

## Description

### Vertical awning 470

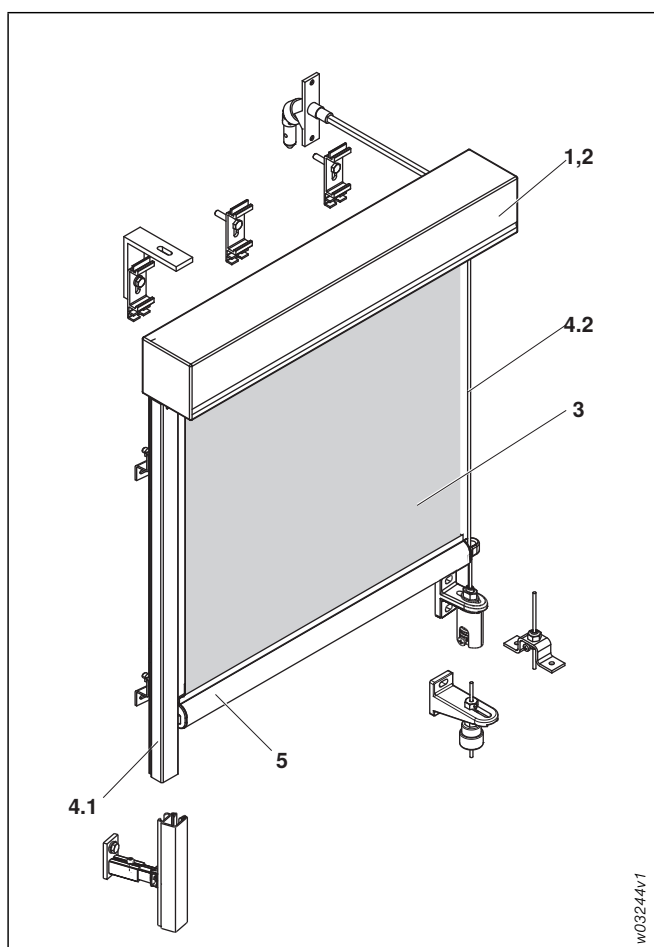


fig. 1: Vertical awning 470

- 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 installation in the reveal (sheltered from the wind). The drive is generally mechanical.

### Operation

#### Crank

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

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  $\pm 20$  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 (H×D): 74×75 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  
 Perfora/All Weather acrylic  
 Soltis-92  
 Screen  
 Twilight Pearl/Metal  
 WAREMA SecuTex fabric A2  
 More information about the fabrics on page 214

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 (W×H): 25×18 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 cord  
 Material: steel, resistant to corrosion  
 Coating: polyamide  
 Colour: black  
 Fixing: tension cable bracket, aluminium, incl. spring tension device, aluminium

## Description

### Vertical awning 470

#### Drop profile (5)

Material: aluminium, extruded  
Material thickness: 1.5 mm  
Dimensions (Ø): 27.5 mm  
Profile: round profile, mounting groove optional  
Surface: powder-coated, C0 anodising optional  
Available as models "visible" (standard) or "concealed in fabric" (optional).

#### Fixing and connecting parts

Within the awning  
Material: A2 steel or aluminium

#### Weight table

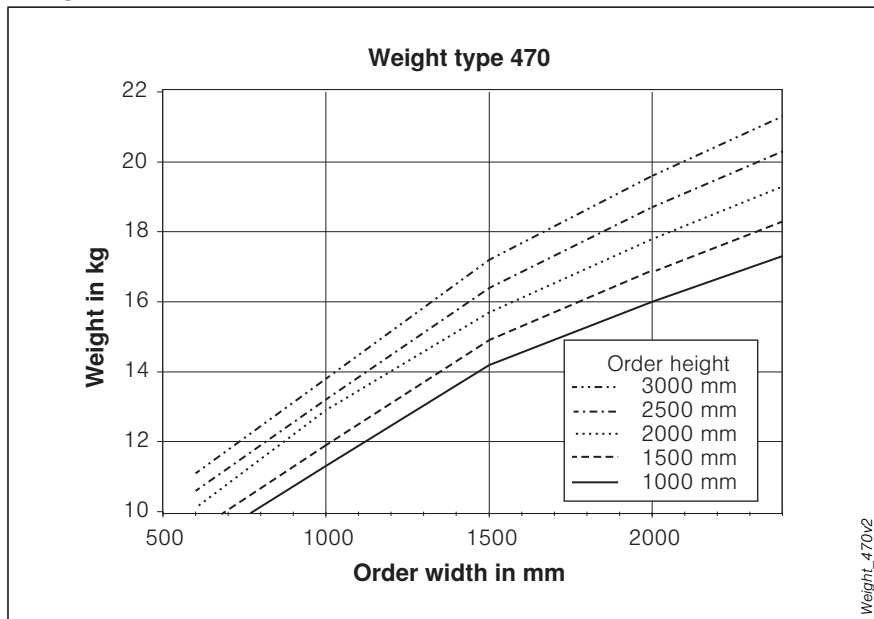


fig. 2: Weight type 470

#### 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, 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 and are subject to surcharge. C0 anodising optional.

