning och service västra Skåne. Showroom och rådgivning;
Malmö Slussplan 1, 040-979745. Helsingborg Garnisonsg 12, 042-161635.
kontakter@solflex.se www.solflex.se

Equipment

Vertical awnings

	Vertical awnings			
	470	490	499	450
Drive and operation				
– Motor	–	●	●	●
– EWFS and/or WMS radio motor	–	○	○	–
– Plug-in connector, loose	–	–	–	●
– Plug-in connector, wired	–	●	●	○
– Control systems	–	○	○	○
– Crank operation	●	○	○	○
Mechanically coupled curtains				
– Motor 2 curtains	–	○	○	○
– Motor 3 curtains	–	○	○	–
– Crank 2 curtains	○	○	○	○
– Crank 3 curtains	○	○	○	–
Lateral guides				
– C profile 25/50x18 mm (with groove)	○	○	○	–
– C profile 30/46x38 mm (with groove)	–	–	–	○
– C profile 30x16 mm (without groove)	–	–	–	○
– Tension cable	●	●	●	●
Mounting situation				
– with spacing	●	●	●	–
– without spacing (direct installation)	–	–	–	●
Surface treatment of aluminium parts				
– powder-coated according to	WAREMA Colour World			RAL 9006 RAL 9016 RAL 8016 satin finish
– Special coating	○	○	○	○
– C0 anodised	●	●	●	●
– anodised in colour	○	○	○	○
Fabric				
– Standard/Lumera acrylic fabric	●	●	●	●
– Acrylic All Weather, Perfora	○	○	○	○
– Screen fabric	○	○	○	○
– Soltis 92 fabric	○	○	○	○

- standard
- optional
- not available

Description

Vertical awning 470

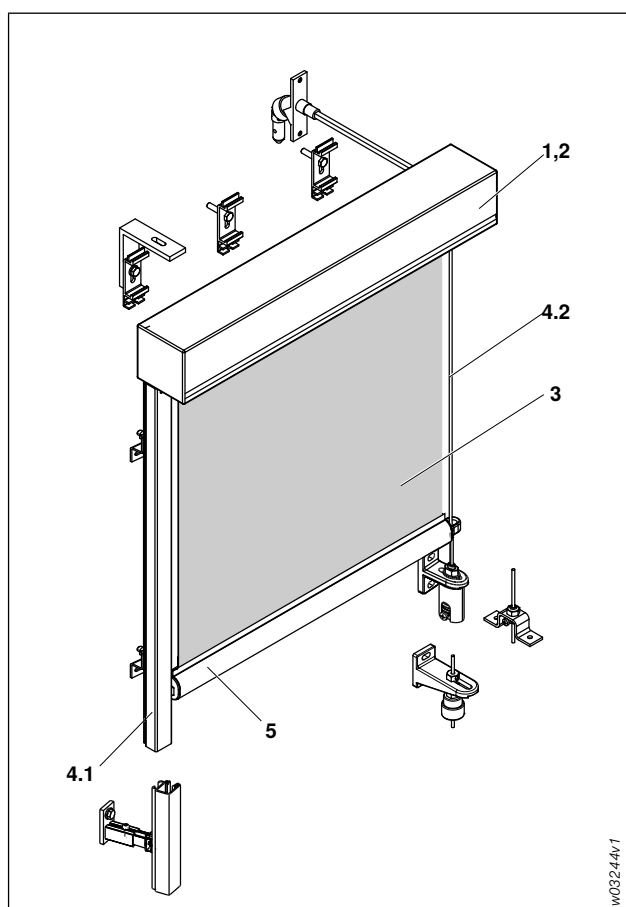


fig. 62: Vertical awning 470

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
 - 4.1 Rail
 - 4.2 Tension cable
- 5 Drop profile

Application

Textile external sun shading system with small cover panel for shading vertical punched or element windows as well as for direct mounting in the reveal (sheltered from the wind). The drive is generally mechanical.

Operation

Crank

Screw gear with crank rod and collapsible crank; joint plate and square with patented thermal separation.

Material: aluminium
 Surface: C0 anodised
 Ratio: 4:1 or 6:1
 Crank holder: plastic (grey, white or brown), crank holder with magnet optional

The fabric shaft contains a spindle lock to provide a lower limit for the extension of the fabric.

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panel (1)

With inspection cover, available for left and right rolling blinds

Material: aluminium, extruded
 Material thickness: 1.5 mm
 Dimensions (HxD): 74x75 mm
 Surface: powder-coated, C0 anodising optional
 Fixing: with aluminium wall or ceiling brackets
 Side covers: diecast aluminium, powder-coated

Fabric shaft (2)

Material: aluminium, extruded
 Material thickness: 1.5 mm
 Dimensions (Ø): 35 mm
 Profile: groove tube
 Surface: plain
 With piping groove for fixing the fabric.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
 Acrylic Perfora/All Weather
 Soltis 92 fabric
 Screen fabric
 More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Lateral guidance (4)

Rail (4.1)

C profile with black piping inserted for noise reduction

Material: aluminium, extruded
 Dimensions (WxH): 25x18 mm
 Profile: C-shaped profile
 Surface: powder-coated, C0 anodising optional
 Fixing: guide rail bracket (for left or right rolling blind)

End closure: plastic, black
 Bead: weather-proof, UV stable, black

Tension cable (4.2)

Wire strand

Material: steel, corrosion-resistant
 Coating: polyamide
 Colour: black
 Fixing: tension cable bracket, aluminium, incl. spring tension device, aluminium

Drop profile (5)

Material: aluminium, extruded
 Material thickness: 1.5 mm
 Dimensions (WxH): 25x38 mm
 Profile: oval tube, external beading channel
 Surface: powder-coated, C0 anodising optional
 Available as models "visible" (standard) or "concealed in fabric" (optional).

Description

Vertical awning 470

Fixing and connecting parts

Within the awning

Material: A2 steel or aluminium

Weight table

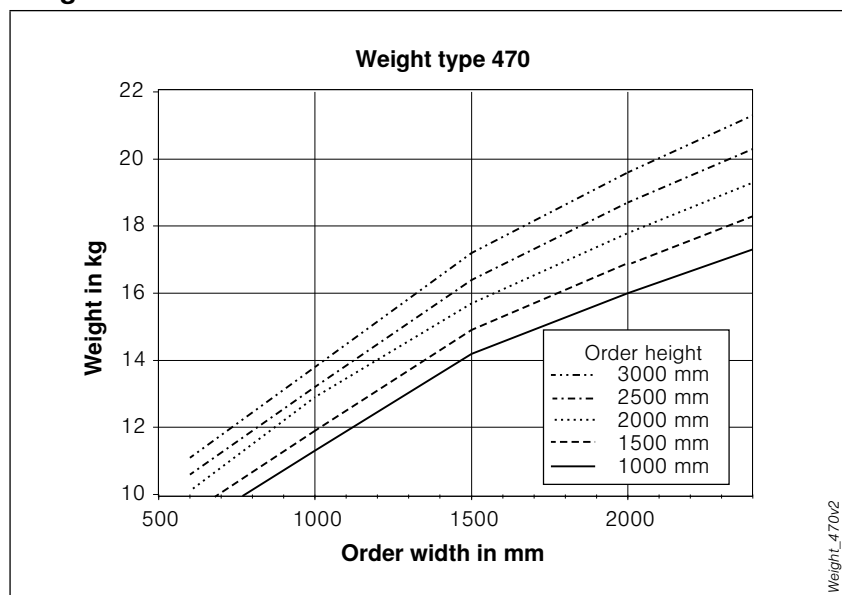


fig. 63: Weight type 470

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications and special colours are available on request at a surcharge.

Optional C0 anodisation

Construction limit values

Vertical awning 470

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading

control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit		Mechanically coupled (max. 3 units)	
		Crank	Motor	Crank	Motor
Min. width ¹⁾ (mm)	Standard/Lumera acrylic fabric	600	not available for 470!	600	not available for 470!
	Perfora acrylic fabric				
	All Weather acrylic fabric	600		600	
	Screen fabric	600		600	
	Soltis 92 fabric	600		600	
Max. width (mm)	Standard/Lumera acrylic fabric	2400		7000 ²⁾	
	Perfora acrylic fabric				
	All Weather acrylic fabric	2400		7000 ²⁾	
	Screen fabric	2400		7000 ²⁾	
	Soltis 92 fabric	2400		7000 ²⁾	
Max. height (mm)	Standard/Lumera acrylic fabric	1800 ³⁾		1800 ³⁾	
	Perfora acrylic fabric				
	All Weather acrylic fabric	1600		1600	
	Screen fabric	2800		2800	
	Soltis 92 fabric	3000		3000	
Max. area ⁴⁾ (m ²)	Standard/Lumera acrylic fabric	4.3		12.6	
	Perfora acrylic fabric				
	All Weather acrylic fabric	3.8		11.2	
	Screen fabric	6.7		19.6	
	Soltis 92 fabric	7.2		21.0	

Notes:

- Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.
- All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.
- Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

¹⁾ Smaller widths are possible after consultation with the Application Technology department!

²⁾ Maximum width with continuous cover panel is 5000 mm.

³⁾ Glued fabric connection optional for Standard and Perfora variants. Max. height reduced by 200 mm.

⁴⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

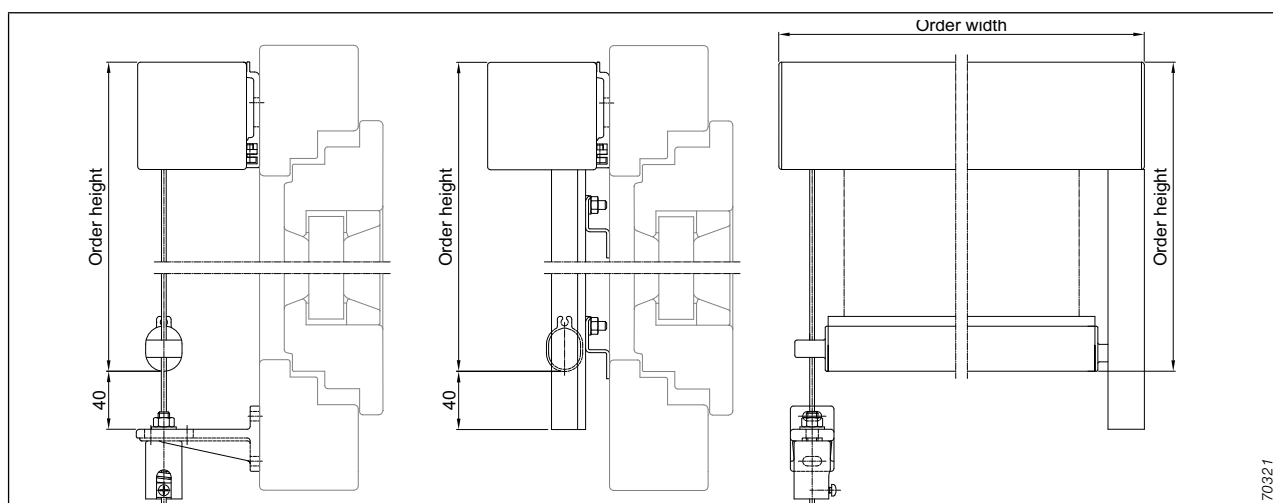


fig. 64: Measuring instructions

Details

Vertical awning 470

Wall/ceiling brackets, guide rail brackets

Number of required wall/ceiling brackets

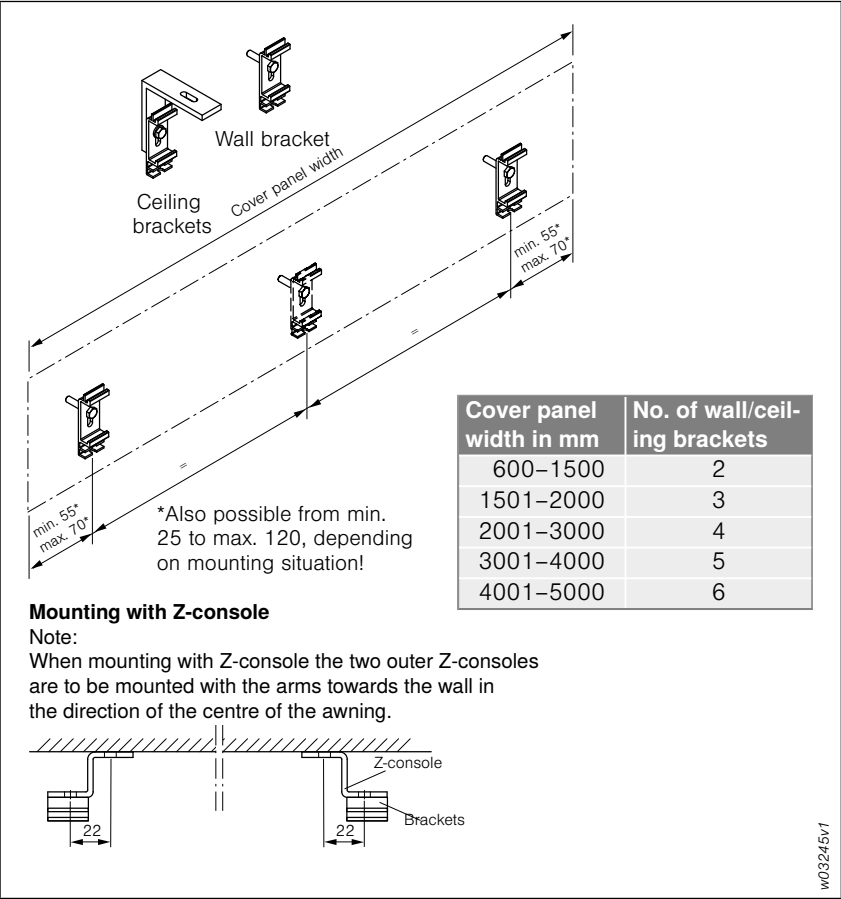


fig. 65: Measuring instructions for wall/ceiling brackets

Number of necessary guide rail brackets

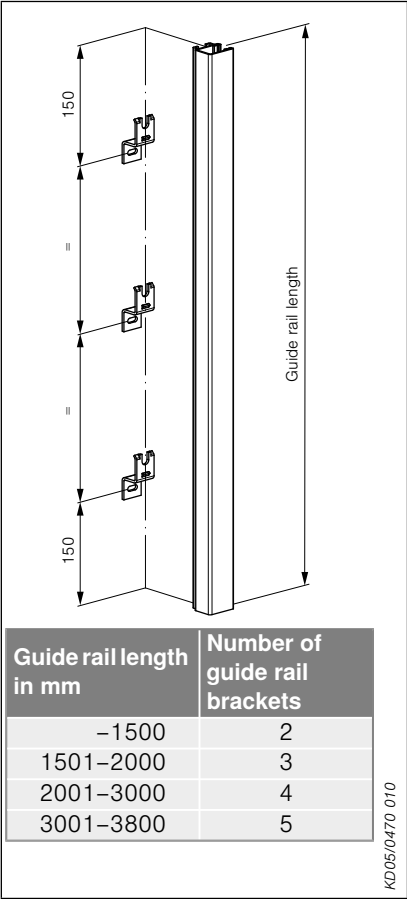


fig. 66: Measuring instructions for guide rail brackets

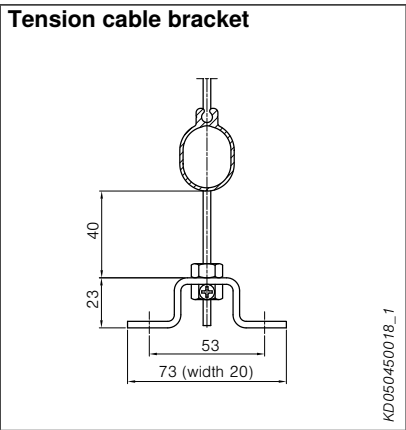


fig. 67: Tension cable bracket

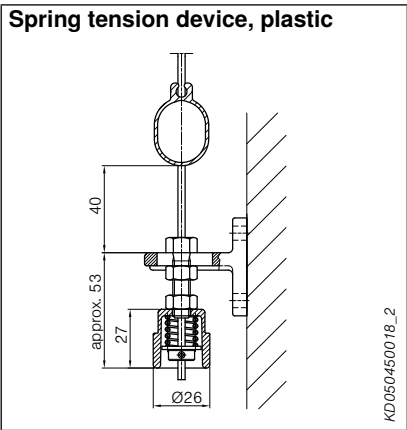


fig. 68: Spring tension device, plastic

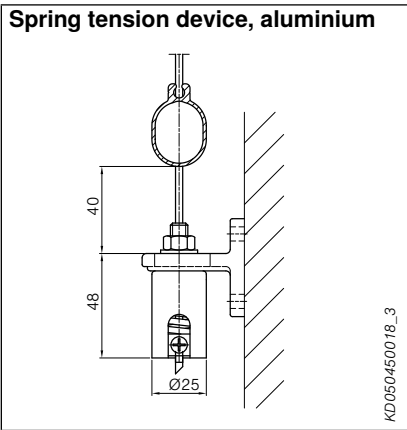


fig. 69: Spring tension device, aluminium

Application example

Vertical awning 470

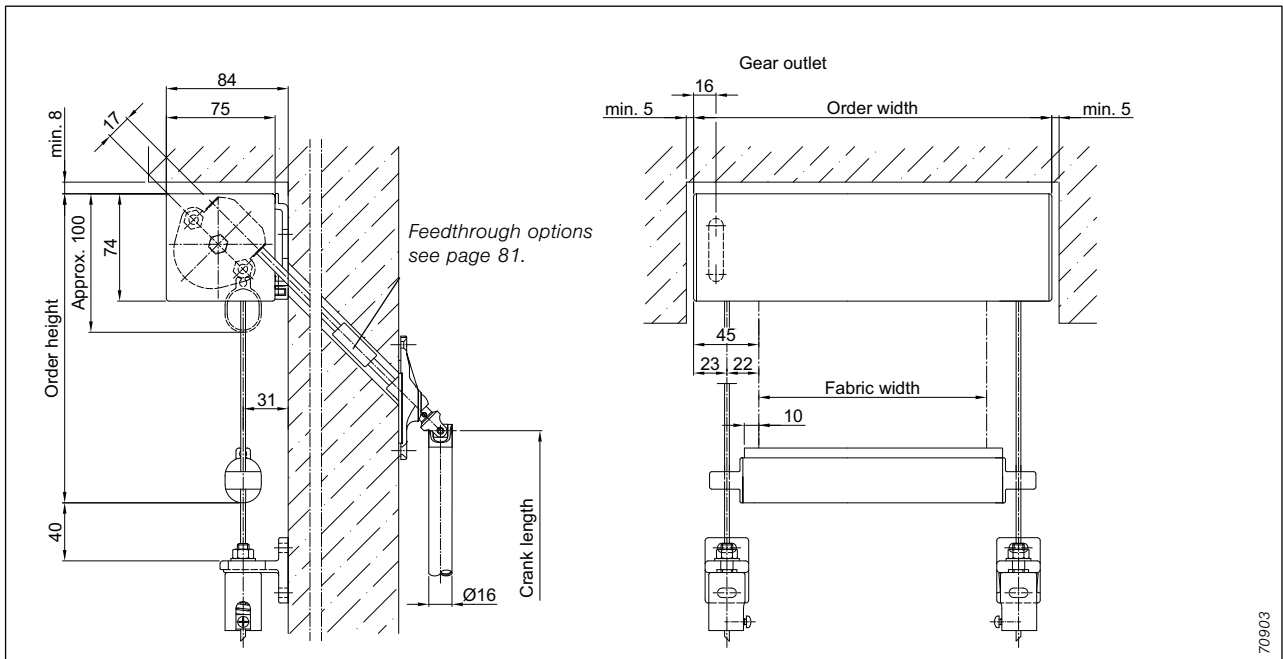


fig. 70: Standard model individual unit, left rolling blind, wall installation, vertical awning 470 with cable guidance

Application example

Vertical awning 470

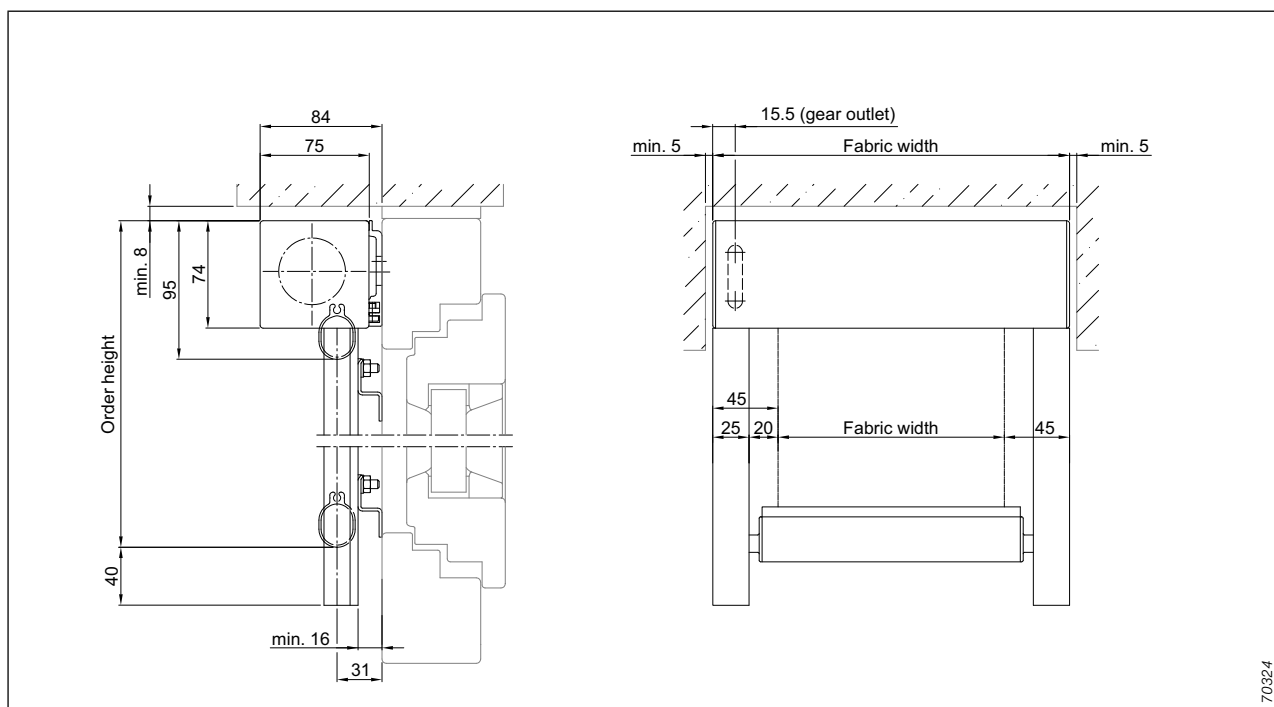


fig. 71: Standard version individual unit, left rolling blind, vertical awning 470 with rail guidance

Possible variants

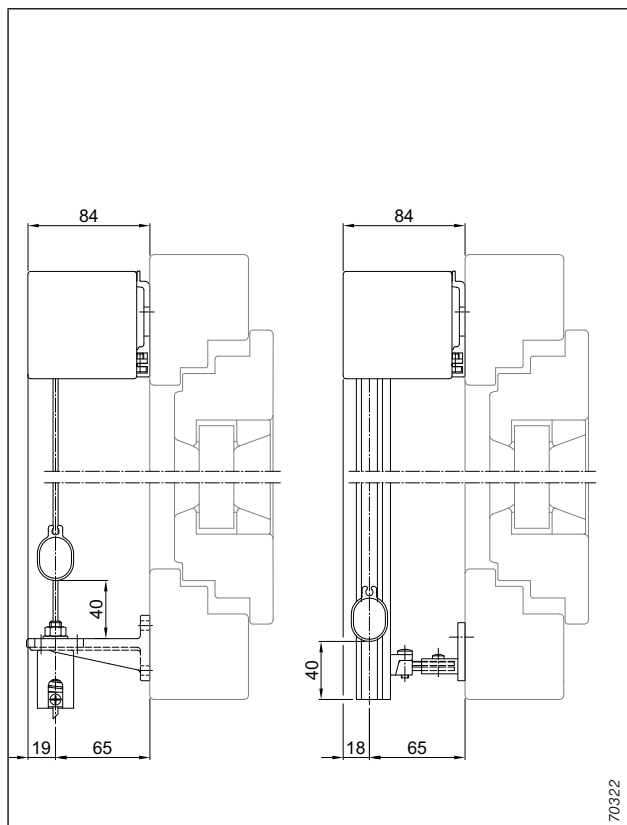


fig. 72: Vertical awning 470, right rolling blind, wall installation

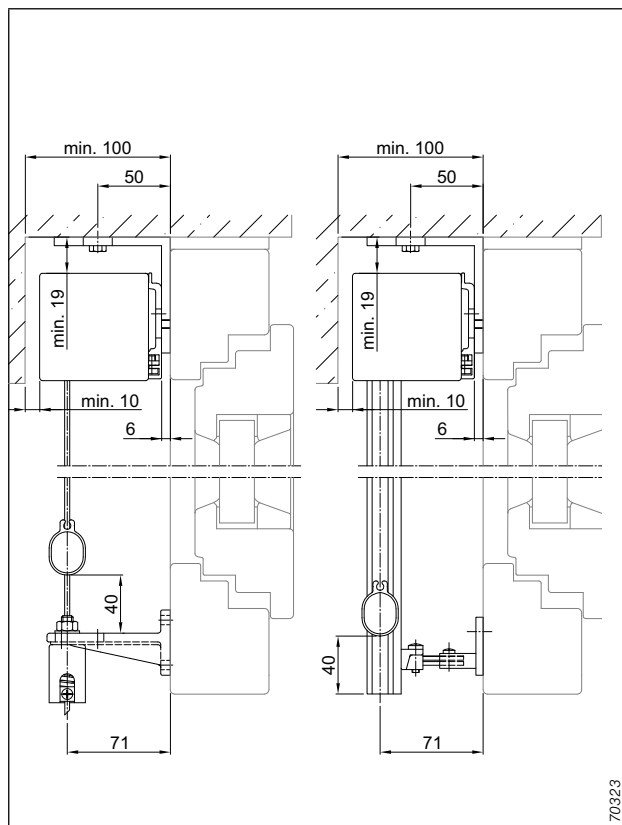


fig. 73: Vertical awning 470, right rolling blind, ceiling installation

Details

Vertical awning 470 Possible gear outlets

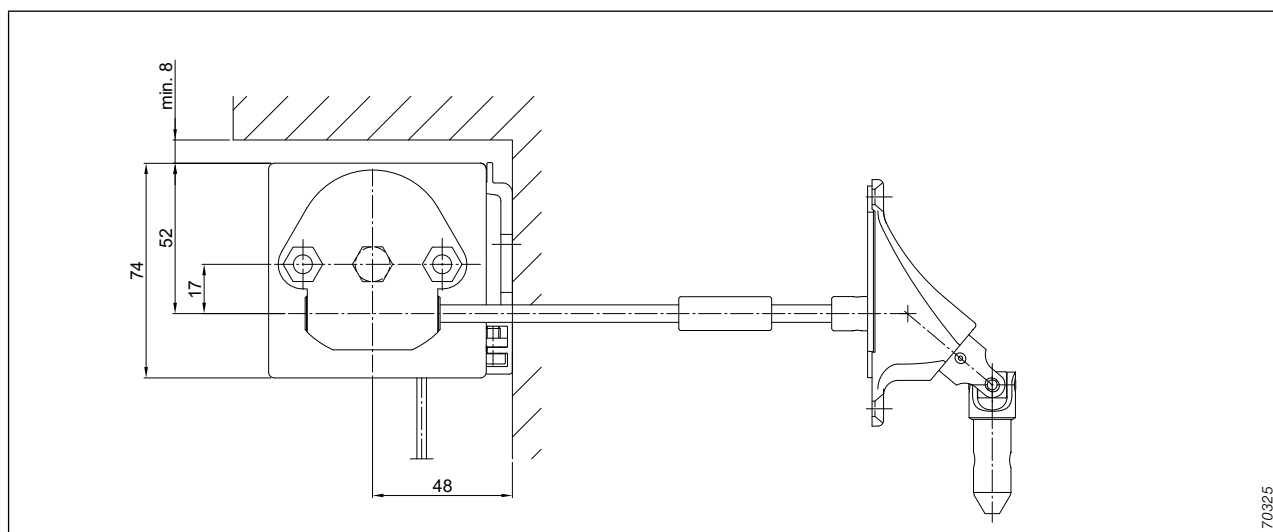


fig. 74: Gear outlet 0°

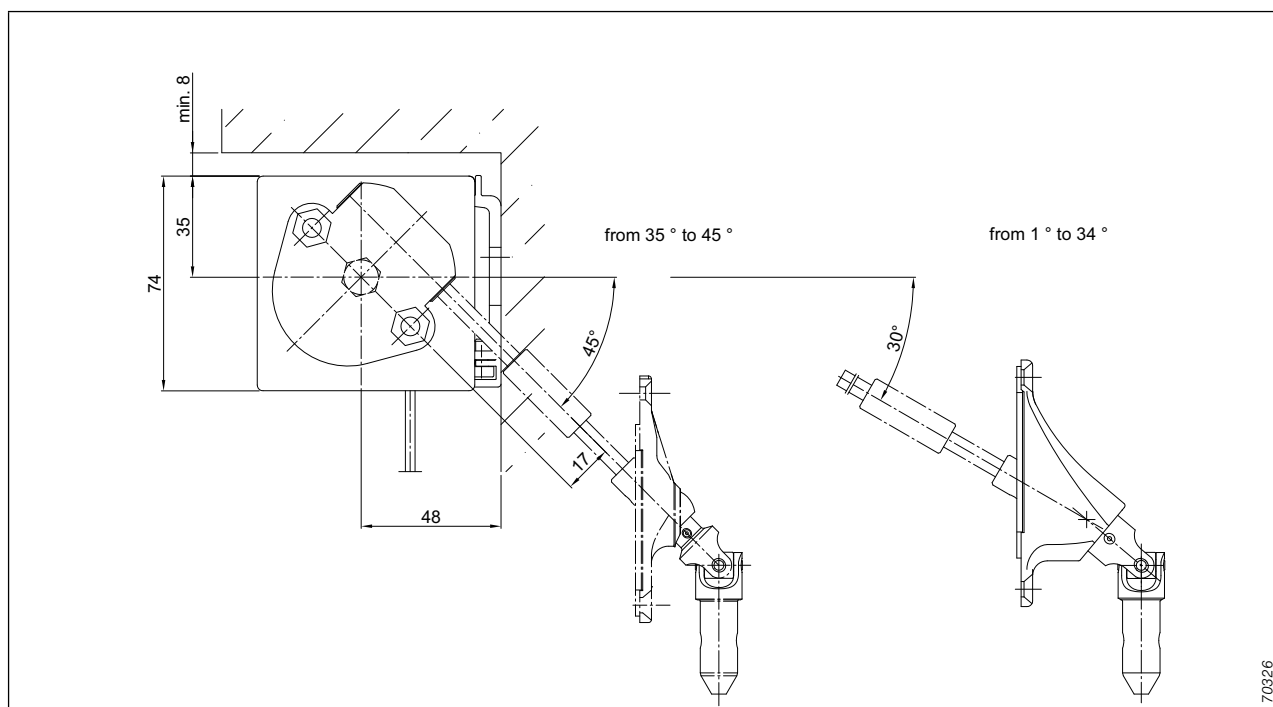


fig. 75: Gear outlet 1-45°

Details

Vertical awning 470

Attention! – For mounting in the reveal:

Lateral cover panel spacing between drive end and wall min. 20 mm.

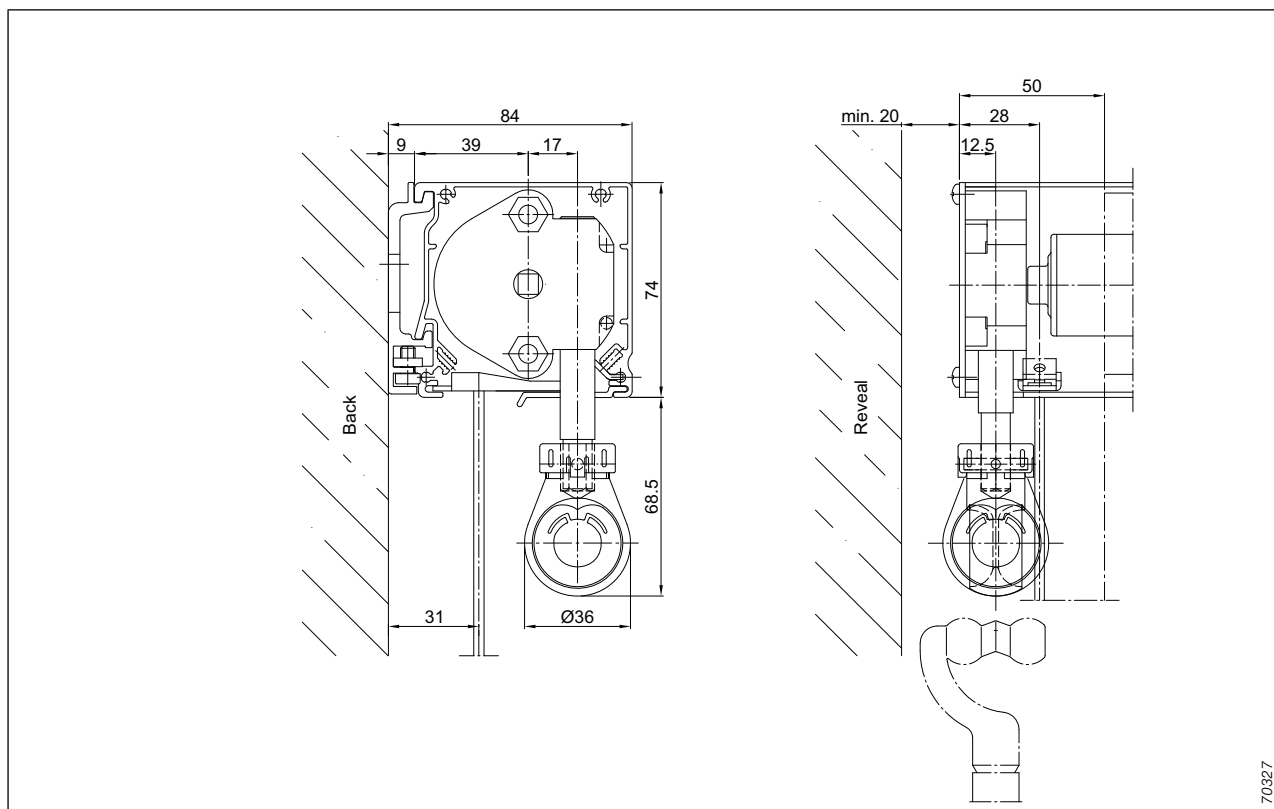


fig. 76: Gear with eyelet, operation seen from the cover panel back side, left rolling blind (also available as right rolling blind)

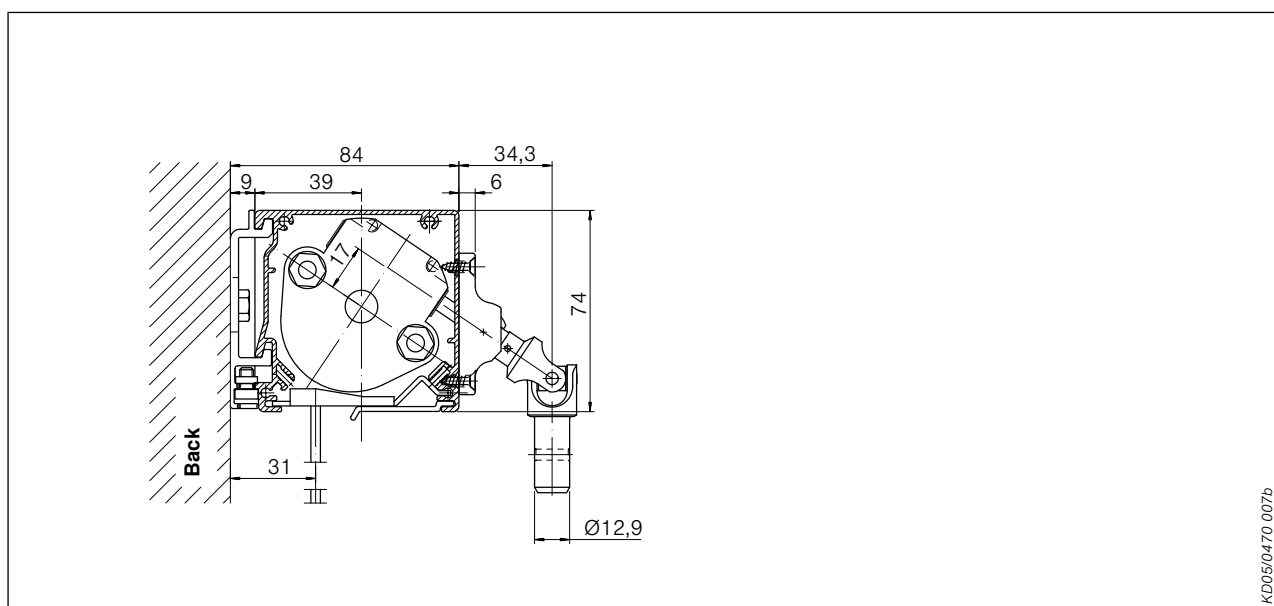


fig. 77: Pivot bearing on the cover plate, operation seen from the cover panel back side, left rolling blind (also available as right rolling blind)

Details

Vertical awning 470 with cable or rail guidance Limit position situations

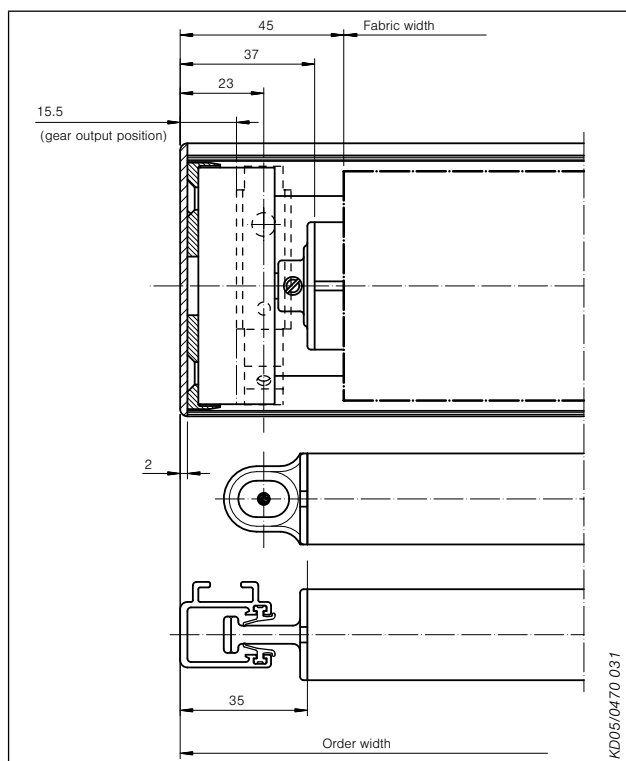


fig. 78: Limit position situation individual unit, gear side, standard

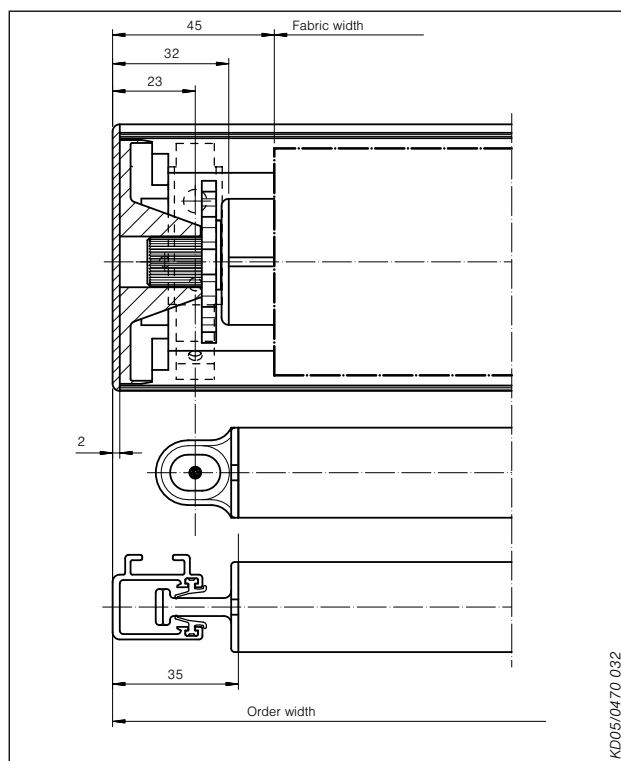


fig. 79: Limit position situation individual unit, spindle lock, standard

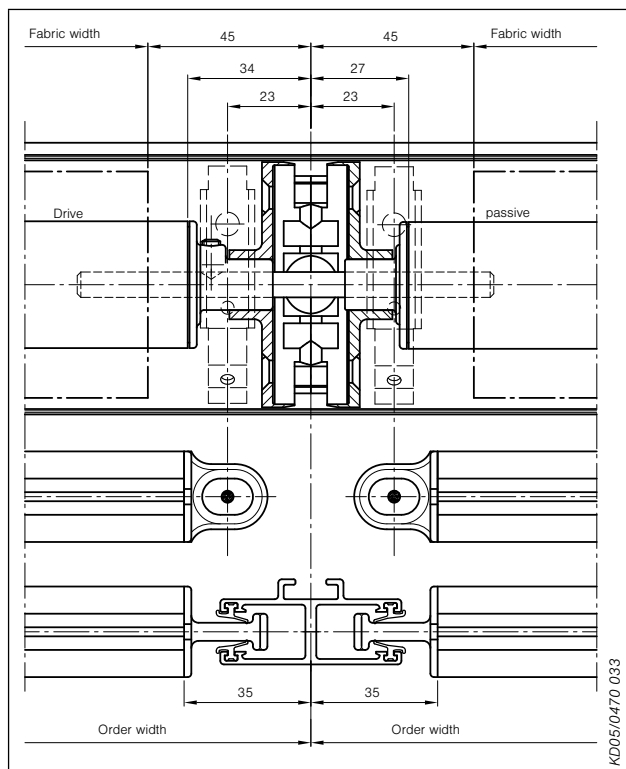


fig. 80: Coupled unit, continuous cover panel, standard

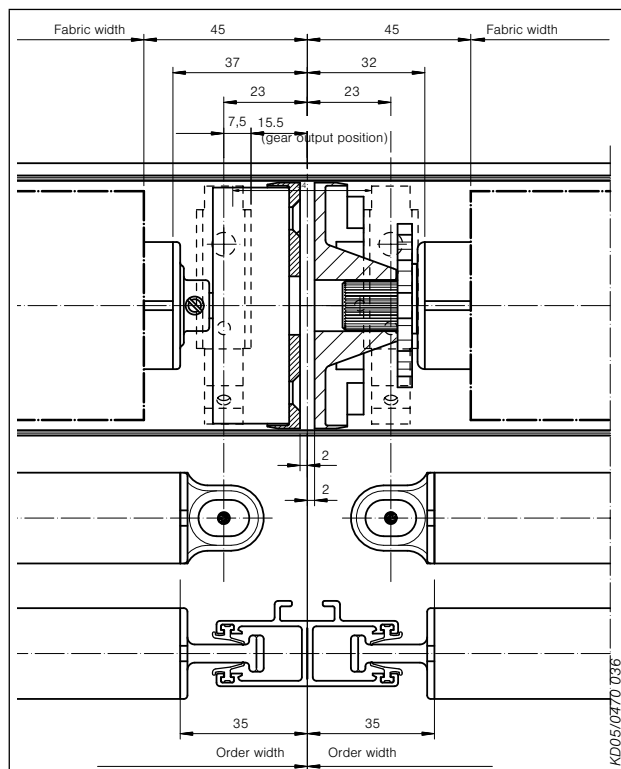


fig. 81: Gear – spindle lock, continuous cover panel, standard

Details

Vertical awning 470 with cable or rail guidance Possible drives

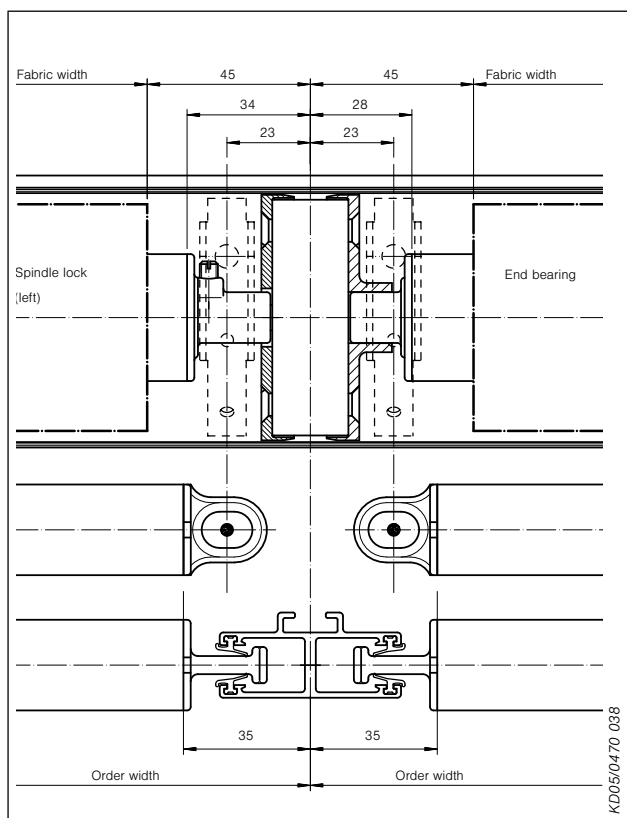


fig. 82: Central gear, standard (only continuous cover panel!)

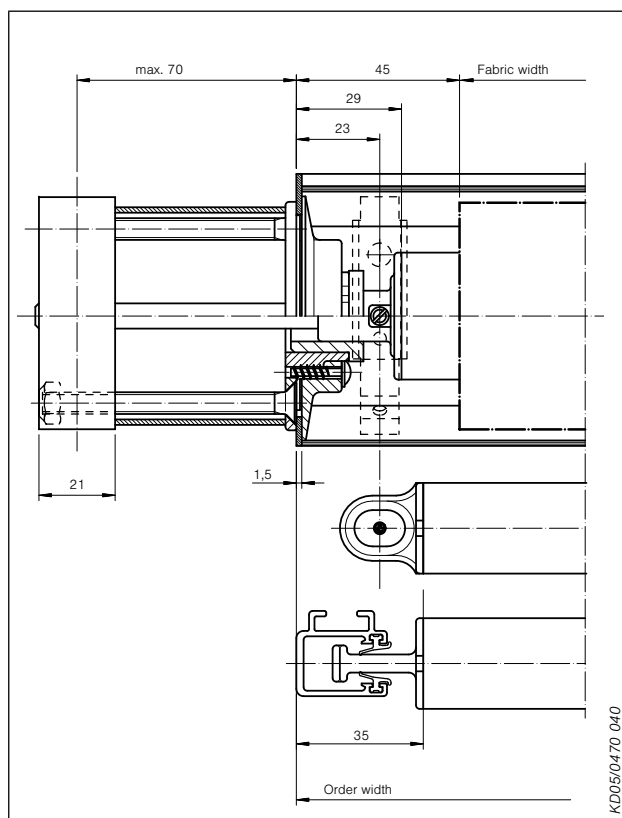


fig. 83: External gear, standard

Details

Vertical awning 470 Wall/ceiling installation

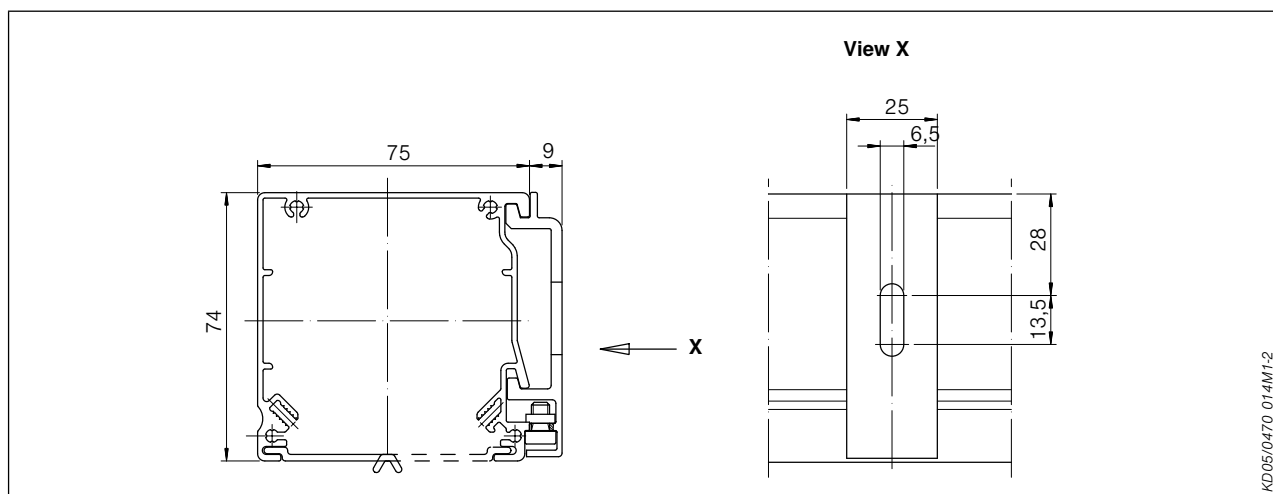


fig. 84: Cover panel type 470 – wall installation

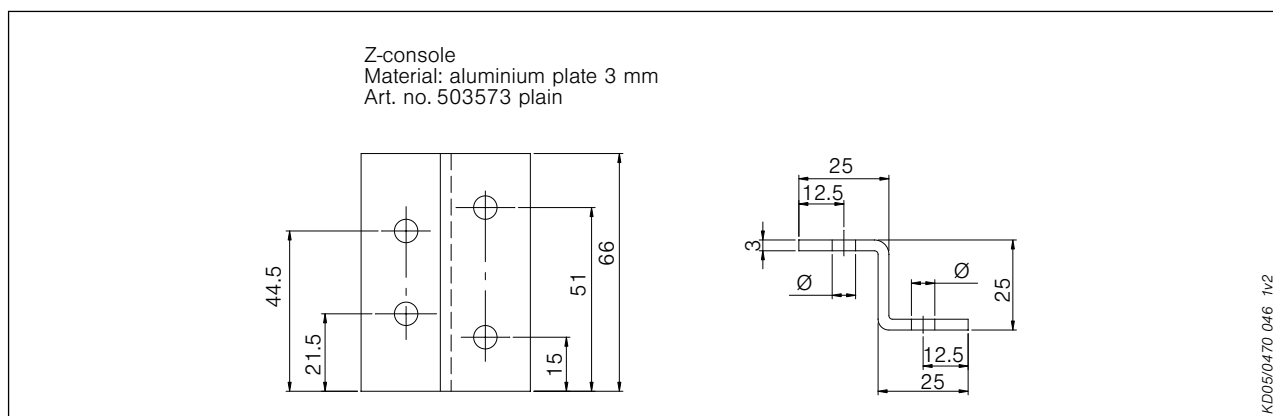


fig. 85: Z fixing bracket for rail guiding with wall mounting

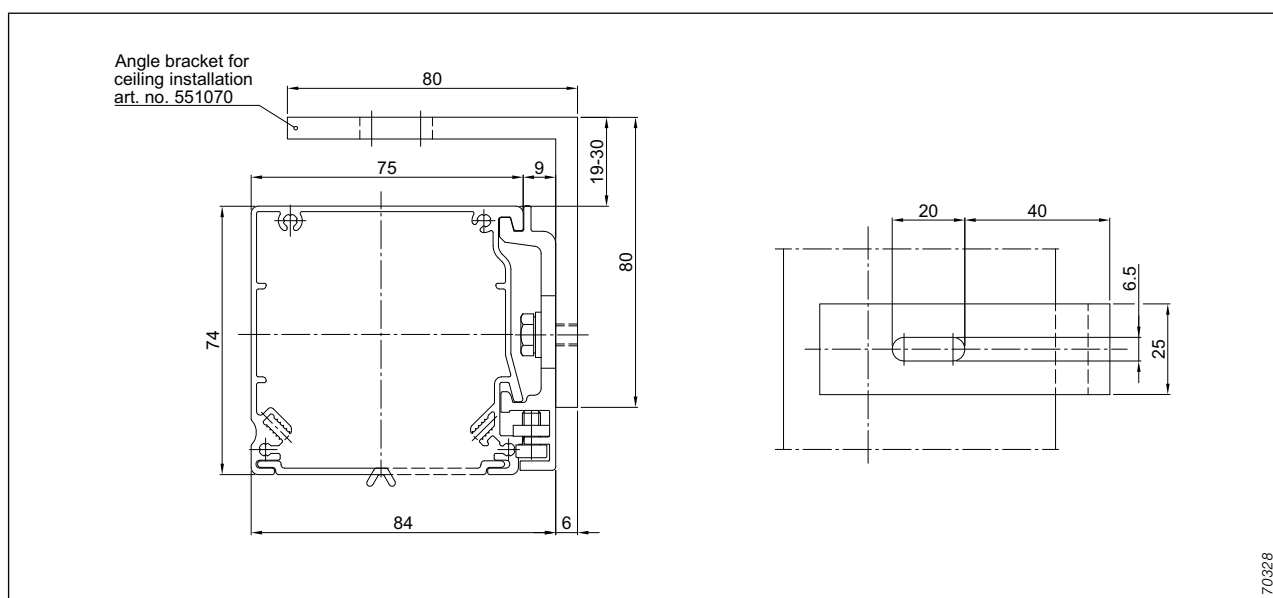


fig. 86: Cover panel 470 – ceiling installation

Description

Vertical awning 490

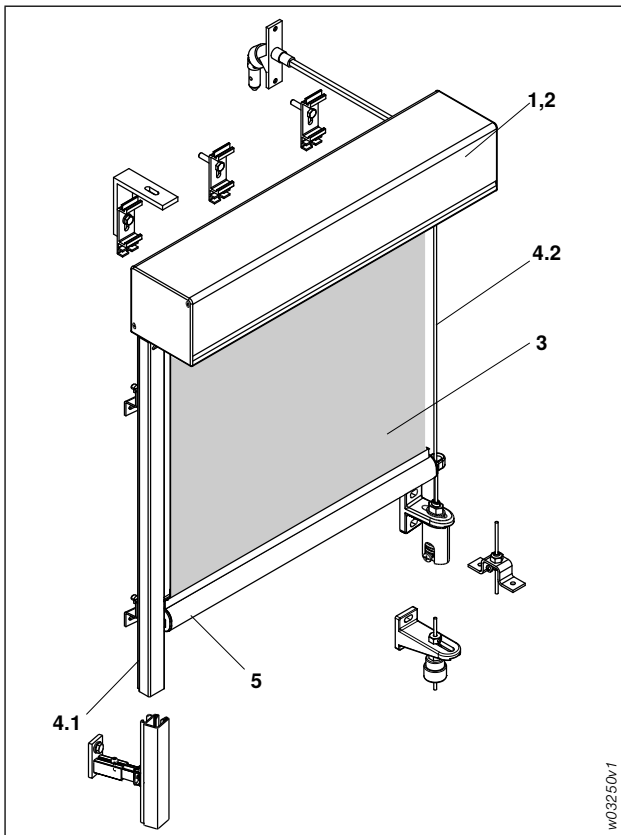


fig. 87: Vertical awning 490

- 1 Cover panel**
- 2 Fabric shaft**
- 3 Fabric**
- 4 Lateral guidance**
 - 4.1 Rail**
 - 4.2 Tension cable**
- 5 Drop profile**

Application

Textile external sun shading system with small cover panel for shading vertical punched or element windows as well as for direct mounting in the reveal (sheltered from the wind).

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank; joint plate and square with patented thermal separation.

Material: aluminium
 Surface: C0 anodised
 Ratio: 6.5:1
 Crank holder: plastic (grey, white or brown), crank holder with magnet optional

The fabric shaft contains a spindle lock to provide a lower limit for the extension of the fabric.

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panel (1)

With inspection cover, available for left and right rolling blinds

Material: aluminium, extruded
 Material thickness: 1.4 mm
 Dimensions (HxD): 94x100 mm
 Surface: powder-coated, C0 anodising optional
 Fixing: with aluminium wall or ceiling brackets
 Side covers: aluminium, powder-coated

Fabric shaft (2)

Material: aluminium, extruded
 Material thickness: 1.5 mm
 Dimensions (Ø): 62 mm
 Profile: groove tube
 Surface: plain

With piping groove for fixing the fabric.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
 Acrylic Perfora/All Weather
 Soltis 92 fabric
 Screen fabric
 More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Description

Vertical awning 490

Lateral guidance (4)

Rail (4.1)

C profile with black piping inserted for noise reduction

Material: aluminium, extruded

Dimensions (WxH): 25x18 mm

Profile: C-shaped profile

Surface: powder-coated, C0 anodising optional

Fixing: guide rail bracket (for left or right rolling blind)

End closure: plastic, black

Bead: weather-proof, UV stable, black

Tension cable (4.2)

Wire strand

Material: steel, corrosion-resistant

Coating: polyamide

Colour: black

Fixing:

tension cable bracket, aluminium, incl. spring tension device, aluminium

Drop profile (5)

Material: aluminium, extruded

Material thickness: 1.5 mm

Dimensions (WxH): 25x38 mm

Profile: oval tube, external beading channel

Surface: powder-coated, C0 anodising optional

Available as models "visible" (standard) or "concealed in fabric" (optional).

Fixing and connecting parts

Within the vertical awnings

Material: A2 steel or aluminium

Weight table

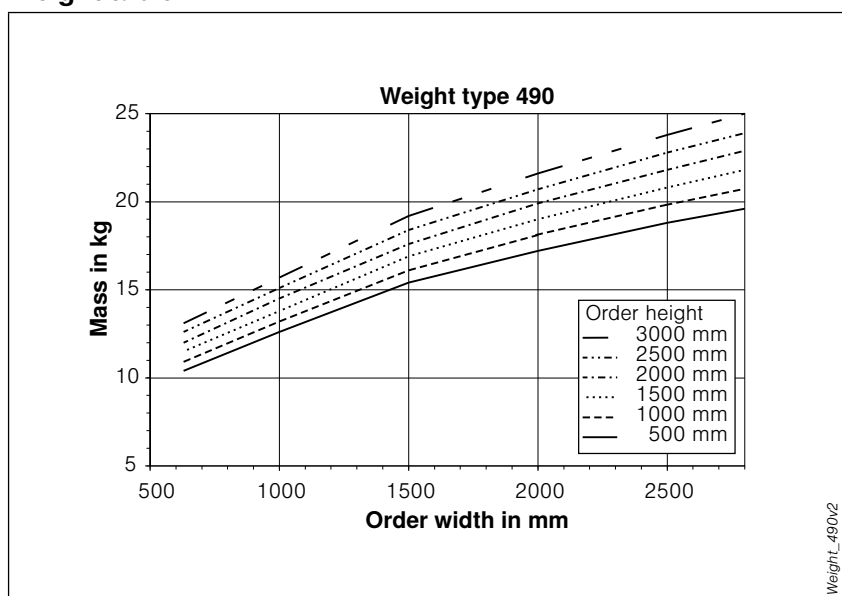


fig. 88: Weight type 490

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification).

Other colour specifications and special colours are available on request at a surcharge.

Optional C0 anodisation.

Construction limit values

Vertical awning 490

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit		mechanically coupled (max. 3 units)	
		Crank	Motor	Crank	Motor
Min. width ¹⁾ (mm)	Acrylic – all qualities –	600	640	600	640 ²⁾
	Screen fabric	600	640	600	640 ²⁾
	Soltis 92 fabric	600	640	600	640 ²⁾
Max. width (mm)	Acrylic – all qualities –	2800	2800	7000 ³⁾	7000 ³⁾
	Screen fabric	2500	2500	7000 ³⁾	7000 ³⁾
	Soltis 92 fabric	2800	2800	7000 ³⁾	7000 ³⁾
Max. height (mm)	Standard/Lumera acrylic fabric	2500 ⁴⁾	2500 ⁴⁾	2500 ⁴⁾	2500 ⁴⁾
	Perfora acrylic fabric				
	All Weather acrylic fabric	2200	2200	2200	2200
	Screen fabric	3000	3000	3000	3000
	Soltis 92 fabric	3000	3000	3000	3000
Max. area ⁵⁾ (m ²)	Standard/Lumera acrylic fabric	6.7	6.7	16.8	16.8
	Perfora acrylic fabric				
	All Weather acrylic fabric	6.2	6.2	15.4	15.4
	Screen fabric	7.5	7.5	20.0	20.0
	Soltis 92 fabric	8.4	8.4	20.0	20.0

Notes:

- Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.
- All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.
- Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

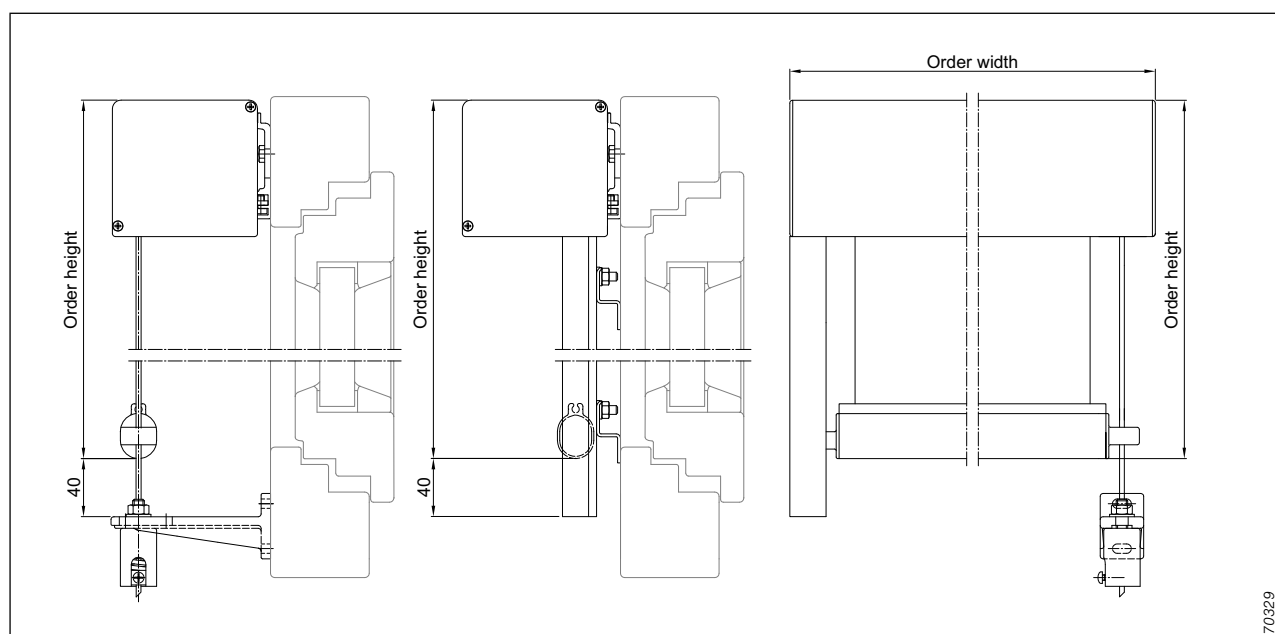
¹⁾ Smaller widths are possible after consultation with the Application Technology department!

²⁾ For unit with motor

³⁾ Maximum width with continuous cover panel is 5000 mm.

⁴⁾ Glued fabric connection optional for Standard and Perfora variants. Max. height reduced by 300 mm.

⁵⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).



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fig. 89: Measuring instructions

Details

Vertical awning 490

Wall/ceiling brackets, guide rail brackets

Number of required wall/ceiling brackets

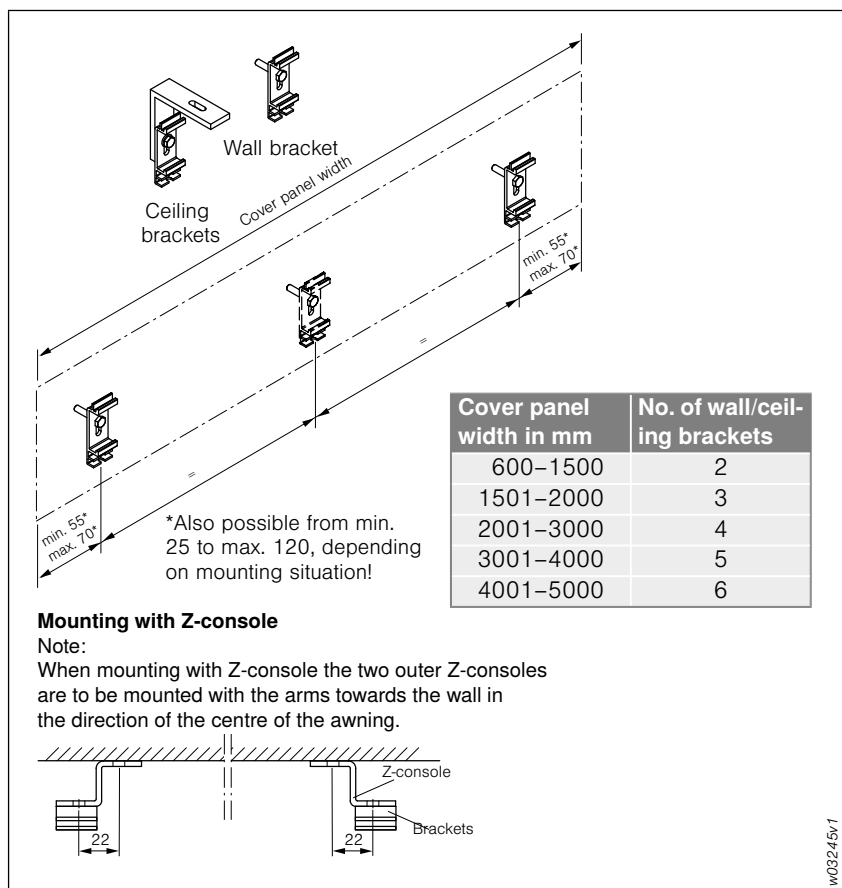


fig. 90: Measuring instructions for wall/ceiling brackets

Number of necessary guide rail brackets

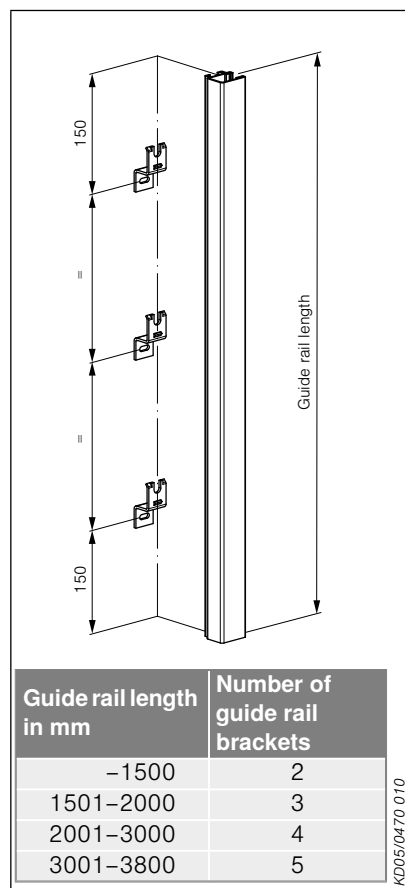


fig. 91: Measuring instructions for guide rail brackets

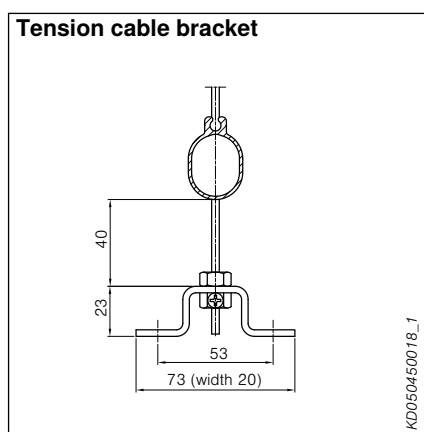


fig. 92: Tension cable bracket

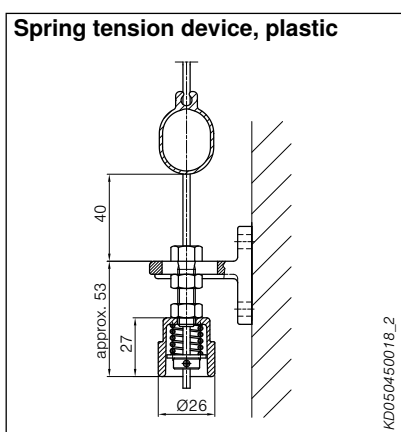


fig. 93: Spring tension device, plastic

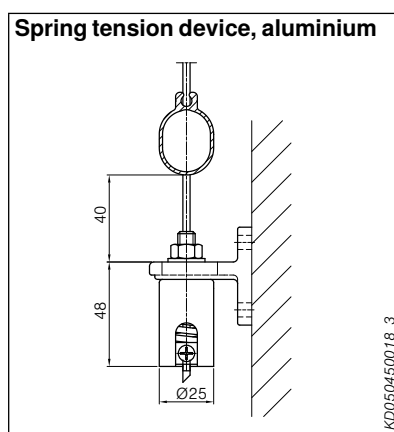


fig. 94: Spring tension device, aluminium

Application example

Vertical awning 490

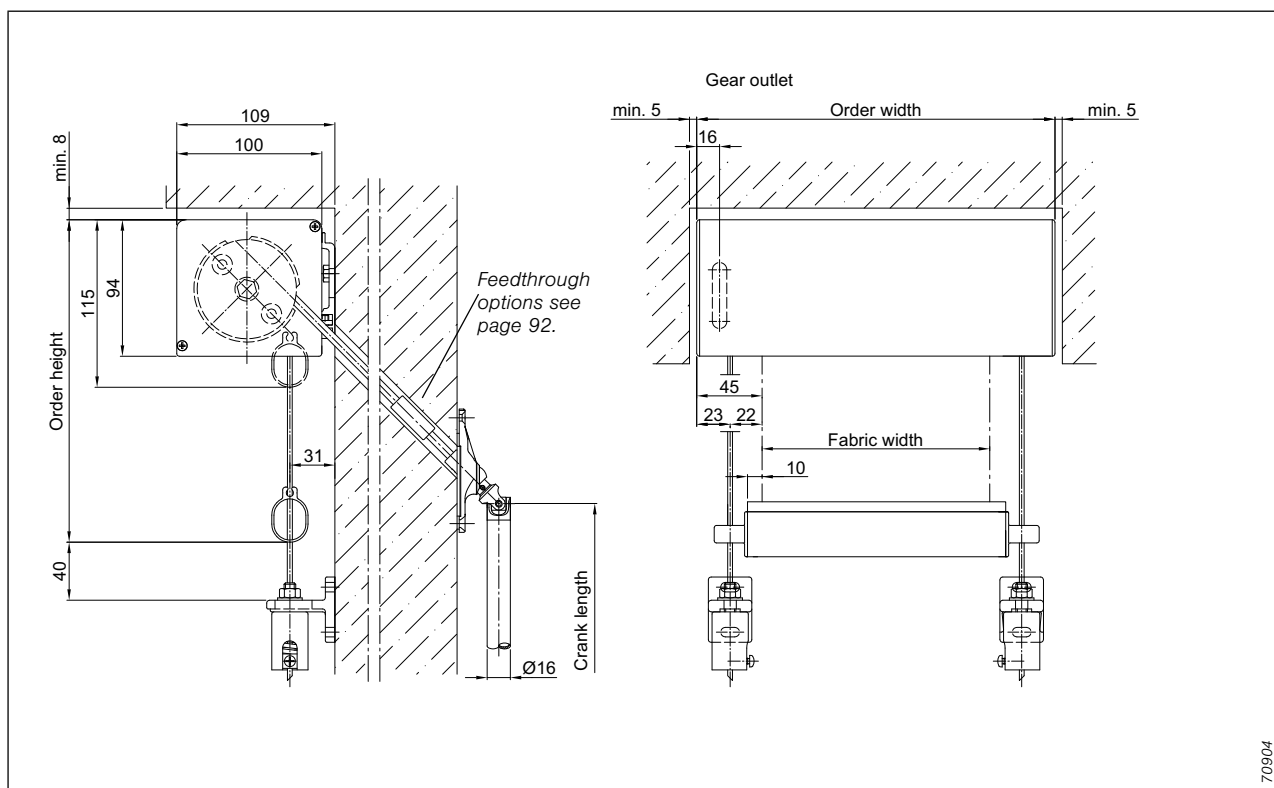


fig. 95: Standard model vertical awning 490 with cable guidance, crank drive, individual unit, wall installation, left rolling blind (also available as right rolling blind)

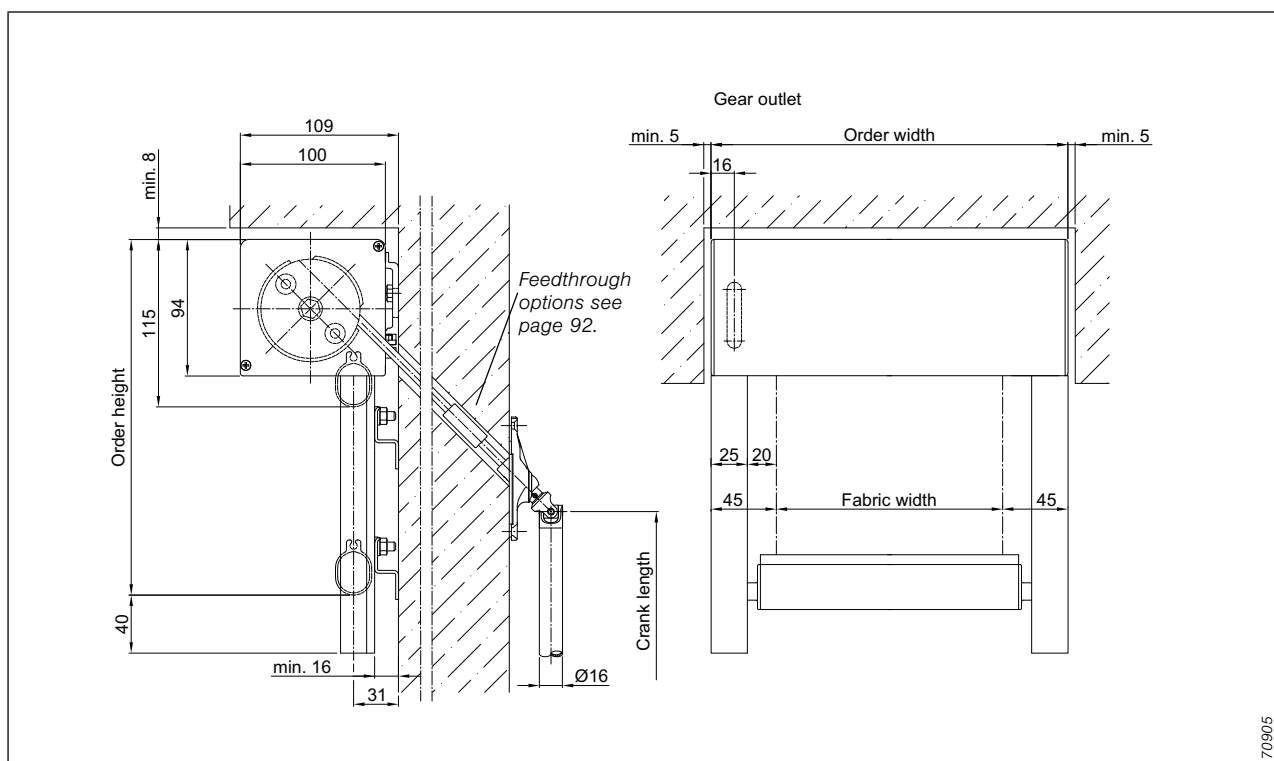


fig. 96: Standard model vertical awning 490 with rail guidance, crank drive, individual unit, wall installation, left rolling blind (also available as right rolling blind)

Application example Vertical awning 490

Possible variants

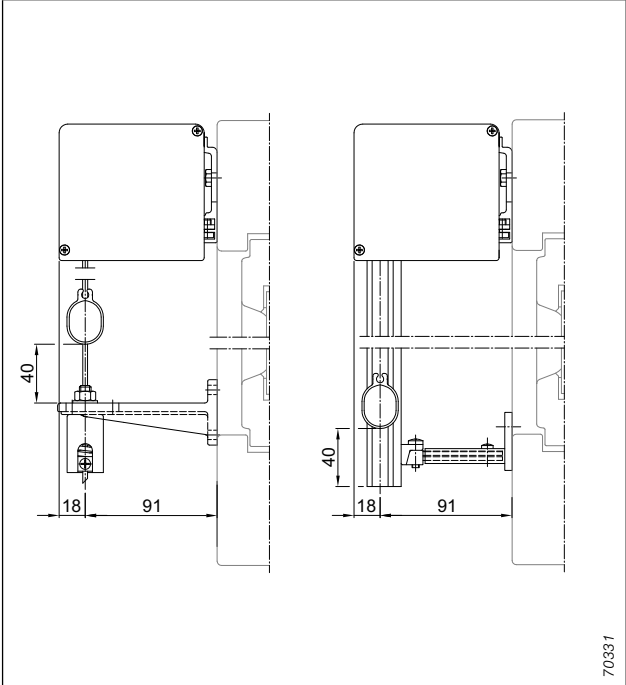


fig. 97: Vertical awning 490, wall installation

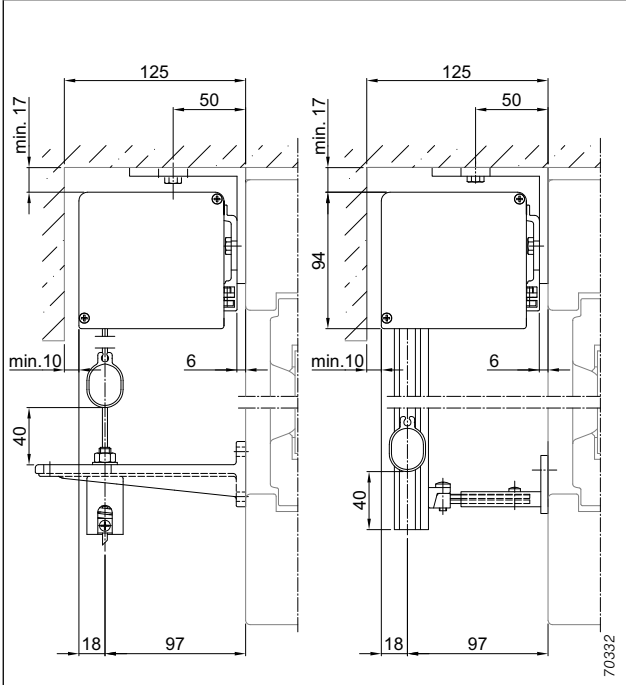


fig. 98: Vertical awning 490, ceiling installation

Details

Vertical awning 490

Possible gear feedthrough options

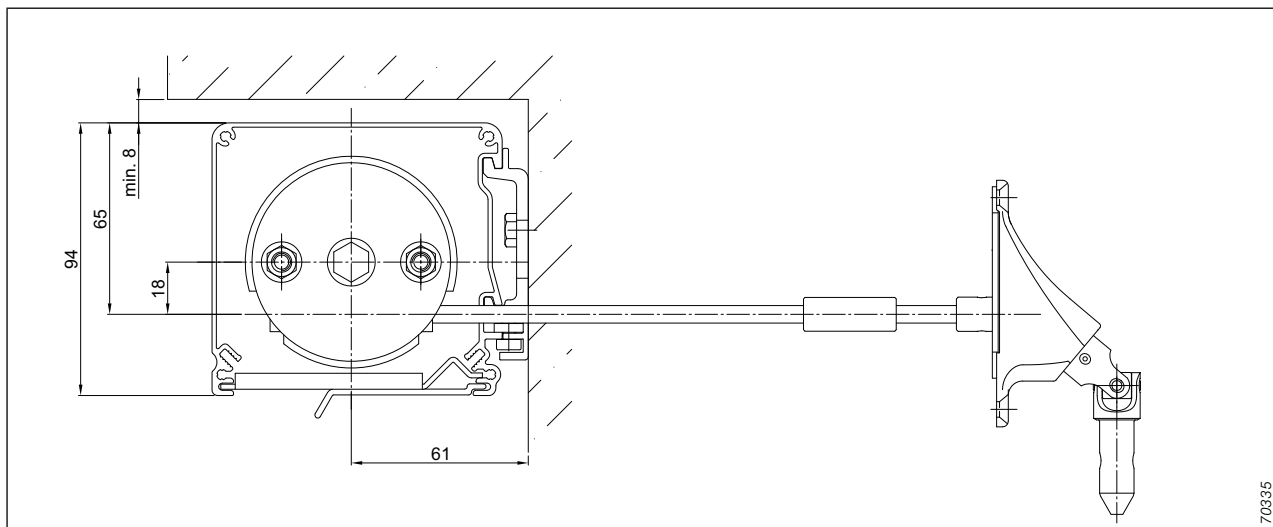


fig. 99: Gear outlet 0°

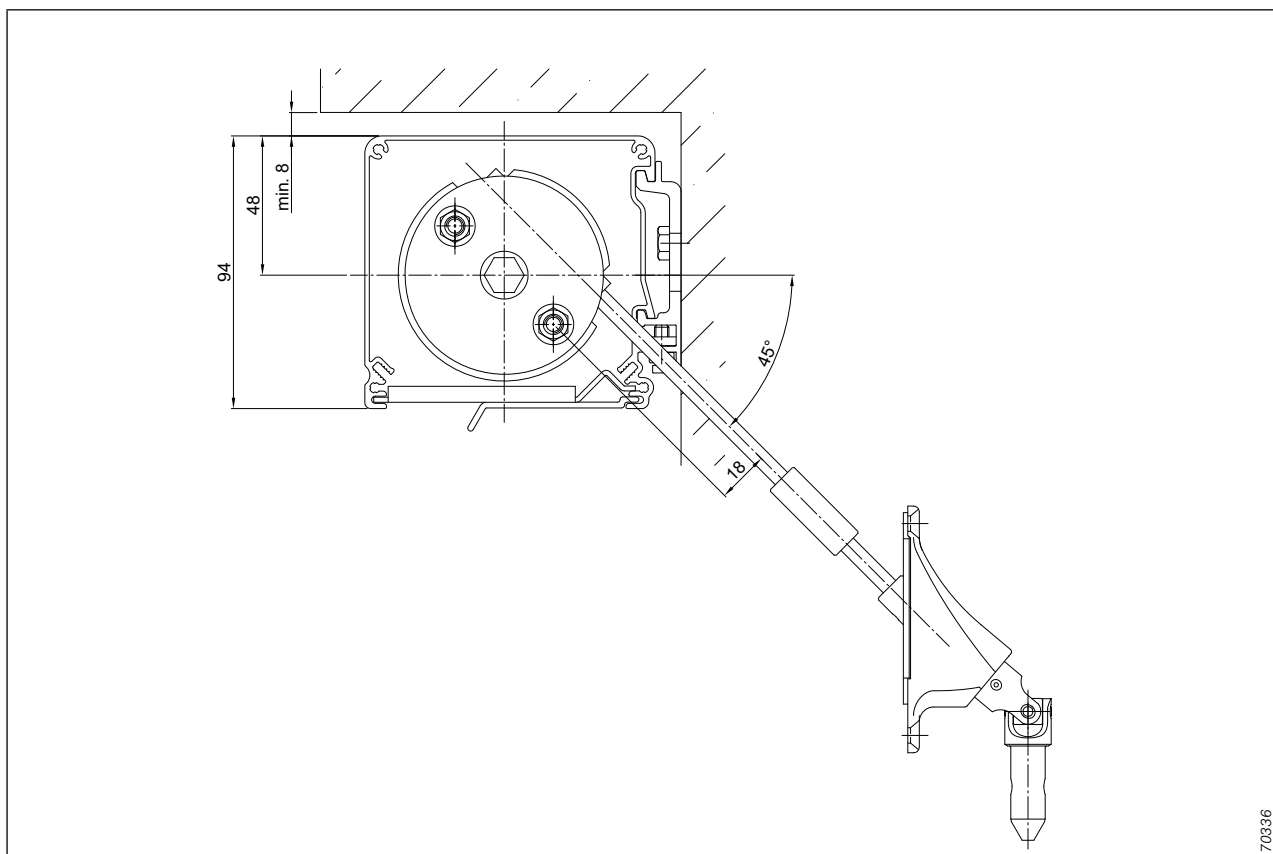


fig. 100: Gear outlet 1-45°

Application example

Vertical awning 490

Variations for housing the plug-in connector

Note: The plug-in connector has to be accommodated in all cases!

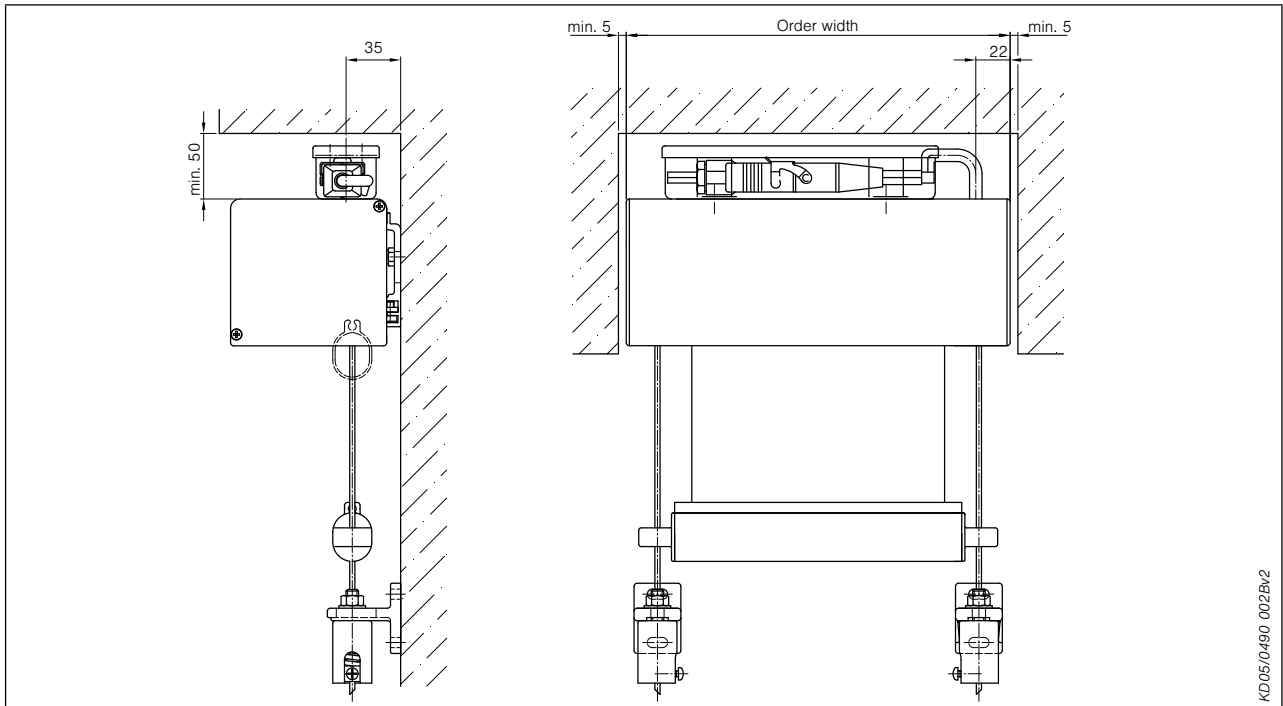


fig. 101: Individual unit, left rolling blind, wall installation, cable guidance with cable exit at the top

Application example

Vertical awning 490

Variations for housing the plug-in connector

Note: The plug-in connector has to be accommodated in all cases!

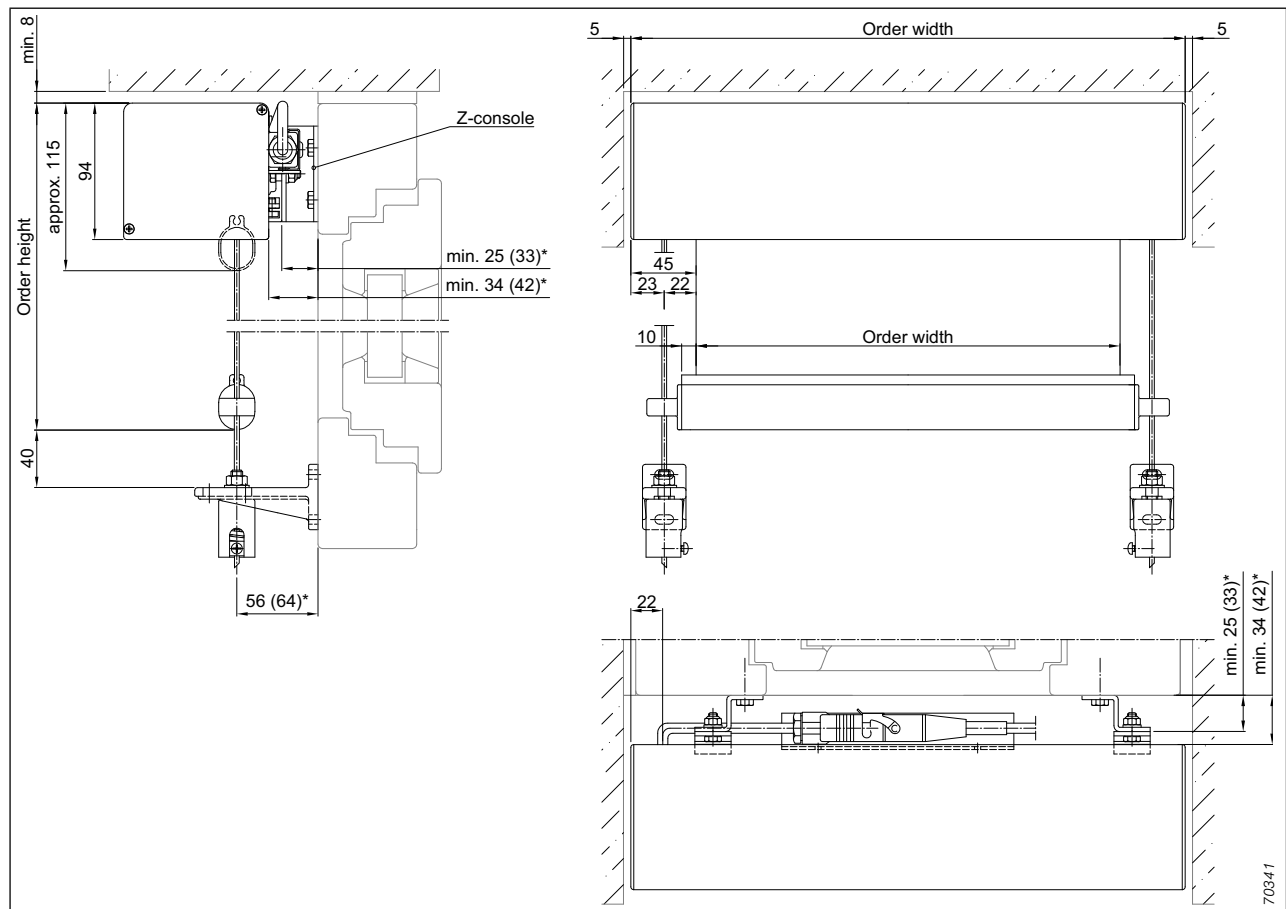


fig. 102: Individual unit, left rolling blind, wall installation, cable guidance with cable exit at the back

* Dimensions in brackets apply to EWFS and/or WMS plug receiver

Application example

Vertical awning 490

Variations for housing the plug-in connector

Note: The plug-in connector has to be accommodated in all cases.

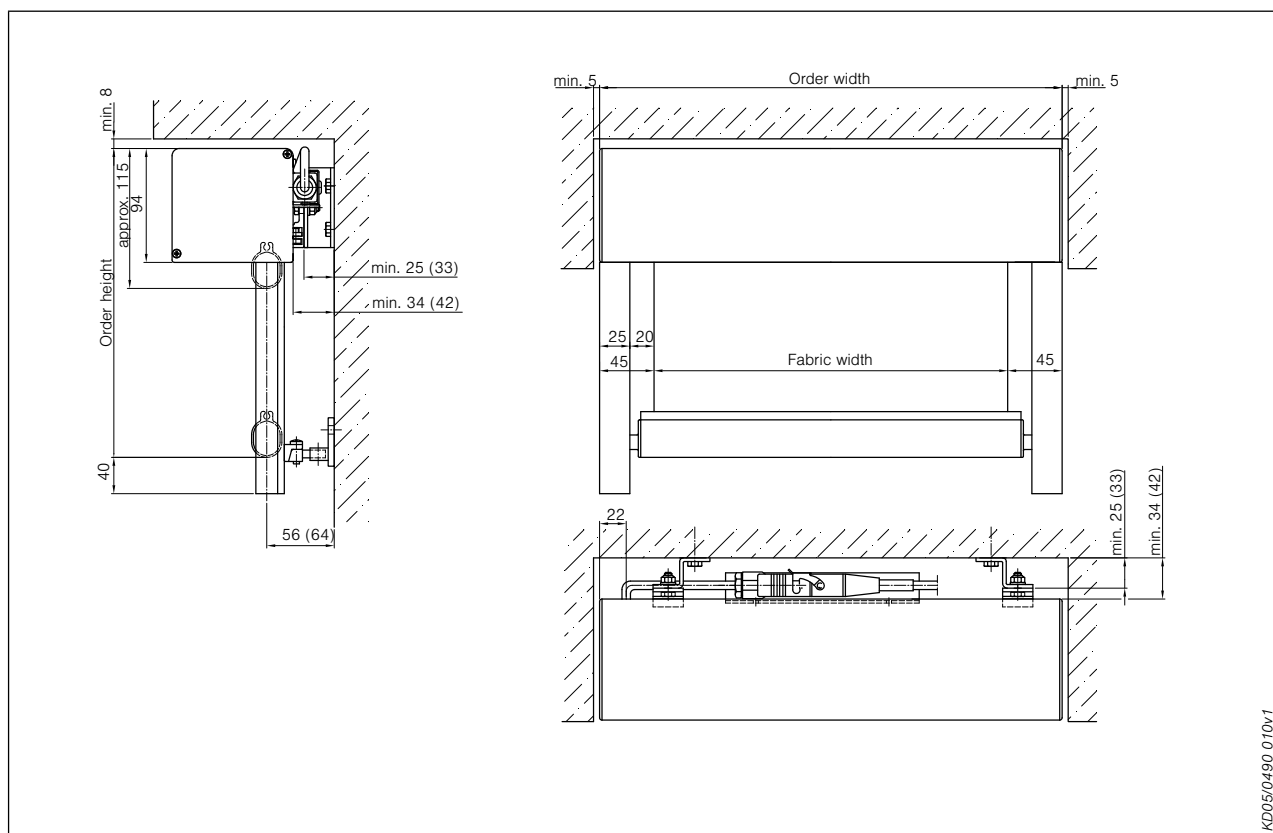


fig. 103: Individual unit, left rolling blind (also available as right rolling blind), wall installation, guide rail, with cable exit at the back

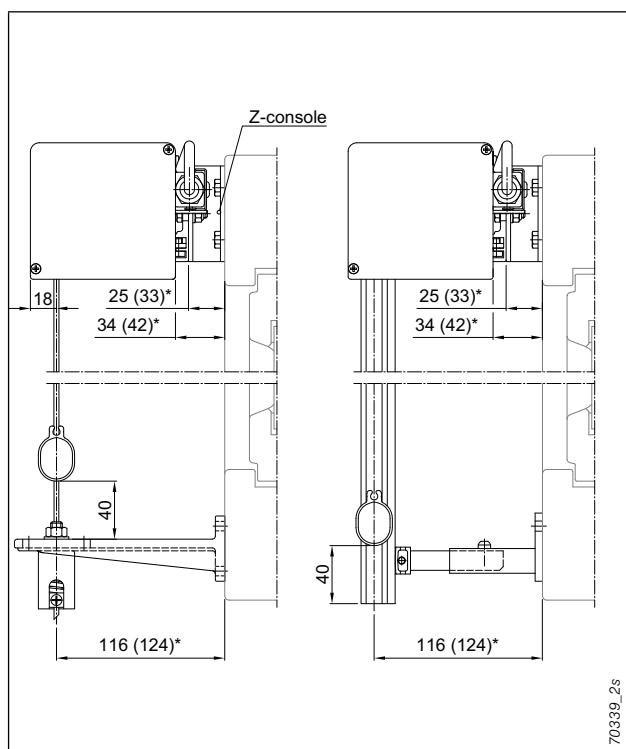


fig. 104: Right rolling blind (also available as left rolling blind), wall installation, cable guidance, guide rail

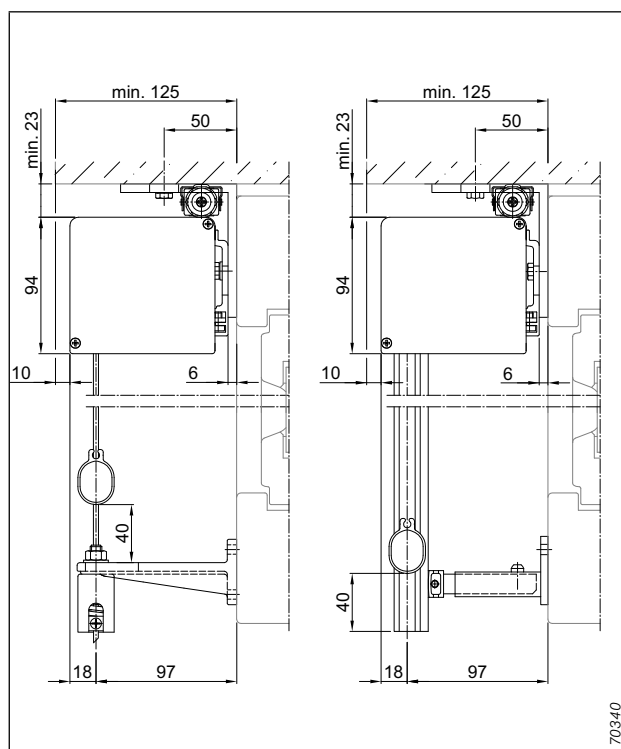


fig. 105: Right rolling blind (also available as left rolling blind), ceiling installation, guide rail, with cable exit at the back

* Dimensions in brackets apply to EWFS and/or WMS plug receiver

Application example

Vertical awning 490

Variations for housing the plug-in connector

Note: The plug-in connector has to be accommodated in all cases!