## Construction limit values

### Vertical awning 470

Use our free planning program at [www.sunshadingplanner.com](http://www.sunshadingplanner.com) to plan your sun shading

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 <sup>1)</sup> (mm)		600	<b>not available for 470!</b>	600	<b>not available for 470!</b>
Max. width (mm)		2400		7000 <sup>2)</sup>	
Max. height (mm)	Standard/Lumera acrylic	1800 <sup>3)</sup>		1800 <sup>3)</sup>	
	Perfora acrylic				
	All Weather acrylic	1600		1600	
	Screen	2800		2800	
	Soltis-92	3000		3000	
	Twilight Pearl/Metal	2800		2800	
	WAREMA SecuTex fabric A2	2700		2700	
Max. area <sup>4)</sup> (m <sup>2</sup> )	Standard/Lumera acrylic	4.3		12.6	
	Perfora acrylic				
	All Weather acrylic	3.8	11.2		
	Screen	6.7	19.6		
	Soltis-92	7.2	21.0		
	Twilight Pearl/Metal	6.7	19.6		
	WAREMA SecuTex fabric A2	6.5	18.9		

#### Notices:

- 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.

<sup>1)</sup> Smaller widths are possible after consultation with the Applied Engineering department!

<sup>2)</sup> Maximum width with continuous cover panel is 5000 mm.

<sup>3)</sup> Glued fabric connection optional for Standard and Perfora qualities. Max. height reduced by 200 mm.

<sup>4)</sup> The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 18).