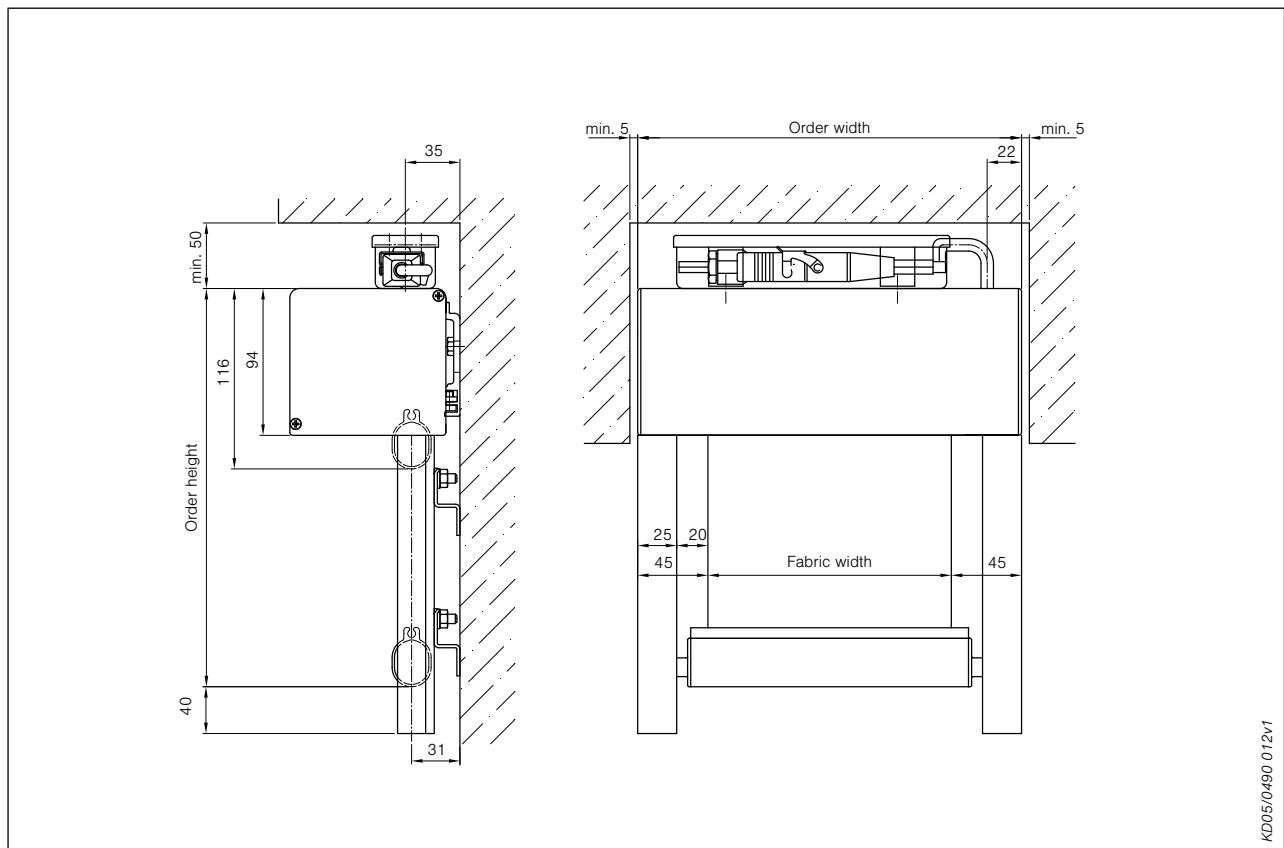


fig. 106: Individual unit, left rolling blind (also available as right rolling blind), wall installation, guide rail, with cable exit at the top

Details

Vertical awning 490

Drive variations

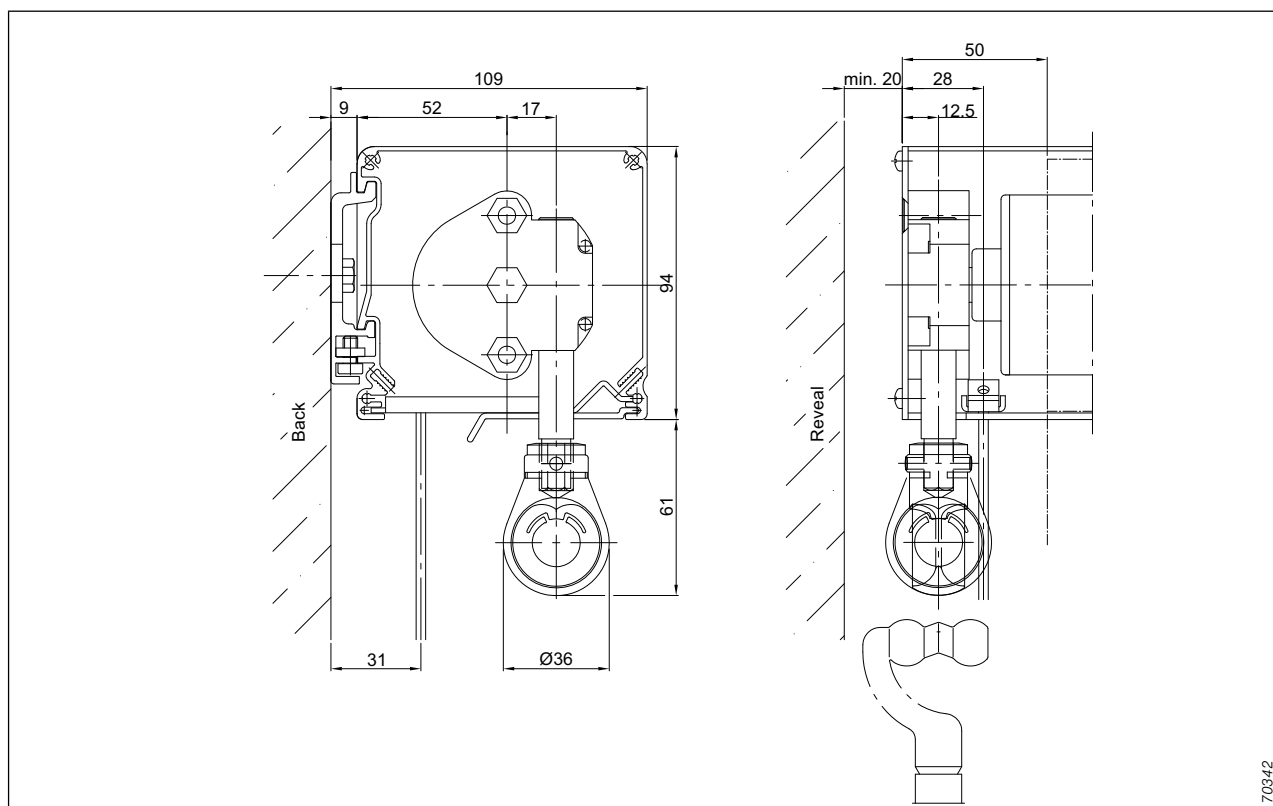


fig. 107: Gear with eyelet; operation seen from the cover panel back side, left rolling blind (also available as right rolling blind)

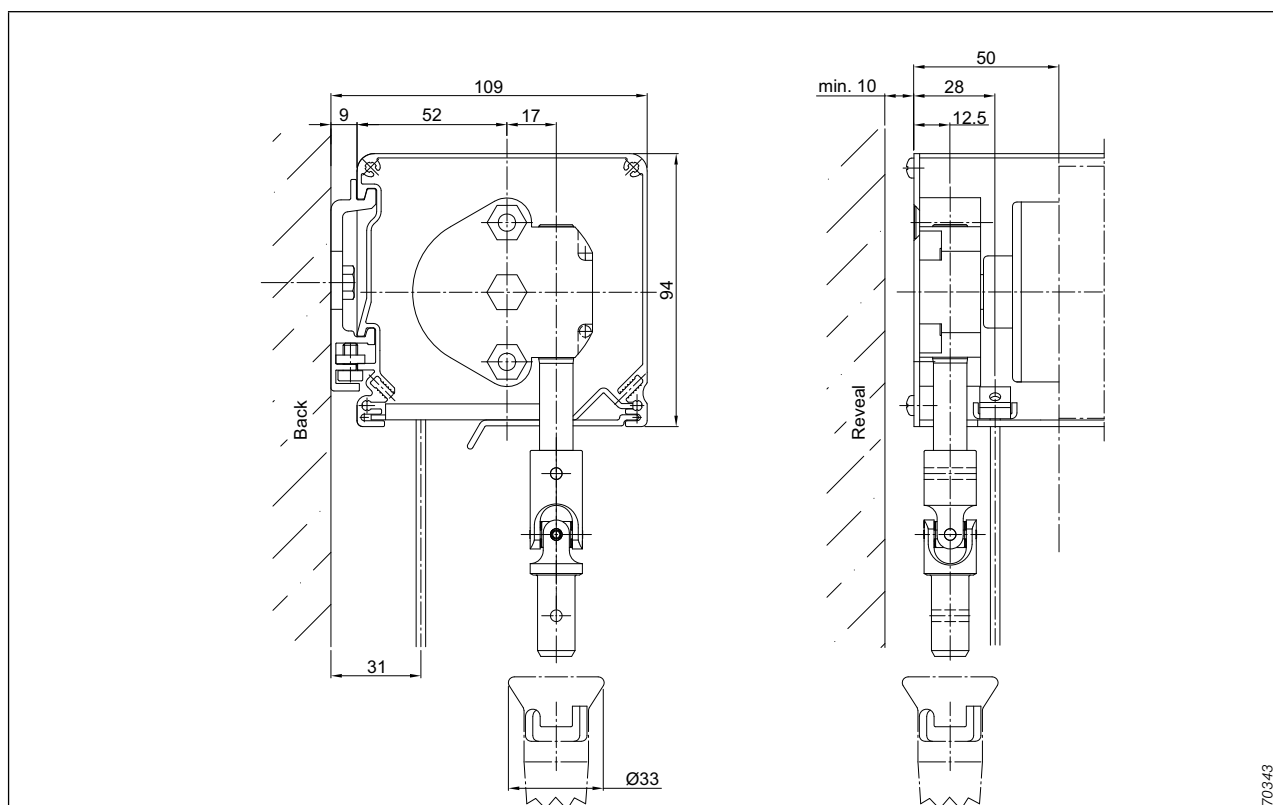
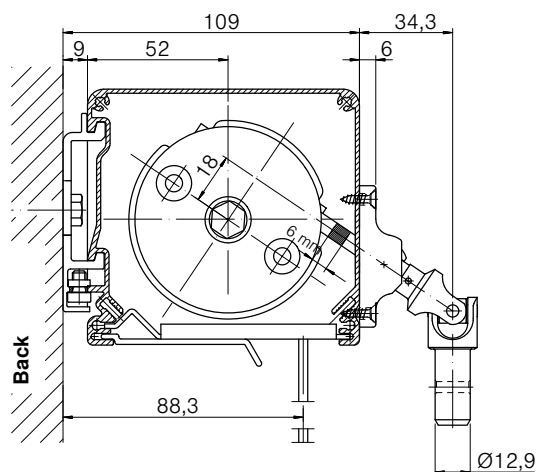


fig. 108: Gear with universal joint; operation seen from the cover panel back side, left rolling blind (also available as right rolling blind)

Details

Vertical awning 490

Drive variations



KD05/0490 008b

fig. 109: Joint plate on the cover panel – operation seen from the cover panel back side. Right rolling blind (also available as left rolling blind)

Details

Vertical awning 490

Limit position situations

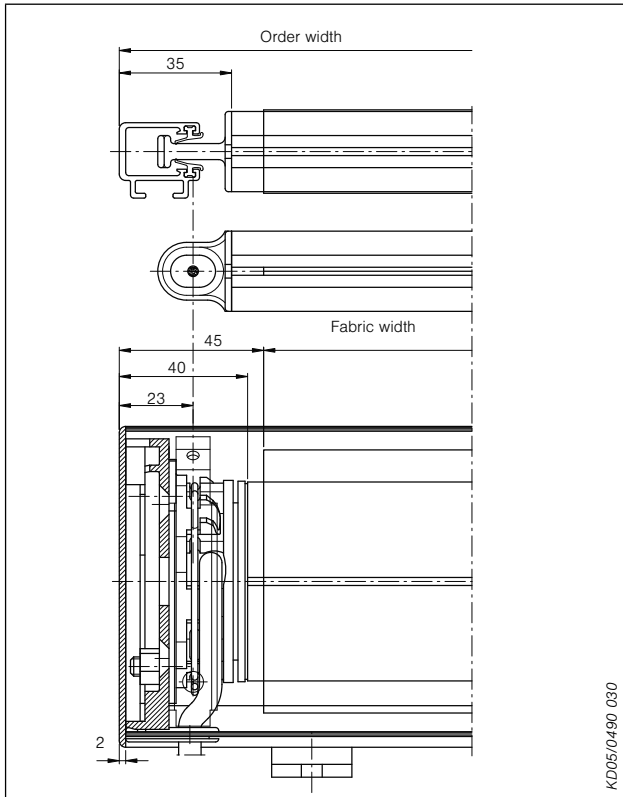


fig. 110: Motor side

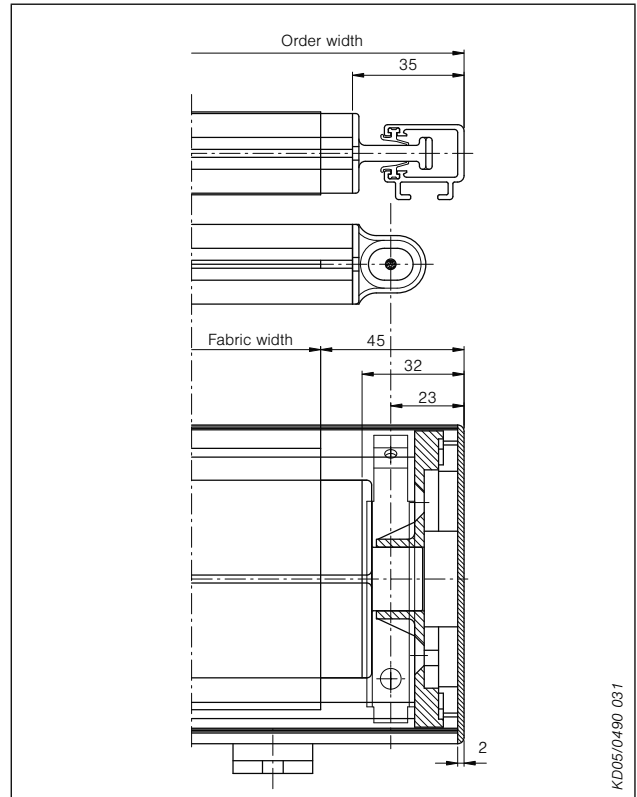


fig. 111: End bearing

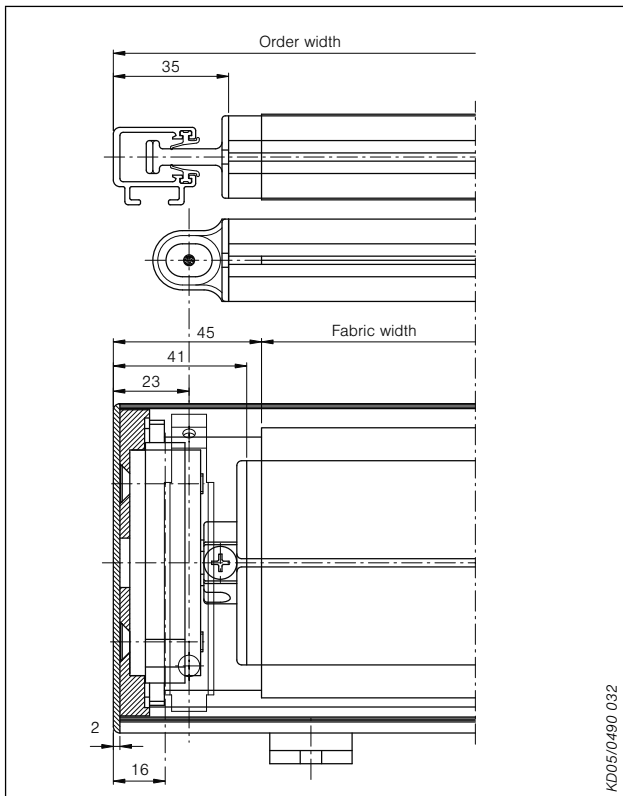


fig. 112: Gear

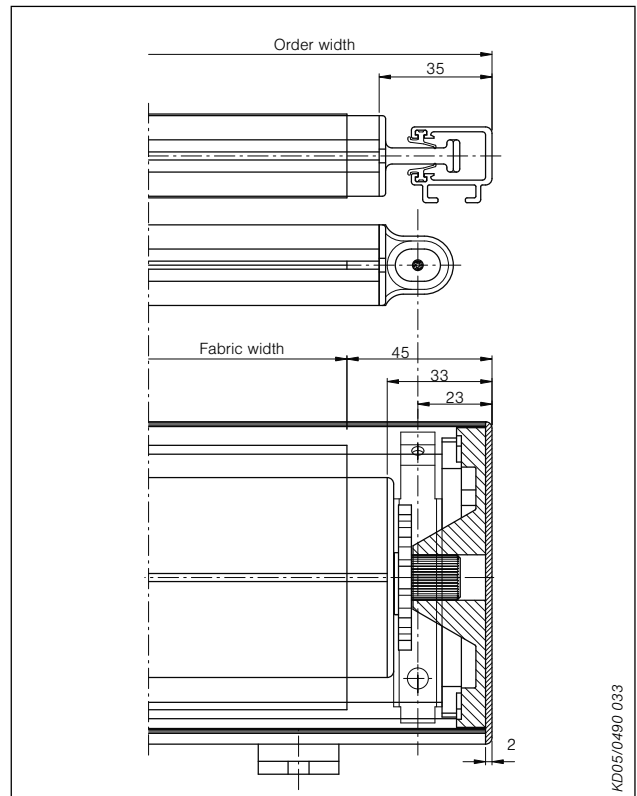


fig. 113: Spindle lock

Details

Vertical awning 490

Possible couplings and linking of several units

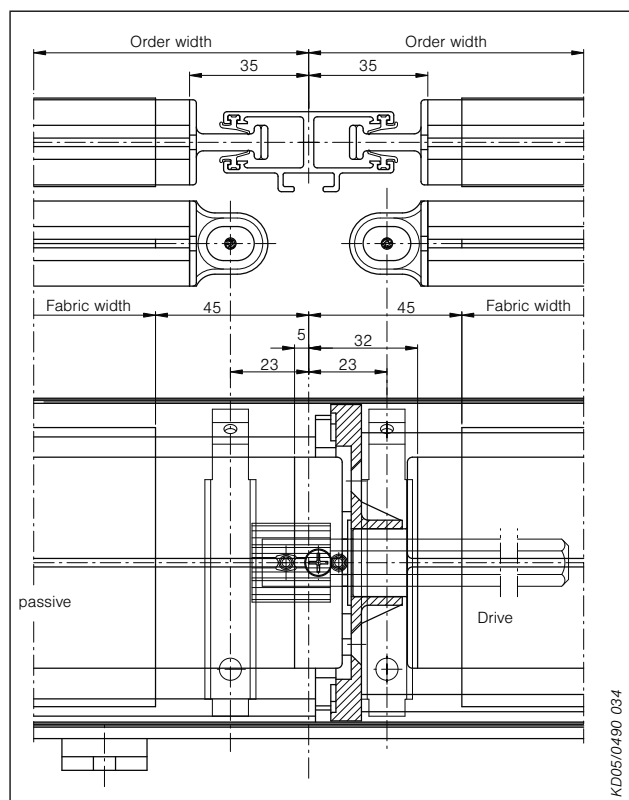


fig. 114: Coupling, continuous cover panel – standard

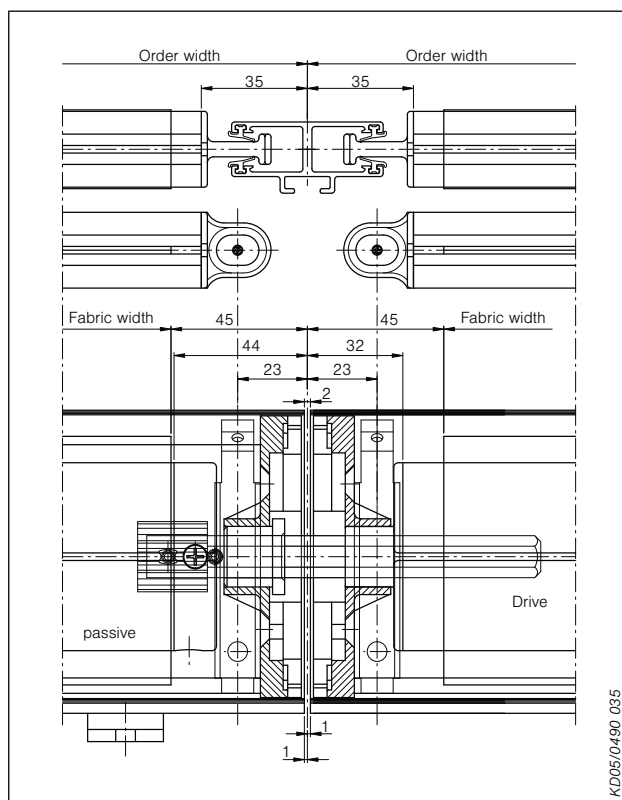


fig. 115: Coupling, individual cover panel – standard

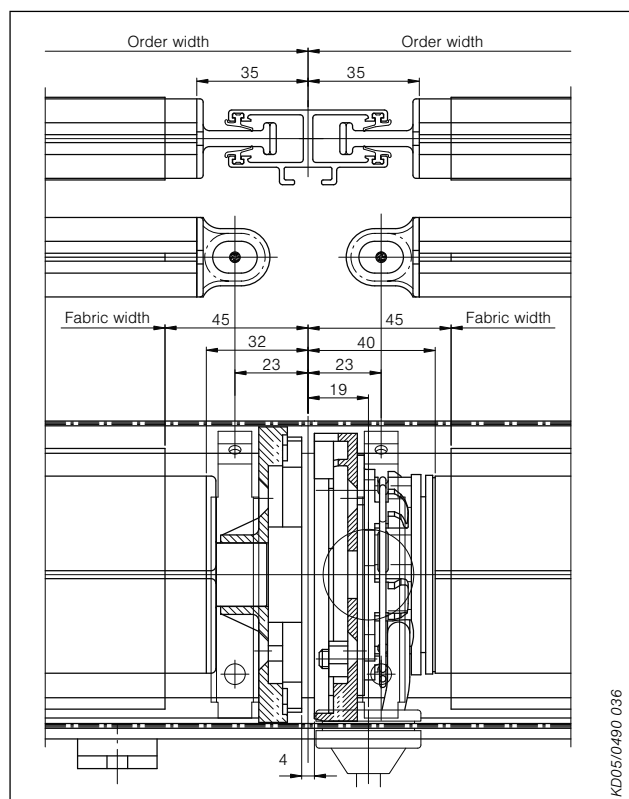


fig. 116: Motor – centre of bearing

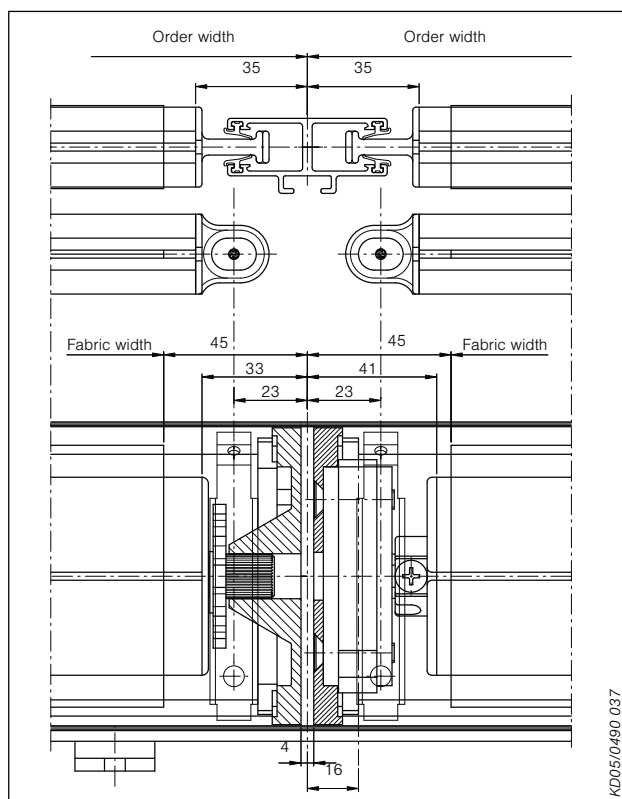


fig. 117: Gear – centre of spindle lock

Details

Vertical awning 490
Possible drives

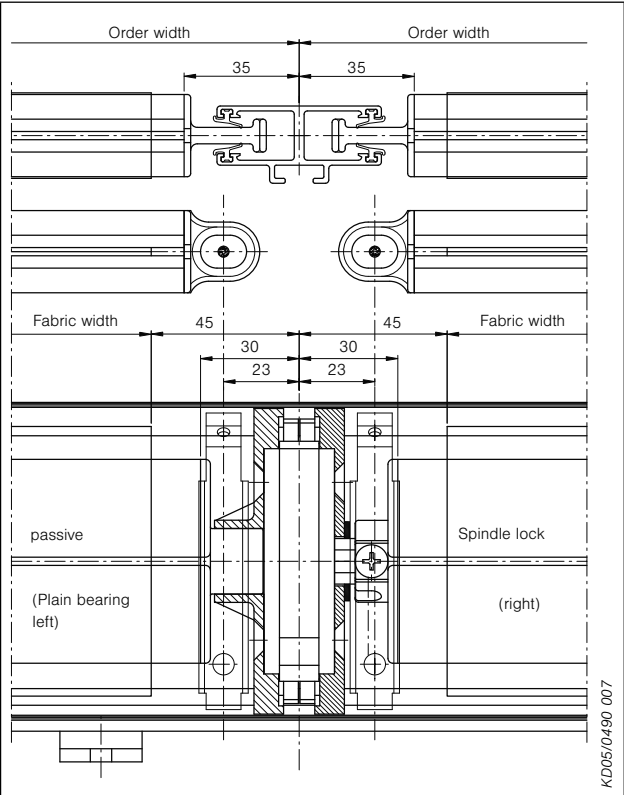


fig. 118: Central gear

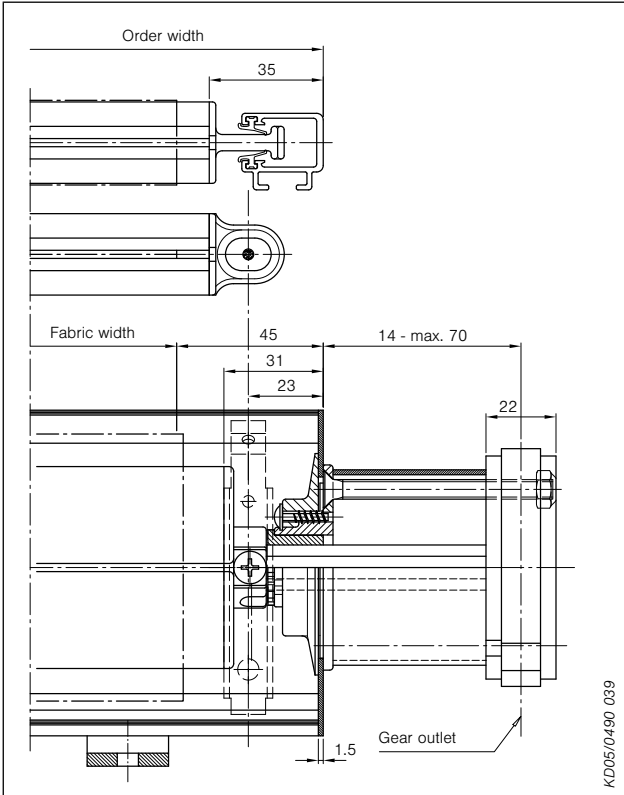


fig. 119: External gear

Details
Vertical awning 490
Wall/ceiling installation

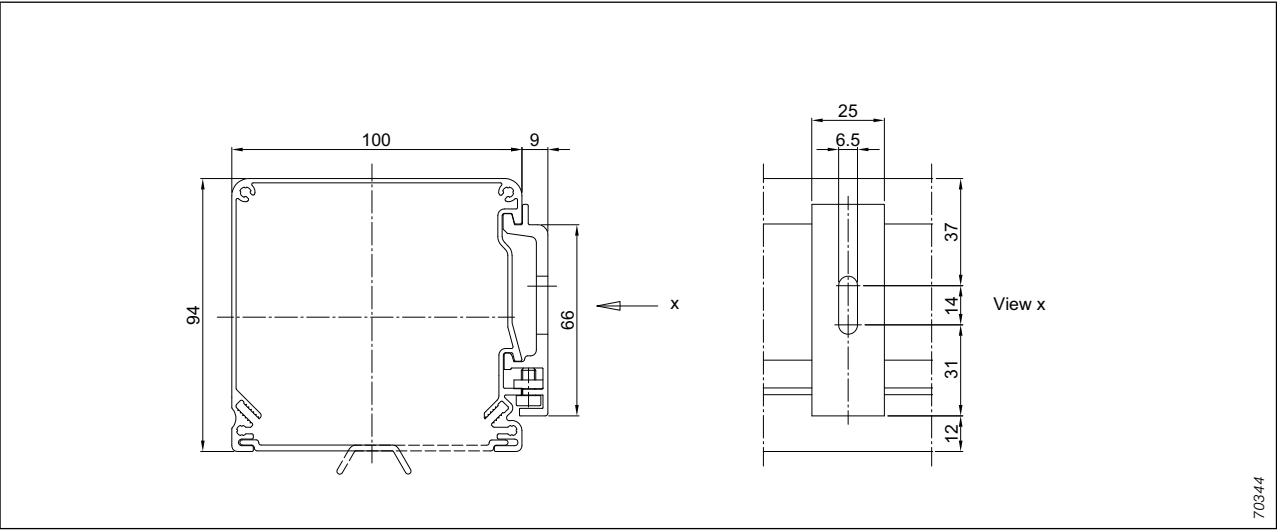


fig. 120: Cover panel type 490 – wall installation

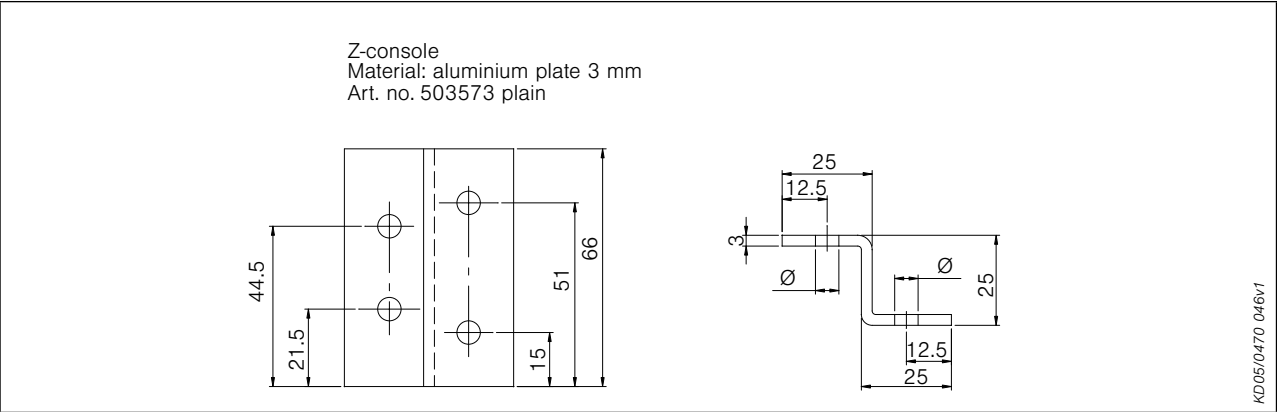


fig. 121: Z console with wall installation

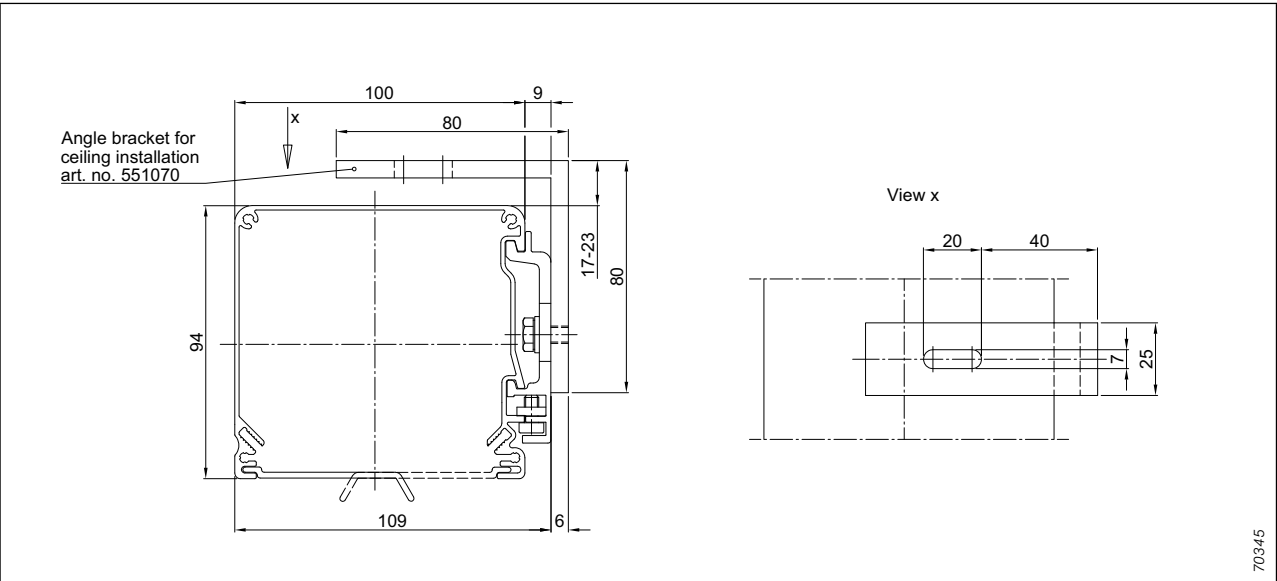


fig. 122: Cover panel type 490 – ceiling installation

Application example

Vertical awning 491 with guide rails Shaft installation

Attention!

This is a standardised mounting situation!

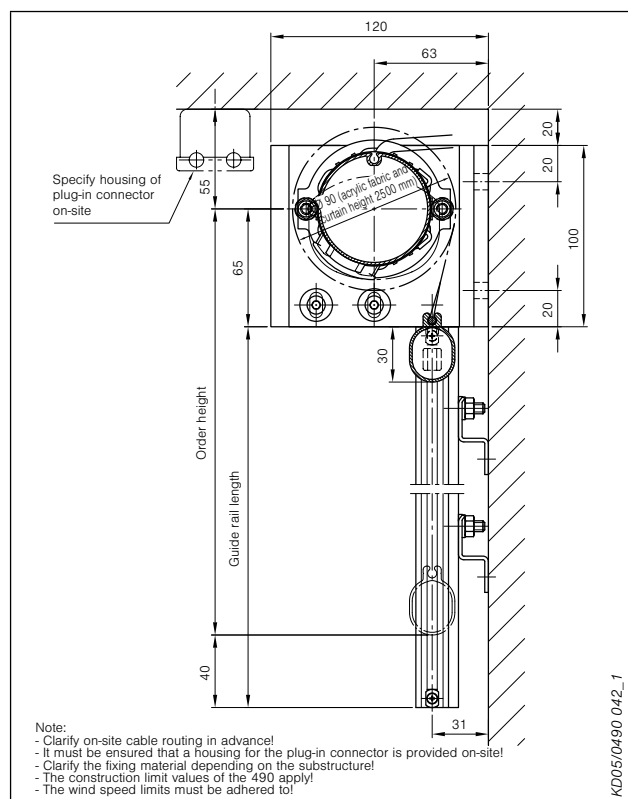


fig. 123: Vertical awning 491 with motor, left rolling blind with guide rails and wall installation

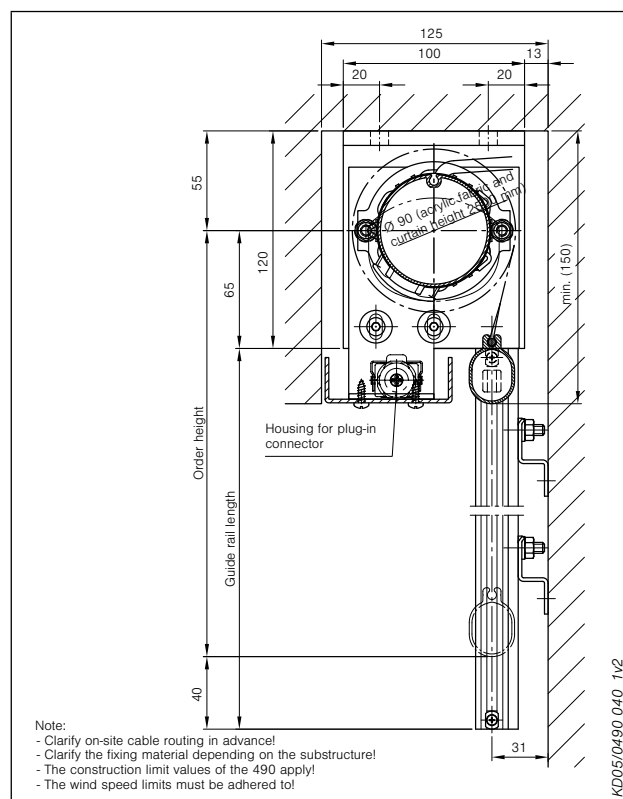


fig. 124: Vertical awning 491 with motor, left rolling blind with guide rails, ceiling installation with inspection cover

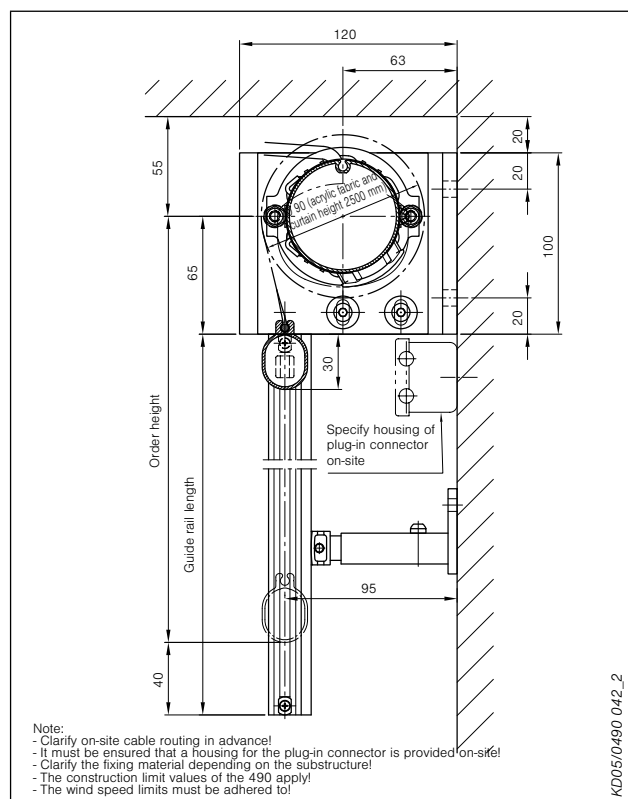


fig. 125: Vertical awning 491 with motor, right rolling blind with guide rails and wall mounting

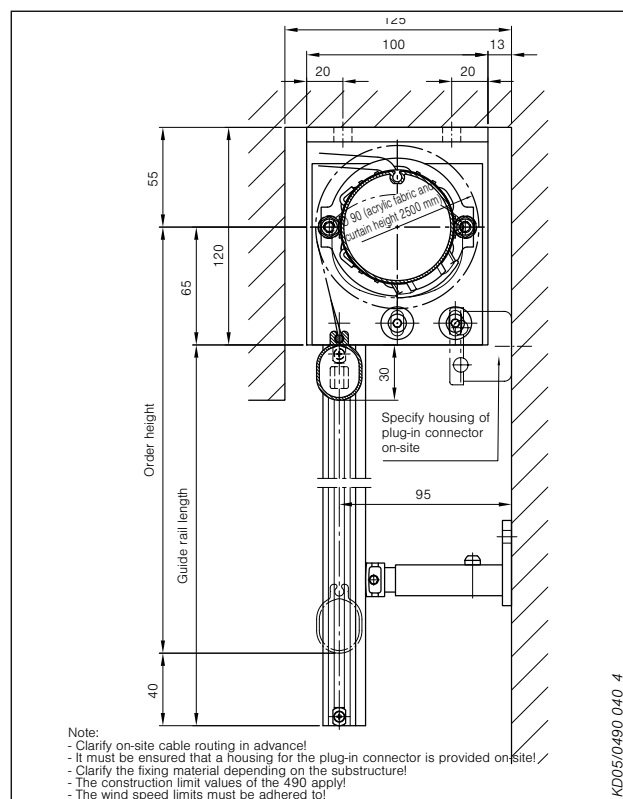


fig. 126: Vertical awning 491 with motor, right rolling blind with guide rails and ceiling installation

Application example

Vertical awning 491 with cable guidance Shaft installation

Attention!

This is a standardised mounting situation!

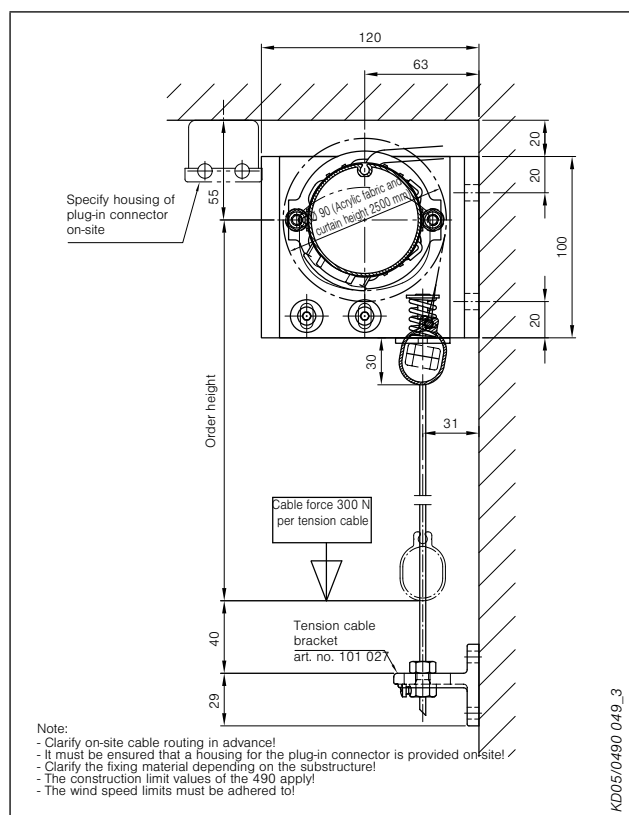


fig. 127: Vertical awning 491 with motor, left rolling blind with cable guidance and wall installation

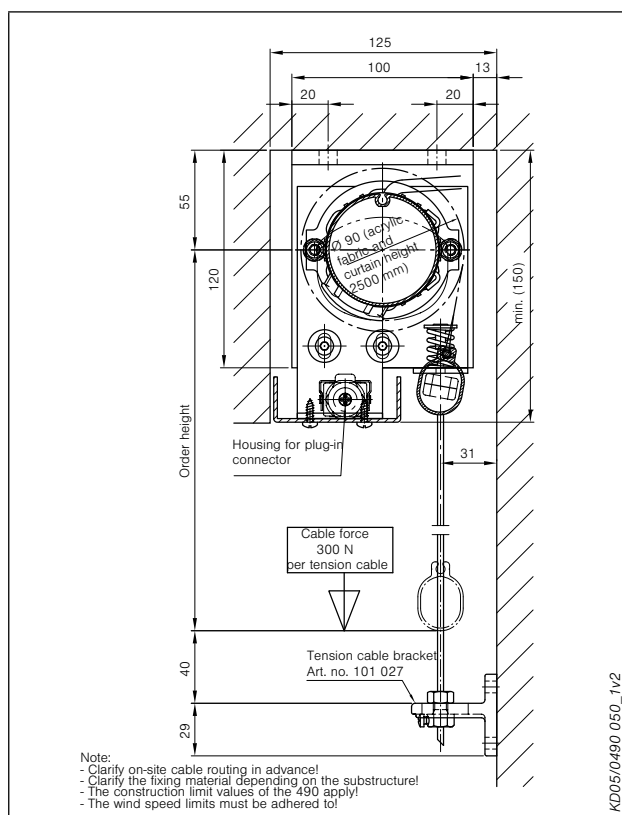


fig. 128: Vertical awning 491 with motor, left rolling blind with cable guidance, ceiling installation with inspection cover

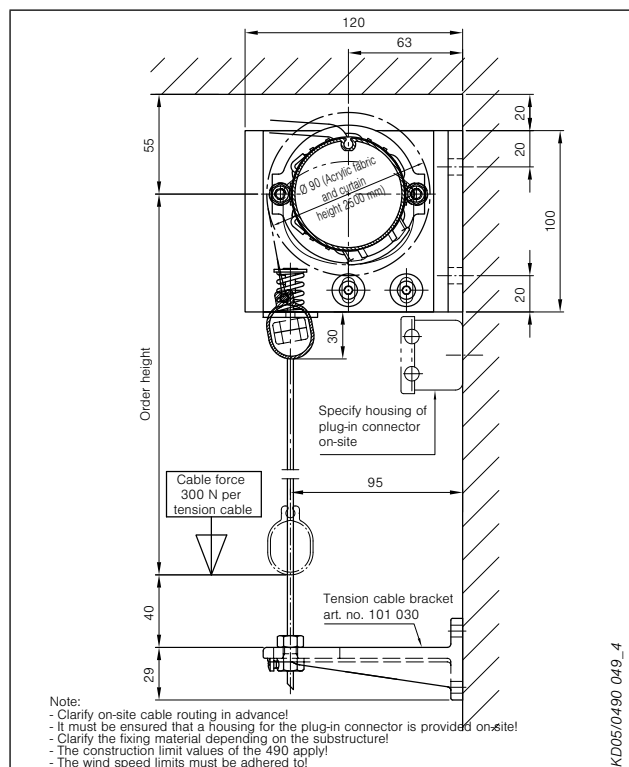


fig. 129: Vertical awning 491 with motor, right rolling blind with cable guidance and wall installation

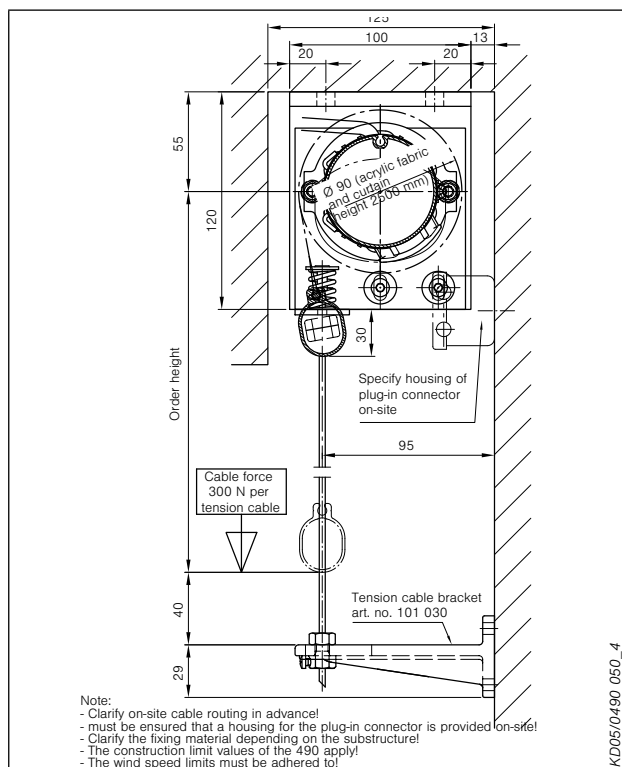


fig. 130: Vertical awning 491 with motor, right rolling blind with cable guidance and ceiling installation

Application example

Vertical awning 491

Shaft installation

Attention!

This is a standardised mounting situation!

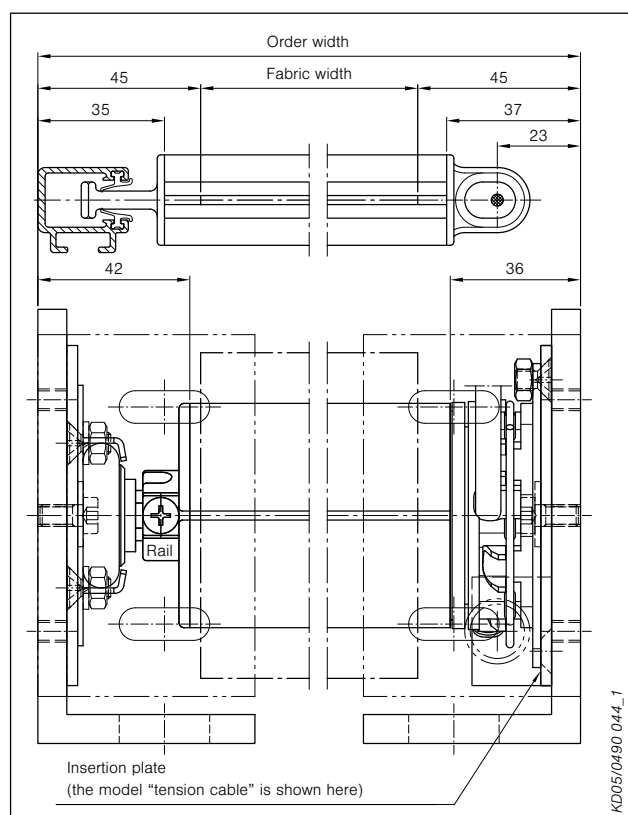


fig. 131: Vertical awning 491 with motor, cable or rail guidance, motor end bearing situation

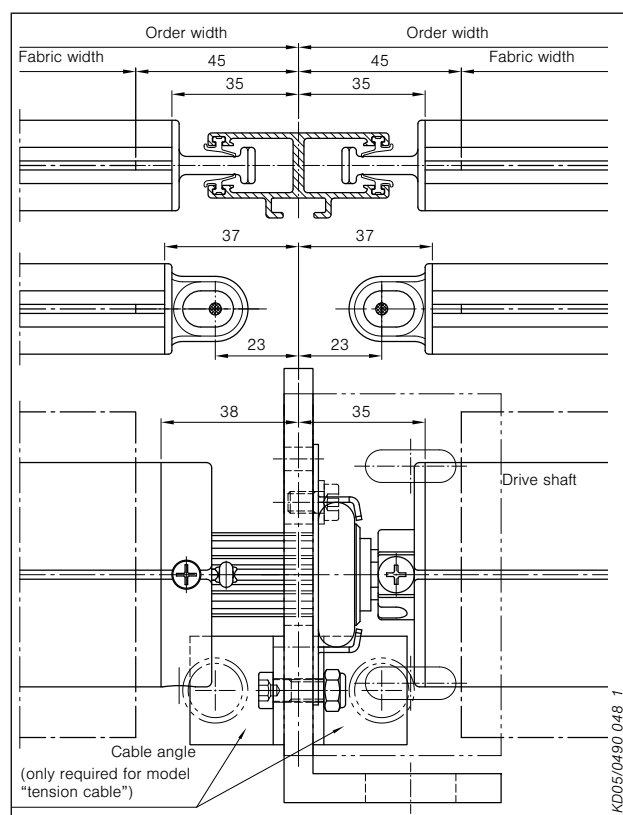


fig. 132: Vertical awning 491, cable or rail guidance, coupling situation

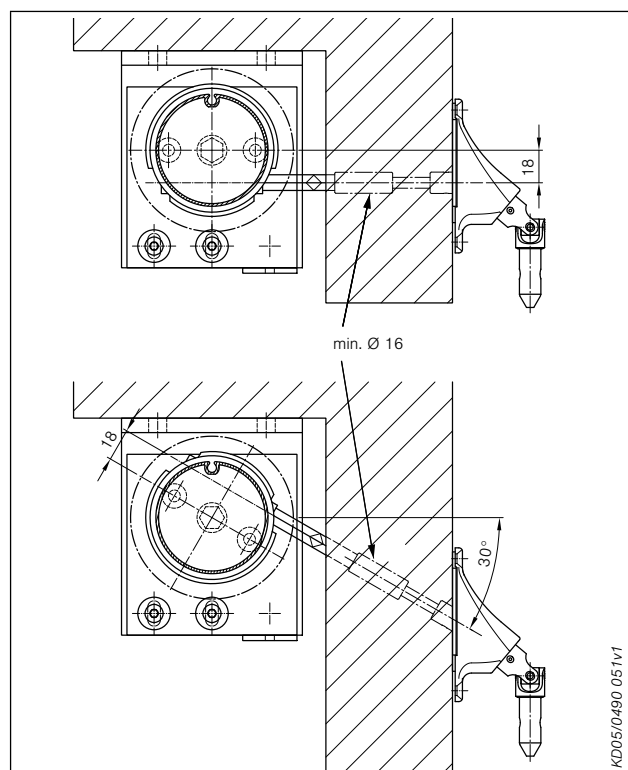


fig. 133: Vertical awning 491, gear outlets

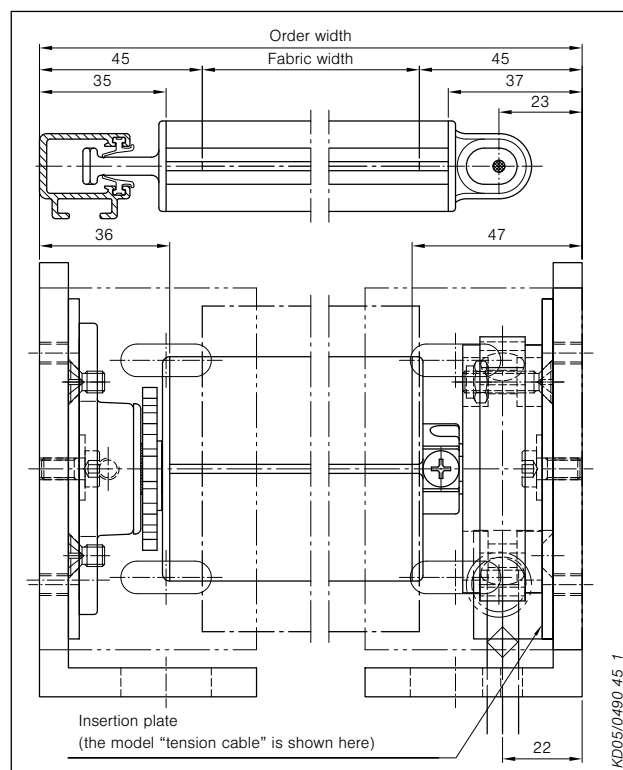


fig. 134: Vertical awning 491, cable or rail guidance, gear - spindle lock situation

Description

Vertical awning 499

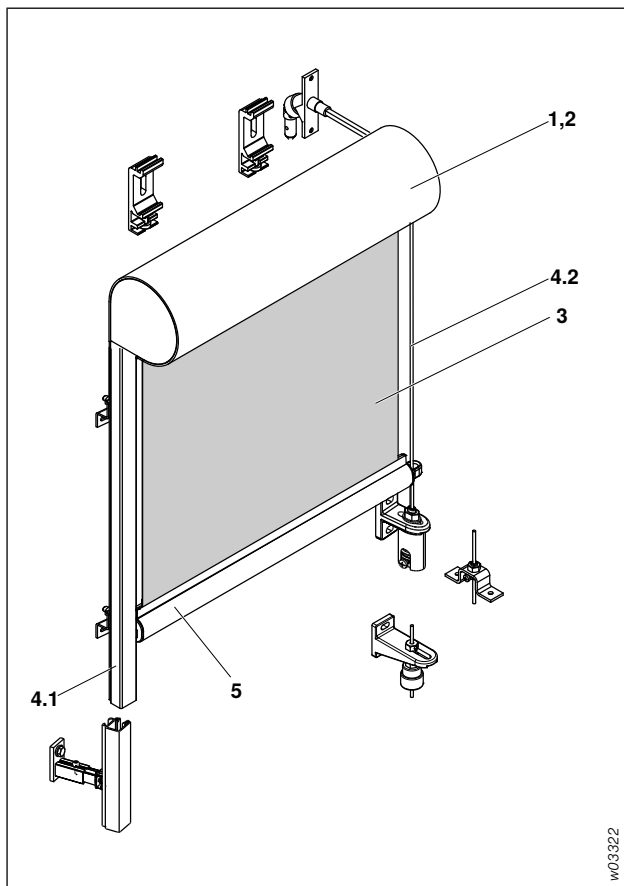


fig. 135: Vertical awning 499

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
 - 4.1 Rail
 - 4.2 Tension cable
- 5 Drop profile

Application

Textile external sun shading system with small cover panel size for shading vertical punched or element windows as well as for direct mounting in the reveal (wind-protected location).

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank; joint plate and square with patented thermal separation.

Material: aluminium
 Surface: C0 anodised
 Ratio: 6:1
 Crank holder: plastic (grey, white or brown), crank holder with magnet optional

The fabric shaft contains a spindle lock to provide a lower limit for the extension of the fabric.

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panels (1)

Material: aluminium, extruded
 Material thickness: 2 mm
 Surface: powder-coated, C0 anodising optional
 Fixing: with aluminium wall or ceiling brackets
 Mounting groove: continuous at the back of the panel
 Side covers: diecast aluminium, powder-coated
 Inspection cover: half round, detachable

Round cover panel type 46.3

Dimensions (r): inside 54 mm
 Dimensions (HxD): 111x111 mm
 Cover panel rounded at the back

Half round cover panel type 48.3

Dimensions (r): inside 54 mm
 Dimensions (HxD): 111x111 mm
 Cover panel vertical at the back

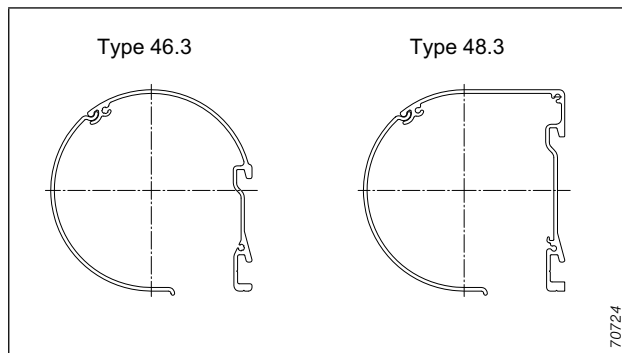


fig. 136: Cover panels

Fabric shaft (2)

Material: aluminium, extruded
 Material thickness: 1.5 mm
 Dimensions (Ø): 62 mm
 Profile: groove tube
 Surface: plain
 With piping groove for fixing the fabric.

Description

Vertical awning 499

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric
More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Lateral guidance (4)

Rail (4.1)

C profile with black beads inserted for noise reduction

Material: aluminium, extruded

Dimensions (WxH): 25x18 mm

Profile: C-shaped profile

Surface: powder-coated, C0 anodising optional

Fixing: guide rail bracket (for left or right rolling blind)

End closure: plastic, black

Bead: weather-proof, UV stable, black

Tension cable (4.2)

Wire strand

Material: steel, corrosion-resistant

Coating: polyamide

Colour: black

Fixing: tension cable bracket, aluminium, incl. spring tension device, aluminium

Drop profile (5)

Material: aluminium, extruded

Material thickness: 1.5 mm

Dimensions (WxH): 25x38 mm

Profile: oval tube, external beading channel

Surface: powder-coated, C0 anodising optional

Available as models "visible" (standard) or "concealed in fabric" (optional).

Fixing and connecting parts

Within the vertical awnings

Material: A2 steel or aluminium

Weight table

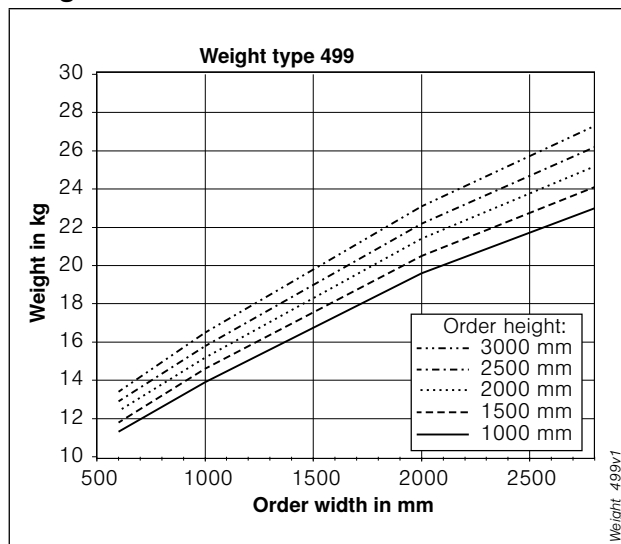


fig. 137: Weight 499

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification), optionally C0 anodised.

Other colour specifications, custom colours or anodising (colour) are available subject to surcharge.

All visible plastic parts are black.

Construction limit values

Vertical awning 499

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit		Mechanically coupled (max. 3 curtains)	
		Crank	Motor	Crank	Motor
Min. width ¹⁾ (mm)	Acrylic – all qualities –	600	640	600	640 ²⁾
	Screen fabric	600	640	600	640 ²⁾
	Soltis 92 fabric	600	640	600	640 ²⁾
Max. width (mm)	Acrylic – all qualities –	2800	2800	7000	7000 ³⁾
	Screen fabric	2500	2500	7000 ³⁾	7000 ³⁾
	Soltis 92 fabric	2800	2800	7000 ³⁾	7000 ³⁾
Max. height (mm)	Standard/Lumera acrylic fabric	2500 ⁴⁾	2500 ⁴⁾	2500 ⁴⁾	2500 ⁴⁾
	Perfora acrylic fabric				
	All Weather acrylic fabric	2300	2300	2300	2300
	Screen fabric	3000	3000	3000	3000
	Soltis 92 fabric	3000	3000	3000	3000
Max. area ⁵⁾ (m ²)	Standard/Lumera acrylic fabric	7.0	7.0	17.5	17.5
	Perfora acrylic fabric				
	All Weather acrylic fabric	6.4	6.4	16.1	16.1
	Screen fabric	7.5	7.5	20.0	20.0
	Soltis 92 fabric	8.4	8.4	20.0	20.0

Notes:

- Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.
- All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.
- Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

¹⁾ Smaller widths are possible after consultation with the Application Technology department!

²⁾ For curtain with motor drive

³⁾ Maximum width with continuous cover panel is 5000 mm.

⁴⁾ Glued fabric connection optional for Standard and Perfora variants. Max. height reduced by 300 mm.

⁵⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

Details

Vertical awning 499

Wall/ceiling brackets, guide rail brackets

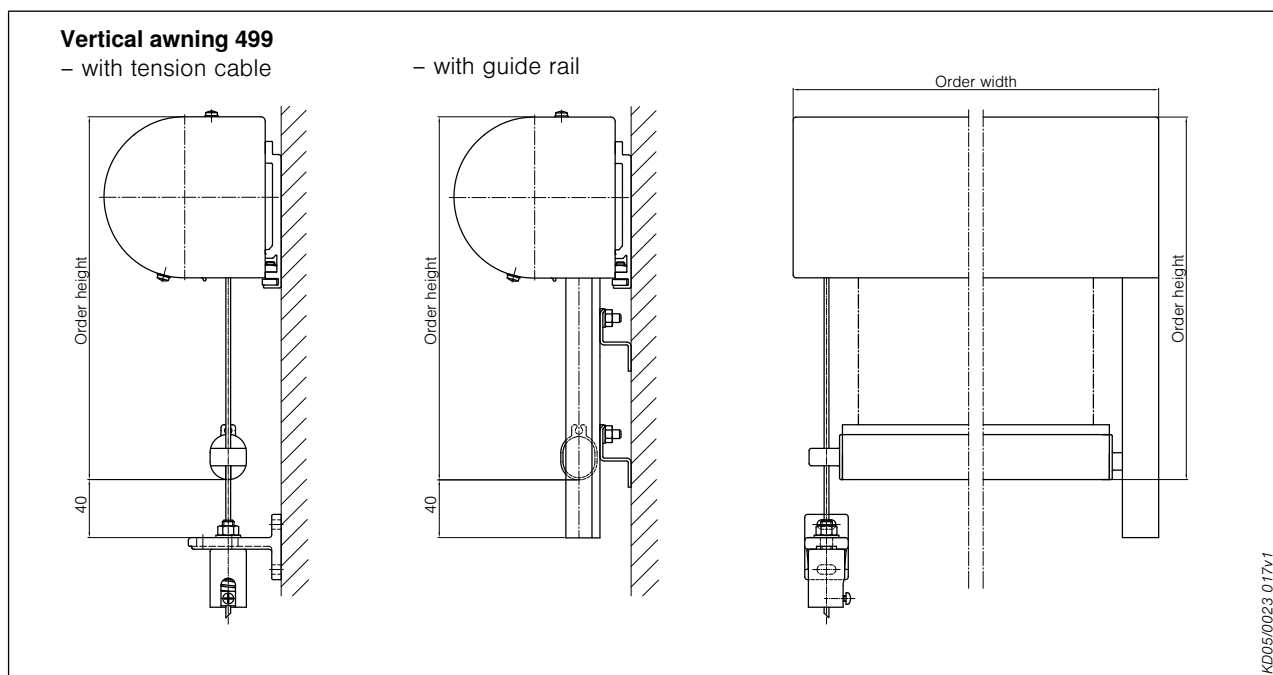


fig. 138: Measuring instructions for vertical awning 499

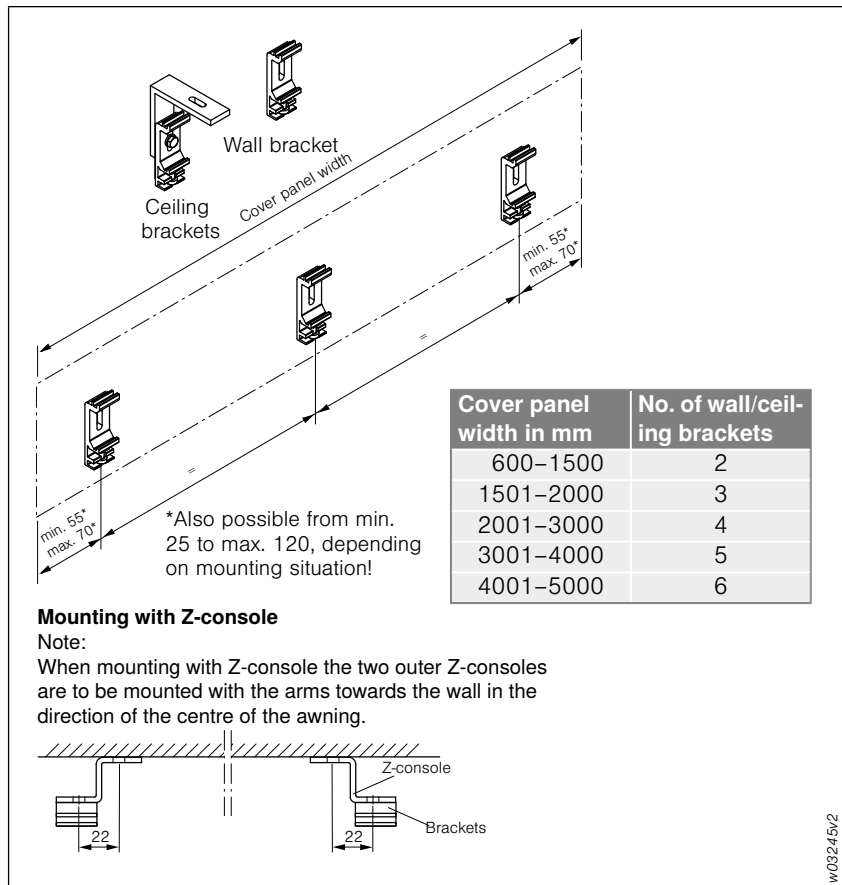


fig. 139: Measuring instructions for wall/ceiling brackets

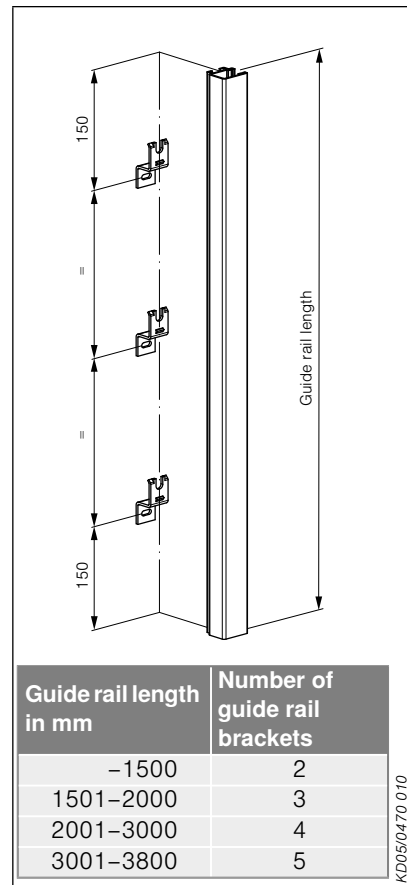


fig. 140: Measuring instructions for guide rail brackets

Details

Vertical awning 499

Tension cable bracket, spring tension device

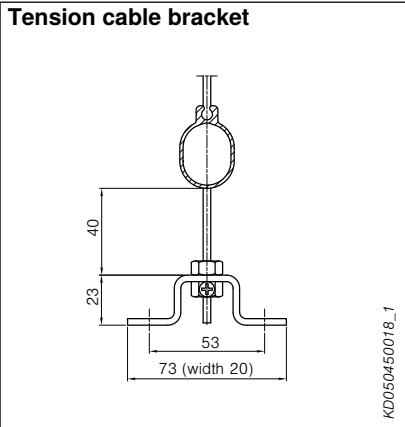


fig. 141: Tension cable bracket

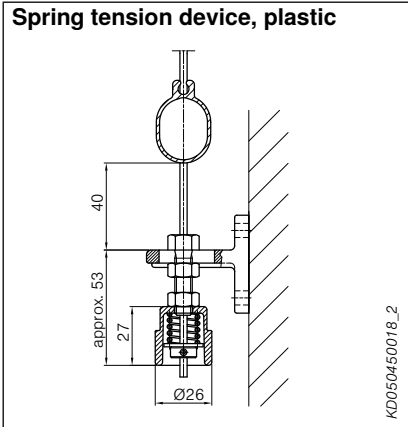


fig. 142: Spring tension device, plastic

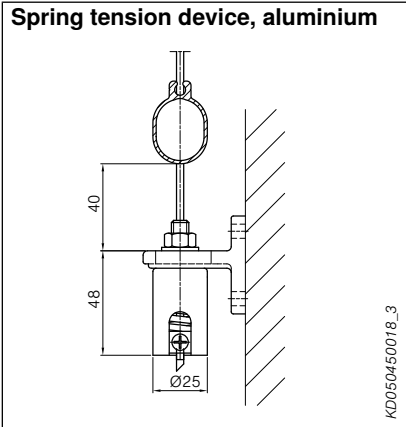


fig. 143: Spring tension device, aluminium

Application example

Vertical awning 499

Cable guidance

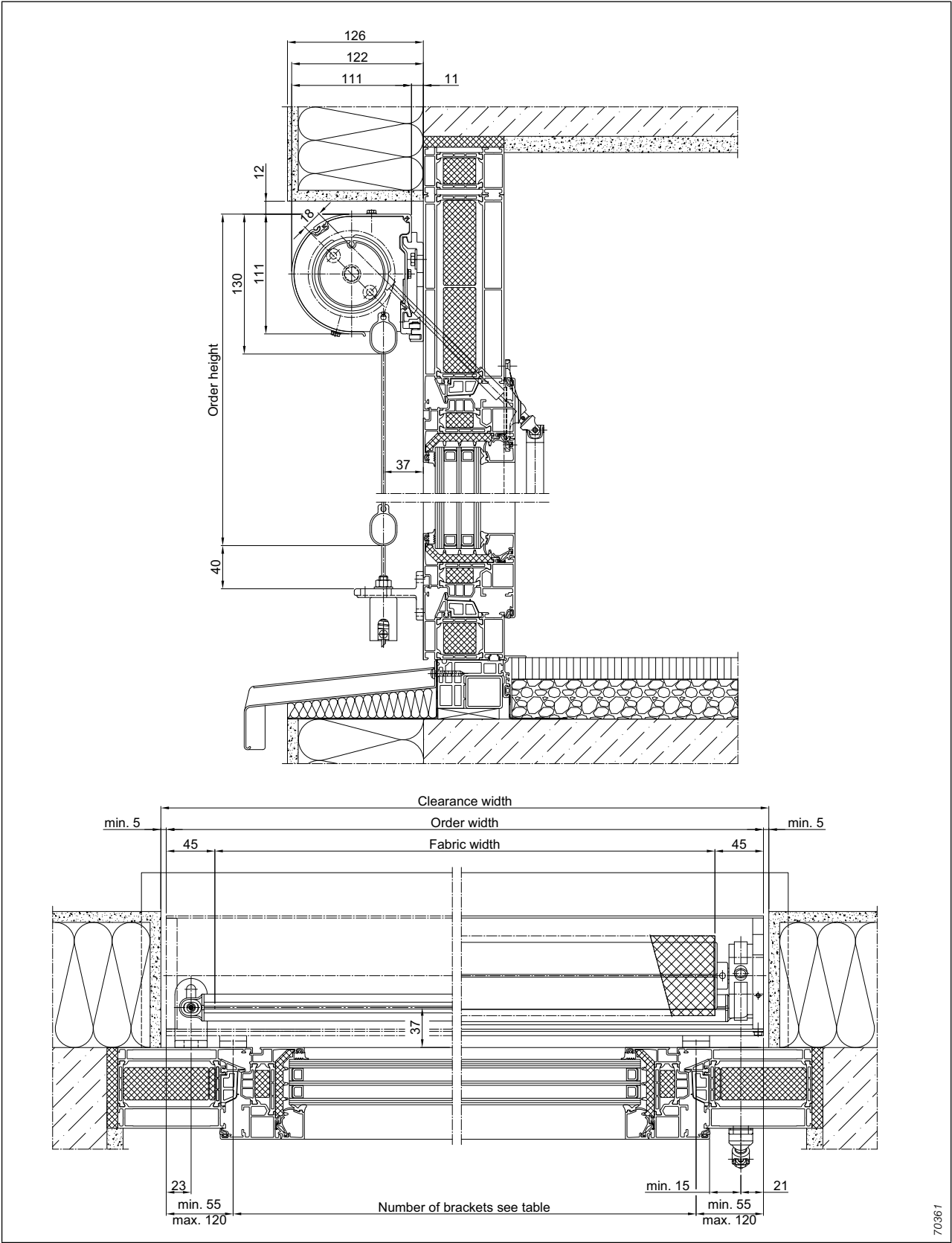
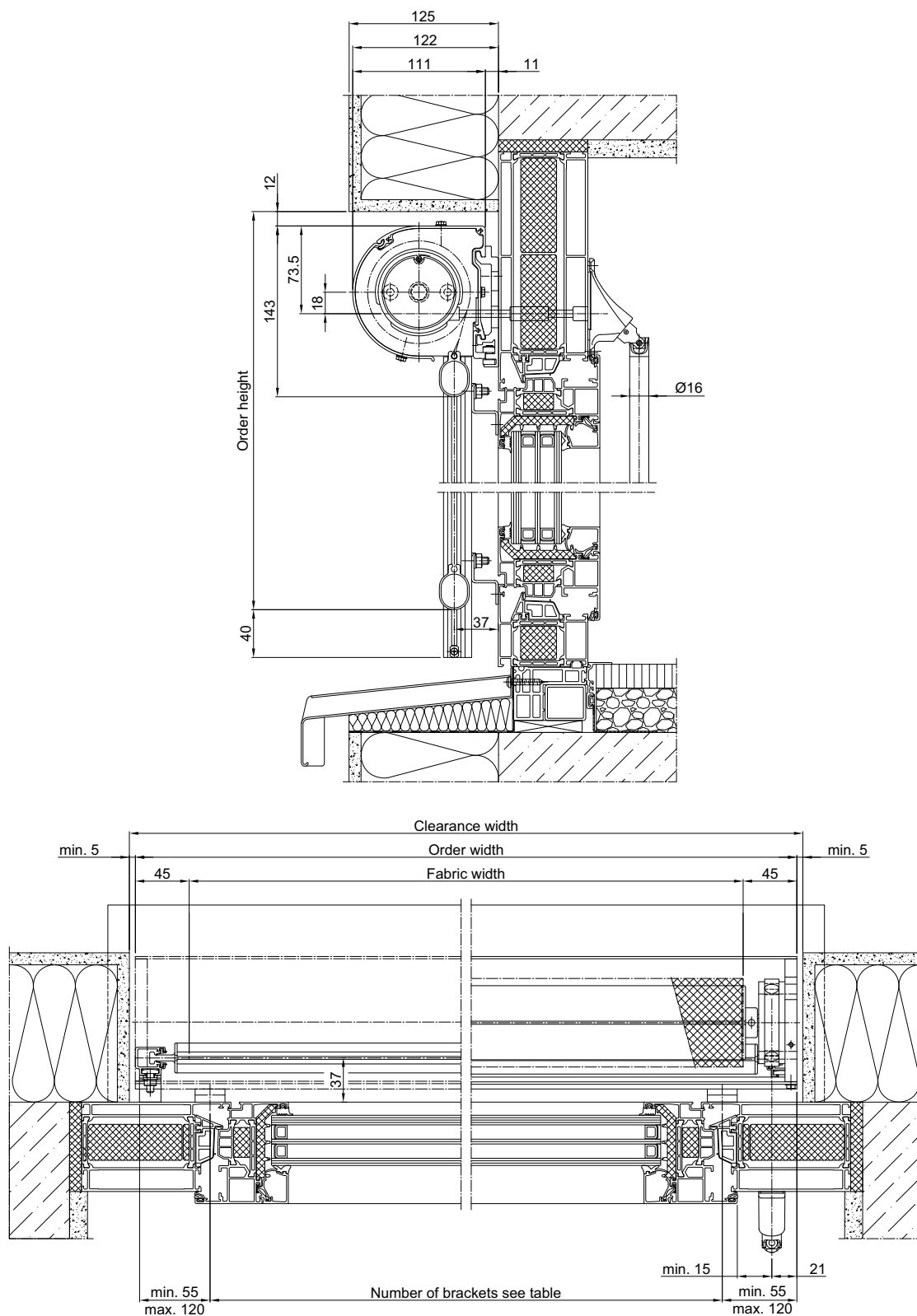


fig. 144: Vertical awning 499 – guide cables, crank drive

Application example
Vertical awning 499
Rail guidance



70362

fig. 145: Vertical awning 499 – guide rails, crank drive

Application example Vertical awning 499 Cable guidance

Overview

Window awnings with
ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

Fixing systems

Fabrics

Drives/control systems

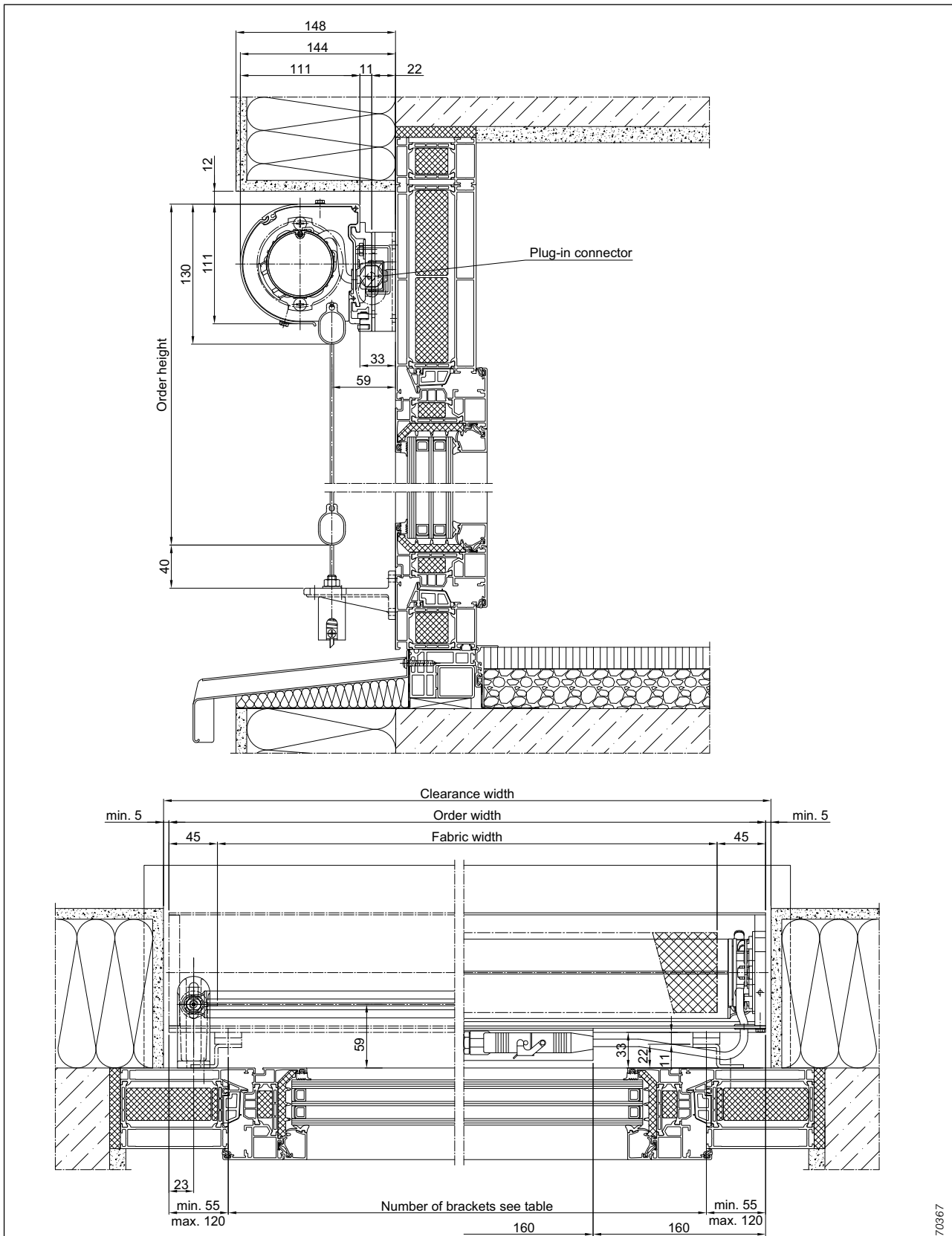


fig. 146: Vertical awning 499 – guide cables, motor drive

Application example

Vertical awning 499

Rail guidance

Note: for EWFS or WMS plug receivers the facade distance increases by 8 mm!

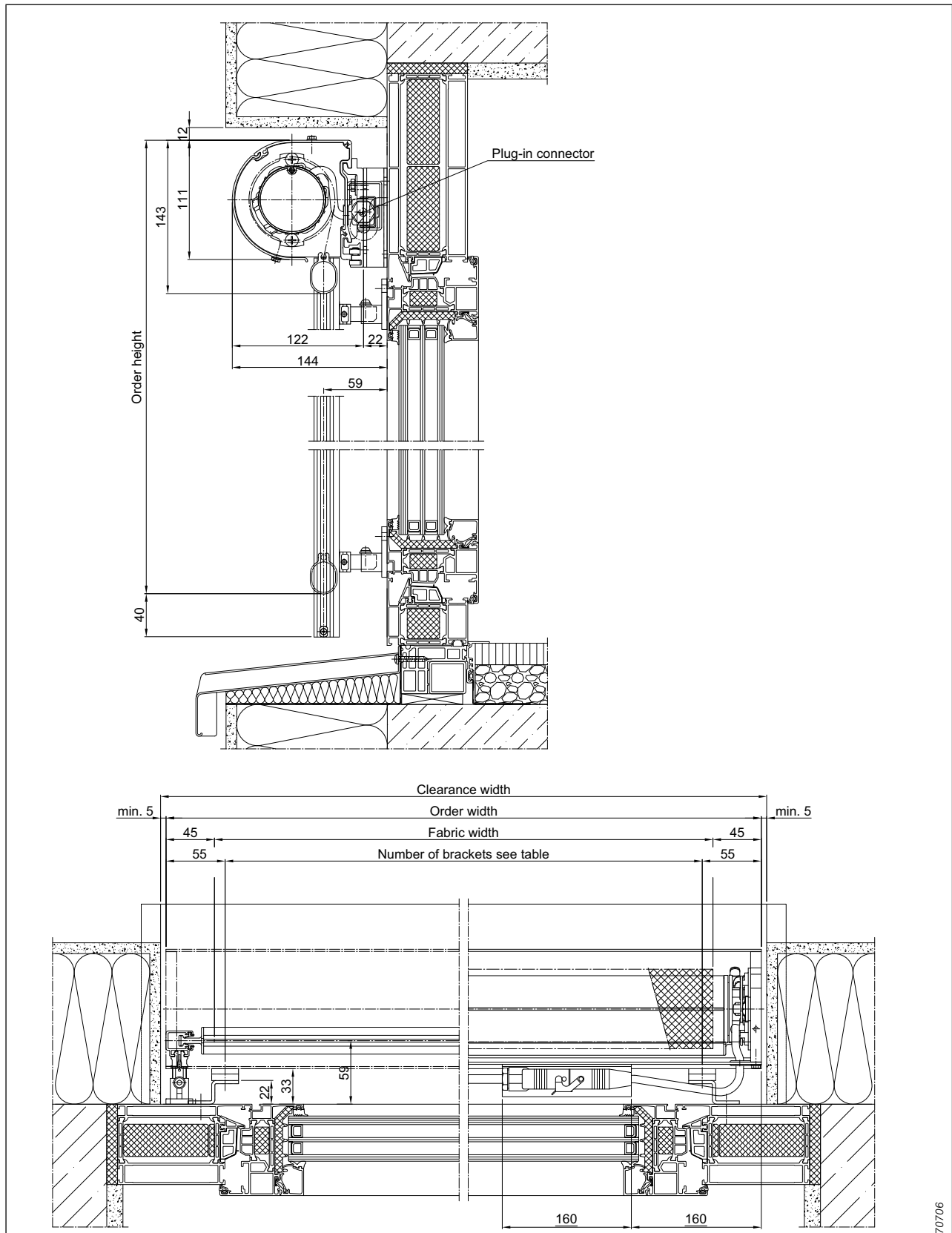


fig. 147: Vertical awning 499 – guide rails, motor drive

Details

Vertical awning 499

Special version with threaded end pieces

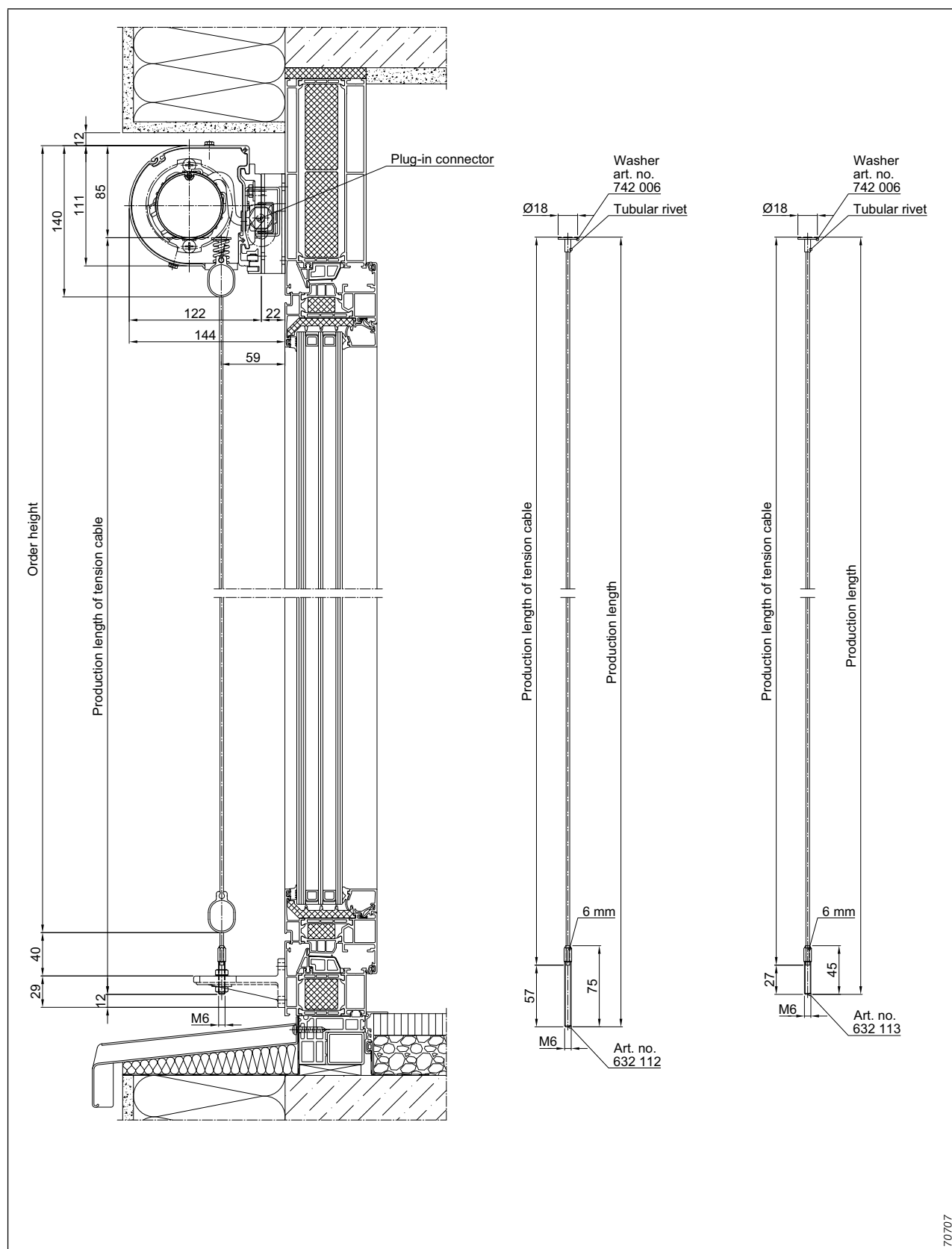


fig. 148: Vertical awning 499 with threaded end piece, motor drive

Details

Vertical awning 499

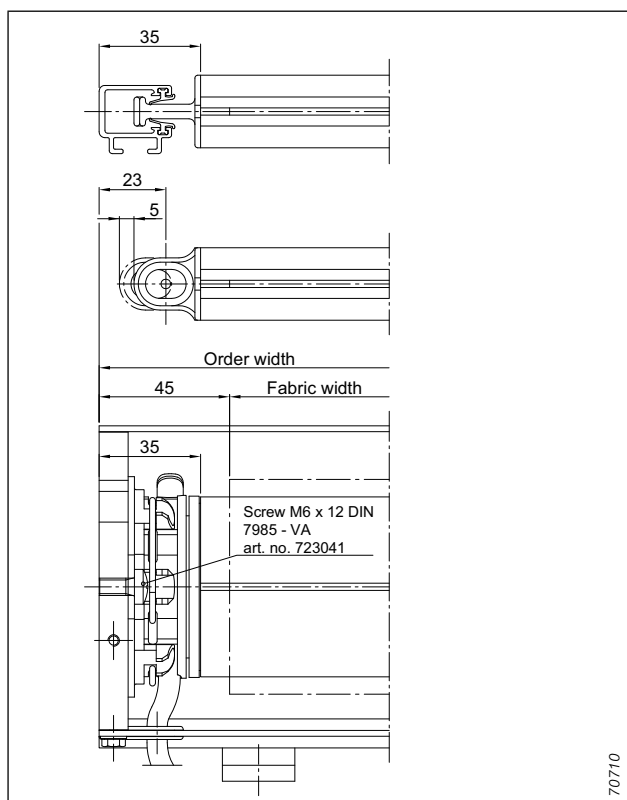


fig. 149: Motor side

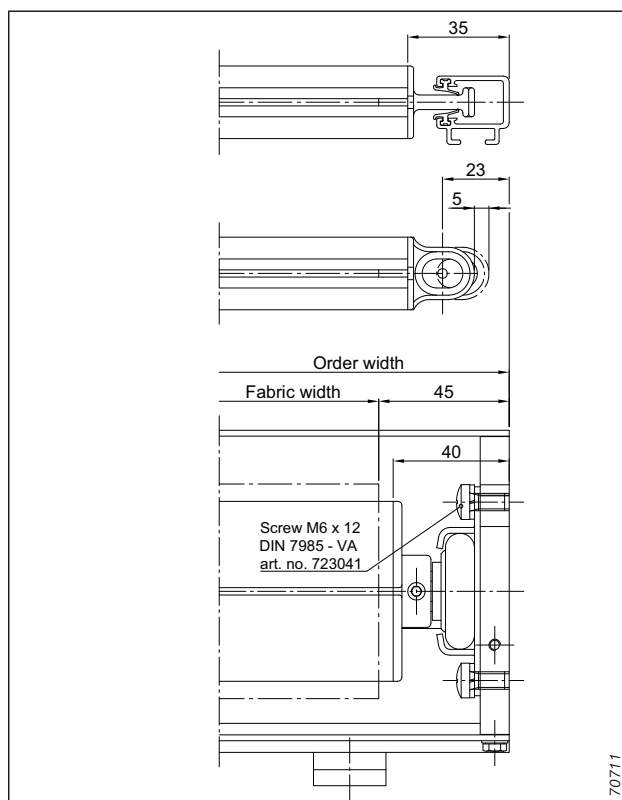


fig. 150: End bearing

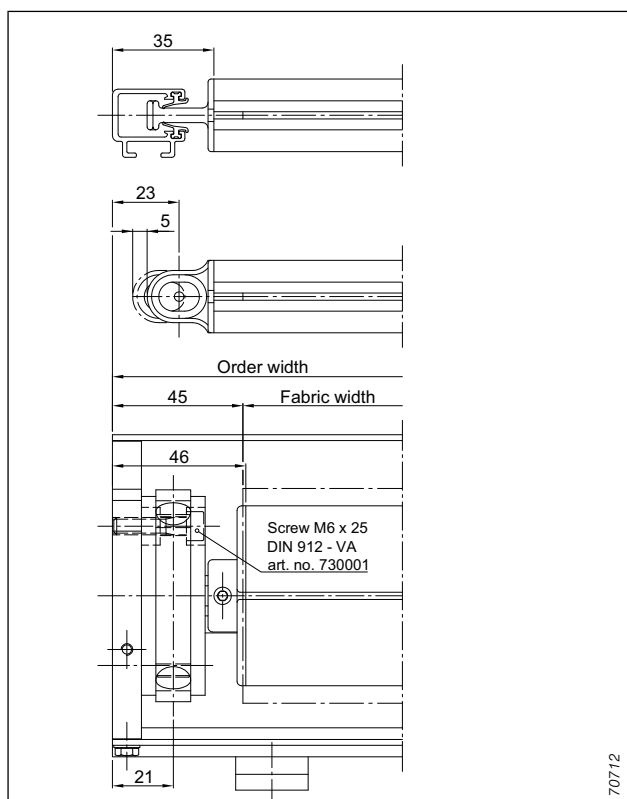


fig. 151: Gear

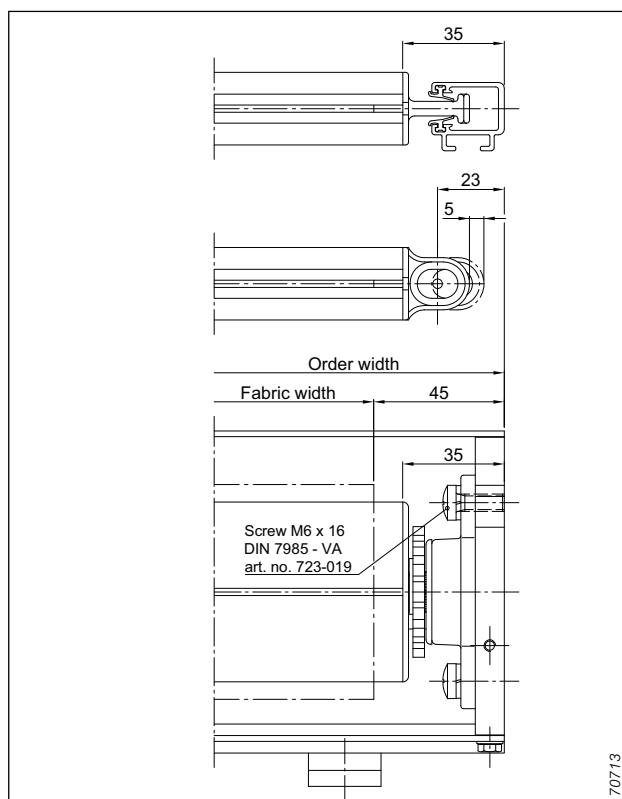


fig. 152: Spindle lock

Details

Vertical awning 499 with cable or rail guidance

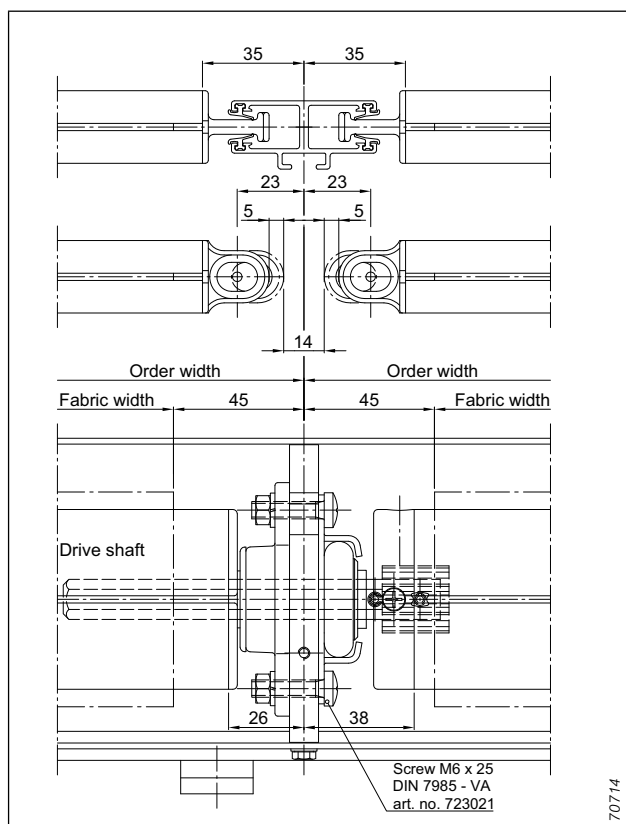


fig. 153: Possible couplings and series-mounted units for type 499:
coupling, continuous cover panel

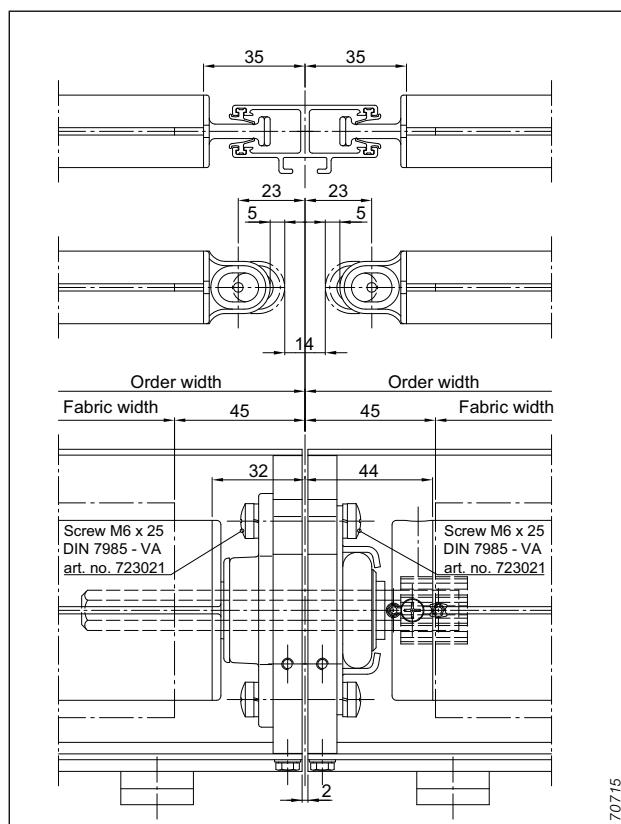


fig. 154: Possible couplings and series-mounted units for type 499:
coupling, individual cover panel, standard

Details

Vertical awning 499

with cable or rail guidance

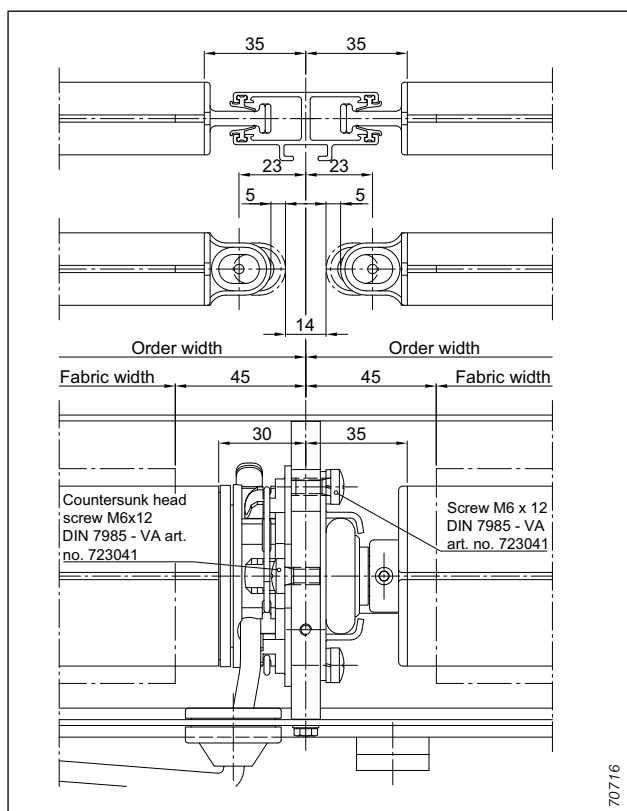


fig. 155: Possible couplings and series-mounted units for type 499: motor – end bearing, centre, continuous cover panel

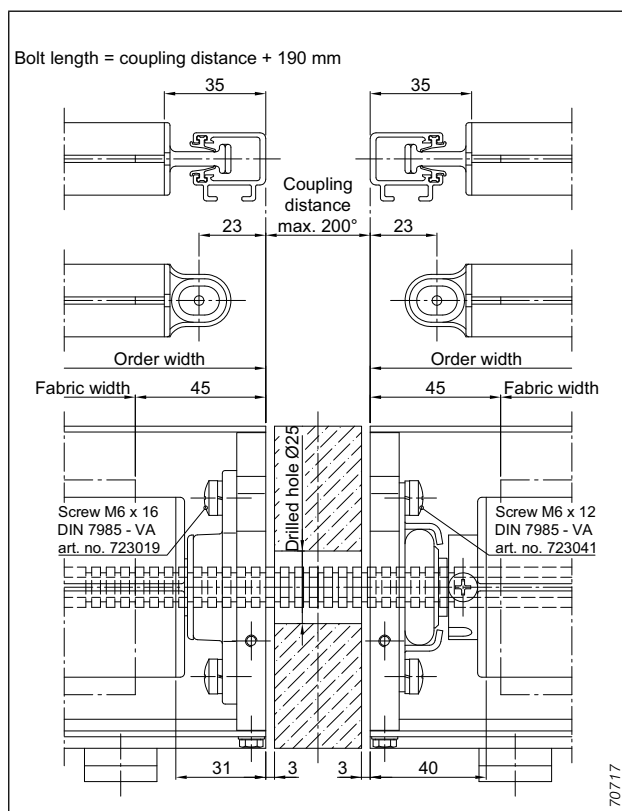


fig. 156: Possible couplings and series-mounted units for type 499: coupling with distance to individual cover panel. Attention! Max. 2 units can be coupled.

Details

Cover panels type 499 – type 46.3

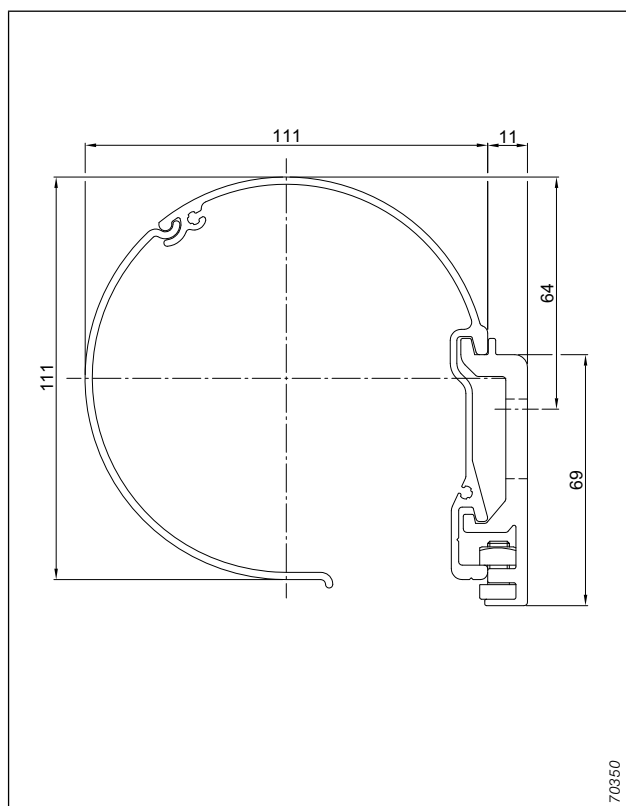


fig. 157: Wall installation type 46.3

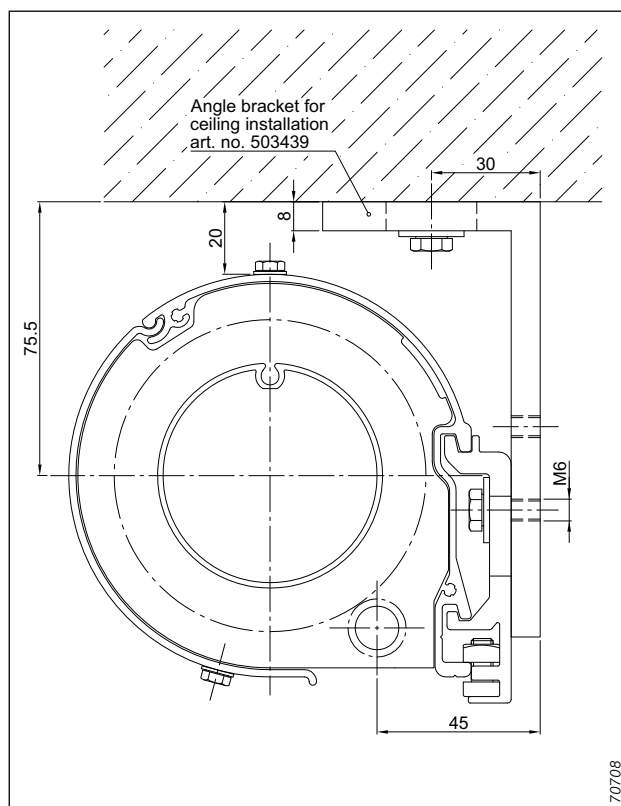


fig. 158: Ceiling installation type 46.3

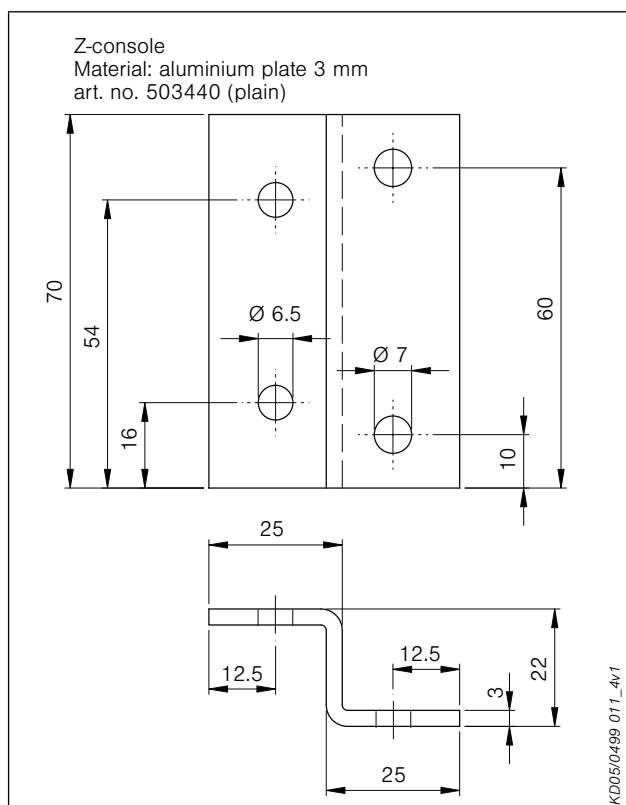


fig. 159: Z fixing bracket for spacing installations with wall bracket

Details

Cover panels type 499 – type 48.3

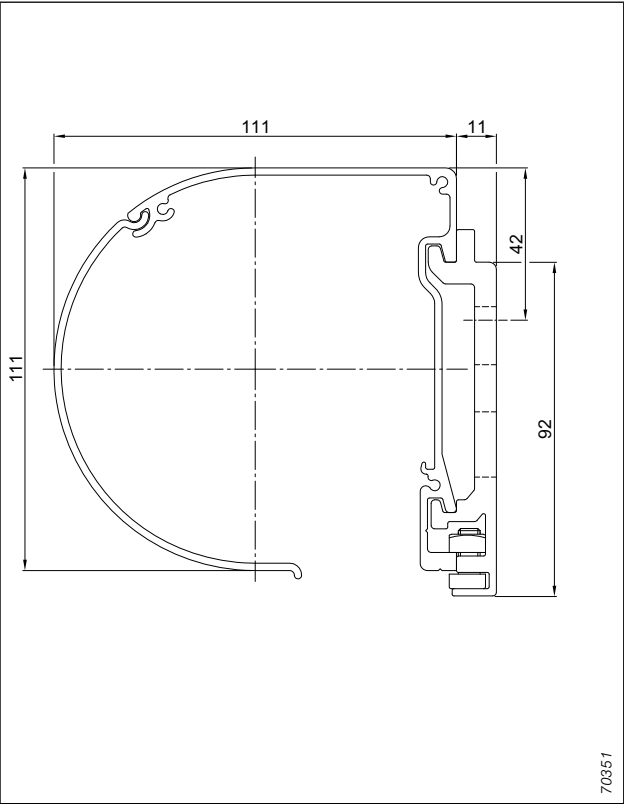


fig. 160: Wall installation type 48.3

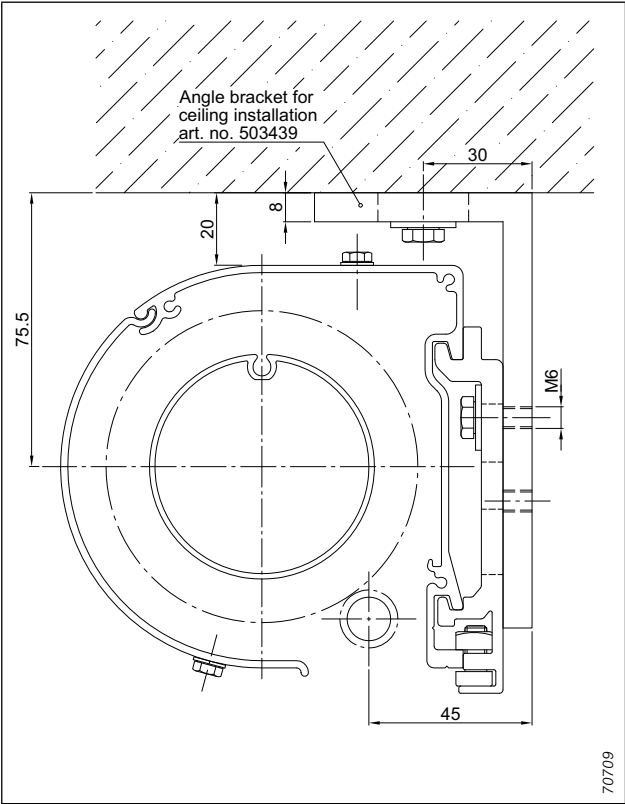


fig. 161: Ceiling installation type 48.3

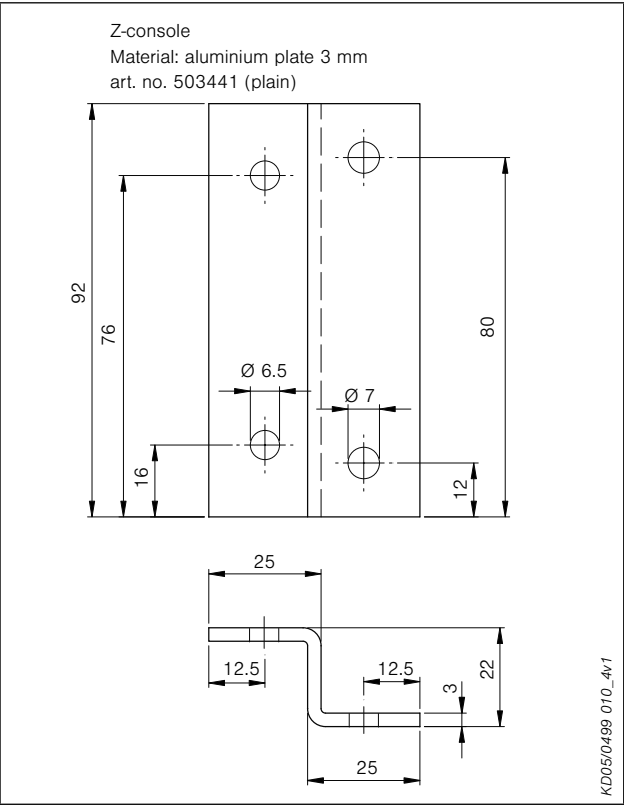


fig. 162: Z fixing bracket for spacing installations with wall bracket

Details

Guide rails and brackets

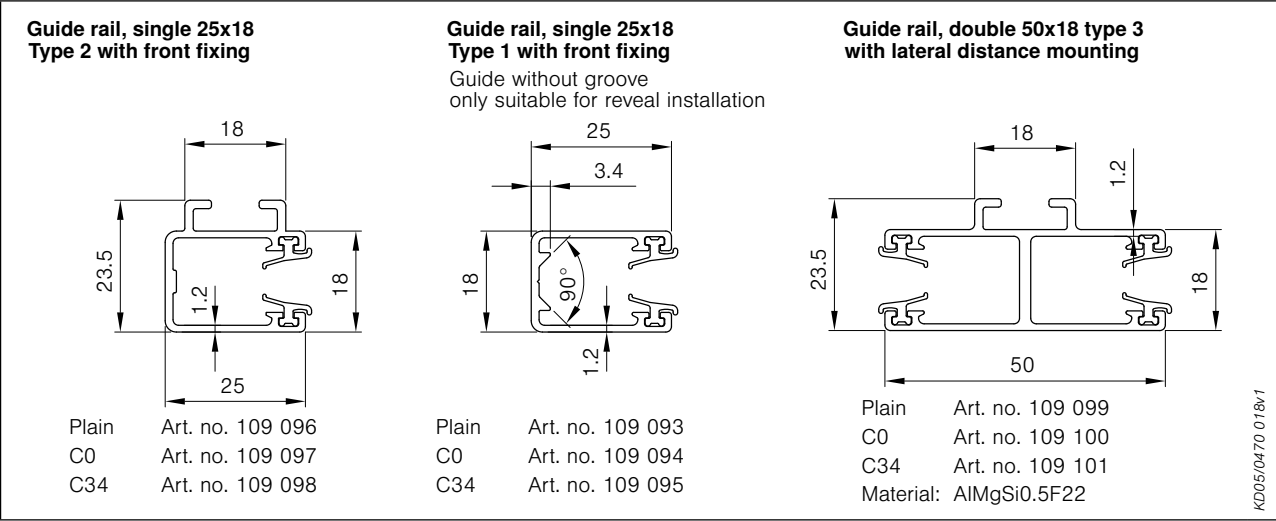


fig. 163: Guide rails

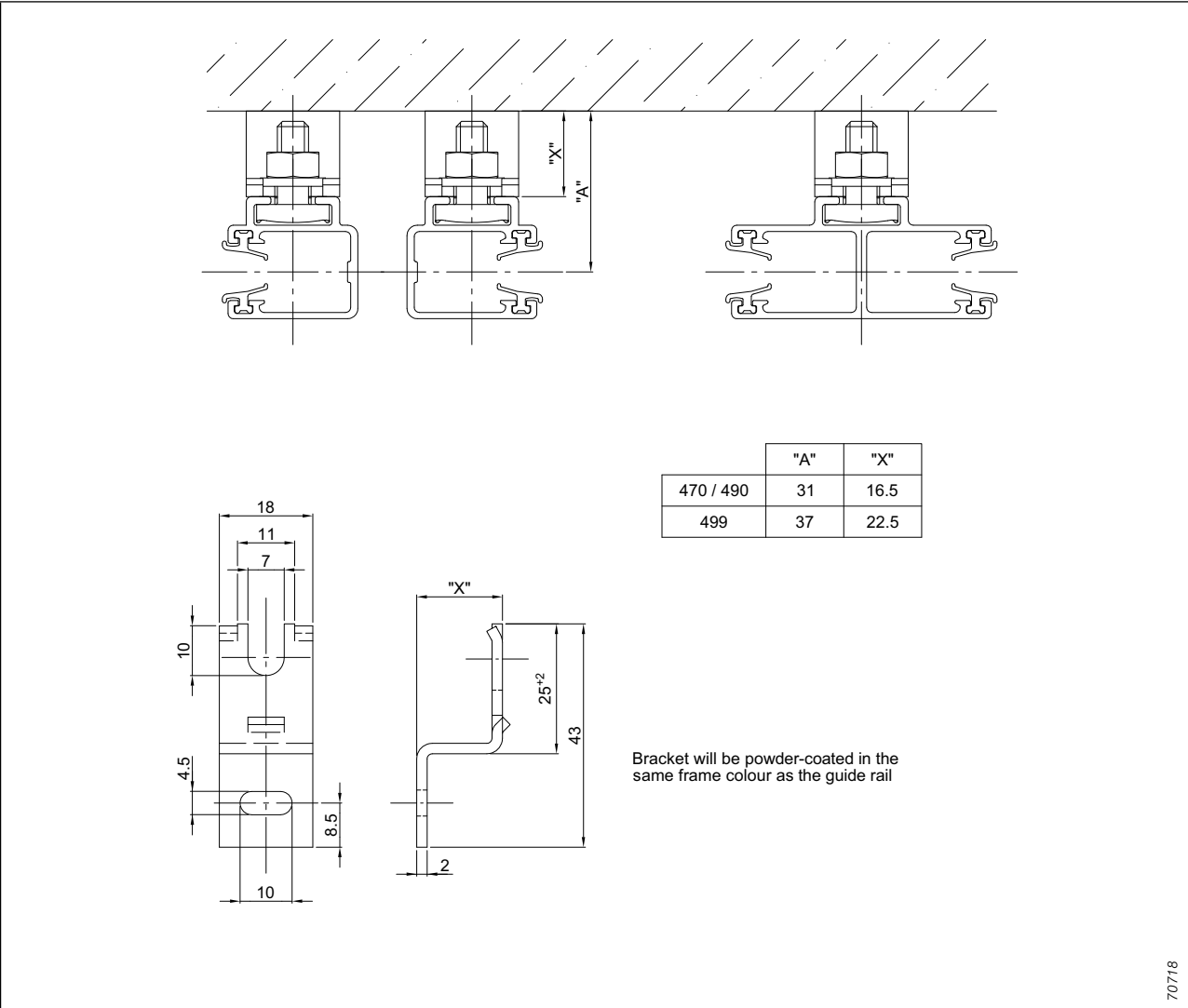


fig. 164: Guide rail bracket

Details

Adjustable guide rail bracket

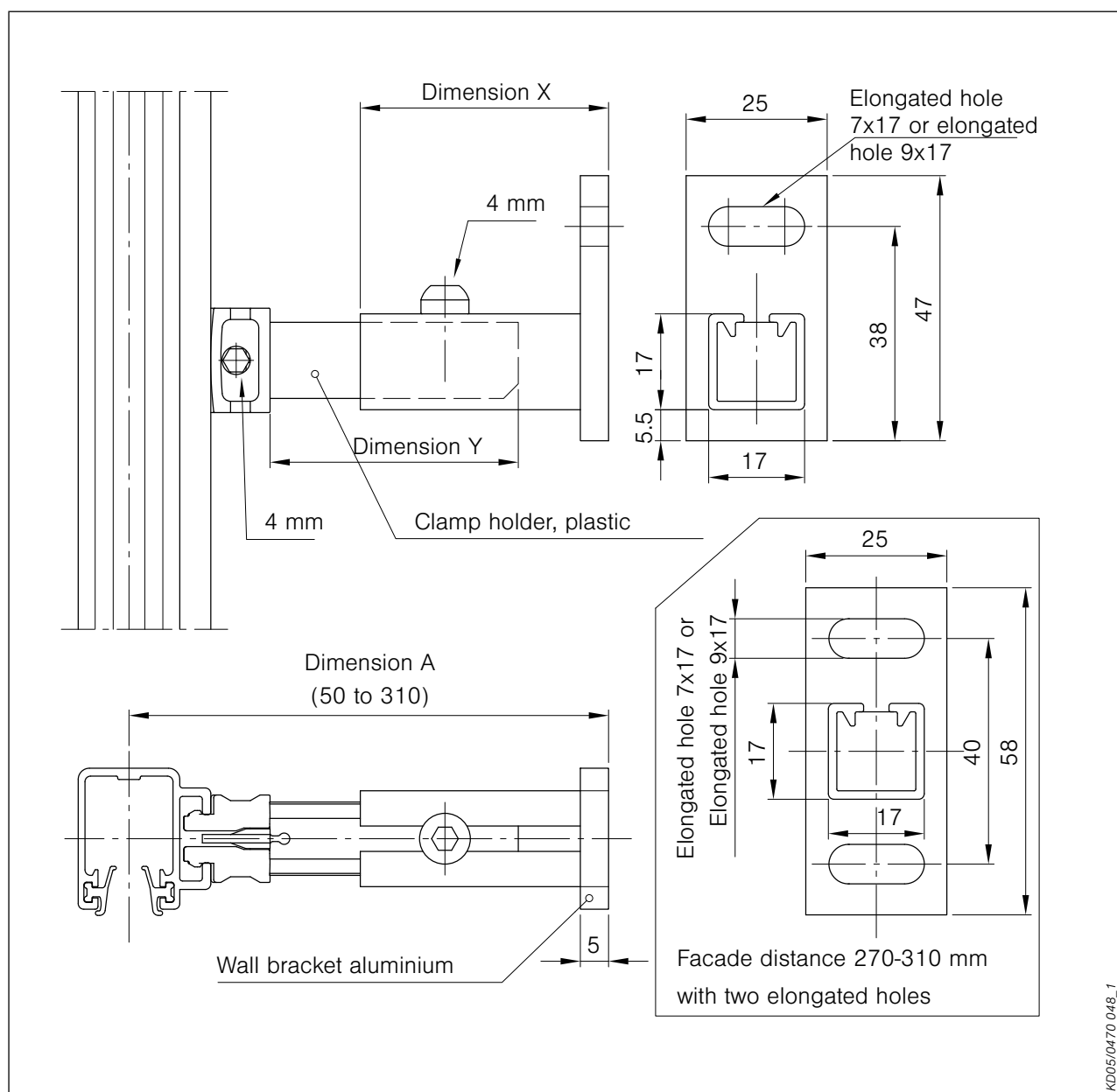


fig. 165: Adjustable guide rail bracket, right rolling

Dimension "A"	Wall support, aluminium, LL 7 x 17			Wall support, aluminium, LL 9 x 17		Clamping piece, plastic		
	Dimension "X"	Plain	C0 anodised	Dimension "X"	Plain	Dimension "Y"	black	white
50 – 59	24	503865	503873	24	503857	24	314113	314117
60 – 69	34	503866	503874	34	503858	34	314114	314118
70 – 89	44	503867	503875	44	503859	44	314115	314119
90 – 129	64	503868	503876	64	503860	64	314116	314120
130 – 169	104	503869	503877	104	503861	64	314116	314120
170 – 209	144	503870	503878	144	503862	64	314116	314120
210 – 239	184	503871	503879	184	503863	64	314116	314120
240 – 269	214	503872	503880	214	503864	64	314116	314120
270 – 310	244	503908		244	503909	64	314116	314120

Details

Angle-adjustable corner guide rail

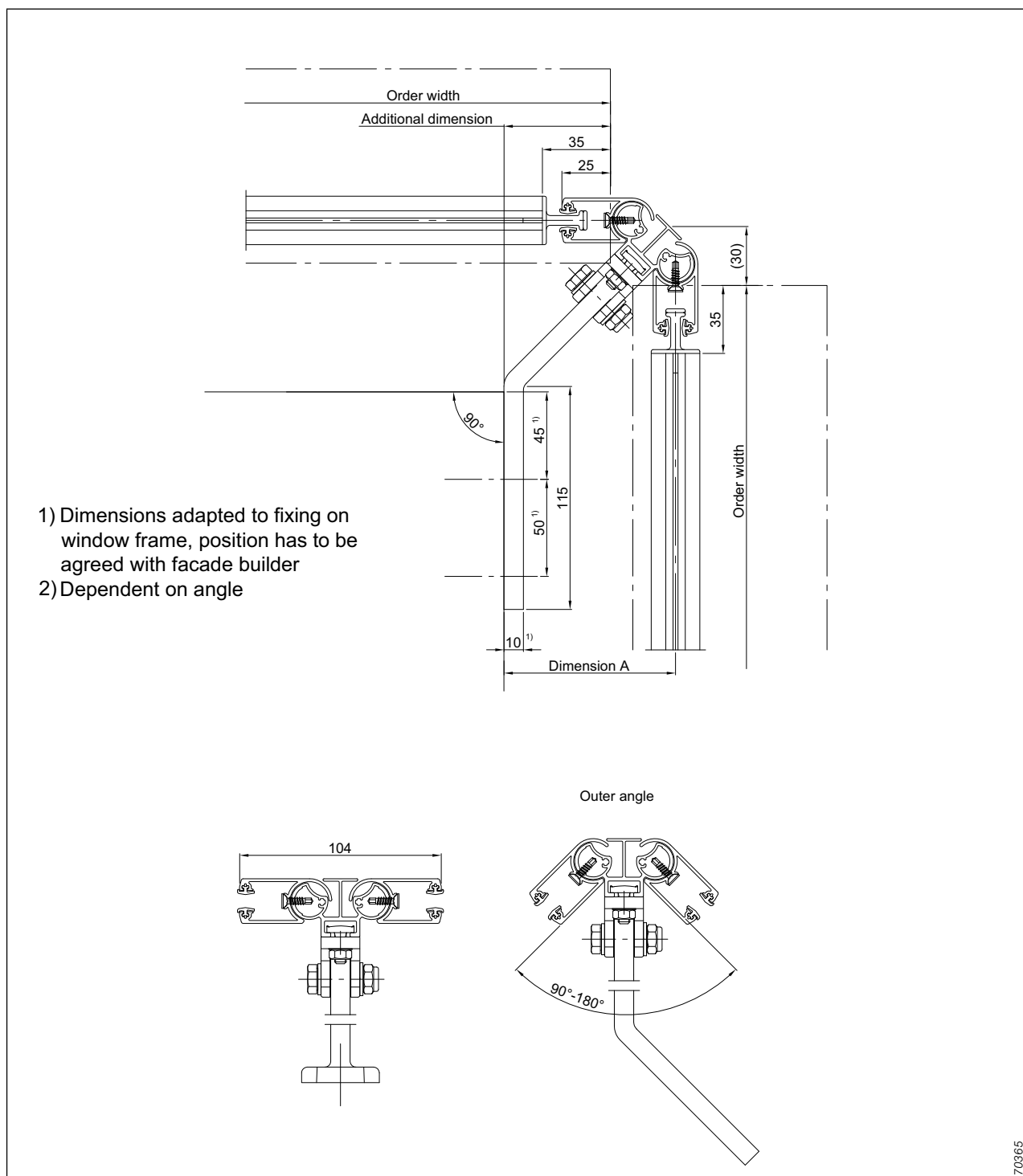


fig. 166: Corner guide rail with adjustable angle for corner positions and polygon facades

Number of required guide rail brackets

Guide rail length	Number of guide rail brackets
up to 3000 mm	2

Details

Tension cable bracket, drop profile

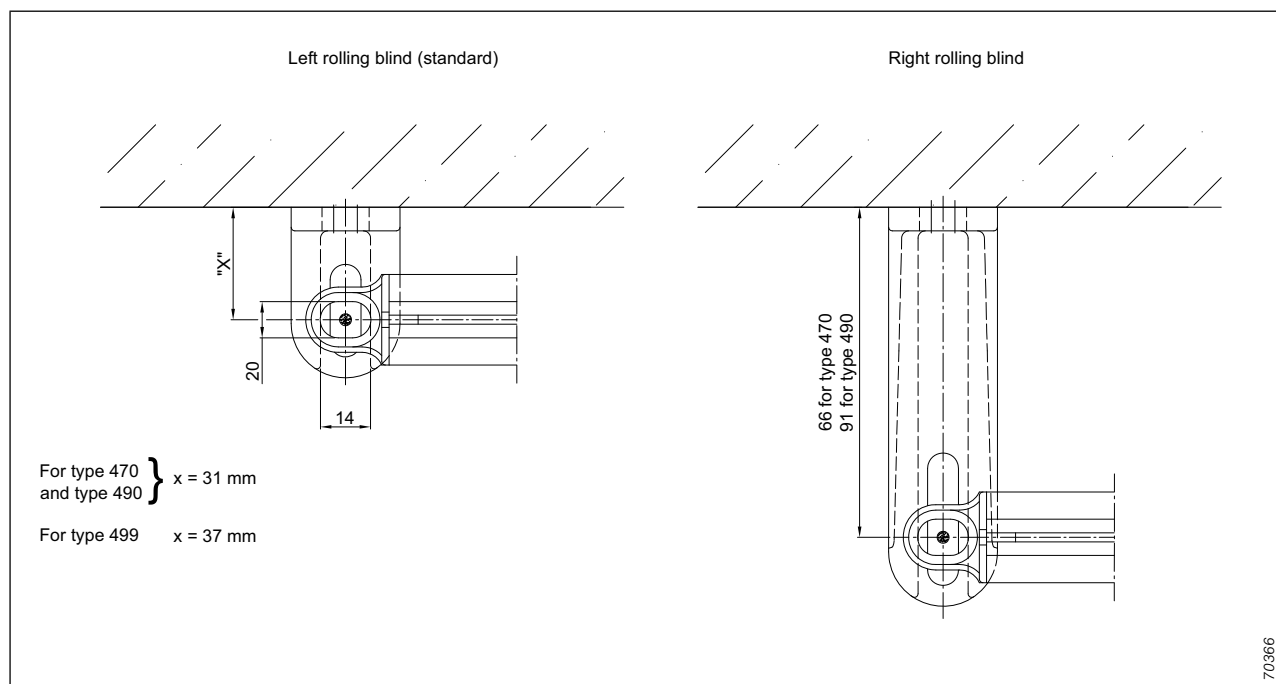


fig. 167: Tension cable bracket

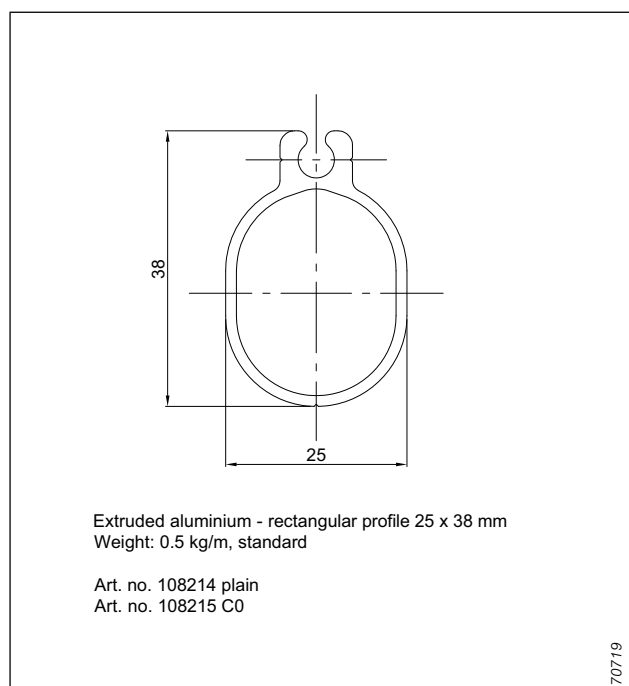


fig. 168: Drop profile

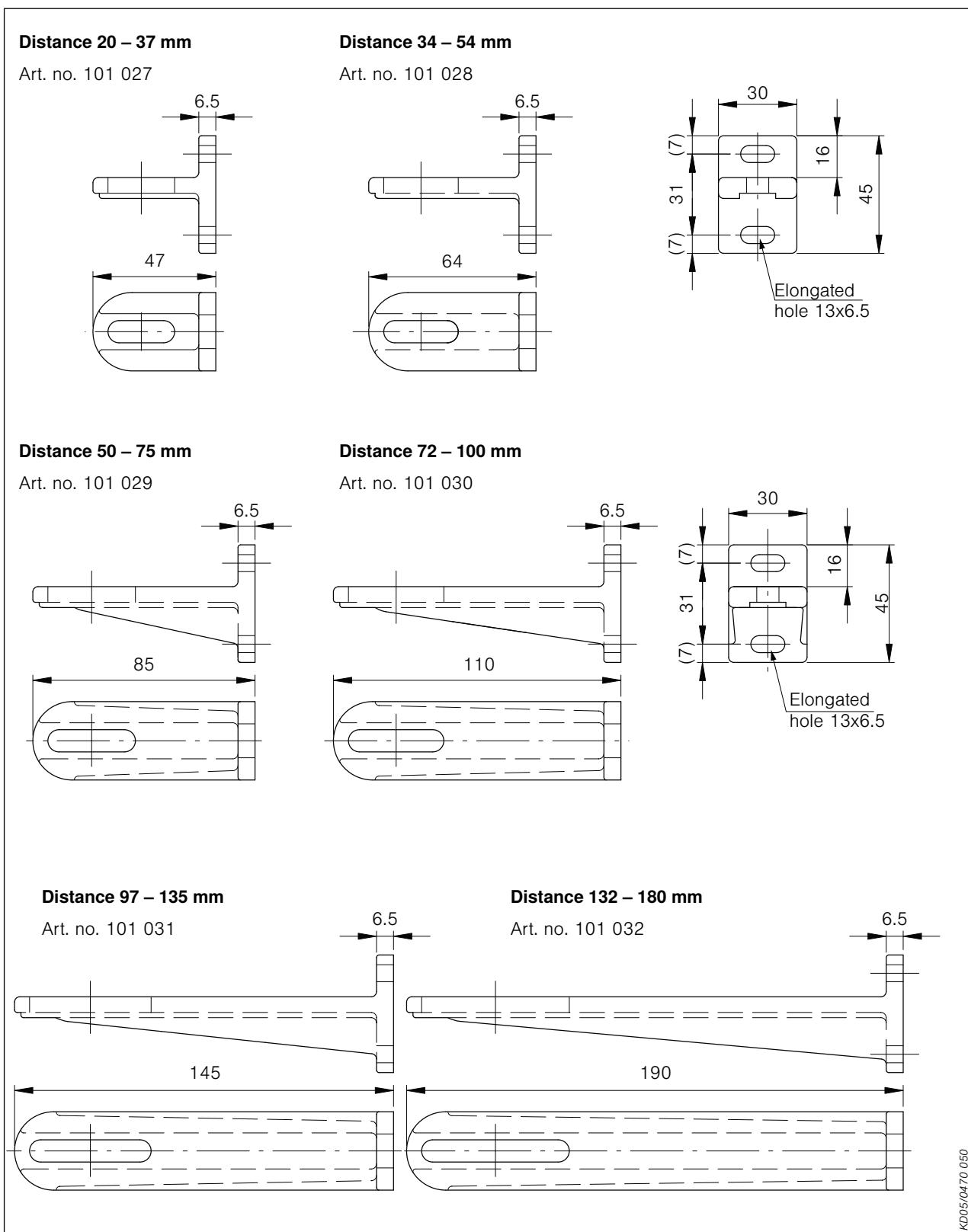


fig. 169: Overview of tension cable brackets

Details

Cable guidance – special tension cable bracket

Tension cable bracket with transverse plate, material: aluminium

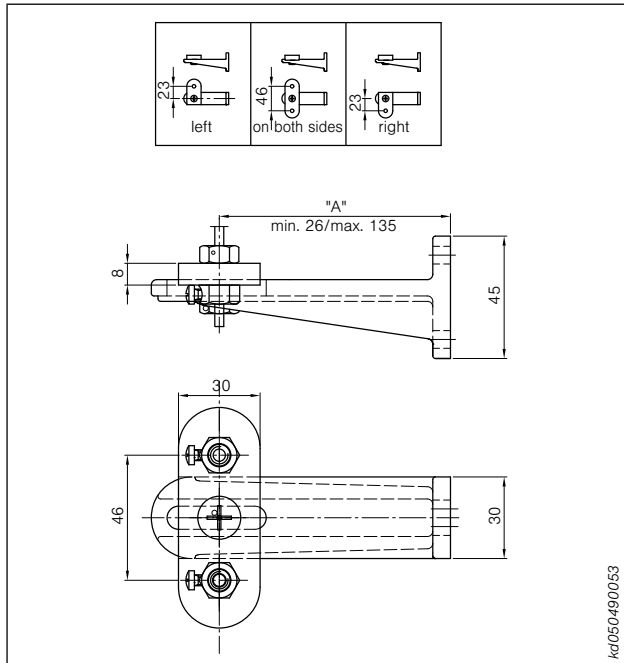


fig. 170: Tension cable bracket with transverse plate

Threaded insert with tension cable attachment for wood

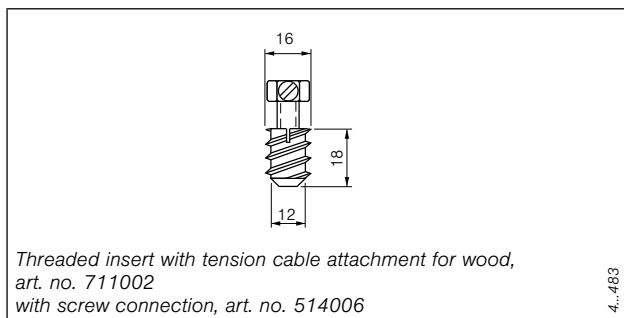


fig. 172: Threaded insert with tension cable attachment for wood

Tension cable bracket, for floor and window sill mounting, material: aluminium

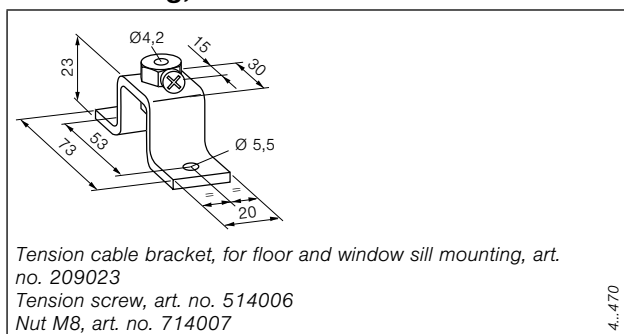


fig. 173: Tension cable bracket bent for floor and window sill mounting

Tension cable bracket for bottom and window sill mounting, material: aluminium

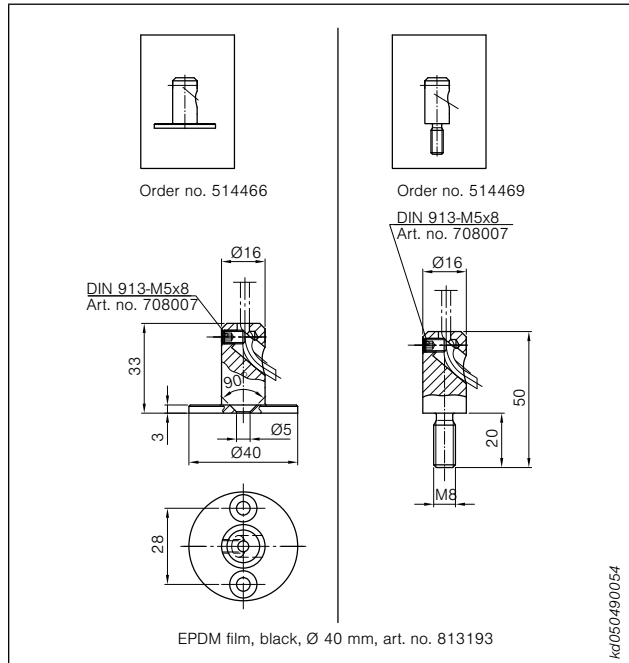


fig. 171: Tension cable bracket for floor and window sill mounting

Attention!

A spring tension device for stabilising the tension cable is generally necessary and can partly be mounted in the cover panel.

Attention! This is not possible for all types!

Details

Swivel plates

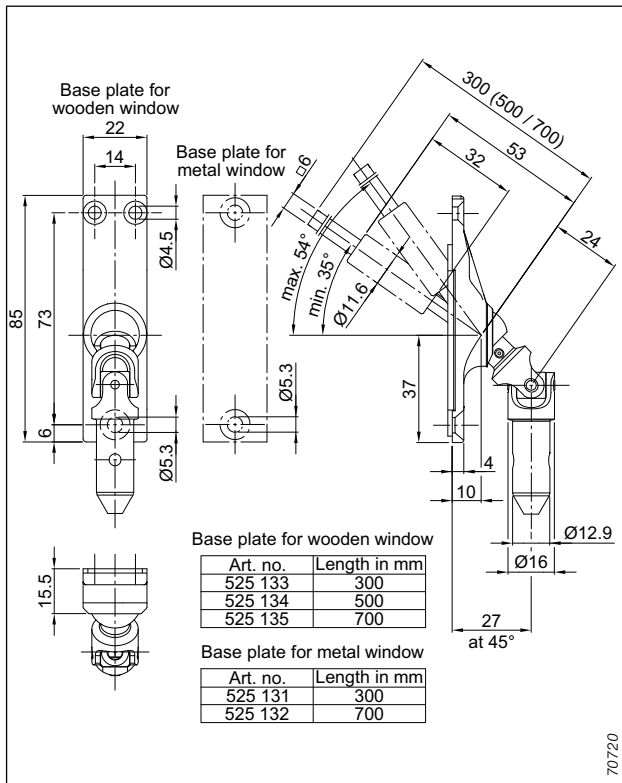


fig. 174: Swivel plate 35°-54° for crank drive with thermal separation

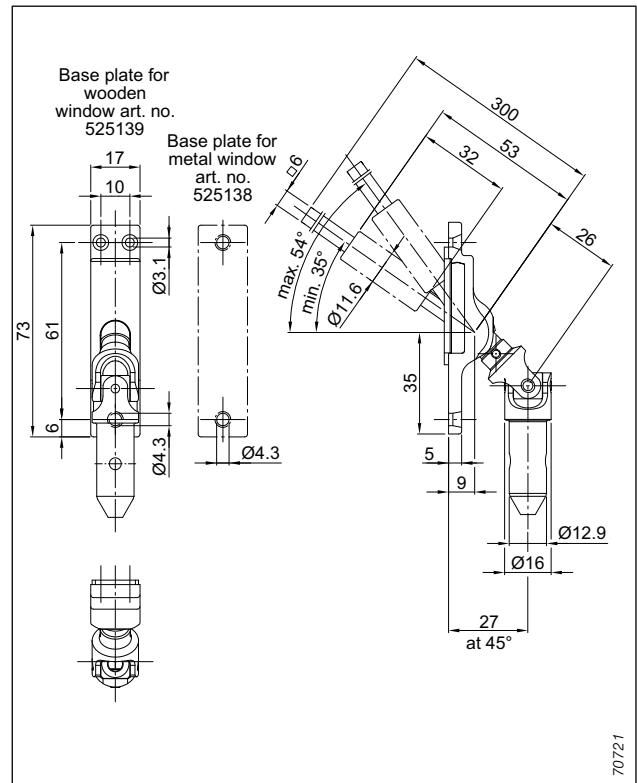


fig. 175: Swivel plate 35°-54° for crank drive with thermal separation

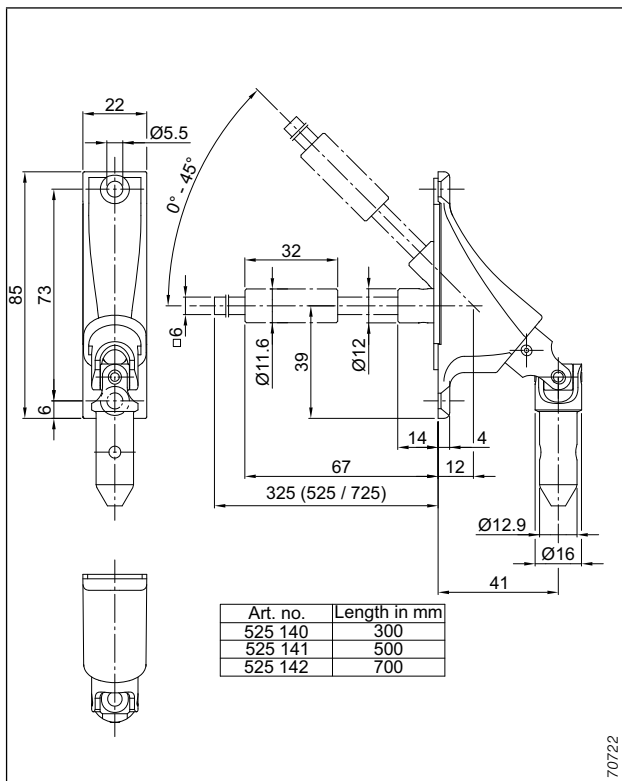


fig. 176: Swivel plate 0°-45° for crank drive with thermal separation

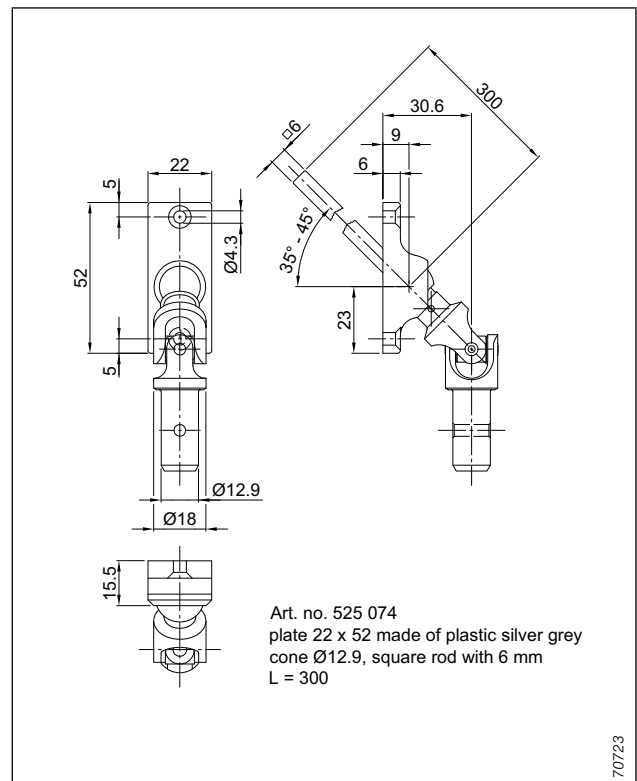


fig. 177: Swivel plate 35°-45° for external crank drive

Notes

Description

Vertical awning 450

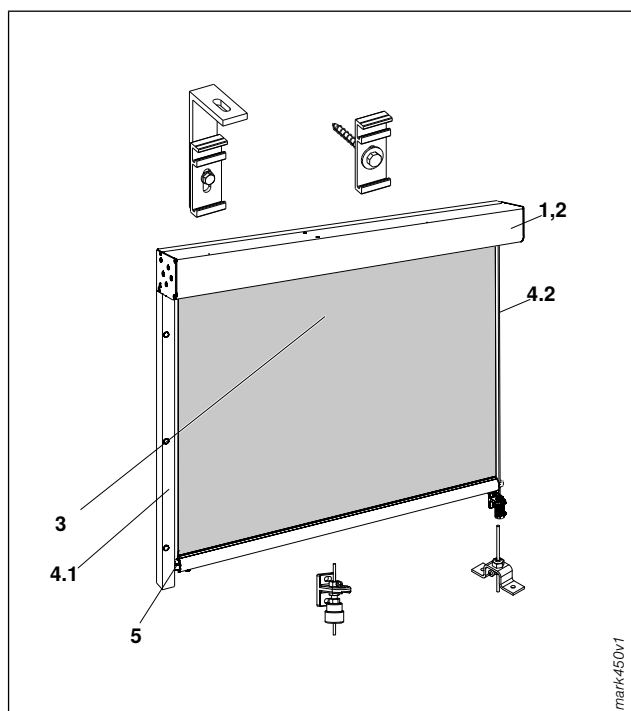


fig. 178: Vertical awning 450

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
 - 4.1 Rail
 - 4.2 Tension cable
- 5 Drop profile

Application

Textile external sun shading system with small cover panel size for shading vertical punched or element windows as well as for direct mounting in the reveal (wind-protected location).

Operation

Basic motor, 230 V, 50 Hz

LS40/LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

Plug-in connector: loose, optionally without (cable whip 2500 mm) or optionally with wired Hirschmann connector (motor line 0.4 m)

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank;

Material: aluminium
Surface: C0 anodised
Ratio: 3.5:1

Crank holder: plastic (grey, white or brown), crank holder with magnet optional

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panels (1)

Closed on 3 sides

Material: aluminium, extruded
Material thickness: 1.6 mm
Dimensions (HxD): rectangular 80x93 mm or 100x114 mm

Surface: powder-coated, C0 anodising optional
Fixing: tension cable: to wall or ceiling using brackets
Rails: using push-on aluminium fixing brackets

Side covers: diecast aluminium, powder-coated
Coupling only with continuous cover panels.

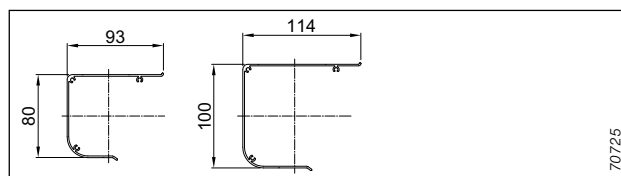


fig. 179: Cover panels

Fabric shaft (2)

Material: aluminium, extruded
Material thickness: 1.5 mm
Dimensions (Ø): crank drive 35 mm
Motor drive, 50 mm or 62 mm depending on cover panel sizes

Profile: groove tube

Surface: plain

Fixing: fabric shaft consoles for placing on the rail or wall mounting

With piping groove for fixing the fabric.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric

More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Description

Vertical awning 450

Lateral guidance (4)

Rail (4.1)

C profile

Material: aluminium, extruded

Dimensions (WxD): 30x38 mm, 46x38 mm or 30x16 mm

Profile: C-shaped profile

Surface: powder-coated, C0 anodising optional

Fixing: without spacing on the window frame or on the wall

Without noise-reducing beading, without end caps.

Tension cable (4.2)

Wire strand

Material: steel, corrosion-resistant

Coating: polyamide

Colour: black

Fixing: tension cable bracket, aluminium, incl. spring tension device, aluminium

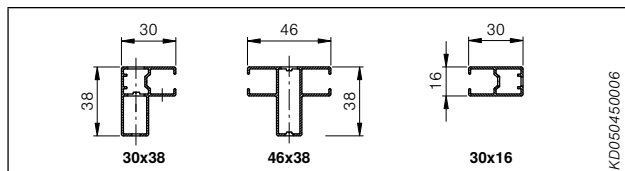


fig. 180: Guide rails

Drop profile (5)

Material: aluminium, extruded

Material thickness: 1.5 mm

Dimensions (WxH): 25x38 mm

Profile: oval tube, external beading channel

Surface: powder-coated, C0 anodising optional

Available as models "visible" (standard) or "concealed in fabric" (optional).

Fixing and connecting parts

Within the vertical awnings

Material: A2 steel or aluminium

Weight table

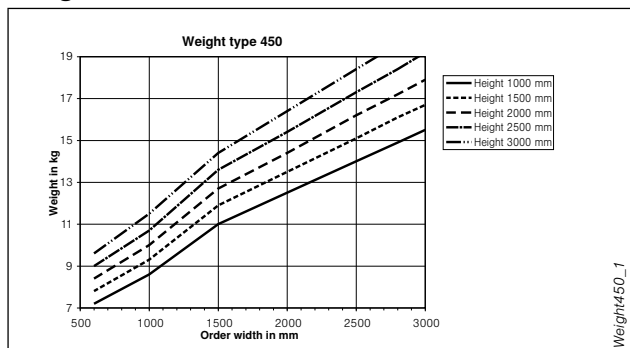


fig. 181: Weight type 450

Colours

Aluminium parts powder-coated with chrome-free pre-treatment in RAL 9006, 9016 and RAL 8016, satin finish, C0 anodising optional.

Optional powder-coating of the aluminium parts in accordance with valid RAL CLASSIC colour chart (except for camouflage and luminous colours) or in six DB and also eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification). Other colour specifications, custom colours or colour anodising are available subject to surcharge.

For anodised vertical awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

General note

Type 450 is especially suited for punched windows, window bands and reveal mounting.

The vertical awning 450 is not suitable for use with mullion/transom facades.

Construction limit values

Vertical awning 450

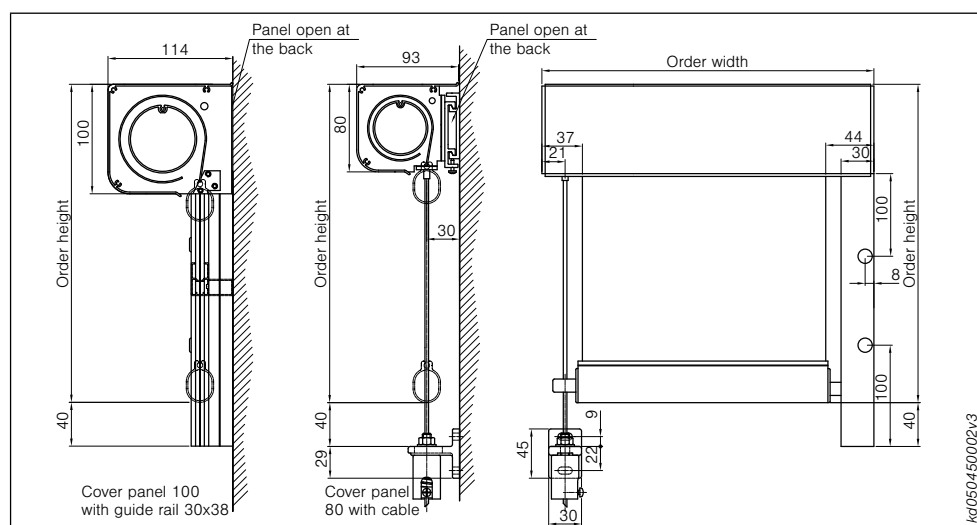


fig. 182: Measuring instructions for vertical awning 450

Notes:

- Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.
- All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.
- Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading

control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit				Coupled (max. 2 curtains)			
		Cover panel size 80		Cover panel size 100		Cover panel size 80		Cover panel size 100	
		Crank	Motor ¹⁾	Crank	Motor ¹⁾	Crank	Motor ¹⁾	Crank	Motor ¹⁾
Min. width ²⁾ (mm)	Acrylic – all qualities –	500	600	500	630	500	600 ³⁾	500	630 ³⁾
	Screen fabric	500	600	500	630	500	600 ³⁾	500	630 ³⁾
	Soltis 92 fabric	500	600	500	630	500	600 ³⁾	500	630 ³⁾
Max. width (mm)	Acrylic – all qualities –	2400	2800	2400	2800	4000	5000	4000	5600
	Screen fabric	2400	2500	2400	2500	4000	5000	4000	5000
	Soltis 92 fabric	2400	2800	2400	2800	4000	5000	4000	5600
Max. height (mm)	Acrylic – all qualities – ⁴⁾	1800	1600	2700/ 1700	2700/ 1700	1800	1600	2700	2700
	Screen fabric	2800	2500	3000	3000	2800	2500	3000	3000
	Soltis 92 fabric	3000	3000	3000	3000	3000	3000	3000	3000
Max. area ⁵⁾ (m ²)	Acrylic – all qualities –	4.3	4.5	6.5	7.6	7.2	8.0	10.8	15.1
	Screen fabric	6.7	6.3	7.2	7.5	11.2	12.5	12.0	15.0
	Soltis 92 fabric	7.2	8.4	7.2	8.4	12.0	15.0	12.0	16.8

¹⁾ Radio motors **not** available. Alternative: plug receiver

²⁾ Smaller widths are possible after consultation with the Application Technology department!

³⁾ For curtain with motor drive

⁴⁾ Glued fabric connection optional for Standard and Perfora variants. Max. height reduced by 200 mm.

⁵⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

Details

Vertical awning 450

Wall/ceiling brackets, guide rail brackets

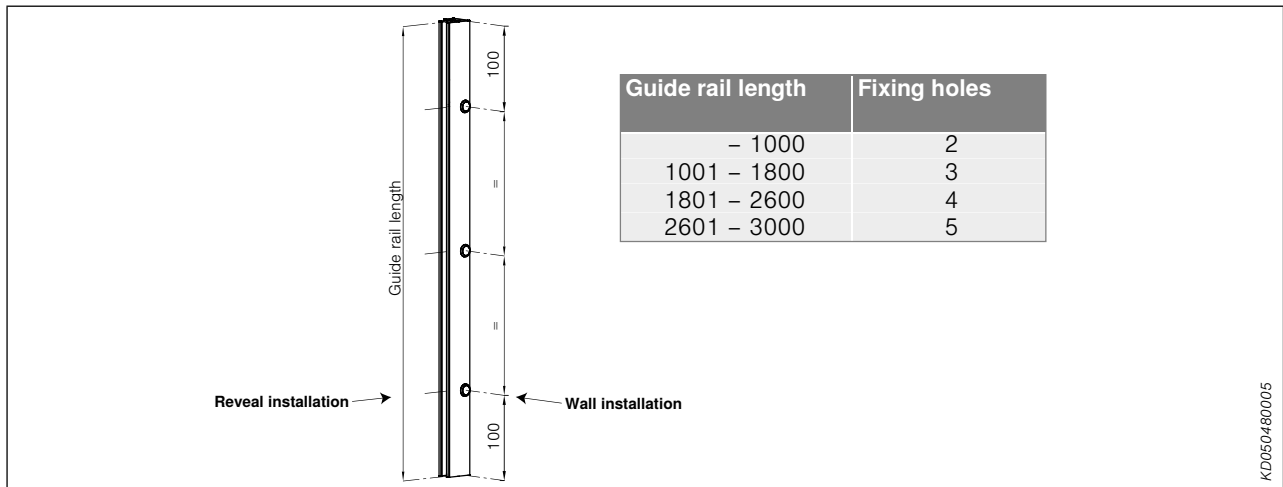


fig. 183: No. of guide rail drilled holes

Fixing template for guide rails (reveal and wall mounting)

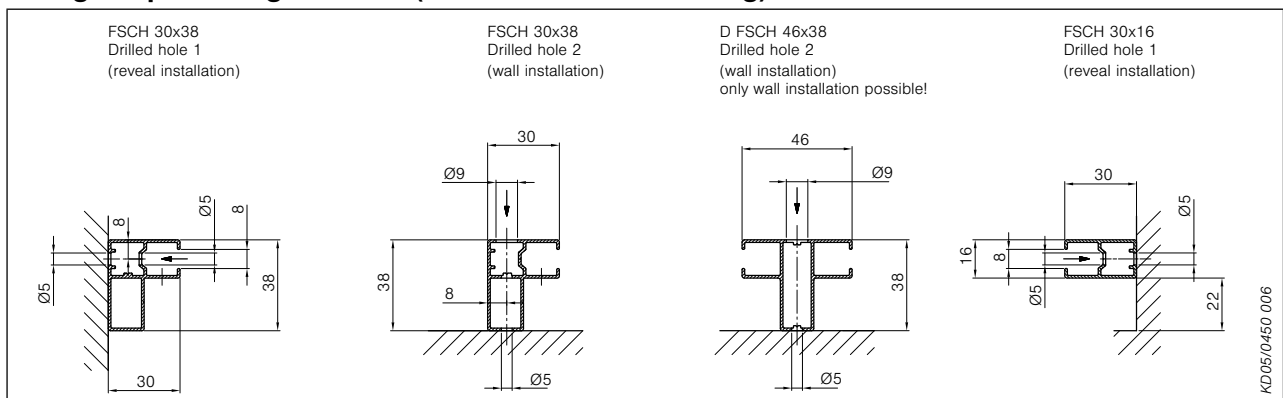


fig. 184: Guide rail drilled holes

Note:

Directly adjacent individual units can **not** be equipped with double guide rails. This is only available for mechanically coupled curtains.

Wall and ceiling brackets

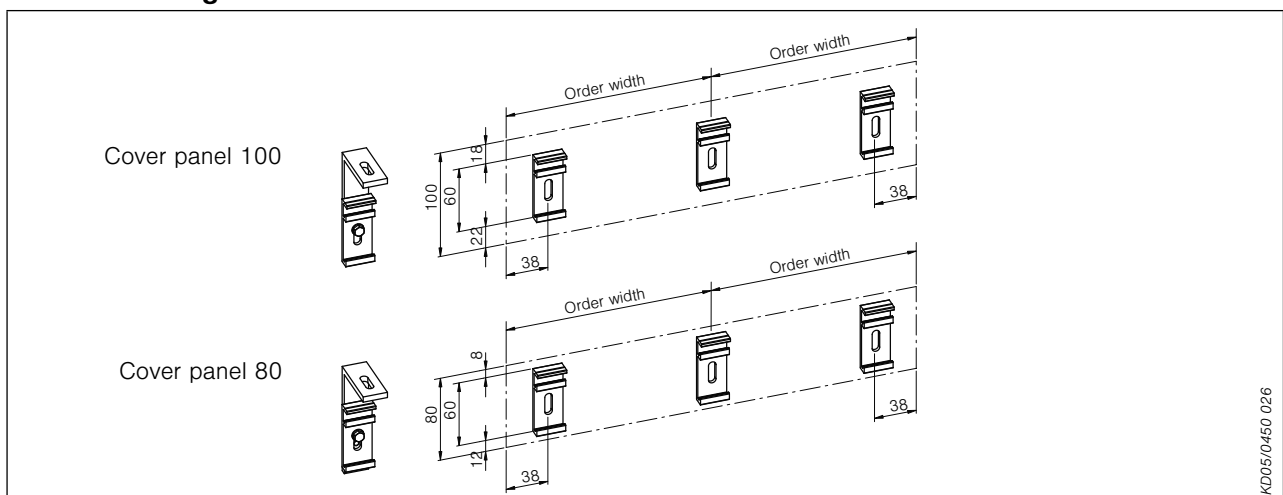


fig. 185: Wall and ceiling brackets

Application example

Vertical awning 450

Cover panel fixing

Dimension diagram

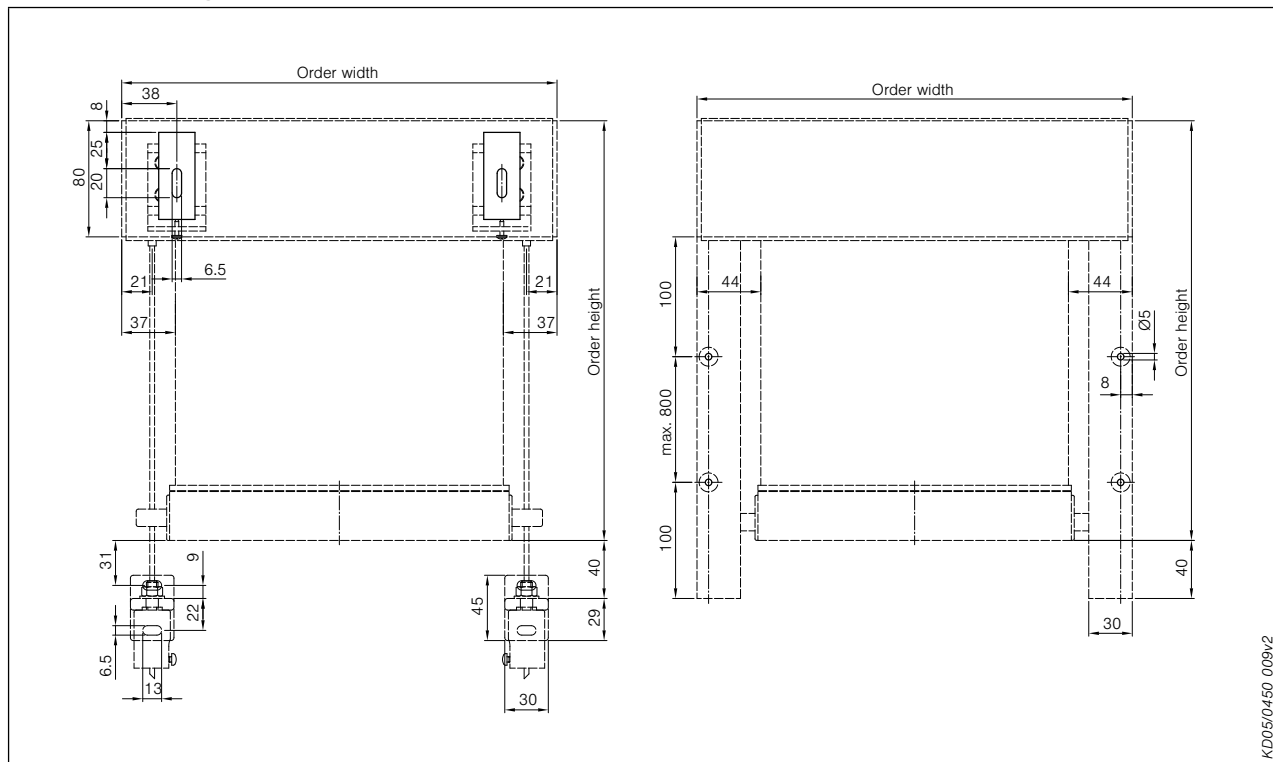


fig. 186: Dimension diagram

Cover panel mounting

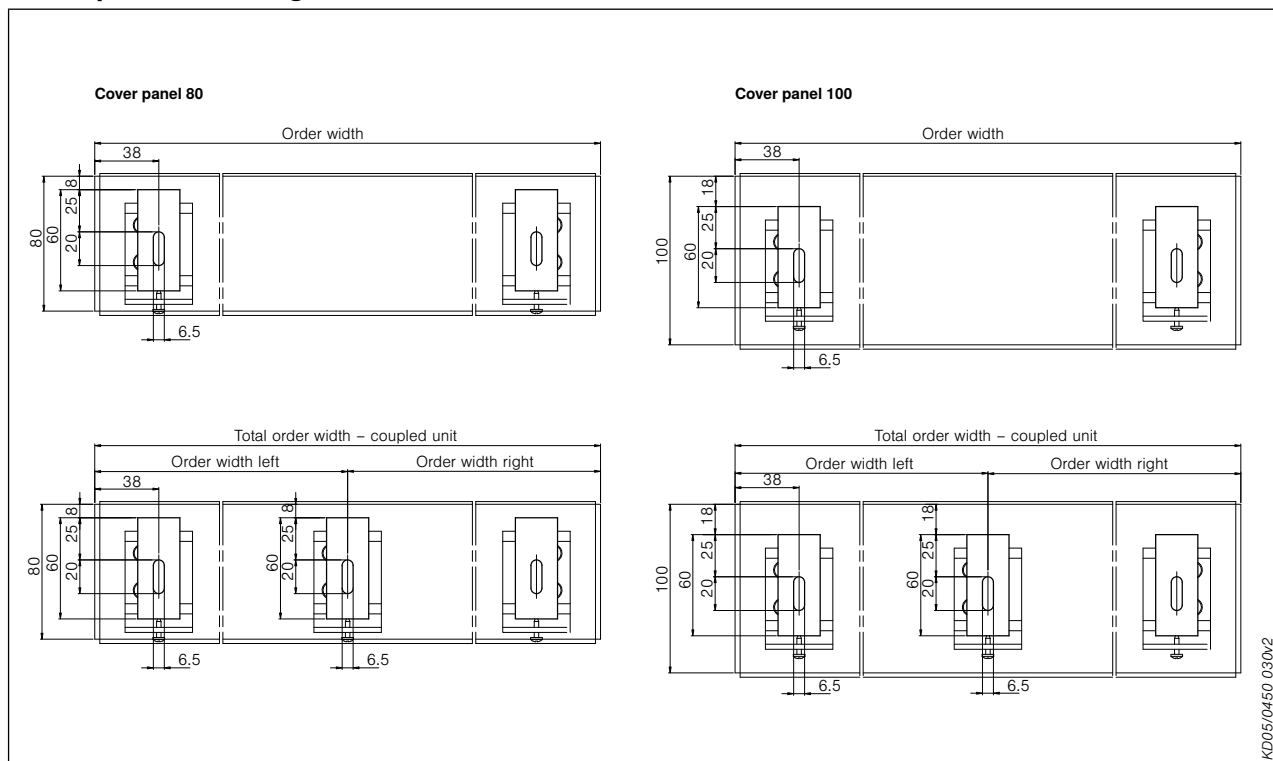


fig. 187: Cover panel mounting

Application example

Vertical awning 450

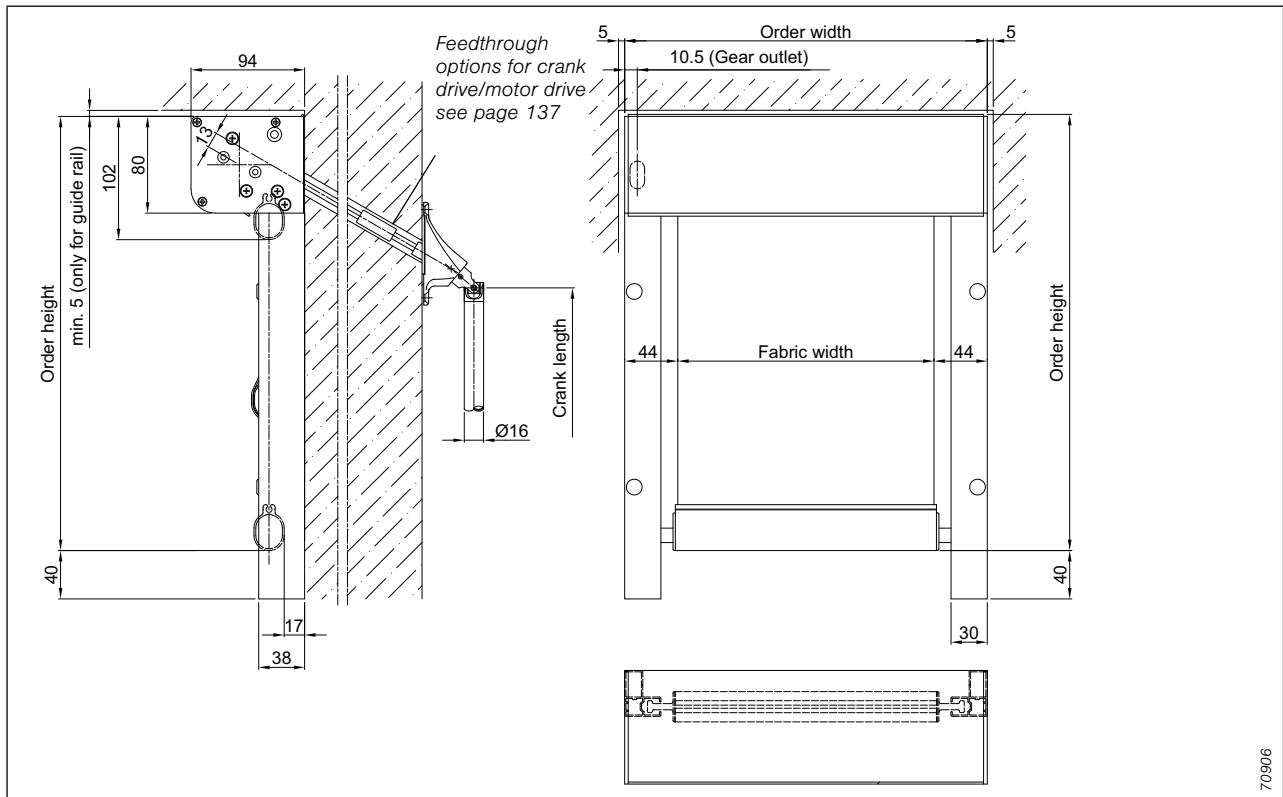


fig. 188: Dimension diagram

Cover panel 80 – mounting situations

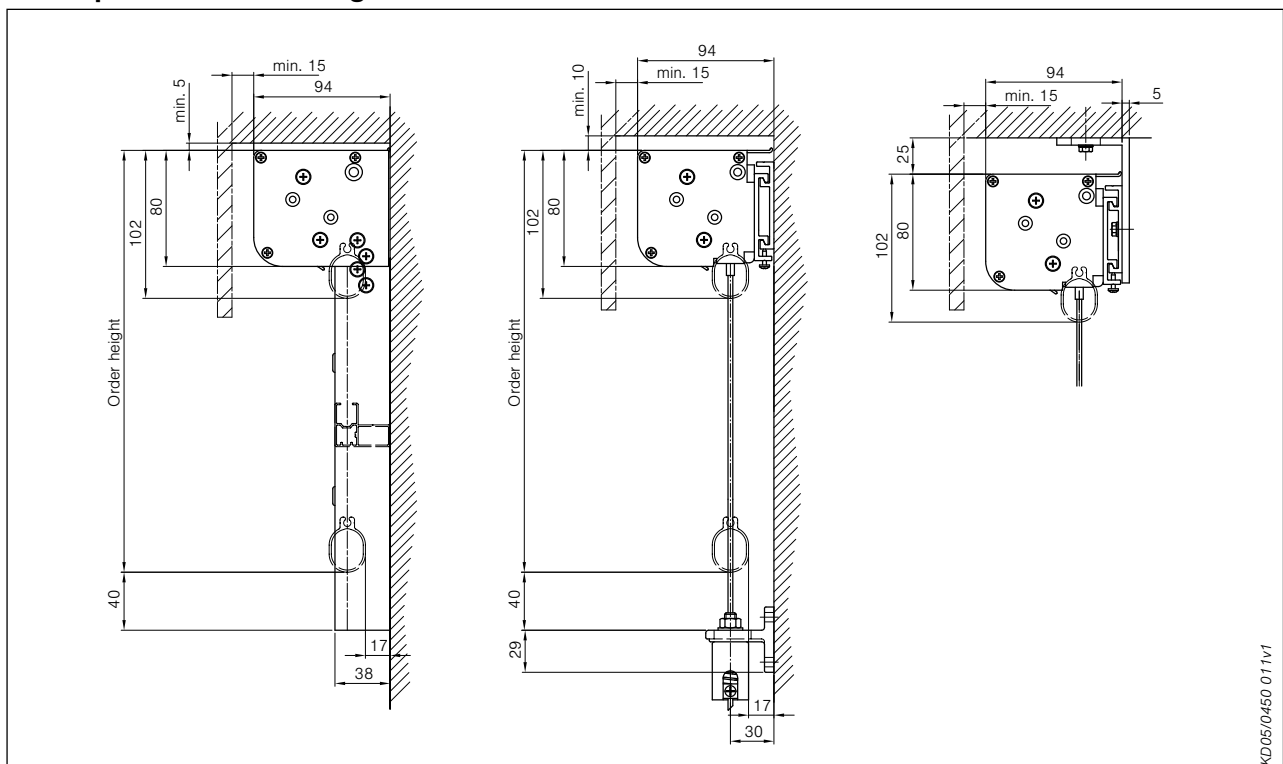


fig. 189: Cover panel 80 – mounting situations

Application example Vertical awning 450

Cover panel 100 – mounting situations

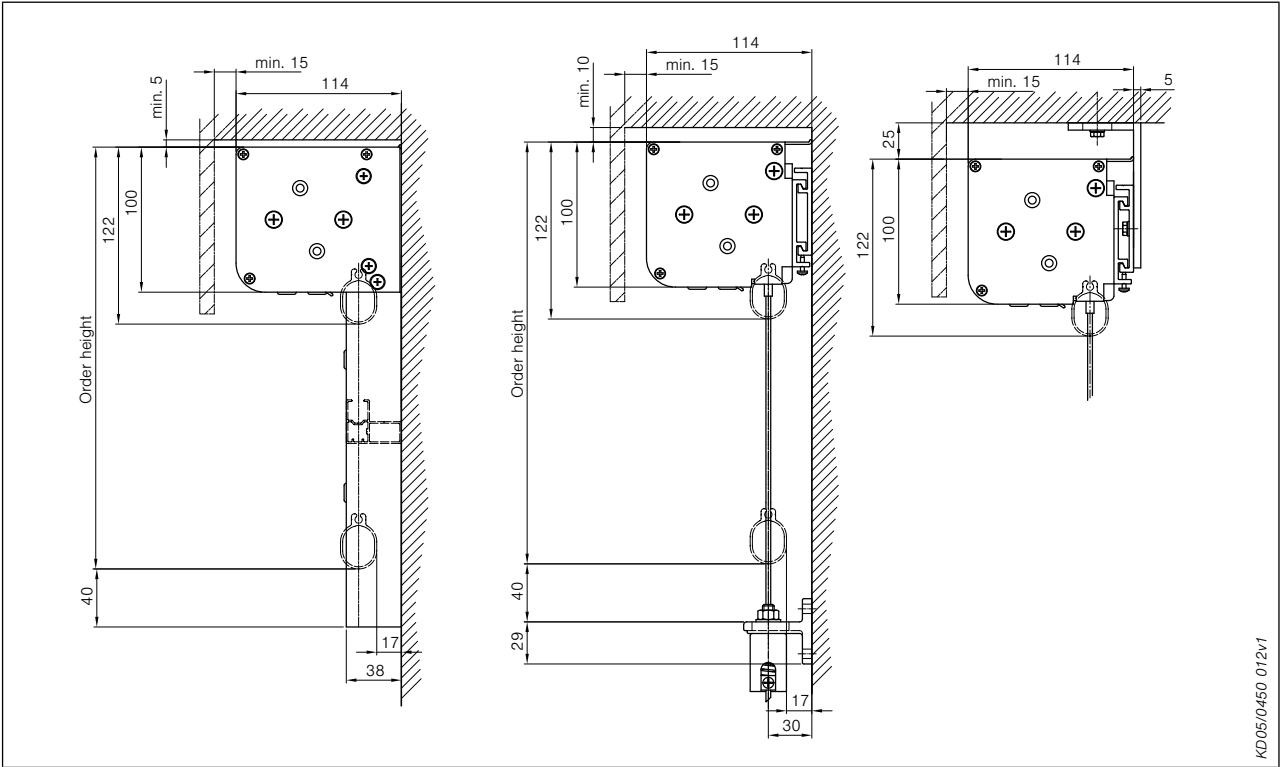


fig. 190: Cover panel 100 – mounting situations

Details

Vertical awning 450 with cable guidance

Individual unit, wall installation with spacing, Z console

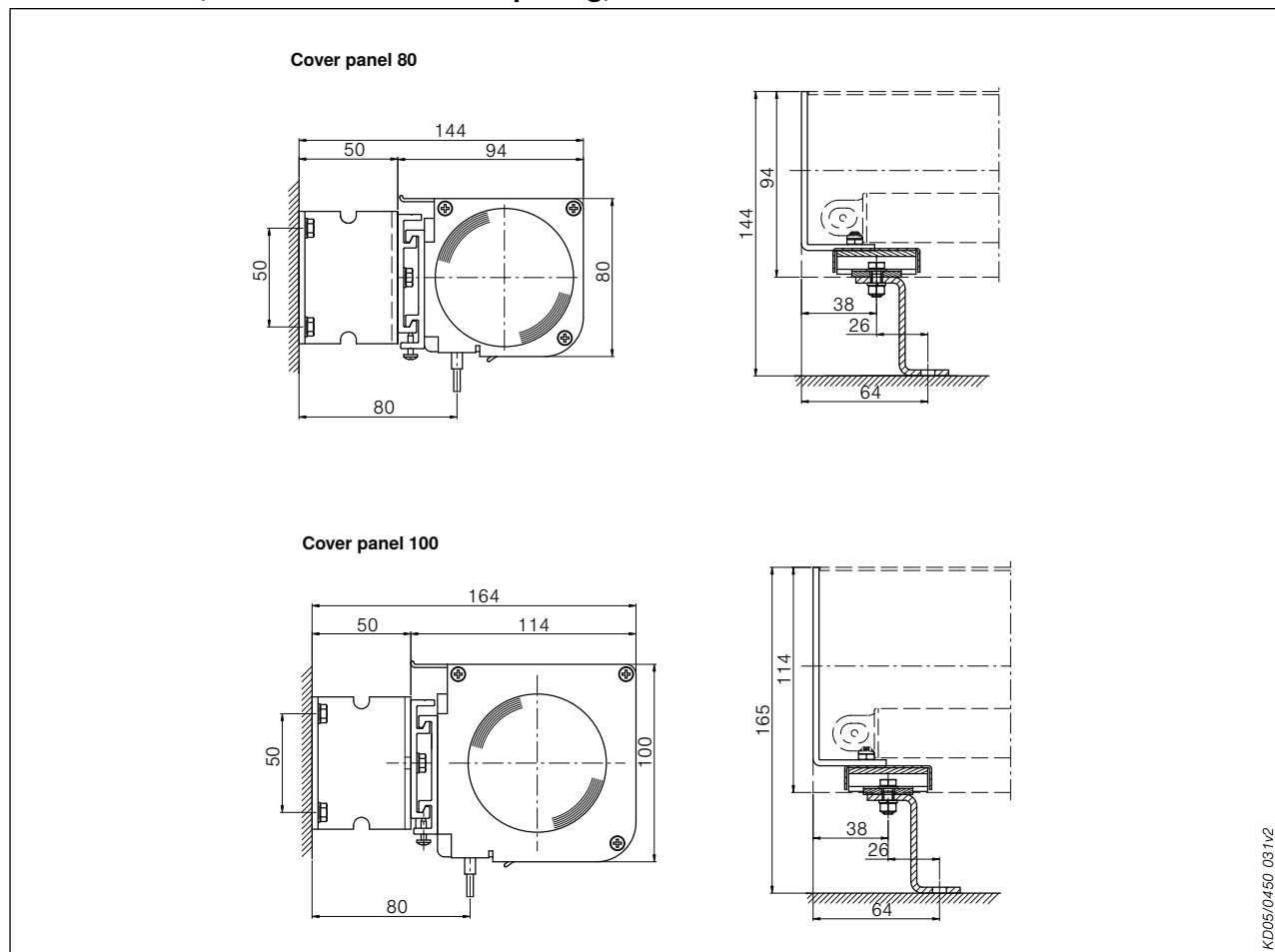


fig. 191: Dimension diagram

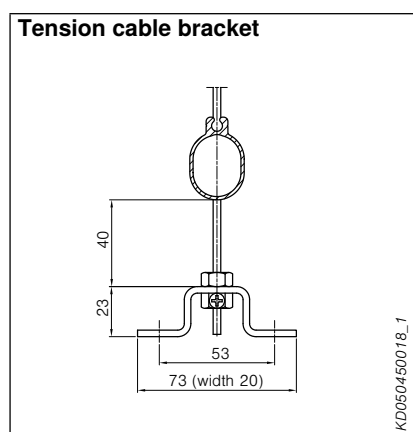


fig. 192: Tension cable bracket

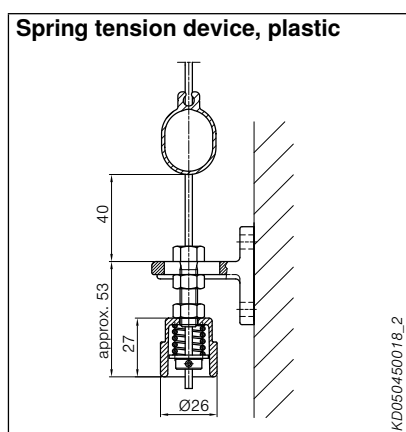


fig. 193: Spring tension device, plastic

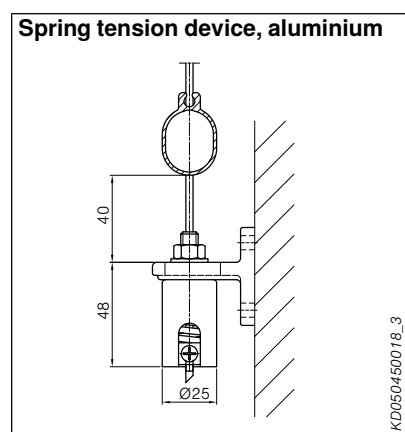


fig. 194: Spring tension device, aluminium

Details

Vertical awning 450 Gear outlets

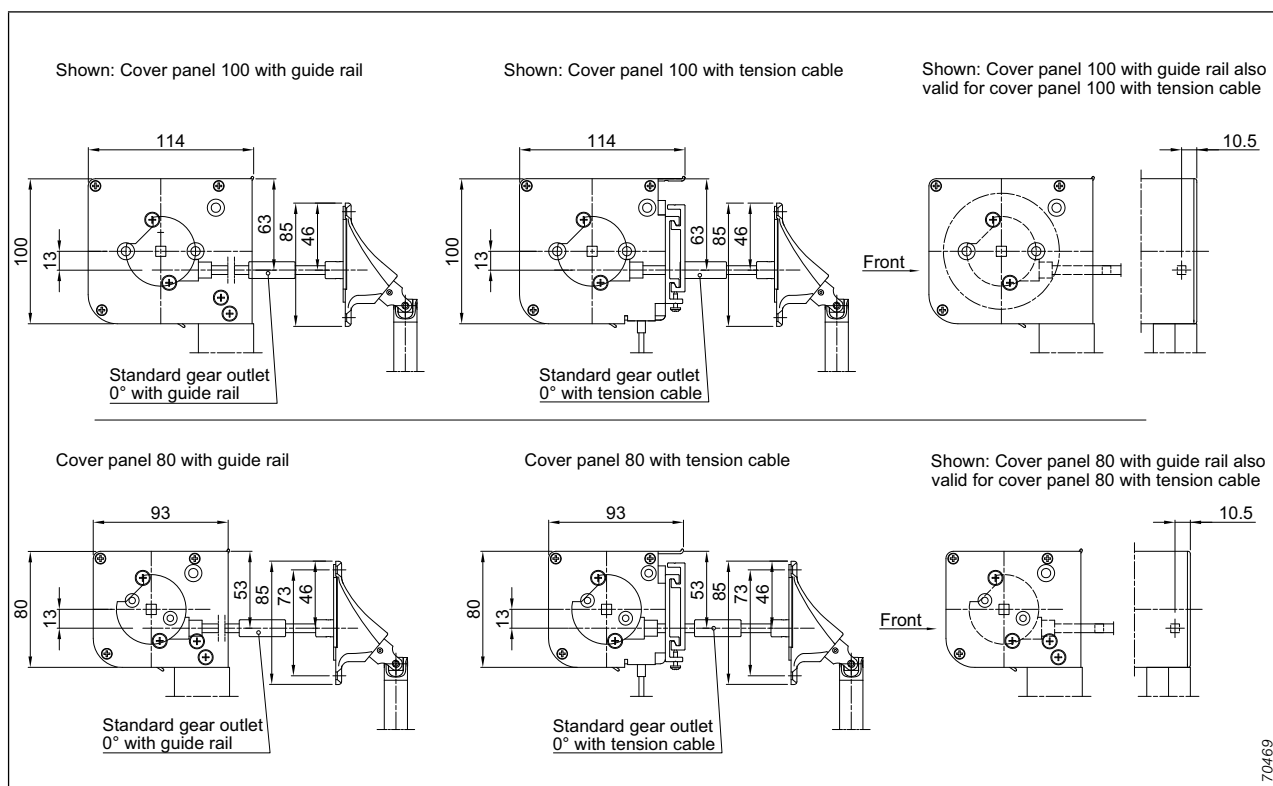


fig. 195: Gear outlet 0°

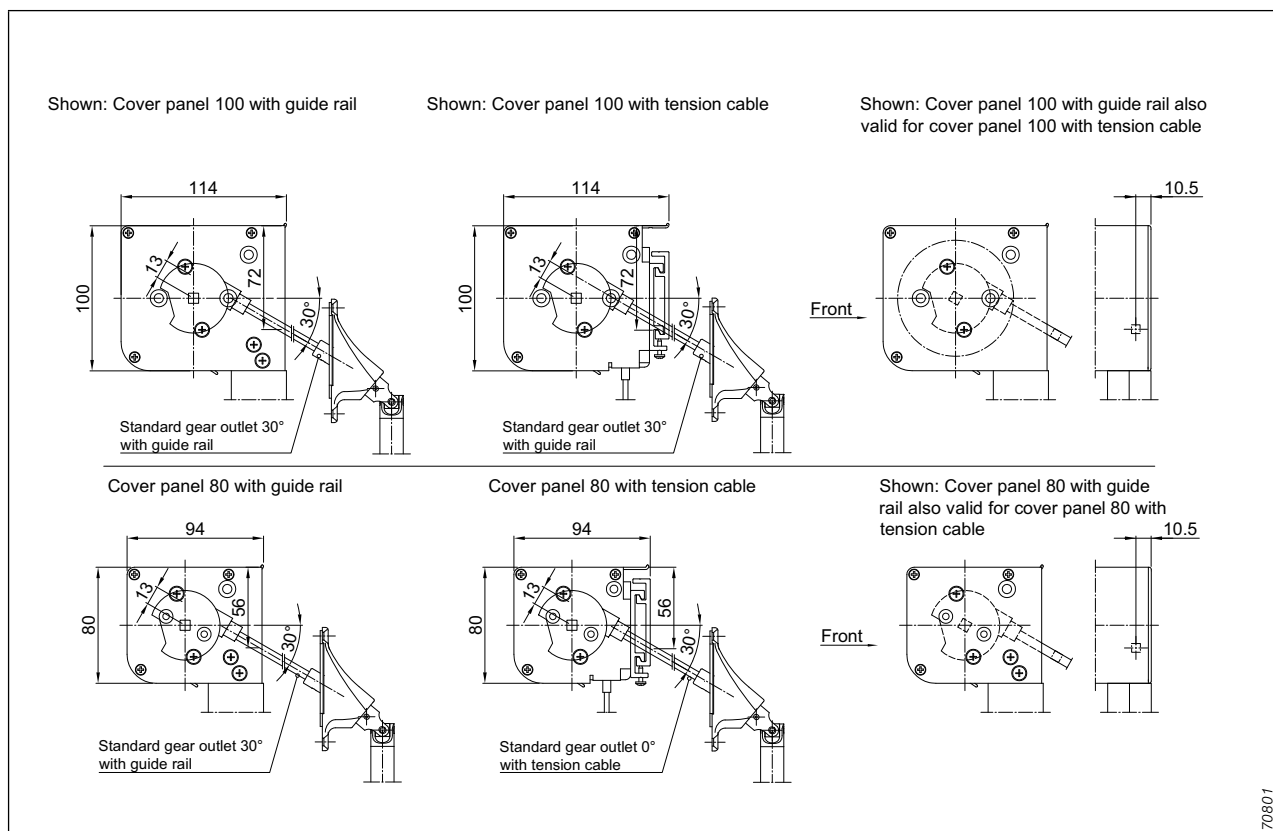


fig. 196: Gear outlet 30°

Details
Vertical awning 450
Cable exits

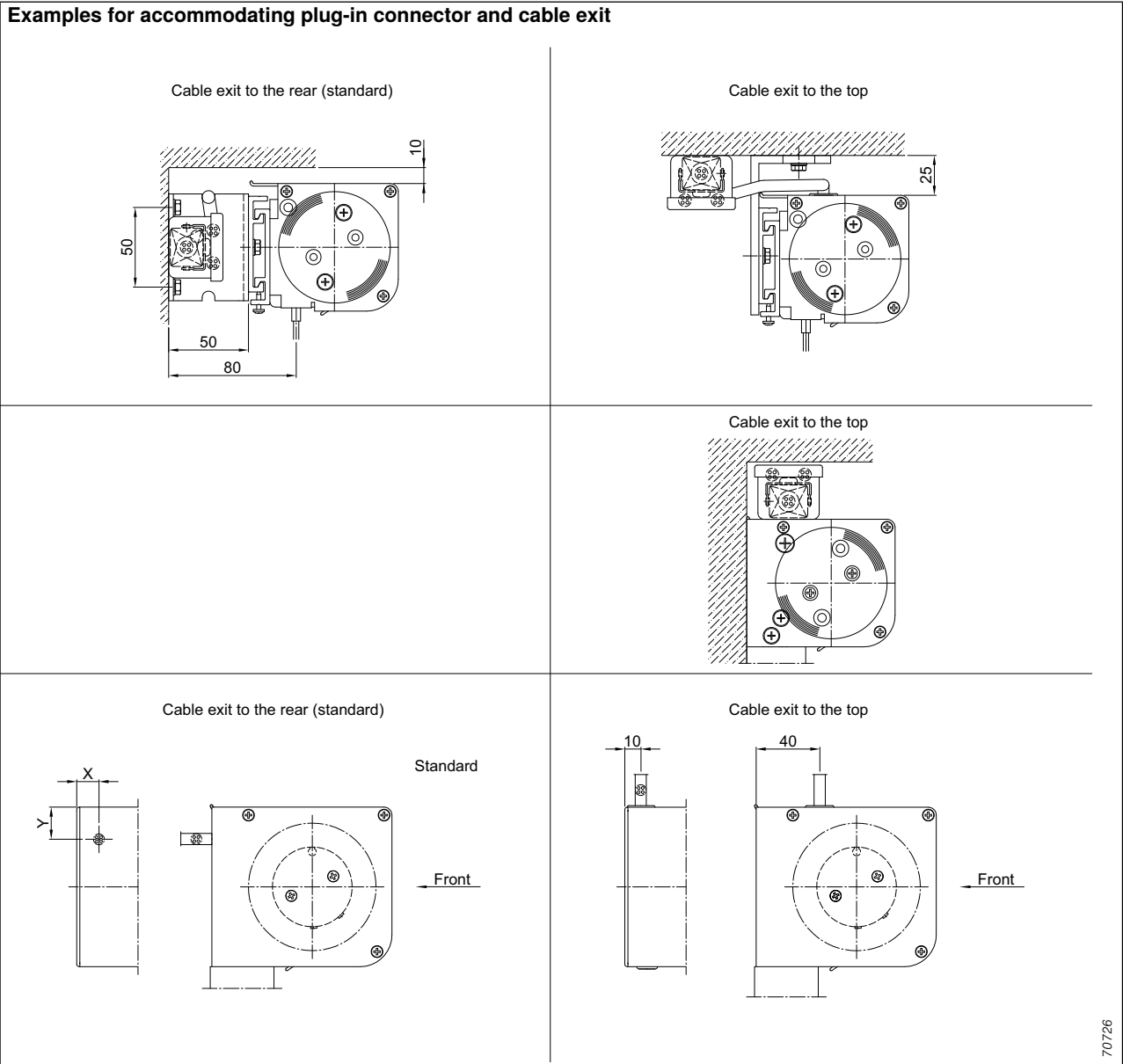


fig. 197: Cable exits

Cable exit at the back – standard

Cover panel	Dimension X	Dimension Y
80	14 mm	15 mm
100	14 mm	20 mm

Guide rail and cable guidance.

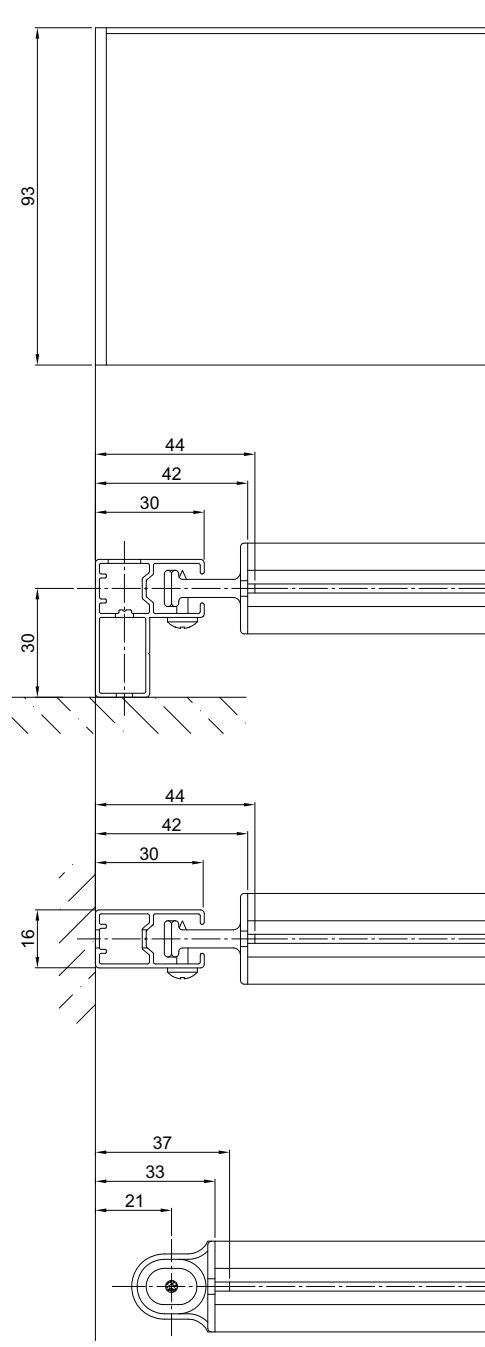
Note:
It must be ensured that the plug-in connector is accommodated!
The end of the motor cable has no plug by default.

Attention!
Plug-in connector or cable may not enter the rolling space!
Electrical equipment should be connected by qualified persons only. Please observe the legal requirements and regulations!

Details

Vertical awning 450

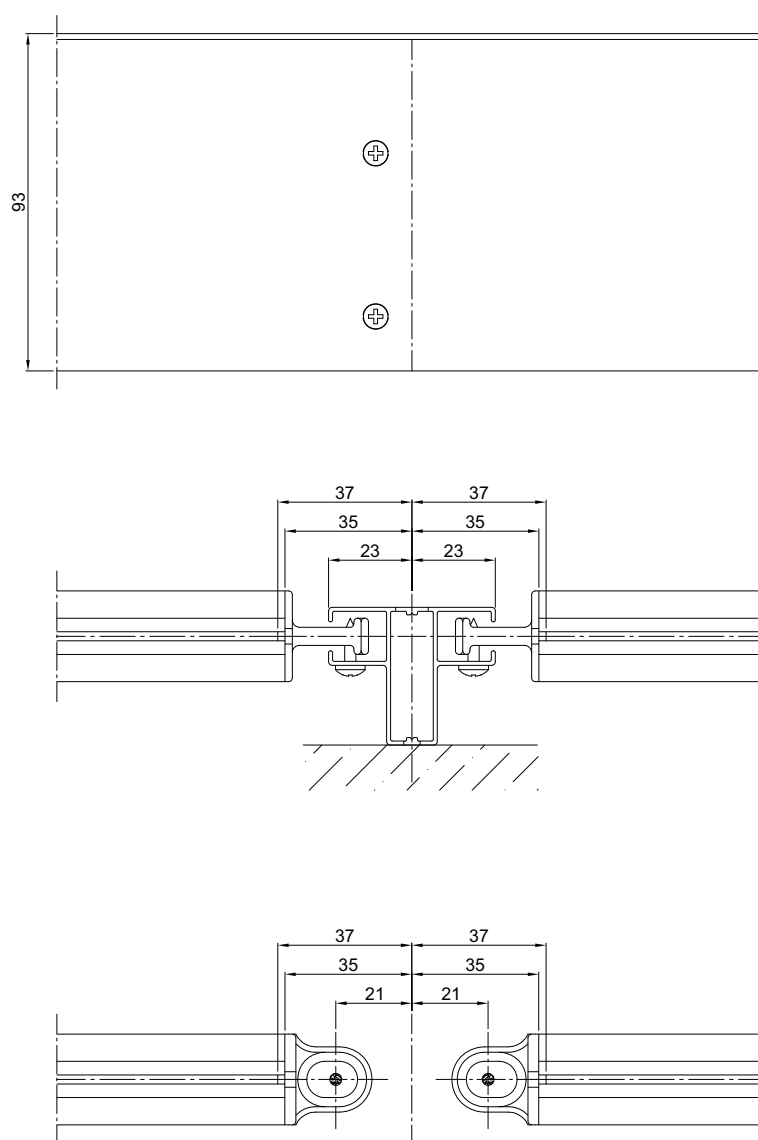
With cable or rail guidance, limit position situation left (view from above)



70353

fig. 198: Limit position situation individual unit

Coupling in continuous cover panel (view from above)



70358

fig. 199: Coupling in continuous cover panel; limit position situation group unit

Contents

Drop-arm awnings

Equipment	142
Drop arm awning 355	143
Drop arm awning 340	151
Drop arm awning 330	158

Overview

Window awnings with
ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

Fixing systems

Fabrics

Drives/control systems

Solflex AB försäljning och service västra Skåne. Showroom och rådgivning;
Malmö Slussplan 1, 040-979745. Helsingborg Garnisonsg 12, 042-161635.
kontakter@solflex.se www.solflex.se

Equipment

Drop arm awnings

	Drop arm awnings		
	355	340	330
Drive and operation			
– Motor	●	●	●
– EWFS and/or WMS radio motor	○	○	○
– Control systems	○	○	○
– Crank outside	○	○	○
– Crank inside	○	○	–
Mechanically coupled curtains	○	○	○
– Motor 2 curtains	○	○	○
– Motor 3 curtains	○	○	○
– Crank 2 curtains	○	○	○
– Crank 3 curtains	○	○	○
Cover panels			
– Aluminium	●	●	–
Fixing options			
– Wall installation	●	●	●
– Ceiling installation	○	–	●
– Reveal installation	○	–	○
Surface treatment of aluminium parts			
– powder-coated according to the	WAREMA Colour World		
– Special coating	○	○	○
Fabric			
– Standard/Lumera acrylic fabric	●	●	●
– Acrylic All Weather, Perfora	○	○	○
– Screen fabric	○	○	○
– Soltis 92 fabric	○	○	○
Clamping posts	–	–	○
Valance	○	○	○
Projection angle			
90°	●	●	●
135°	○	○	○

- standard
- optional
- not available

Description

Drop arm awning 355

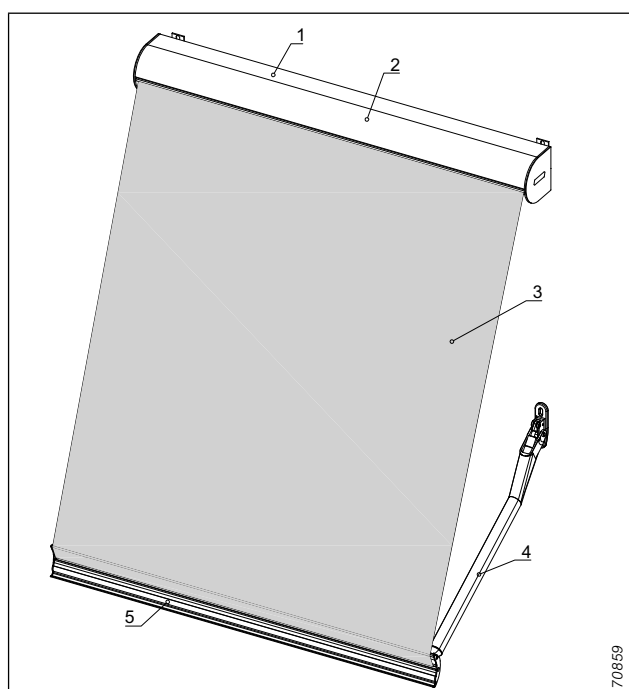


fig. 200: Drop arm awning 355

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Drop arm
- 5 Drop profile

Application

External textile sun shading system with projection effect and compact cover panel for shading vertical punched windows, element windows and for mounting in the reveal.

Operation

Basic motor, 230 V, 50 Hz

OREA WT with electronic limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MM with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MM with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank; joint plate and square with patented thermal separation.

Material: aluminium
 Surface: C0 anodised
 Ratio: 6:1
 Crank holder: plastic (grey, white or brown), crank holder with magnet optional

The fabric shaft contains a spindle lock to provide a lower limit for the extension of the fabric.

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panel (1)

Closed, half round shape

Material: aluminium, extruded
 Material thickness: 2.1 mm
 Dimensions (HxD): 110x110 mm
 Surface: powder-coated
 Attachment: bracket, aluminium
 Side covers: aluminium, powder-coated
 Cover panel vertical at the back, with continuous mounting groove. Drop profile as front cover (shape adapted to cover panel).

Fabric shaft (2)

Material: aluminium, extruded/steel, galvanised
 Material thickness: 1.5 mm
 Dimensions (Ø): 62 mm/61 mm
 Profile: groove tube
 Surface: plain
 With piping groove for fixing the fabric. The fabric shaft size depends on the used fabric quality in relation to the relevant sizes.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
 Acrylic Perfora/All Weather
 Soltis 92 fabric
 Screen fabric

Valance from acrylic fabric for attaching to the front end profile (height 180 mm, matching edging, individually detachable) available subject to surcharge. If a valance is ordered and no shape is stated, we will supply valance shape no. 11.

More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Drop arm (4)

Material: aluminium, extruded
 Dimensions (WxD): 35x30 mm
 Profile: tube, oval
 Surface: powder-coated
 Fixing: arm brackets (chill cast aluminium)
 Projection angle: circular, 90° - 135°
 Projection length: 800, 1000, 1200, 1400, 1600 mm, special arm lengths possible

Includes axial gas pressure spring for optimum fabric tension in any projection phase.

Description

Drop arm awning 355

Drop profile (5)

Valance optional

Material: aluminium, extruded

Material thickness: 2 mm

Dimensions: adapted to cover panel

Profile: adapted to cover panel

Surface: powder-coated

With piping groove for attaching the fabric

Connecting and fixing components

Within the drop arm awnings

Material: A2 steel or aluminium

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours or anodisation are available subject to surcharge.