# Construction limit values

## Vertical awning 470

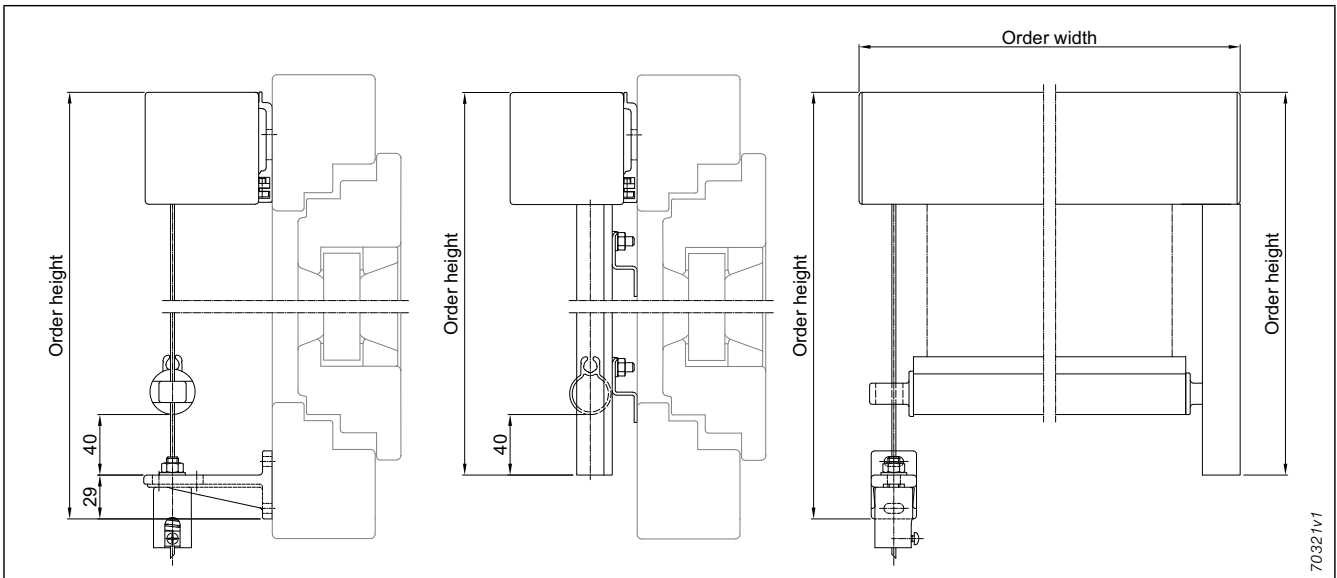


fig. 3: Measuring instructions

## Details

### Vertical awning 470

### Wall/ceiling brackets, guide rail brackets

#### Number of required wall/ceiling brackets

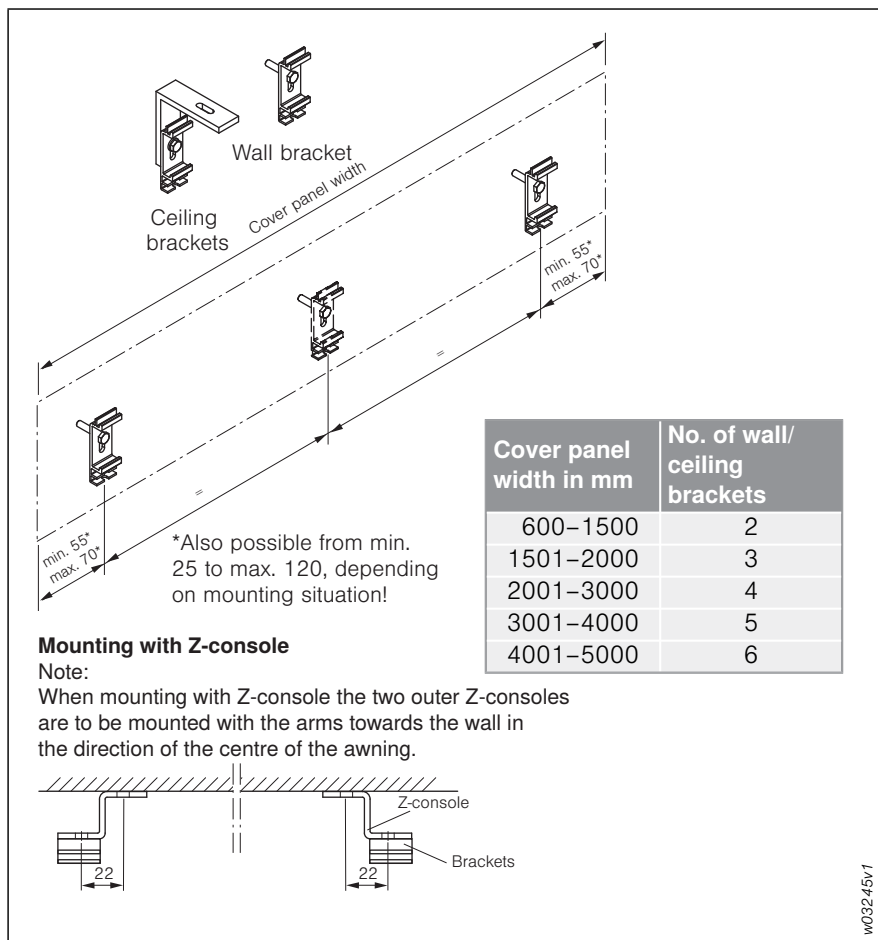


fig. 4: Measuring instructions for wall/ceiling brackets

#### Number of required guide rail brackets

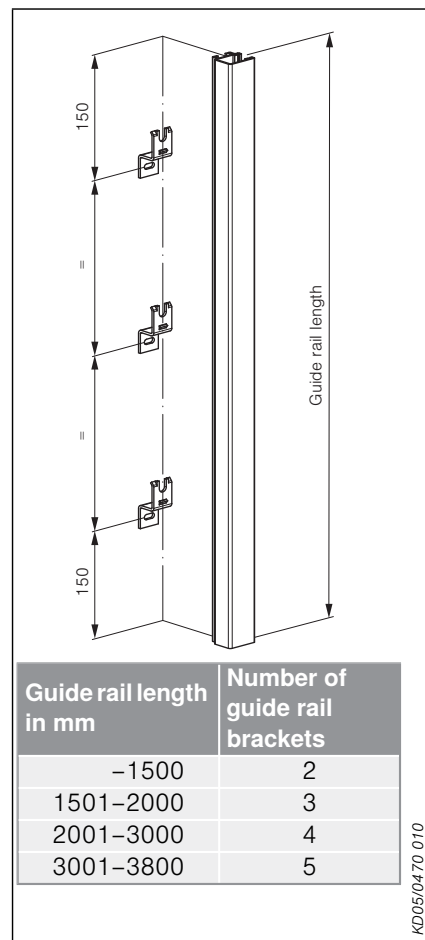


fig. 5: Measuring instructions for guide rail brackets