For anodised drop arm awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

Dimensions in mm	Type of fabric	Individual units		Mechanically coupled curtains with motor (max. 3 fields)
		Crank	Motor	
Min. width		500	800	500
Min. projection		500	500	500
Max. width	Acrylic – all qualities	4000	4000	12000
	Screen fabric	2500	2500	7500
	Soltis 92 fabric	4000	4000	12000
Reveal installation		2500	2500	–
Max. projection				
– 135°		1400	1400	1400
– 90°		1600	1600	1600

Number of consoles

Order width	Number of consoles
up to 2500 mm	2
2501 to 3000 mm	3
3001 to 4000 mm	4

Measuring instructions

Drop arm awning 355

Motor drive

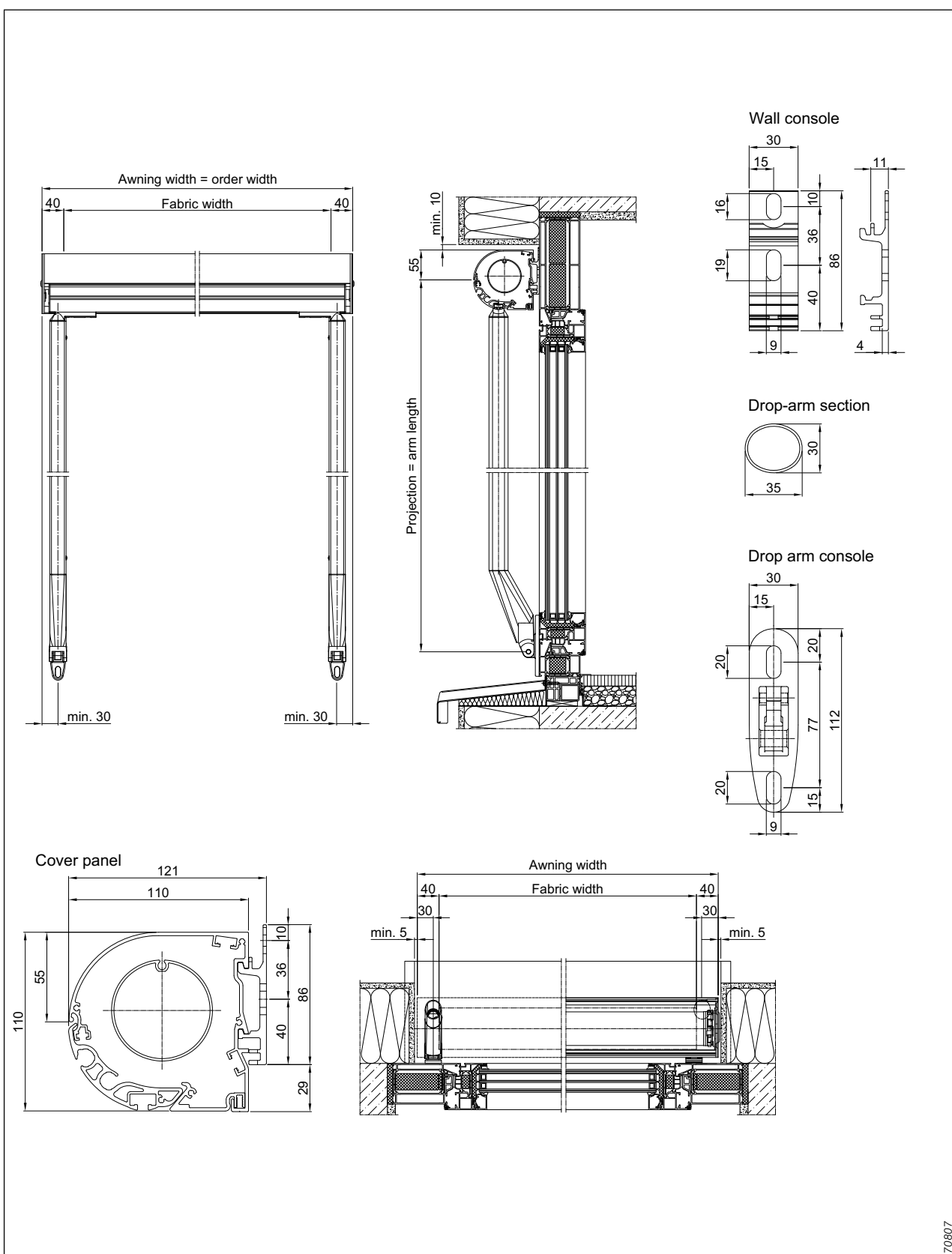


fig. 201: Measuring instructions for drop arm awning 355 (individual unit) – wall mounting

Measuring instructions
Drop arm awning 355
Coupled units, motor drive

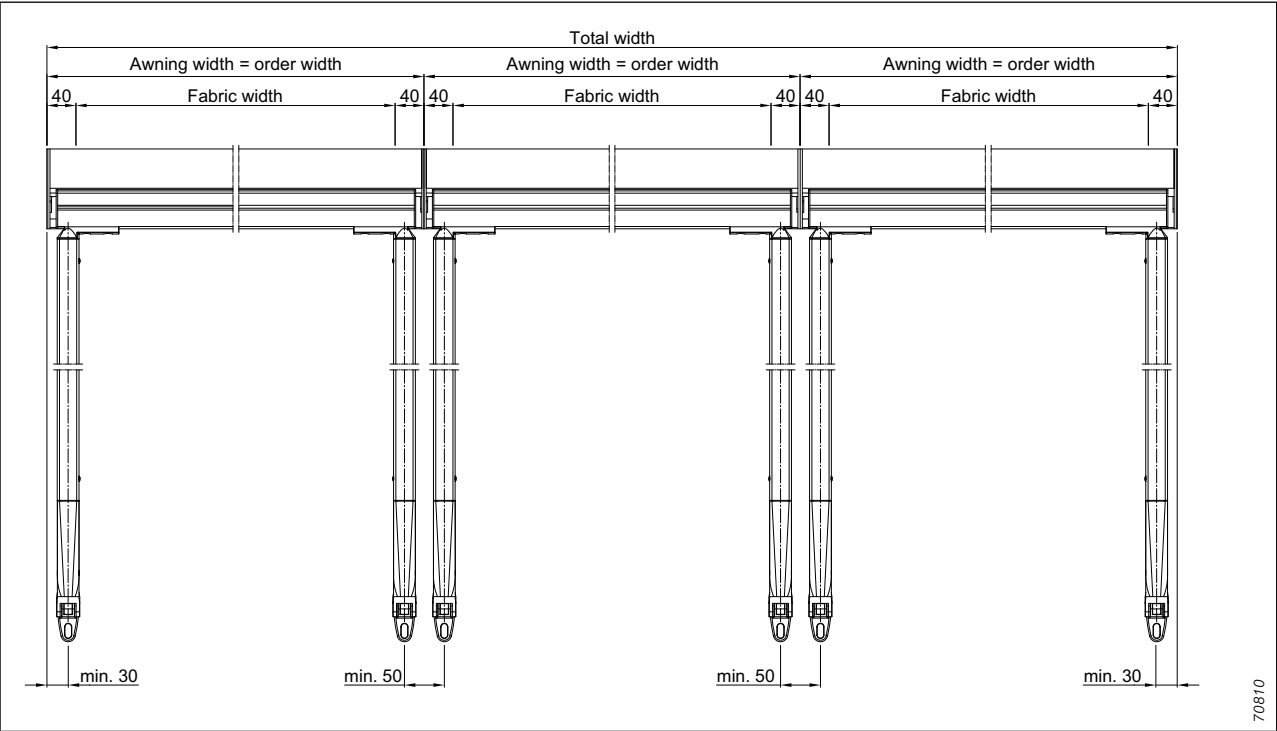


fig. 202: Measuring instructions for drop arm awning 355 (coupled units)

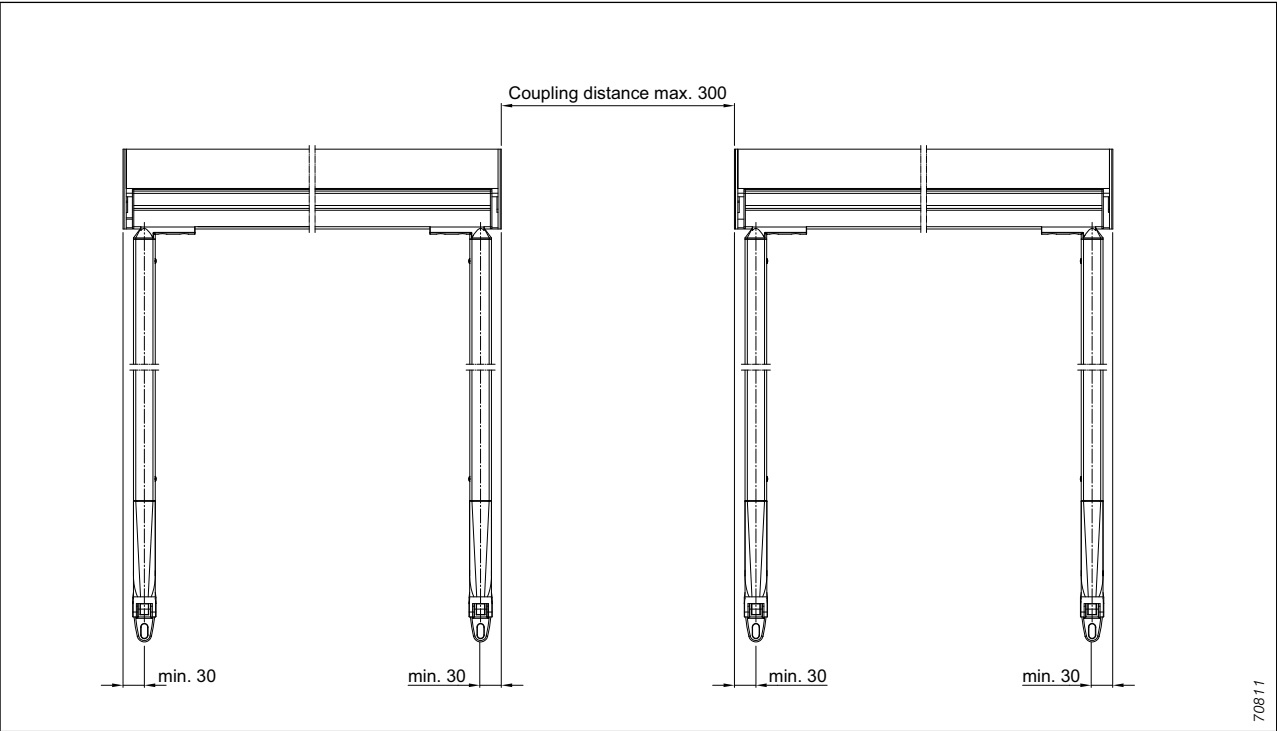


fig. 203: Coupling distance for drop arm awning 355

Details

Drop arm awning 355

Possible drives

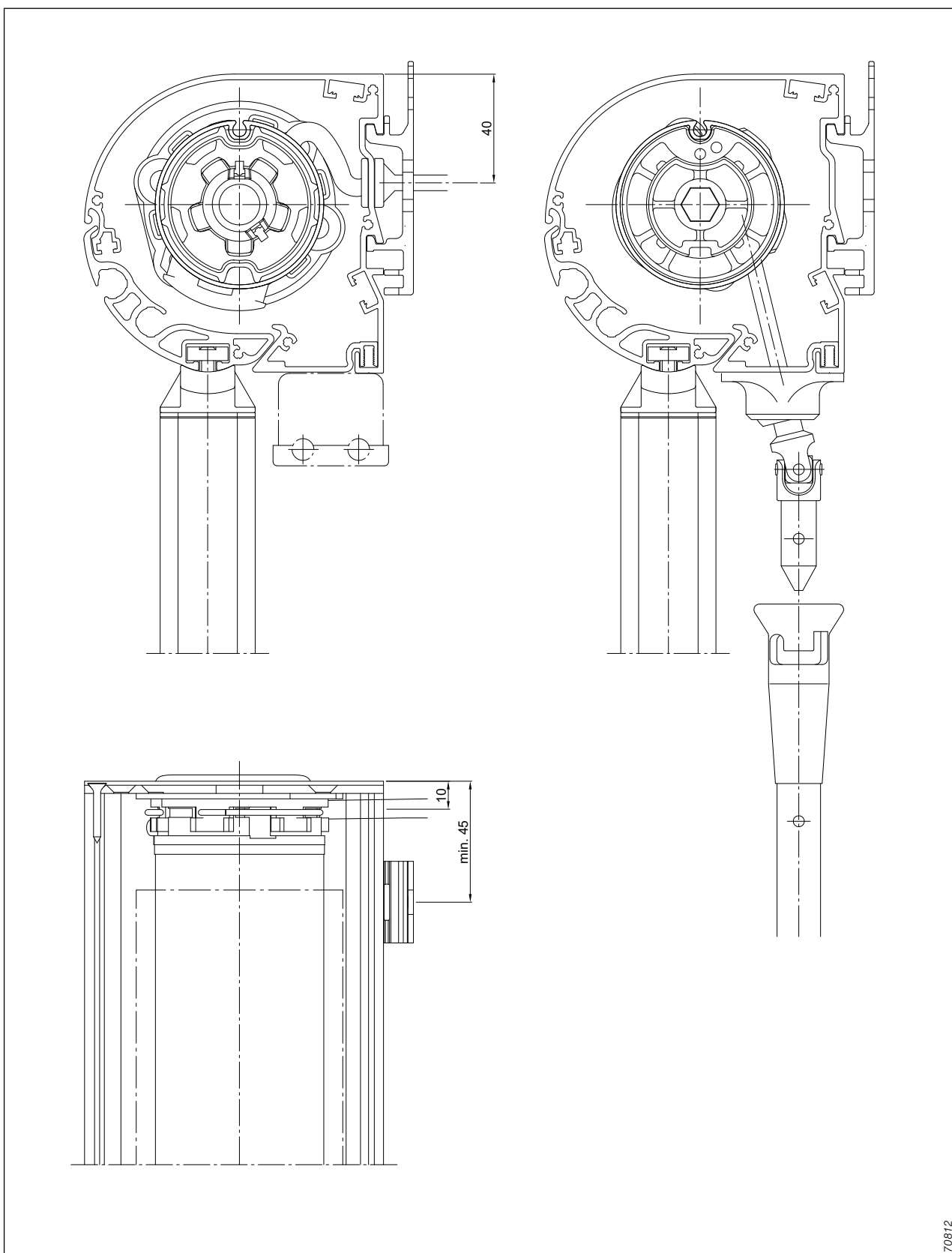
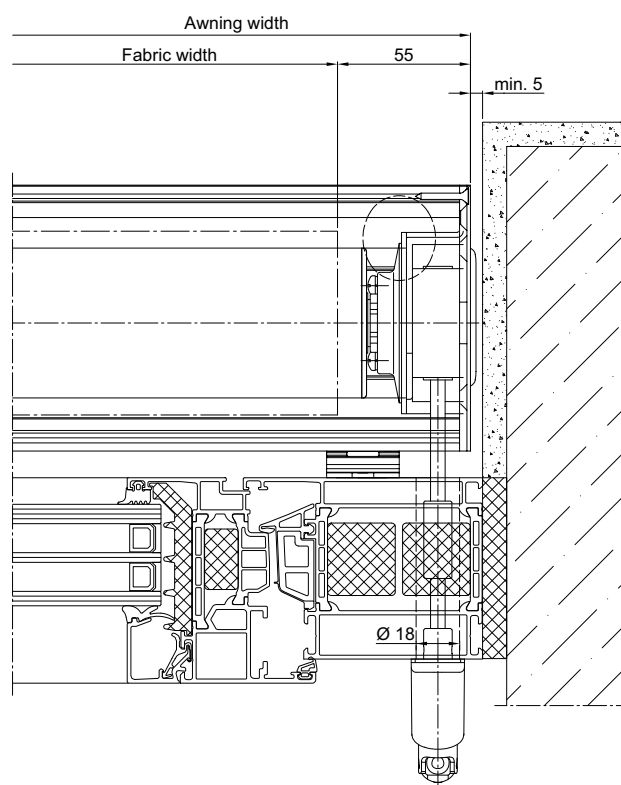
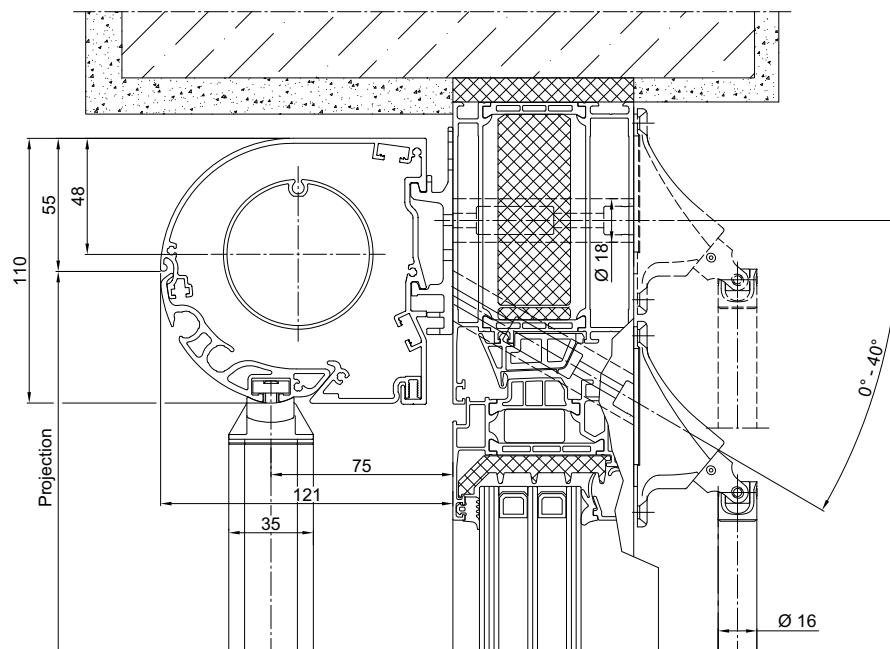


fig. 204: Drop arm awning 355: motor operation and crank operation from outside

Details

Drop arm awning 355

Possible drives



70819

fig. 205: Drop arm awning 355: crank operation from inside when mounted on the wall

Details

Drop arm awning 355

Possible drives

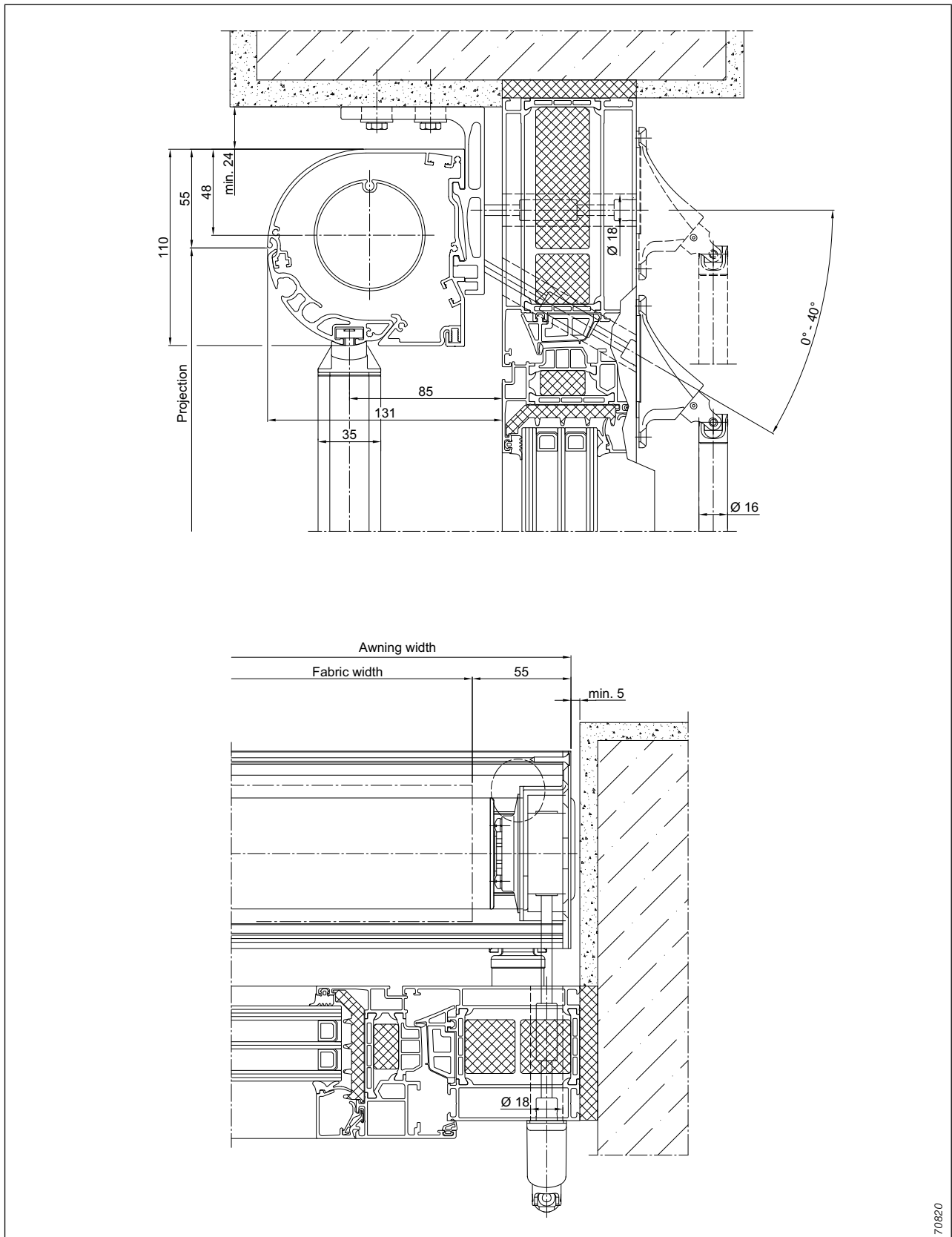
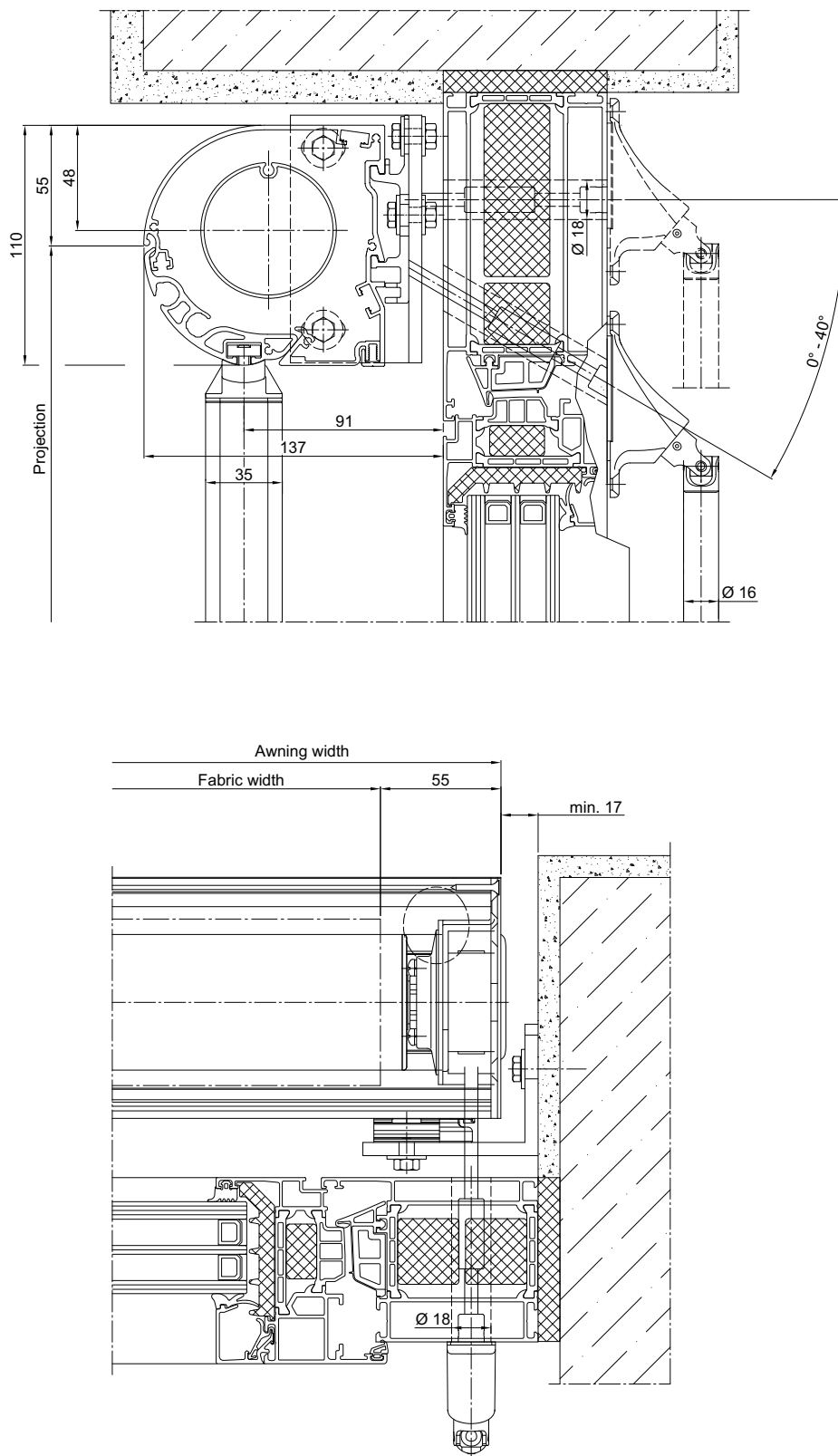


fig. 206: Drop arm awning 355: crank operation from inside when mounted on the ceiling

Details

Drop arm awning 355

Possible drives



70821

fig. 207: Drop arm awning 355: crank operation from inside when mounted in the reveal

Description

Drop arm awning 340

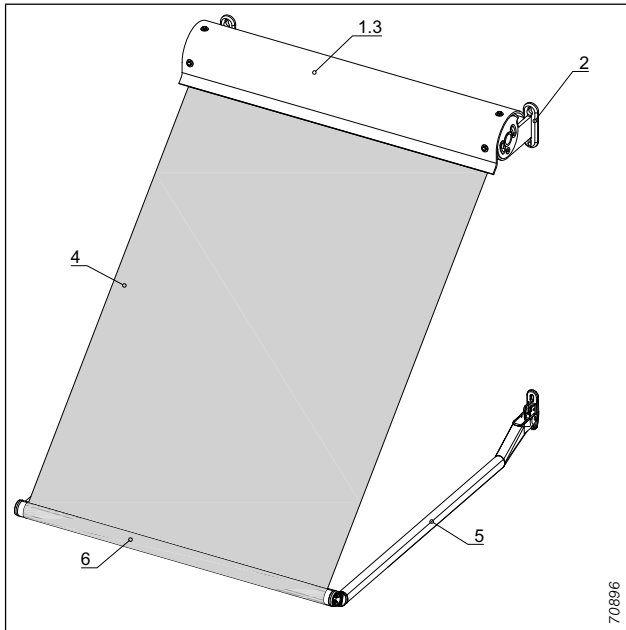


fig. 208: Drop arm awning 340

- 1 Cover panel
- 2 Fabric shaft console
- 3 Fabric shaft
- 4 Fabric
- 5 Drop arm
- 6 Drop profile

Application

External textile sun shading system with projection effect and cover panel for shading vertical punched windows, element windows and for mounting in the reveal.

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Bevel gear with crank rod and collapsible crank;

Material: aluminium

Surface: C0 anodised

Ratio: 3:1

Crank holder: plastic (grey, white or brown)

Feedthrough to the inside: 0° – 45°, via joint plate

Self-locking with end stop to prevent incorrect winding.

Detachable crank rod optional.

Cover panel (1)

Half round cover panel, aluminium

Material: curved aluminium

Material thickness: 2 mm

Dimensions (HxD): 131x135 mm, incl. water drip (type 1.4)

Dimensions (r): inside 70 mm

Max. individual length: 4000 mm

Surface: powder-coated

Fixing: with fabric shaft consoles

The front leg is bent at an angle of 45° by 25 mm to the outside to provide weather protection.

Fabric shaft console (2)

Suitable for wall mounting of half round cover panels

Material: aluminium, chill cast

Dimensions (WxH): base plate, rounded, 40x125 mm fixing bracket 157x164 mm

Dimensions (r): saddle 70 mm

Surface: powder-coated

The distance between fabric shaft (centre) and wall is 93.5 mm.

Maintenance-free bearing for the fabric shaft in bushings made of plastic.

Fabric shaft (3)

Material: aluminium, extruded

Material thickness: 1 mm

Dimensions (Ø): 78 mm

Profile: groove tube

Surface: plain

With piping groove for fixing the fabric.

With fabric shaft core made of plastic and galvanised steel hexagon.

For coupled drop arm awnings, couplings are made of corrosion-proof hexagonal aluminium WAF 17.

Description/construction limit values

Drop arm awning 340

Fabric (4)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric

Valance made from acrylic fabric (height 180 mm, matching edging, not individually detachable) available subject to surcharge. If a valance is ordered and no shape is stated, we will supply valance shape no. 11.

More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in the current collection are available only on request and are subject to surcharge.

Drop arms (5)

Material: aluminium, extruded
Dimensions (WxD): 35x30 mm
Profile: tube, oval
Surface: powder-coated
Fixing: arm brackets (chill cast aluminium)
Projection angle: circular, 90° - 135°
Projection length: 800, 1000, 1200, 1400, 1600 mm, special arm lengths possible

Includes axial gas pressure spring for optimum fabric tension in any projection phase.

Drop profile (6)

Valance optional

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (Ø): 40 mm

Profile: round profile

Surface: powder-coated

The fabric is fixed along the entire width using the bead.

Connecting and fixing components

Within the drop arm awnings

Material: A2 steel or aluminium

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and anodisation are available on request at a surcharge.

For anodised drop arm awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

Dimensions in mm	Type of fabric	Individual units		Mechanically coupled curtains with motor (max. 3 fields)
		Crank	Motor	
Min. width		500	650	500
Min. projection		500	500	500
Max. width (also for reveal installation)	Acrylic – all qualities	4000	4000	12000
	Screen fabric	2500	2500	7500
	Soltis 92 fabric	4000	4000	12000
Max. projection up to 135°		1600	1600	1600

Individual unit, motor drive



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Measuring instructions
Drop arm awning 340
Coupled units, motor drive

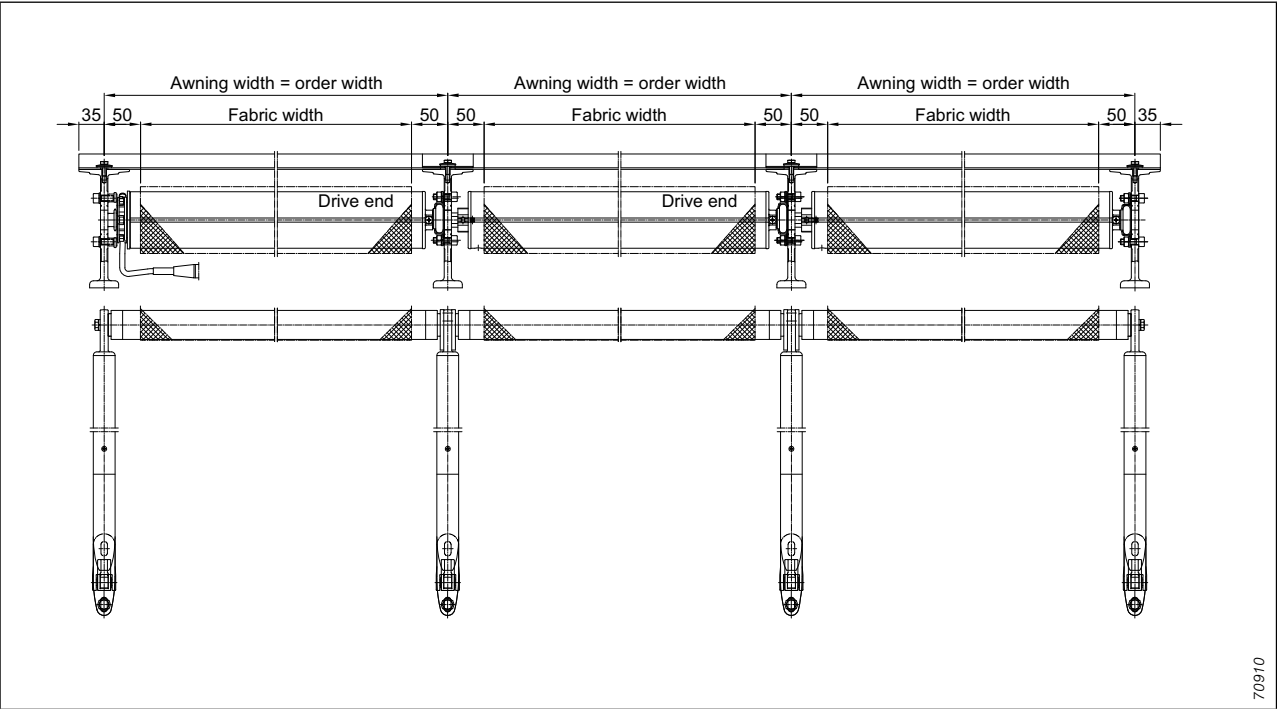


fig. 210: Measuring instructions for coupled units

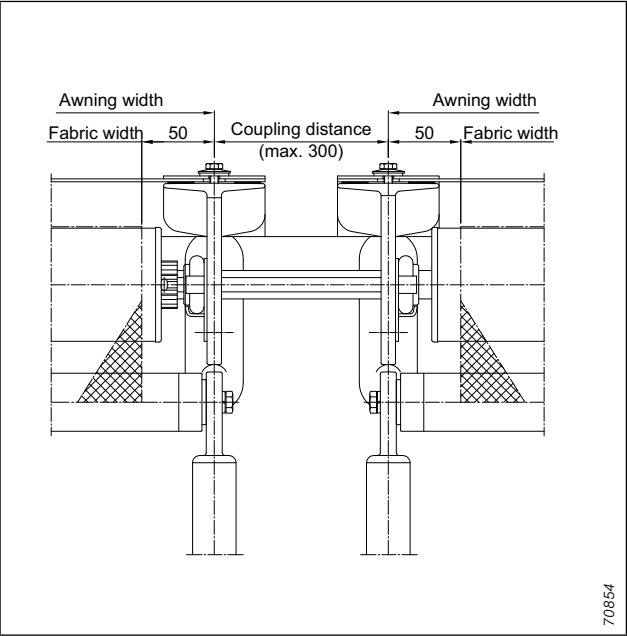


fig. 211: Coupling with coupling spacing

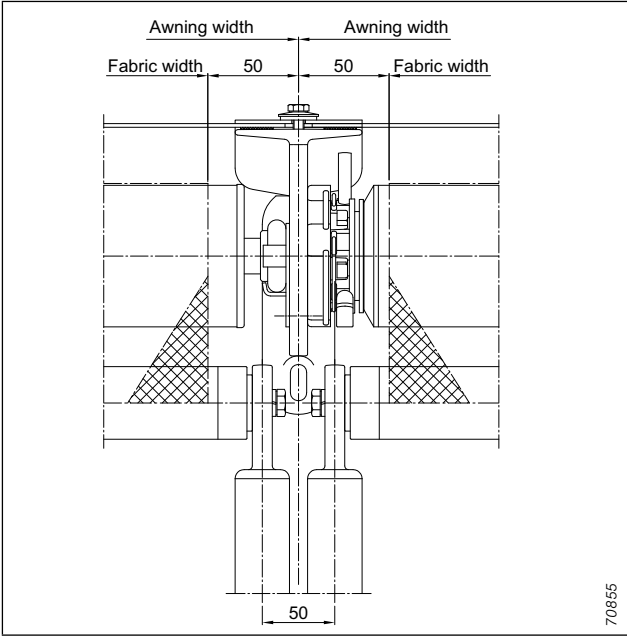


fig. 212: Separate drives of the centre bracket

Details

Drop arm awning 340

Additional possible drives

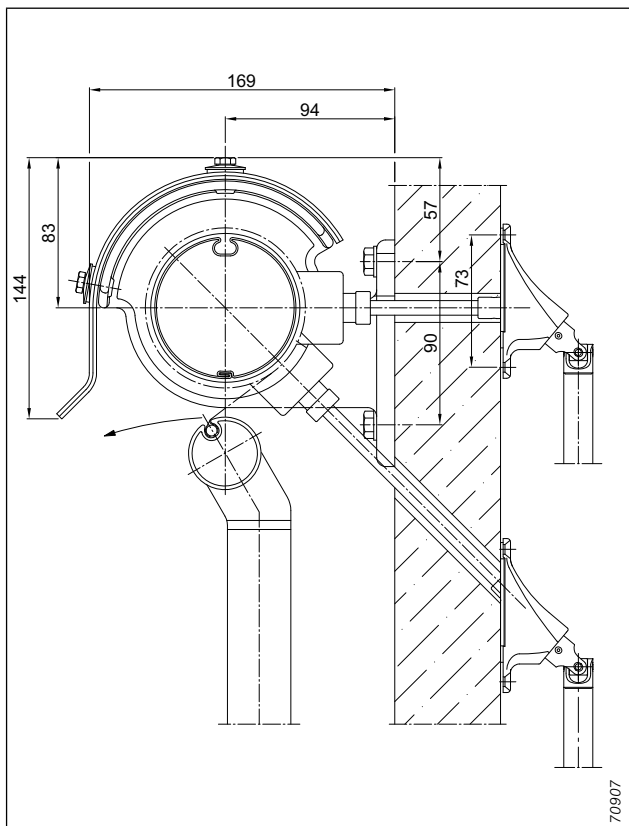


fig. 213: Wall mounting with half round cover panel and crank feed-through to the inside

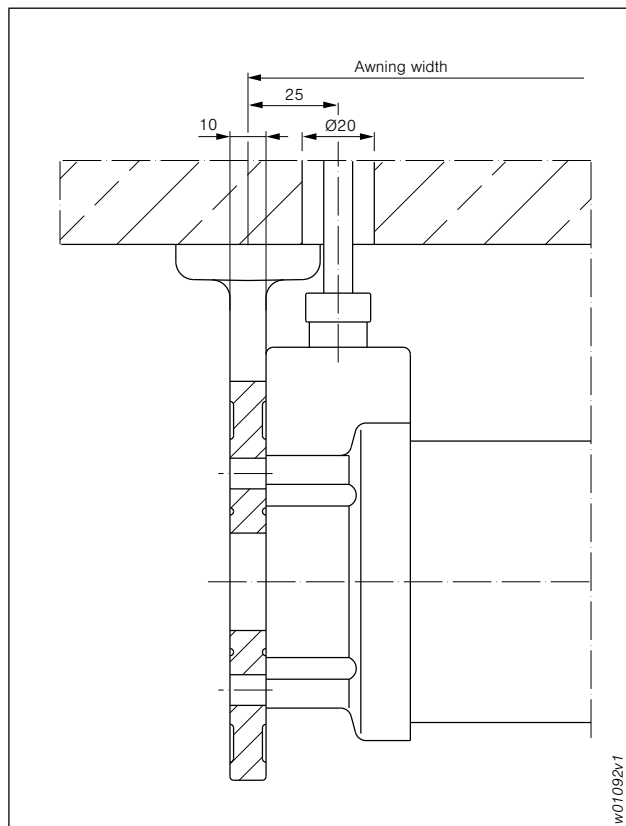


fig. 214: Crank through-hole

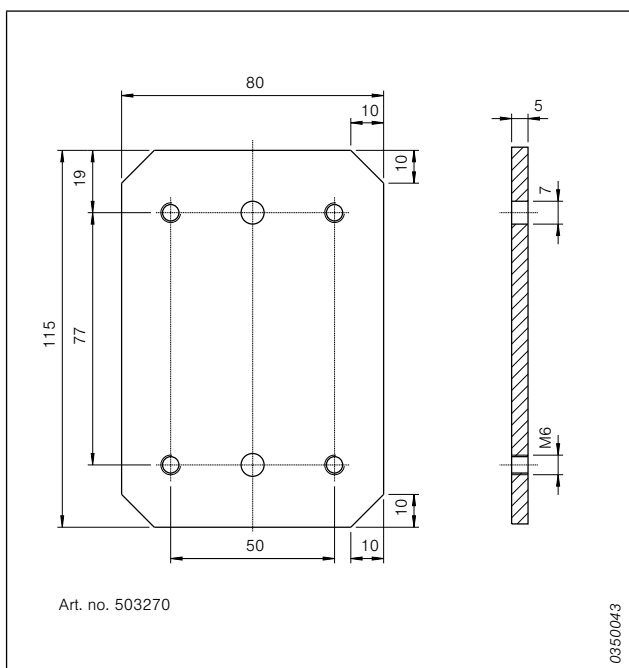


fig. 215: Double arm plate (can also be used for type 355 and 330)

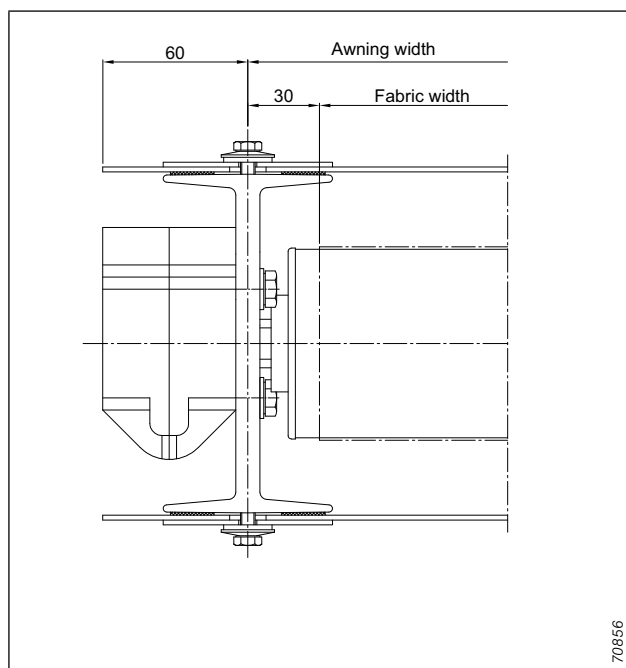


fig. 216: Crank operation, external

Details
Drop arm awning 340
Possible drives

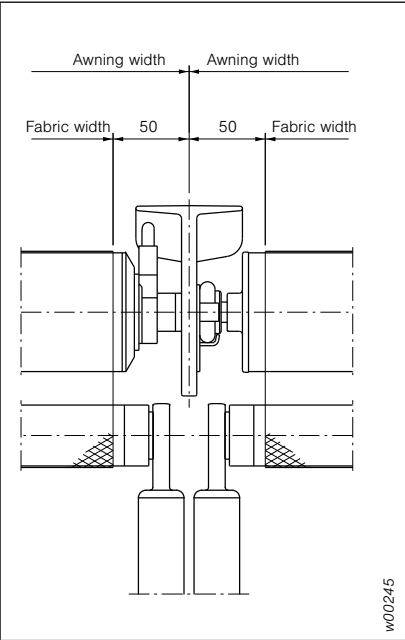


fig. 217: Motor – end bearing

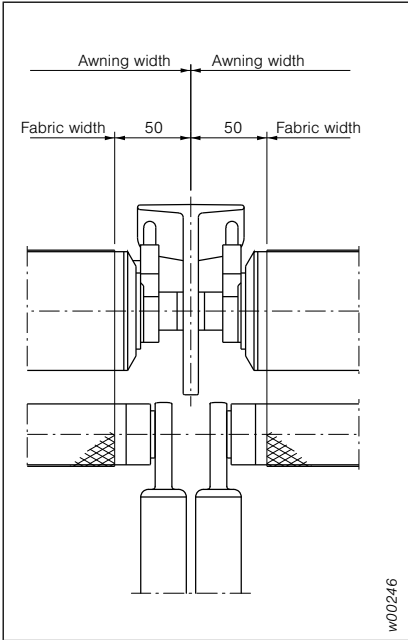


fig. 218: Motor – motor

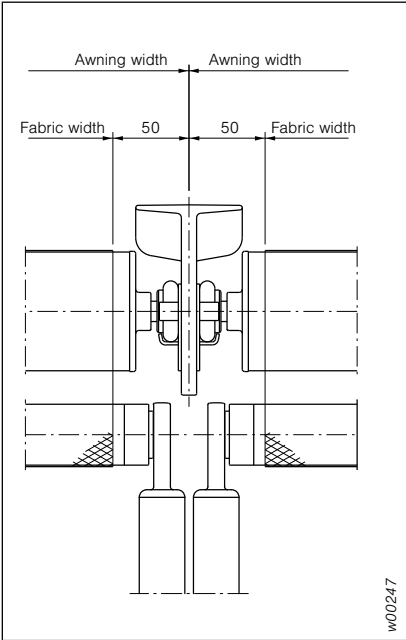


fig. 219: End bearing – end bearing

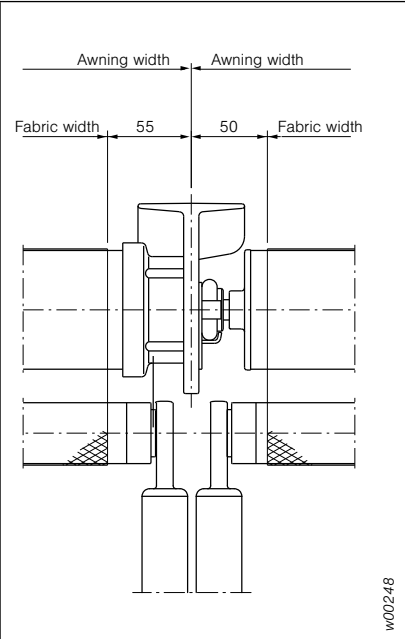


fig. 220: Gear – end bearing

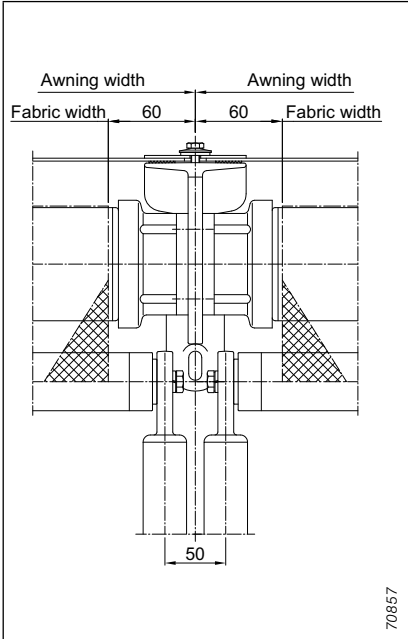


fig. 221: Gear – gear

Details

Drop arm awning 340

Cover panel

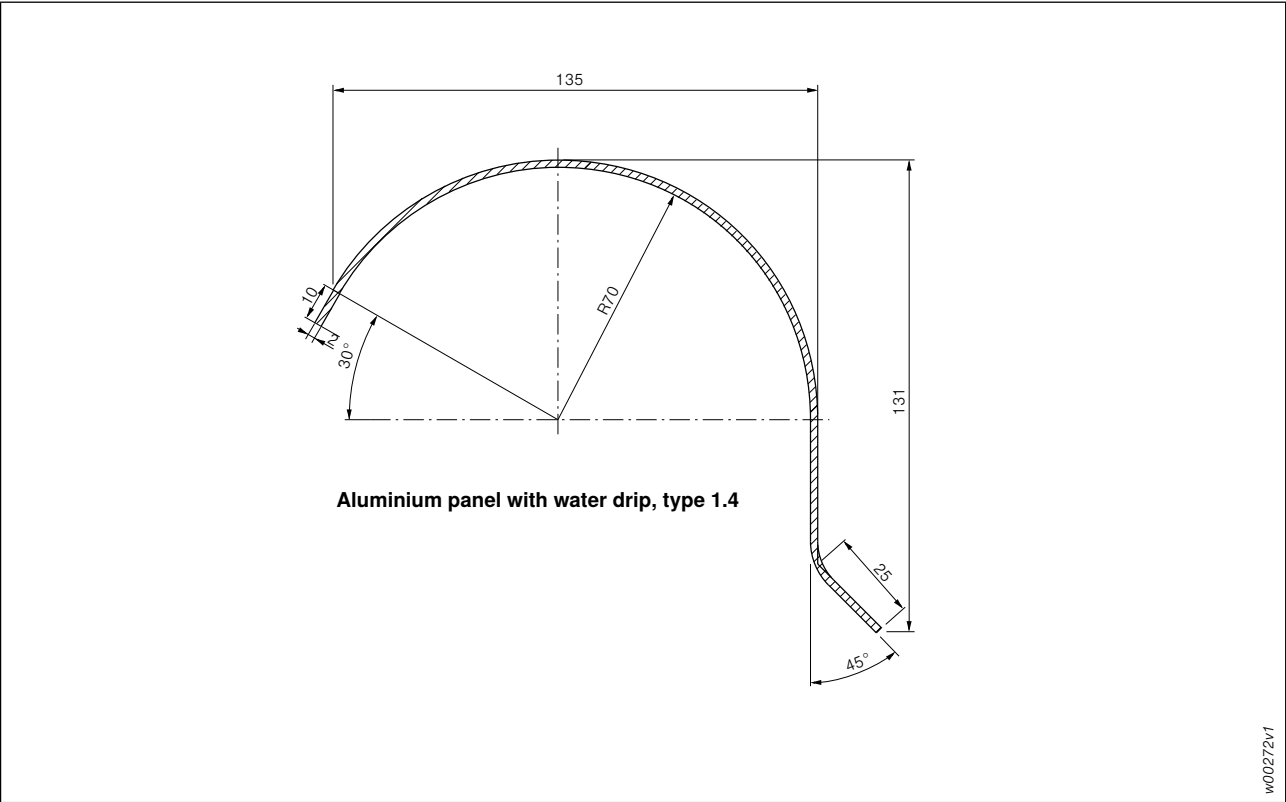


fig. 222: Aluminium cover panel

Description

Drop arm awning 330

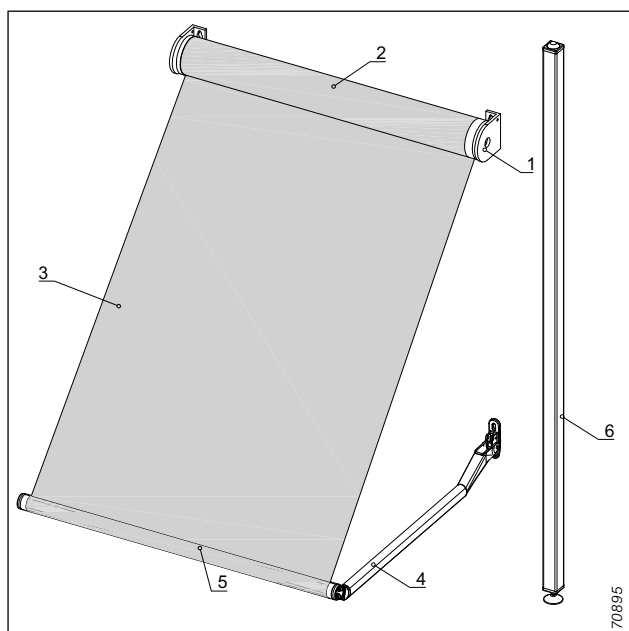


fig. 223: Drop arm awning 330

- 1 Fabric shaft console
- 2 Fabric shaft
- 3 Fabric
- 4 Drop arm
- 5 Drop profile
- 6 Clamping posts

Application

Functional external textile sun shading system with projection effect without cover panel for shading vertical punched windows, element windows and for mounting in the reveals. Also suitable for building ducts.

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank, from outside

Bevel gear with detachable crank rod, outside operation

Material: steel, galvanised

Surface: plain

Ratio: 3:1

Self-locking with end stop to prevent incorrect winding.

Fabric shaft console (1)

Material: aluminium, chill cast

Dimensions (WxHxD): 38x100x110 mm

Surface: powder-coated

The distance between fabric shaft (centre) and wall is 65 mm.

Maintenance-free bearing for the fabric shaft in ball bearings WAF 17 W.

Fabric shaft (2)

Material: aluminium, extruded

Material thickness: 1 mm

Dimensions (Ø): 78 mm

Profile: groove tube

Surface: plain

With piping groove for fixing the fabric.

With fabric shaft core made of plastic and galvanised steel hexagon.

For coupled drop arm awnings, couplings are made of corrosion-proof hexagonal steel WAF 17 ball bearings.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric

Valance made from acrylic fabric (height 180 mm, matching edging, not individually detachable) available subject to surcharge. If a valance is ordered and no shape is stated, we will supply valance shape no. 11.

More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Drop arm (4)

Material: aluminium, extruded

Dimensions (WxD): 35x30 mm

Profile: tube, oval

Surface: powder-coated

Fixing: arm brackets (chill cast aluminium)

Projection angle: circular, 90° - 135°

Projection length: 800, 1000, 1200, 1400, 1600 mm, special arm lengths possible

Includes axial gas pressure spring for optimum fabric tension in any projection phase.

Description

Drop arm awning 330

Drop profile (5)

Valance optional

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (Ø): 40 mm

Profile: round profile

Surface: powder-coated

The fabric is fixed along the entire width using the bead.

Clamping posts (optional) (6)

Material: steel, galvanised

Material thickness: 2 mm

Dimensions (WxH): 40x40 mm

Surface: powder-coated

Connecting and fixing components

Within the drop arm awnings

Material: A2 steel or aluminium

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours or anodisation are available subject to surcharge.

For anodised drop arm awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

Dimensions in mm	Type of fabric	Individual units		Mechanically coupled curtains with motor (max. 3 fields)
		Crank	Motor	
Min. width		500	650	500
Min. projection		500	500	500
Max. width (also for reveal installation)	Acrylic – all qualities	4000	4000	12000
	Screen fabric	2500	2500	7500
	Soltis 92 fabric	4000	4000	12000
Max. projection up to 135°		1600	1600	1600
Max. height of clamping posts		3000	3000	–

Measuring instructions

Drop arm awning 330

Individual unit

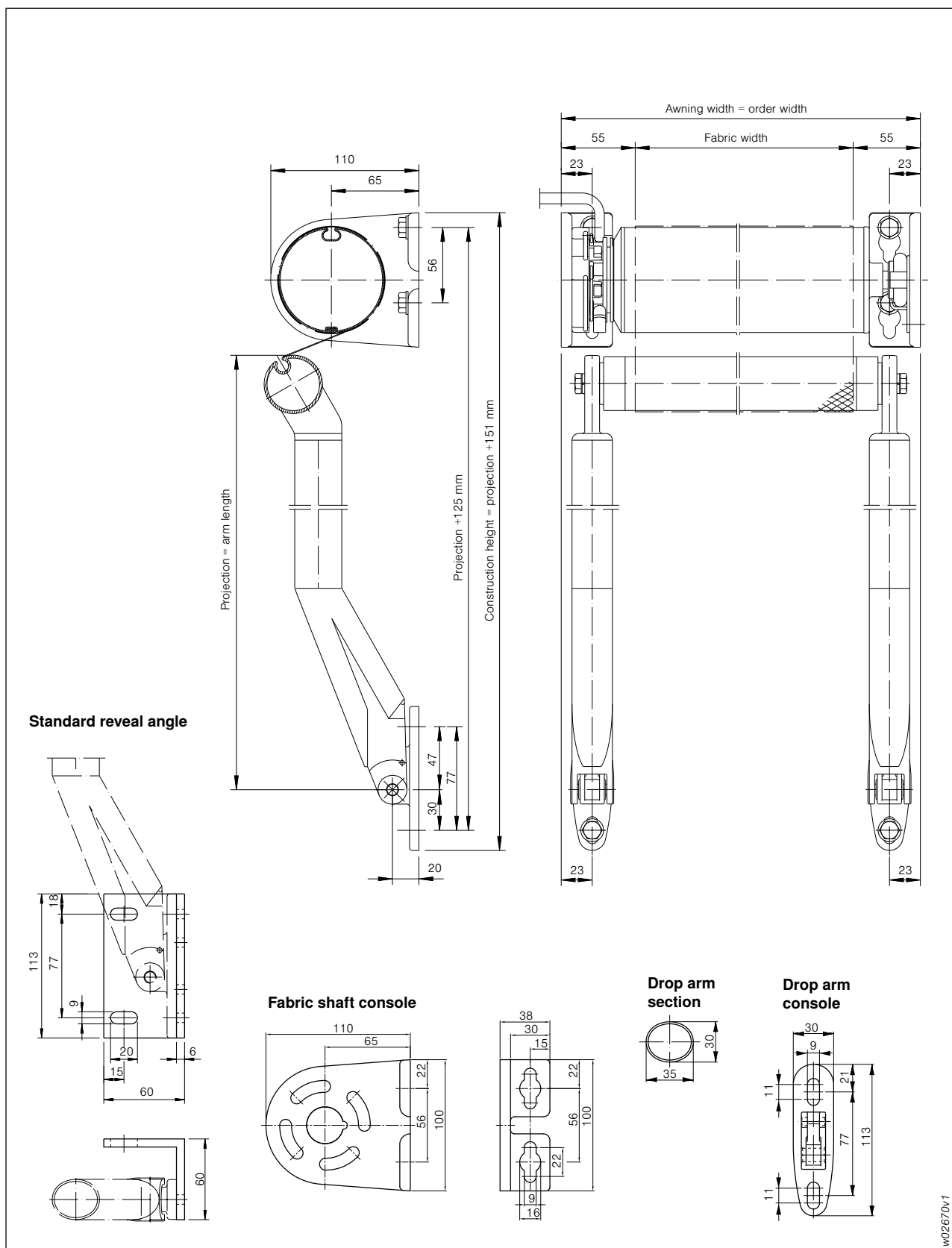


fig. 224: Measuring instructions for drop arm awning 330 (individual unit) – wall mounting

Details

Drop arm awning 330

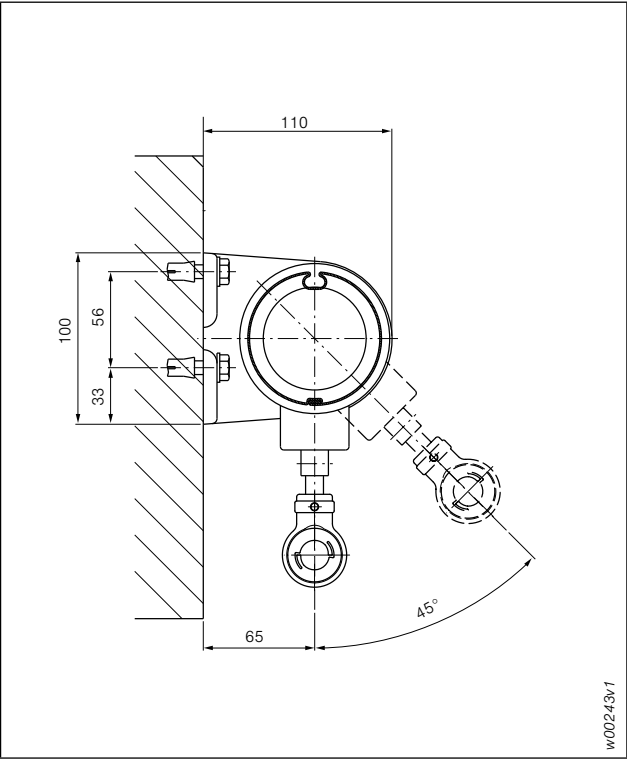


fig. 225: Wall installation with external crank drive

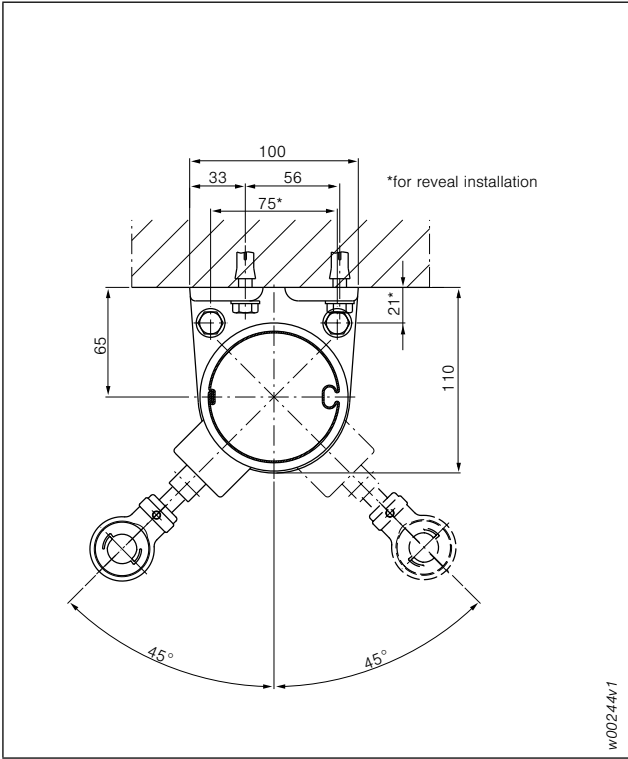


fig. 226: Ceiling and reveal installation with external crank drive

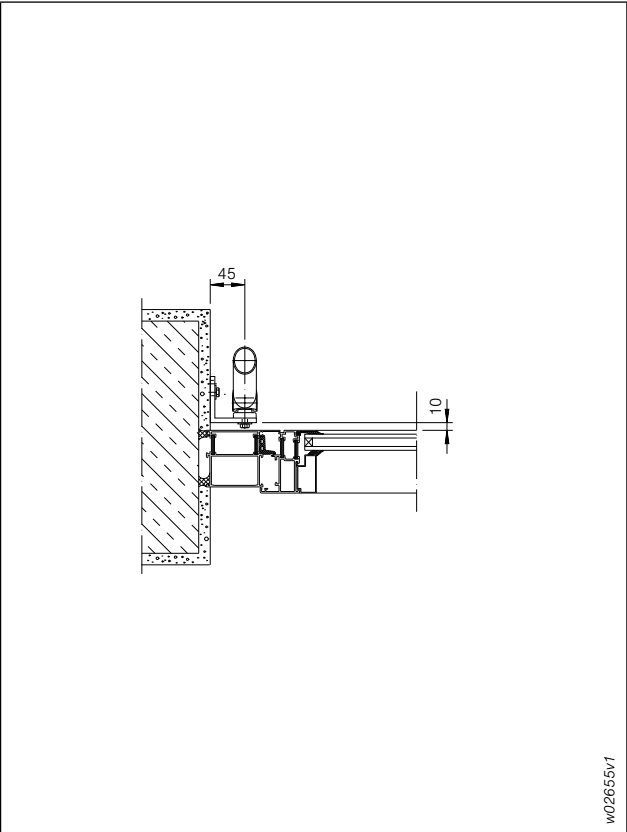


fig. 227: Ceiling and reveal installation

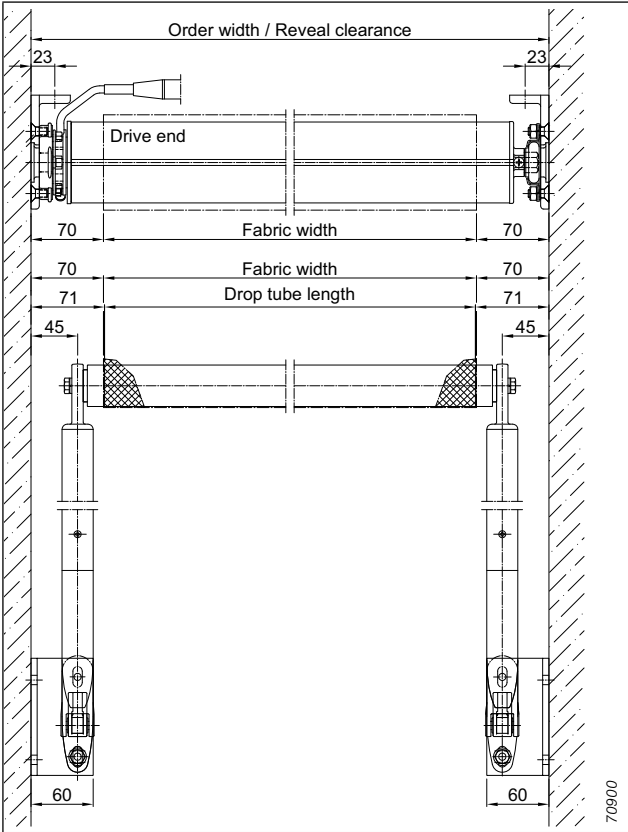


fig. 228: Dimensions

Details

Drop arm awning 330

Coupled units

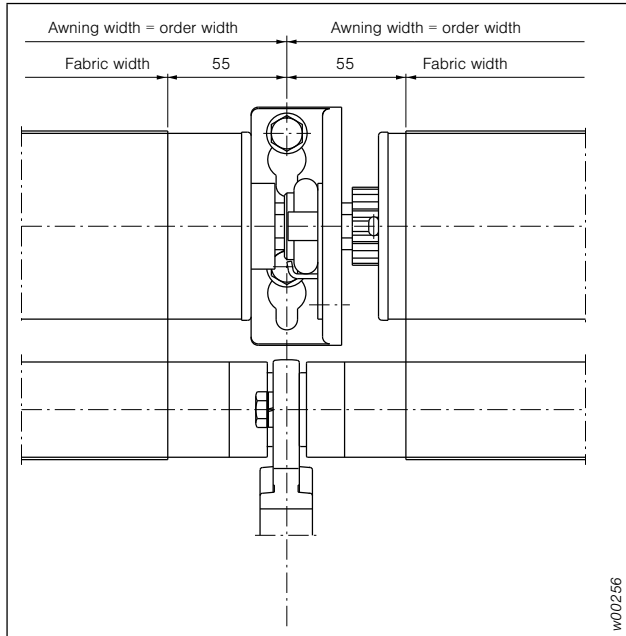


fig. 229: Measuring instructions

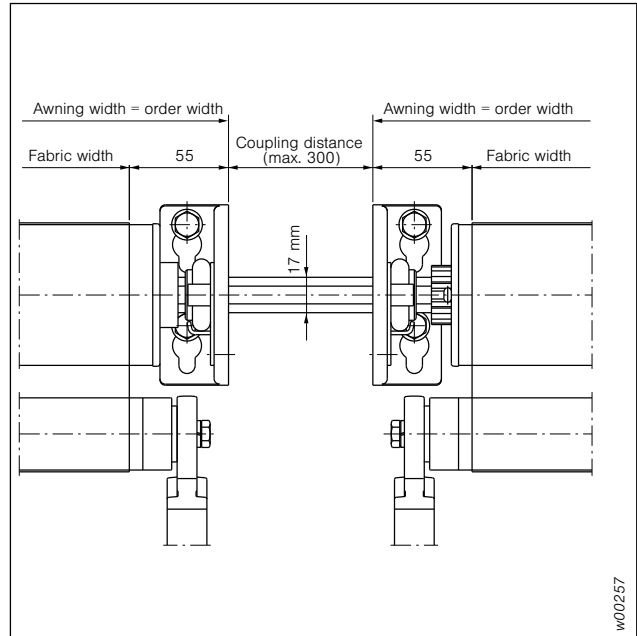


fig. 230: Coupling distance

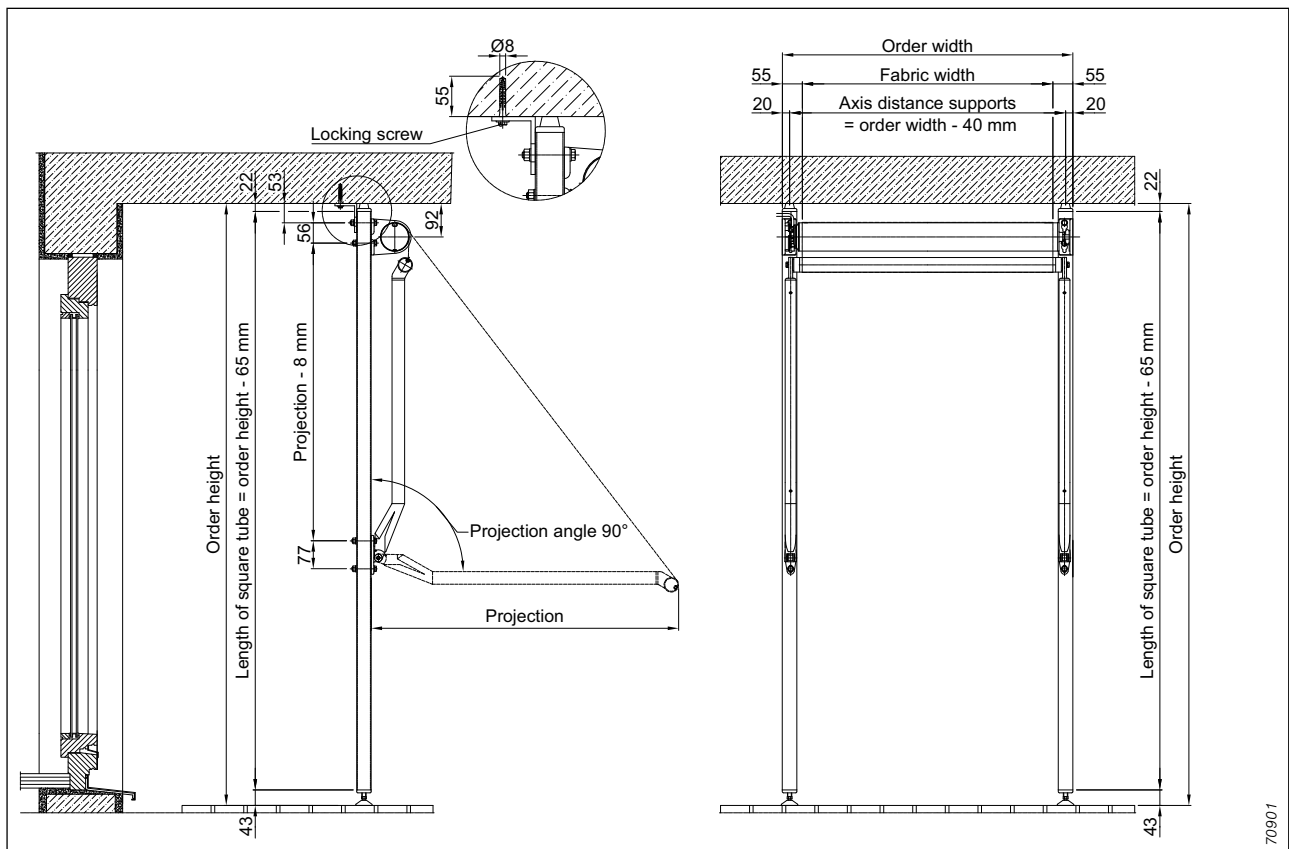


fig. 231: Mounting with clamping post

Attention!

After clamping the support it has to be screw-fixed to the ceiling with locking screws.

Application example Drop arm awning 330

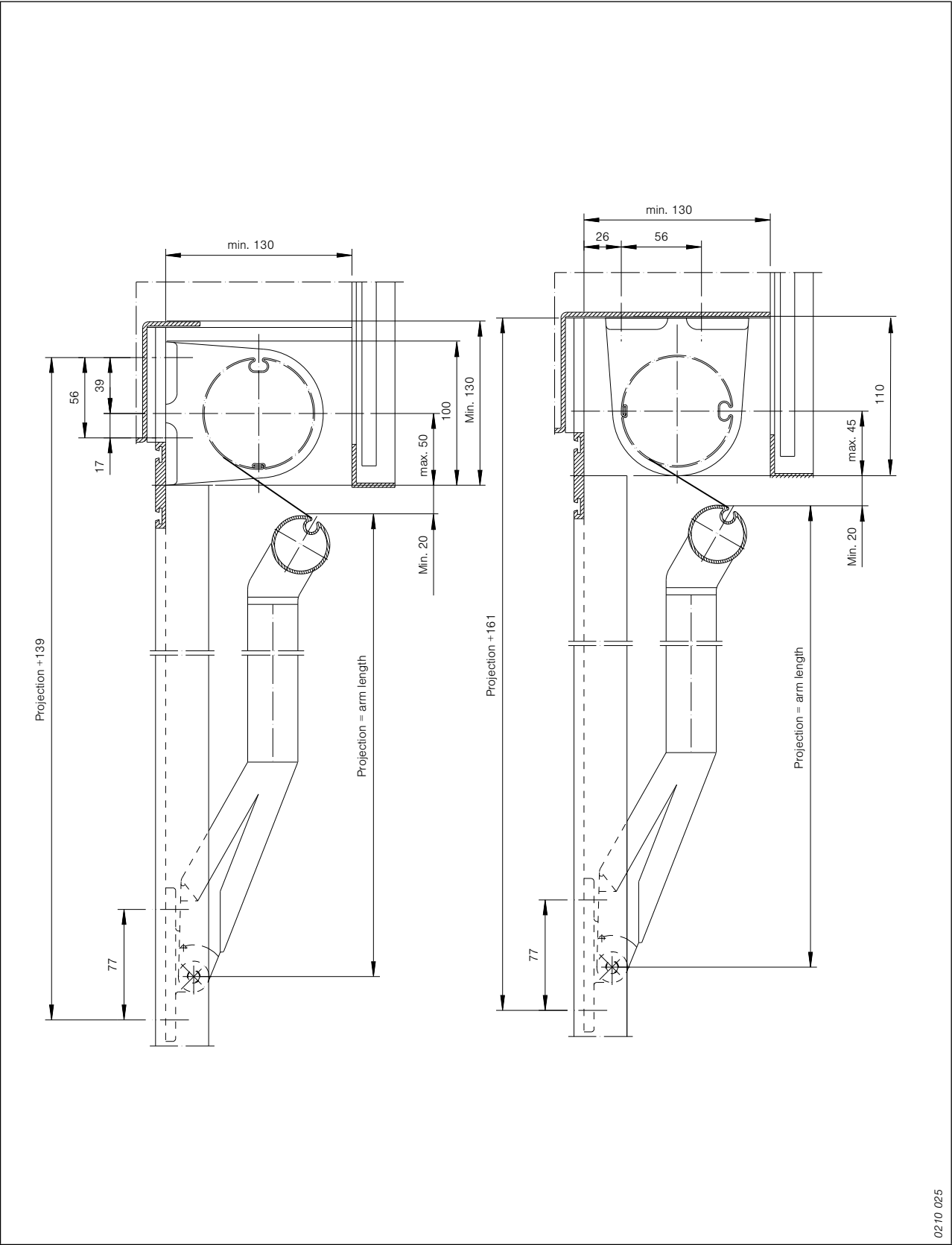


fig. 232: Measuring instructions for drop arm awning 330 – mounting in building duct

Determining projection/fabric lengths
Drop arm awnings

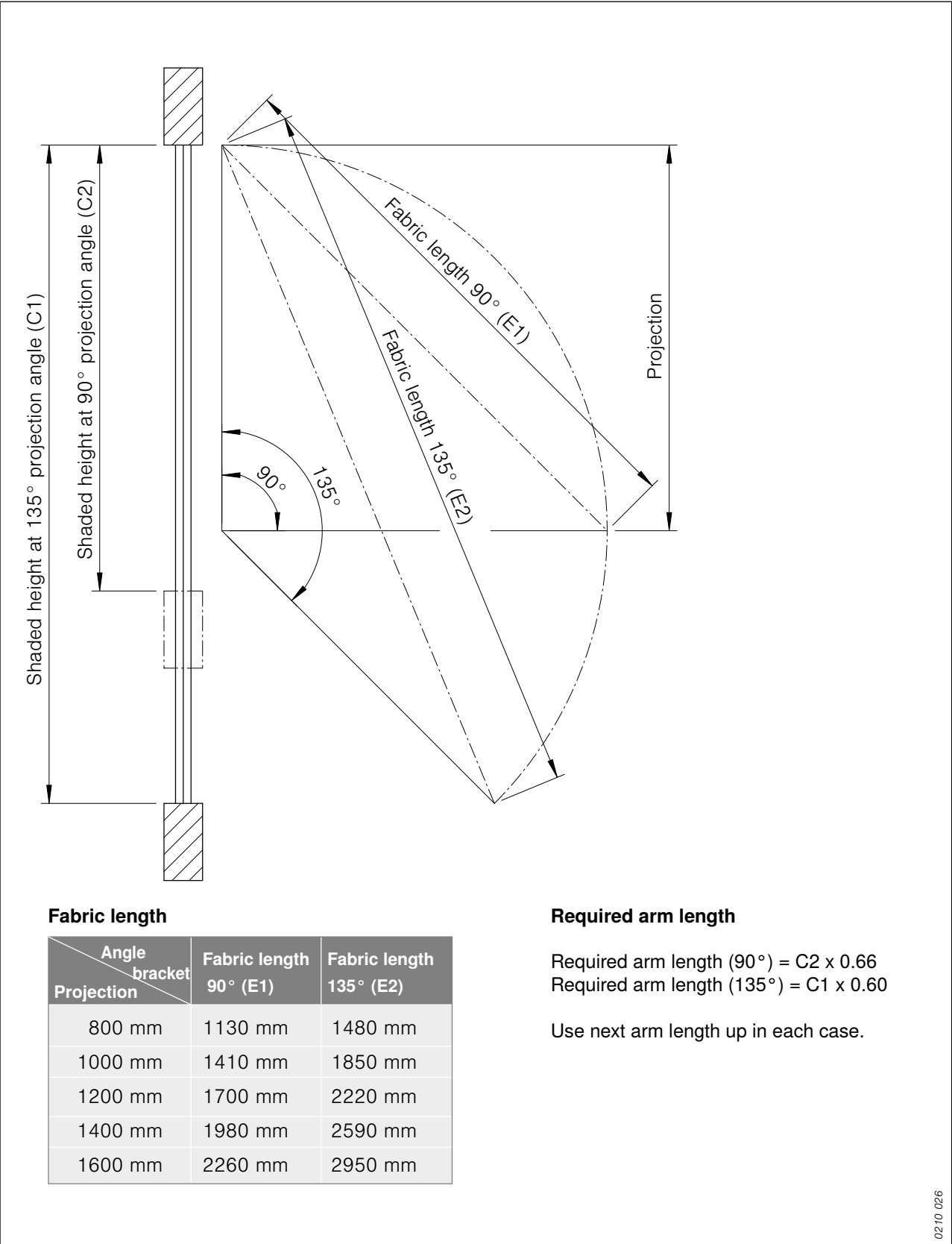


fig. 233: Determining projection/fabric length

Contents

Facade awnings

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Facade awning 207	194
Facade awning 209	205

Overview

Window awnings with
ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

Fixing systems

Fabrics

Drives/control systems

Solflex AB försäljning och service västra Skåne. Showroom och rådgivning;
Malmö Slussplan 1, 040-979745. Helsingborg Garnisonsg 12, 042-161635.
kontakter@solflex.se www.solflex.se

Equipment

Facade awnings

	Facade awnings		
	201	207	209
Drive and operation			
– Motor	●	●	●
– EWFS and/or WMS radio motor	○	○	○
– Plug-in connector, loose	–	–	–
– Plug-in connector, wired	●	●	●
– Control systems	○	○	○
– Crank	○	○	○
Mechanically coupled curtains			
– Motor 2 curtains	○	○	○
– Motor 3 curtains	○	○	○
– Crank 2 curtains	○	○	○
– Crank 3 curtains	–	–	–
Lateral guides			
– Round profile Ø 40 mm	●	–	–
– Round profile Ø 35 mm	–	–	●
– C-profile 38x40 mm (with groove)	●	–	●
– Round profile Ø 15 mm	–	●	–
– Round profile Ø 8 mm	–	○	○
– Tension cable	–	○	○
Mounting situation			
– with spacing (flexible distance to the facade)	●	●	●
– without spacing (direct installation)	–	–	–
Surface treatment of aluminium parts			
– powder-coated according to	WAREMA Colour World		
– Special coating	○	○	○
– C0 anodised	○	○	○
– anodised in colour	○	○	○
Fabric			
– Standard/Lumera acrylic fabric	●	●	●
– Acrylic All Weather, Perfora	○	○	○
– Screen fabric	○	○	○
– Soltis 92 fabric	○	○	○

- standard
- optional
- not available

Description

Facade awnings 201-204

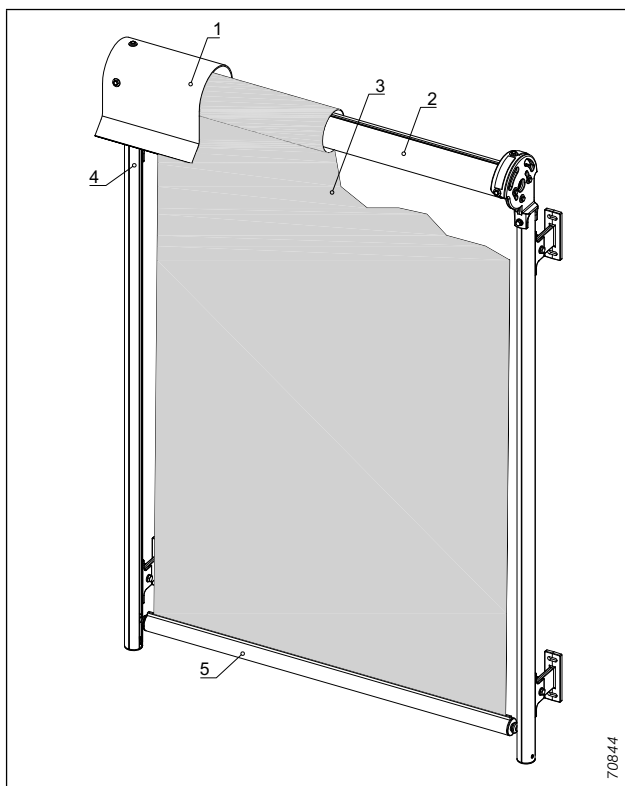


fig. 234: Facade awning 201

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Drop profile

Application

Textile external sun shading system for large vertical and sloping facade areas, e.g. mullion/transom facades.

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank

Material: aluminium
Surface: C0 anodised
Ratio: 3:1 or 7.8:1 (for larger and coupled facade awnings)

Crank holder: plastic (grey, white or brown), crank holder with magnet optional

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panels (1)

Half round cover panels, extruded

Material: aluminium, extruded
Material thickness: 2.5 mm
Dimensions (HxD): 191x181 mm, incl. water drip (type 2.3)

Dimensions (r): inside 71 mm

Max. individual length: 4000 mm

Surface: powder-coated, optionally anodised

The front leg is bent outwards by 48 mm at an angle of 45° to provide weather protection.

Round cover panels, extruded aluminium two-piece

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (HxD): 146x146 mm (type 8.3)

Dimensions (r): inside 70.5 mm

Max. individual length: 4000 mm

Surface: powder-coated, optionally anodised

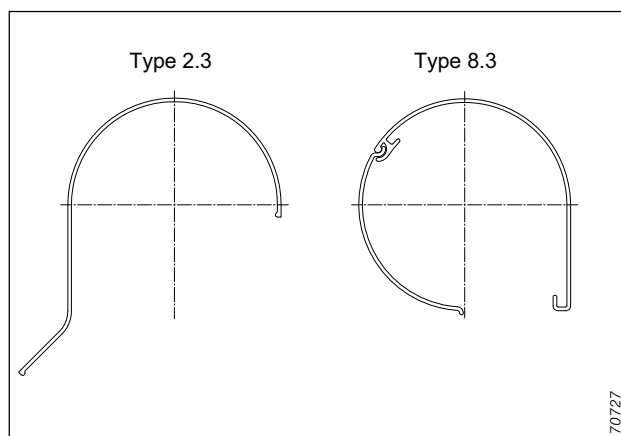


fig. 235: Cover panels

Fabric shaft (2)

Material: steel, galvanised

Material thickness: 1 mm

Dimensions (Ø): 78 mm

Profile: groove tube

Surface: plain

Fixing: can be clamped to the rail using fabric shaft consoles

With piping groove for attaching the fabric

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric
More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Description

Facade awnings 201-204

Lateral guidance (4)

Rail

Round profile

Material: aluminium, extruded
 Dimensions (Ø): 40 mm
 Profile: round profile with mounting groove
 Surface: powder-coated, optionally anodised
 Fixing: guide rail bracket, two-piece, aluminium
 End cap: plastic, black

C profile

Material: aluminium, extruded
 Material thickness: 2 mm
 Dimensions (WxH): 20/38x40 mm
 Profile: C profile with mounting groove
 Surface: powder-coated, optionally anodised
 Fixing: guide rail bracket, two-piece, aluminium
 End cap: plastic, black

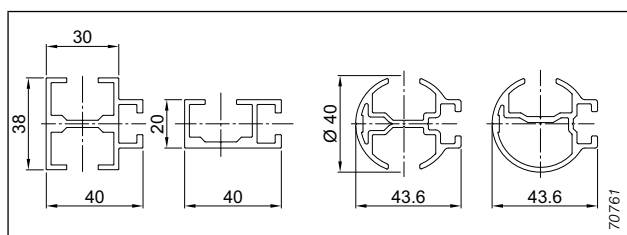


fig. 236: Guide profiles

Drop profile (5)

Material: aluminium, extruded
 Material thickness: 2 mm
 Dimensions (Ø): 40 mm
 Profile: round profile, mounting groove optional
 Surface: powder-coated, optionally anodised
 Available as models "visible" (standard) or "concealed in fabric" (optional).
 To provide optimum fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

Wind load bearer

Material: aluminium
 Material thickness: 2 mm
 Dimensions (Ø): 40 mm
 Profile: round tube
 Surface: powder-coated, optionally anodised
 Located in front of and behind the rails to stabilise the fabric in windy conditions.
 Used for vertical units from 3200 mm length and from 2000 mm length for inclined units.

Connecting and fixing components

Within the facade awnings.

Material: A2 steel or aluminium

Weights

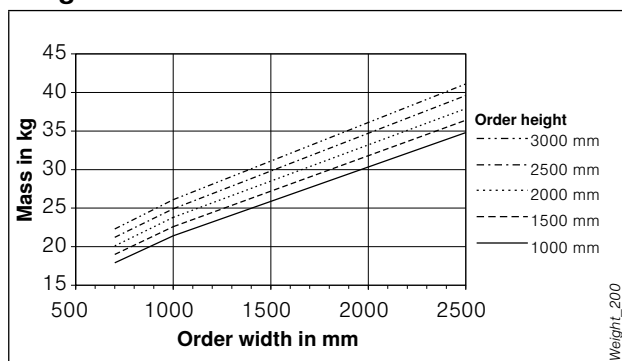


fig. 237: Weight type 200

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours or anodisation are available subject to surcharge.

For anodised facade awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

General note

For mullion/transom facades, facade awnings with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the bore-holes can often be difficult.

Construction limit values

Facade awnings 201-204

Notes:

Soltis 92 fabrics are bonded cross-wise for order widths starting at 1800 mm.

Screen fabrics can be used crosswise up to a curtain length of 1900 mm. The maximum order width is then 3000 mm.

The following applies to both fabrics: all units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.

Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

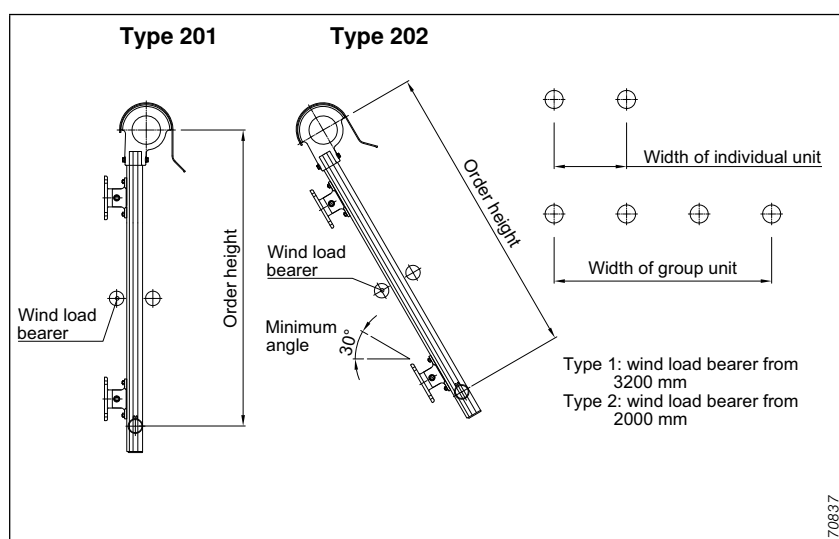


fig. 238: Measuring instructions for facade awnings 201 and 202

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit				Mechanically coupled curtains			
		Crank		Motor		max. 2 Crank		max. 3 Motor	
	Type E	201	202	201	202	201	202	201	202
Min. width (mm)	Acrylic – all qualities –	500	500	625	625	500	500	690 ¹⁾	690 ¹⁾
	Screen fabric	500	500	625	625	500	500	690 ¹⁾	690 ¹⁾
	Soltis 92 fabric	500	500	625	625	500	500	690 ¹⁾	690 ¹⁾
Max. width (mm)	Acrylic – all qualities –	4000	3000	4000	3000	6000	6000	12000	9000
	Screen fabric	2500	2500	2500	2500	6000	6000	7500	7500
	Soltis 92 fabric	3000	3000	3000	3000	6000	6000	9000	9000
Max. vertical height (mm)	Acrylic – all qualities –	3500	–	5000	–	3500	–	5000	–
	Screen fabric	3000	–	3000	–	3000	–	3000	–
	Soltis 92 fabric	3000	–	4000	–	3000	–	4000	–
Max. height at min. 30° (mm)	Acrylic – all qualities –	–	3000	–	3000	–	3000	–	3000
	Screen fabric	–	2400	–	2400	–	2400	–	2400
	Soltis 92 fabric	–	3000	–	3000	–	3000	–	3000
Max. height at min. 45° (mm)	Acrylic – all qualities –	–	3500	–	3500	–	3500	–	3500
	Screen fabric	–	3000	–	3000	–	3000	–	3000
	Soltis 92 fabric	–	3000	–	3000	–	3000	–	3000
Max. surface ²⁾ (m ²)	Acrylic – all qualities –	10.0	7.5	12.0	9.0	20.0	15.0	35.0	22.5
	Screen fabric	7.5	6.0	7.5	6.0	15.0	12.0	22.5	18.0
	Soltis 92 fabric	9.0	9.0	12.0	9.0	18.0	15.0	27.0	22.5

¹⁾ For curtain with motor drive

²⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

Construction limit values

Facade awning 203 and 204

Notes:

Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.

Screen fabrics can be used crosswise up to a curtain length of 1900 mm. The maximum order width is then 3000 mm.

The following applies to both fabrics:
All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.

Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

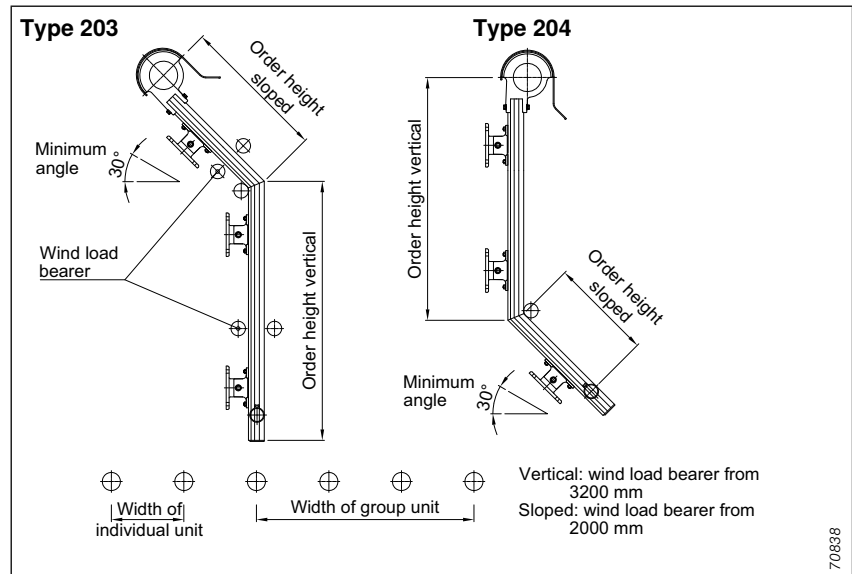


fig. 239: Measuring instructions for facade awnings 203 and 204

Construction limit values

Facade awnings 203 and 204

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading

control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit				Mechanically coupled curtains			
		Crank		Motor		max. 2 Crank		max. 3 Motor	
	Type E	203	204	203	204	203	204	203	204
Min. width (mm)	Acrylic – all qualities –	500	500	625	625	500	500	690 ¹⁾	690 ¹⁾
	Screen fabric	500	500	625	625	500	500	690 ¹⁾	690 ¹⁾
	Soltis 92 fabric	500	500	625	625	500	500	690 ¹⁾	690 ¹⁾
Max. width (mm)	Acrylic – all qualities –	3000	3000	3000	3000	6000	6000	9000	9000
	Screen fabric	2500	2500	2500	2500	6000	6000	7500	7500
	Soltis 92 fabric	3000	3000	3000	3000	6000	6000	9000	9000
Max. height sloped at min. 30° (mm)	Acrylic – all qualities –	3000	1500	3000	1500	3000	1500	3000	1500
	Screen fabric	2400	1500	2400	1500	2400	1500	2400	1500
	Soltis 92 fabric	3000	1500	3000	1500	3000	1500	3000	1500
Max. height sloped at min. 45° (mm)	Acrylic – all qualities –	3500	2000	3500	2000	3500	2000	3500	2000
	Screen fabric	3000	2000	3000	2000	3000	2000	3000	2000
	Soltis 92 fabric	3000	2000	3000	2000	3000	2000	3000	2000
Max. vertical height (mm)	Acrylic – all qualities –	3500	2500	3500	2500	3500	2500	3500	2500
	Screen fabric	3000	2500	3000	2500	3000	2500	3000	2500
	Soltis 92 fabric	3000	2500	3000	2500	3000	2500	3000	2500
Max. total height (mm)	Acrylic – all qualities –	3500	3500	5000	4000	3500	3500	5000	4000
	Screen fabric	3000	3000	4000	3000	3000	3000	4000	3000
	Soltis 92 fabric	3000	3000	5000	3500	3000	3000	5000	3500
Max. surface ²⁾ (m ²)	Acrylic – all qualities –	10.0	10.0	14.0	12.0	15.0	15.0	30.0	30.0
	Screen fabric	7.5	7.5	8.8	7.5	12.0	12.0	25.0	25.0
	Soltis 92 fabric	9.0	9.0	14.0	10.0	12.0	12.0	30.0	30.0

¹⁾ For curtain with motor drive

²⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

Guide rail brackets – distances Facade awnings 201 and 202

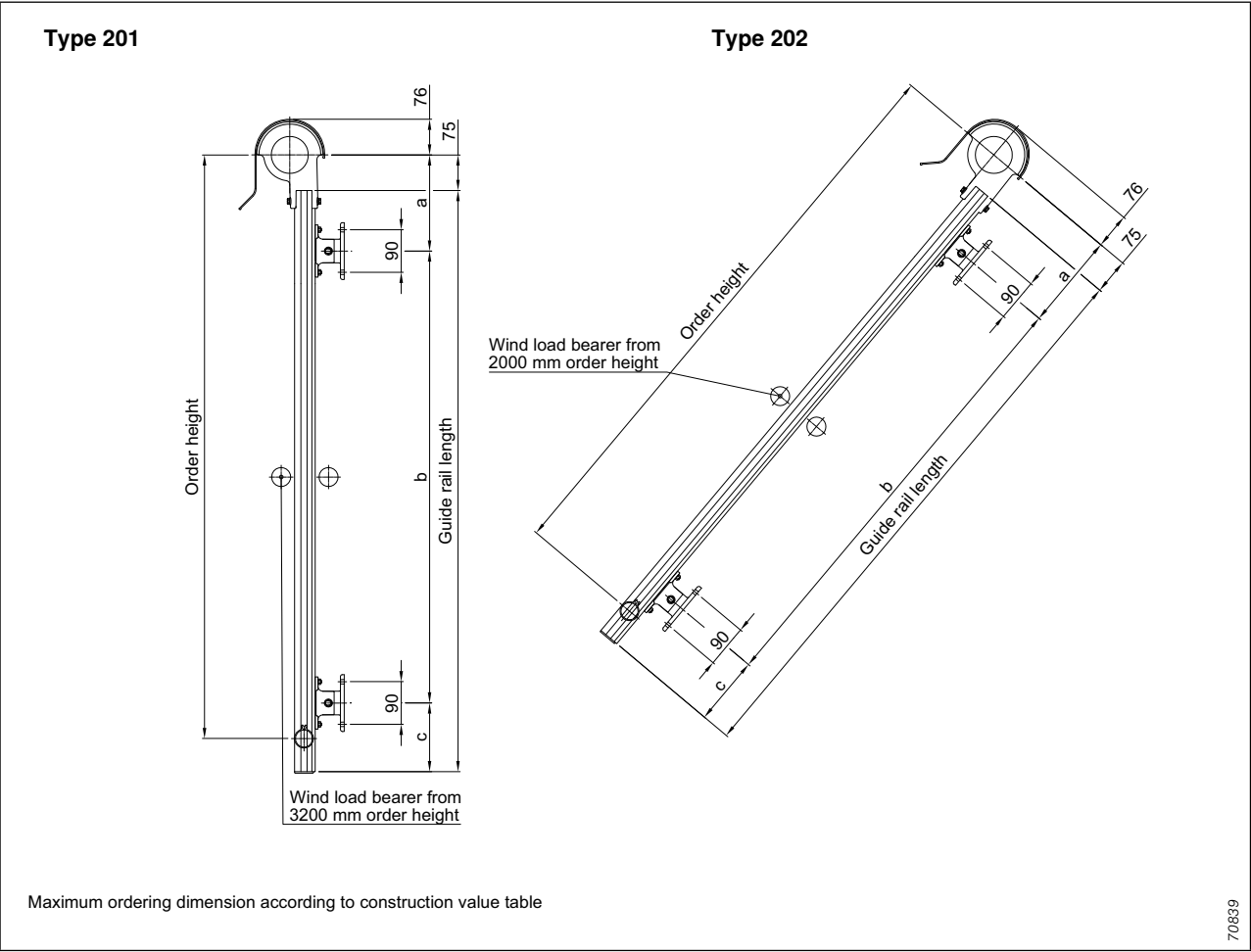


fig. 240: Guide rail brackets – distances types 201 and 202

Distances and number of brackets

Type	Rail type	Distances of brackets in mm					Number of brackets for rail lengths in mm		
		a		b	c		Number of brackets		
		min.	max.	max.	min.	max.	2 to	3 to	4 to
201/202	Ø 40	180	300	2300	70	500	2500	4800	6000
201	20x40	180	300	2000	70	300	2300	4300	6000
	38x40	180	300	2000	70	300	2300	4300	6000

Guide rail brackets – distances

Facade awning 203

Overview

Window awnings with
ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

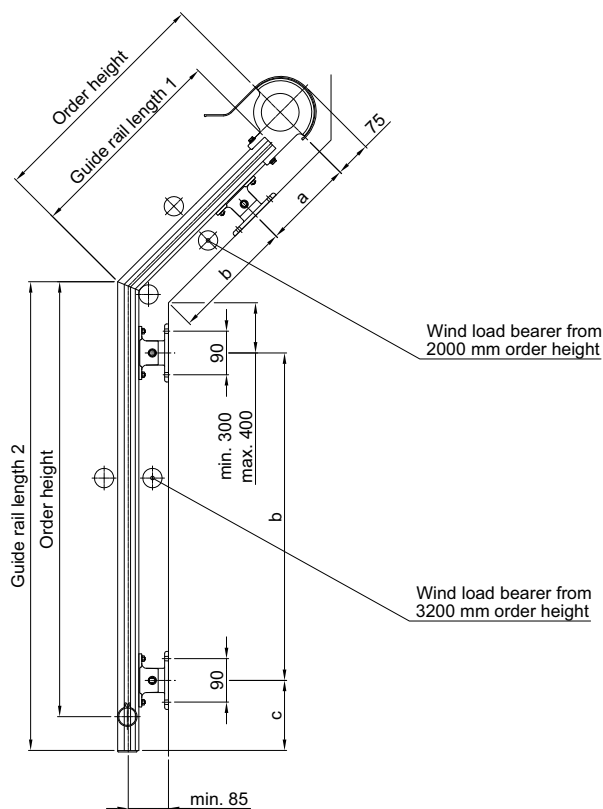
Markisolettes

Fixing systems

Fabrics

Drives/control systems

Type 203



Maximum ordering dimension according to construction value table

70840

fig. 241: Guide rail brackets – distances type 203

Distances and number of brackets

Rail length	Rail type	Distances of brackets in mm					Number of brackets for rail lengths in mm		
		a		b	c		Number of brackets		
		min.	max.	max.	min.	max.	2 to	3 to	4 to
1	Ø 40	180	300	2300	–	–	2400	4700	6000
2	Ø 40	180	300	2600	70	500	–	2600	4900

Guide rail brackets – distances Facade awning 204

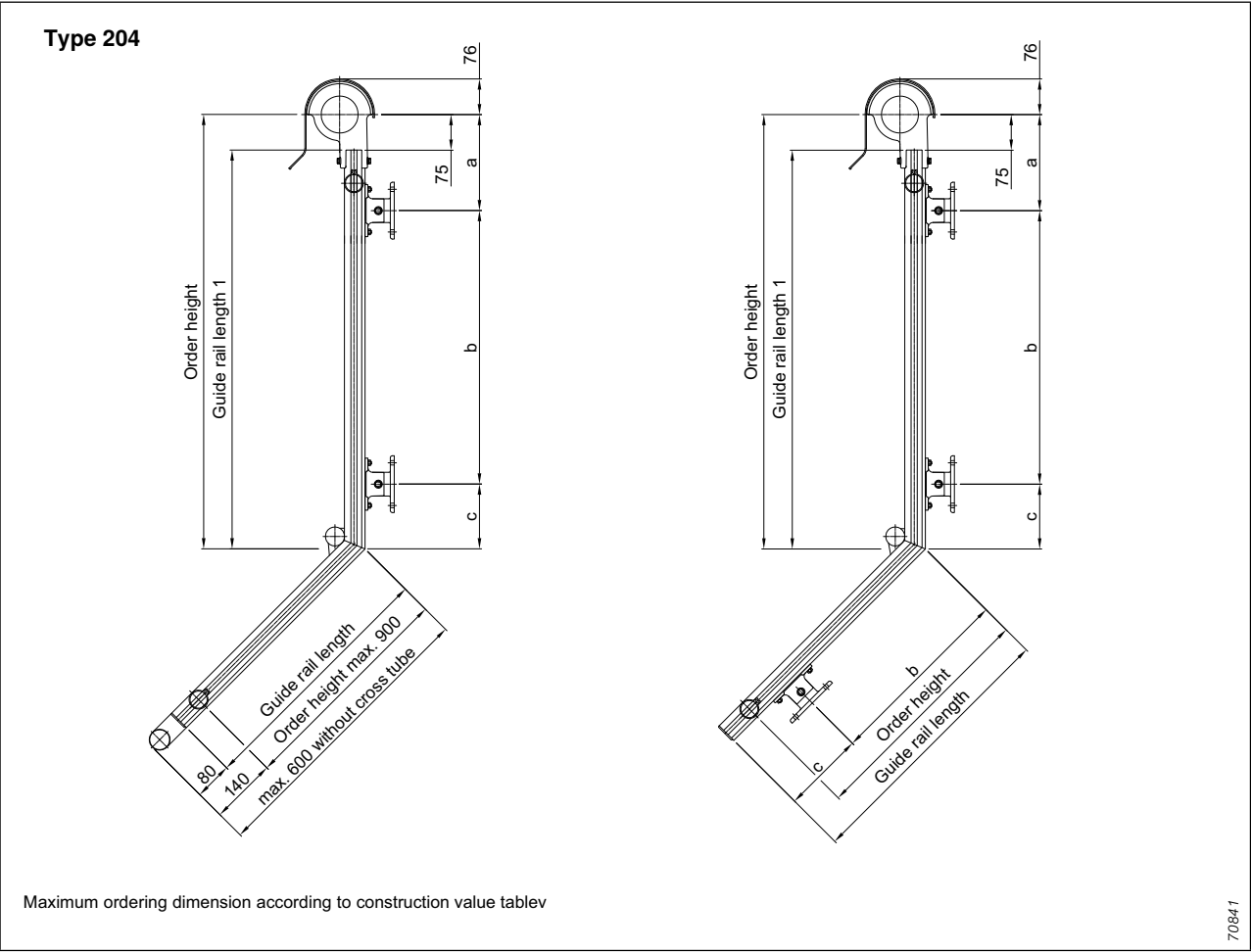


fig. 242: Guide rail brackets – distances type 204

Distances and number of brackets

Rail type	Distances of brackets in mm					Number of brackets for rail lengths in mm	
	a		b	c		No. of brackets only vert. Range	
	min.	max.	max.	min.	max.	2 to	3 to
Ø 40	180	300	2300	80	150	2500	4800

Application example

Facade awning 201

with half round cover panel type 2.3

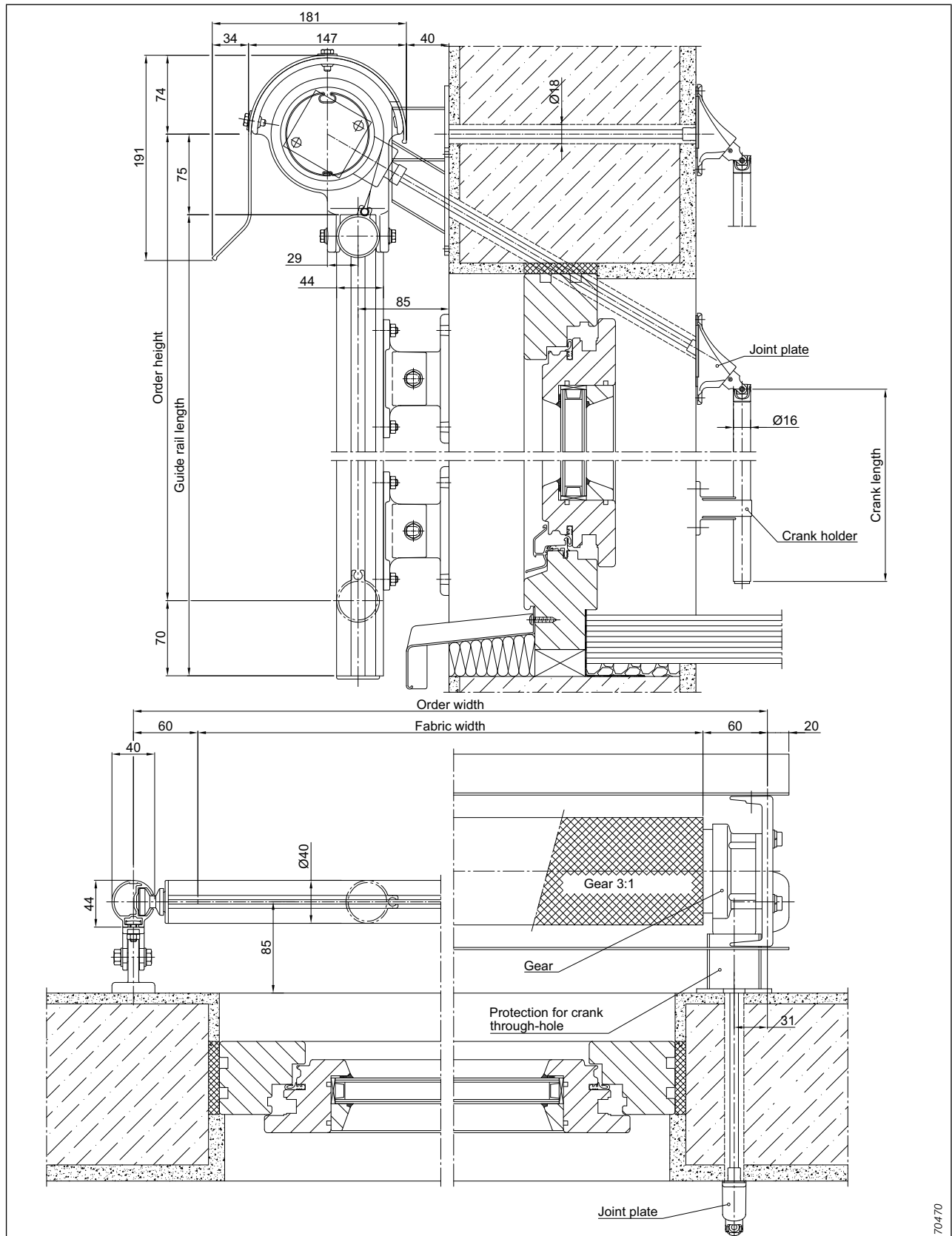
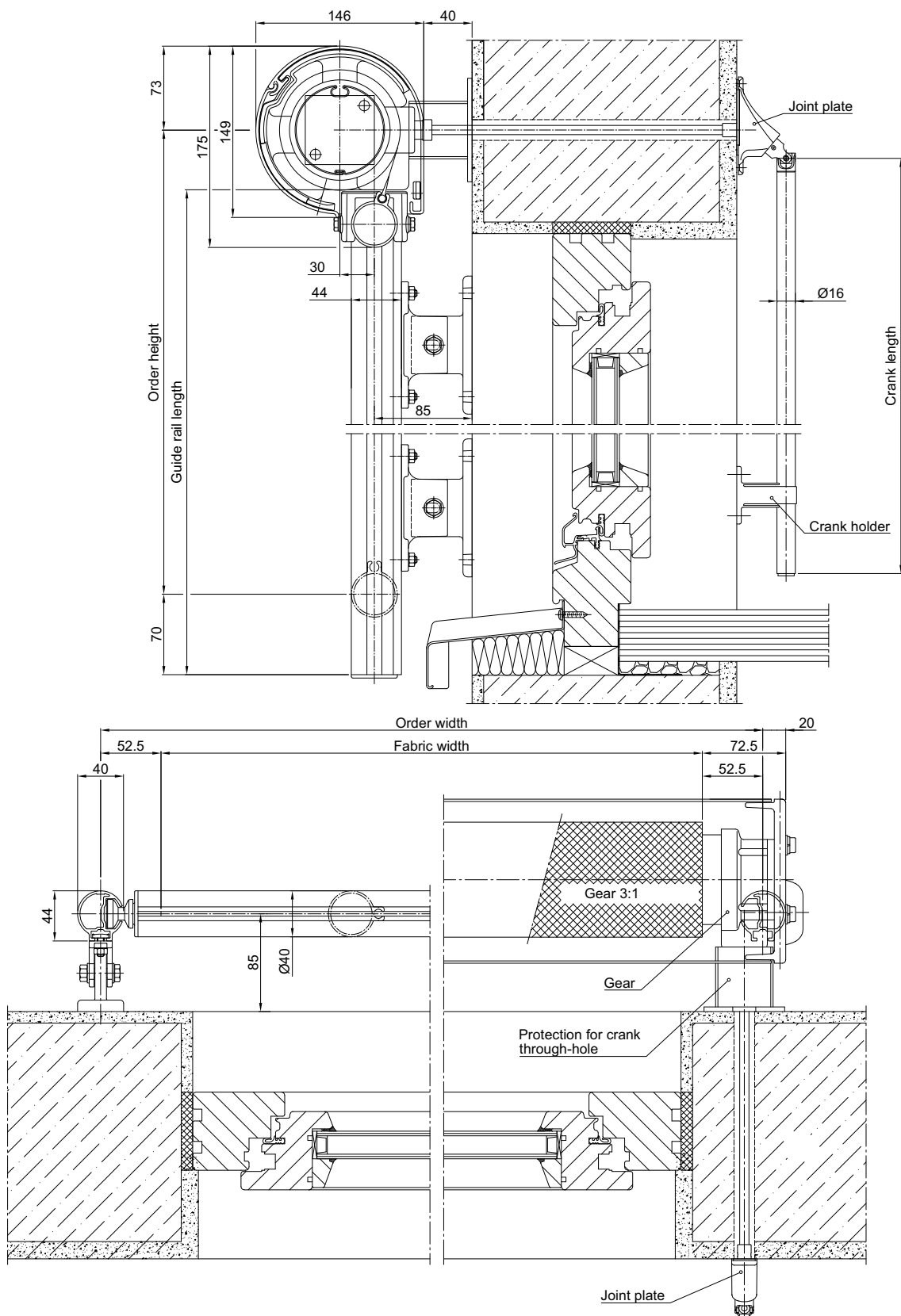


fig. 243: Facade awning 201 with half round cover panel type 2.3; crank drive

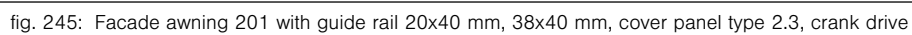
Application example
Facade awning 201
with round cover panel type 8.3



70471

fig. 244: Facade awning 201 with round cover panel type 8.3, crank drive

Cover panel type 2.3

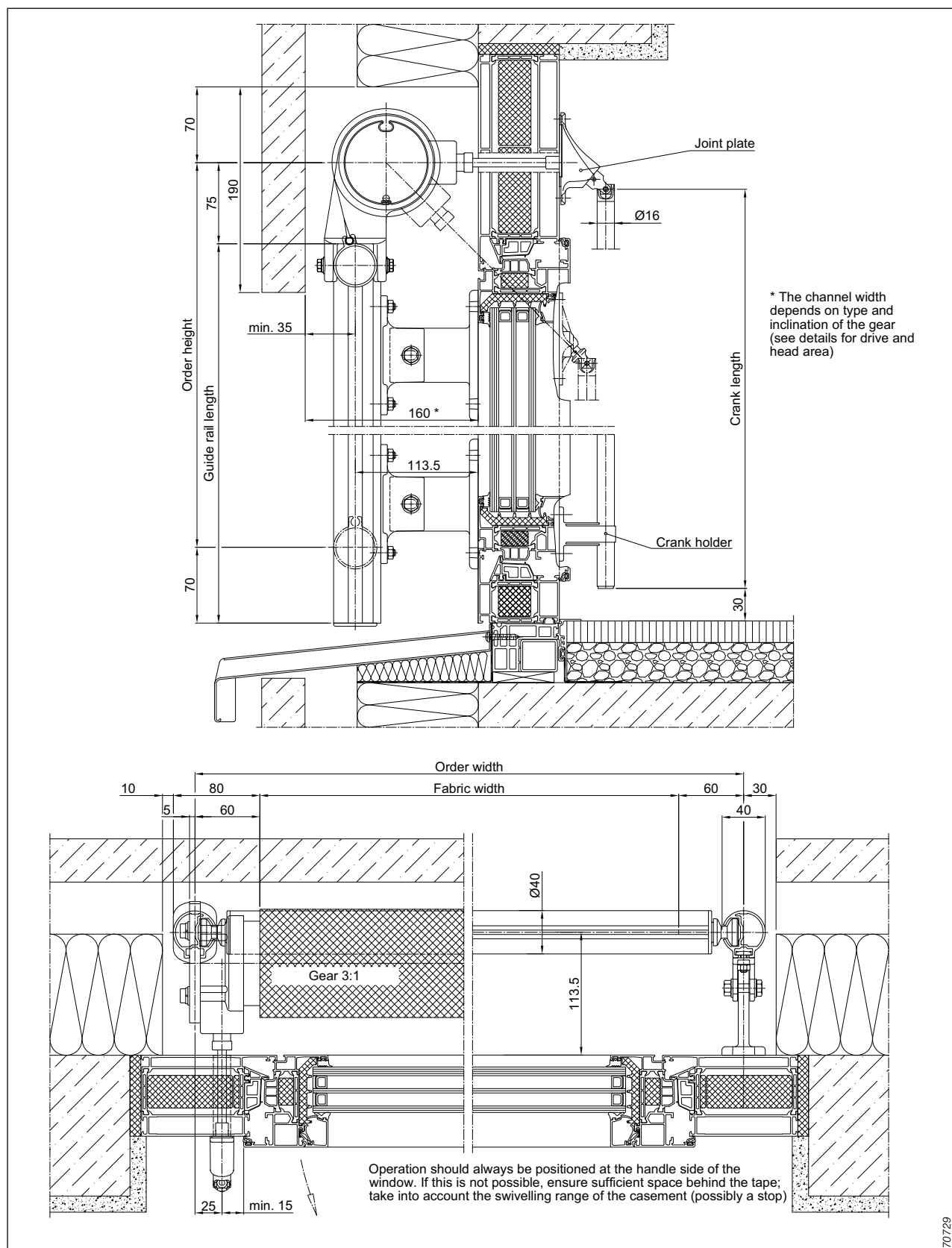


Application example

Facade awning 201

in on-site channel – right rolling blind

Attention! This is a principle sketch which has to be adapted to the respective on-site situation by an installation example from our Application Technology department.



70729

fig. 246: Facade awning 201 in on-site channel – right rolling blind

Fabric shaft and drive areas

Facade awning 201

Gear 3:1 (individual unit) guide rail with C-groove 20x40 mm or 38x40 mm in on-site channel

Attention! This is a principle sketch which has to be adapted to the respective on-site situation by an installation example from our Application Technology department.

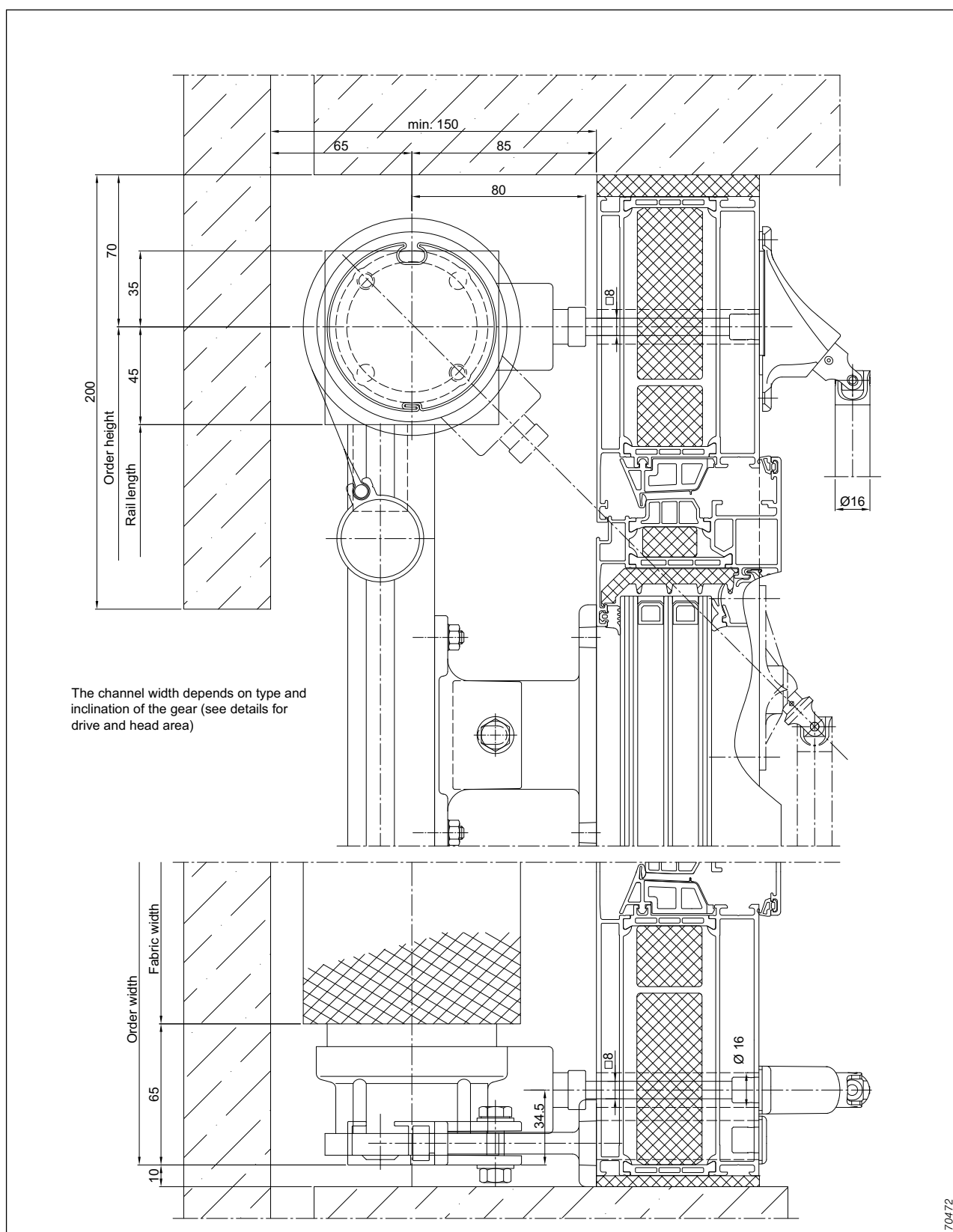


fig. 247: Facade awning 201, gear 3:1 (individual unit) guide rail with C-groove 20x40 mm or 38x40 mm in on-site channel

Fabric shaft and drive areas

Facade awning 201

in on-site channel, gear 7.8:1 (group unit), guide rail with C-groove 40x20 mm or 40x38 mm

Attention! This is a principle sketch which has to be adapted to the respective on-site situation by an installation example from our Application Technology department.

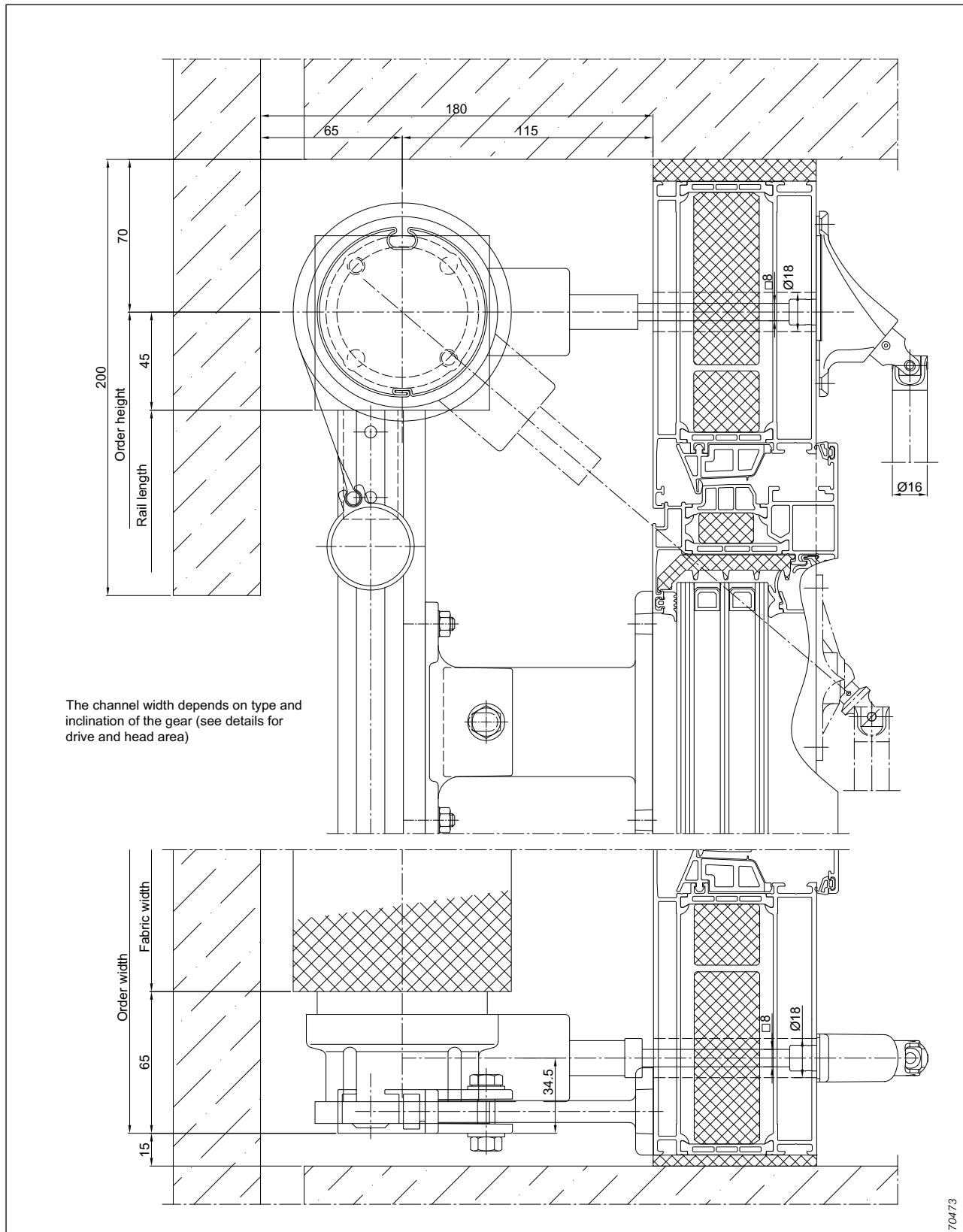


fig. 248: Facade awning 201 in on-site channel, gear 7.8:1 (group unit), guide rail with C-groove 40x20 mm or 40x38 mm

Fabric shaft and drive areas

Facade awning 201

with half round cover panel type 2.3

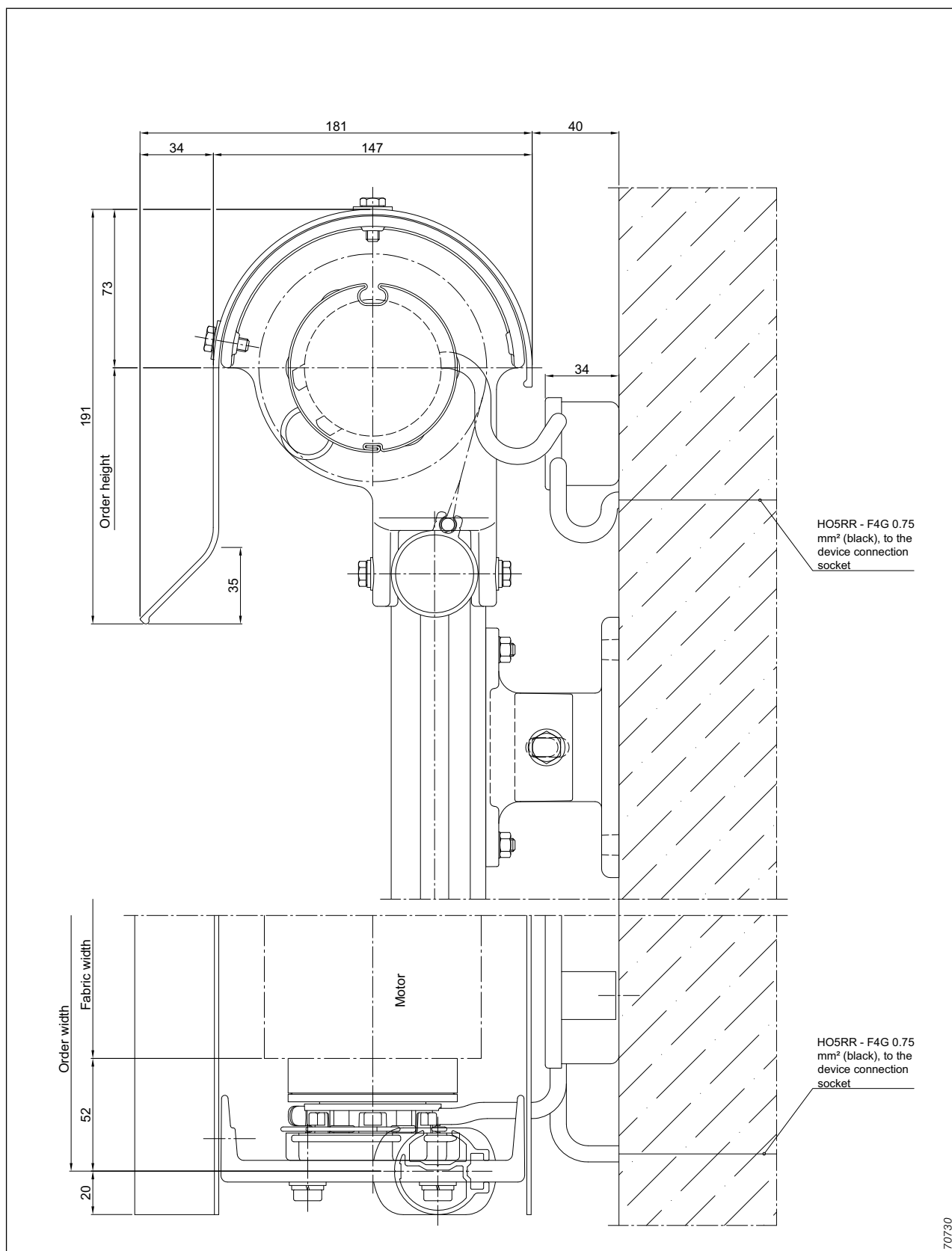


fig. 249: Facade awning 201 with half round cover panel type 2.3

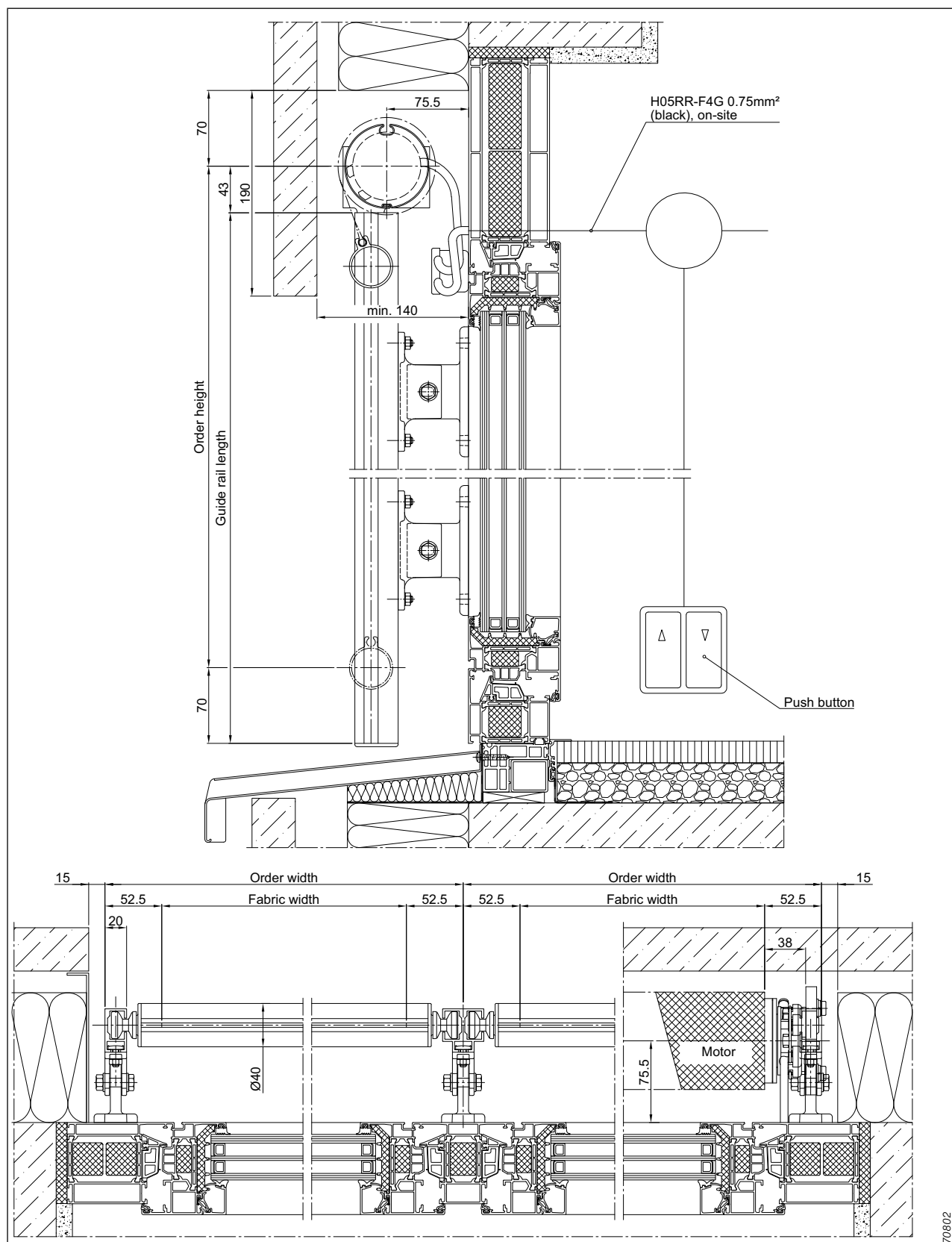
Application example

Facade awning 201

in on-site channel

Guide rail with C-groove 20x40 mm, 38x40 mm

Attention! This is a principle sketch which has to be adapted to the respective on-site situation by an installation example from our Application Technology department.



70602

fig. 250: Facade awning 201 in on-site channel, guide rails with C-groove 20x40 mm, 38x40 mm

Application example

Facade awning 203

with half round cover panel type 2.3, rotated by 40°

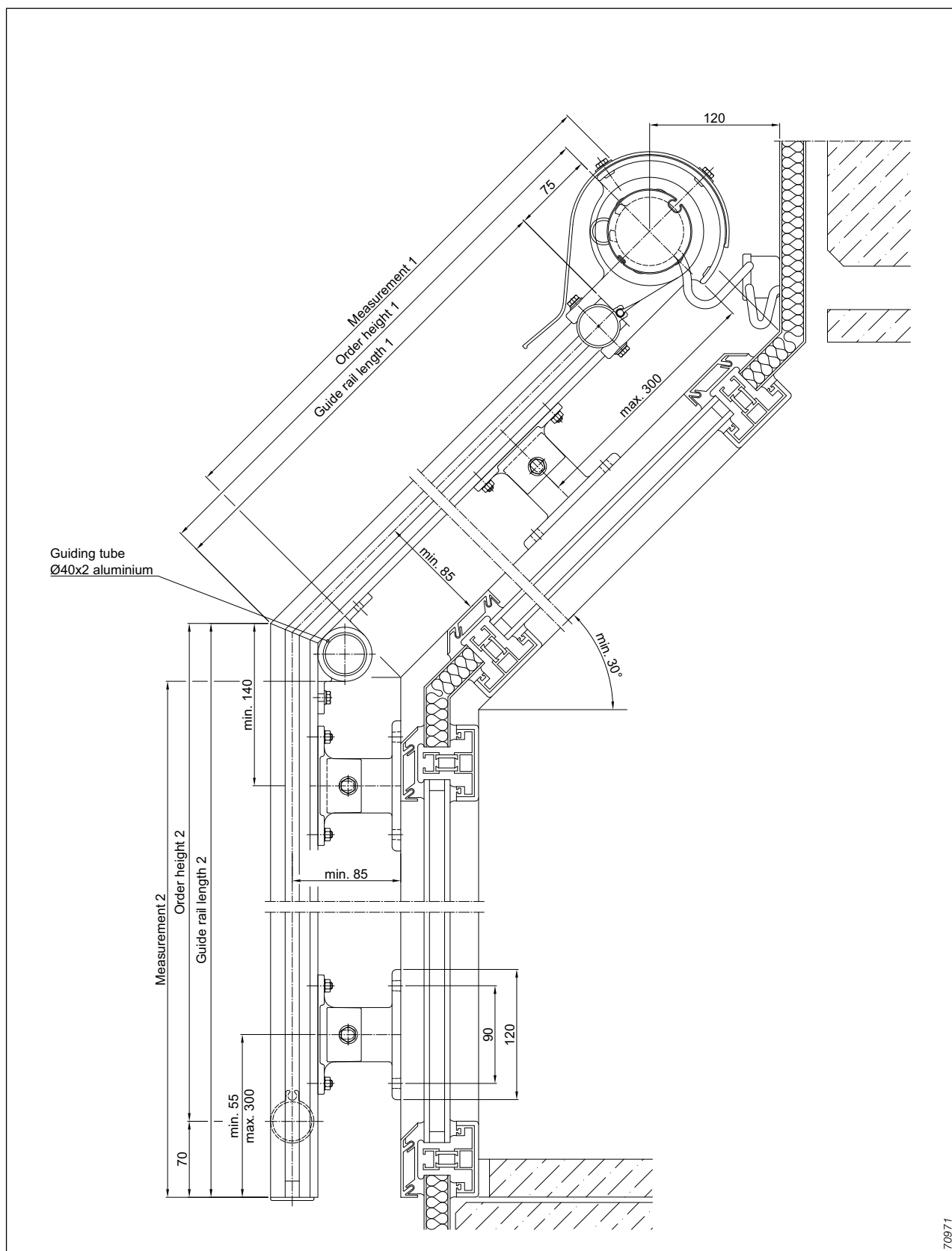
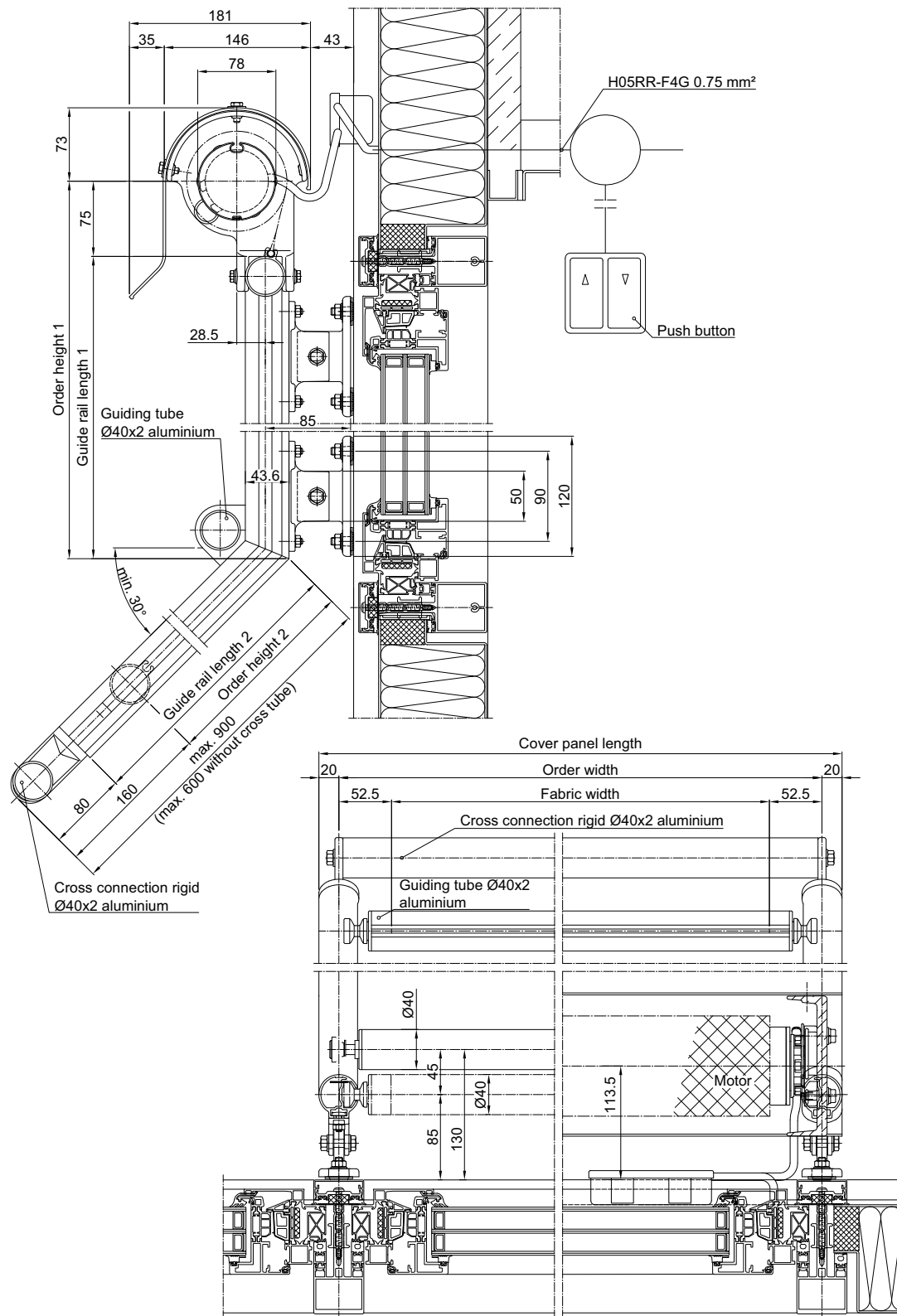


fig. 251: Facade awning 203 with half round cover panel type 2.3, rotated by 40°

Application example
Facade awning 204
with half round cover panel type 2.3



70972

fig. 252: Facade awning 204 with half round cover panel type 2.3

Details

Cover panel 2.3 and 8.3 between the rails

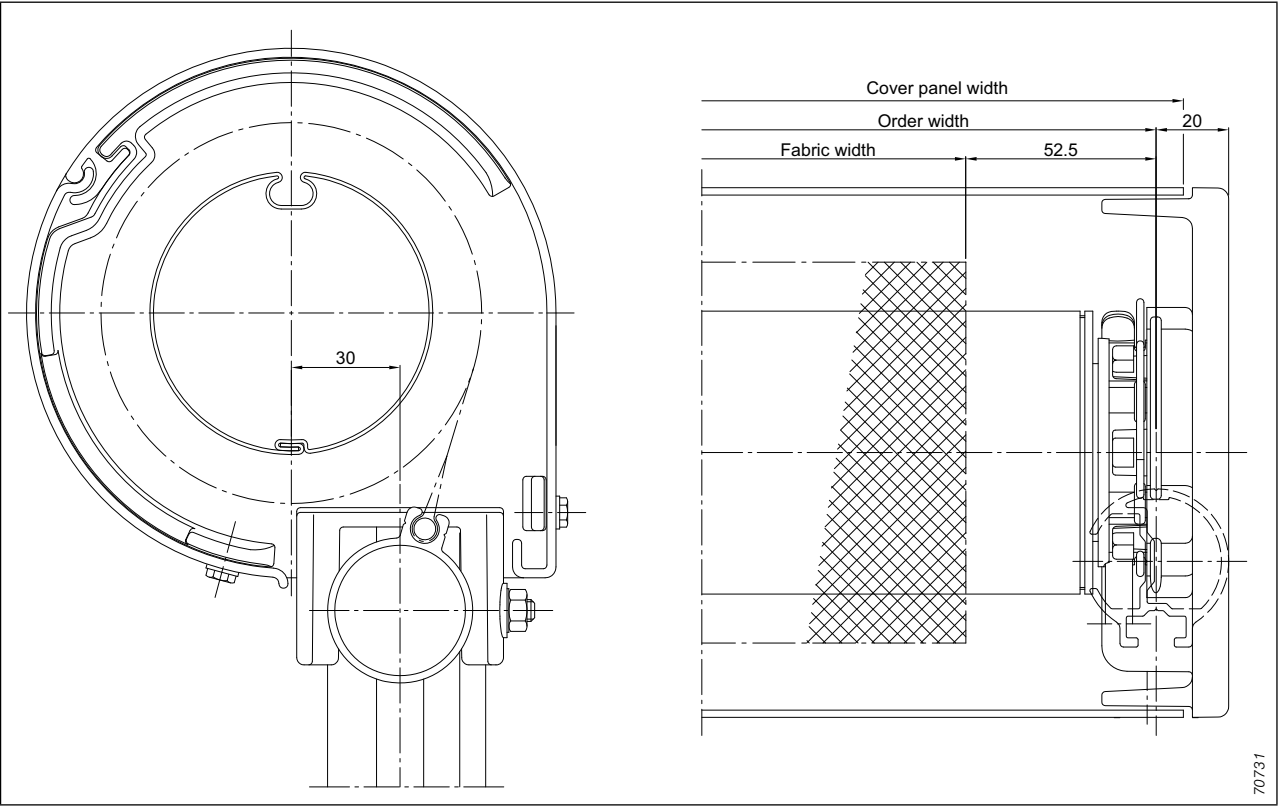


fig. 253: Facade awning 201 with cover panel type 8.3

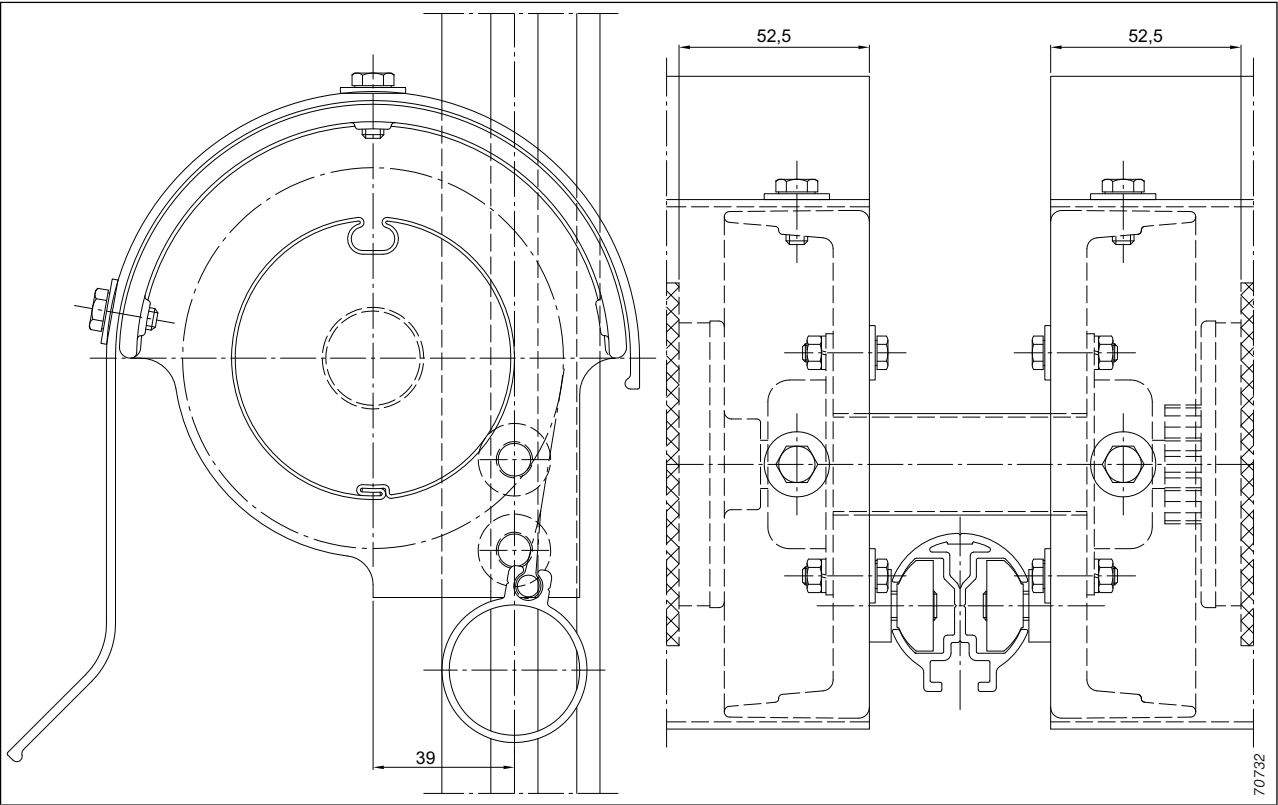
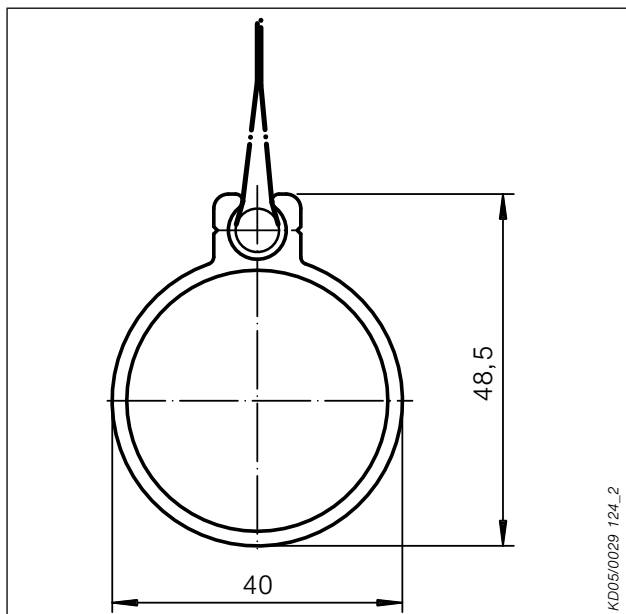


fig. 254: Facade awning 201 with half round cover panel type 2.3 between the rails

Details

Drop profile



Type 201

Standard, visible drop profile

Material: aluminium

Weight: 0.77 kg/m

Colour: plain, art. No. 108112

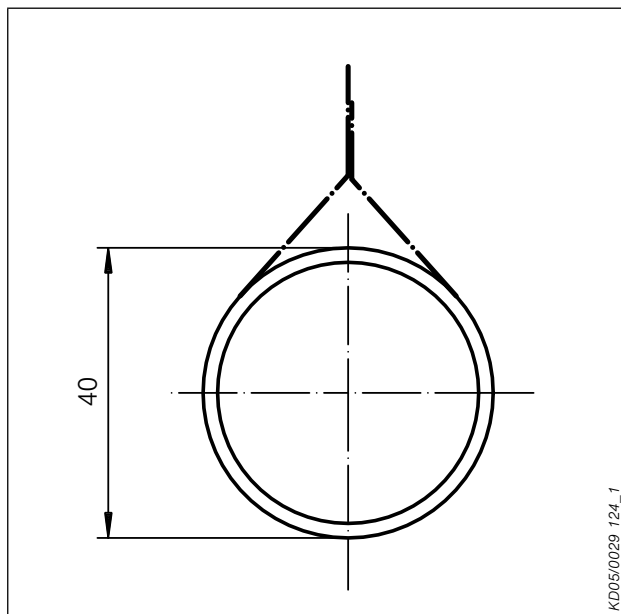
C0, art. no. 108113

Weight

Material: steel, galvanised

Dimensions (Ø): 32 mm

Weight: 6.3 kg/m



Type 101 and 201

Optional, fabric-wrapped drop profile

Material: aluminium

Weight: 0.64 kg/m

Colour: plain, art. No. 115007

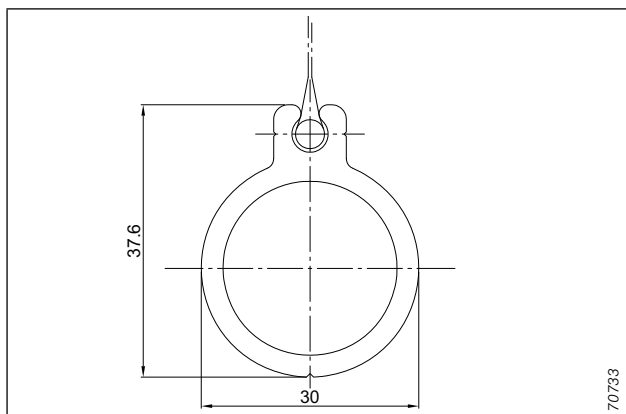
C0, art. no. 115222

Weight

Material: steel, galvanised

Dimensions (Ø): 32 mm

Weight: 6.3 kg/m



Type 109, 209

Standard, visible drop profile

Material: aluminium

Weight: 0.83 kg/m

Colour: plain, art. no. 108365

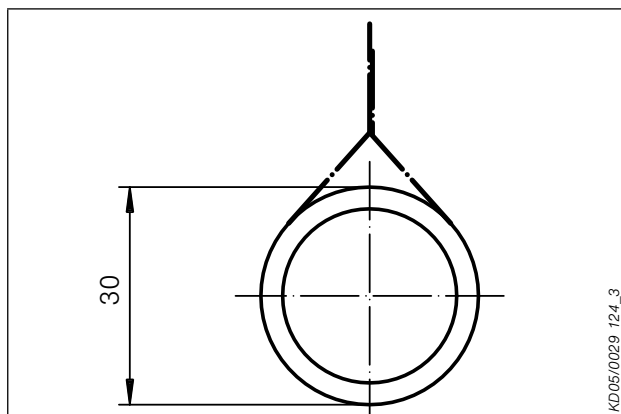
C0, art. no. 108366

Weight

Material: steel, galvanised

Dimensions (Ø): 20 mm

Weight: 2.5 kg/m



Type 109, 209

Optional, fabric-wrapped drop profile

Material: aluminium

Weight: 0.66 kg/m

Colour: plain, art. no. 115005

Weight

Material: steel, galvanised

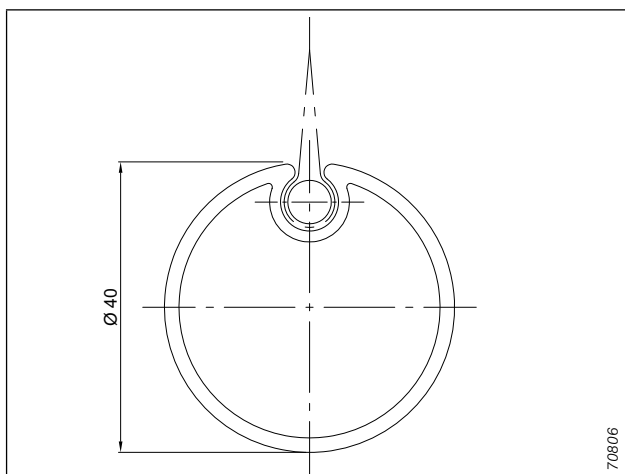
Dimensions (Ø): 20 mm

Weight: 2.5 kg/m

Details

Drop profile

Fabric deductions



Type 109 and 107

Optional, visible drop profile

Material: aluminium

Weight: 0.71 kg/m

Colour: plain, art. no. 108014

C0, art. no. 108234

Weight

Material: steel, galvanised

Dimensions (Ø): 20 mm

Weight: 2.5 kg/m

Fabric deductions

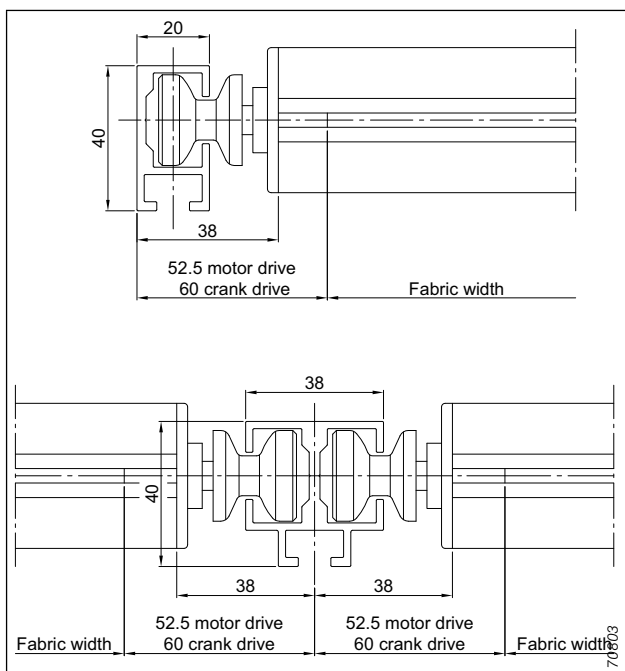


fig. 255: Facade awning 200, guide rails 20x40, 38x40 and Ø 35 mm, fabric deduction measurements

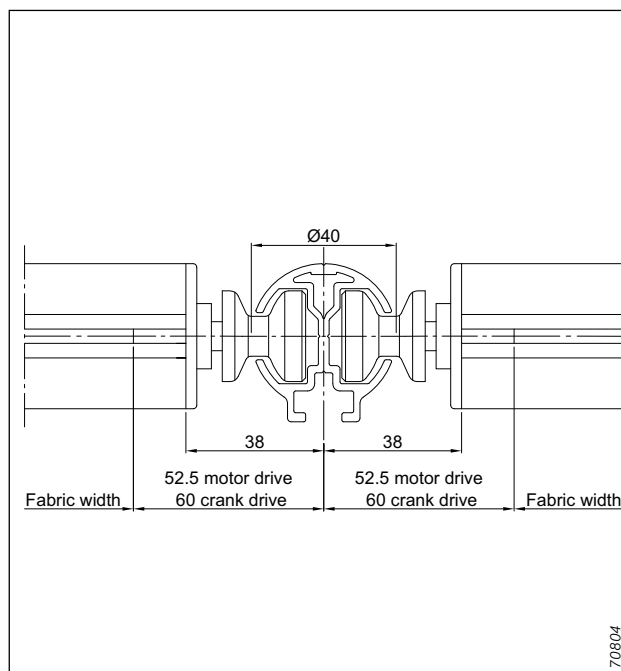


fig. 256: Facade awning 200, guide rails Ø 40 mm, fabric deduction measurements

Attention:

The indicated dimensions are standard deduction measurements – they can vary for special situations.

Details

Wind load bearer

Guide rail bend

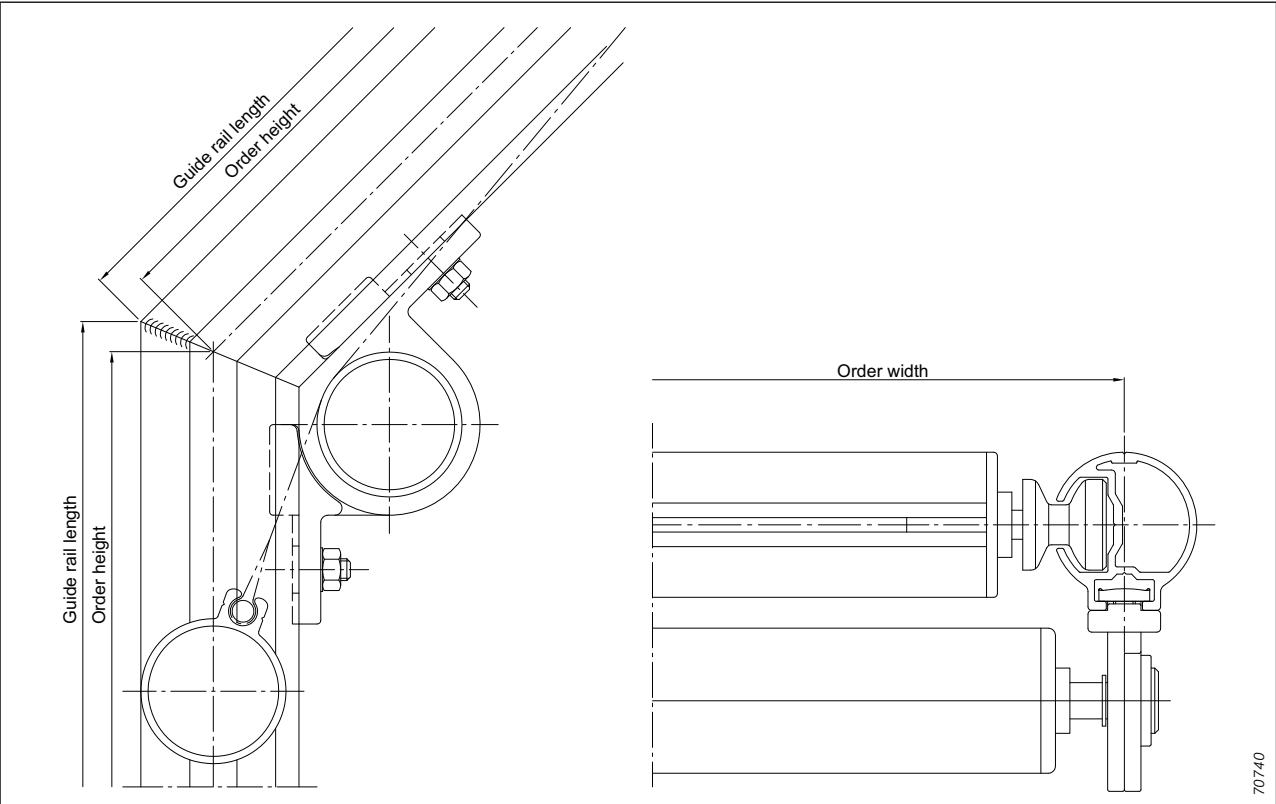


fig. 257: Facade awning 203, guide tube inside

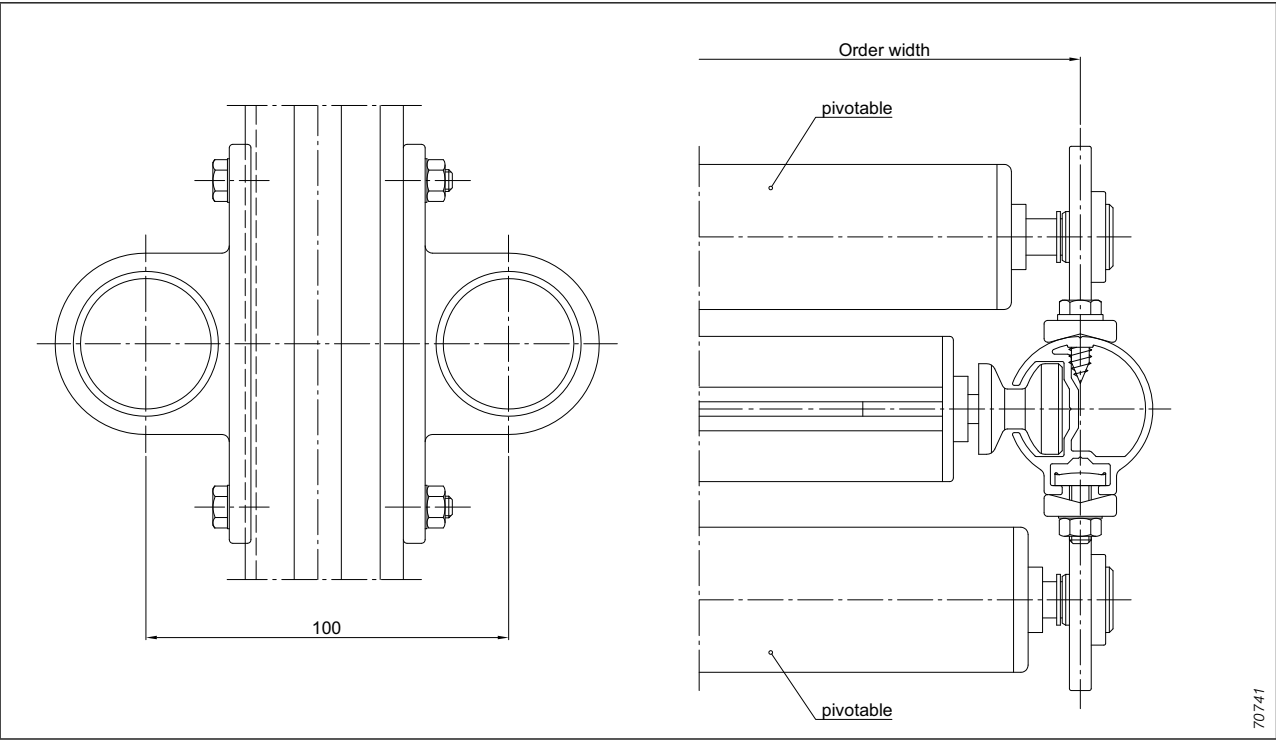


fig. 258: Wind load bearer

Details

Joint plates for 8 mm square – with thermal separation Field of application types 101, 107, 201, 207, 340, 330

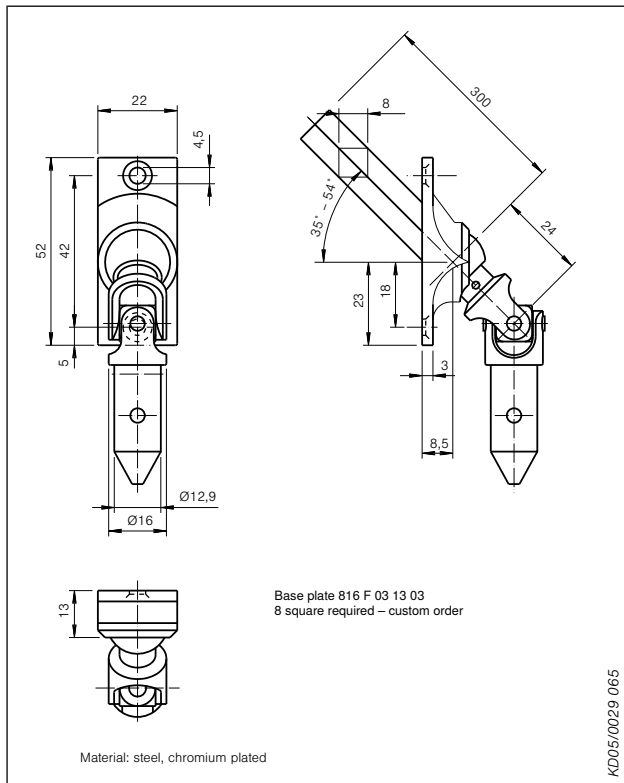


fig. 263: Joint plate 35°-54°

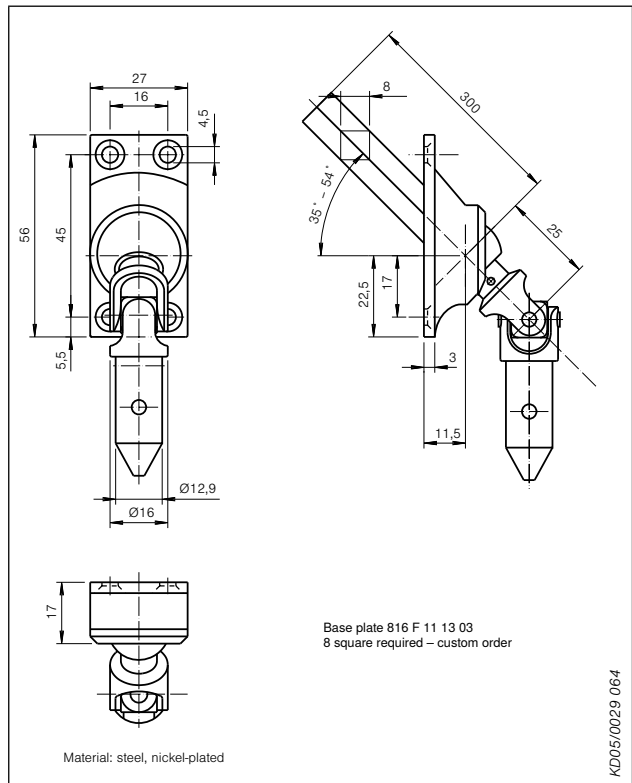


fig. 264: Swivel plate 35°-54° – special version

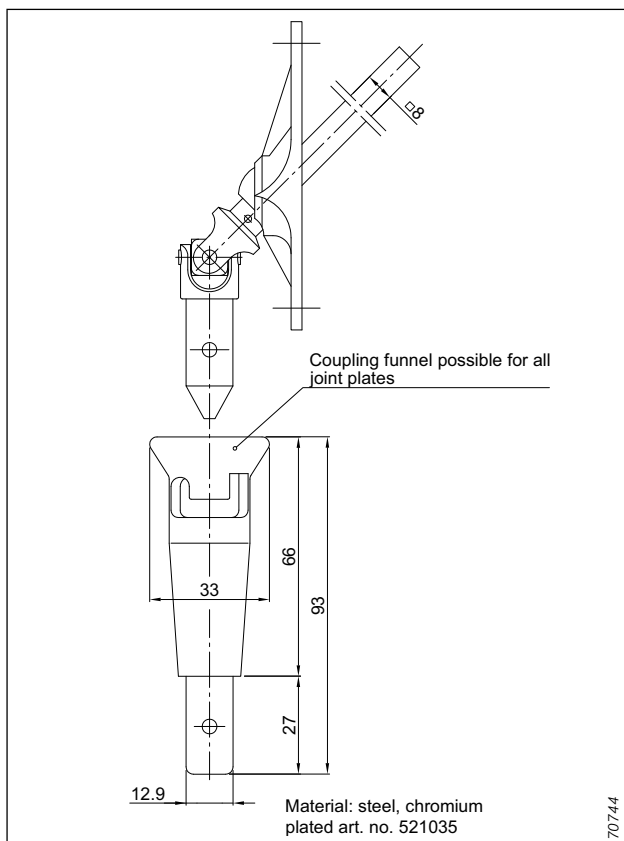


fig. 265: Coupling funnel

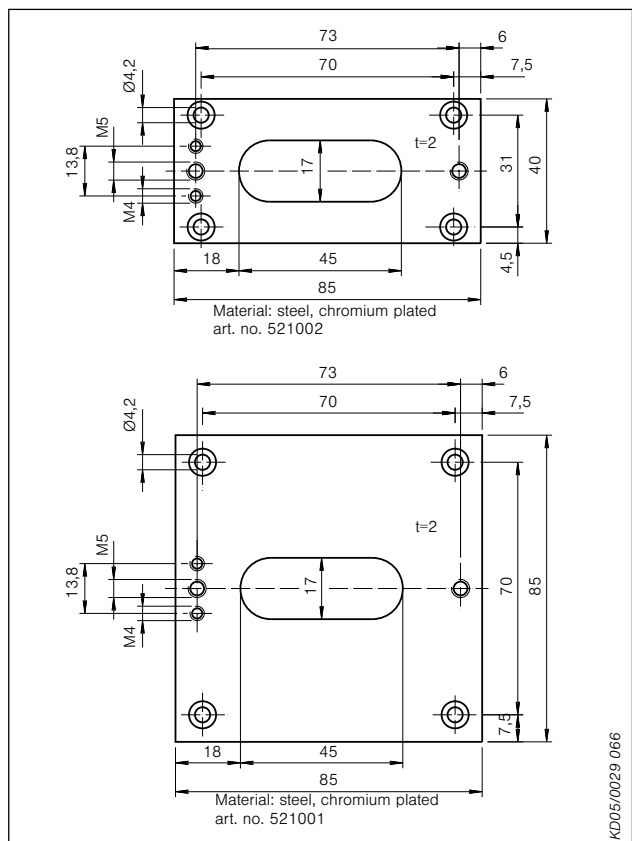


fig. 266: Washer for swivel plates

Details

Guide rail bracket

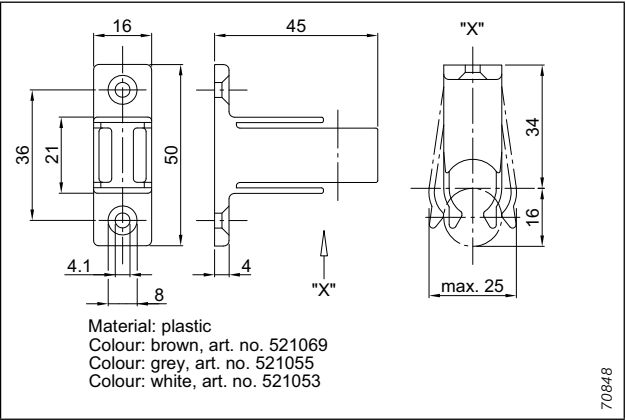


fig. 267: Crank holder

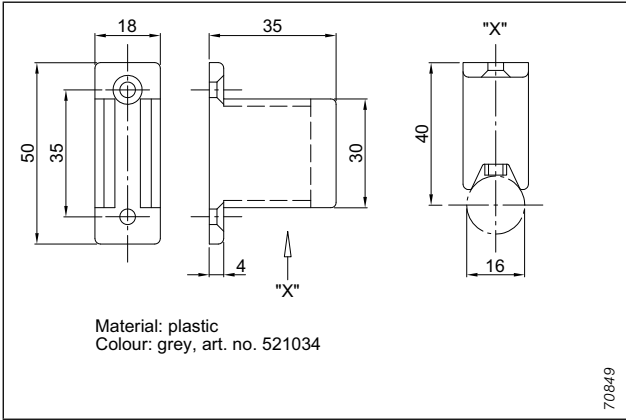


fig. 268: Crank holder with magnet (only available in combination with steel crank, subject to surcharge)

Guide rail bracket no. H101 and H102

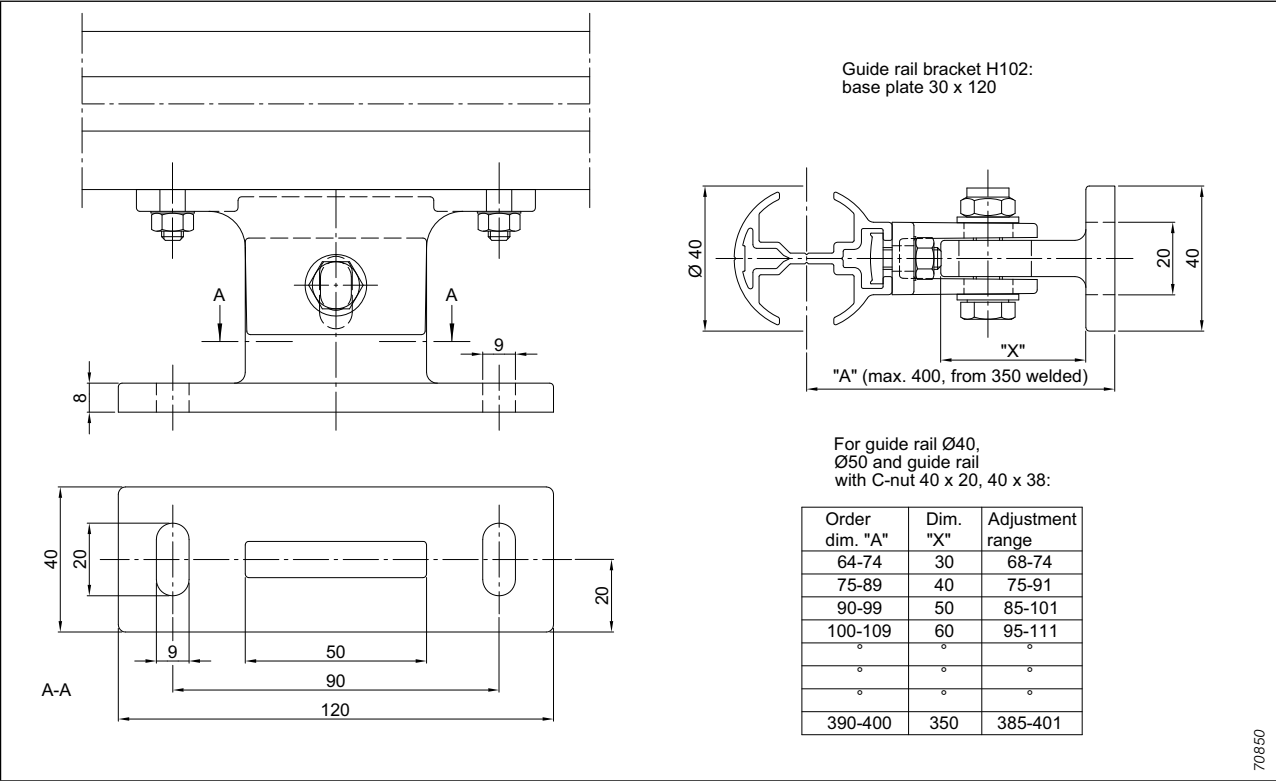


fig. 269: Guide rail bracket no. H101 and H102

Details

Guide rail bracket

Guide rail bracket no. H115

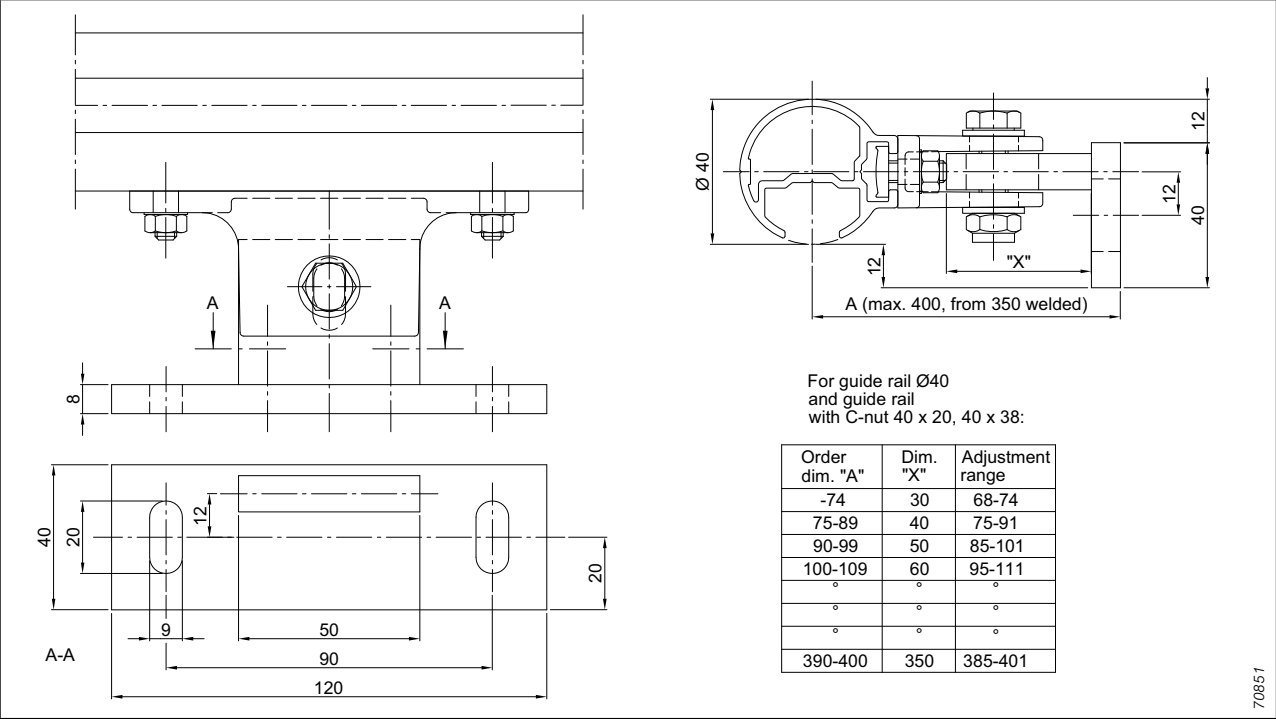


fig. 270: Guide rail bracket no. H115

Guide rail bracket no. 7

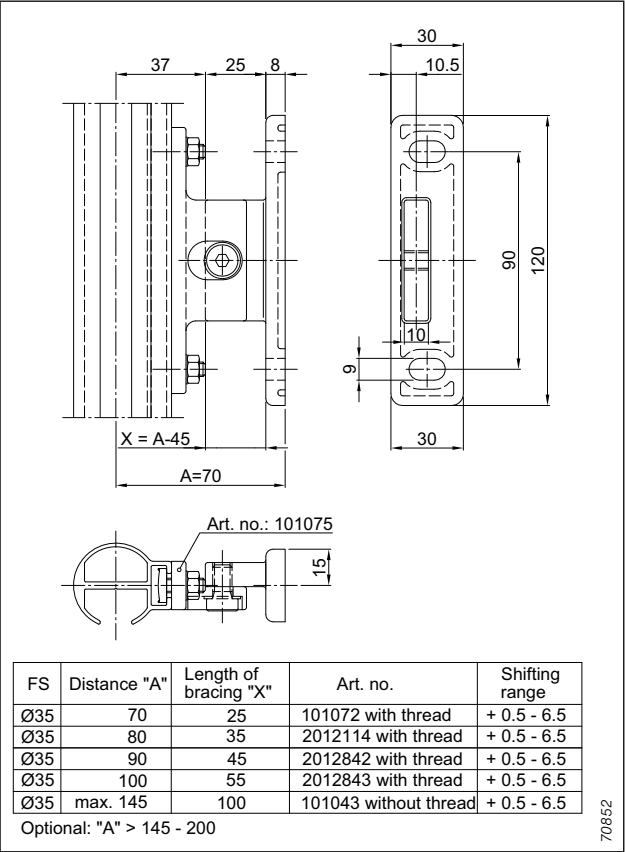


fig. 271: Guide rail bracket no. 7

Guide rail bracket no. 8

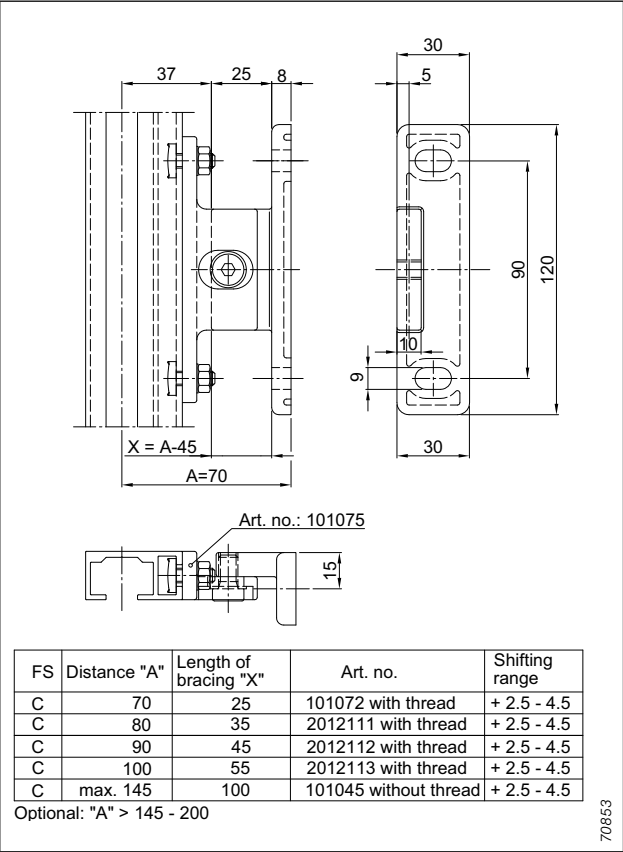


fig. 272: Guide rail bracket no. 8

Details

Special guide rail bracket

Guide rail bracket for guide rail 40x20

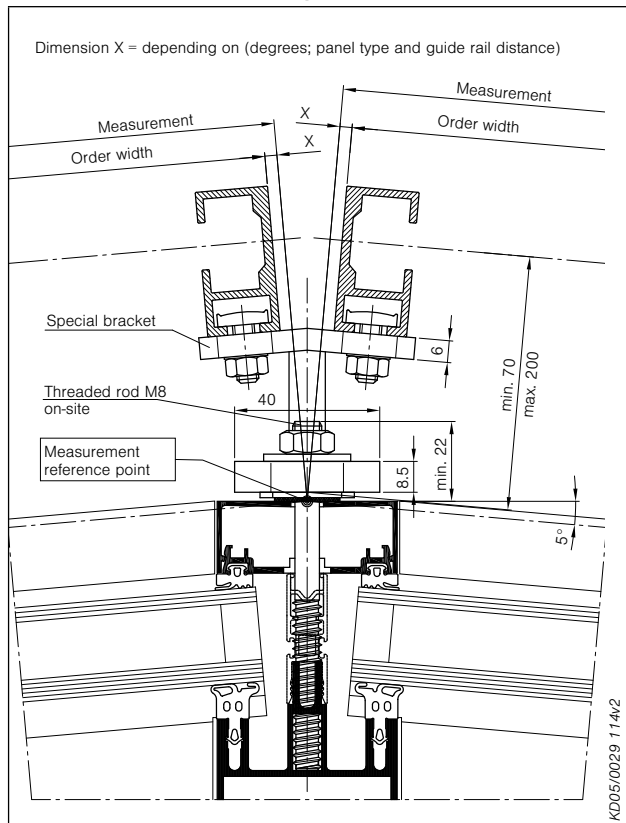


fig. 273: Guide rail bracket for guide rail 40x20 (polygon facade – individual units only)

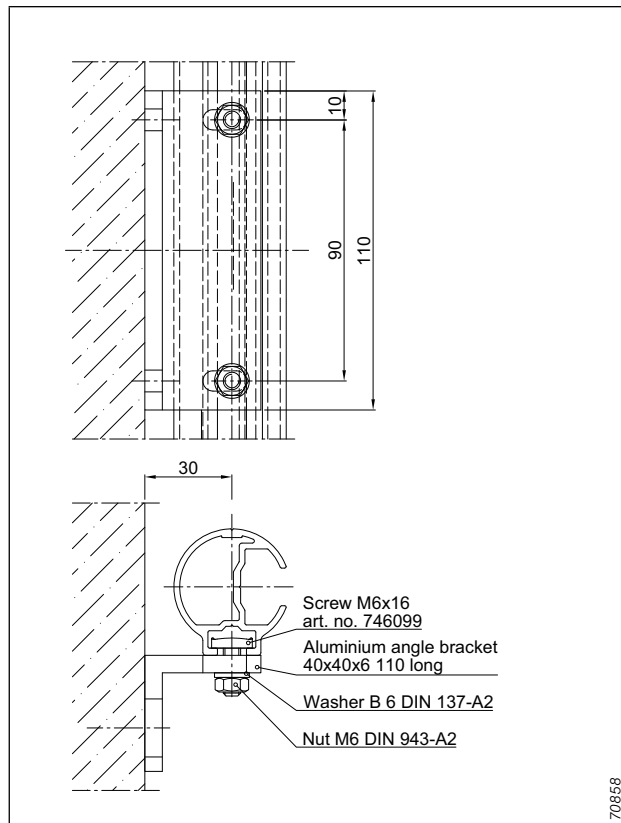


fig. 274: Rail mounting using aluminium angle brackets for round rail Ø 40 mm

Description

Facade awning 207

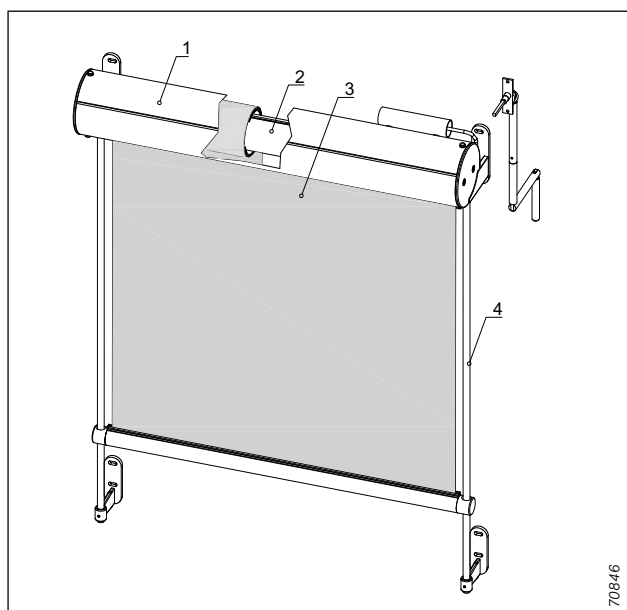


fig. 275: Facade awning 207

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Drop profile

Application

Textile external sun shading system for shading vertical facade areas, e.g mullion/transom facades, with slender guide rods and cables.

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank

Material: aluminium

Surface: C0 anodised

Ratio: 3:1 or 7.8:1 (for larger and coupled facade awnings)

Crank holder: plastic (grey, white or brown), crank holder with magnet optional

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panels (1)

Half round cover panels, extruded

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (HxD): 191x181 mm, incl. water drip (type 2.3)

Dimensions (r): inside 71 mm

Max. individual length: 4000 mm

Surface: powder-coated, optionally anodised

The front leg is bent outwards by 48 mm at an angle of 45° to provide weather protection.

Round cover panels, extruded aluminium

two-piece

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (HxD): 146x146 mm (type 8.3)

Dimensions (r): inside 70.5 mm

Max. individual length: 4000 mm

Surface: powder-coated, optionally anodised

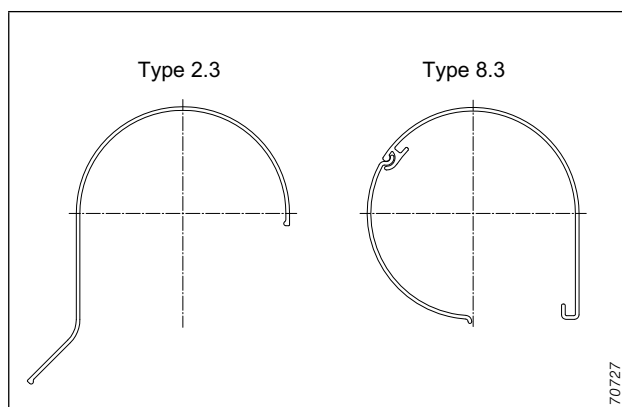


fig. 276: Cover panels

Fabric shaft (2)

Material: steel, galvanised

Material thickness: 1 mm

Dimensions (Ø): 78 mm

Profile: groove tube

Surface: plain

Fixing: to the wall using fabric shaft consoles

With piping groove for attaching the fabric

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric

Acrylic Perfora/All Weather

Soltis 92 fabric

Screen fabric

More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Description

Facade awning 207

Lateral guidance (4)

Tension cable

Wire strand

Material: steel, corrosion-resistant

Coating: polyamide

Colour: black

Fixing: tension cable bracket, aluminium incl. spring

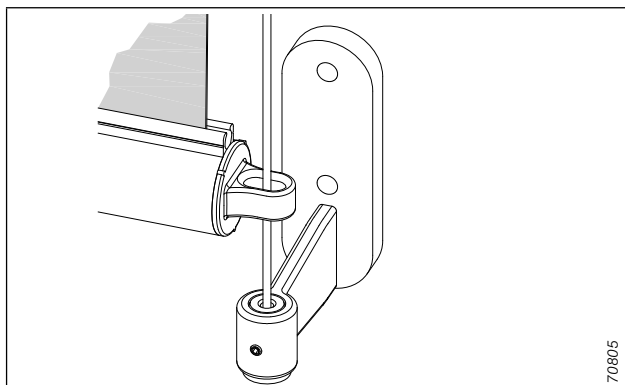


fig. 277: Tension cable

Rod

Material: stainless steel

Dimensions (Ø): 15 mm, optionally 8 mm

Fixing: rod bracket, cast aluminium, powder-coated

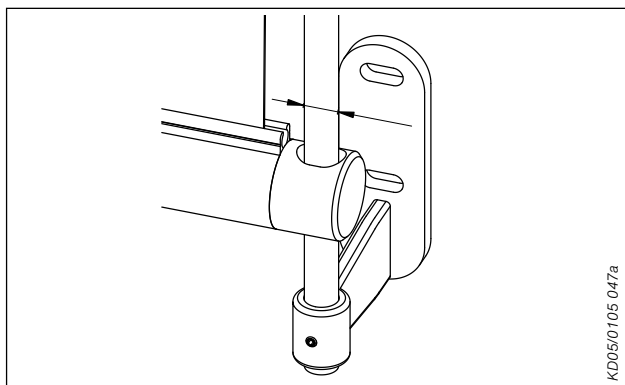


fig. 278: Rod Ø 15 mm

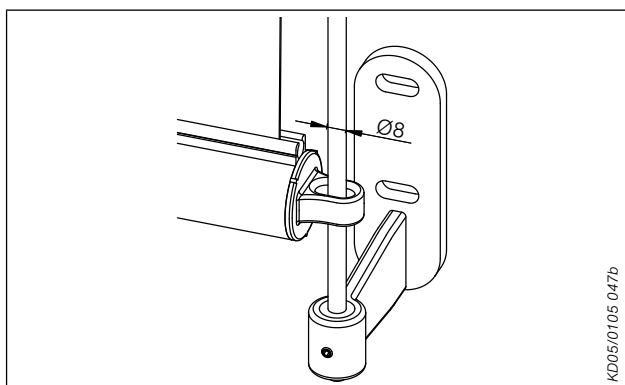


fig. 279: Rod Ø 8 mm

Drop profile (5)

Material: aluminium, extruded

Material thickness: 2 mm

Dimensions (Ø): 40 mm

Profile: round profile, mounting groove optional

Surface: powder-coated, optionally anodised

Available as models "visible" (standard) or "concealed in fabric" (optional).

To provide optimum fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

Connecting and fixing components

Within the facade awnings

Material: A2 steel or aluminium

Weight

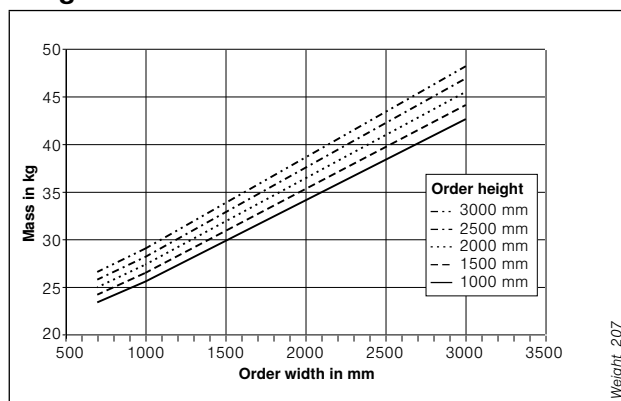


fig. 280: Weights

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and anodisation are available on request at a surcharge.

For anodised facade awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

General note

For mullion/transom facades, facade awnings with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the drilled holes can often be difficult.

Construction limit values

Facade awning 207

Notes:

Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.

Screen fabrics can be used crosswise up to a curtain length of 1900 mm. The maximum order width is then 3000 mm.

The following applies to both fabrics:
All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.

Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

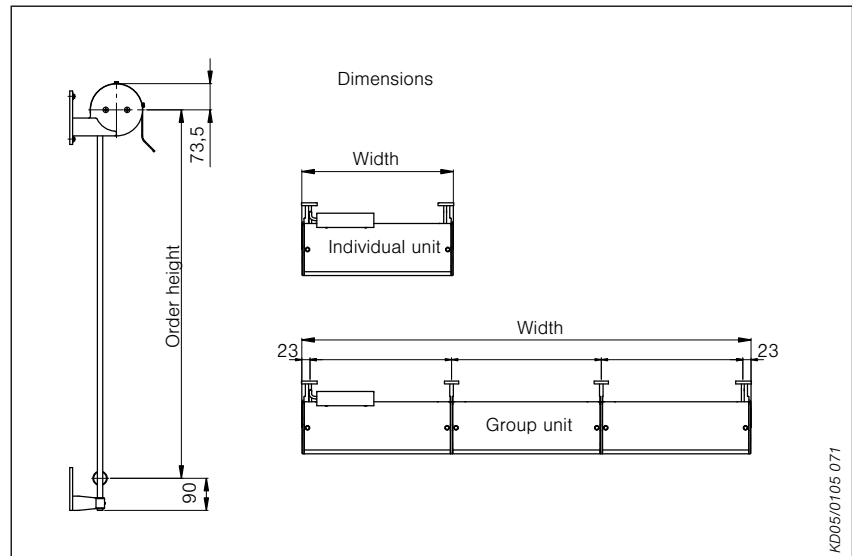


fig. 281: Measuring instructions for facade awning 207

Construction limit values

Facade awning 207

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit		Mechanically coupled units	
		Crank	Motor	max. 2 Crank	max. 3 Motor
Min. width (mm)	Acrylic – all qualities –	500	625	500	770 ¹⁾
	Screen fabric	500	625	500	770 ¹⁾
	Soltis 92 fabric	500	625	500	770 ¹⁾
Max. width (mm)	Acrylic – all qualities –	3000	3000	5000	9000
	Screen fabric	2500	2500	5000	7500
	Soltis 92 fabric	3000	3000	5000	9000
Max. height (mm) rod guidance Ø 15 mm	Acrylic – all qualities –	3000	3000	3000	3000
	Screen fabric	3000	3000	3000	3000
	Soltis 92 fabric	3000	3000	3000	3000
Max. area ²⁾ (m ²) guide rods Ø 15 mm	Acrylic – all qualities –	9.0	9.0	15.0	27.0
	Screen fabric	7.5	7.5	12.0	22.5
	Soltis 92 fabric	9.0	9.0	15.0	27.0
Max. height (mm) guide rods Ø 8 mm	Acrylic – all qualities –	2500	2500	2500	2500
	Screen fabric	2500	2500	2500	2500
	Soltis 92 fabric	2500	2500	2500	2500
Max. area ²⁾ (m ²) guide rods Ø 8 mm	Acrylic – all qualities –	7.5	7.5	12.5	22.5
	Screen fabric	6.25	6.25	12.5	18.75
	Soltis 92 fabric	7.5	7.5	12.5	22.5
Max. height (mm) cable guidance	Acrylic – all qualities –	3000	3000	3000	3000
	Screen fabric	3000	3000	3000	3000
	Soltis 92 fabric	3000	3000	3000	3000
Max. area ²⁾ (m ²) cable guidance	Acrylic – all qualities –	7.5	7.5	15.0	22.5
	Screen fabric	7.5	7.5	15.0	22.5
	Soltis 92 fabric	7.5	7.5	15.0	22.5

¹⁾ for unit with motor

²⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

The stated maximum dimensions are only valid for the standard facade spacing and favourable mounting situations (e.g. reveal installation, low mounting height above ground, sheltered from wind), height dimensions in the maximum range have to be cleared with the Application Technology department beforehand.

Application example

Facade awning 207 with round cover panel type 8.3 and guide rod \varnothing 15 mm

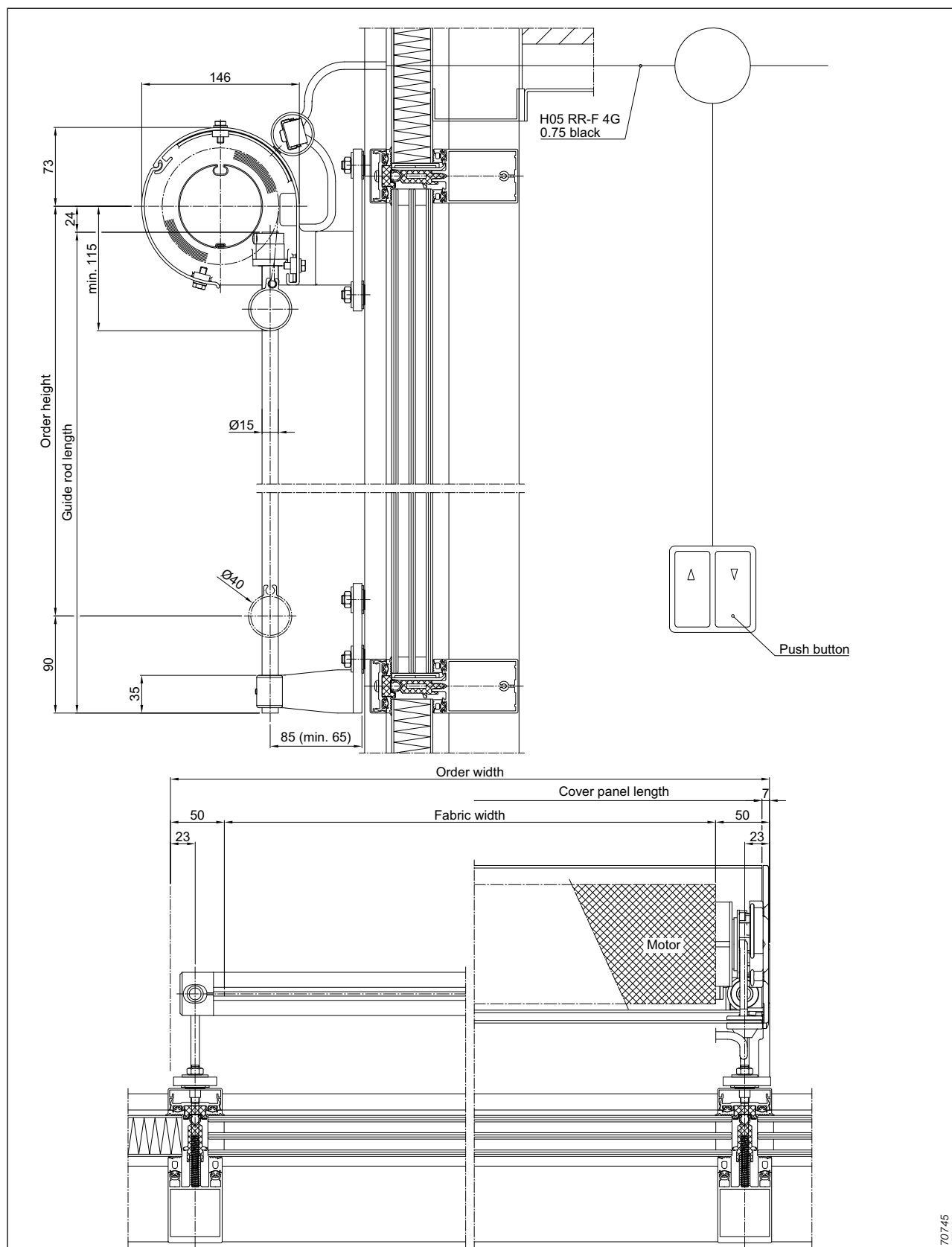


fig. 282: Facade awning 207 with round cover panel type 8.3 and guide rod \varnothing 15 mm

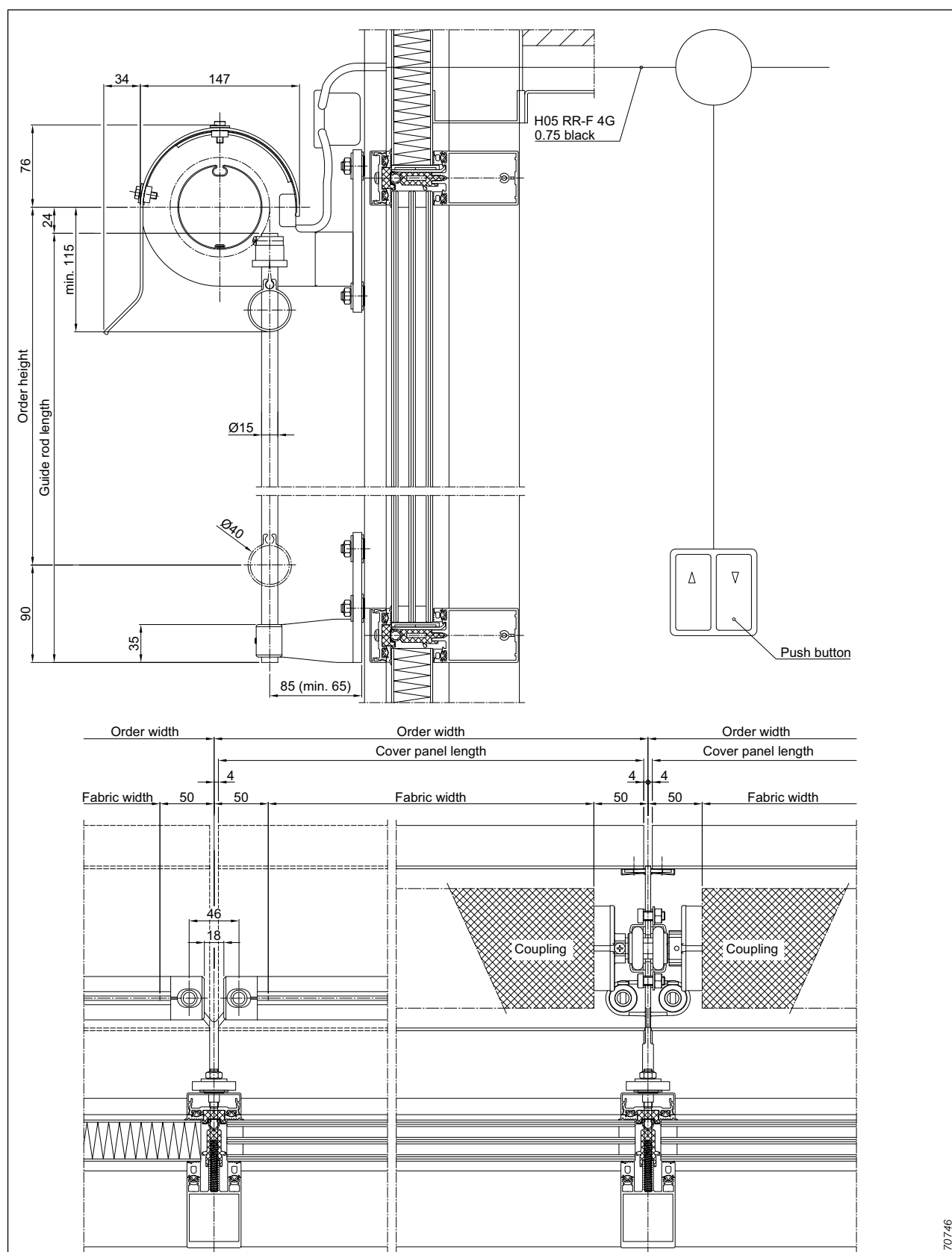
70745

Application example

Facade awning 207

with half-round cover panel type 2.3

and guide rod $\varnothing 15$ mm



70746

fig. 283: Facade awning 207 with half-round cover panel type 2.3 and guide rod $\varnothing 15$ mm

Application example

Facade awning 207

with half-round cover panel type 2.3 and guide rod $\varnothing 15$ mm mounted in the reveal

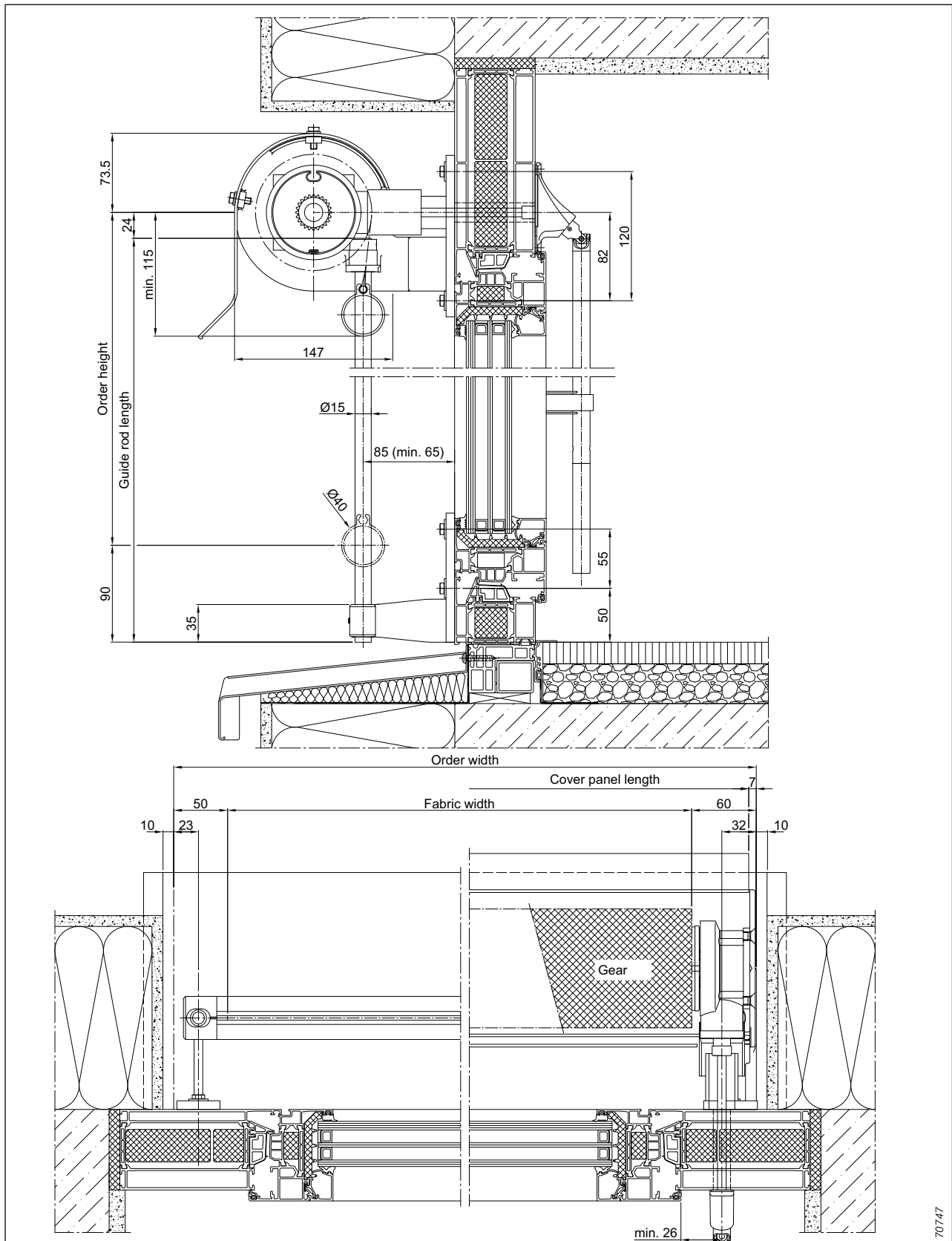


fig. 284: Facade awning 207 with half-round cover panel type 2.3 and guide rod $\varnothing 15$ mm mounted in the reveal

Application example

Facade awning 207

Rod bracket for individual unit (in cast aluminium) for guide rod/tension cable

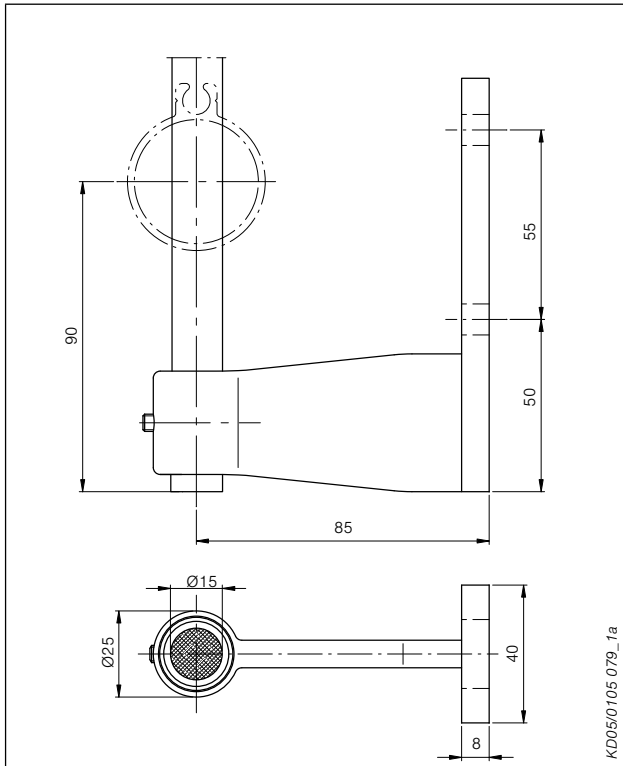


fig. 285: Rod bracket for individual unit, guide rod Ø 15 mm

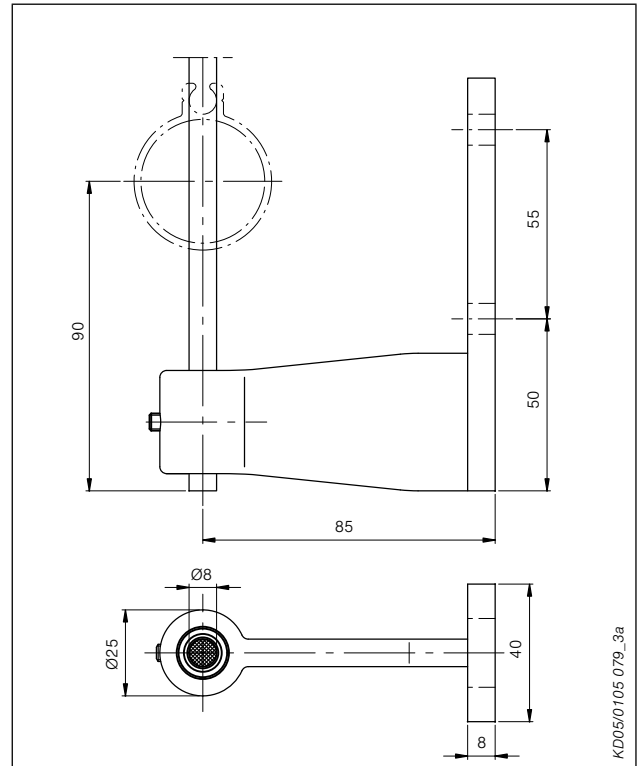


fig. 286: Rod bracket for individual unit, guide rod Ø 8 mm

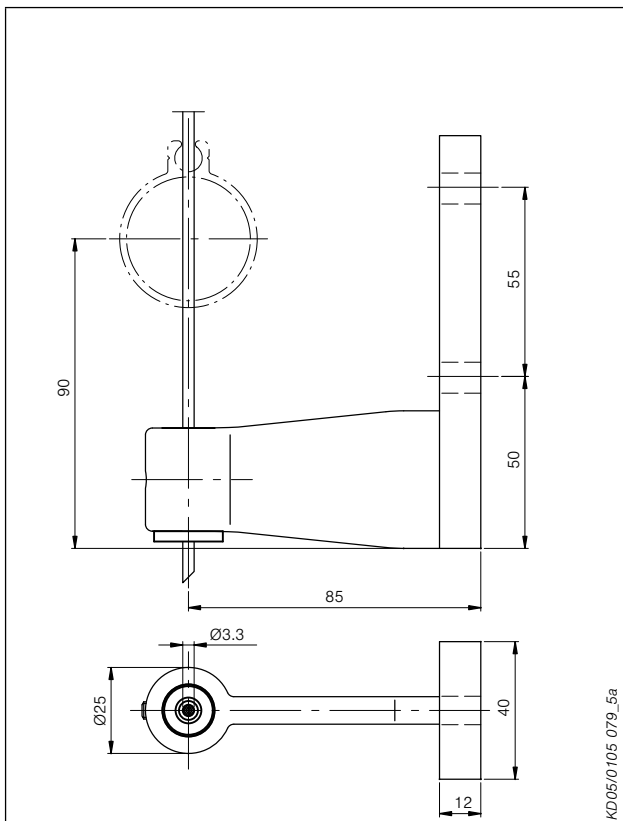


fig. 287: Rod bracket for individual unit, tension cable

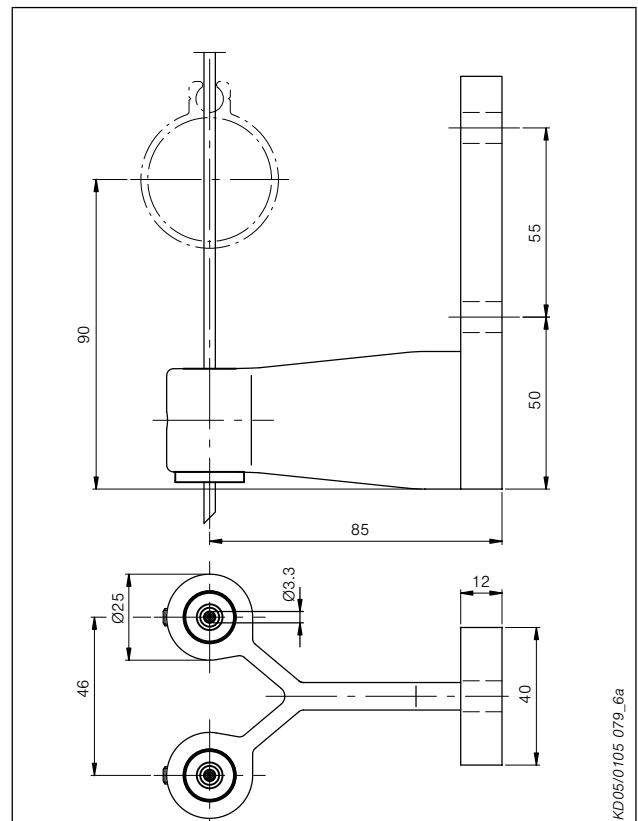


fig. 288: Rod bracket for group unit, tension cable

Application example Facade awning 207 Deduction measurements

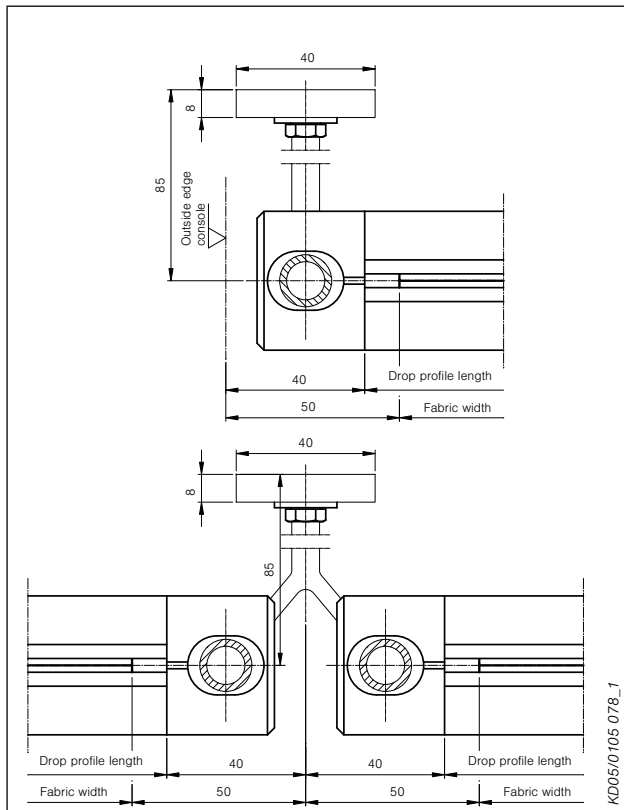


fig. 289: Deduction measurements for guide rod Ø 15 mm

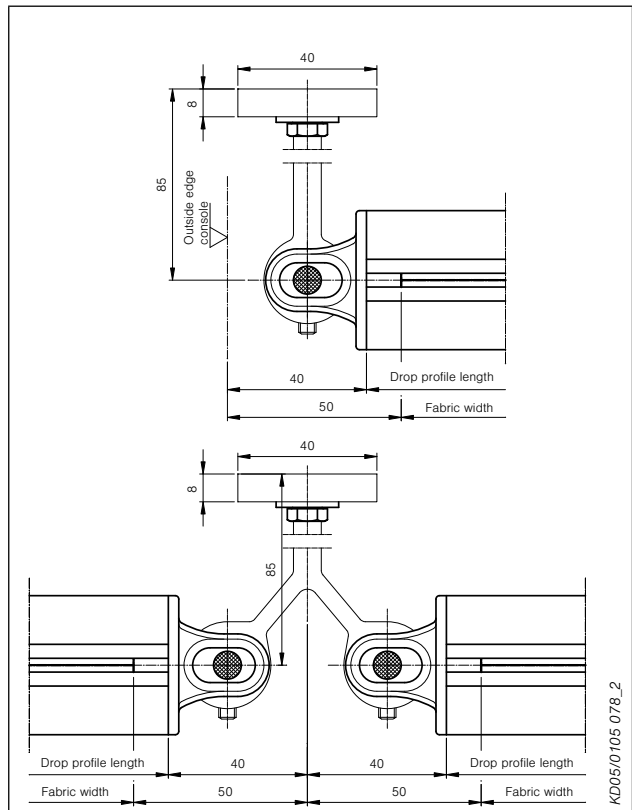


fig. 290: Deduction measurements for guide rod Ø 8 mm

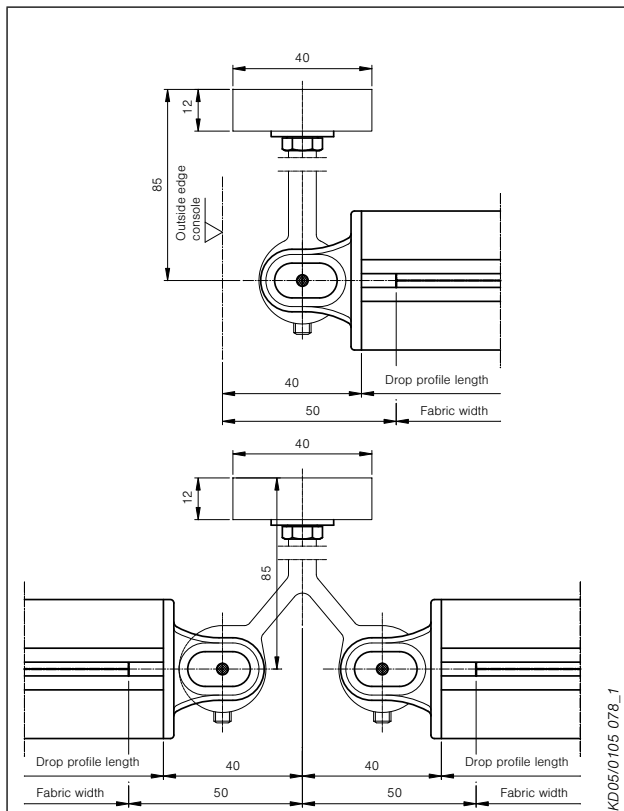


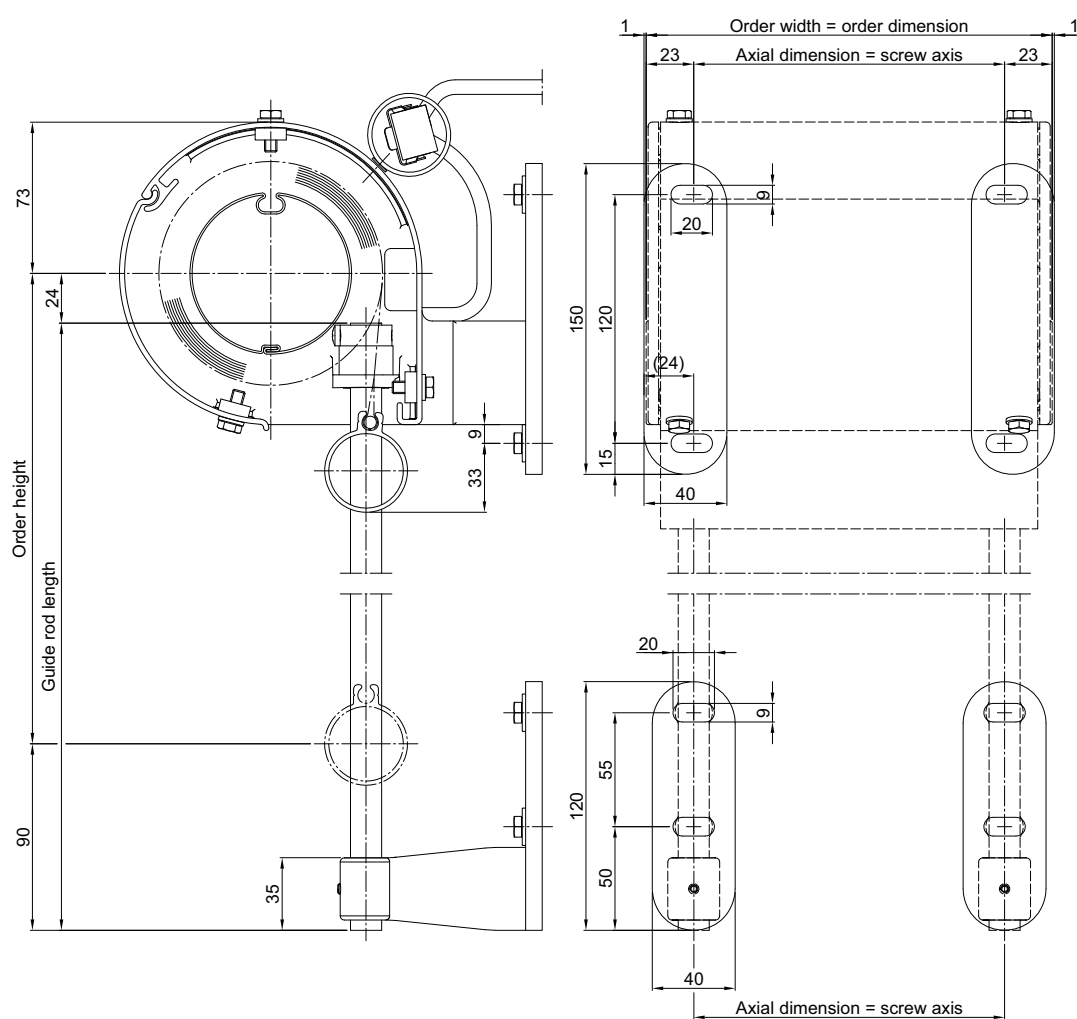
fig. 291: Deduction measurements for cable guidance

Application example

Facade awning 207

with round cover panel type 8.3

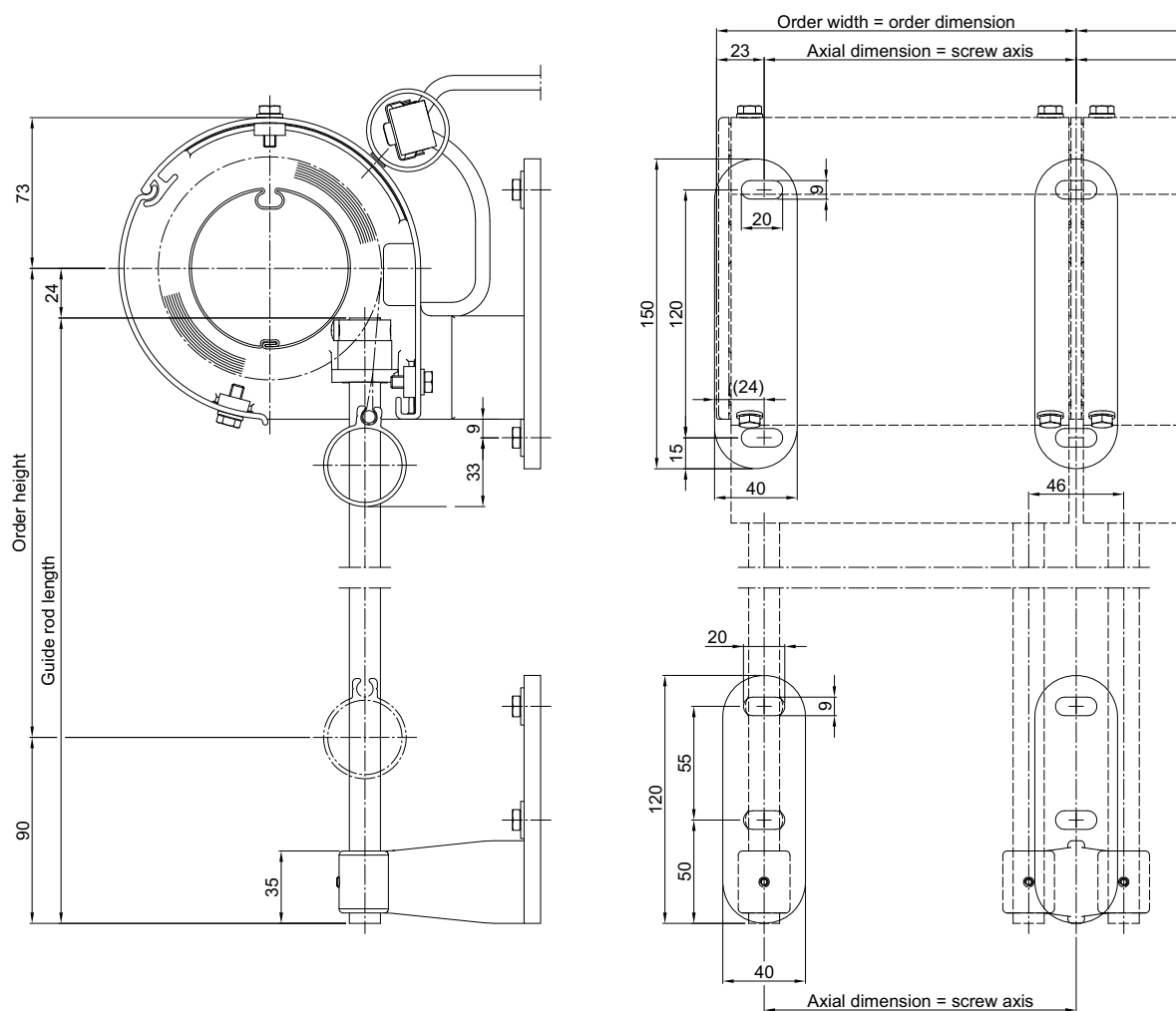
Fixing measurements for individual unit



70748

fig. 292: Facade awning 207 with round cover panel type 8.3, fixing measurements for individual unit

Application example
Facade awning 207
with round cover panel type 8.3
Fixing measurements for coupled units



70749

fig. 293: Facade awning 207 with round cover panel type 8.3, fixing measurements for group units

Description

Facade awning 209

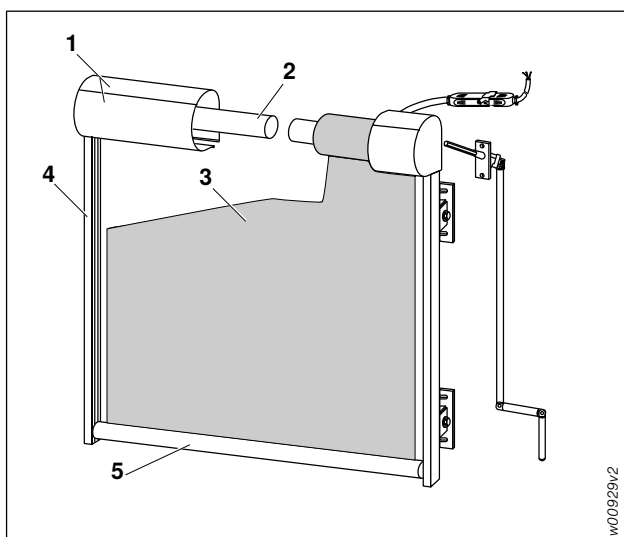


fig. 294: Facade awning 209

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Drop profile

Application

Textile external sun shading system for shading vertical facade areas, e.g mullion/transom facades, compact design.