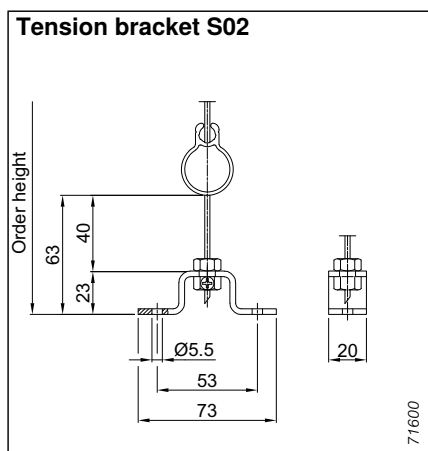


fig. 6: Tension bracket S02

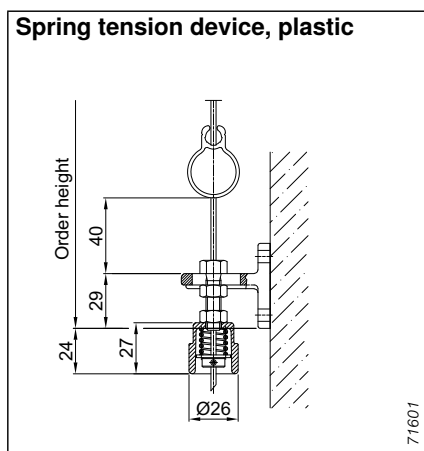


fig. 7: Spring tension device, plastic

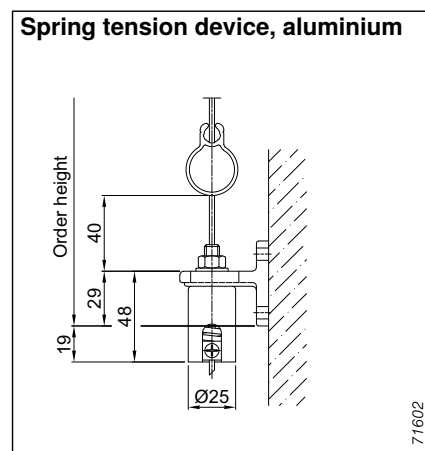


fig. 8: Spring tension device, aluminium

**Application example**  
**Vertical awning 470**

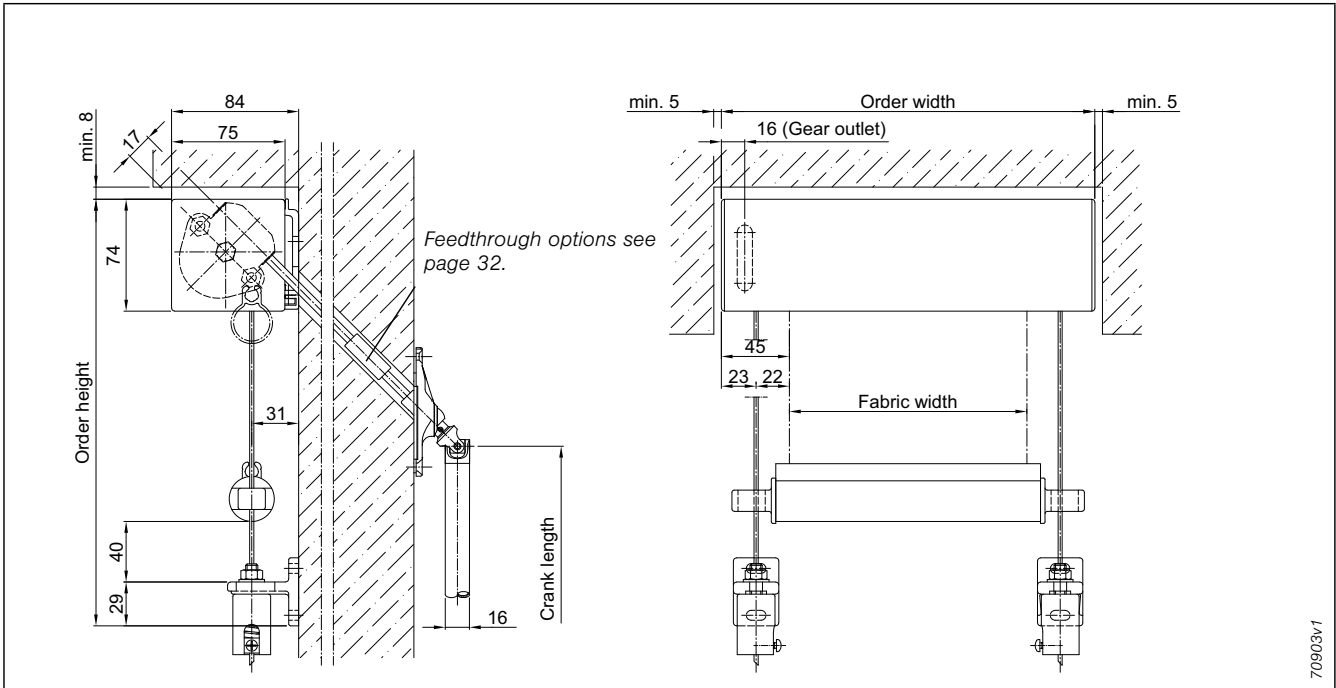


fig. 9: Standard model individual unit, left rolling blind, wall installation; vertical awning 470 with cable guidance

# Application example

## Vertical awning 470

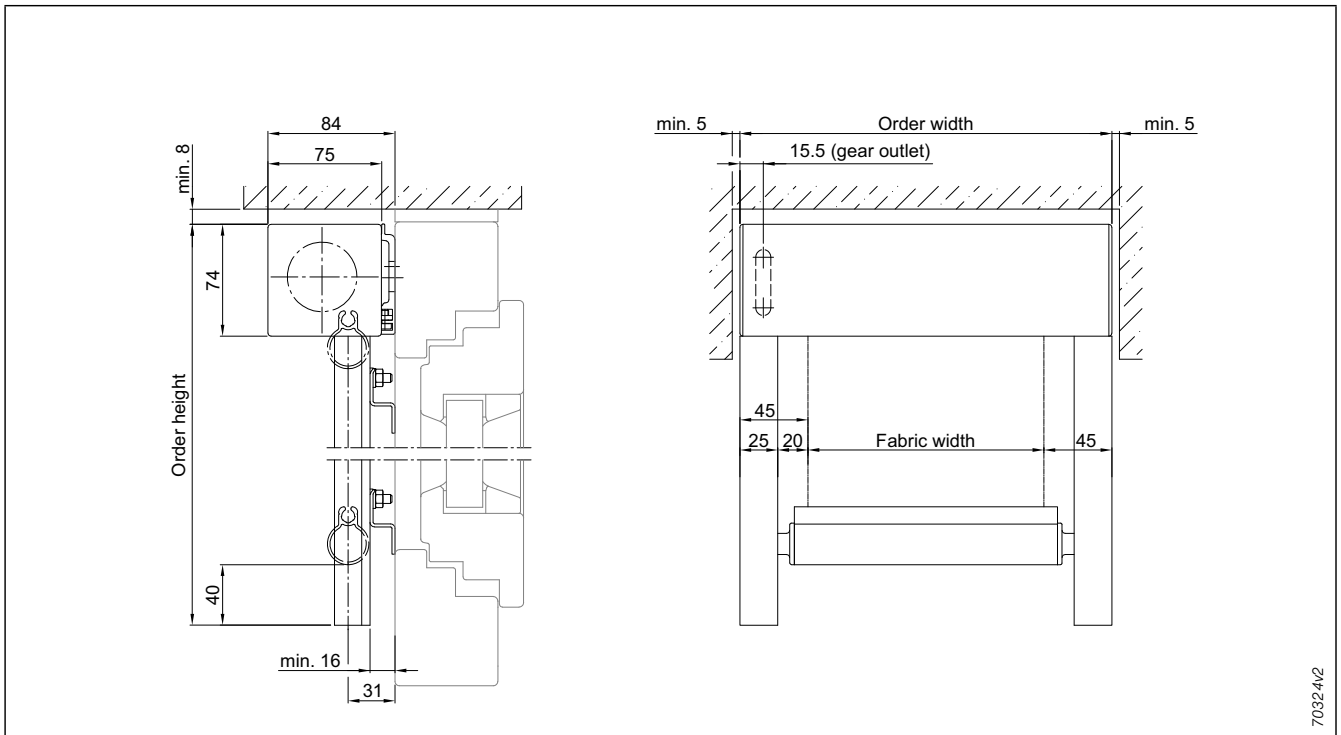


fig. 10: Standard version individual unit; left rolling blind; vertical awning 470 with rail guidance