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank; joint plate and square with patented thermal separation.

Material: aluminium
 Surface: C0 anodised
 Ratio: 6:1
 Crank holder: plastic (grey, white or brown), crank holder with magnet optional

The fabric shaft contains a spindle lock to provide a lower limit for the extension of the fabric.

Mechanical coupling may result in displacement of the projection profiles by ± 20 mm (coupling play).

Cover panels (1)

Half round cover panel, curved aluminium

Material: curved aluminium
 Material thickness: 2 mm
 Dimensions (HxW): 143x116 mm (type 20.3)
 Dimensions (r): inside 56 mm
 Max. individual length: 2500 mm
 Surface: powder-coated, optionally anodised

Round cover panel, extruded aluminium

two-piece
 Material: aluminium, extruded
 Material thickness: 2 mm
 Dimensions (HxW): 111x111 mm (type 23.3)
 Dimensions (r): inside 53.5 mm
 Surface: powder-coated, anodising optional

Fabric shaft (2)

Material: aluminium, extruded
 Material thickness: 1.5 mm
 Dimensions (\varnothing): 62 mm
 Profile: groove tube
 Surface: plain
 Fixing: can be clamped to the guide rail using fabric shaft consoles

With piping groove for fixing the fabric.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
 Acrylic Perfora/All Weather
 Soltis 92 fabric
 Screen fabric
 More information about the fabrics on page 274
 Designs: According to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

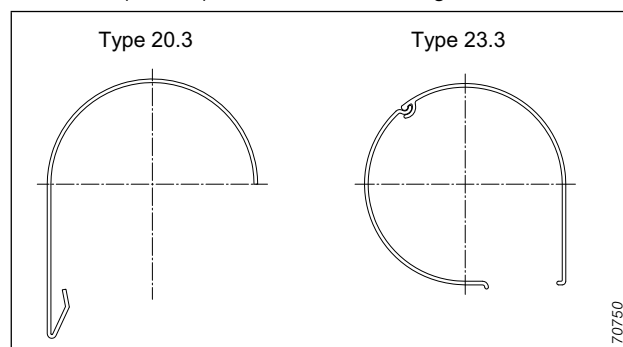


fig. 295: Cover panels

Description

Facade awning 209

Lateral guidance (4)

Rail

Round profile

Material: aluminium, extruded
 Dimensions (Ø): 35 mm
 Profile: round profile with mounting groove
 Surface: powder-coated, optionally anodised
 Fixing: guide rail bracket, two-piece, aluminium
 End cap: plastic, black

C profile

Material: aluminium, extruded
 Material thickness: 2 mm
 Dimensions (WxH): 20/38x40 mm
 Profile: C profile with mounting groove
 Surface: powder-coated, optionally anodised
 Fixing: guide rail bracket, two-piece, aluminium
 End cap: plastic, black

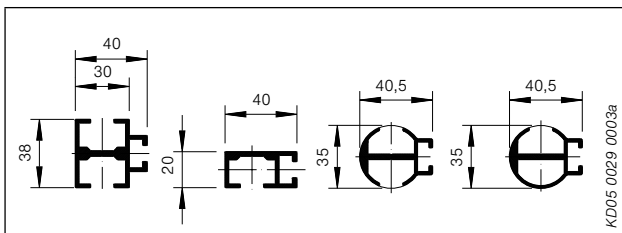


fig. 296: Guide rails

Tension cable

Wire strand

Material: steel, corrosion-resistant
 Coating: polyamide
 Colour: black
 Fixing: tension cable bracket, aluminium, incl. spring tension device, aluminium

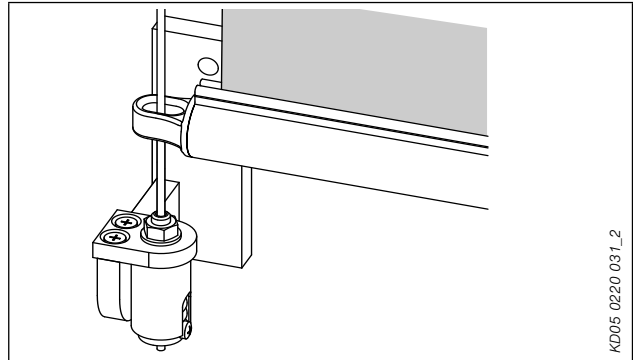


fig. 297: Tension cable

Rod

Material: stainless steel
 Dimensions (Ø): 8 mm
 Fixing: tension cable bracket, cast aluminium
 Surface: powder-coated

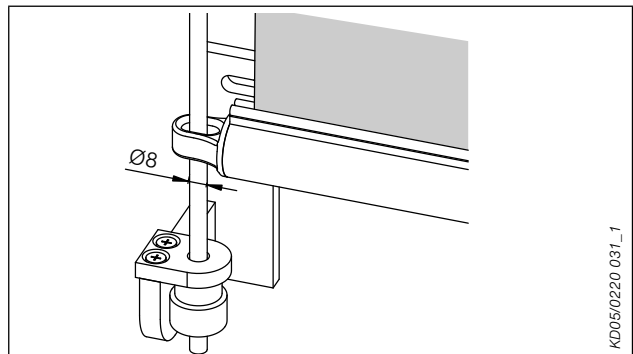


fig. 298: Rod Ø 8 mm

Description

Facade awning 209

Drop profile (5)

Material: aluminium, extruded
 Material thickness: 3 mm
 Dimensions (Ø): 30 mm
 Profile: round profile, mounting groove optional
 Surface: powder-coated, optionally anodised
 Available as models "visible" (standard) or "concealed in fabric" (optional).
 To provide optimal fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

Fixing and connecting parts

Within the facade awnings
 Material: A2 steel or aluminium

Weights

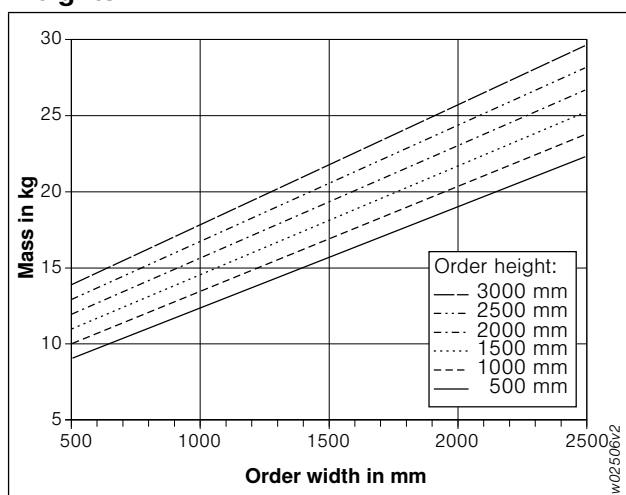


fig. 299: Weight type 209 with guide rails

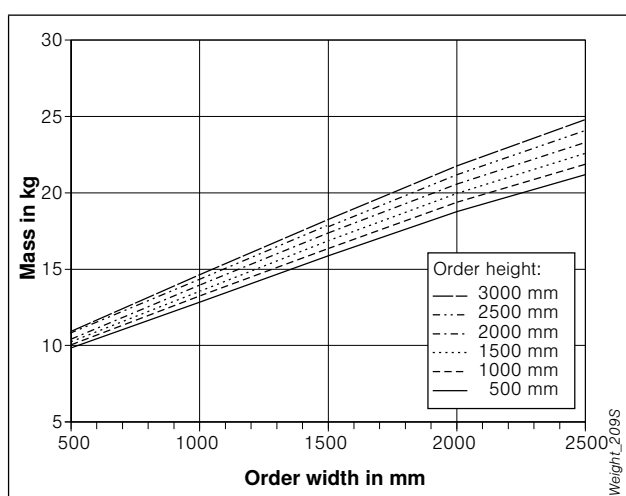


fig. 300: Weight type 209 with guide cables/rods

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours or anodisation are available subject to surcharge.

For anodised facade awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

General note

For mullion/transom facades, facade awnings with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the bore-holes can often be difficult.

Construction limit values **Facade awning 209**

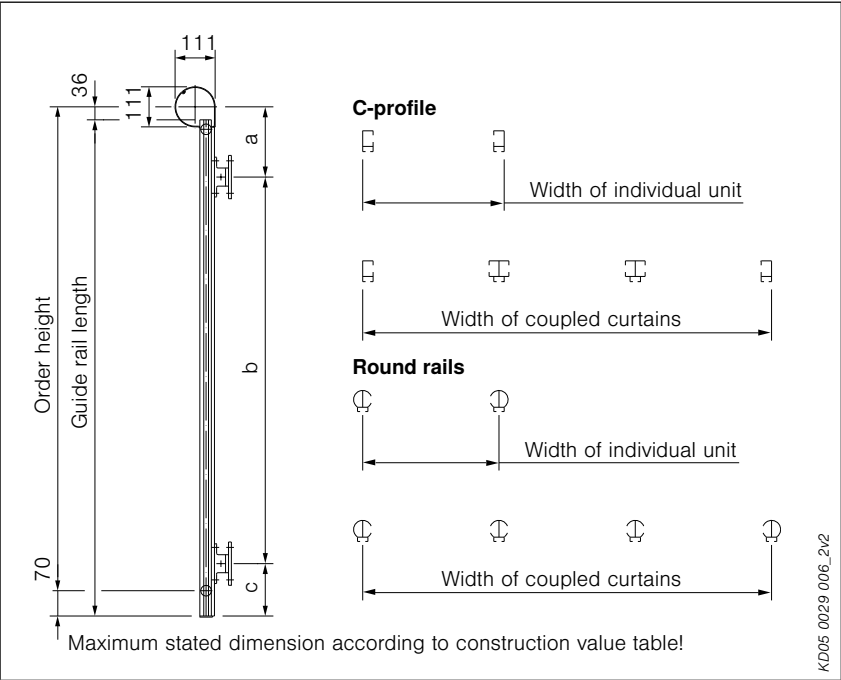


fig. 301: Measuring instructions for facade awning 209

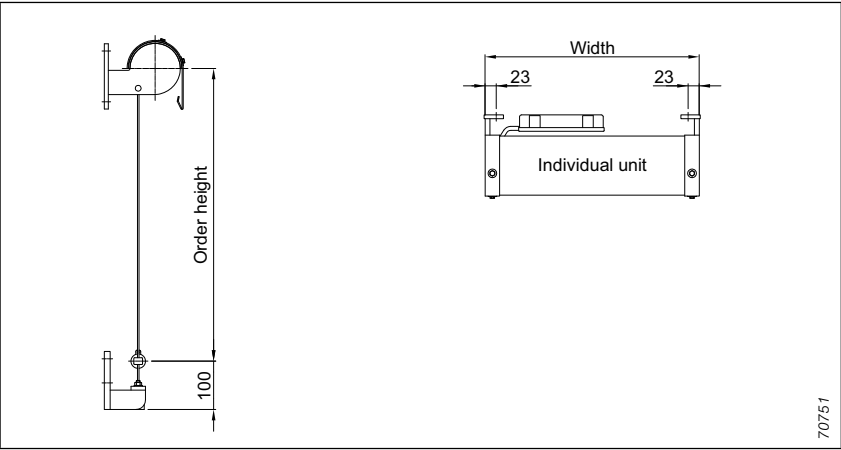


fig. 302: Measuring instructions facade awning 209 – guide cables/rods

Construction limit values

Facade awning 209

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit		Mechanically coupled units	
		Crank	Motor	Crank max. 2	Motor max. 3
For guide rails, rods and cables					
Min. width (mm) ¹⁾	Acrylic – all qualities –	600	630 (655) ²⁾	600	630 ³⁾ (665) ²⁾
	Screen fabric	600	630 (655) ²⁾	600	630 ³⁾ (665) ²⁾
	Soltis 92 fabric	600	630 (655) ²⁾	600	630 ³⁾ (665) ²⁾
Max. width (mm)	Acrylic – all qualities –	2500	2500	5000	7500 ⁴⁾
	Screen fabric	2500	2500	5000	7500 ⁴⁾
	Soltis 92 fabric	2500	2500	5000	7500 ⁴⁾
For guide rails and cables					
Max. height (mm)	Acrylic – all qualities –	2700	2700	2700	2700
	Screen fabric	3000	3000	3000	3000
	Soltis 92 fabric	3000	3000	3000	3000
Max. surface ⁵⁾ (m²)	Acrylic – all qualities –	6.8	6.8	13.5	20.3
	Screen fabric	7.5	7.5	15.0	22.5
	Soltis 92 fabric	7.5	7.5	15.0	22.5
For rod guidance					
Max. height (mm)	Acrylic – all qualities –	2500	2500	2500	2500
	Screen fabric	2500	2500	2500	2500
	Soltis 92 fabric	2500	2500	2500	2500
Max. surface ⁵⁾ (m²)	Acrylic – all qualities –	6.3	6.3	12.5	18.8
	Screen fabric	6.3	6.3	12.5	18.8
	Soltis 92 fabric	6.3	6.3	12.5	18.8

¹⁾ Smaller widths are possible after consultation with the Application Technology department!

²⁾ Exterior insulation and finish system

³⁾ For unit with motor

⁴⁾ Maximum width for cover panel type 23.3 with continuous cover panel is 5000 mm.

⁵⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

Note

The stated maximum dimensions are only valid for standard facade spacing and favourable mounting situations (e.g. reveal installation, low mounting height above ground, sheltered from wind).

Height dimensions in the maximum range have to be cleared with the Application Technology department beforehand.

Spacings and number of brackets

Rail type	Spacings of brackets in mm					Number of brackets for rail lengths in mm ¹⁾		
	a		b	c		Number of brackets		
	min.	max.	max.	min.	max.	2 to	3 to	4 to
Ø 35	150	250	2000	70	300	2300	4300	6000
20x40	150	250	2000	70	300	2300	4300	6000
38x40	150	250	2000	70	300	2300	4300	6000

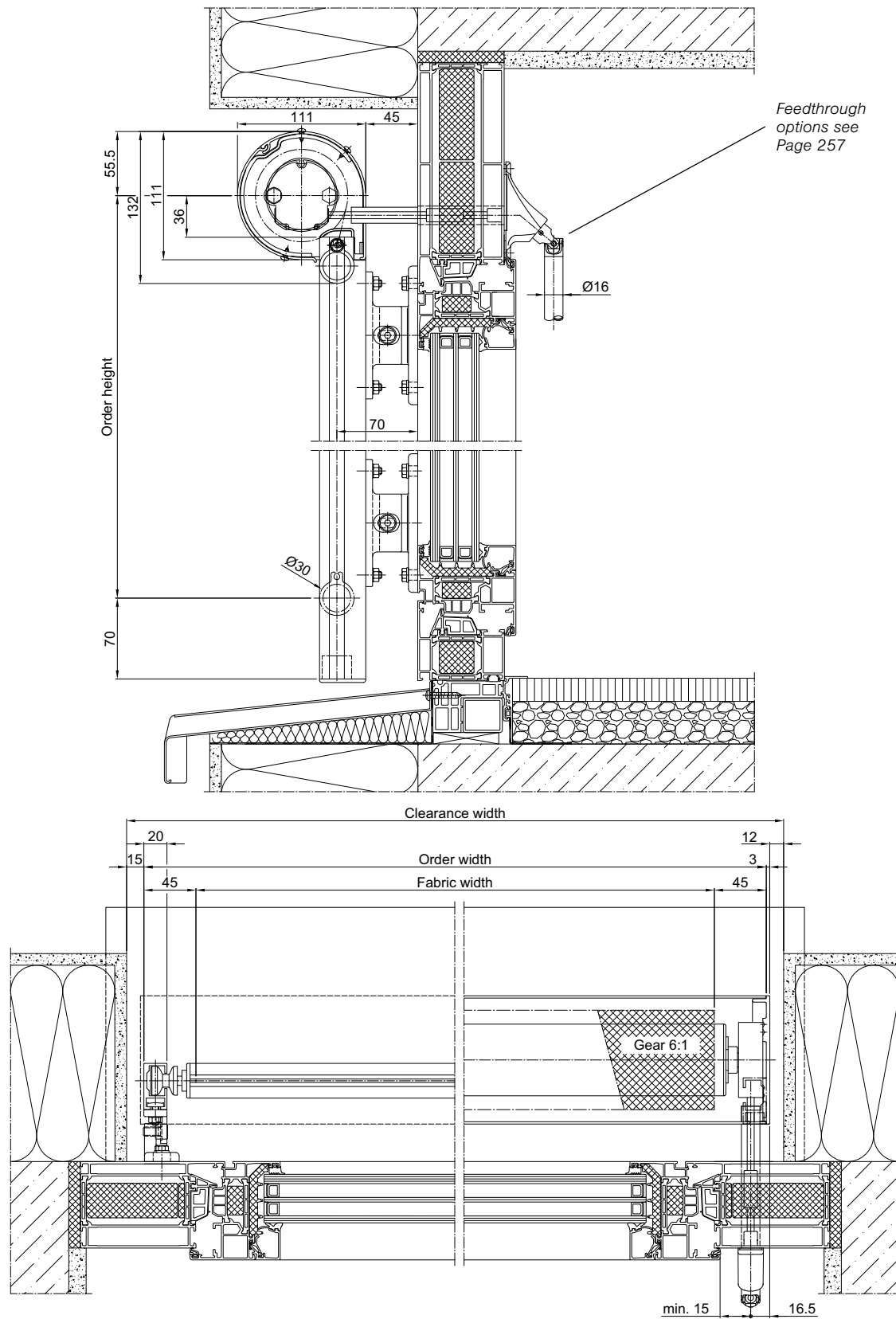
¹⁾ **Note:** The number of brackets for the given rail lengths applies when the exact position of the brackets is not known.

Application example

Facade awning 209

with guide rail 20x40 mm

Gear 6:1, cover panel type 23.3



70888

fig. 303: Facade awning 209 with guide rail 20x40 mm, gear 6:1, cover panel type 23.3

Application example

Facade awning 209

with guide rail 20x40 mm

Cover panel type 20.3

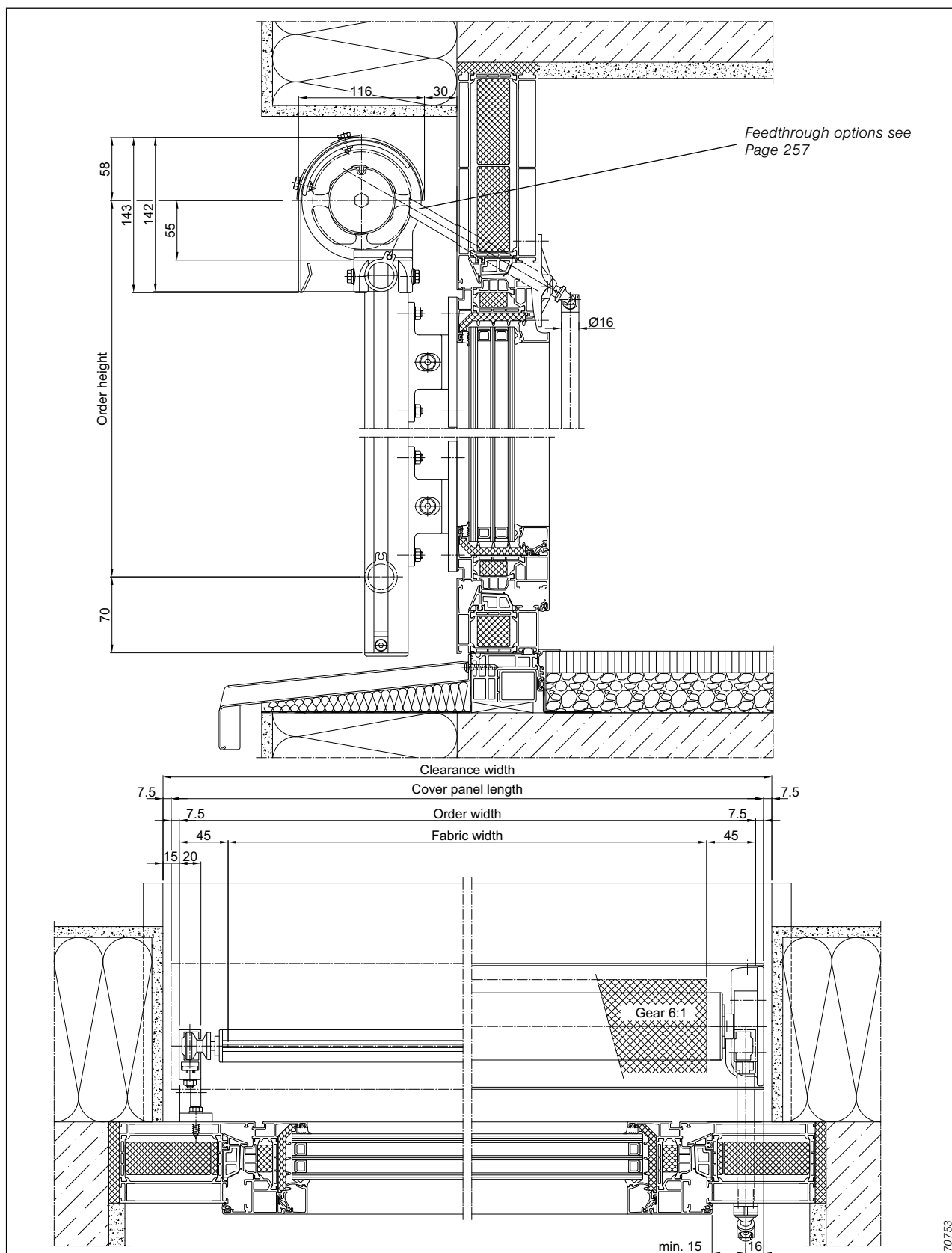


fig. 304: Facade awning 209 with guide rail 20x40 mm, cover panel type 20.3

Application example
Facade awning 209
with round rail Ø 35 mm
Cover panel type 20.3

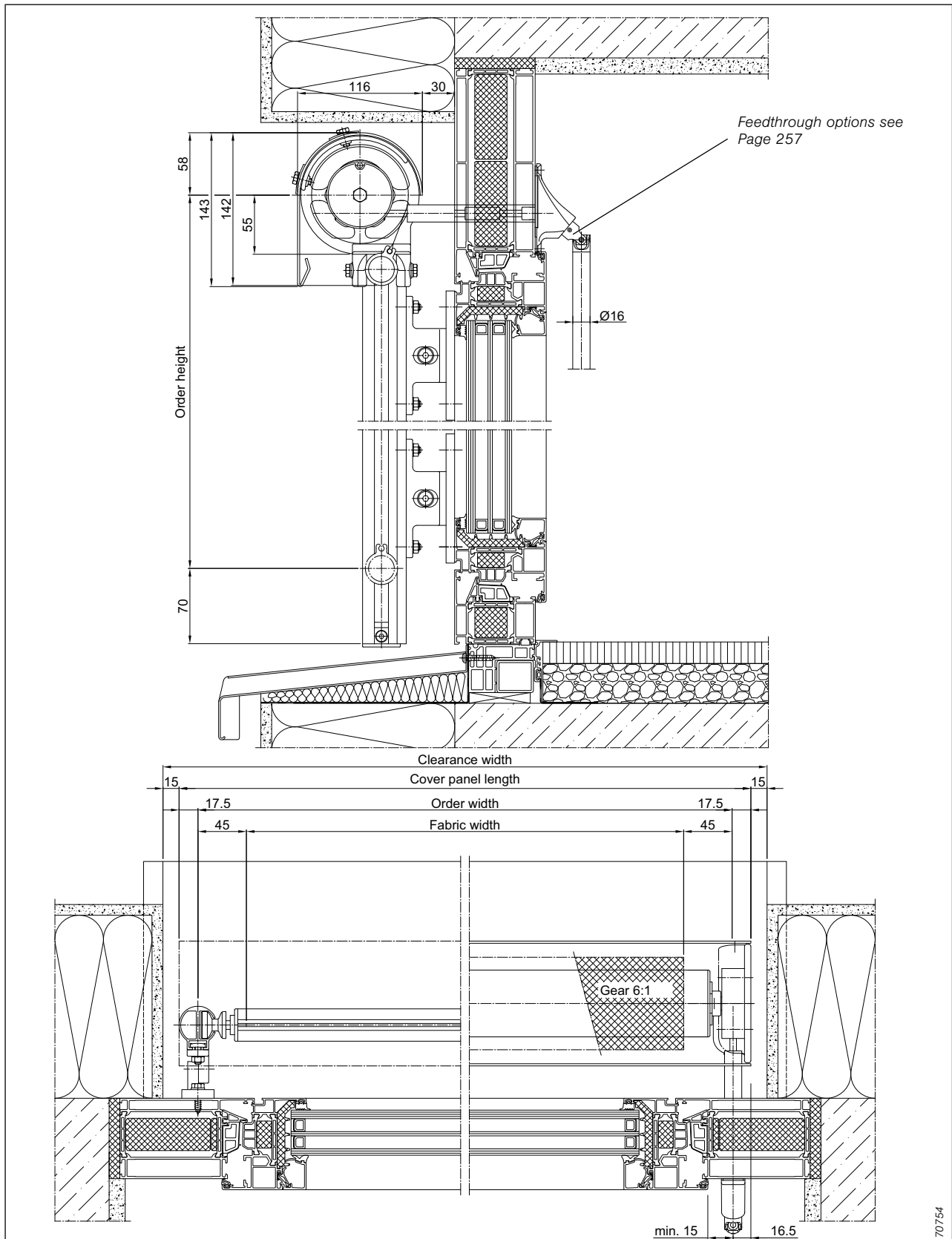


fig. 305: Facade awning 209 with round rail Ø 35 mm, cover panel type 20.3

Application example
Facade awning 209
with round rail Ø 35 mm
Cover panel type 23.3

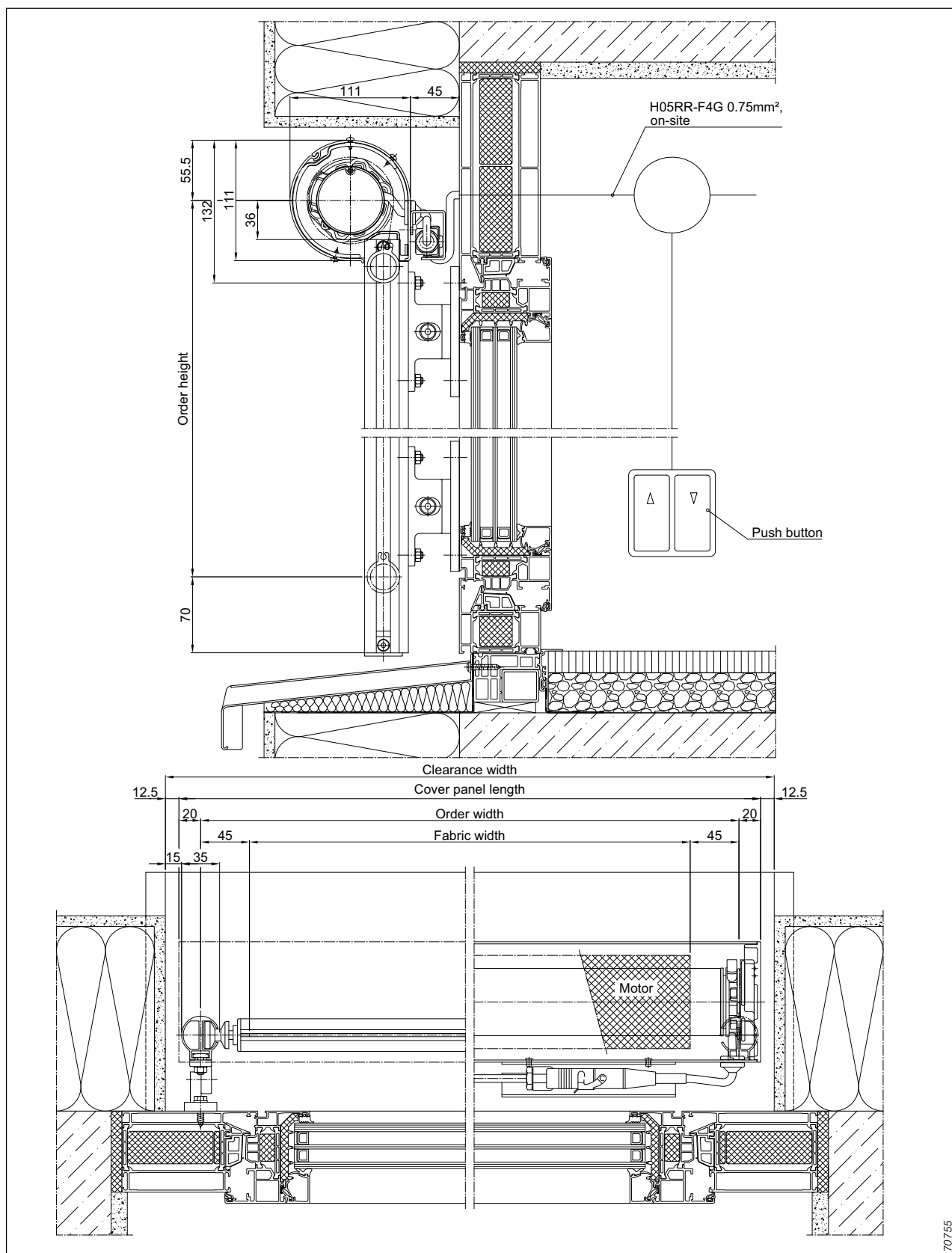
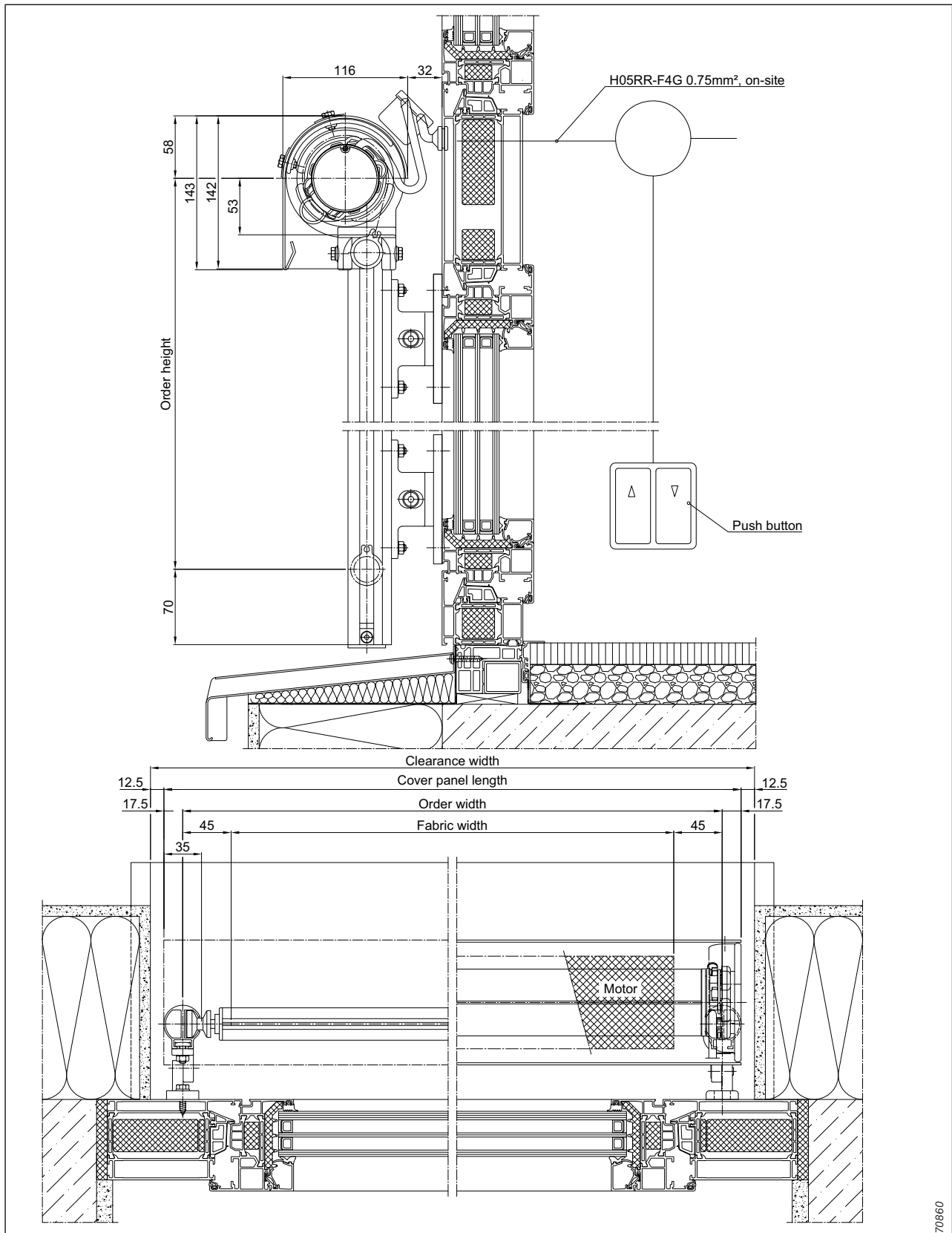


fig. 306: Facade awning 209 with round rail Ø 35 mm, cover panel type 23.3

Application example
Facade awning 209
with round rail Ø 35 mm
Cover panel type 20.3



70660

fig. 307: Facade awning 209 with round rail Ø 35 mm, cover panel type 20.3

Application example

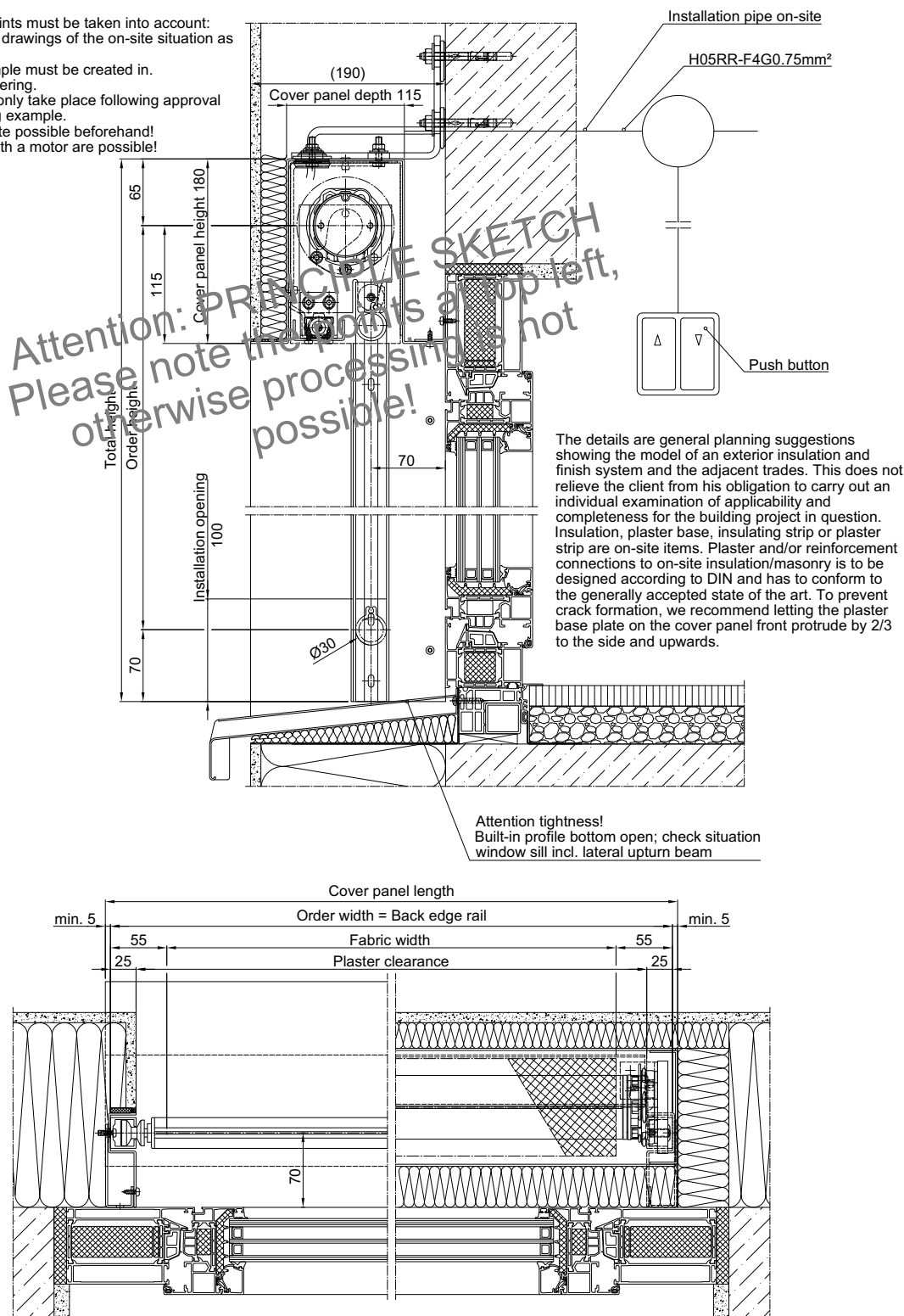
Facade awning 209

with guide rail 25x30 mm embedded in plaster in heat-insulated facade

Attention: not standard! Longer delivery times due to technical clarification!

The following points must be taken into account:

- Please provide drawings of the on-site situation as CAD files!
- Mounting example must be created in.
- Applied Engineering.
- The order can only take place following approval of the mounting example.
- NO delivery date possible beforehand!
- Only models with a motor are possible!



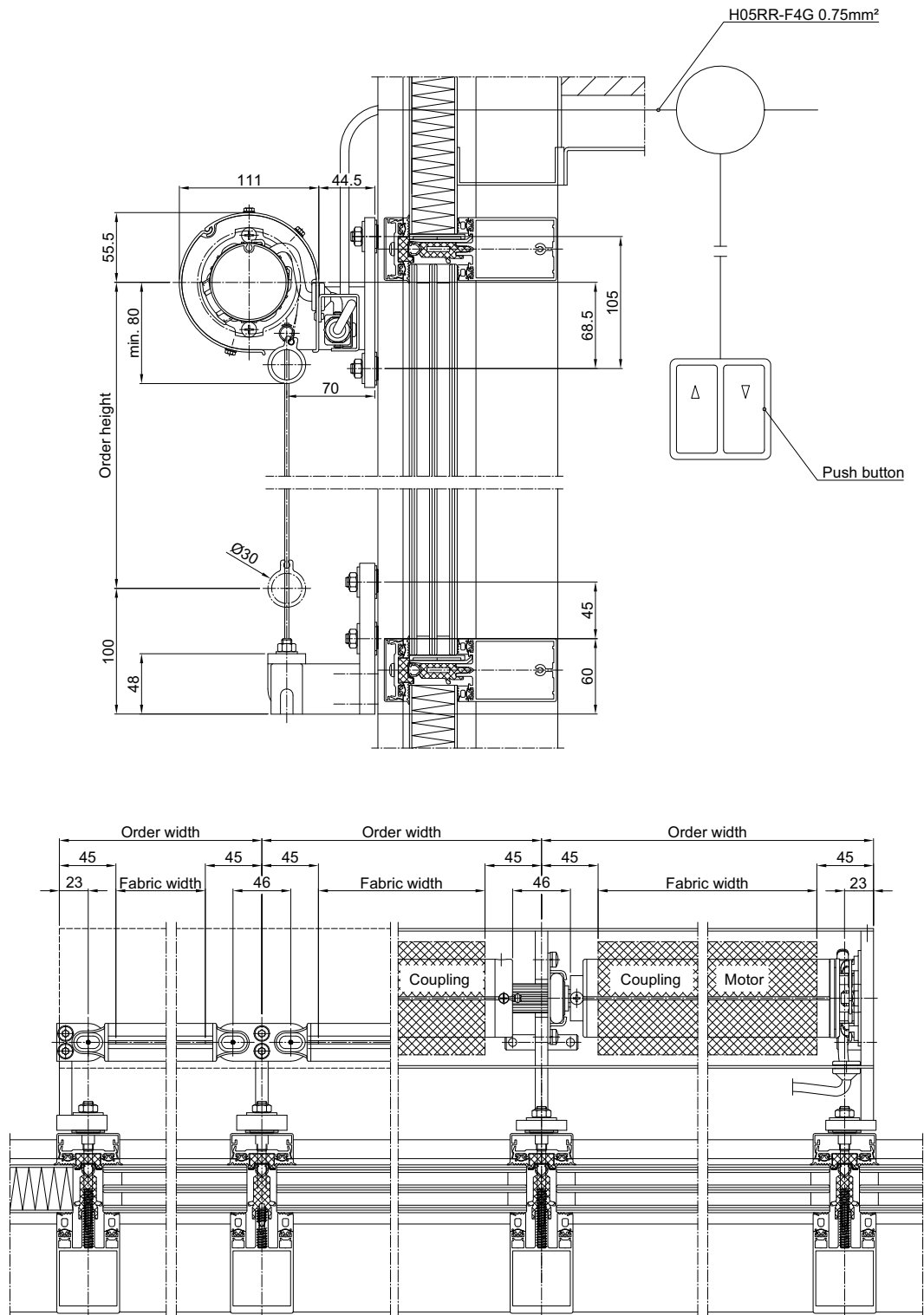
70890

fig. 308: Facade awning 209 with guide rail 25x30 mm, embedded in plaster in heat-insulated facade

Application example

Facade awning 209

with round cover panel type 23.3 and tension cable



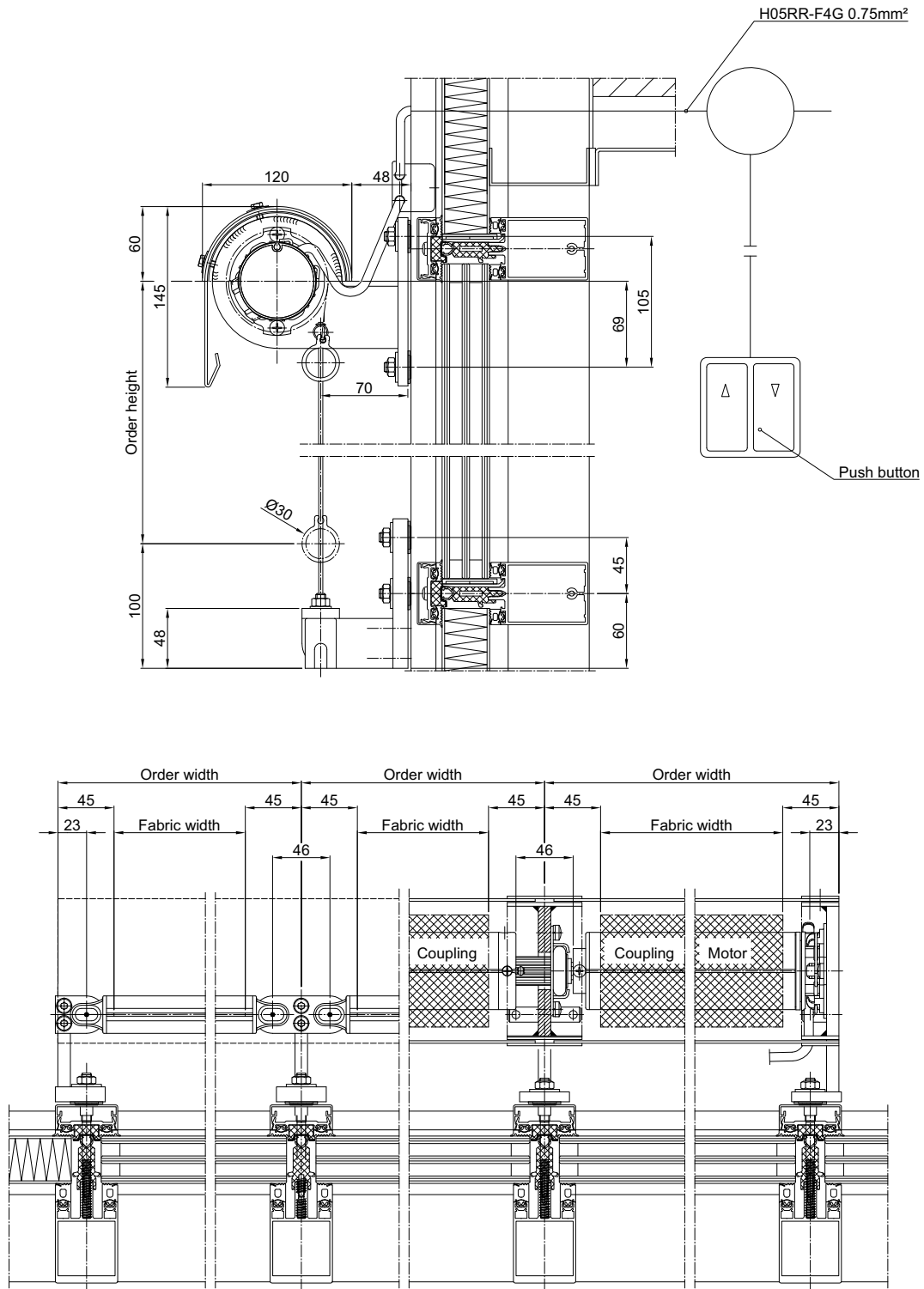
70891

fig. 309: Facade awning 209 with round cover panel type 23.3 and tension cable

Application example

Facade awning 209

with half round cover panel type 20.3 and tension cable



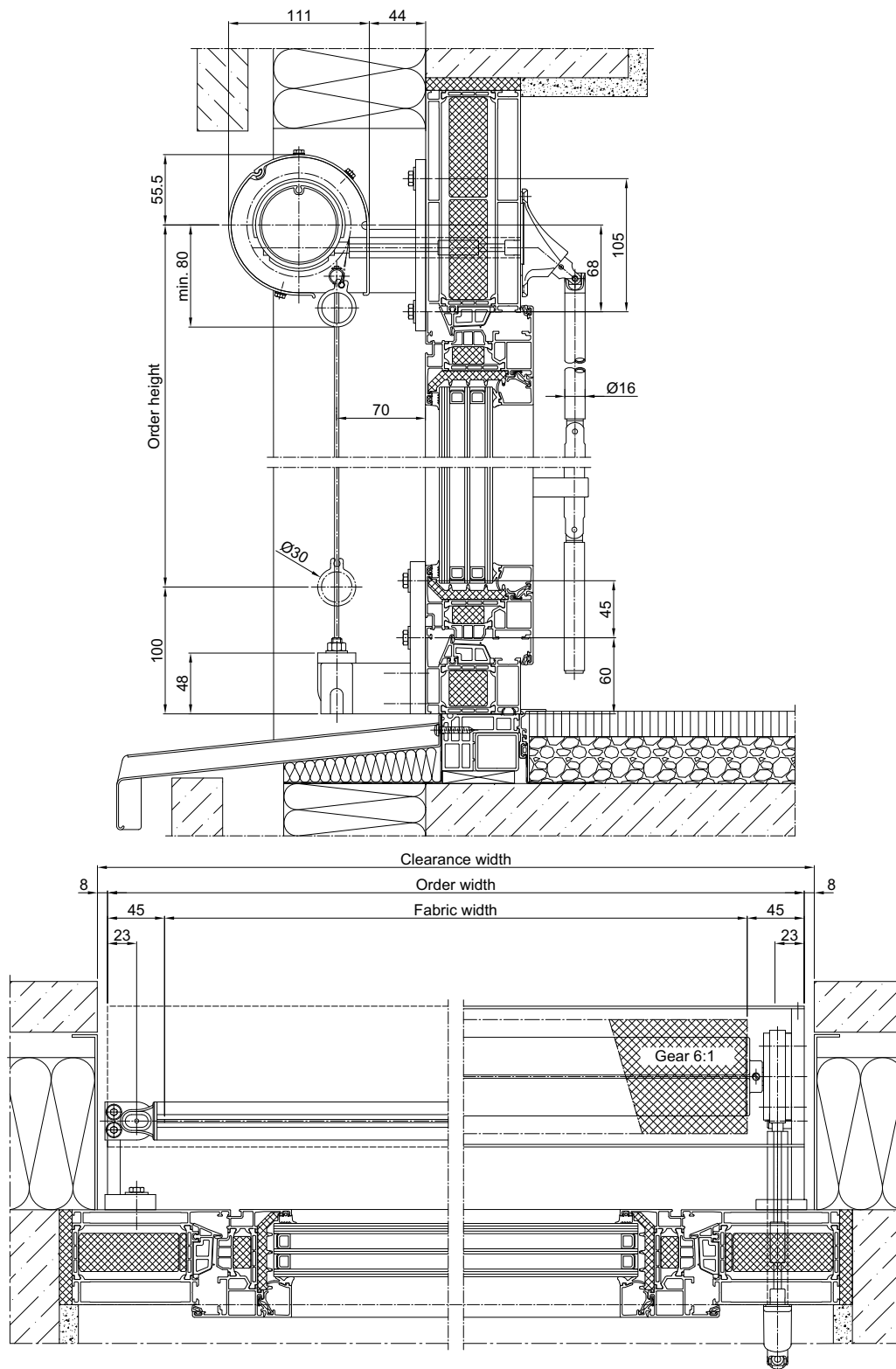
70892

fig. 310: Facade awning 209 with half round cover panel type 20.3 and tension cable

Application example

Facade awning 209

with round cover panel type 23.3 and tension cable



70893

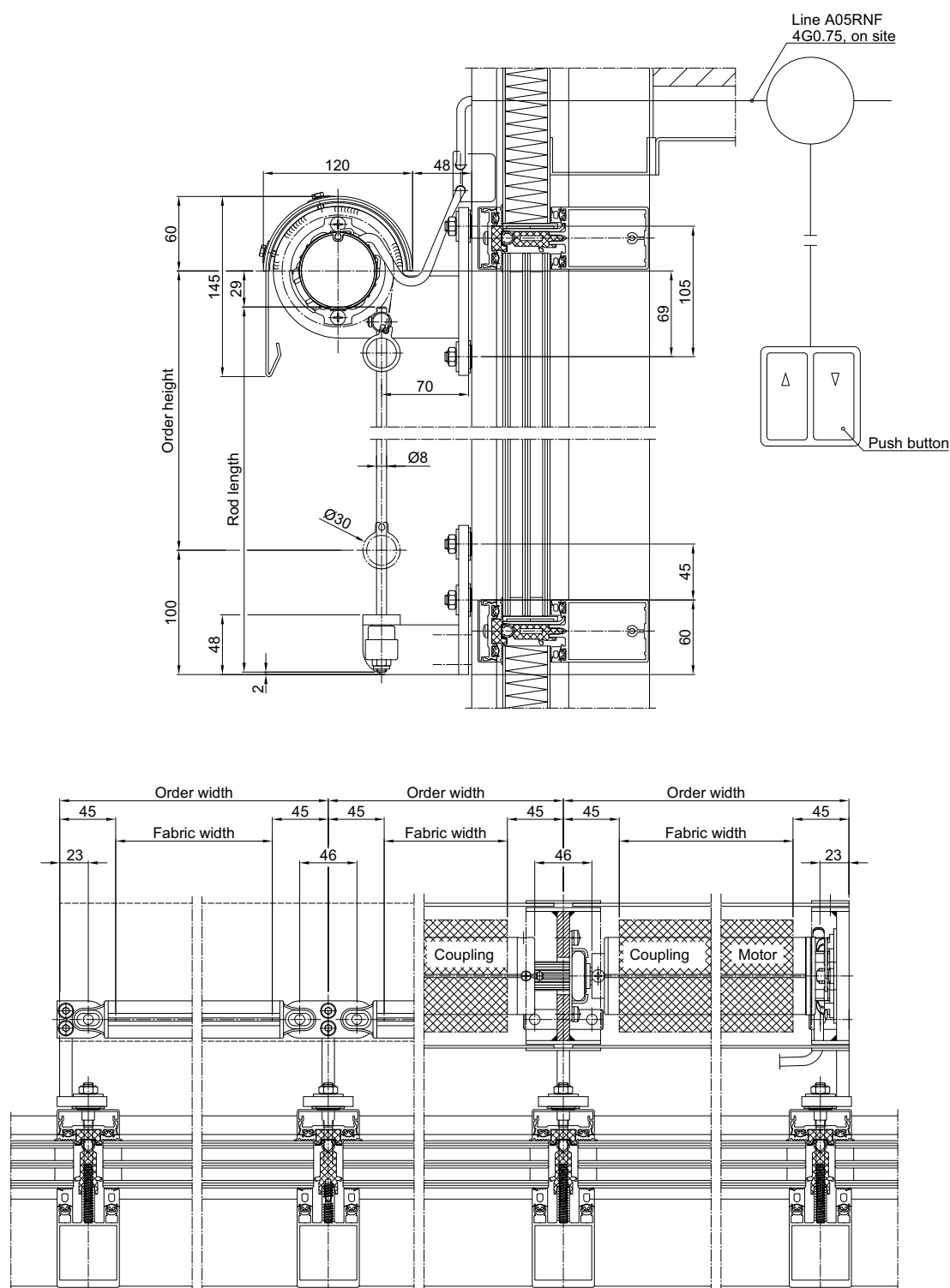
fig. 311: Facade awning 209 with round cover panel type 23.3 and tension cable

Application example

Facade awning 209

with half-round cover panel type 20.3

and guide rod $\varnothing 8$ mm



70894

fig. 312: Facade awning 209 with half-round cover panel type 20.3 and guide rod $\varnothing 8$ mm

Application example

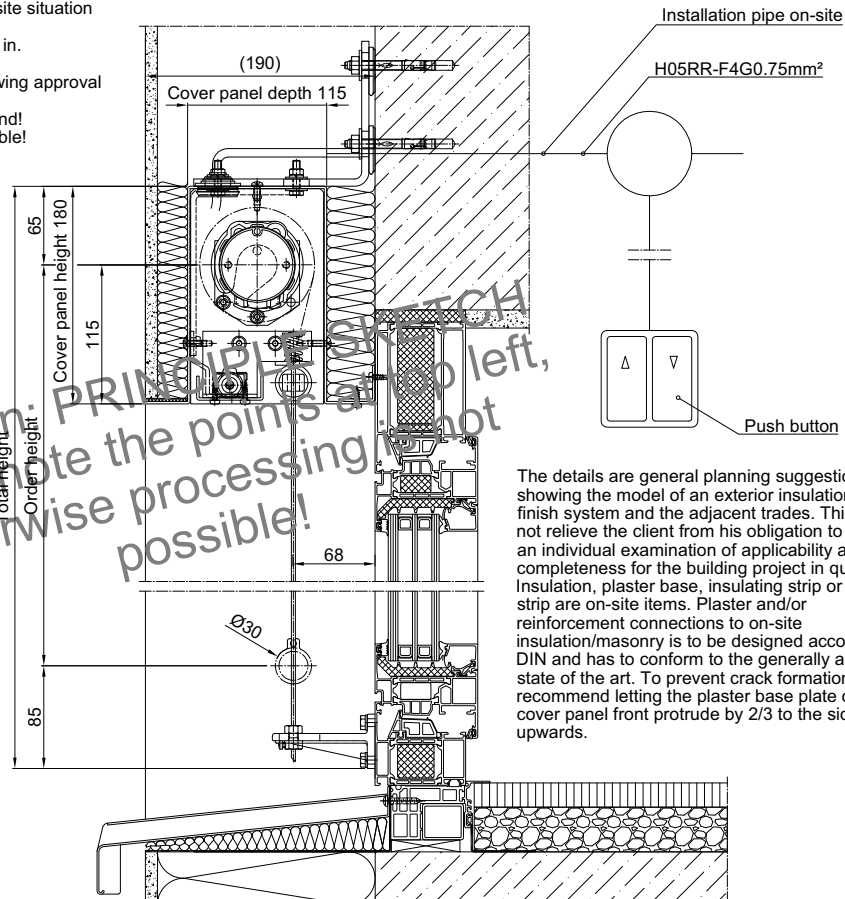
Facade awning 209 with cable guidance in heat-insulated facade

Attention: not standard! Longer delivery times due to technical clarification!

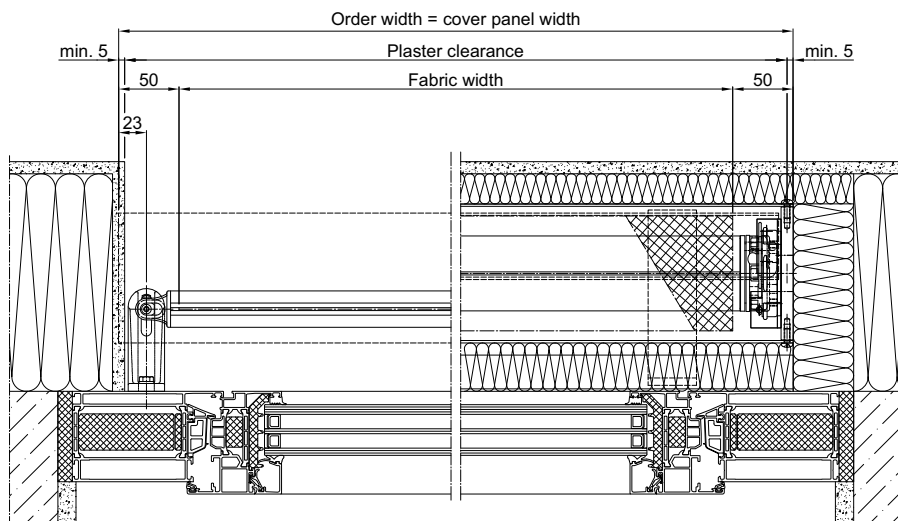
The following points must be taken into account:

- Please provide drawings of the on-site situation as CAD files!
- Mounting example must be created in.
- Applied Engineering.
- The order can only take place following approval of the mounting example.
- NO delivery date possible beforehand!
- Only models with a motor are possible!

Attention: **PRINZIP** only!
Please note the points at top left, otherwise processing not possible!



The details are general planning suggestions showing the model of an exterior insulation and finish system and the adjacent trades. This does not relieve the client from his obligation to carry out an individual examination of applicability and completeness for the building project in question. Insulation, plaster base, insulating strip or plaster strip are on-site items. Plaster and/or reinforcement connections to on-site insulation/masonry is to be designed according to DIN and has to conform to the generally accepted state of the art. To prevent crack formation, we recommend letting the plaster base plate on the cover panel front protrude by 2/3 to the side and upwards.



70889

fig. 313: Facade awning 209 with guide cables in heat-insulated facade

Details

Joint plates for 6 mm square – with thermal separation

Field of application types 109, 209, 350

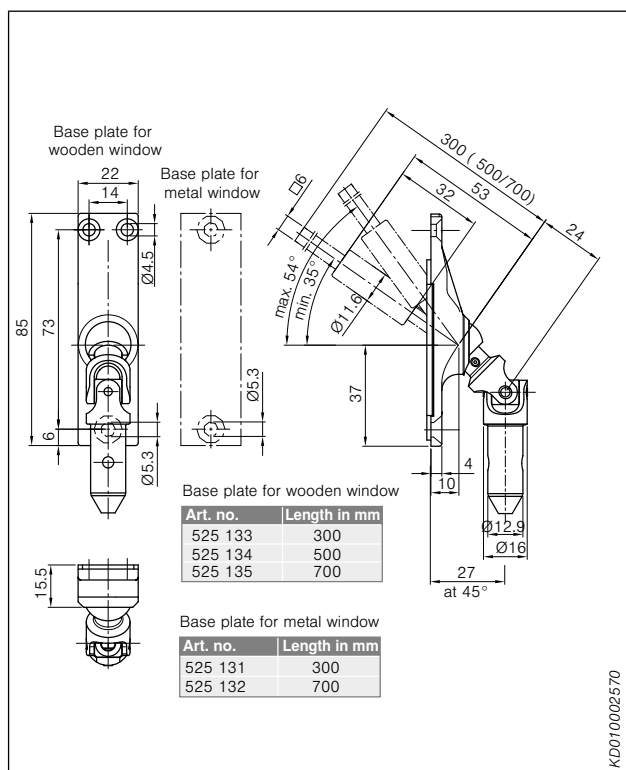


fig. 314: Joint plate 35°-54°

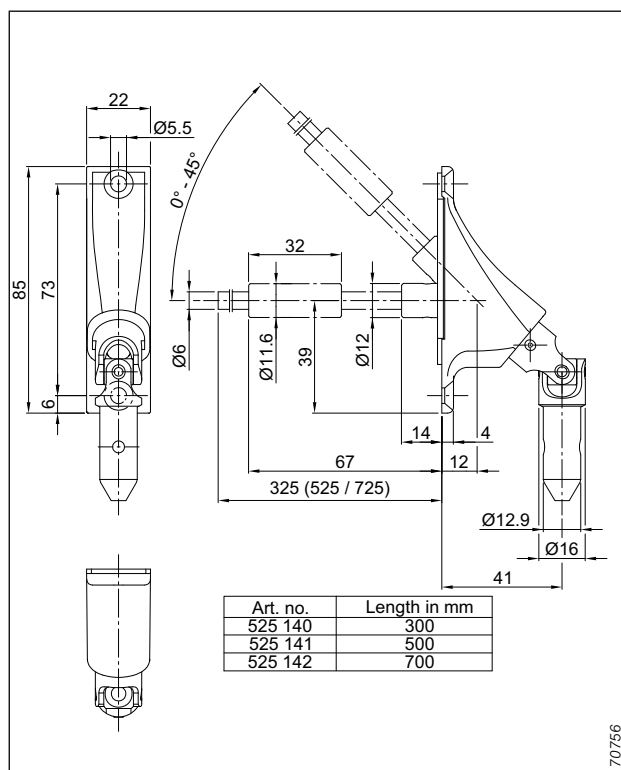


fig. 315: Joint plate 0°-45°

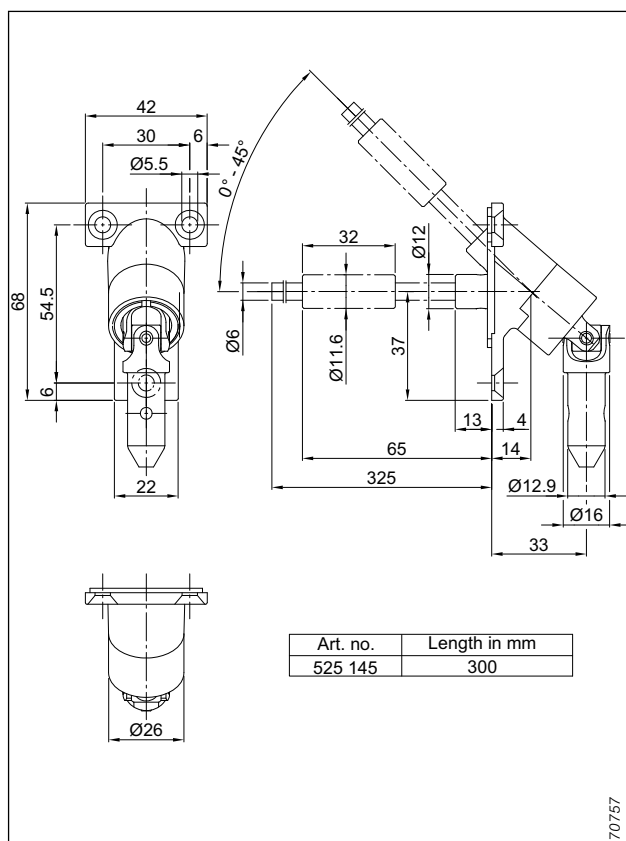


fig. 316: Joint plate 0°-45°

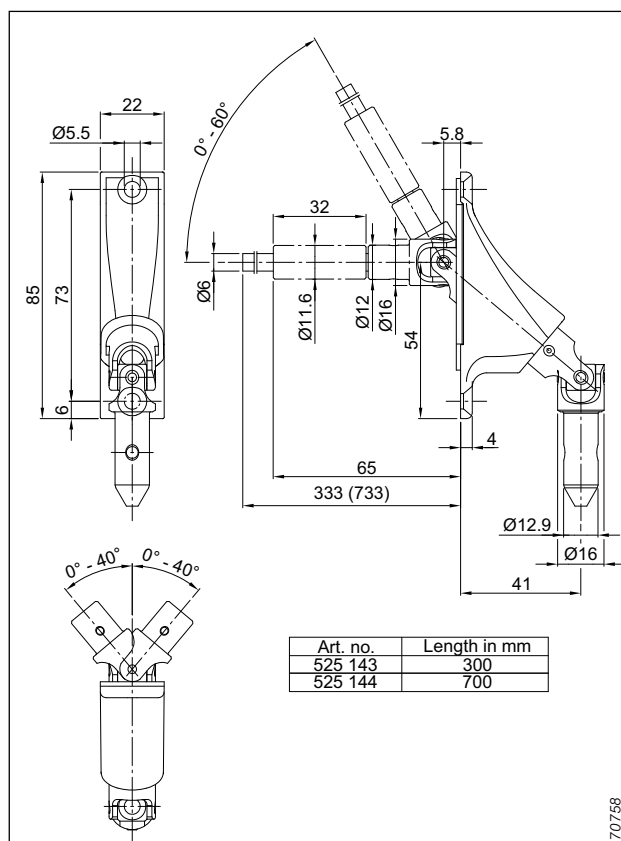


fig. 317: Joint plate 0°-60°

Details

Joint plates for 6 mm square – with thermal separation Field of application types 109, 209, 350

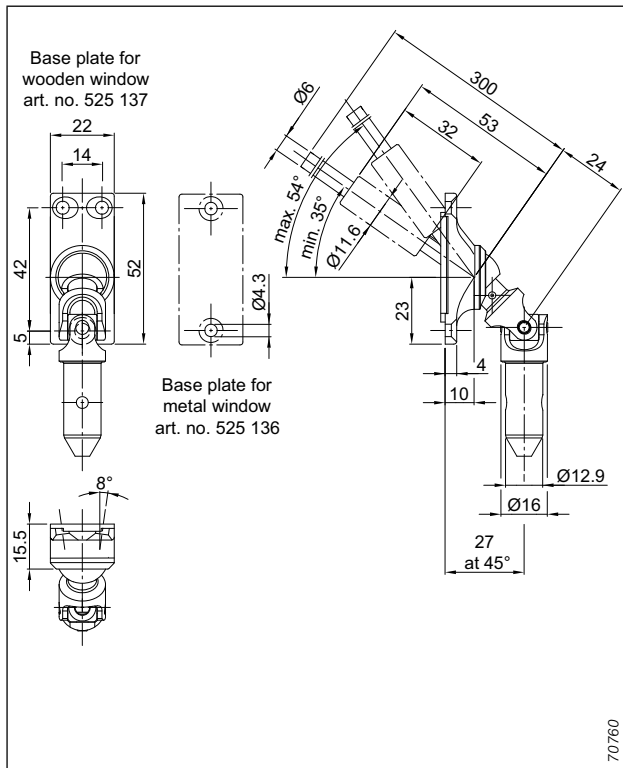


fig. 318: Joint plate 35°–54°

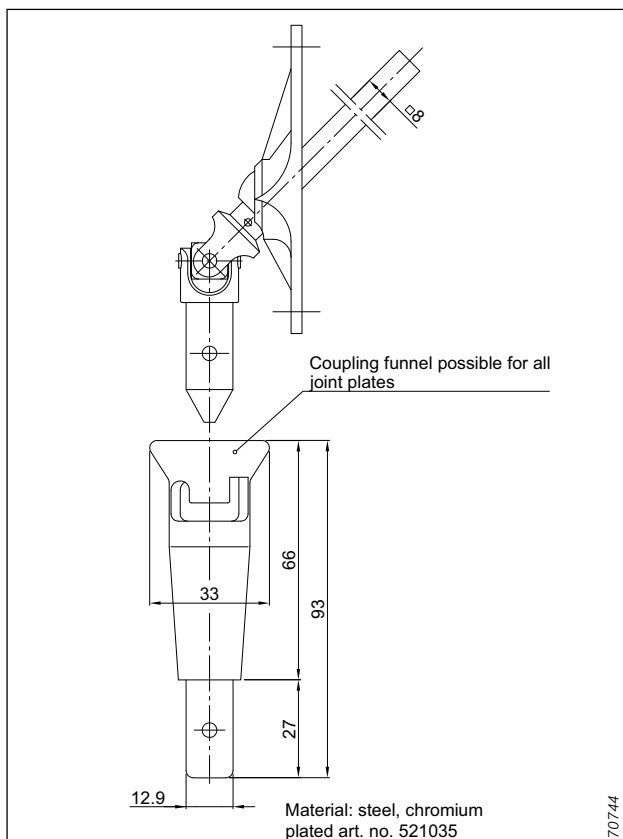


fig. 319: Coupling funnel

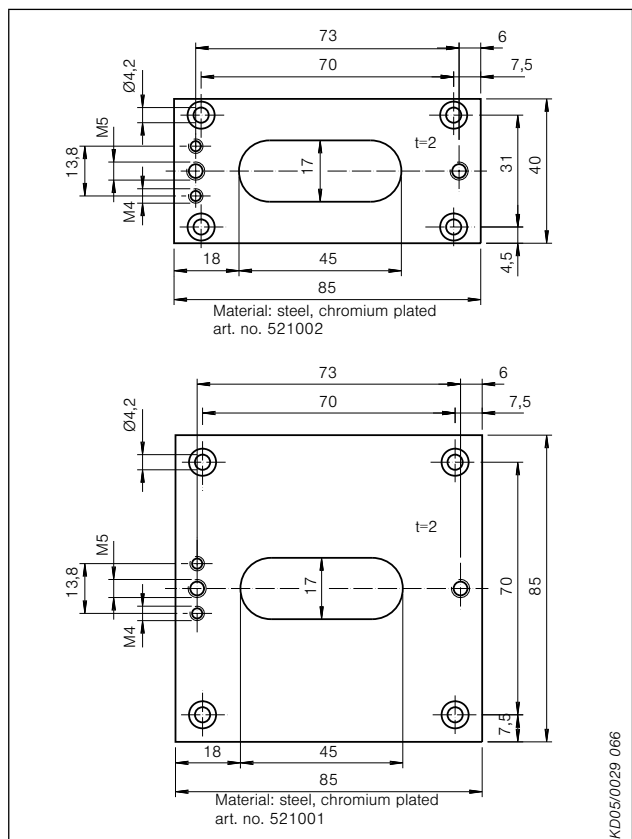


fig. 320: Washer for joint plates

Contents

Markisolettes

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Markisolette 101.....	225
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Solflex AB försäljning och service västra Skåne. Showroom och rådgivning;
Malmö Slussplan 1, 040-979745. Helsingborg Garnisonsg 12, 042-161635.
kontakter@solflex.se www.solflex.se

Equipment

Markisolettes

	Markisolettes			
	101	107	109	150
Drive and operation				
– Motor	●	●	●	●
– EWFS and/or WMS radio motor	○	○	○	–
– Plug-in connector, loose	–	–	–	●
– Plug-in connector, wired	●	●	●	○
– Control systems	○	○	○	○
– Crank	○	○	○	○
Mechanically coupled curtains				
– Motor 2 curtains	○	○	○	○
– Motor 3 curtains	○	○	○	–
– Crank 2 curtains	○	○	○	○
– Crank 3 curtains	–	–	–	–
Lateral guides				
– Round profile Ø 40 mm	●	–	–	–
– Round profile Ø 35 mm	–	–	●	–
– C profile 20/38x40 mm (with groove)	●	–	●	●
– C profile 25x30 mm (open front)	–	–	–	–
– Round profile Ø 15 mm	–	●	–	–
Mounting situation				
– with spacing (flexible distance to the facade)	●	●	●	○
– without spacing (direct installation)	–	–	–	●
Projection system				
– Standard projection	594 mm	548 mm	511 mm	511 mm
– max. projection angle	150°/135° ¹⁾	120°	150°	145°
– Gas pressure spring	○	–	–	–
Surface treatment of aluminium parts				
– powder-coated according to	WAREMA Colour World			RAL 9006 RAL 9016 RAL 8016 satin finish
– Special coating	○	○	○	○
– C0 anodised	○	○	○	●
– anodised in colour	○	○	○	○
Fabric				
– Standard/Lumera acrylic fabric	●	●	●	●
– Acrylic All Weather, Perfora	○	○	○	○
– Screen fabric	○	○	○	○
– Soltis 92 fabric	○	○	○	○

¹⁾ For versions with gas pressure spring

- standard
- optional
- not available

Description

Markisolette 101

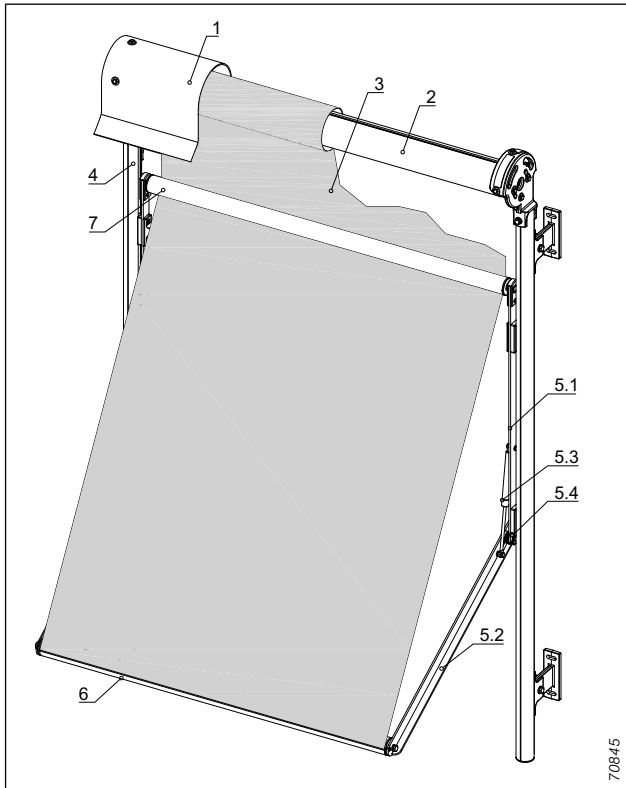


fig. 321: Markisolette 101

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Projection system
 - 5.1 Connecting rail
 - 5.2 Drop arm
 - 5.3 Pressure spring
 - 5.4 Windlock mechanism
- 6 Drop profile
- 7 Guiding tube

Application

Textile external sun shading system with projection effect for shading large vertical facade areas, e.g. mullion/transom facades.

The upper part of the fabric remains parallel to the glass.

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/ WMS Plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank

Material: aluminium
Surface: C0 anodised

Ratio: 3:1 or 7.8:1 (for larger and coupled facade awnings)

Crank holder: plastic (grey, white or brown), crank holder with magnet optional

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panels (1)

Half-round cover panel, aluminium, extruded

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (HxD): 191x181 mm, incl. water drip (type 2.3)

Dimensions (r): inside 71 mm

Max. individual length: 4000 mm

Surface: powder-coated, optionally anodised

The front leg is bent outwards by 48 mm at an angle of 45° to provide weather protection.

Round cover panel, extruded aluminium two-piece

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (HxWT): 146x146 mm (type 8.3)

Dimensions (r): inside 70.5 mm

Max. individual length: 4000 mm

Surface: powder-coated, optionally anodised

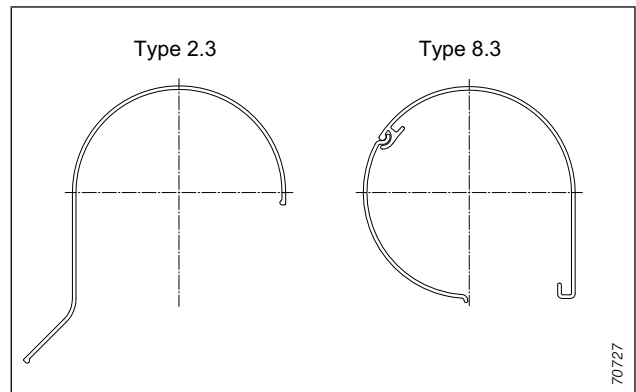


fig. 322: Cover panels

Fabric shaft (2)

Material: steel, galvanised

Material thickness: 1 mm

Dimensions (Ø): 78 mm

Profile: groove tube

Surface: plain

Fixing: can be clamped to the rail using fabric shaft consoles

With piping groove for attaching the fabric

Description

Markisolette 101

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric
More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Lateral guidance (4)

Rail

Round profile

Material: aluminium, extruded
Dimensions (Ø): 40 mm
Profile: round profile with mounting groove
Surface: powder-coated, optionally anodised
Fixing: guide rail bracket, two-piece, aluminium

C profile

Material: aluminium, extruded
Material thickness: 2 mm
Dimensions (WxH): 20/38x40 mm
Profile: C profile with mounting groove
Surface: powder-coated, optionally anodised
Fixing: guide rail bracket, two-piece, aluminium

End cap: plastic, black

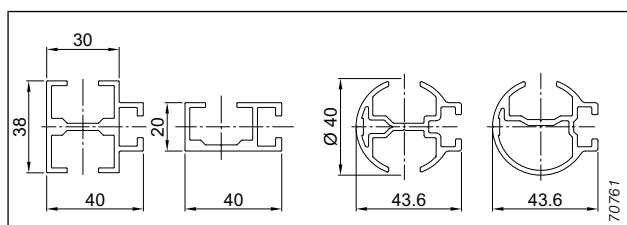


fig. 323: Guide profiles

Projection system (5)

Connecting rail (5.1)

Material: aluminium
Material thickness: 5 mm
Dimension (B): 25 mm
Profile: flat profile
Surface: powder-coated, optionally anodised
Slider: plastic, for guiding in the rail

Drop arm (5.2)

Material: aluminium
Material thickness: 4 mm
Dimensions (WxH): 30x20 mm
Profile: angle-shaped profile
Surface: powder-coated, optionally anodised
Projection angle: circular up to 150°
with gas pressure spring (optional) up to 135°

Projection: 594 m

Pressure spring (5.3)

Situated in the joint, nearly invisible
Material: steel, corrosion-resistant
Gas pressure spring optional.

Windlock mechanism (5.4)

Includes height-adjustable windlock mechanism in the guide rail for additional locking against gusts of wind.
Effective at projection angles of 90° – 150°.

Drop profile (6)

Material: aluminium, extruded
Material thickness: 2 mm
Dimensions (Ø): 40 mm
Profile: round profile, mounting groove optional

Surface: powder-coated, optionally anodised
Connection from drop arm to drop profile through 2-point fixing using a plastic insert in the drop profile.
With additional edge protection for the awning fabric.
Available as models "visible" (standard) or "concealed in fabric" (optional). To provide optimum fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

Guiding tube (7)

Material: aluminium, extruded
Material thickness: 2 mm
Dimensions (Ø): 40 mm
Profile: round tube
Surface: powder-coated, optionally anodised
The guide tube is fixed to the lateral connection rails and locked using stainless steel bearing bolts.

Connecting and fixing components

Within the facade awnings
Material: A2 steel or aluminium

Weights

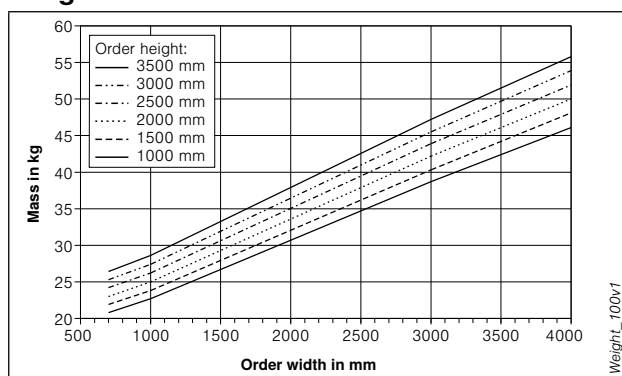


fig. 324: Weight type 101

Description

Markisolette 101

Colours

Powder coating of the aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and anodisation are available on request at a surcharge.

For anodised facade awnings the visible cast aluminium parts are powder-coated to match the anodised colour.

General note

For mullion/transom facades, markisolettes with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the bore-holes can often be difficult.

Overview

Window awnings with ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

Fixing systems

Fabrics

Drives/control systems

Construction limit values

Markisolette 101

Notes:

Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.

Screen fabrics can be used crosswise up to a curtain length of 1900 mm. The maximum order width is then 3000 mm.

The following applies to both fabrics:
All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.

Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

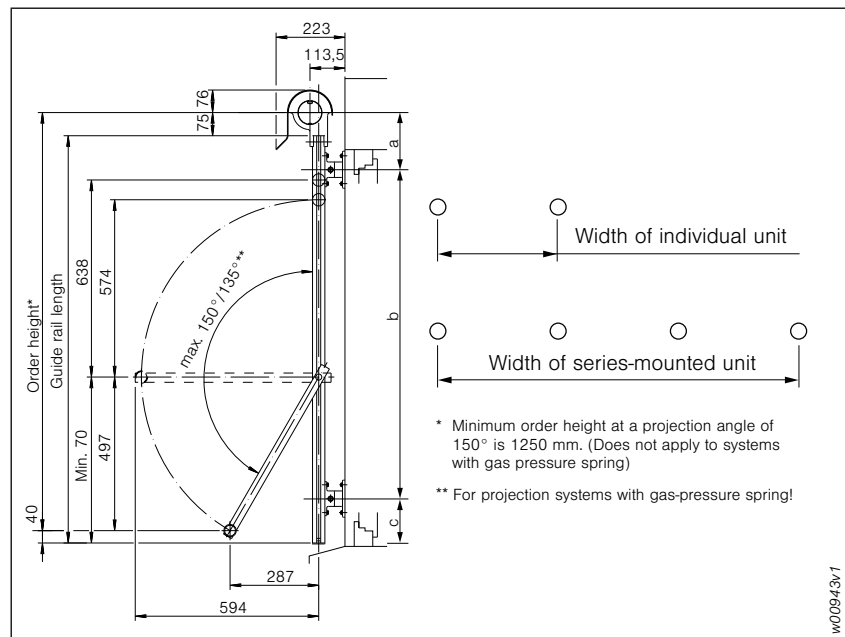


fig. 325: Measuring instructions for Markisolette 101

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit		Mechanically coupled curtains	
		Crank	Motor	max. 2 Crank	max. 3 Motor
Min. width (mm)	Acrylic – all qualities –	500	625	500	690 ¹⁾
	Screen fabric	500	625	500	690 ¹⁾
	Soltis 92 fabric	500	625	500	690 ¹⁾
Max. width (mm)	Acrylic – all qualities –	3000	4000	5000	12000
	Screen fabric	2500	2500	5000	7500
	Soltis 92 fabric	3000	4000	5000	12000
Max. height (mm)	Acrylic – all qualities –	3500	3500	3500	3500
	Screen fabric	3000	3500	3000	3500
	Soltis 92 fabric	3000	3500	3000	3500
Max. surface ²⁾ (m ²)	Acrylic – all qualities –	10.5	14.0	17.5	42.0
	Screen fabric	7.5	8.8	15.0	26.3
	Soltis 92 fabric	9.0	14.0	15.0	42.0

¹⁾ For curtain with motor drive

²⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

Construction limit values

Markisolette 101

Spacings and number of brackets

Rails	Spacings of brackets in mm					Number of brackets for rail lengths in mm		
	a		b	c		Number of brackets		
	min.	max.	max.	min.	max.	2 to	3 to	4 to
Ø 40	180	300	2300	70	350	2500	4800	6000
20x40	180	300	2000	70	300	2300	4300	6000
38x40	180	300	2000	70	300	2300	4300	6000

Overview

Window awnings with ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

Fixing systems

Fabrics

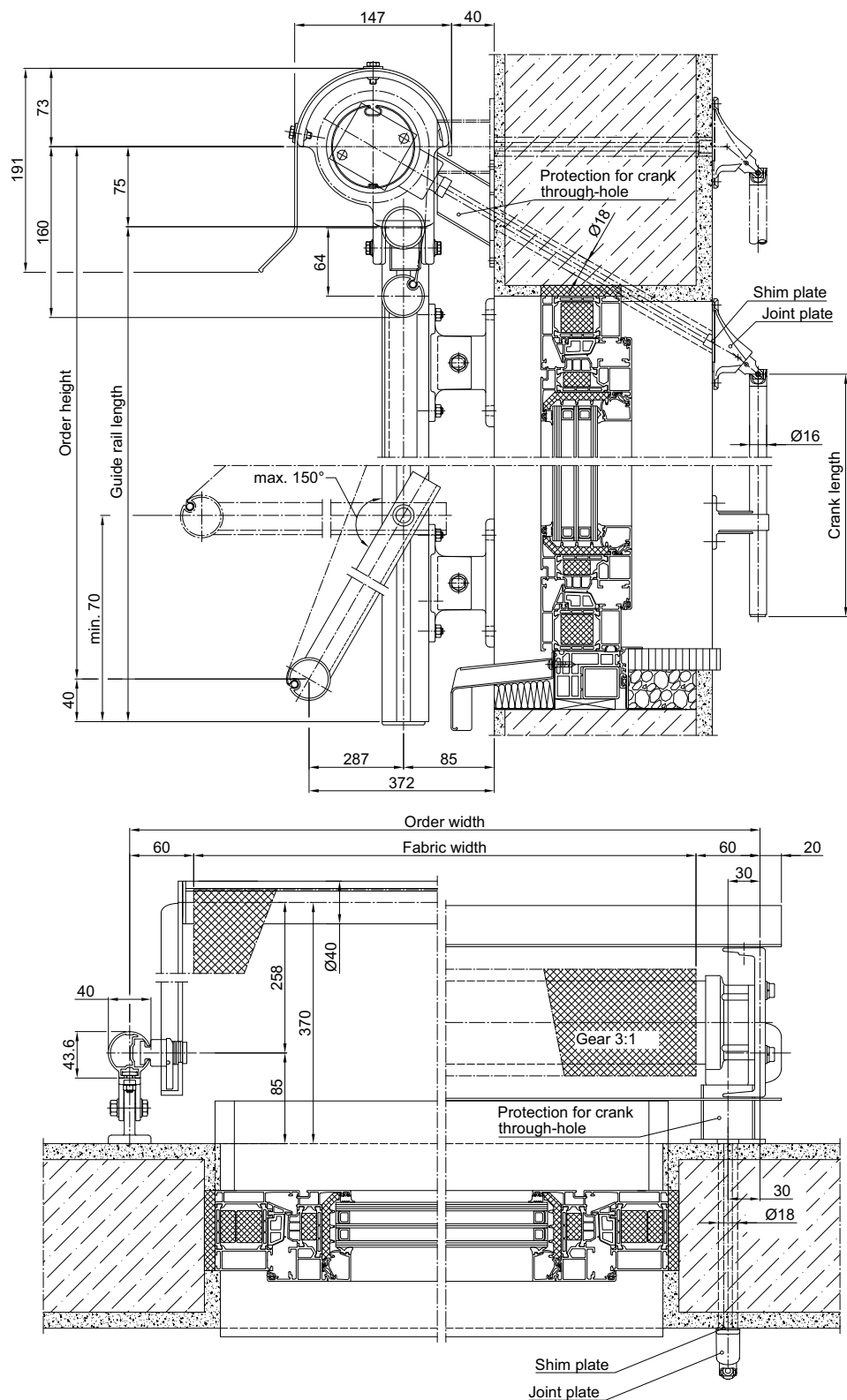
Drives/control systems

Application example

Markisolette 101

with half round cover panel type 2.3

Round guide rail Ø 40 mm



70842

fig. 326: Markisolette 101 with half round cover panel type 2.3

Application example

Markisolette 101

in on-site channel – right rolling blind

Round guide rail Ø 40 mm

Attention! This is a principle sketch which has to be adapted to the respective on-site situation by a mounting example from our Application Technology department.