### Possible variants

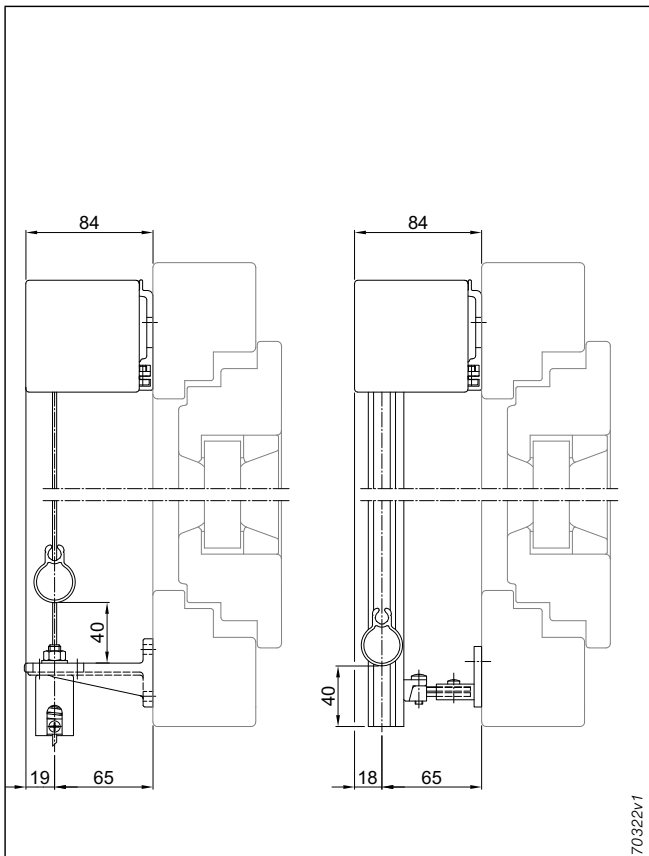


fig. 11: Vertical awning 470, right rolling blind, wall installation

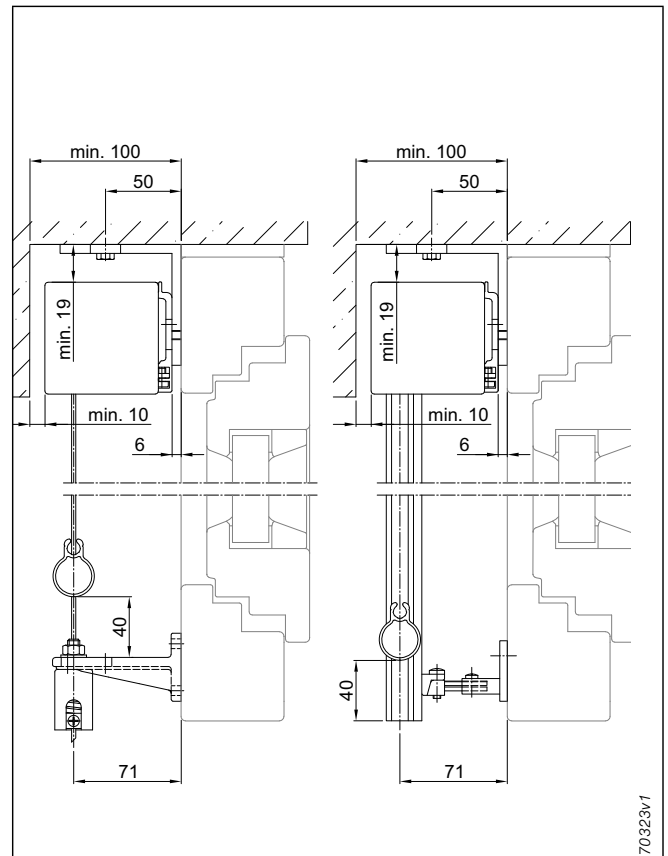


fig. 12: Vertical awning 470, right rolling blind, ceiling installation

## Details

### Vertical awning 470 Possible gear outlets

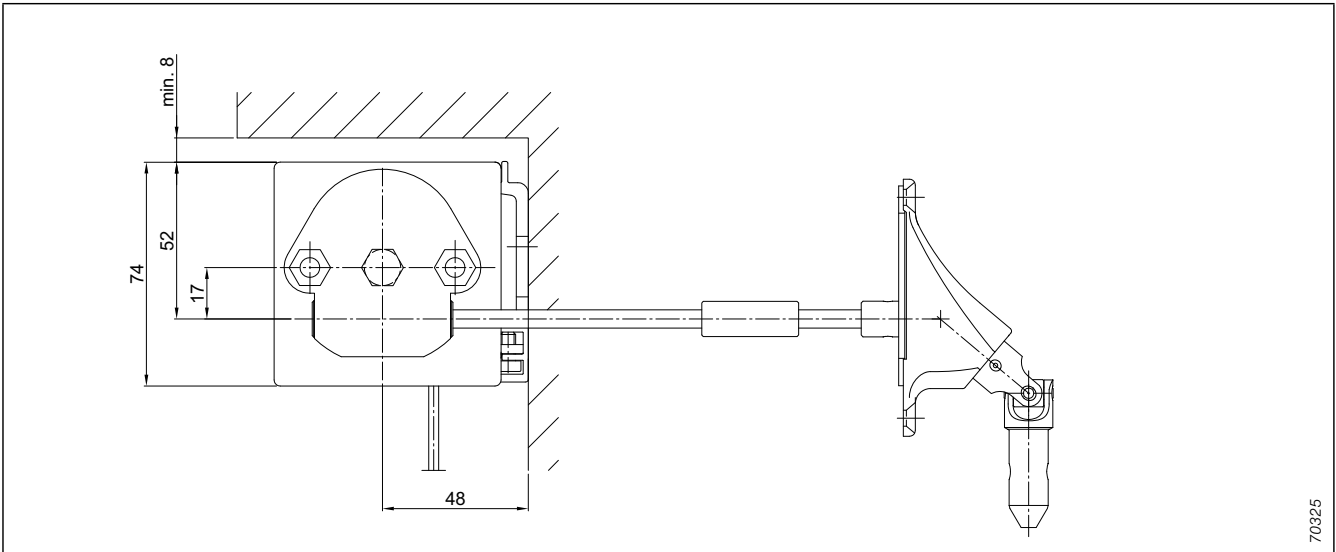


fig. 13: Gear outlet 0°