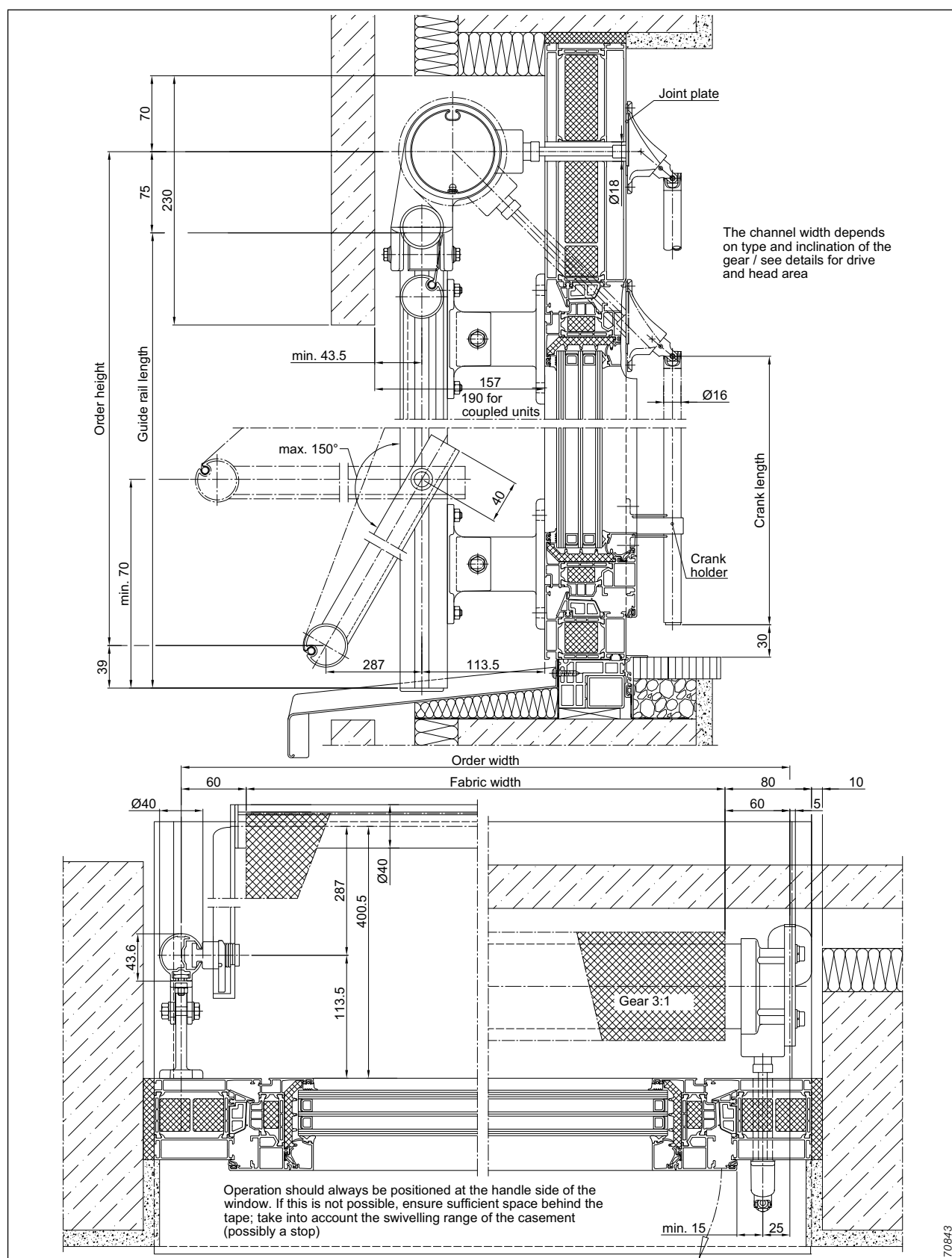


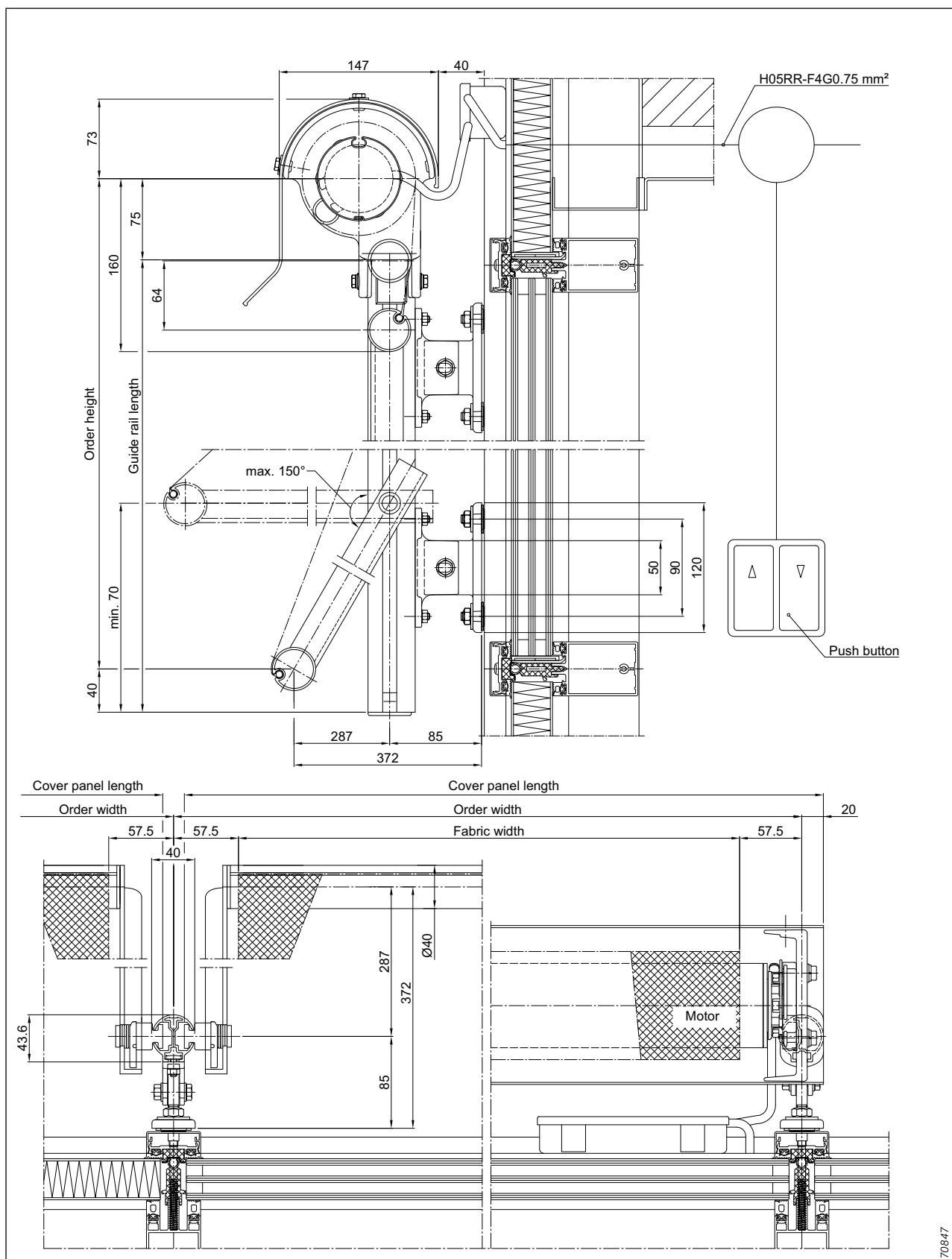
fig. 327: Markisolette 101, in on-site channel – right rolling blind

Application example

Markisolette 101

with half round cover panel type 2.3

Round guide rail Ø 40 mm



70847

fig. 328: Markisolette 101, with half round cover panel type 2.3

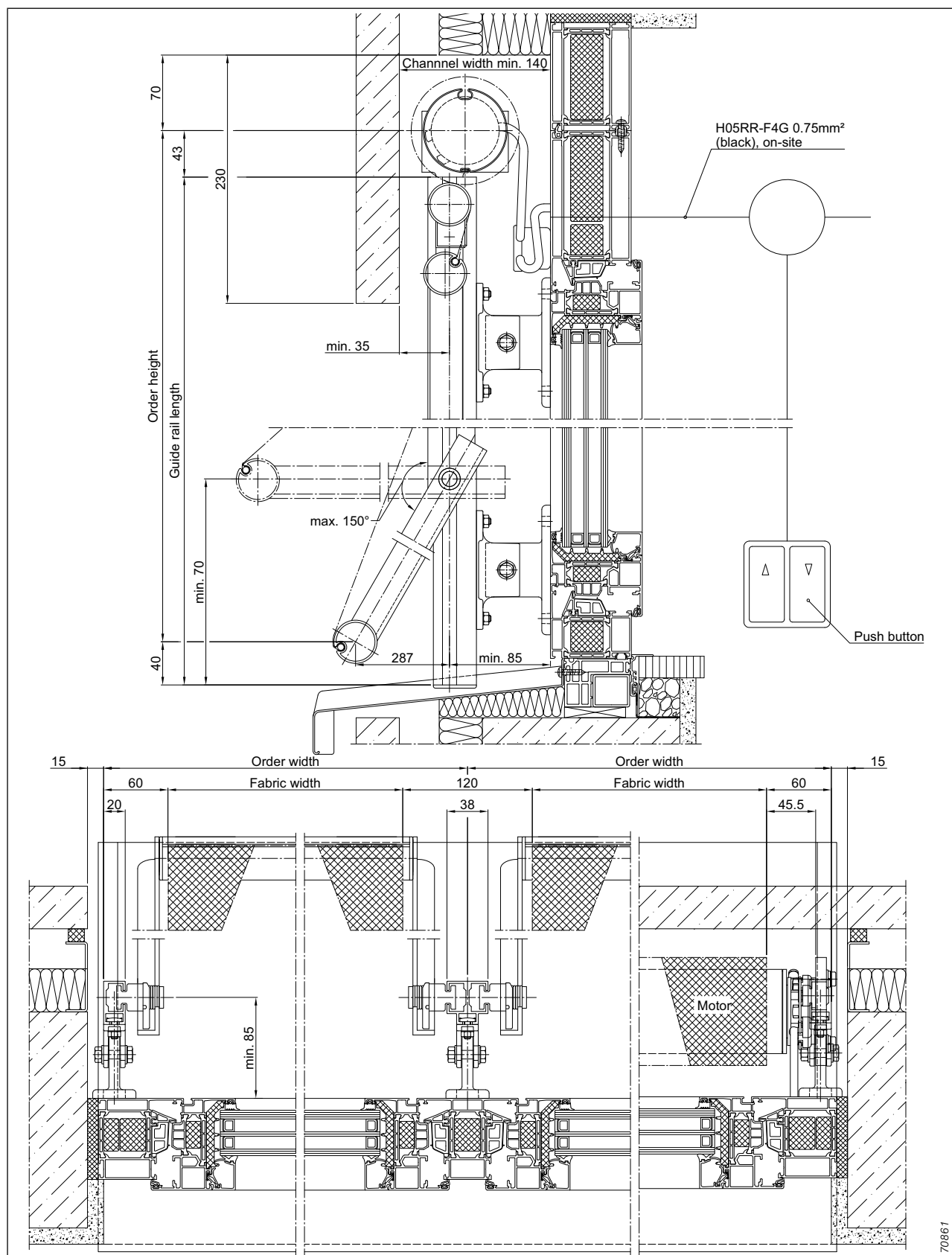
Application example

Markisolette 101

in on-site channel

Guide rail with C-groove 20x40 mm or 38x40 mm

Attention! This is a principle sketch which has to be adapted to the respective on-site situation by a mounting example from our Application Technology department.



70861

fig. 330: Markisolette 101, in on-site channel, guide rail with C-groove 20x40 mm or 38x40 mm

Details

Fabric deduction measurements

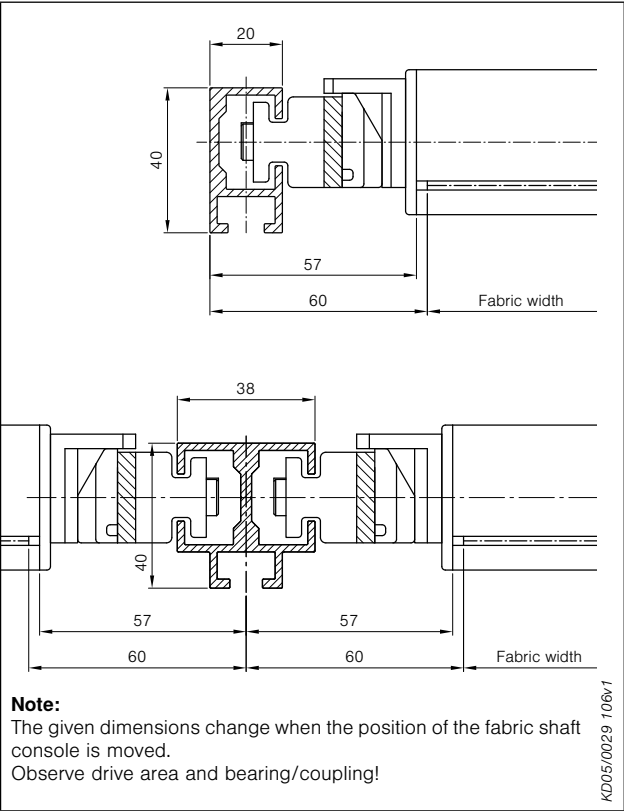


fig. 331: Details of guide rails 20/40 and 38/40 – fabric deduction measurements for type 101

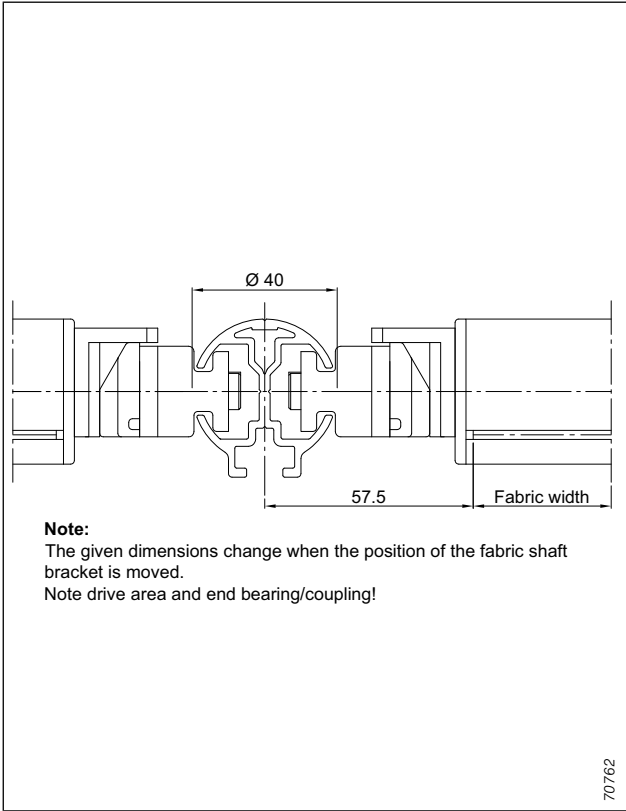


fig. 332: Details guide rail Ø 40 mm – fabric deduction measurements for type 101

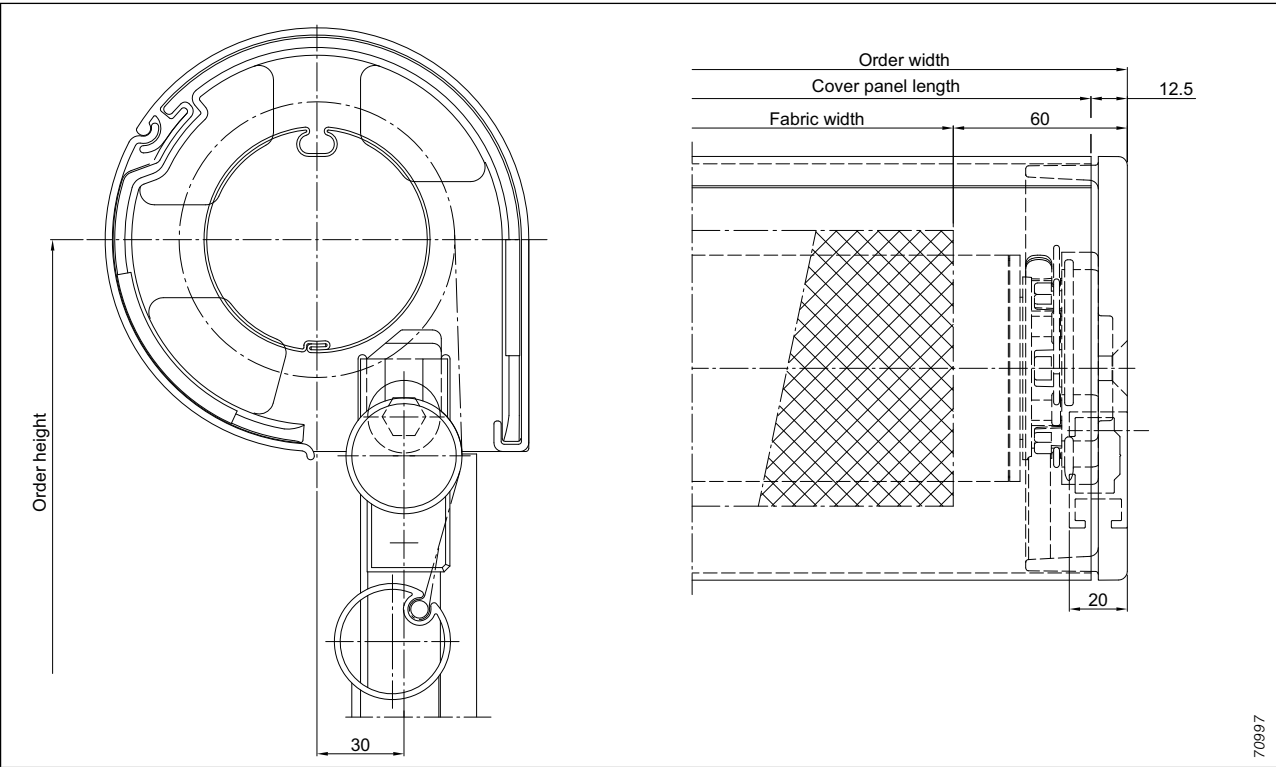


fig. 333: Markisolette 101, with round cover panel type 8.3

Description

Markisolette 107

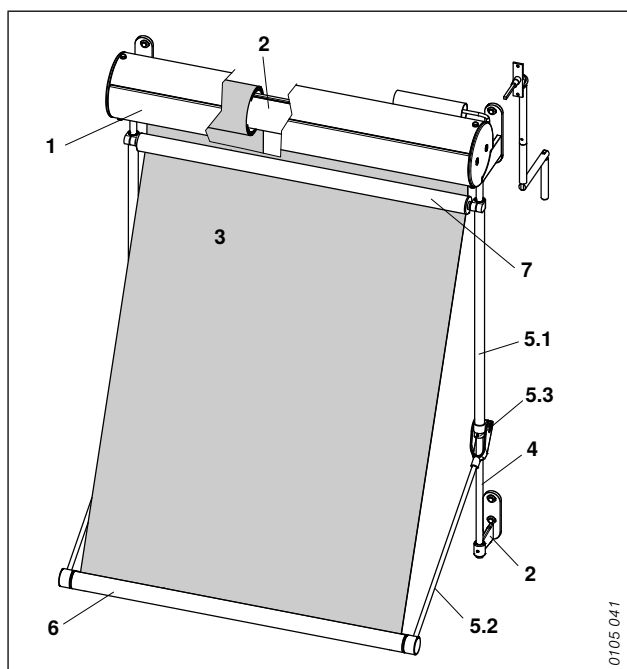


fig. 334: Stainless steel markisolette 107

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Projection system
 - 5.1 Spacer tube
 - 5.2 Drop arm
 - 5.3 Windlock mechanism
- 6 Drop profile
- 7 Guiding tube

Application

Textile external sun shading system with projection effect and stainless steel guide rods for shading vertical facade areas, e.g. mullion/transom facades.

The upper part of the fabric remains parallel to the glass.

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank

Material: aluminium

Surface: C0 anodised

Ratio: 3:1 or 7.8:1 (for larger and coupled markisolettes)

Crank holder: plastic (grey, white or brown), crank holder with magnet optional

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panels (1)

Half-round cover panel, aluminium, extruded

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (HxD): 191x181 mm, incl. water drip (type 2.3)

Dimensions (r): inside 71 mm

Max. individual length: 4000 mm

Surface: powder-coated, optionally anodised

The front leg is bent outwards by 48 mm at an angle of 45° to provide weather protection.

Round cover panel, extruded aluminium

two-piece

Material: aluminium, extruded

Material thickness: 2.5 mm

Dimensions (HxD): 146x146 mm (type 8.3)

Dimensions (r): inside 70.5 mm

Max. individual length: 4000 mm

Surface: powder-coated, optionally anodised

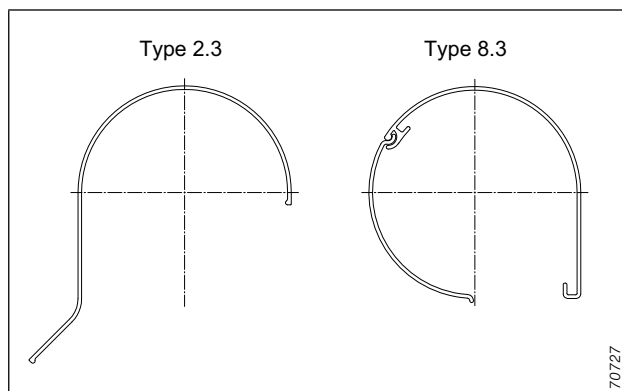


fig. 335: Cover panels

Fabric shaft (2)

Material: steel, galvanised

Material thickness: 1 mm

Dimensions (Ø): 78 mm

Profile: groove tube

Surface: plain

Fixing: to the wall using fabric shaft consoles

With piping groove for attaching the fabric

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric

Acrylic Perfora/All Weather

Soltis 92 fabric

Screen fabric

More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current awning collection are only available upon request and at a surcharge.

Description

Markisolette 107

Lateral guidance (4)

Rod

Material:	stainless steel
Dimensions (Ø):	15 mm
Fixing:	rod bracket, cast aluminium
Surface:	powder-coated

Guide rod

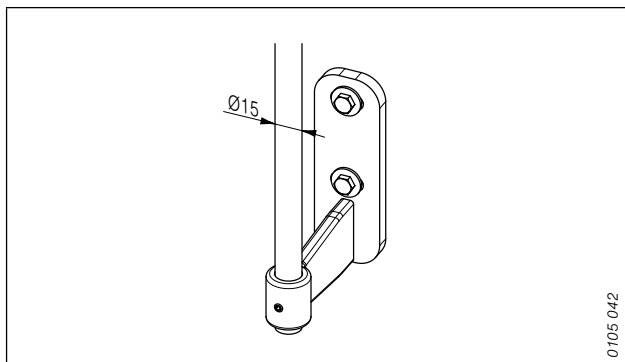


fig. 336: Rod Ø 15 mm

Projection system (5)

Spacer tube (5.1)

Material:	stainless steel
Material thickness:	2 mm
Dimensions (Ø):	22 mm
Profile:	round tube
Slider:	linear slide bearing, plastic

Drop arm (5.2)

Material:	stainless steel
Dimensions (Ø):	10 mm
Profile:	round tube
Projection angle:	circular up to 120°
Projection:	548 mm

Windlock mechanism (5.3)

Includes height-adjustable windlock mechanism in the guide rail for additional locking to protect against strong winds. Effective at projection angles of 45°–120°.

Drop profile (6)

Material:	aluminium, extruded
Material thickness:	2 mm
Dimensions (Ø):	40 mm
Profile:	round profile, mounting groove optional
Surface:	powder-coated, C0 anodising optional
Available as models "visible" (standard) or "concealed in fabric" (optional). To provide optimum fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.	

Guiding tube (7)

Material:	aluminium, extruded
Material thickness:	2 mm
Dimensions (Ø):	40 mm
Profile:	round tube
Surface:	powder-coated, C0 anodising optional
The guide tube is fixed to the spacer tube and locked using stainless steel bearing bolts.	

Weights

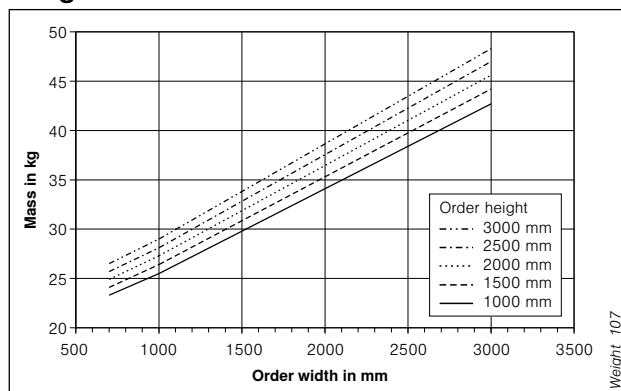


fig. 337: Weight type 107

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and anodisation are available on request at a surcharge.

For anodised markisolettes the visible cast aluminium parts are powder-coated to match the anodised colour.

General note

For mullion/transom facades, markisolettes with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the boreholes can often be difficult.

Construction limit values

Stainless steel markisolette 107

Notes:

Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.

Screen fabrics can be used crosswise up to a curtain length of 1900 mm. The maximum order width is then 3000 mm.

The following applies to both fabrics:
All fabrics should then be used crosswise on the facade in order to give a uniform appearance across the entire building.

Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

Minimum order height at a projection angle of 150° is 1080 mm.

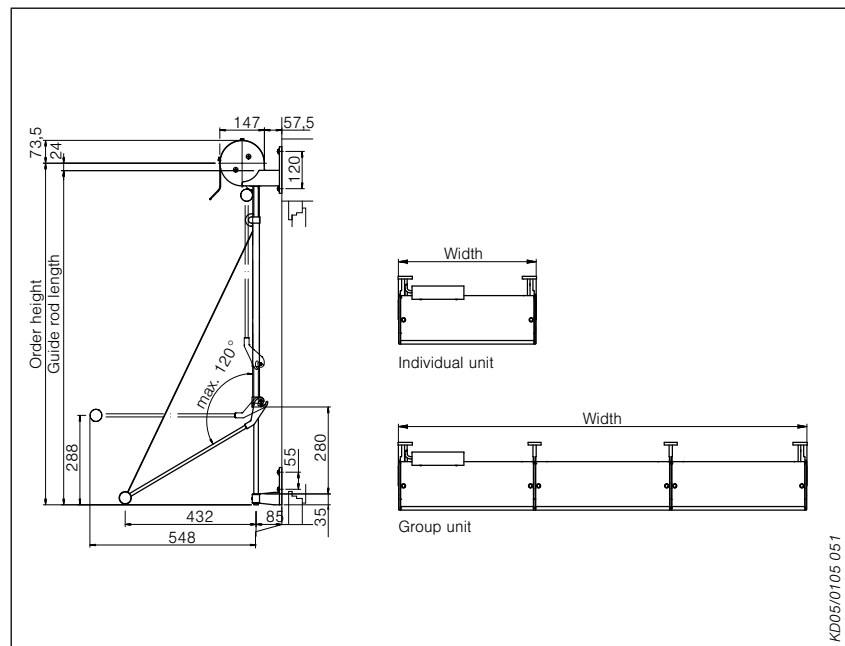


fig. 338: Measuring instructions for stainless steel markisolette 107

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit		Mechanically coupled curtains	
		Crank	Motor	max. 2 Crank	max. 3 Motor
Min. width (mm)	Acrylic - all qualities -	500	625	500	770 ¹⁾
	Screen fabric	500	625	500	770 ¹⁾
	Soltis 92 fabric	500	625	500	770 ¹⁾
Max. width (mm)	Acrylic - all qualities -	3000	3000	5000	9000
	Screen fabric	2500	2500	5000	7500
	Soltis 92 fabric	3000	3000	5000	9000
Min. height (mm)		1080	1080	1080	1080
Max. height (mm)	Acrylic - all qualities -	3000	3000	3000	3000
	Screen fabric	3000	3000	3000	3000
	Soltis 92 fabric	3000	3000	3000	3000
Max. surface ²⁾ (m ²)	Acrylic - all qualities -	9.0	9.0	15.0	27.0
	Screen fabric	7.5	7.5	12.0	22.5
	Soltis 92 fabric	9.0	9.0	15.0	27.0

¹⁾ for unit with motor

²⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

Application example

Markisolette 107

with round cover panel type 8.3

Guide rod Ø 15 mm

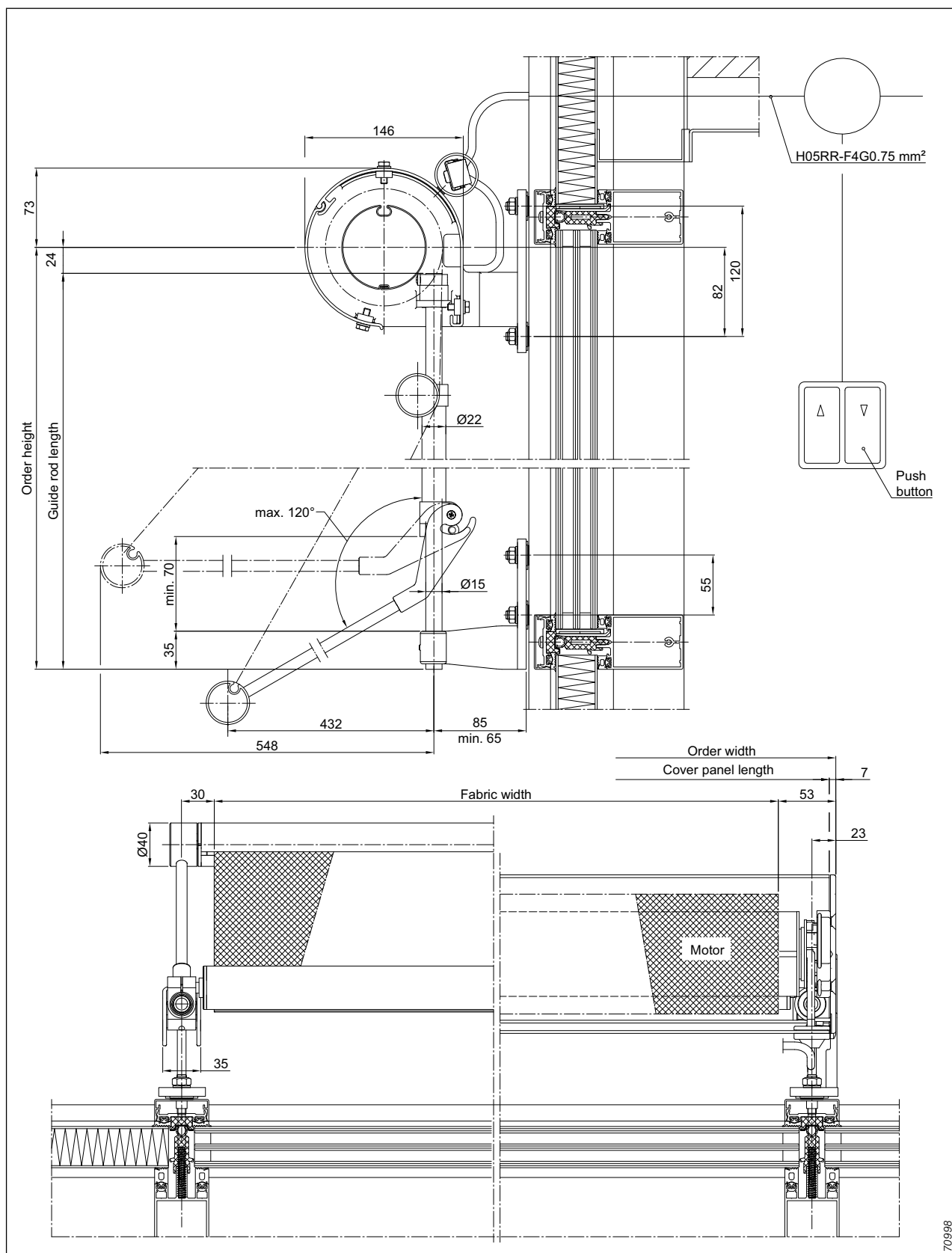


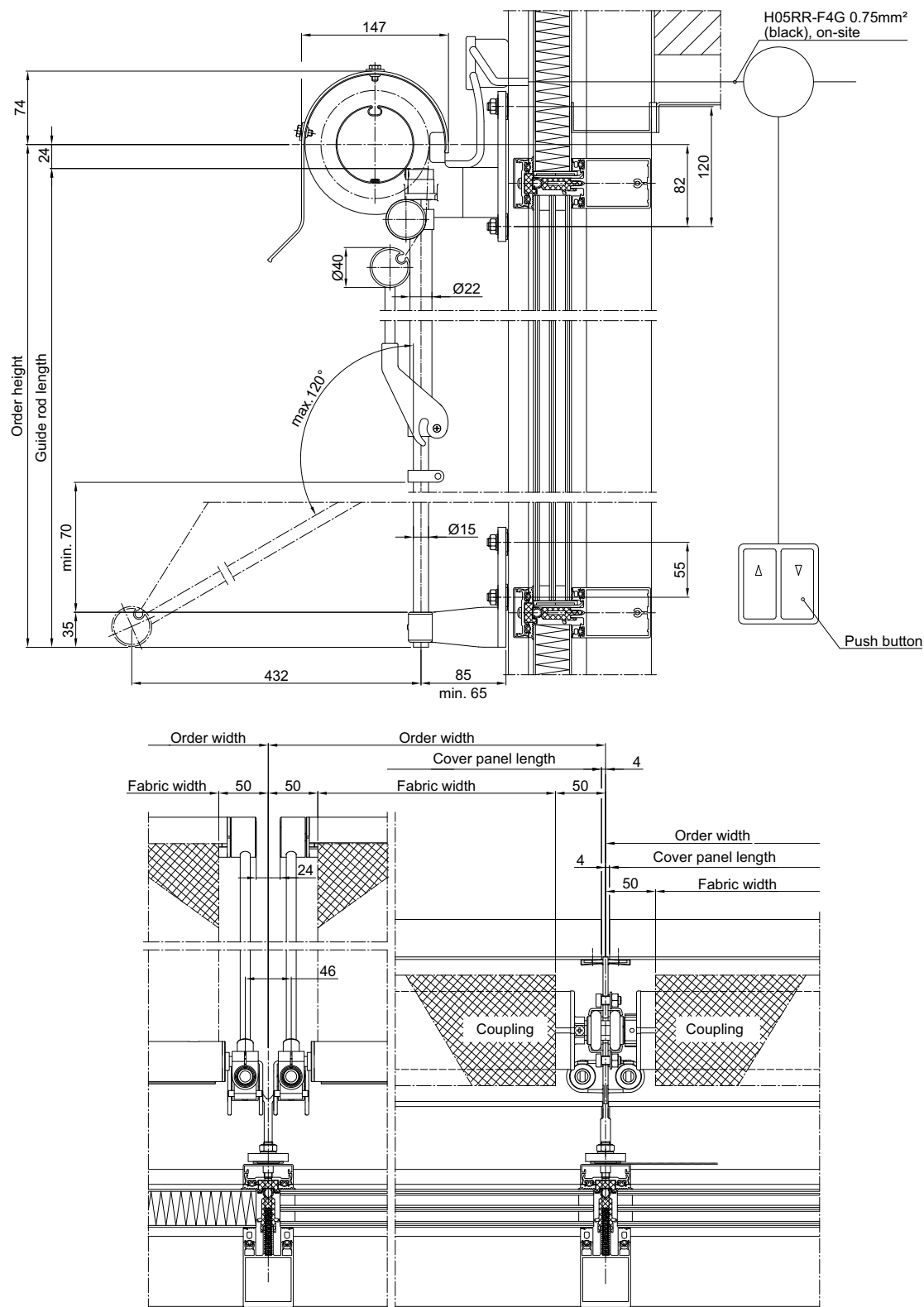
fig. 339: Markisolette 107, with round cover panel type 8.3

Application example

Markisolette 107

with half round cover panel type 2.3

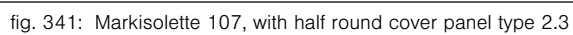
Guide rod \varnothing 15 mm



70999

fig. 340: Markisolette 107 with half round cover panel type 2.3

Guide rod Ø 15 mm



Markisolette 107

with half round cover panel type 2.3, mounted in the reveal
Guide rod Ø 15 mm

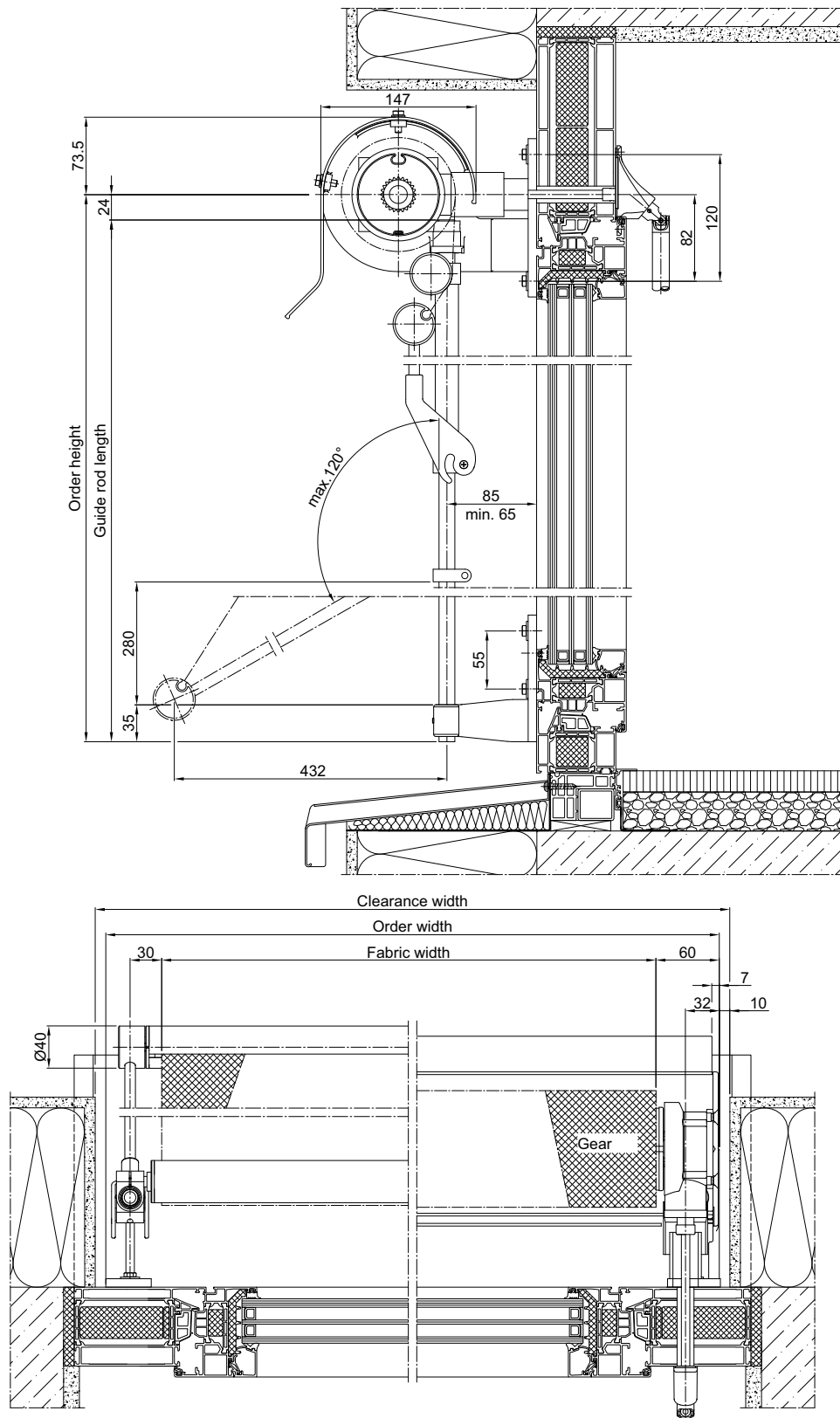


fig. 342: Markisolette 107 with half round cover panel type 2.3, mounted in the reveal

Details
Markisolette 107
Rod brackets

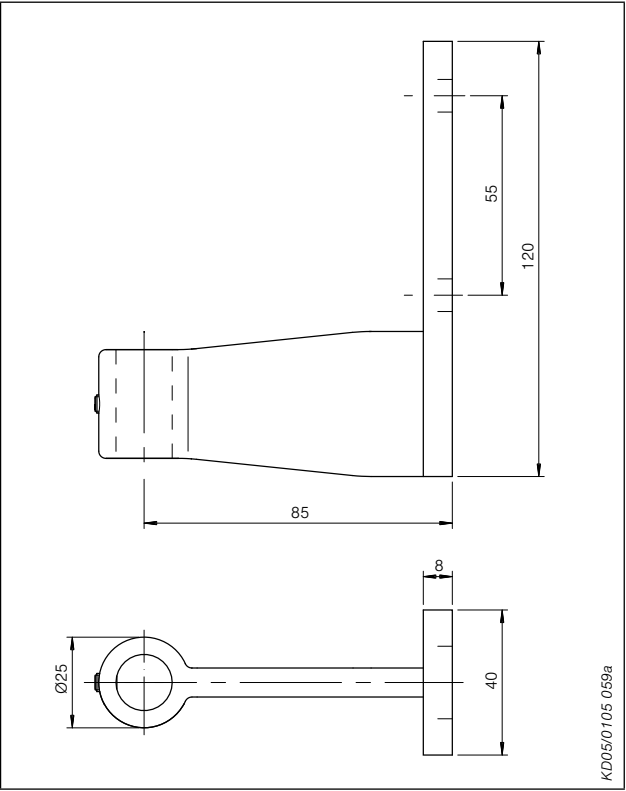


fig. 343: Rod bracket for individual units, in cast aluminium

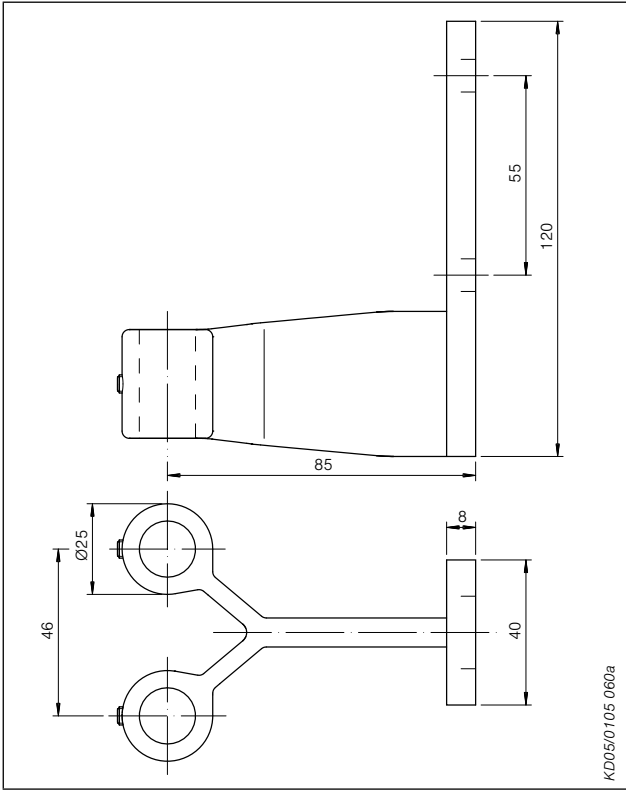


fig. 344: Rod bracket for coupled units, in cast aluminium

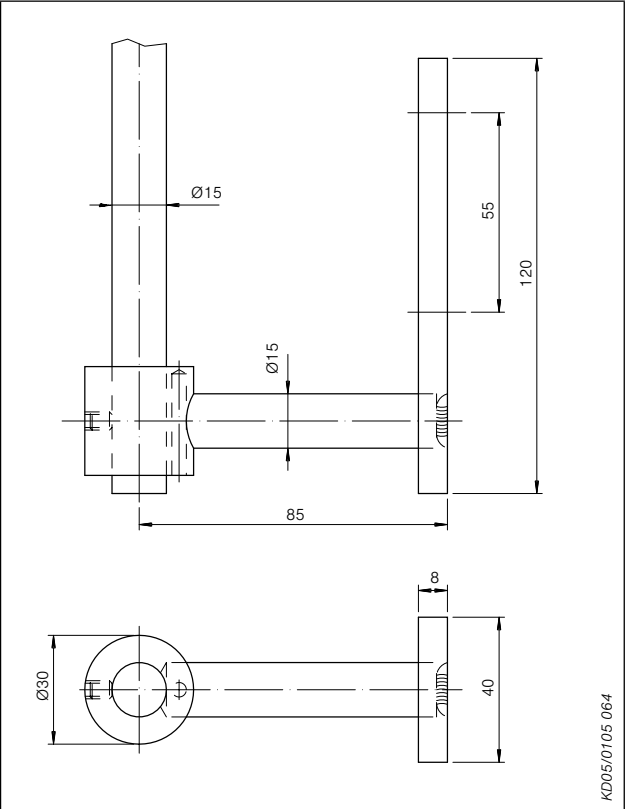


fig. 345: Rod bracket for individual units (in stainless steel)

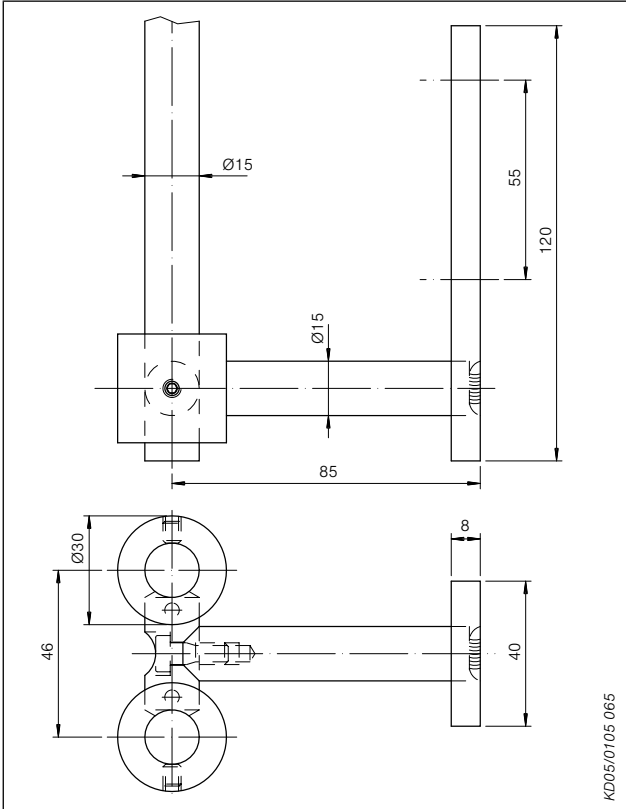


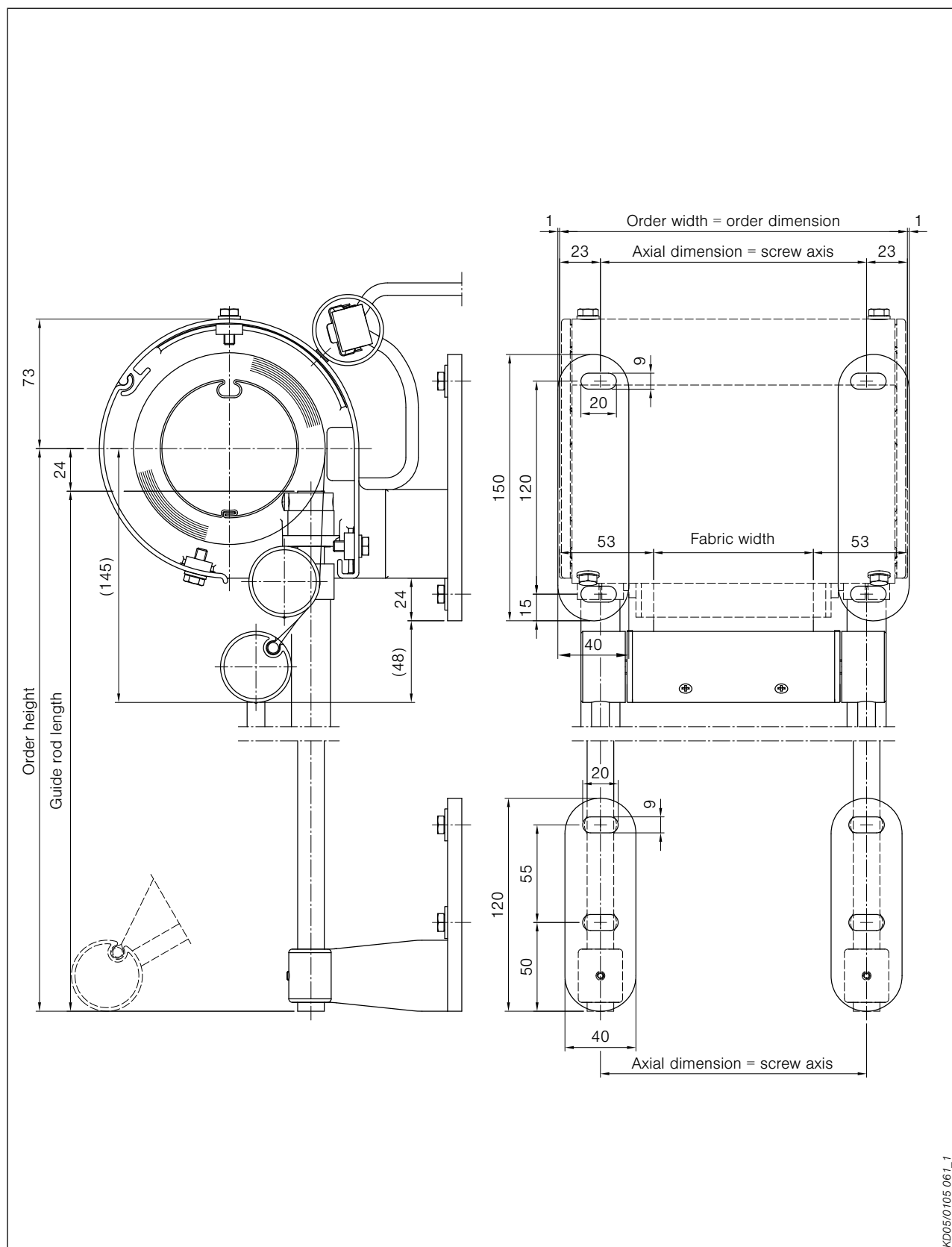
fig. 346: Rod bracket for coupled units (in stainless steel)

Application example

Markisolette 107

with round cover panel type 8.3 – fixing measurements for individual unit

Guide rod \varnothing 15 mm



KD05/0105 061_1

fig. 347: Markisolette 107 with round cover panel type 8.3 (individual unit)

Application example

Markisolette 107

with round cover panel type 8.3 – fixing measurements for coupled units

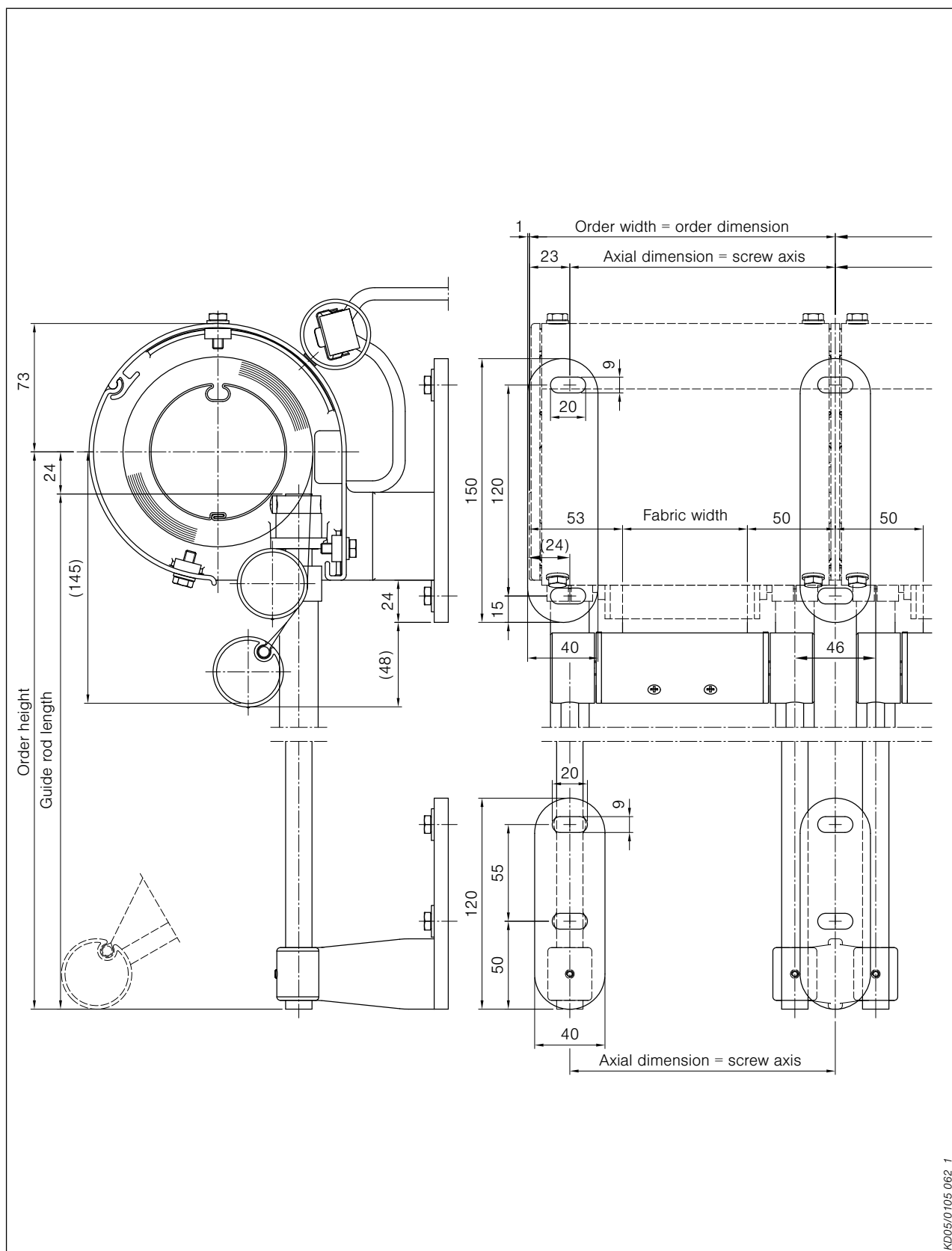


fig. 348: Markisolette 107 with round cover panel type 8.3 (group unit)

Description

Markisolette 109

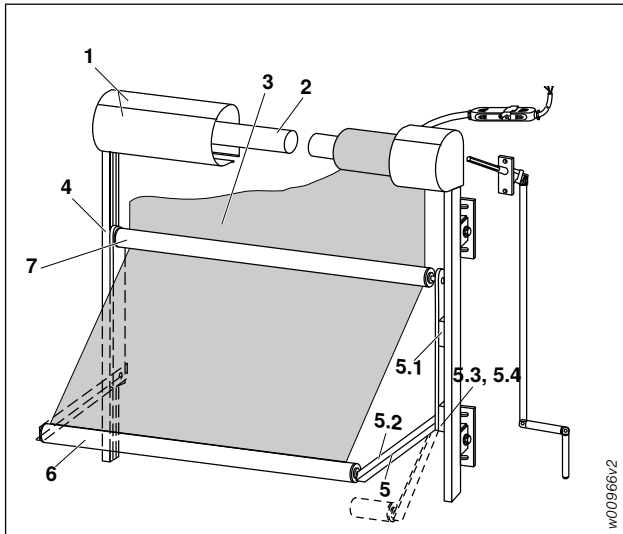


fig. 349: Markisolette 109

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Projection system
 - 5.1 Connecting rail
 - 5.2 Drop arm
 - 5.3 Pressure spring
 - 5.4 Windlock mechanism
- 6 Drop profile
- 7 Guiding tube

Application

Textile external sun shading system, compact design with projection effect for shading vertical facade areas, e.g. multi-lion/transom facades.

A part of the fabric remains parallel to the glass.

Operation

Basic motor, 230 V, 50 Hz

LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

EWFS radio motor, 230 V, 50 Hz (optional)

W-MP with electronic limit switch-off

WMS radio motor, 230 V, 50 Hz (optional)

WMS-MP with electronic limit switch-off

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank; joint plate and square with patented thermal barrier.

Material: aluminium
Surface: C0 anodised
Ratio: 6:1

Crank holder: plastic (grey, white or brown), crank holder with magnet optional

The fabric shaft contains a spindle lock to provide a lower limit for the extension of the fabric.

Mechanical coupling may result in displacement of the drop profiles by ± 20 mm (coupling play).

Cover panels (1)

Half round cover panel, curved aluminium

Material: curved aluminium
Material thickness: 2 mm
Dimensions (HxW): 143x116 mm (type 20.3)
Dimensions (r): inside 56 mm
Max. individual length: 2500 mm
Surface: powder-coated, optionally anodised

Round cover panel, extruded aluminium

two-piece
Material: aluminium, extruded
Material thickness: 2 mm
Dimensions (HxW): 111x111 mm (type 23.3)
Dimensions (r): inside 53.5 mm
Surface: powder-coated, anodising optional

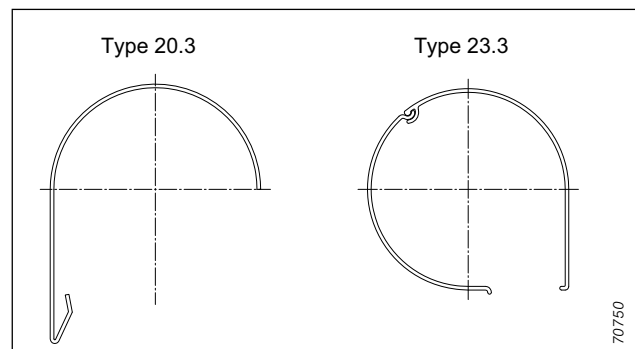


fig. 350: Cover panels

Fabric shaft (2)

Material: aluminium, extruded
Material thickness: 1.5 mm
Dimensions (Ø): 62 mm
Profile: groove tube
Surface: plain
Fixing: can be clamped to the guide rail using fabric shaft consoles or wall-mounted

With piping groove for fixing the fabric.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric
Acrylic Perfora/All Weather
Soltis 92 fabric
Screen fabric
More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Description

Markisolette 109

Lateral guidance (4)

Rail

Round profile

Material: aluminium, extruded
 Dimensions (Ø): 35 mm
 Profile: round profile with mounting groove
 Surface: powder-coated, optionally anodised
 End cap: plastic, black
 Fixing: guide rail bracket, two-piece, aluminium

C profile

Material: aluminium, extruded
 Material thickness: 2 mm
 Dimensions (WxH): 20/38x40 mm
 Profile: C profile with mounting groove
 Surface: powder-coated, optionally anodised
 Fixing: guide rail bracket, two-piece, aluminium
 End cap: plastic, black

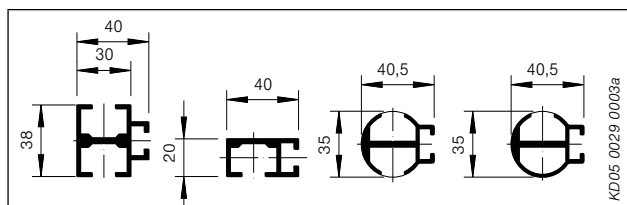


fig. 351: Guide profiles

Projection system (5)

Connecting rail (5.1)

Material: aluminium
 Material thickness: 5 mm
 Dimension (B): 25 mm
 Profile: flat profile
 Surface: powder-coated, optionally anodised
 Slider: plastic, for guiding in the rail

Drop arm (5.2)

Material: aluminium
 Material thickness: 4 mm
 Dimensions (WxH): 30x20 mm
 Profile: angle-shaped profile
 Surface: powder-coated, optionally anodised
 Projection angle: circular up to 150°
 Projection: 511 m

Windlock mechanism (5.3)

Includes height-adjustable windlock mechanism in the guide rail for additional locking to protect against gusts of wind. Effective at projection angles of 90° - 150°.

Drop profile (6)

Material: aluminium, extruded
 Material thickness: 3 mm
 Dimensions (Ø): 30 mm
 Profile: round profile, mounting groove optional
 Surface: powder-coated, optionally anodised
 Available as models "visible" (standard) or "concealed in fabric" (optional).
 To provide optimum fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

Guiding tube (7)

Material: aluminium, extruded
 Material thickness: 3 mm
 Dimensions (Ø): 30 mm
 Profile: round tube
 Surface: powder-coated, optionally anodised
 The guide tube is fixed to the lateral connection rails and locked using stainless steel bearing bolts.

Connecting and fixing components

Within the units

Material: A2 steel or aluminium

Weights

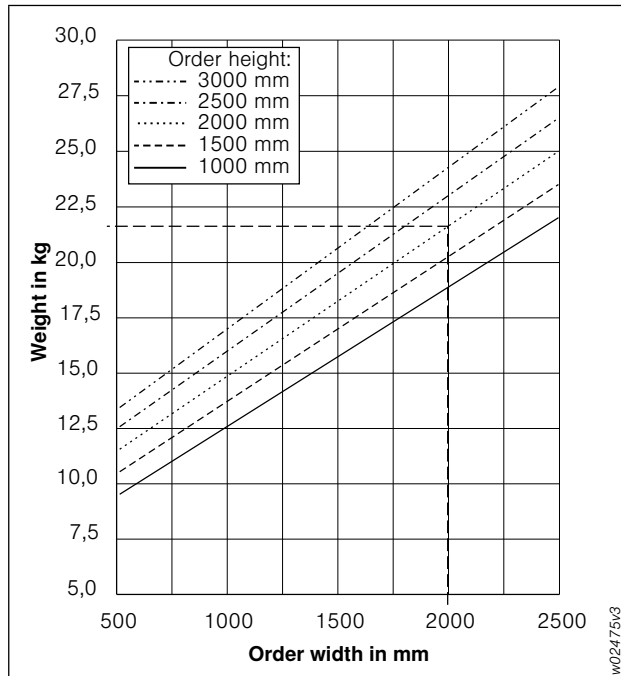


fig. 352: Diagram for weight determination

Description

Markisolette 109

Colours

Powder coating of aluminium parts with chrome-free pre-treatment according to valid RAL CLASSIC colour chart (except camouflage and luminous colours) or in six DB colours as well as eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours or anodisation are available subject to surcharge.

For anodised markisolettes the visible cast aluminium parts are powder-coated to match the anodised colour.

General note

For mullion/transom facades, markisolettes with motor drives should be preferred over crank drives since the gear outlet goes through the facade and placement of the drilled holes can often be difficult.

Overview

Window awnings with ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

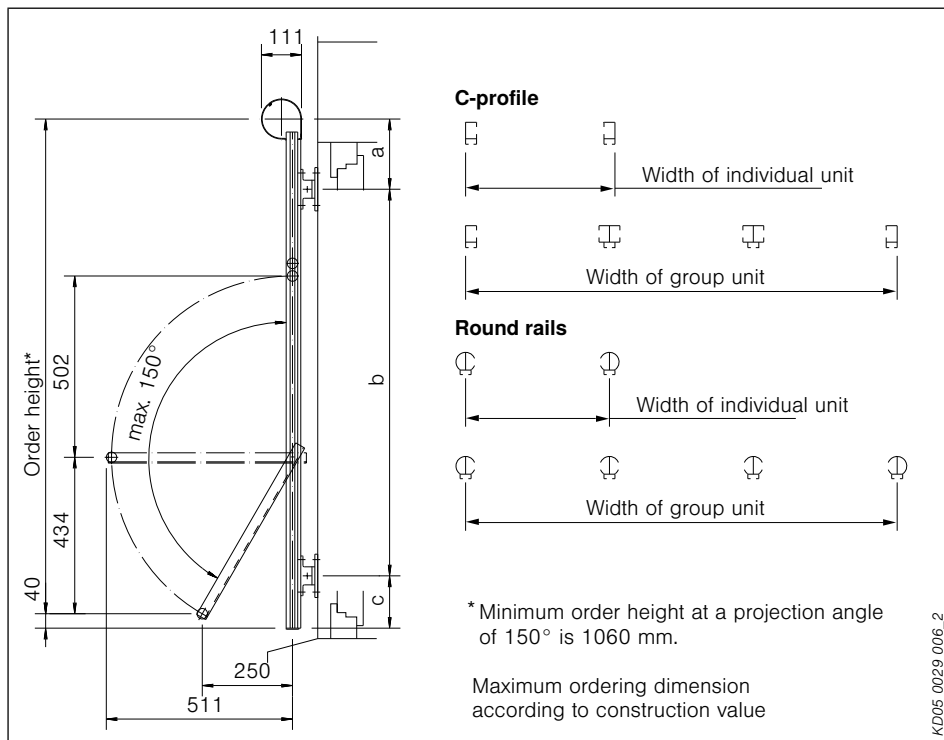
Fixing systems

Fabrics

Drives/control systems

Construction limit values

Markisolette 109



Notes:

- Soltis 92 fabrics are bonded crosswise for order widths starting at 1800 mm.
- All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.
- Acrylic fabrics with an order width of more than 1200 mm are made from several individual lengths of fabric.

fig. 353: Measuring instructions for Markisolette 109

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit		Mechanically coupled units	
		Crank	Motor	Crank max. 2	Motor max.3
Min. width ¹⁾ (mm)	Acrylic – all qualities –	500	630 (655) ²⁾	500	630 (665) ²⁾
	Screen fabric	500	630 (655) ²⁾	500	630 (665) ²⁾
	Soltis 92 fabric	500	630 (655) ²⁾	500	630 (665) ²⁾
Max. width (mm)	Acrylic – all qualities –	2500	2500	3000	7500
	Screen fabric	2500	2500	3000	7500
	Soltis 92 fabric	2500	2500	3000	7500
Max. height (mm)	Acrylic – all qualities –	2700	2700	2700	2700
	Screen fabric	3000	3000	3000	3000
	Soltis 92 fabric	3000	3000	3000	3000
Max. area (m ²)	Acrylic – all qualities –	6.8	6.8	8.1	20.3
	Screen fabric	7.5	7.5	9.0	22.5
	Soltis 92 fabric	7.5	7.5	9.0	22.5

¹⁾ Smaller widths are possible after consultation with the Application Technology department!

²⁾ Exterior insulation and finish system

Construction limit values

Markisolette 109

Spacings and number of brackets

Rails	Spacings of brackets in mm					Number of brackets for rail lengths in mm		
	a		b	c				
	min.	max.	max.	min.	max.	2 to	3 to	4 to
Ø 35	150	250	2000	70	300	2300	4300	6000
20x40								
38x40								

Overview

Window awnings with ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

Fixing systems

Fabrics

Drives/control systems

Application example

Markisolette 109

Cover panel type 23.3

with guide rail 20x40 mm, gear 6:1

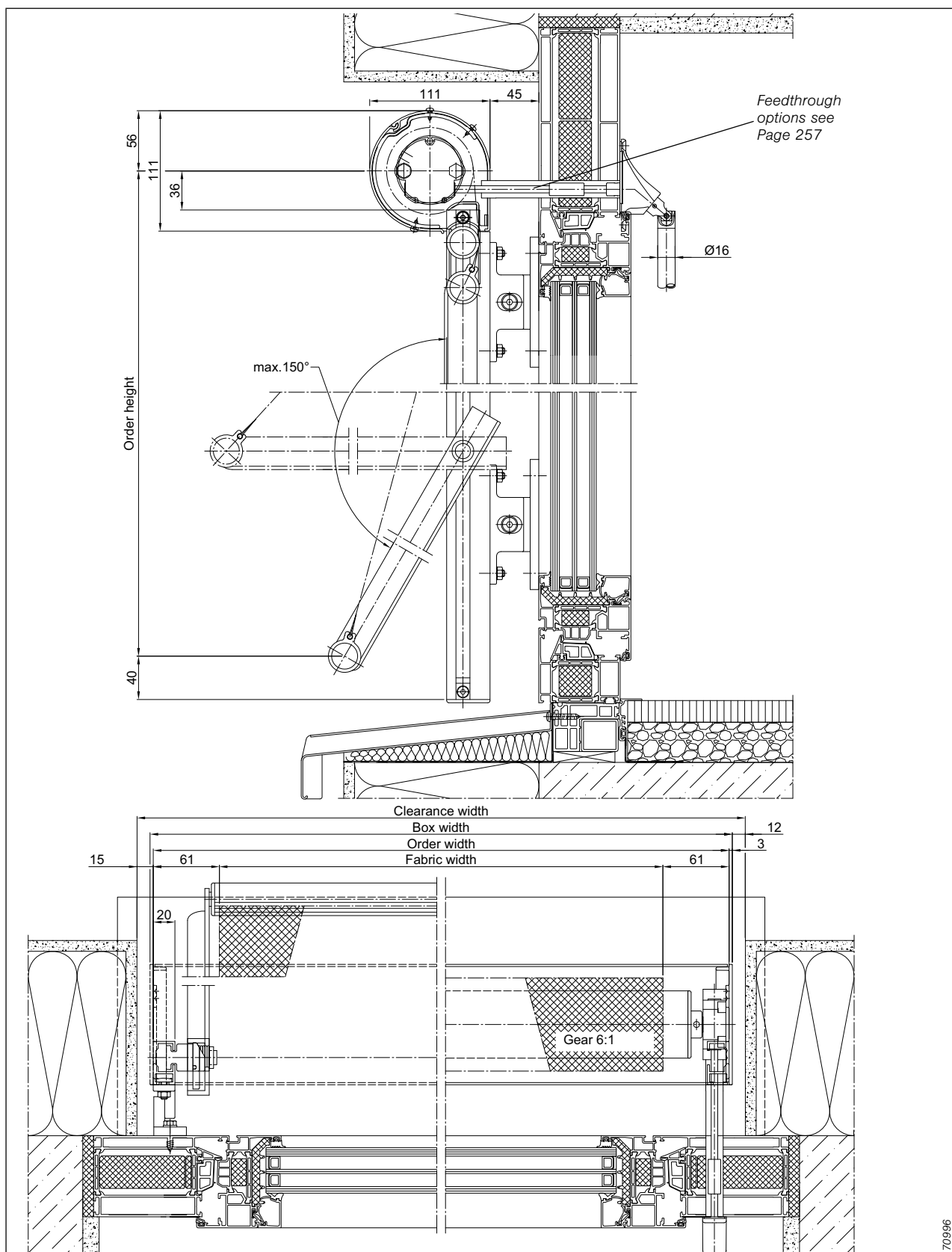


fig. 354: Markisolette 109 with guide rail 20x40 mm, gear 6:1, cover panel type 23.3

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Drives/control systems

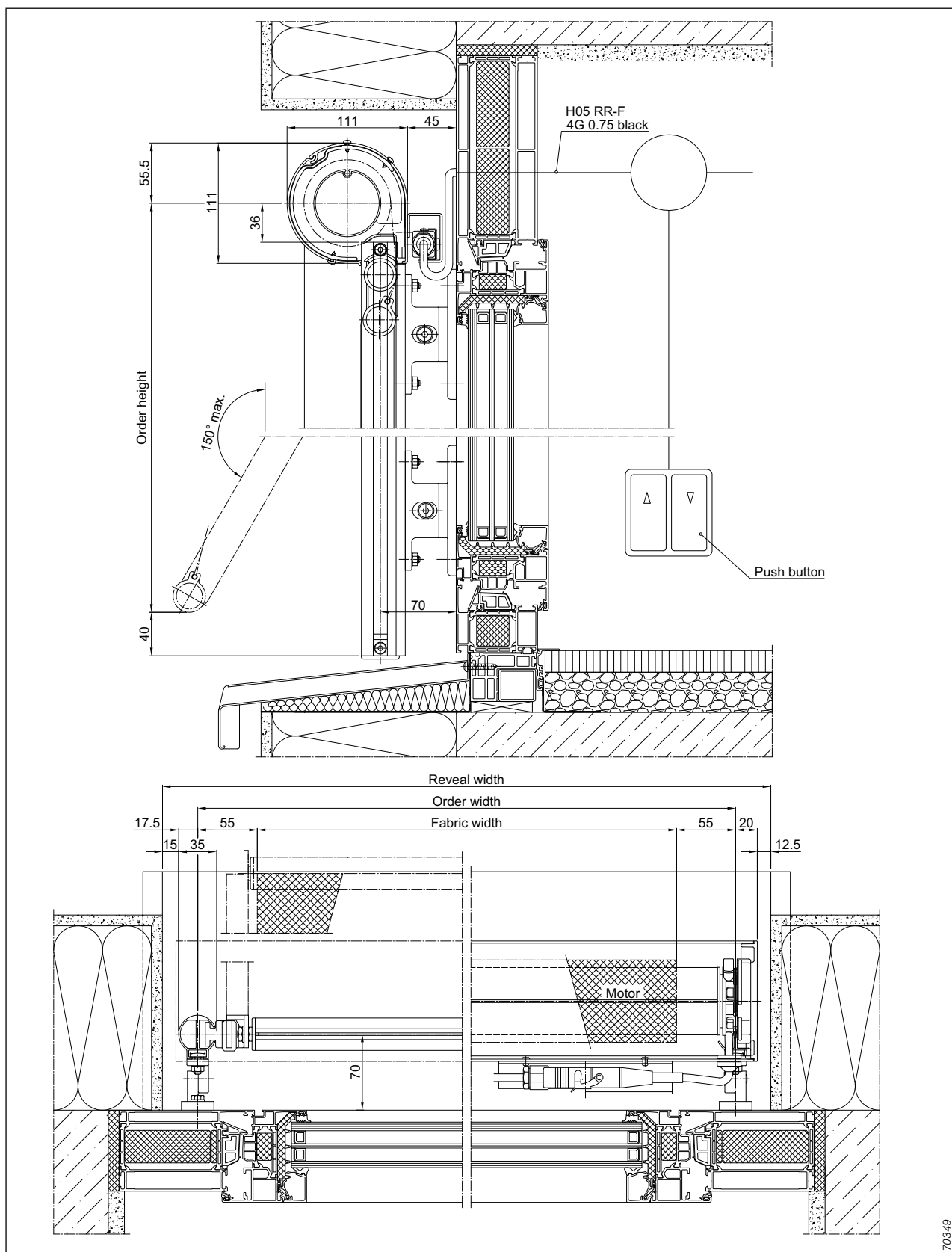


Application example

Markisolette 109

Cover panel type 23.3

Round guide rail Ø 35 mm,



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fig. 356: Markisolette 109 with round guide rail Ø 35 mm, cover panel type 23.3

Application example

Markisolette 109

Cover panel type 20.3

Round guide rail Ø 35 mm

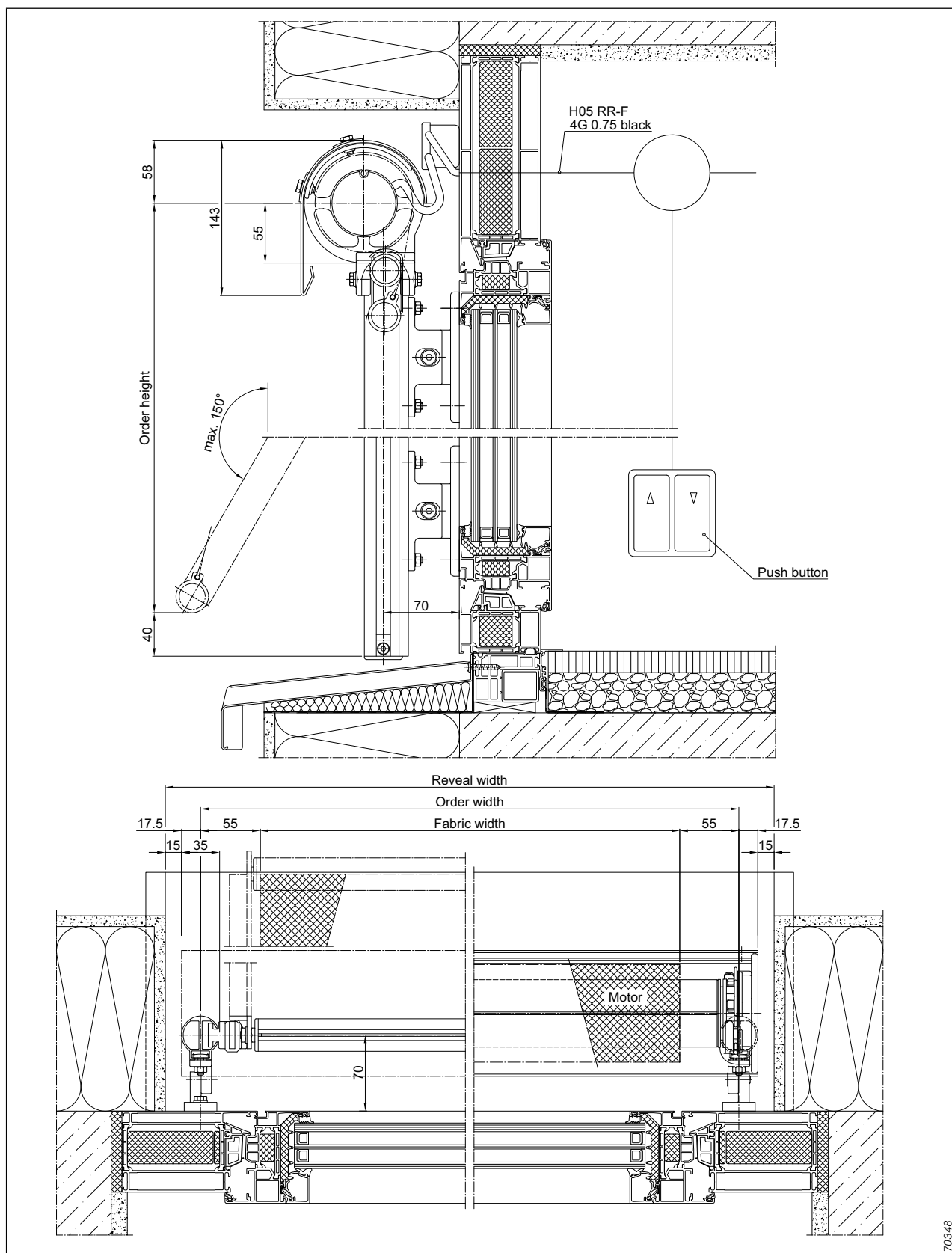


fig. 357: Markisolette 109 with round guide rail Ø 35 mm, cover panel type 20.3

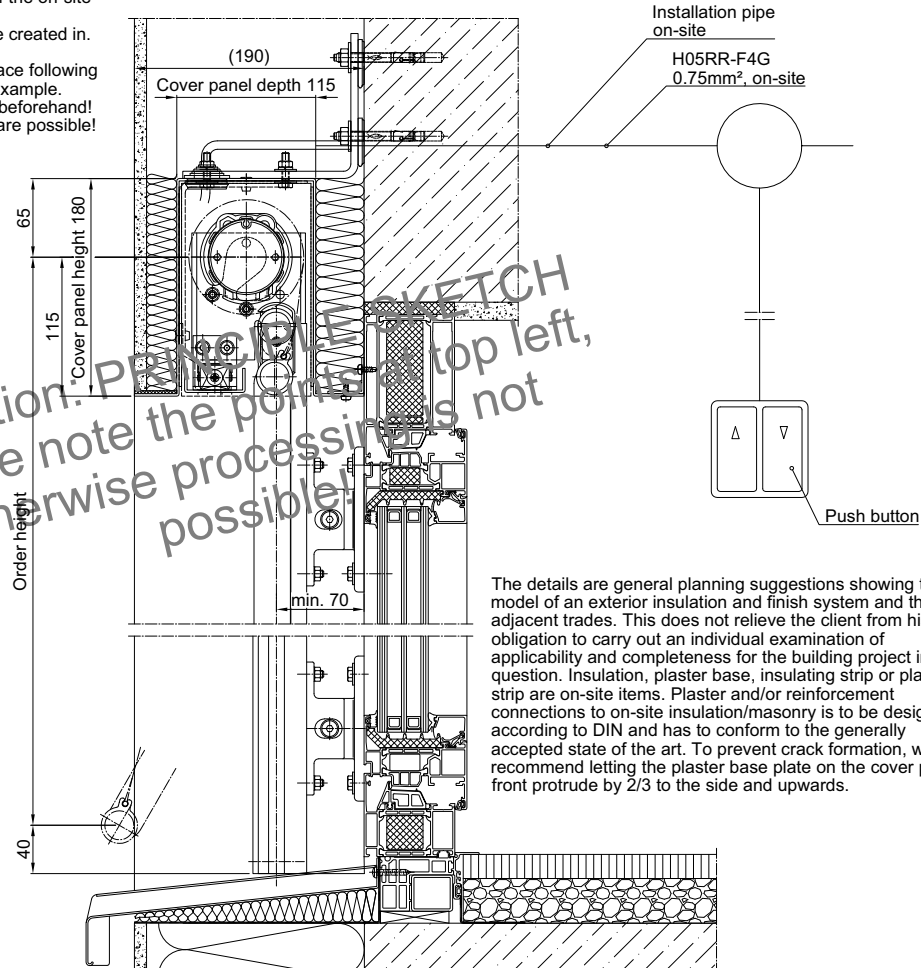
Application example

Markisolette 109 with guide rail 40x20 mm in heat-insulated facade

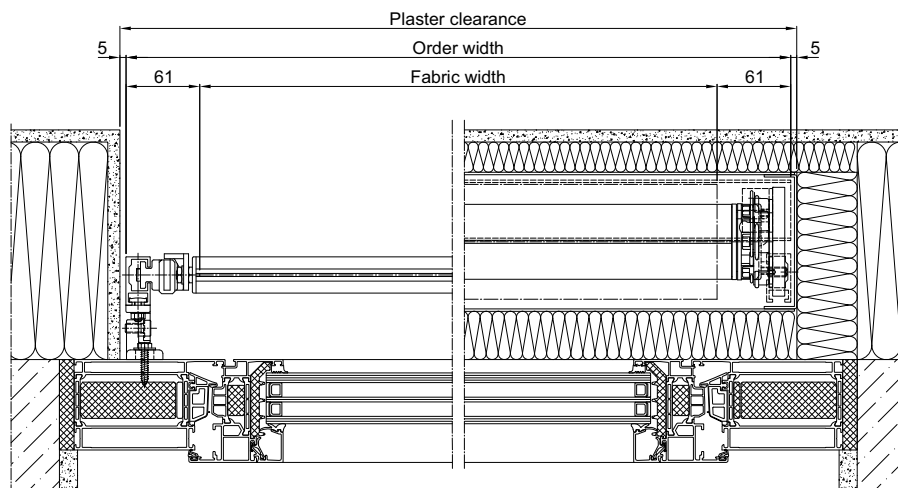
Attention: not standard! Longer delivery times due to technical clarification!

The following points must be taken into account:

- Please provide drawings of the on-site situation as CAD files!
- Mounting example must be created in Applied Engineering.
- The order can only take place following approval of the mounting example.
- NO delivery date possible beforehand!
- Only models with a motor are possible!



The details are general planning suggestions showing the model of an exterior insulation and finish system and the adjacent trades. This does not relieve the client from his obligation to carry out an individual examination of applicability and completeness for the building project in question. Insulation, plaster base, insulating strip or plaster strip are on-site items. Plaster and/or reinforcement connections to on-site insulation/masonry is to be designed according to DIN and has to conform to the generally accepted state of the art. To prevent crack formation, we recommend letting the plaster base plate on the cover panel front protrude by 2/3 to the side and upwards.



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fig. 358: Markisolette 109 with guide rail 40x20 mm in heat-insulated facade

Details

Fabric deductions

Gear outlet

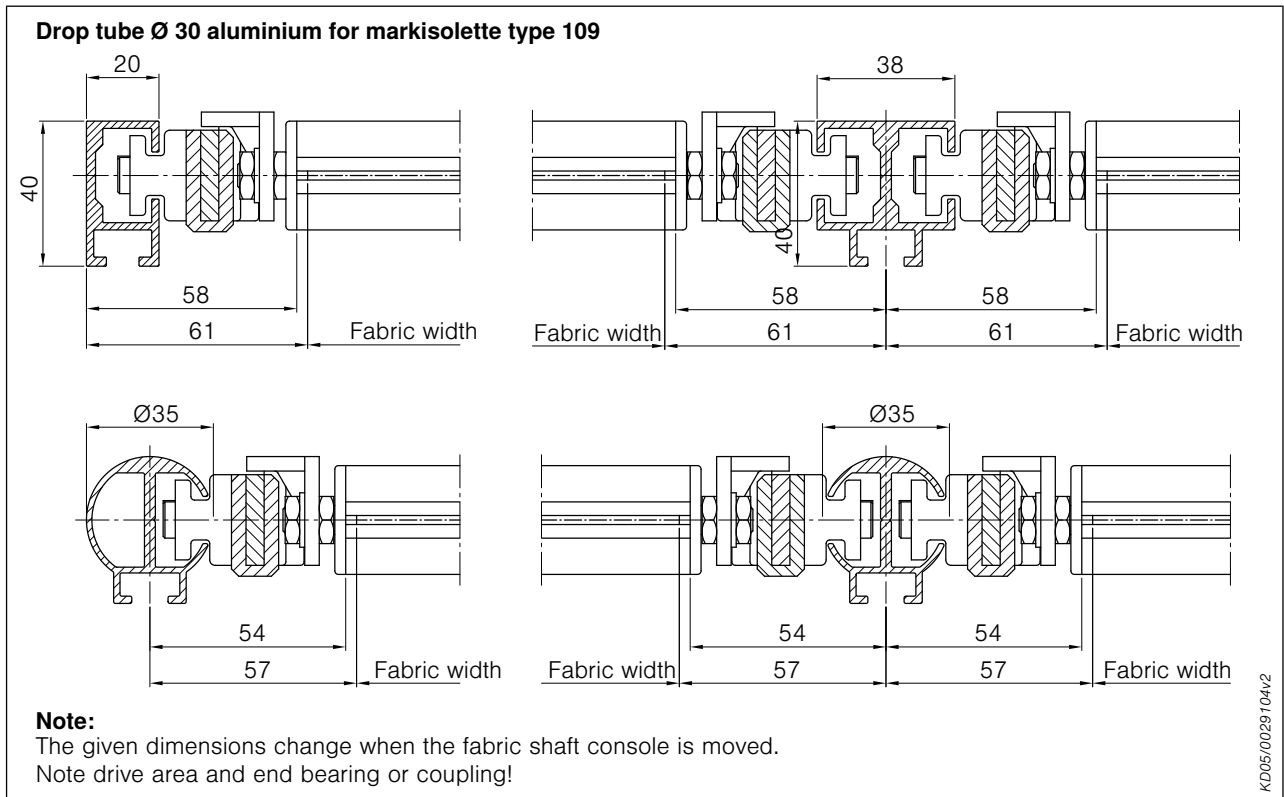


fig. 359: Fabric deduction measurements for type 109

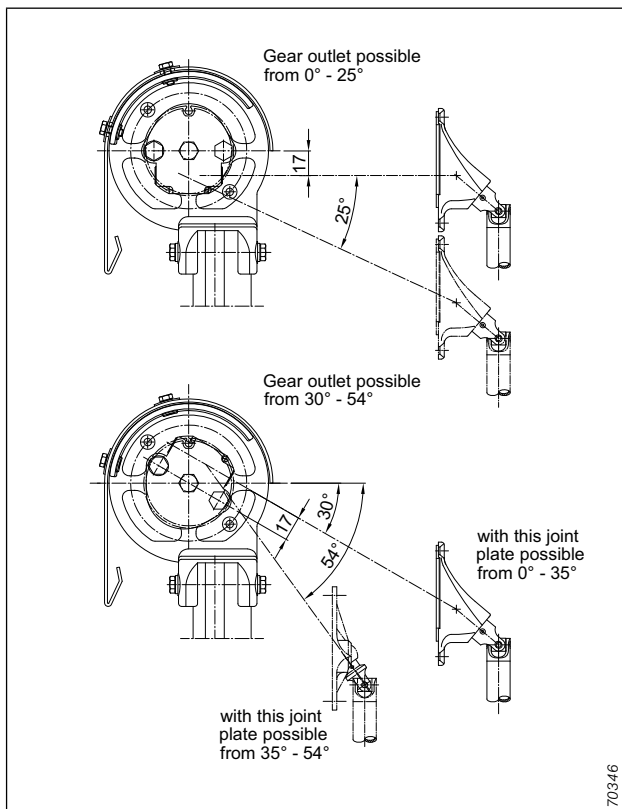


fig. 360: Type 109 and 209, cover panel 20.3.
Possible degree values for gear 6:1.

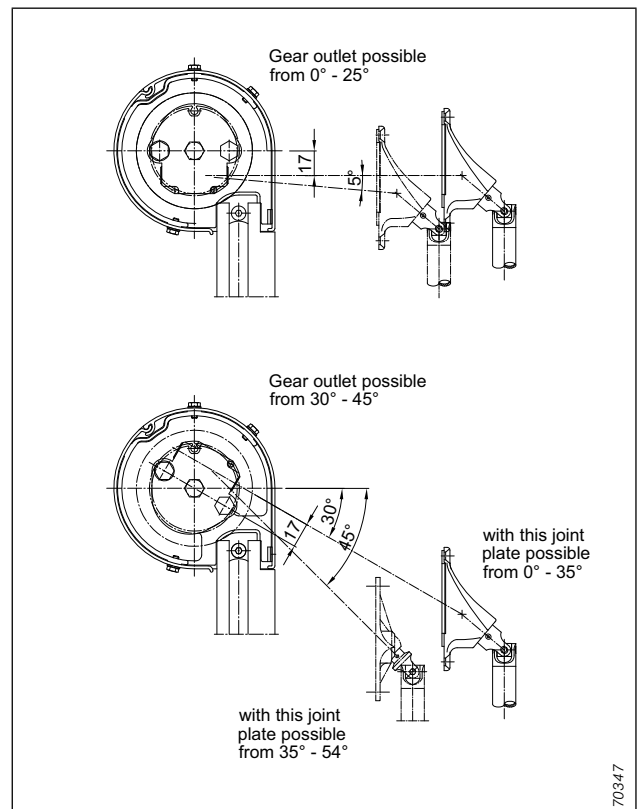


fig. 361: Type 109 and 209 cover panel 23.3.
Possible degree values for gear 6:1.

Description

Markisolette 150

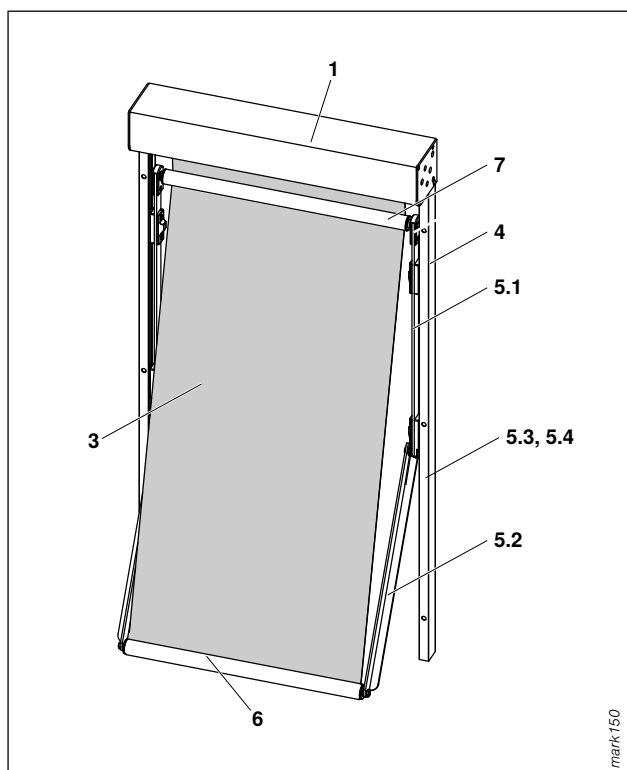


fig. 362: Markisolette 150

- 1 Cover panel
- 2 Fabric shaft
- 3 Fabric
- 4 Lateral guidance
- 5 Projection system
 - 5.1 Connecting rail
 - 5.2 Drop arm
 - 5.3 Pressure spring
 - 5.4 Windlock mechanism
- 6 Drop profile
- 7 Guiding tube

Application

Textile external sun shading system with projection effect for shading vertical punched or element windows as well as for direct mounting in the reveals (sheltered from the wind). The upper part of the fabric remains parallel to the glass.

Operation

Basic motor, 230 V, 50 Hz

LS40/LT50 with mechanical limit switch-off (optionally with EWFS/WMS plug receiver)

Plug-in connector: loose, optionally without (cable whip 2500 mm) or optionally with wired Hirschmann connector (motor line 0.4 m)

More information about drives from page 278.

Crank

Screw gear with crank rod and collapsible crank;

Material: aluminium

Surface: C0 anodised

Ratio: 3.5:1

Crank holder: plastic (grey, white or brown), crank holder with magnet optional

A spindle lock is optionally built in to the fabric shaft to provide a lower limit for the extension of the fabric.

Mechanical coupling may result in displacement of the projection profiles by ± 20 mm (coupling play).

Cover panels (1)

Closed on 3 sides

Material: aluminium, extruded

Material thickness: 1.6 mm

Dimensions (WxH): 80x93 mm or 100x114 mm

Surface: powder-coated, C0 anodising optional

Fixing: using push-on aluminium fixing brackets

Side covers: diecast aluminium, powder-coated

Coupling only with continuous cover panels.

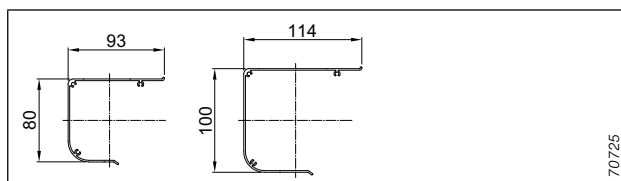


fig. 363: Cover panels

Fabric shaft (2)

Material: aluminium, extruded

Material thickness: 1.5 mm

Dimensions (Ø): crank drive 35 mm
Motor drive, 50 mm or 62 mm depending on cover panel sizes

Profile: groove tube

Surface: plain

Fixing: fabric shaft consoles for placing on the rail or wall mounting

Fabric shaft consoles can be clipped to the rail

With piping groove for fixing the fabric.

Fabric (3)

Fabric qualities: Standard/Lumera acrylic fabric

Acrylic Perfora/All Weather

Soltis 92 fabric

Screen fabric

More information about the fabrics on page 274

Designs: according to current WAREMA collection

Special fabrics not included in our current collection are only available upon request and at a surcharge.

Description

Markisolette 150

Lateral guidance (4)

Rail

C profile

Material: aluminium, extruded
 Dimensions (WxD): 20x40 mm or 38x40 mm
 Profile: C-shaped profile
 Surface: powder-coated, C0 anodising optional
 Fixing: without spacing on the window frame or on the wall

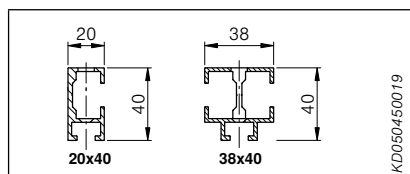


fig. 364: Guide rails

Projection system (5)

Connecting rail (5.1)

Material: aluminium
 Material thickness: 5 mm
 Dimension (B): 25 mm
 Profile: flat profile
 Surface: powder-coated, C0 anodising optional
 Slider: plastic, for guiding in the rail

Drop arm (5.2)

Material: aluminium
 Material thickness: 4 mm
 Dimensions (WxH): 30x20 mm
 Profile: angle-shaped profile
 Surface: powder-coated, C0 anodising optional
 Projection angle: circular up to 145°
 Projection: 541 m

Pressure spring (5.3)

Situated in the joint, nearly invisible
 Material: steel, corrosion-resistant

Windlock mechanism (5.4)

Includes height-adjustable windlock mechanism in the guide rail for additional locking to protect against strong winds. Effective at projection angles of 90°–145°.

Drop profile (6)

Material: aluminium, extruded
 Material thickness: 3 mm
 Dimensions (Ø): 30 mm
 Profile: round profile, mounting groove optional
 Surface: powder-coated, C0 anodising optional
 Available as models "visible" (standard) or "concealed in fabric" (optional).
 To provide optimum fabric tension and wind protection the drop profile is weighted down with galvanised steel profiles.

Guiding tube (7)

Material: aluminium, extruded
 Material thickness: 3 mm
 Dimensions (Ø): 30 mm
 Profile: round tube
 Surface: powder-coated

The guide tube is fixed to the lateral connection rails and locked using aluminium bearing bolts.

Connecting and fixing components

Within the markisolettes

Material: A2 steel or aluminium

Weight table

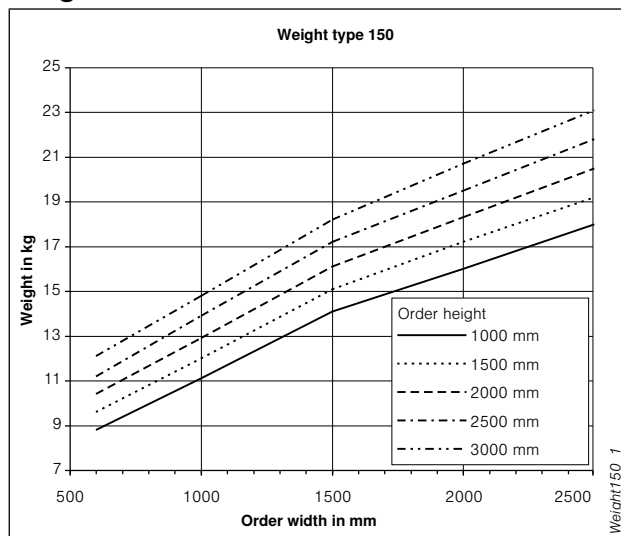


fig. 365: Weight type 150

Colours

Aluminium parts powder-coated with chrome-free pre-treatment in RAL 9006, RAL 9016 and RAL 8016, satin finish, C0 anodising optional. Optional powder coating of the aluminium parts in accordance with valid RAL CLASSIC colour chart (except for camouflage and luminous colours) or in six DB and also eight textured colours (W4914 – W4921), four anodised-look colours (WC31 – WC34) and further colours according to the WAREMA Colour World (in WAREMA colour specification).

Other colour specifications, special colours and colour anodising are available on request at a surcharge.

For anodised markisolettes the visible cast aluminium parts are powder-coated to match the anodised colour.

General note

For mullion/transom facades, markisolettes with motor drives should be preferred over crank drives, since the gear outlet goes through the facade and placement of the boreholes can often be difficult.

Type 150 is especially suited for punched windows, window bands and reveal installation.

Construction limit values

Markisolette 150

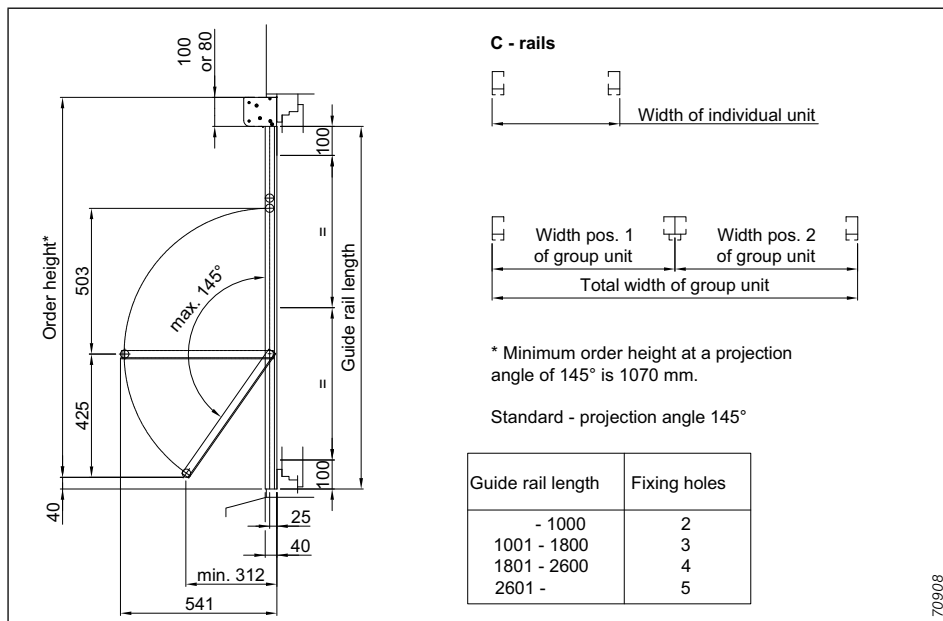


fig. 366: Measuring instructions for Markisolette 150

You can also use our free planning programme on www.sonnenschutzplaner.de for planning your sun shading control systems – here you can configure the product and create a technical drawing to be integrated into your plans.

Construction limit values

	Type of fabric	Individual unit				Coupled (max. 2 curtains)			
		Cover panel size 80		Cover panel size 100		Cover panel size 80		Cover panel size 100	
		Crank	Motor ¹⁾	Crank	Motor ¹⁾	Crank	Motor ¹⁾	Crank	Motor ¹⁾
Min. width ²⁾ (mm)	Acrylic – all qualities –	500	600	500	630	500	600	500	630 ³⁾
	Screen fabric	500	600	500	630	500	600	500	630 ³⁾
	Soltis 92 fabric	500	600	500	630	500	600	500	630 ³⁾
Max. width (mm)	Acrylic – all qualities –	2400	2500	2400	2500	2800	4000	2800	5000
	Screen fabric	2400	2500	2400	2500	2800	4000	2800	5000
	Soltis 92 fabric	2400	2500	2400	2500	2800	4000	2800	5000
Max. height (mm)	Acrylic - all qualities - ⁴⁾	1700	1500	2500	2600	1700	1500	2500	2600
	Screen fabric	2700	2400	2700	2900	2700	2400	2700	2900
	Soltis 92 fabric	2700	2900	2700	2900	2700	2900	2700	2900
Max. area ⁵⁾ (m ²)	Acrylic – all qualities –	4.1	3.8	6.0	6.5	4.8	6.0	7.0	13.0
	Screen fabric	6.5	6.0	6.5	7.3	7.6	9.6	7.6	14.5
	Soltis 92 fabric	6.5	7.3	6.5	7.3	7.6	11.6	7.6	14.5

¹⁾ Radio motors **not** possible (alternative: plug receiver)

²⁾ Smaller widths are possible after consultation with the Application Technology department!

³⁾ For curtain with motor drive

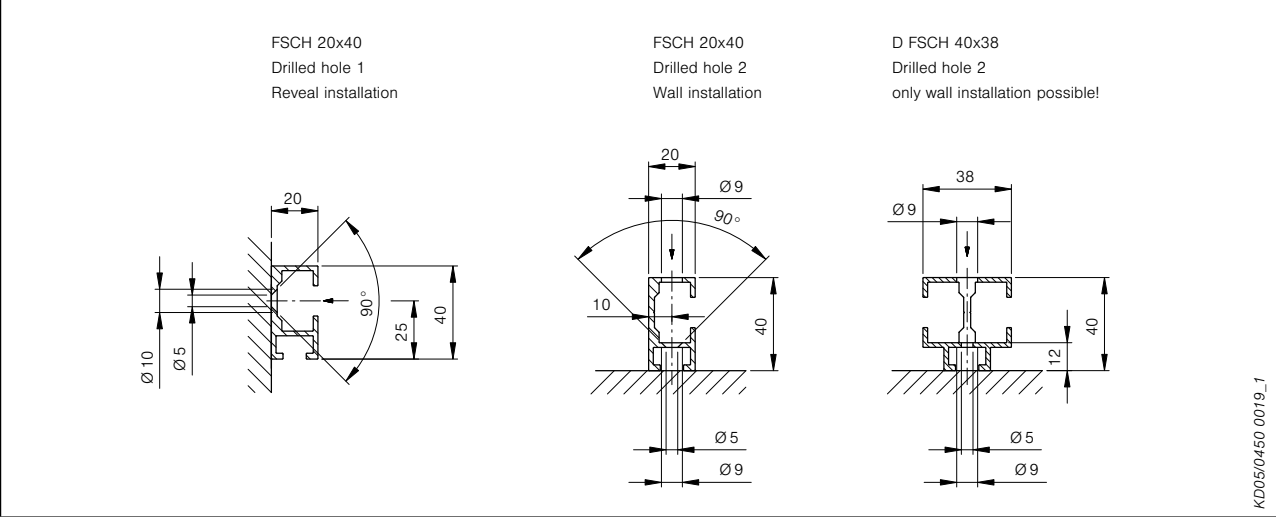
⁴⁾ Glued fabric connection optional for Standard and Perfora variants. Max. height reduced by 200 mm.

⁵⁾ The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 13).