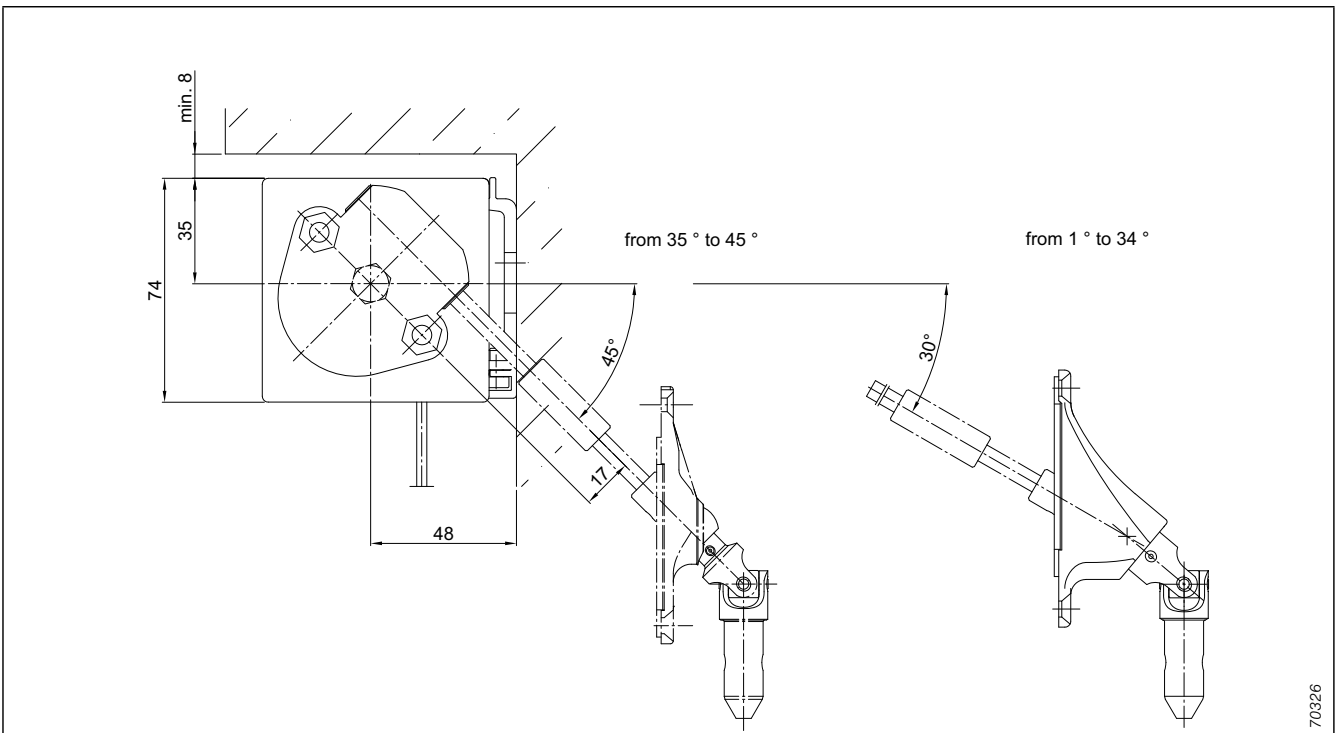


fig. 14: Gear outlet 1-45°



## Details

### Vertical awning 470

#### Attention! – For reveal installation:

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

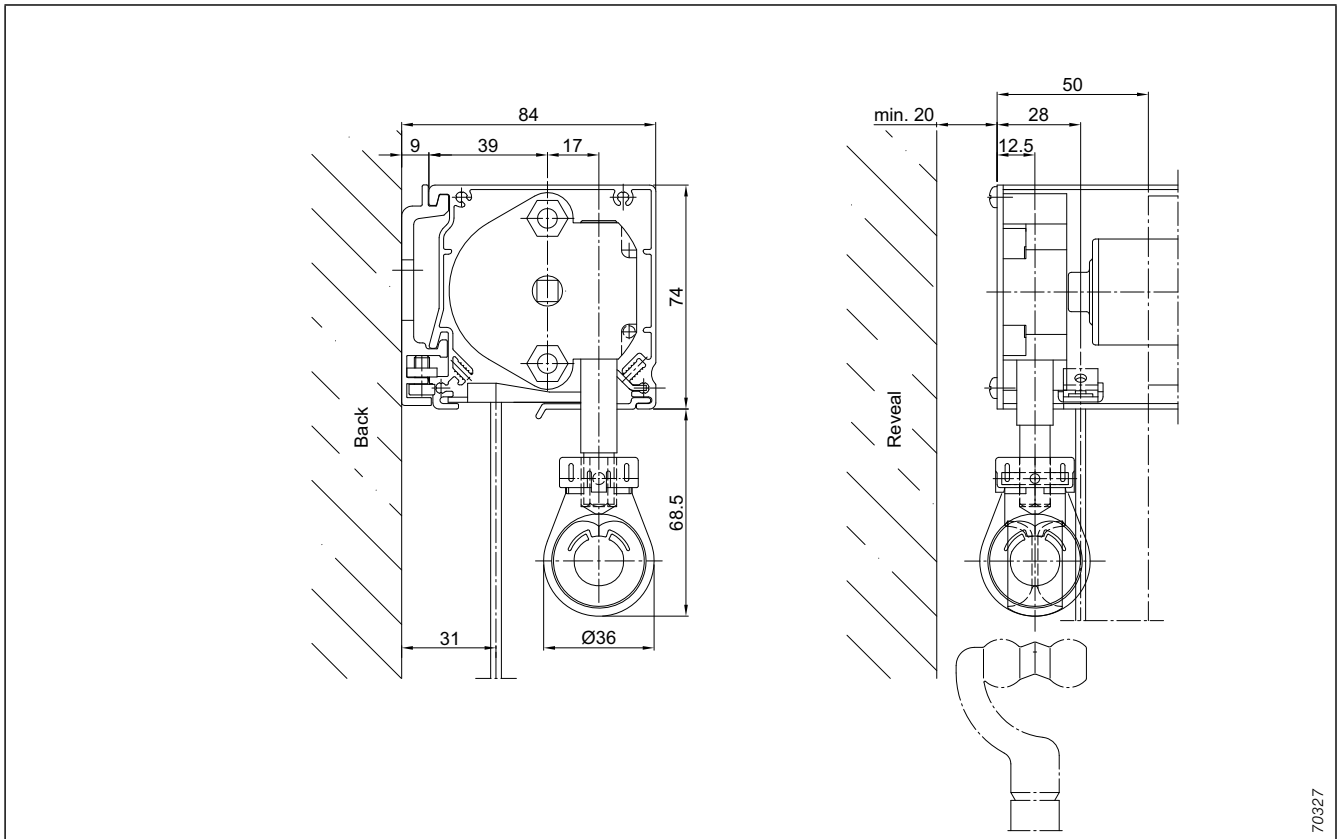


fig. 15: Gear with eyelet, operation seen from the cover panel back side, left rolling blind (also available as right rolling blind)