Details

Markisolette 150

Guide rail drilled holes



KD05/0450 0019_1

fig. 367: Guide rail drilled holes (wall and reveal) type 150

Guide rail bracket

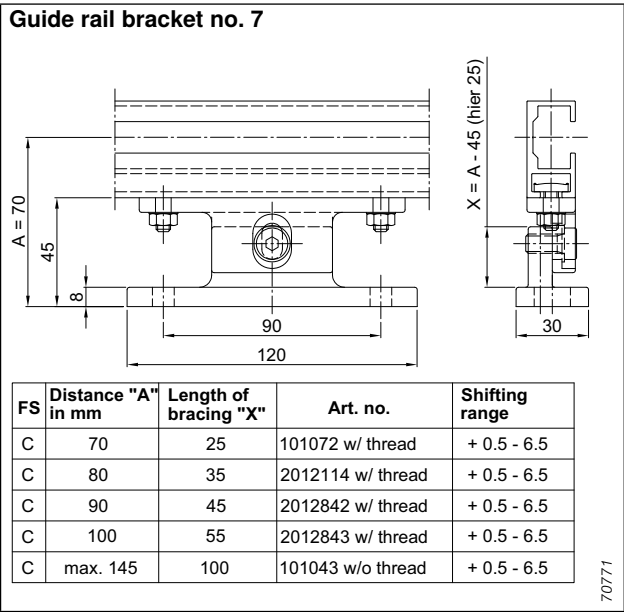


fig. 368: Guide rail 40x20 with bracket no. 7

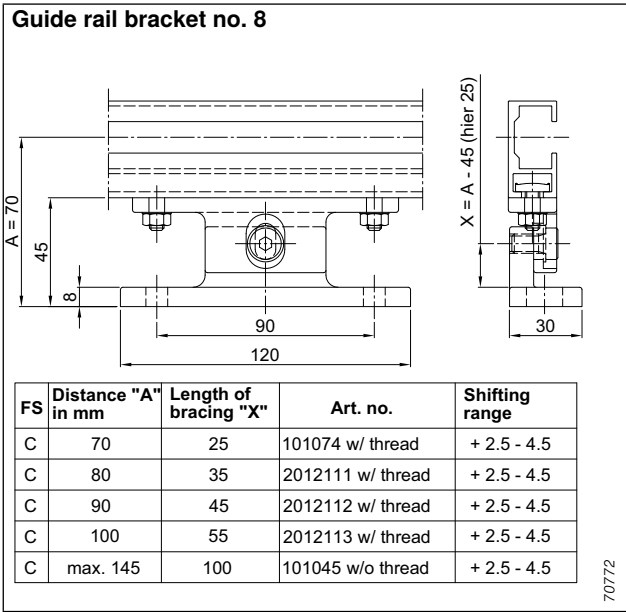
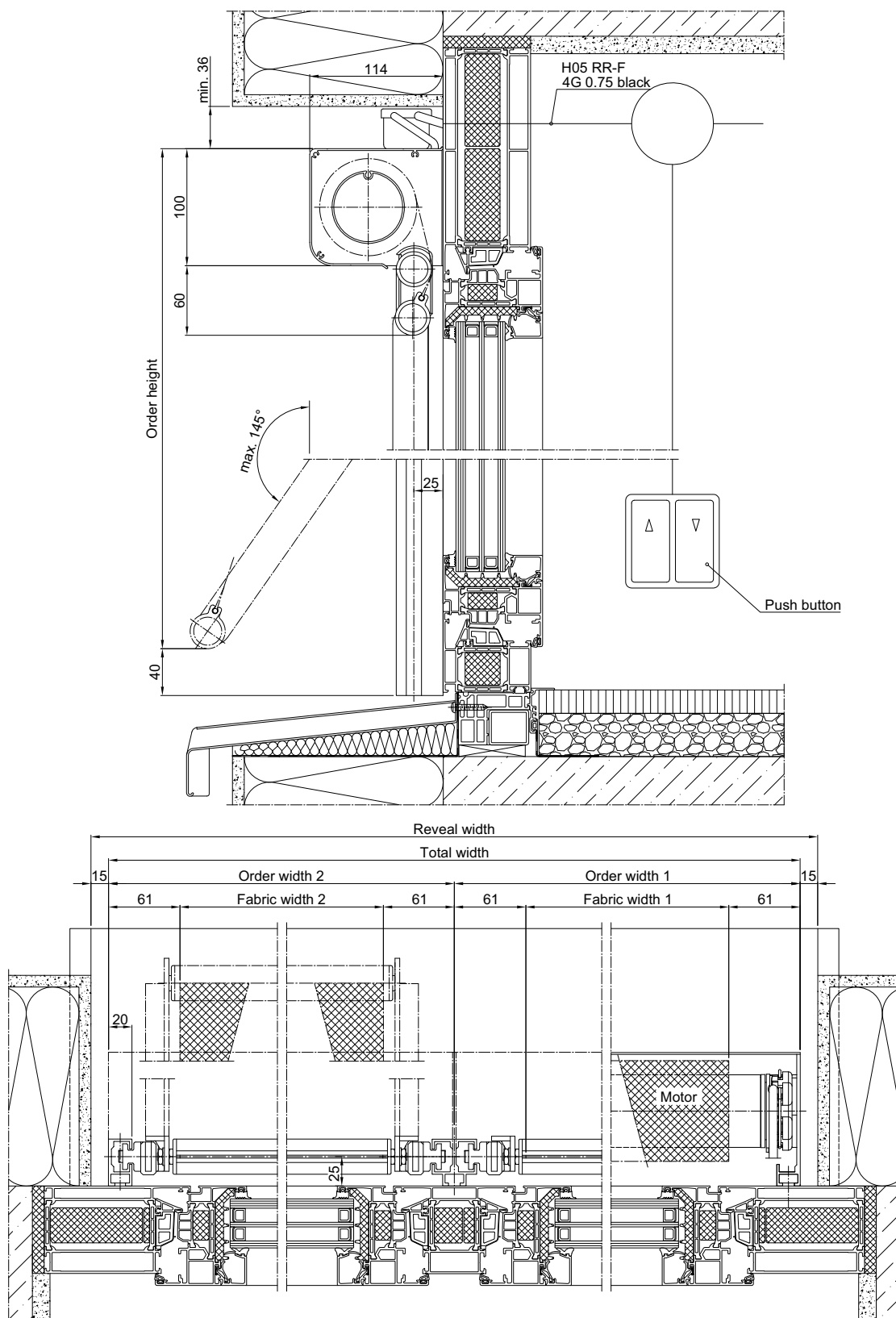


fig. 369: Guide rail 40x20 with bracket no. 8

Application example
Markisolette 150
Cover panel 100
Guide rail 20x40 mm



70338

fig. 370: Markisolette 150 with guide rail 20x40 mm; cover panel 100

Application example
Markisolette 150
Cover panel 100
Guide rail 20x40 mm

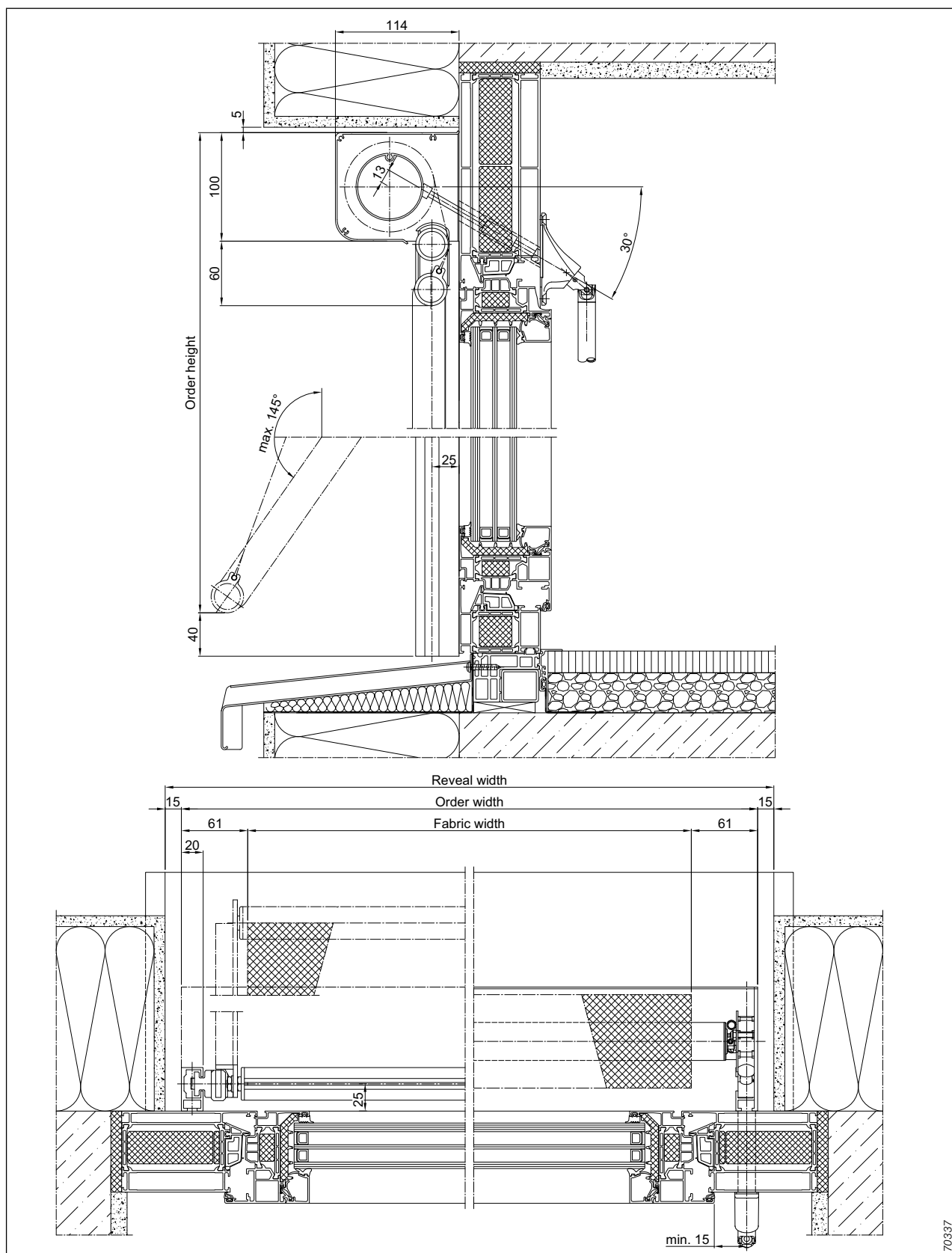
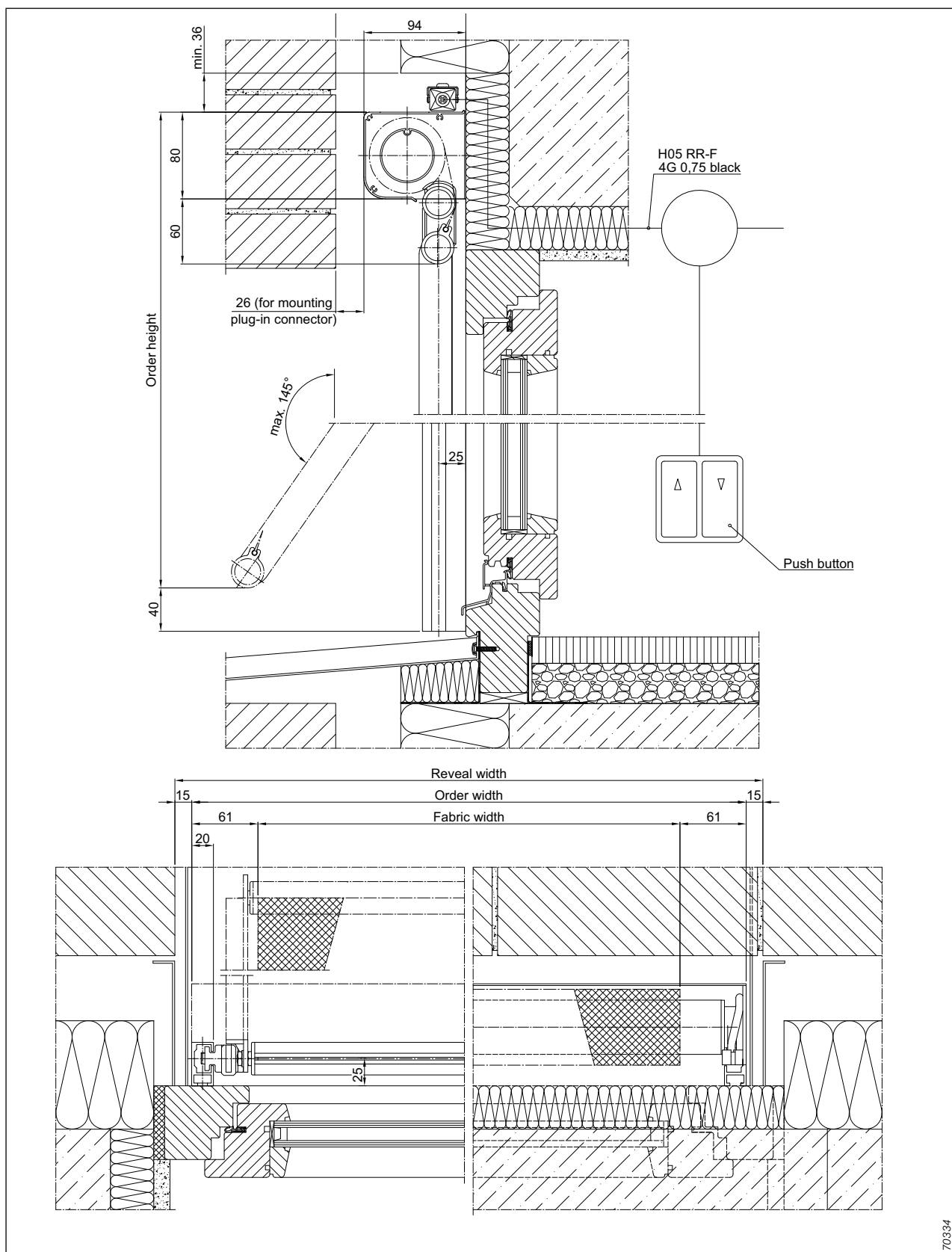


fig. 371: Markisolette 150 with guide rail 20x40 mm; cover panel 100

Application example
Markisolette 150
in building shaft



70334

fig. 372: Markisolette 150 with guide rail 20x40 mm; cover panel 80 in shaft

Application example

Markisolette 150 Stand-off installation

Note: when using cover panels which are closed on 3 sides in a version with guide rail brackets, weathering and/or soiling of the fabric bale may occur.

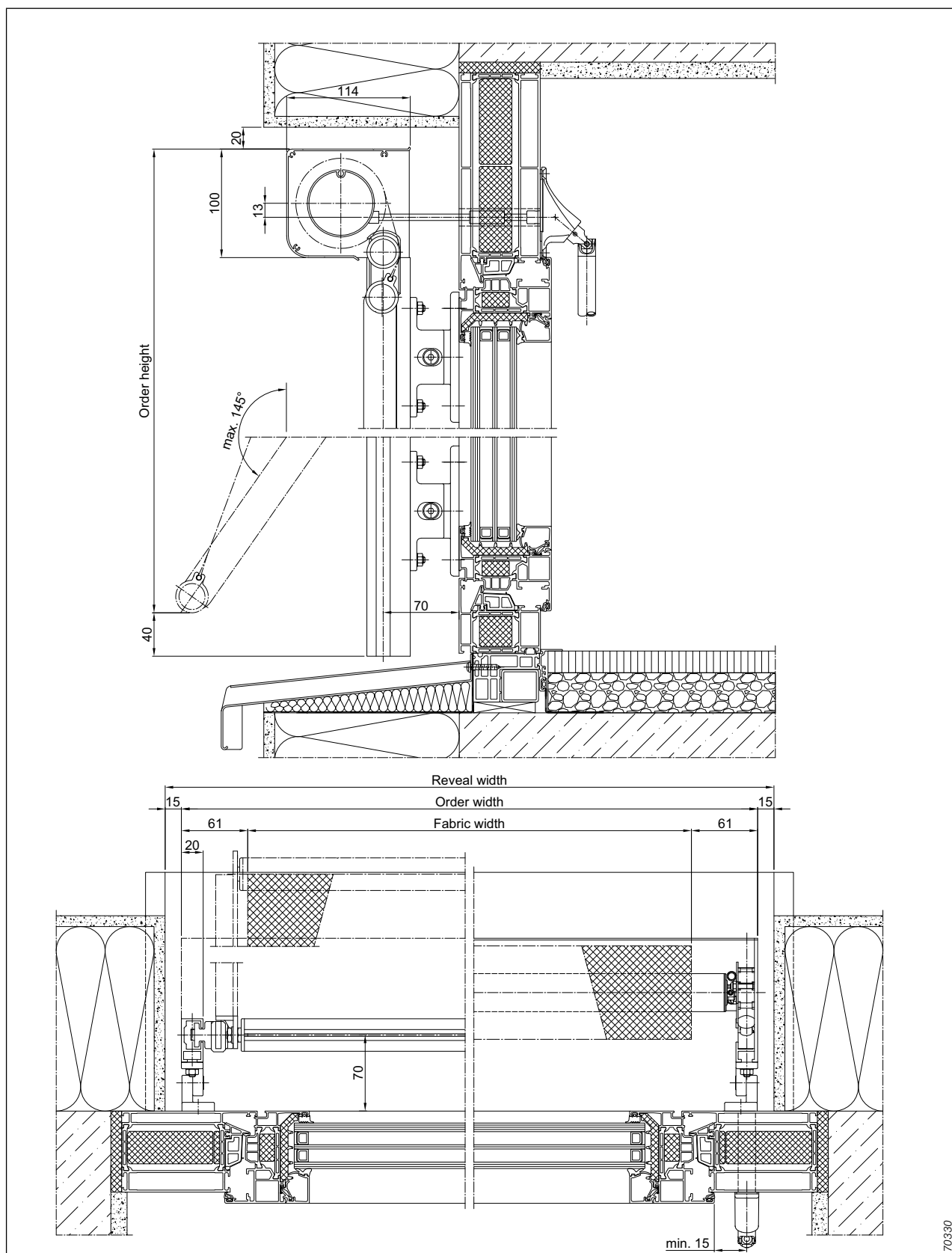


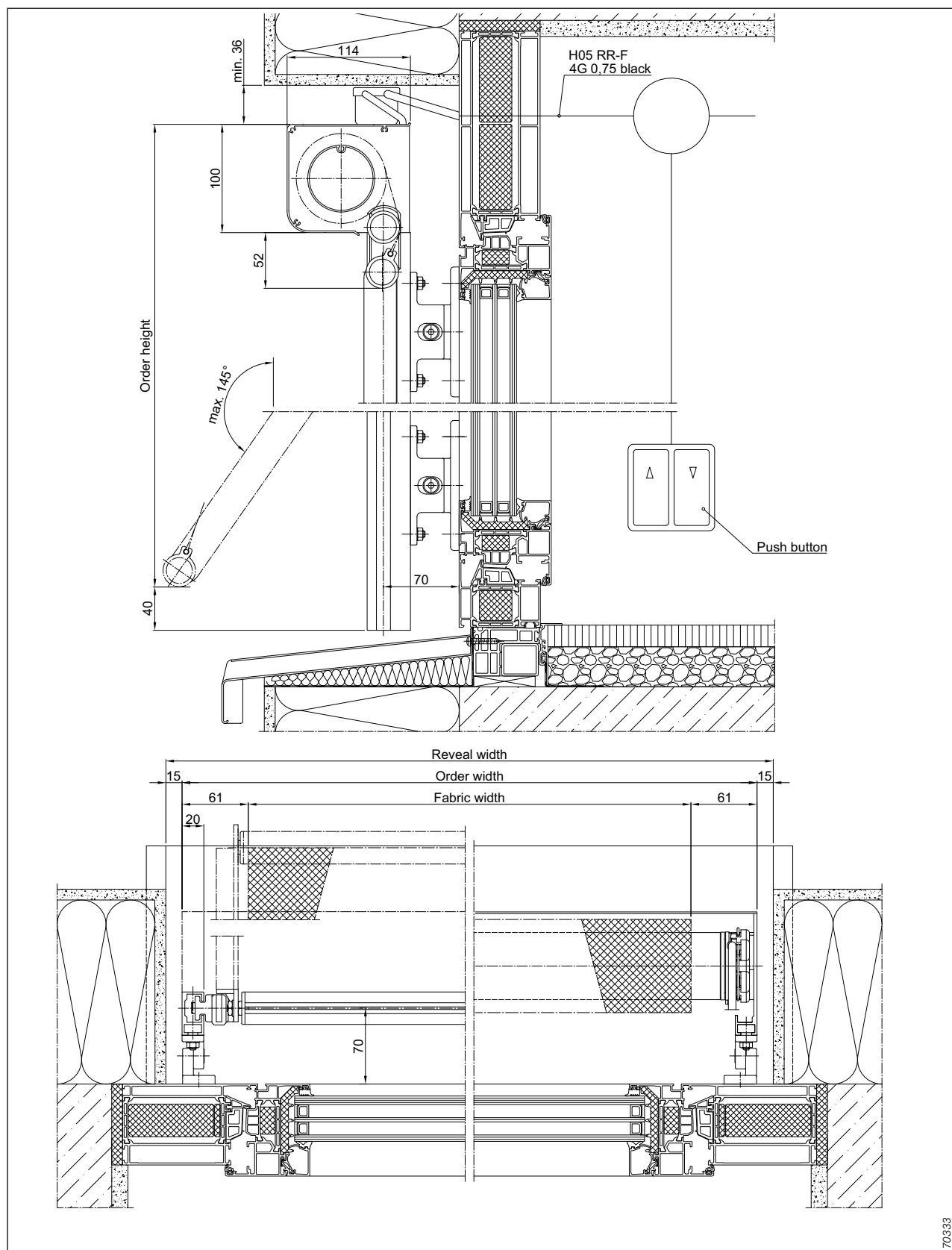
fig. 373: Markisolette 150 with guide rail 20x40 mm; cover panel 100; bracket no. 8

Application example

Markisolette 150

Stand-off installation

Note: when using cover panels which are closed on 3 sides in a version with guide rail brackets, weathering and/or soiling of the fabric bale may occur.



70333

fig. 374: Markisolette 150 with guide rail 20x40 mm; cover panel 100; bracket no. 8

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Window awnings with ZIP guidance
Vertical awnings
Drop-arm awnings
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Fixing systems
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Drives/control systems

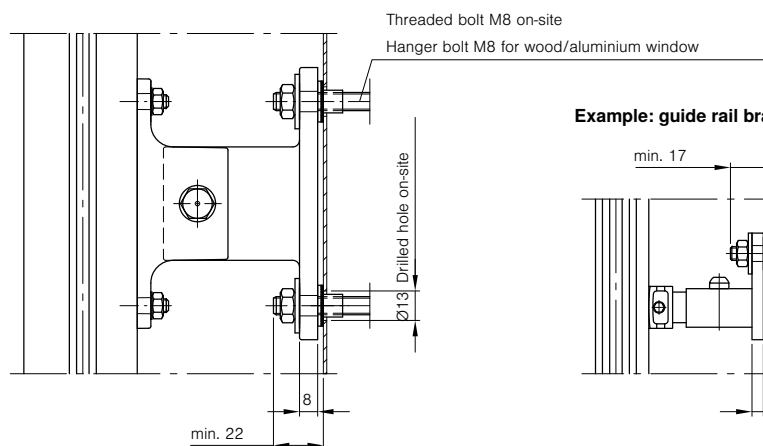
Fixing systems

Transom and mullion facade or wooden, aluminium window

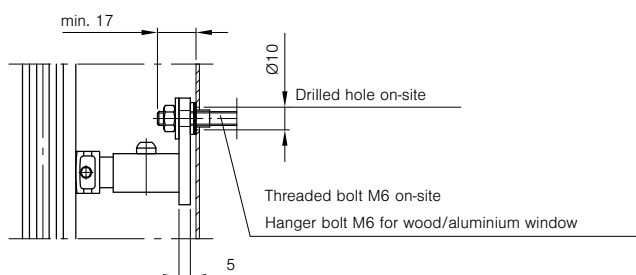
Our prices include fixing materials for mounting on wooden windows, aluminium windows or plastic windows with a steel core as well as fixing material for mounting on concrete. Fixing material for mounting on external

insulation and finish systems, mullion and transom facades, windows with moulded covers, masonry or other substructures are subject to surcharge.

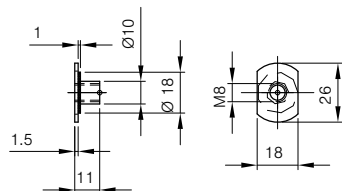
WAREMA stop nut and EPDM sealing washer:
Example: guide rail bracket H101



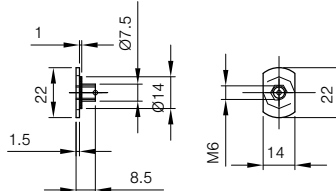
Example: guide rail bracket H1



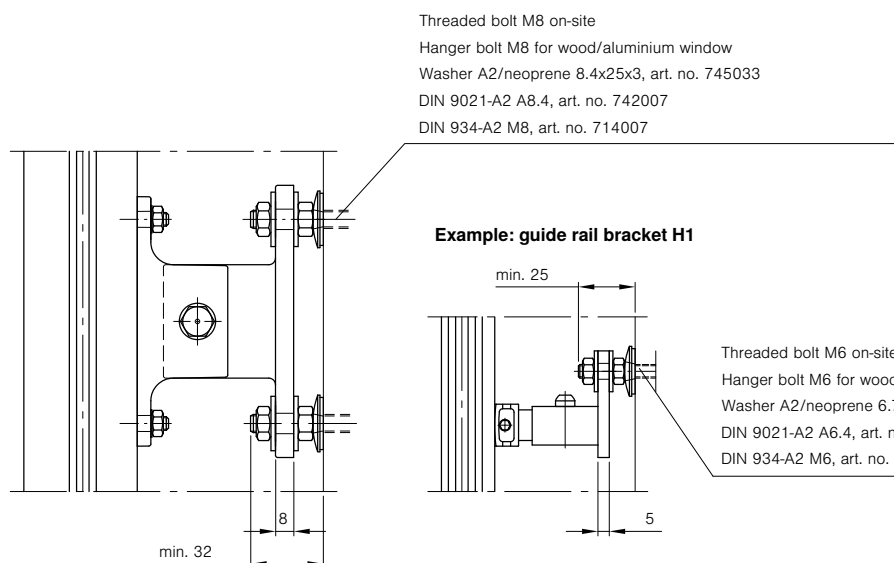
Stop nut M8, art. no. 711043
EPDM sealing washer, art. no. 745065



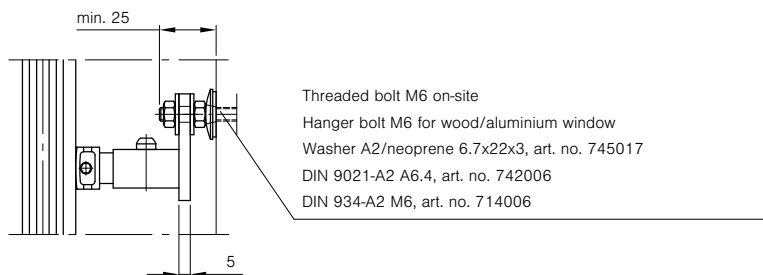
Stop nut M6, art. no. 711021
EPDM sealing washer, art. no. 745064



Lock nut and gasket:
Example: guide rail bracket H101



Example: guide rail bracket H1



kd010002557v2

fig. 375: WAREMA fixing system with stop nut

Fixing systems

Self-sealing fixing system

Sealing spacing disc for mounting on wood, resistant to corrosion

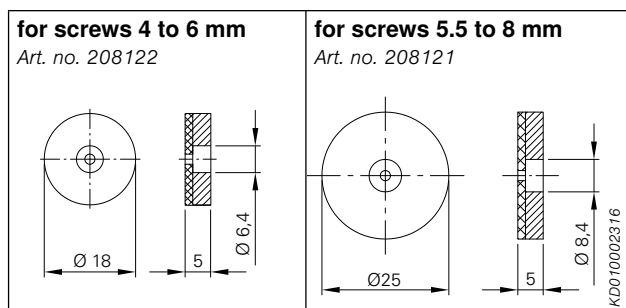


fig. 376: Sealing spacing discs

Example: guide rail bracket H 101

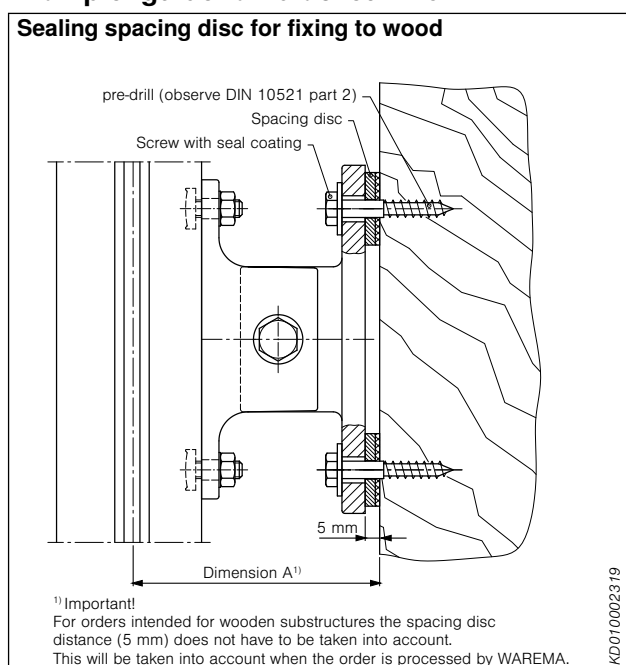


fig. 377: Sealing spacing disc

Hanger bolts with seal coating

Art. no.	Head shape	Number
746187		M6x70
746188		M6x80
746189		M6x130
746168		M8x90
746169		M8x110
746170		M8x130
746184		M8x150
746171		M8x160
746185		M8x180
746186		M8x200

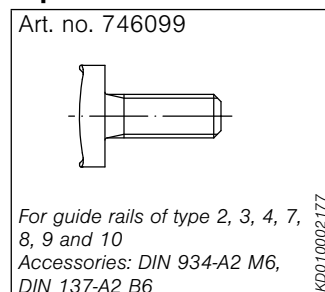
Hanger bolts without seal coating (for fixing in dowel)

Art. no.	Head shape	Number
746048		M6x130
746017		M8x90
746064		M8x110
746065		M8x130
746050		M8x160

WARWIC bolts with seal coating

Art. no.	Head shape	Number
557214		M8x90
557215		M8x100
557216		M8x110
557217		M8x120
557218		M8x130
557219		M8x140
557220		M8x160
557221		M8x180

Square head bolt



Price and delivery time on request.

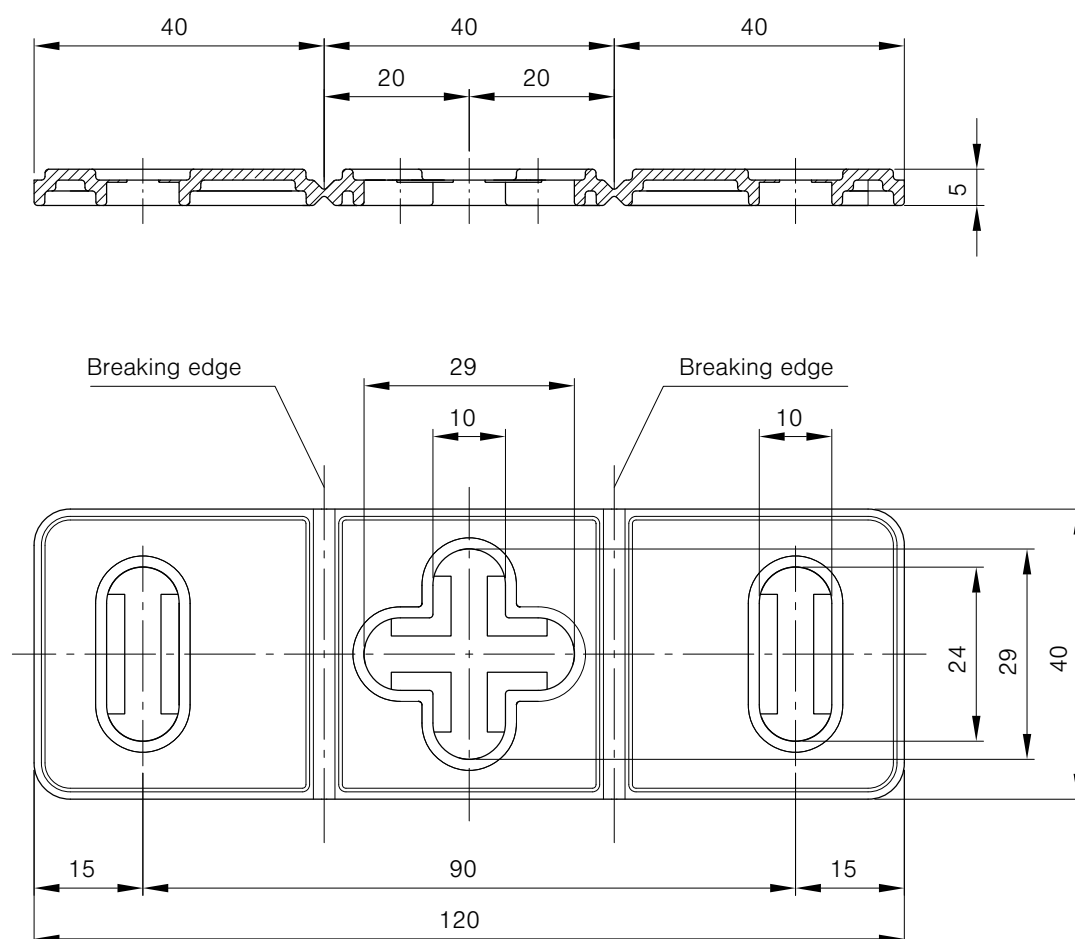
Fixing systems

WAREMA insulating plate

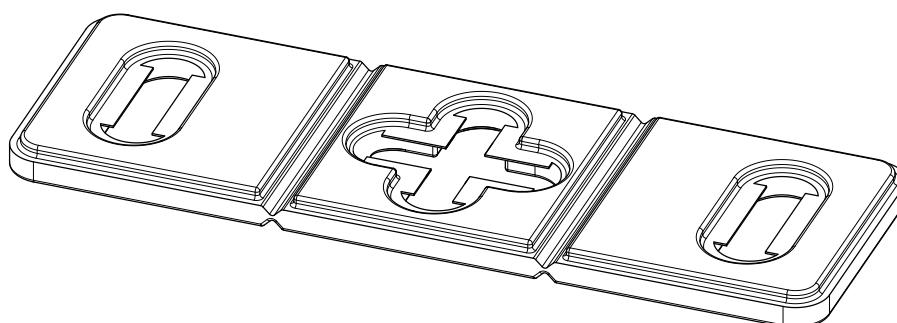
Reducing thermal bridges

The WAREMA insulating plate provides thermal separation when mounting brackets, fixing brackets and guide rail brackets are mounted in the insulation. This reduces heat

loss resulting from mounting elements and effectively lowers energy loss.



If required shorten to 80 or 40 mm on the breaking edges!



kd010002641

fig. 378: WAREMA insulating plate, art. No. 302246

Fixing systems

Exterior insulation and finish system

fischer Thermax 8/Thermax 10

The thermal separation module for safe anchoring in exterior insulation and finish systems.

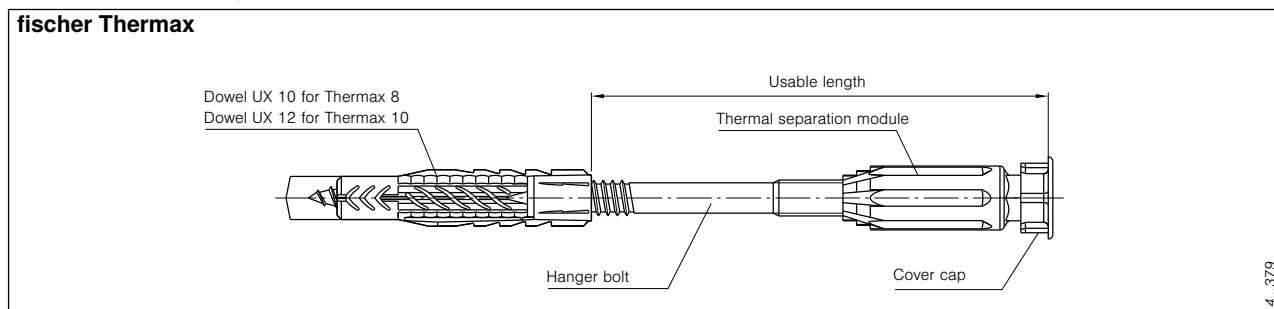


fig. 379: fischer Thermax

Art. no.	Designation	Usable length in mm
791041	Thermax 8/60 M6	45–60
791042	Thermax 8/80 M6	60–80
791043	Thermax 8/100 M6	80–100
791044	Thermax 8/120 M6	100–120
791045	Thermax 8/140 M6	120–140
791046	Thermax 8/160 M6	140–160
791047	Thermax 8/180 M6	160–180
791048	Thermax 10/100 M6	80–100
791049	Thermax 10/120 M6	100–120
791050	Thermax 10/140 M6	120–140
791051	Thermax 10/160 M6	140–160
791052	Thermax 10/180 M6	160–180
791053	Thermax 10/100 M8	80–100
791054	Thermax 10/120 M8	100–120
791055	Thermax 10/140 M8	120–140
791056	Thermax 10/160 M8	140–160

Price and delivery time on request.

Fixing systems
Details

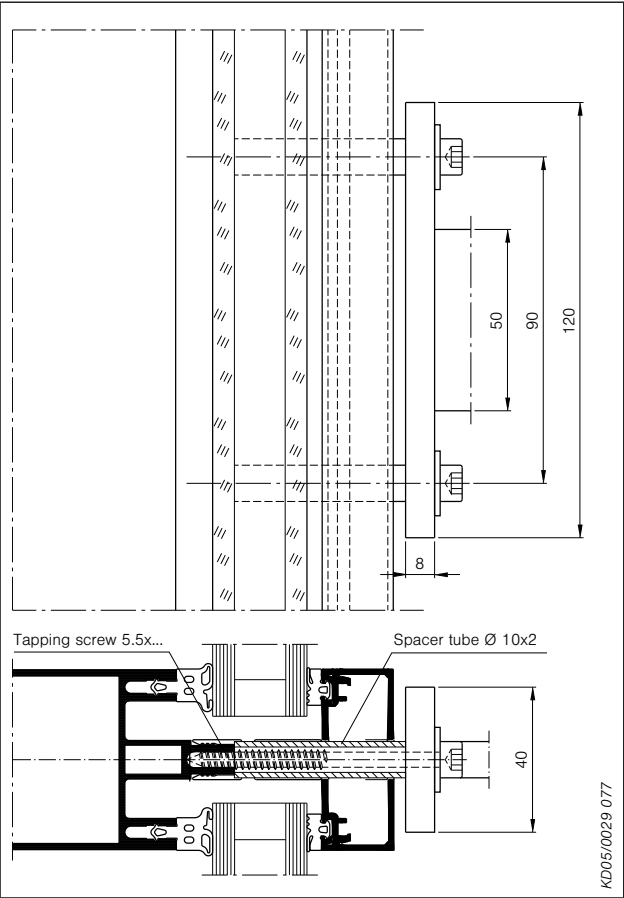


fig. 380: Fixing of guide rail bracket using spacer tubes between bracket and post profile

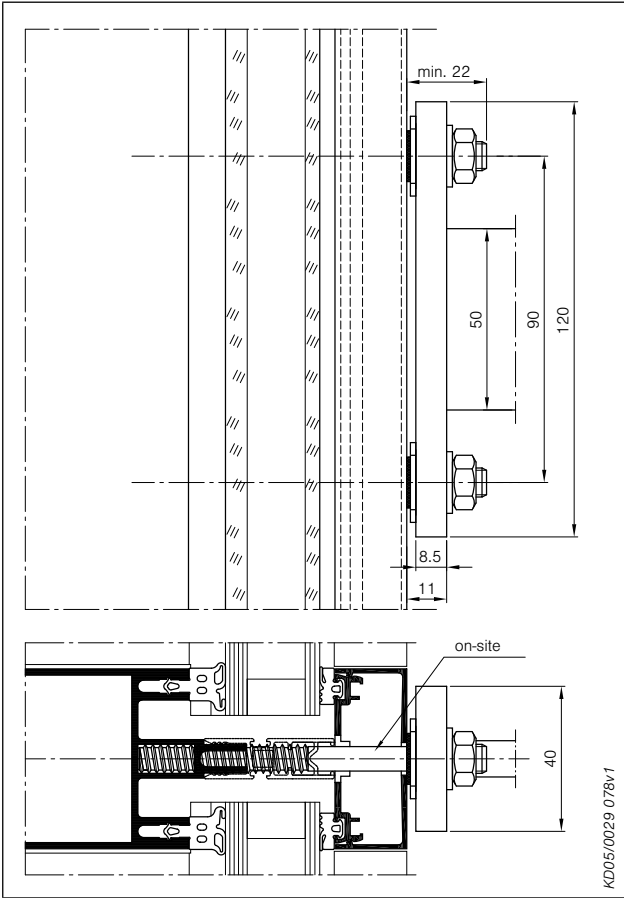


fig. 381: Fixing the guide rail bracket using WICONA WARWIC bolts

Contents

Fabrics

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Drives/control systems	Fabrics	Fixing systems	Markisolettes	Facade awnings	Drop-arm awnings	Vertical awnings	Window awnings with ZIP guidance	Overview
------------------------	---------	----------------	---------------	----------------	------------------	------------------	----------------------------------	----------

Description

Fabrics

Lumera acrylic fabric

Price category:	1
Material:	CBA fibre
Fabric weight:	approx. 290 g/m ²
Web width:	1200 mm.
Processing:	sewing, gluing optional
Building materials class:	none
Colour:	according to current collection
Fabric properties:	brilliant colours; luminosity; high water column; dirt repellent

Fabrics with a width of more than 1100 mm are made from several individual lengths of fabric.

Window awnings with ZIP guidance:

Unicoloured Lumera acrylic fabrics are generally used horizontally. The first transverse seam is necessary from order heights of 1100 mm.

Standard acrylic fabric

Price category:	1
Material:	100% brand acrylic fabric with fluoro-carbon-based impregnation
Fabric weight:	approx. 300 g/m ²
Web width:	1200 mm.
Processing:	sewing, gluing optional
Building materials class:	none
Colour:	according to current collection
Fabric properties:	light-fast, weather-fast, tear-resistant, dirt repellent, rot-proof, air permeable, water-repellent

Fabrics with a width of more than 1100 mm are made from several individual lengths of fabric.

Window awnings with ZIP guidance:

Unicoloured acrylic fabrics are generally used crosswise. The first transverse seam is necessary from order heights of 1100 mm.

All Weather acrylic fabric¹⁾

Price category:	2
Material:	100% brand acrylic fabric with transparent acrylate coating on the outside
Fabric weight:	approx. 330 g/m ²
Web width:	1200 mm.
Processing:	sewing
Building materials class:	none
Colour:	according to current collection
Fabric properties:	all fabric properties of standard acrylic fabric and nearly water-proof (water column 800 mm)

Fabrics with a width of more than 1100 mm are made from several individual lengths of fabric.

Window awnings with ZIP guidance:

All Weather acrylic fabric is generally used crosswise. The first transverse seam is necessary from order heights of 1100 mm.

Perfora acrylic fabric

Price category:	2
Material:	100% brand acrylic fabric with perforation
Fabric weight:	approx. 270 g/m ²
Web width:	1200 mm.
Processing:	sewing, gluing optional
Building materials class:	none
Colour:	according to current collection
Fabric properties:	all fabric properties of standard acrylic fabric Increased transparency and reduced heat accumulation due to the uniform perforation

Fabrics with a width of more than 1100 mm are made from several individual lengths of fabric.

Window awnings with ZIP guidance:

Acrylic Perfora is generally used crosswise. The first transverse seam is necessary from order heights of 1100 mm.

Soltis 92 fabric¹⁾

Price category:	2
Material:	base material made of highly tear-proof polyester with PVC coating
Fabric weight:	approx. 420 g/m ²
Web width:	1770 mm.
Processing:	bonding
Building materials class:	B1 in accordance with DIN 4102-1
Colour:	according to current collection
Fabric properties:	dirt-repellent, highly tear-resistant, high diagonal stability, resistant to UV rays

Fabrics with a width of more than 1770 mm are bonded crosswise. All units should then be used crosswise on the facade in order to give a uniform appearance across the entire building.

Screen fabric

Price category:	2
Material:	PVC-coated glass fibre
Fabric weight:	approx. 525 g/m ²
Web width:	2500 mm
Processing:	bonding
Building materials class:	B1 in accordance with DIN 4102-1
Colour:	according to current collection
Fabric properties:	weather-proof, retains its shape, light-fast

Screen fabrics with lower weight are not suitable for outdoor use.

Window awnings with ZIP guidance:

If the order width exceeds the available bale width, screen fabric will be transversely bonded.

All fabrics on a facade should then be used crosswise in order to give a uniform appearance across the entire building.

¹⁾ Due to its increased weight the fabric may sag more than standard fabrics and thus come to rest on the guiding tubes and/or articulated arms sooner.

Description

Fabrics

WAREMA SecuTex fabric A2

Price category: on request
 Material: glass fibre curtain with silicon coating
 Fabric weight: 330 g/m²
 Material thickness: 0.39 mm
 Web width: 1620 mm and 2150 mm
 Processing: gluing
 Building materials class: A2: DIN 4102 A2
 6q.3 and RF1: in accordance with VKF (Association of Cantonal Fire Insurance Companies) and SN EN 13501
 Colour: 3 unicoloured designs 44500, 44501, 44502
 Fabric properties: weather-proof, odour-neutral, PVC and halogen-free, resistant to disinfectants, washing agents and cleaning agents
 Implementation options: on request

PVC film, for window awnings with ZIP guidance and viewing field

Price category: 2
 Material: 100% PVC
 Fabric weight: approx. 610 g/m²
 Material thickness: 0.5 mm
 Web width: 1320 mm
 Processing: bonding
 Building materials class: flame resistant
 Colour: clear
 Fabric properties: heat-resistant up to +66 °C, cold-resistant up to -22 °C, light-fast, weather proof, tear-resistant, elastic, rot-proof, water-repellent, chemical-resistant, airtight

Additional notes:

- The awnings may only be used between 0 °C and +35 °C.
- Rippling or light fraying can occur in the seam area due to the bonding of different materials (screen fabric and PVC film). Stress marks and horizontal stripes may be visible on the PVC film. This is caused by the material and cannot be prevented. This does not constitute a reason for complaint.
- This also applies to the occurrence of an electrostatic charge that arises due to rolling up the PVC film. This charge is clearly perceptible and can have the effect of attracting dirt.
- The drop profile can be slightly crooked in the upper limit position and can sag somewhat more than is the case with normal window awnings with ZIP guidance! (The fabric is guided not as strongly in the passage due to the altered push-up guard, wherein more irregular rolling up may occur. The sagging of the drop profile is supported by the flexibility of the PVC film).

Applications

Awning fabric	Awning type					Processing
Legend: ● available (please note construction limit values!) – not available	Window awning with ZIP guidance	Vertical awning	Facade awning	Markisolette	Drop-arm awning	n = sewing k = gluing s = bonding
Standard/Lumera acrylic fabric						
– stripes	●	●	●	●	●	n, k
– Unicoloured	●	●	●	●	●	n, k
– All Weather acrylic fabric	●	●	●	●	●	n
– Perfora acrylic fabric	●	●	●	●	●	n, k
Screen fabric	●	●	●	●	●	s
Soltis 92 fabric	●	●	●	●	●	s
WAREMA SecuTex fabric A2 ¹⁾	●	●	●	●	–	k

¹⁾ on request

Dimensional tolerances

Please note that tolerances of ±10 mm in the width as well as in the height might occur during finishing procedure of the awning fabrics.

Fabric connections

Sewing

All connecting seams and hems are produced with the particularly durable PTFE (Teflon-coated) sewing thread TENARA® in plain white using state-of-the-art sewing machines.

Gluing

Upon request the lengthwise seams on the acrylic fabrics Standard/Lumera as well as Perfora are also available as glued seams. Here too, the transverse seams are sewn with PTFE (Teflon) sewing thread, like TENARA in plain white.

Bonding

The connection seams as well as hems of the fabric types Soltis 92 and Screen are permanently bonded vertically and horizontally. This is performed with the aid of a high frequency or thermal impulse bonding device.

Notes

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Overview

Window awnings with
ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

Fixing systems

Fabrics

Drives/control systems

Solflex AB försäljning och service västra Skåne. Showroom och rådgivning;
Malmö Slussplan 1, 040-979745. Helsingborg Garnisonsg 12, 042-161635.
kontakter@solflex.se www.solflex.se

Drives Overview

WAREMA only uses innovative drives from reliable European quality suppliers, e.g. Somfy and Becker drives. These comply with the highest quality standards and have been tested extensively.

All drive solutions optimally match the corresponding WAREMA sun shading products as well as WAREMA control systems and are continuously further developed. From the first conception phase through to the market launch, WAREMA accompanies the development of new drives with expertise in sun shading systems. Before a drive is installed in WAREMA products, it is again subjected to a very extensive series of tests individually synchronised for the drive.

All setting instructions are tailored exactly to the WAREMA sun shading products and enable a very comfortable installation and commissioning of the drives.

Drives with mechanical limit switch-off

- Proven track record
- Reliable and precise
- Intuitive setting
- Our basic motorisation with window awnings

Drives with electronic limit switch-off

- Software/functions specially match the sun shading product
- Comfortable adjustment of the motor limit positions with programming cable
- Our basic motor with drop-arm awning 355

Electronic special drive ZM REA for window awnings with ZIP guidance

- With responsive obstacle detection
- In the case of a blockage the drive can differentiate between wind load and a fixed obstacle and correspondingly reacts sensitively to the situation.
- Maximum curtain protection and an extended applicability also in the case of mounting situations exposed to wind
- Used as standard for products with ZIP guidance

EWFS radio motor

- Based on our unidirectional EWFS radio system with a transmission frequency of 433.92 MHz
- Comprehensive range of functions, e.g. comfort position teachable
- Combinable with comprehensive control components such as hand-held transmitter, weather stations

WMS radio motor

- Based on our bidirectional WMS radio system with a transmission frequency of 2.4 GHz
- Maximum safety by means of encoded radio network
- Accurate moving to intermediate positions
- Exact position feedback
- By means of WAREMA WebControl also operable via smartphone
- **Our highlight: on request, we can programme your order with WMS radio motors for the delivered hand-held transmitter ex works, our service – your mounting advantage!**

Functions in detail

Function	Explanation
Position switch-off (motor limit position)	Drive stops point-precisely at an exactly adjustable position
Torque overload protection (motor limit position)	Drive moves against a system stop. Switch-off torque optimally matches the sun shading product.
Optimum cover	The cassette or cover panel is always closed correctly
Fabric stretching adjustment	For drives with torque switch-off in the upper limit position an elongation of the awning fabric is compensated
Block detection (raise)	Drive stops in the case of blockages and thus protects the sun shading product from damage
Obstacle detection (lower)	Drive stops in the case of obstacles and thus protects the sun shading product from damage
Responsive obstacle detection	Drive reacts sensitively to obstacles/blockages and thus ensures maximum curtain protection and also extended usability in the case of mounting situations exposed to wind
Comfort position (intermediate position)	For EWFS and WMS radio motor individually adjustable

Utilisation options/functional overview

Drives

Overview

Window awnings with ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings







Markisolettes

Fixing systems

Fabrics

Drives/control systems

Utilisation options for window awnings with ZIP guidance






Motor type Limit switch-off	Basic drive	Optionally with extras				
	ZM REA electronic	W-ZM (EWFS) Radio	EWFS-ZWS Radio	WMS-ZM Radio	WMS-ZP ¹⁾	WMS-ZWS Radio ²⁾
						
Cover panel size 9	●	–	○	–	○	○
Cover panel size 11	●	○	○	○	○	○
Cover panel size 13	●	○	○	○	○	○
Cover panel size 15	●	○	○	○	○	○

¹⁾ Required with wide guide rail

²⁾ Basic motor with additional radio plug receiver

- standard
- optional
- not available

Utilisation options for vertical, drop-arm, facade awnings and markisolettes





Motor type Limit switch-off		Basic drives			Optionally with extras	
		LS40 mechanical	LT50 mechanical	Orea WT electronic	W-MP (EWFS) Radio	W-MM (EWFS) Radio
						
Vertical awnings	Type 450 (cover panel size 80)	●	–	–	–	–
	Type 450 (cover panel size 100)	–	●	–	–	–
	Type 470	–	–	–	–	–
	Type 490	–	●	–	○	–
	Type 491	–	●	–	○	–
	Type 499	–	●	–	○	–
Drop-arm awnings	Type 330	–	●	–	○	–
	Type 340	–	●	–	○	–
	Type 355	–	–	●	–	○
Facade awnings	Type 201–204	–	●	–	○	–
	Type 207	–	●	–	○	–
	Type 209	–	●	–	○	–
Markisolettes	Type 101	–	●	–	○	–
	Type 107	–	●	–	○	–
	Type 109	–	●	–	○	–
	Type 150 (cover panel size 80)	●	–	–	–	–
	Type 150 (cover panel size 100)	–	●	–	–	–

- standard
- optional
- not available

Applications

Drives

Utilisation options for vertical, drop-arm, facade awnings and markisolettes

Motor type Limit switch-off		Optionally with extras			
		EWFS-ZWS Radio ¹⁾	WMS-MP (WMS) Radio	WMS-MM (WMS) Radio	WMS-ZWS Radio ¹⁾
					
Vertical awnings	Type 450 (cover panel size 80)	○	—	—	○
	Type 450 (cover panel size 100)	○	—	—	○
	Type 470	—	—	—	—
	Type 490	○	○	—	○
	Type 491	○	○	—	○
	Type 499	○	○	—	○
Drop-arm awnings	Type 330	○	○	—	○
	Type 340	○	○	—	○
	Type 355	○	—	○	○
Facade awnings	Type 201–204	○	○	—	○
	Type 207	○	○	—	○
	Type 209	○	○	—	○
Markisolettes	Type 101	○	○	—	○
	Type 107	○	○	—	○
	Type 109	○	○	—	○
	Type 150 (cover panel size 80)	○	—	—	○
	Type 150 (cover panel size 100)	○	—	—	○

¹⁾ Basic motor with additional radio plug receiver

- standard
- optional
- not available

Possibilities for use/function overview

Drives

Overview

Window awnings with ZIP guidance

Vertical awnings

Drop-arm awnings

Facade awnings

Markisolettes

Fixing systems

Fabrics

Drives/control systems

Functional overview of window awnings with ZIP guidance

Motor type Limit switch-off	Basic drive	Optionally with extras		
	ZM REA electronic	W-ZM (EWFS) Radio	WMS-ZM Radio	WMS-ZP Radio
Position switch-off bottom	●	●	●	●
Position switch-off top	○	–	–	●
Torque overload protection top	●	●	●	–
Optimum cover	● ¹⁾	●	●	–
Block detection (raise)	●	●	●	●
Obstacle detection (lower)	●	–	●	●
Responsive obstacle detection	●	–	●	●
Comfort position (intermediate position)	–	●	●	●
Fabric stretching adjustment	● ¹⁾	●	●	–

¹⁾ only for torque switch-off

- standard
- optional
- not available

Performance data for window awnings with ZIP guidance

Motor type Limit switch-off	Basic drive	Optionally with extras		
	ZM REA electronic	W-ZM (EWFS) Radio	WMS-ZM Radio	WMS-ZP Radio
Rated voltage	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz
Torque	8 to 30 Nm	8 to 30 Nm	8 to 30 Nm	8 to 30 Nm
Speed	17 rpm	17 rpm	17 rpm	17 rpm
Rated power consumption	100 to 205 W	100 to 205 W	100 to 205 W	100 to 205 W
Nominal current	0.45 to 0.9 A	0.45 to 0.9 A	0.45 to 0.9 A	0.45 to 0.9 A
Idle losses (standby)	n/a	<1 W	n/a	n/a
Transmission frequency	–	433.92 MHz	2.4 GHz	2.4 GHz
Minimum run time (with 23 °C)	4 min	4 min	4 min	4 min
Degree of protection	IP44	IP44	IP44	IP44
Motor line	0.5 m	0.5 m	0.5 m	0.5 m
Plug-in connector	STAS 3	STAS 3	STAS 3	STAS 3
Overheat protection	Yes	Yes	Yes	Yes
Operating temperature (temporary)	-10 to +40 °C (-20 to +80 °C)	-10 to +40 °C (-20 to +80 °C)	-10 to +40 °C (-20 to +80 °C)	-10 to +40 °C (-20 to +80 °C)
Test/programming cable	Becker programming cable	Test cable grid Standard	Test cable grid Standard	Test cable grid Standard

Functional overview/technical data

Drives

Functional overview of vertical, drop-arm, facade awnings and markisolettes

Motor type	Basic drives			Optionally with extras			
	LS40 mechanical	LT50 mechanical	Orea WT electronic	W-MP (EWFS) Radio	W-MM (EWFS) Radio	WMS-MP (WMS) Radio	WMS-MM (WMS) Radio
Limit switch-off							
Position switch-off bottom	●	●	●	●	●	●	●
Position switch-off top	●	●	–	●	–	●	–
Torque overload protection top	–	–	●	–	●	–	●
Optimum cover	–	–	●	–	●	–	●
Fabric tension relief mechanism	–	–	–	–	●	–	●
Fabric stretching adjustment	–	–	●	–	●	–	●
Block detection (raise)	–	–	●	●	●	●	●
Comfort position (intermediate position)	–	–	–	●	●	●	●

- standard
- optional
- not available

Performance data for vertical, drop-arm, facade awnings and markisolettes

Motor type	Basic drives			Optionally with extras			
	LS40 mechanical	LT50 mechanical	Orea WT electronic	W-MP (EWFS) Radio	W-MM (EWFS) Radio	WMS-MP (WMS) Radio	WMS-MM (WMS) Radio
Limit switch-off							
Rated voltage	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz
Torque	4 Nm	6 to 45 Nm	15/25 Nm	8 to 40 Nm	8 to 40 Nm	8 to 40 Nm	8 to 40 Nm
Speed	14 rpm	17 rpm	17 rpm	17 rpm	17 rpm	17 rpm	17 rpm
Rated power consumption	75 W	90 to 270 W	140/170 W	100 to 260 W	100 to 260 W	100 to 260 W	100 to 260 W
Nominal current	0.35 A	0.45 to 1.2 A	0.65/0.8 A	0.45 to 1.15 A	0.45 to 1.15 A	0.45 to 1.15 A	0.45 to 1.15 A
Idle losses (standby)	No	No	No	< 1 W	< 1 W	n/a	n/a
Transmission frequency	–	–	–	433.92 MHz	433.92 MHz	2.4 GHz	2.4 GHz
Minimum run time (with 23 °C)	4 min	4 min	4 min	4 min	4 min	4 min	4 min
Degree of protection	IP44	IP44	IP44	IP44	IP44	IP44	IP44
Motor line	0.4/3 m	0.4 m	0.4 m	0.5 m	0.5 m	0.5 m	0.5 m
Plug-in connector	– ¹⁾	STAS 3	STAS 3	STAS 3	STAS 3	STAS 3	STAS 3
Overheat protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Operating temperature (temporary)	-10 to +40 °C (-25 to +70 °C)	-10 to +40 °C (-25 to +70 °C)	-10 to +40 °C (-25 to +70 °C)	-10 to +40 °C (-20 to +80 °C)	-10 to +40 °C (-20 to +80 °C)	-10 to +40 °C (-20 to +80 °C)	-10 to +40 °C (-20 to +80 °C)
Test/programming cable	Standard test cable UP/DOWN	Standard test cable UP/DOWN	Standard test cable UP/DOWN	Test cable grid Standard	Test cable grid Standard	Test cable grid Standard	Test cable grid Standard

¹⁾ for 3 m motor line open line end with loose plug-in connector; optionally without plug-in connector or optionally with 0.4 m motor line with wired plug-in connector

Connecting the plug-in connection Drives


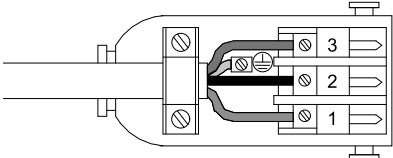
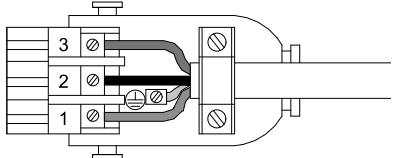
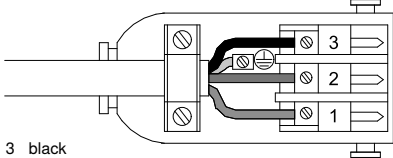
WAREMA only uses halogen-free lines which are resistant to UV rays and approved for permanent use outside and correspond to the norm requirements.

All products comprise motor line with connection plug (attention: type 450 or 150 only optional – see type description). For convenient on-site connection WAREMA delivers the matching plug-in connector for on-site wiring which facilitates all-pole disconnection from the power supply system if necessary.

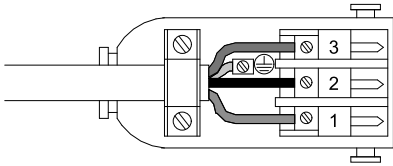
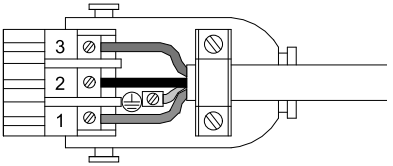
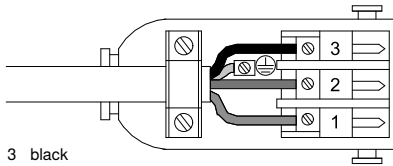
Attention!

Follow the wiring diagram carefully to avoid damage to the motor.


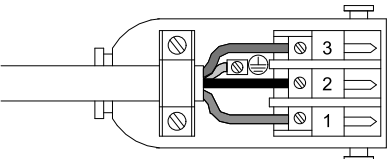
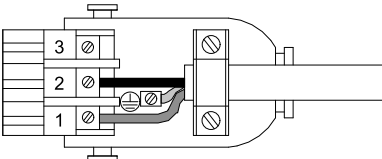

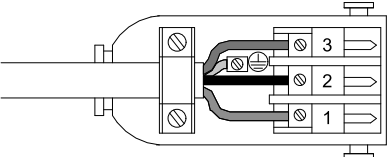
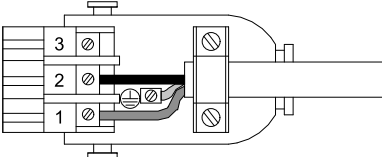
WAREMA will not accept liability for damage due to improper installation.

	Description	Line type house connection	Compatible control
	– Set the motor limit positions by means of a programming cable	H05RR-F 4 G 0.75 mm² black Type WAREMA	controllable with all WAREMA control product lines for 230 V
	Wiring diagram <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> Motor line with STAS 3 plug connector  <p>3 brown 2 black 1 blue ⊕ yellow/green</p> </div> <div style="width: 45%;"> House connection with STAK 3 coupling  <p>3 DOWN command (brown) 2 UP command (black) 1 Neutral conductor (blue) ⊕ PE conductor (yellow/green)</p> </div> </div>		
	Motor line with STAS 3 plug connector – left-hand motion  <p>3 black 2 brown 1 blue ⊕ yellow/green</p>		

Connecting the plug-in connection Drives

	Description	Line type house connection	Compatible control
mechanical tubular motor	<p>– Set the motor limit positions by means of adjustment buttons on the motor</p> <p>Wiring diagram</p> <p>Motor line with STAS 3 plug connector</p>  <p>3 brown 2 black 1 blue ⊕ yellow/green</p> <p>House connection with STAK 3 coupling</p>  <p>3 DOWN command (brown) 2 UP command (black) 1 Neutral conductor (blue) ⊕ PE conductor (yellow/green)</p> <p>Motor line with STAS 3 plug connector – left-hand motion</p>  <p>3 black 2 brown 1 blue ⊕ yellow/green</p>	H05RR-F 4 G 0.75 mm² black Type WAREMA	controllable with all WAREMA control product lines for 230 V

Connecting the plug-in connection Drives

	Description	Line type house connection	Compatible control
	<ul style="list-style-type: none"> – Set the motor limit positions by means of the WMS hand-held transmitter, WMS central transmitter or PC software – Bidirectional radio technology – Comfort position adjustable – Transmission frequency 2.4 GHz – Position feedback by means of WMS radio control – Accurate positioning by means of WMS radio control – Intelligent routing function 	H05RR-F 4 G 0.75 mm ² black Type WAREMA	Controllable with all WAREMA WMS control panels and transmitters
	<p>Wiring diagram</p> <div> <p>Motor line with STAS 3 plug connector</p>  <p>3 brown (is not required) 2 black 1 blue ⊕ yellow/green</p> </div> <div> <p>House connection with STAK 3 coupling</p>  <p>3 not occupied 2 Phase L (black) 1 Neutral conductor (blue) ⊕ PE conductor (yellow/green)</p> </div>		
	<ul style="list-style-type: none"> – Set the motor limit positions by means of the EWFS hand-held transmitter – Comfort position adjustable – Transmission frequency 433.92 MHz 	H05RR-F 4 G 0.75 mm ² black Type WAREMA	controllable with all WAREMA EWFS transmitters
	<p>Wiring diagram</p> <div> <p>Motor line with STAS 3 plug connector</p>  <p>3 brown (is not required) 2 black 1 blue ⊕ yellow/green</p> </div> <div> <p>House connection with STAK 3 coupling</p>  <p>3 not occupied 2 Phase L (black) 1 Neutral conductor (blue) ⊕ PE conductor (yellow/green)</p> </div>		

Details Plug-in connector

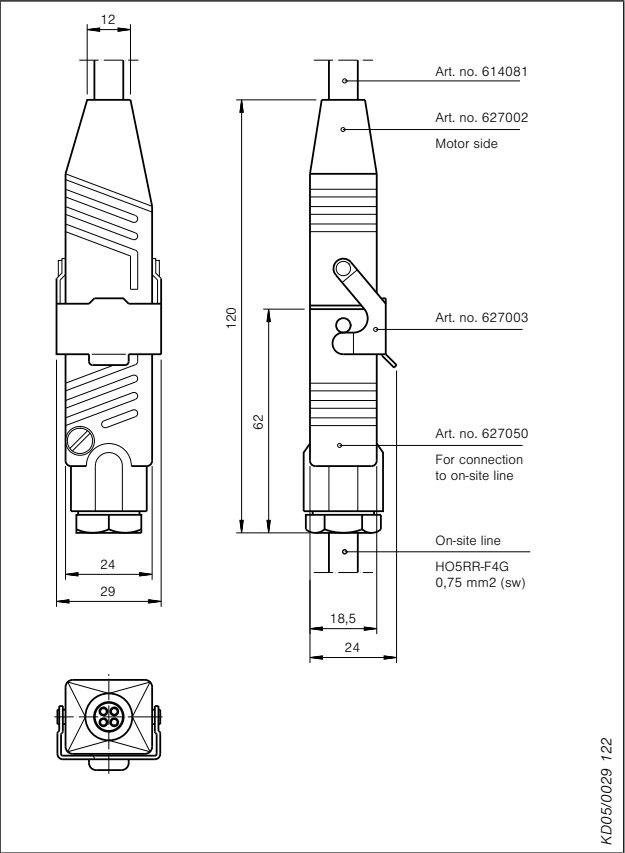


fig. 382: Plug-in connector

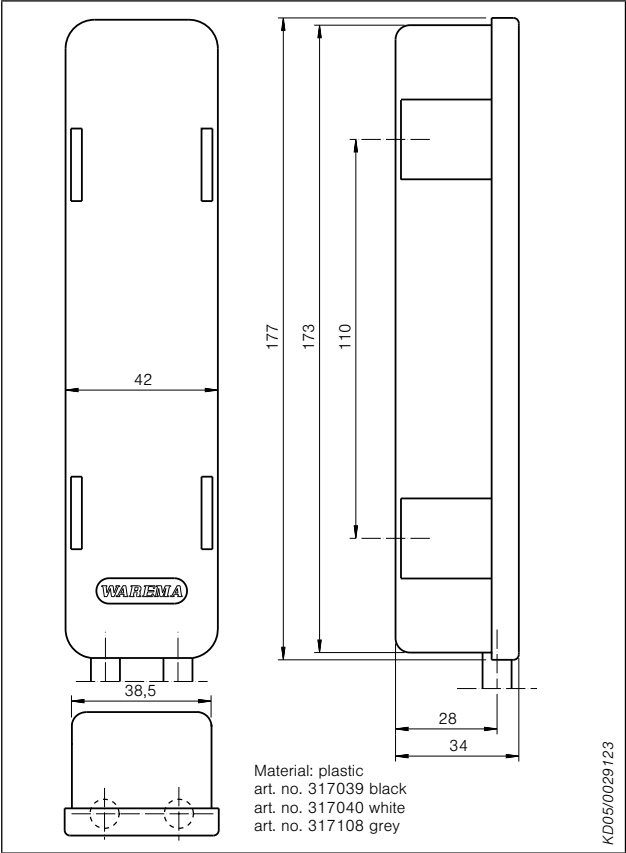


fig. 383: Housing for plug-in connector

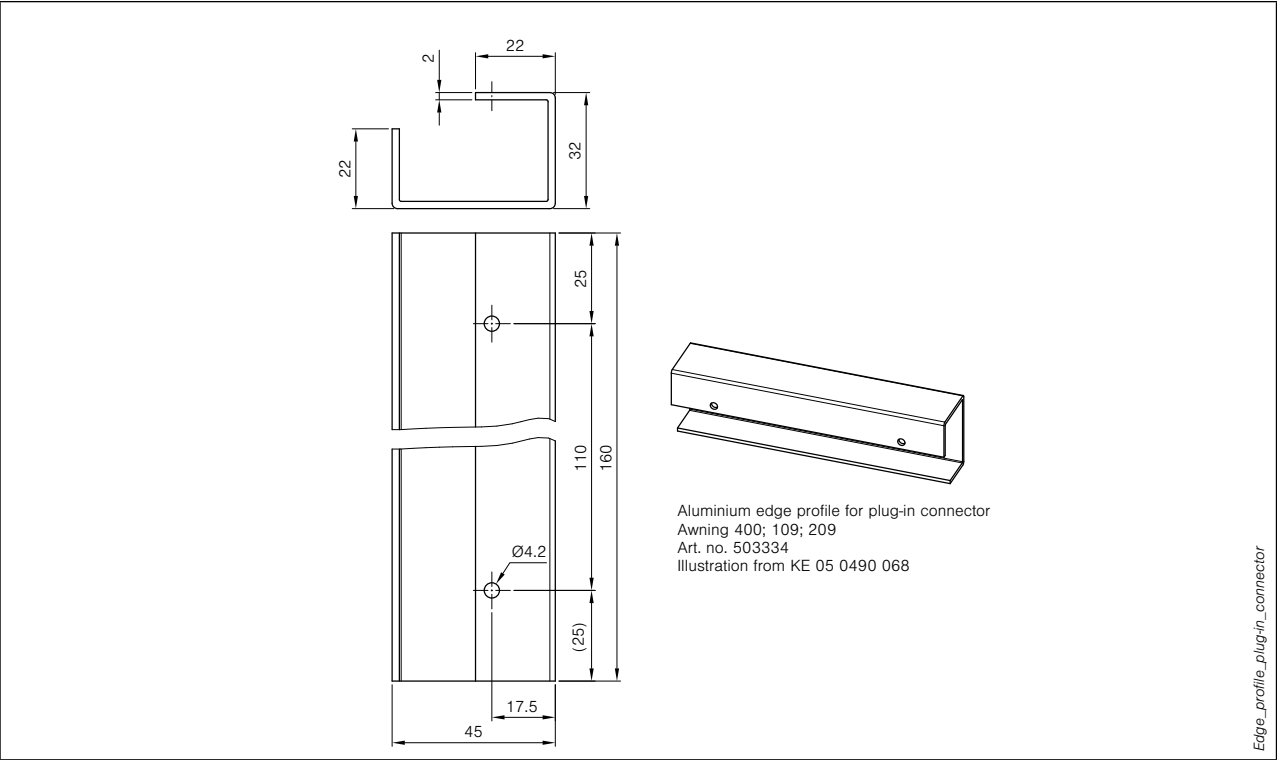


fig. 384: Edge profile for plug-in connector

Details

WMS and/or EWFS plug receiver

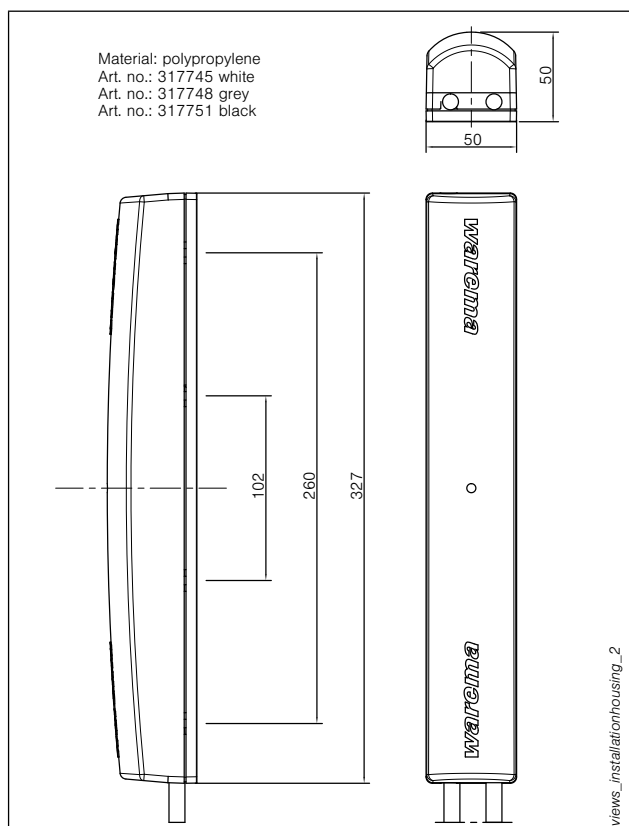


fig. 385: Housing for WMS and/or EWFS plug receiver

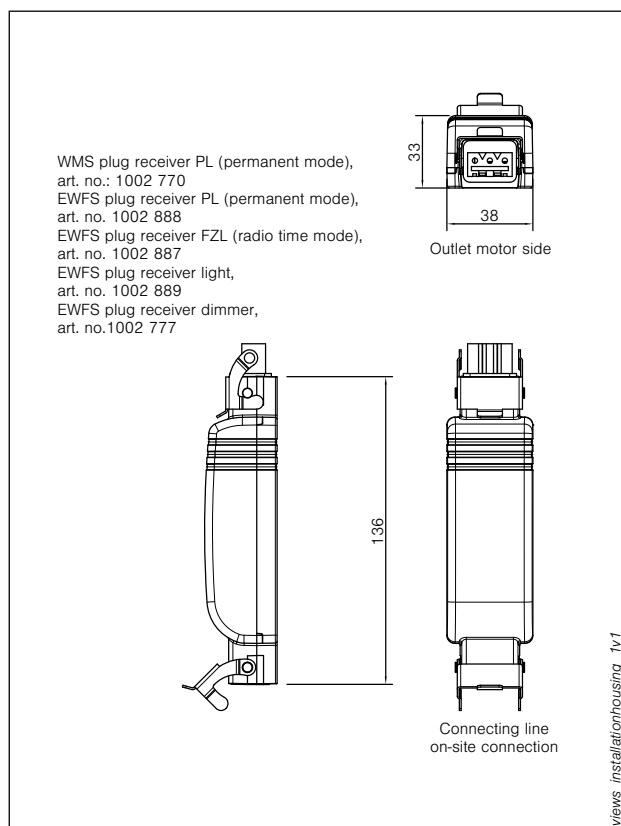


fig. 386: WMS and/or EWFS plug receiver

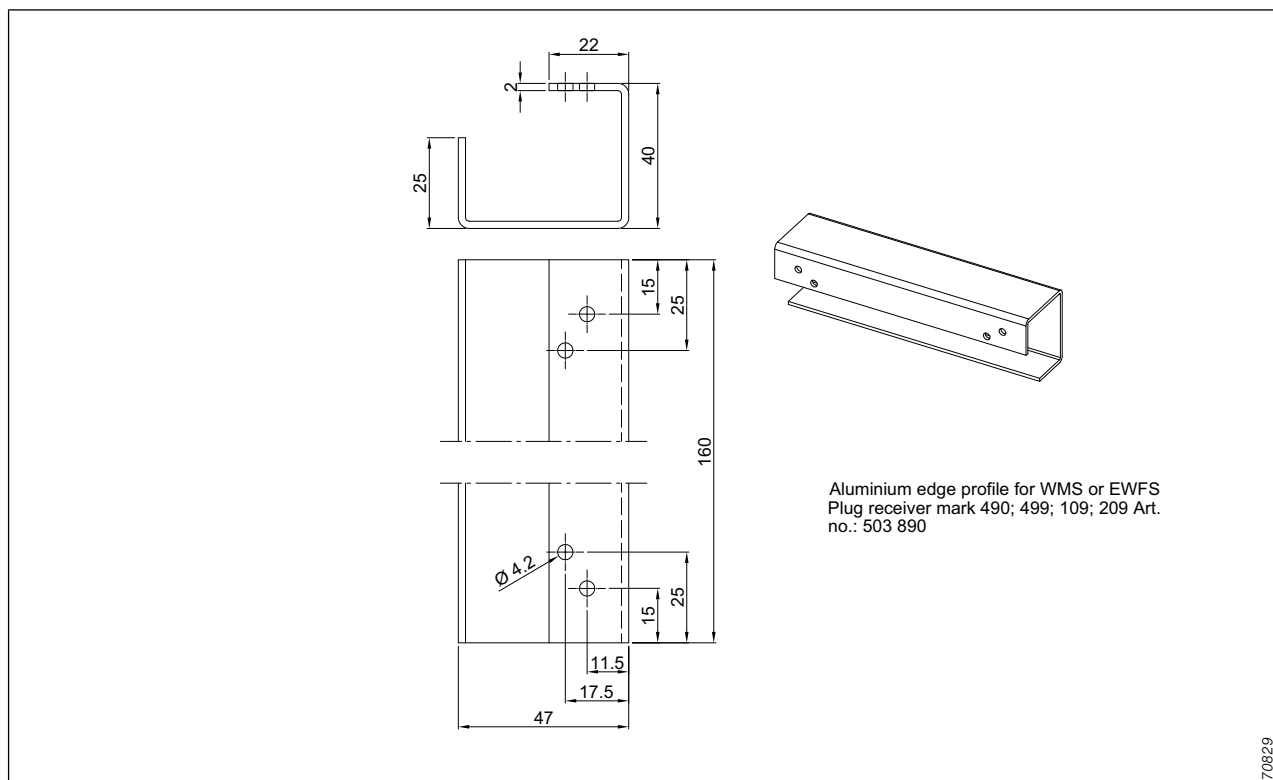






fig. 387: Edge profile for WMS and/or EWFS plug receiver

Everything at a glance

Function overview

		Radio systems		Central control systems	
		EWFS	WMS	WAREMA Timer	Time switch
					
Control channels		1/8	200	1	1
Transmission frequency		433.92 MHz	2.4 GHz	–	–
EWFS compatible		●	–	–	–
Automatic default settings for various sun shading products		–	●	–	–
Safety functions	Wind monitoring (max. connectible sensors)	●	●	–	–
	Direction-sensitive wind monitoring	–	–	–	–
	Precipitation monitoring	●	●	–	–
	Ice monitoring	–	●	–	–
Energy efficiency/comfort functions	Sun control	●	●	–	● ²⁾
	Dawn/dusk control	–	●	● ³⁾	● ²⁾
	Time switch	●	●	●	●
	Control timer	–	●	–	–
	Temperature control according to sensor Inside temperature	–	●	–	–
	Temperature control according to sensor Outside temperature	–	–	–	–
	Differential temperature control	–	–	–	–
	Humidity control	–	–	–	–
	Adjustable blind runtime	–	●	●	●
	Window control	–	●	–	–
	Intermittent ventilation	–	–	–	–
	Slat tilting	–	●	–	–
	Slat tracking	–	–	–	–
	Radio clock (DCF-77)	–	–	–	–
	Dimming of light (230 V AC)	●	–	–	–
	Dimming of light (LED directly above dimmer)	–	●	–	–
	Switching of light (230 V AC)	●	●	–	–
	DALI	–	–	–	–
	Fan control	–	–	–	–
	Astro function	–	–	●	–
	Scenes	–	●	–	–
	Simulation of occupancy	–	–	●	–
	History for measuring values and trigger events	–	–	–	–
	Annual shading	–	–	–	–
	Programmable functionality	–	–	–	–
Operation	Mobile remote control	●	●	–	–
	Central control unit/wall-mounted transmitter	●	●	●	●
	by smartphone, mobile end devices	–	●	–	–
	External channel pushbutton connectible	–	–	–	–
	PC	–	●	–	–
	Control via BCS	–	–	–	–
	Data interface / remote access	–	–	–	–
Commissioning	online via computer	–	–	–	–
	offline via computer	–	●	–	–
	graphically programmable	–	–	–	–

● possible

– not possible

¹⁾ Weather station multisense is included in the max. number of sensors

²⁾ Optional photo sensor with suction cup for window pane

³⁾ Integrated Astro function

Description

EWFS – Standardised WAREMA Radio System

- Simple and cost-effective retrofitting
- One transmitter can control any number of receivers within the radio operating range
- One receiver can be controlled by one main transmitter and up to 15 auxiliary transmitters.
- Several receivers can be grouped per transmission channel
- Simple teaching of transmitter and receiver
- Controls the connected products in terms of:
 - Brightness
 - Wind
 - Precipitation
 - Time
 - Dusk via Astro function



- 1 EWFS Timer
- 2 EWFS Wall-mounted transmitter
- 3 EWFS Wall-mounted transmitter slim
- 4 EWFS Hand-held transmitter
- 5 EWFS weather station eco
- 6 EWFS weather station plus
- 7 EWFS plug receiver
- 8 EWFS flush-mounted receiver

Functional principle

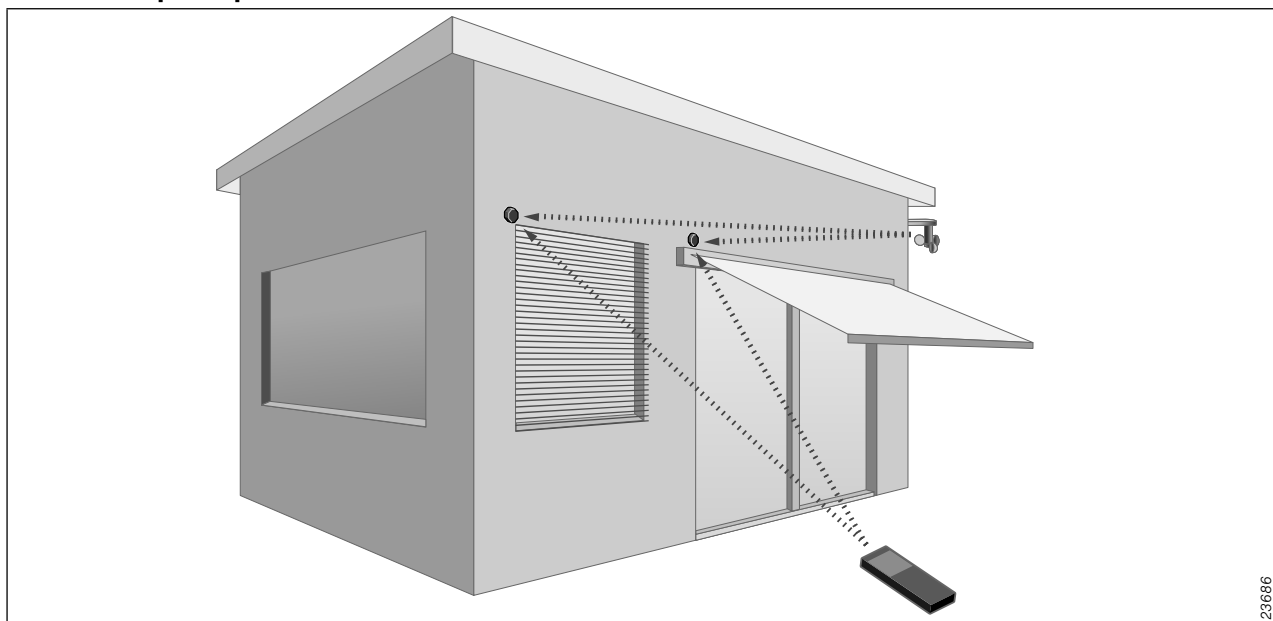


fig. 388: EWFS sender wirelessly transmits move commands to the receiver

23686

Description

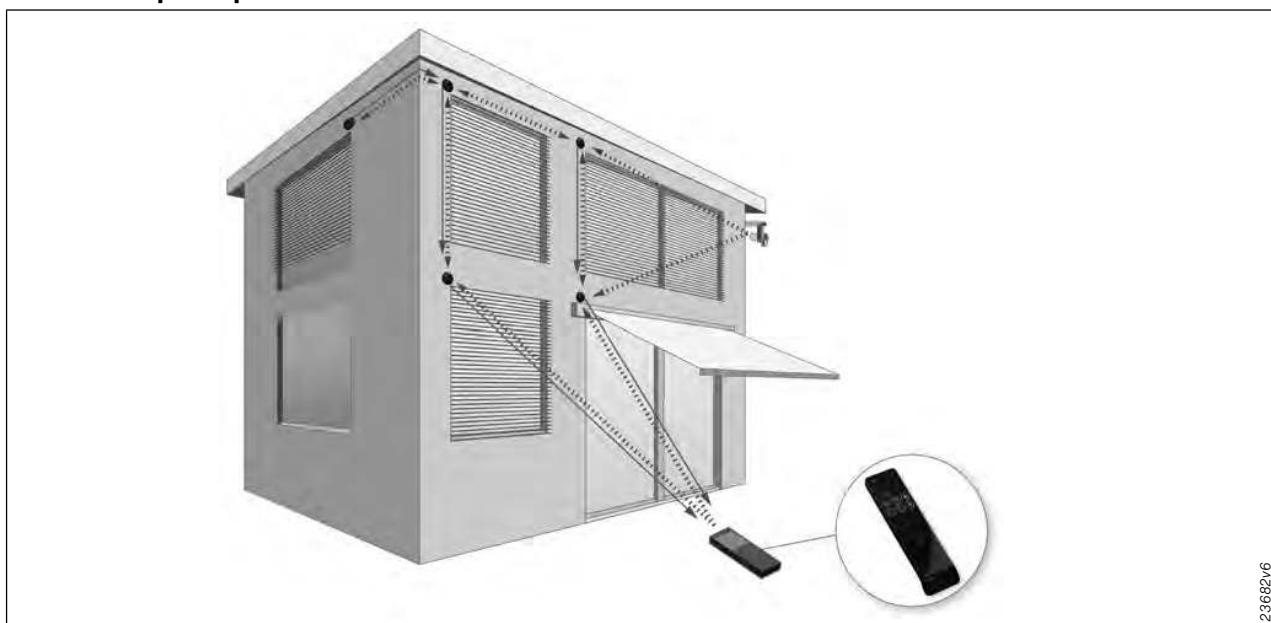
WMS – WAREMA Mobile System

- Simple and cost-effective retrofitting
- Feedback from executed move commands, which were triggered by measured values or keystrokes
- Integrated routing function enables the transfer of a move command from one actuator to the next. In this way, actuators can be reached that are outside the range of the transmitter (bidirectional wireless technology)
- Encrypted transfer protocol
- Commissioning of the components via WMS Hand-held transmitter, WMS Central transmitter or comfortably via the WMS studio software
- Control via Android app, iOS app or via web browser with WMS WebControl
- Controls the connected products in terms of:
 - Brightness
 - Wind
 - Precipitation
 - Time
 - Dawn/dusk
 - Inside temperature
 - Ice monitoring



- 1 WMS WebControl
- 2 WMS Hand-held transmitter basic
- 3 WMS Wall-mounted transmitter basic
- 4 WMS Hand-held transmitter plus
- 5 WMS Wall-mounted transmitter plus
- 6 WMS Hand-held transmitter
- 7 WMS Central transmitter
- 8 WMS Temperature sensor
- 9 WMS Weather station eco
- 10 WMS Weather station plus
- 11 WMS Actuator flush-mounted
- 12 WMS Plug receiver
- 13 WMS Wind sensor
- 14 WMS Stick
- 15 WMS radio motor

Functional principle



23682v6

fig. 389: WMS: Intelligent routing function transmits commands to remote devices

Description

WAREMA Minitronic dialog

- 1 floating output (expandable by connecting motor control units)
- Controls the connected products in terms of:
 - Brightness
 - Wind speeds
 - Precipitation
- Compact design enables installation in a flush-mounted box
- Radio time mode for controlling slat products
- Permanent mode for controlling fabric products and roller shutters
- Slat tilting function allows slat products to tilt to a set angle or roller shutters to move to the light slit position after being lowered
- Operation possible via EWFS hand-held or wall-mounted transmitter (optionally available)



Minitronic dialog

Functional principle

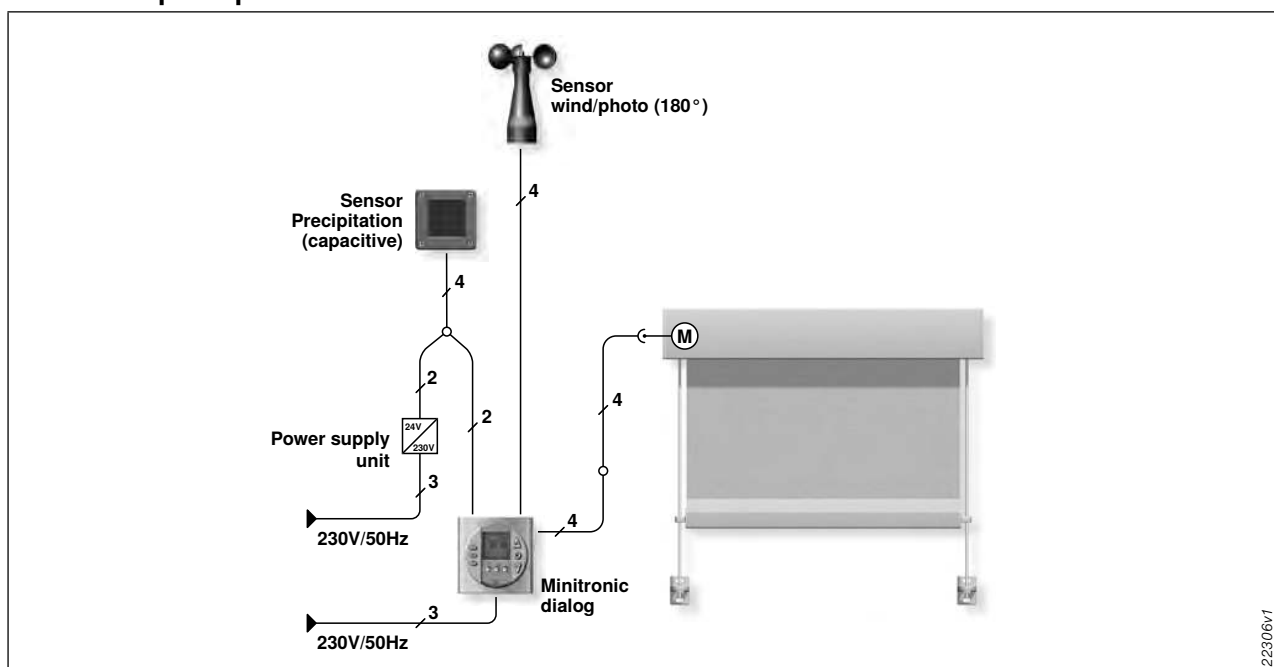


fig. 390: Minitronic dialog

Description

WAREMA Wisotronic

- 1-4 outputs/channels (floating and expandable by connecting motor control units)
- Controls the connected products in terms of:
 - Brightness
 - Dawn/dusk
 - Wind speeds
 - Precipitation
 - Ice
 - Time
 - Inside/outside temperature
- Inside temperature sensor is integrated in control panel
- Up to 4 individual scene statuses can be retrieved at the press of a button
- Operated via touch-sensitive sensor keys and sensor wheel
- Quickstart menu enables fast commissioning with only a few selection steps
- Different housing models are available for the control's panel's different mounting situations
- High-class design thanks to virtually flush installation in hollow wall housing
- Radio operation possible via EWFS hand-held or wall-mounted transmitter (optionally available)



- 1 Wisotronic control panel
- 2 Wisotronic power unit surface mounted
- 3 Wisotronic power unit DIN rail-mounted housing
- 4 Weather station multisense
- 5 EWFS Hand-held transmitter
- 6 Motor control unit (MSE)

Functional principle

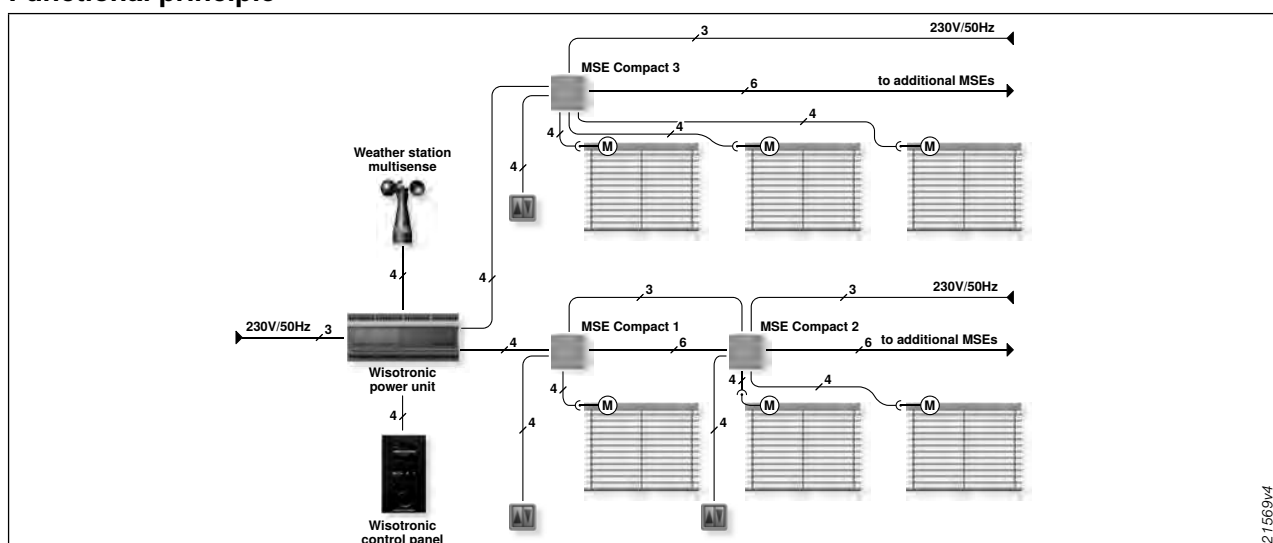


fig. 391: Wisotronic 2 channels with weather station multisense and MSE compact

Description

WAREMA climatronic® 3.0

- One control panel is required per WAREMA climatronic® system
- Administration of up to 64 channels per WAREMA climatronic® system
- For controlling up to 1200 actuators (max. 7200 power consumers)
- Operation of the connected power consumers is possible individually or in groups
- Up to 16 scenes can be set
- Temperature and humidity sensor integrated in the control panel
- Two additional sensors for inside temperature/humidity can be connected
- History of important events that resulted, for example, in a move command to the sun shading system and weather data
- Switching and dimming of light
- Integrated slat tracking based on the position of the sun ensures the optimum positioning of the external venetian blind slats
- Automatic functions can be activated or deactivated for each channel
- Important safety functions (e.g. wind) are password-protected
- 4 sensor buttons, multifunction wheel and intuitive menu navigation with plain text display
- Commissioning and settings on the control panel or via WAREMA climatronic® studio software
- User-defined assignment of channel, group and scene names
- USB interface for connection to a PC
- Settings can be saved on an SD card or settings changed via PC can be re-transferred

- Available in the languages German, English, French, Italian, Norwegian, Spanish, Swedish, Japanese and Chinese
- Control via Android app, iOS app or via web browser with WAREMA climatronic® WebControl
- Radio operation possible via EWFS hand-held or wall-mounted transmitter (optionally available)
- KNX gateway turns this control panel into a WAREMA climatronic® KNX central weather unit



- 1 WAREMA climatronic® control panel
- 2 WAREMA climatronic® WebControl
- 3 WAREMA climatronic® weather station
- 4 WAREMA climatronic® switch actuator DIN rail-mounted housing
- 5 EWFS Hand-held transmitter

Functional principle

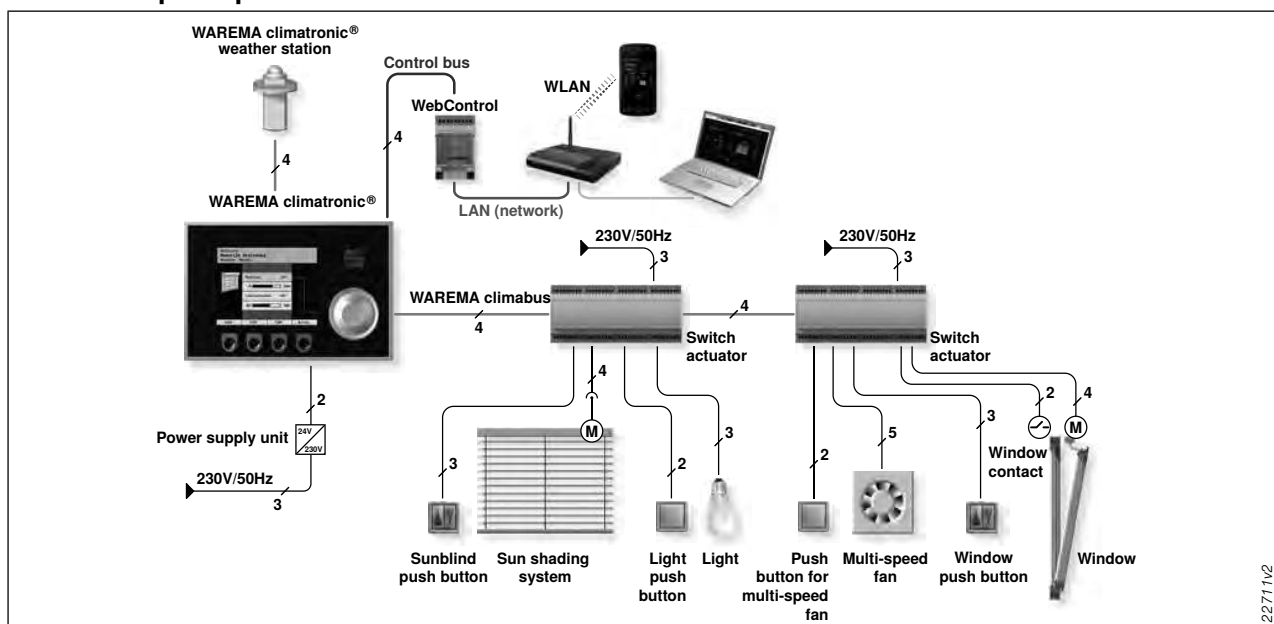


fig. 392: WAREMA climatronic®

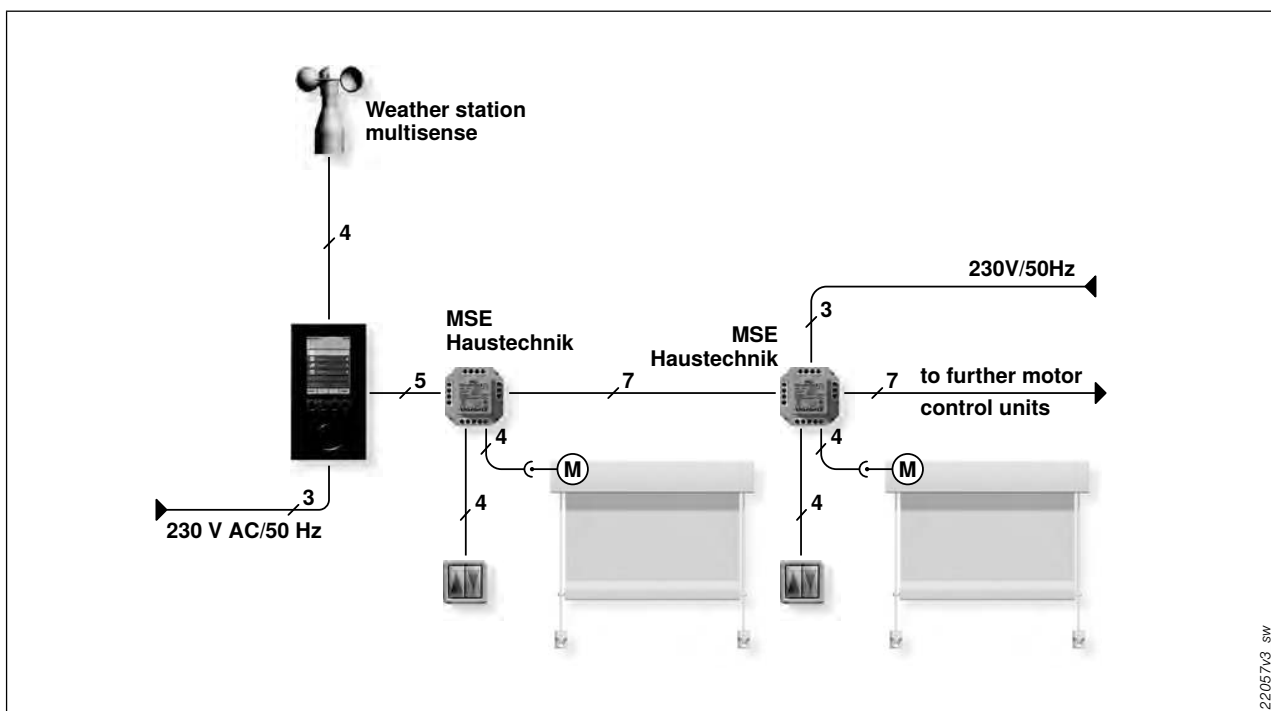


fig. 393: Application example: Wisotronic 1-channel with building services motor control unit

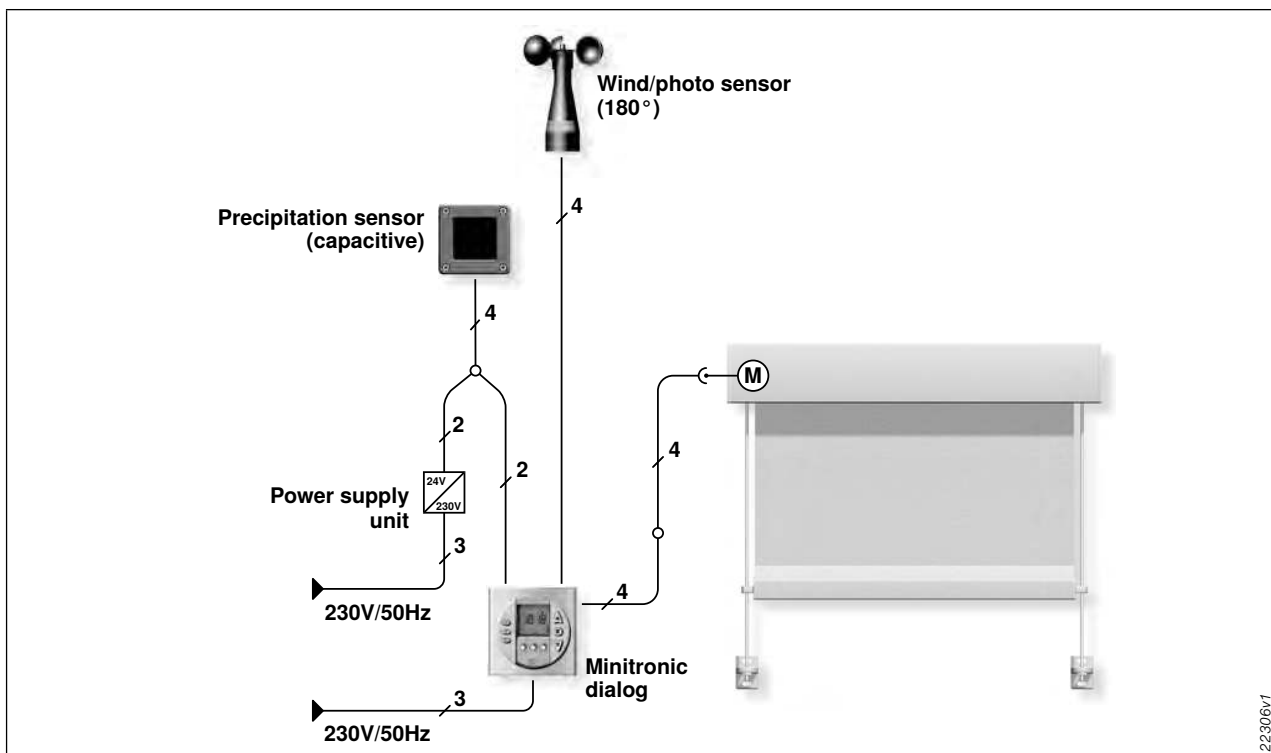


fig. 394: Application example: controlling a drive using the Minitronic dialog central control unit

The supply lines specified in the wiring diagrams are minimum diameters intended for copper, regardless of the length and the resulting voltage drops. The specified lines are recommendations.

According to VDE 0022, only the operator of electrical systems is responsible for compliance with power supply company and VDE regulations.

Notes

Drives/control systems	Fabrics	Fixing systems	Markisolettes	Facade awnings	Drop-arm awnings	Vertical awnings	Window awnings with ZIP guidance	Overview
------------------------	---------	----------------	---------------	----------------	------------------	------------------	----------------------------------	----------

Customer Service Centre

External venitian blinds

Tel. +49 93 91 20-3140 • Fax -3149
raffstoren.international@warema.de

Roller shutters

Tel. +49 93 91 20-3240 • Fax -3249
rollladen.international@warema.de

Blackout units

Tel. +49 93 91 20-3240 • Fax -3249
verdunkelungen.international@warema.de

Awnings

Tel. +49 93 91 20-3440, 3340
Fax +49 93 91 20-3349
markisen.international@warema.de

Internal sun shading systems

Offers:

Tel. +49 93 91 20-3540 • Fax -3549
inside.international@warema.de

Order processing/Application technology:

Tel. +49 3722 710-3540 • Fax -3549
inside.international@warema.de

Control systems

Tel. +49 93 91 20-3740 • Fax -3749
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