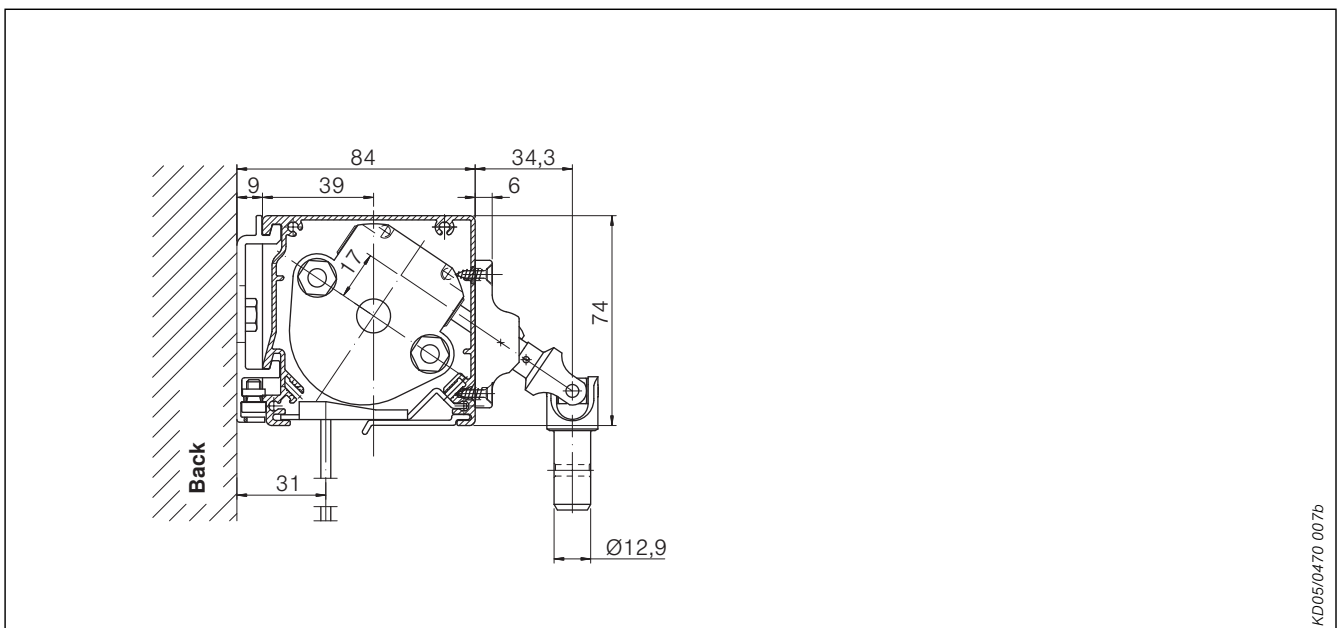


fig. 16: Pivot bearing on the cover panel, operation seen from the cover panel back side, left rolling blind (also available as right rolling blind)

## Details

### Vertical awning 470 with cable or rail guidance Limit position situations

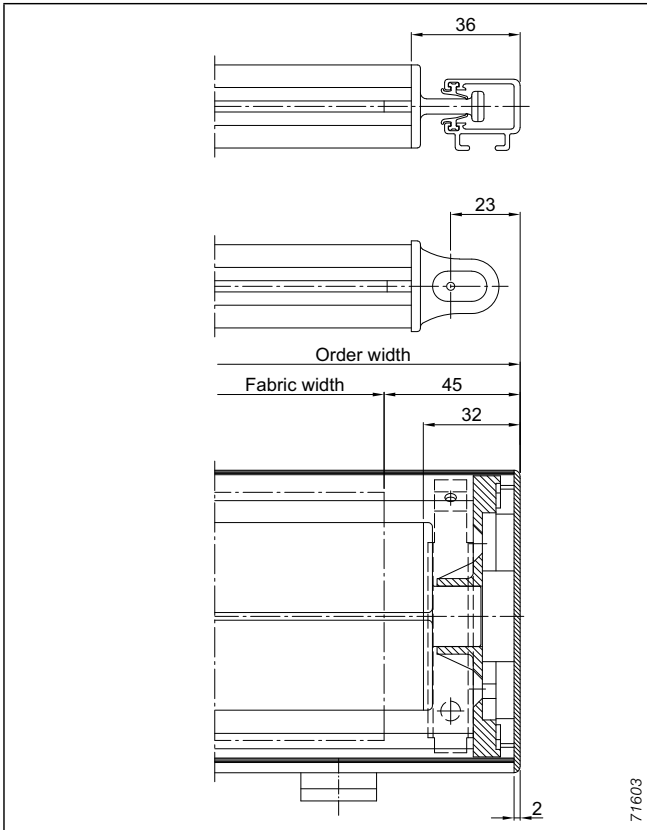


fig. 17: Limit position situation individual unit, gear side, standard

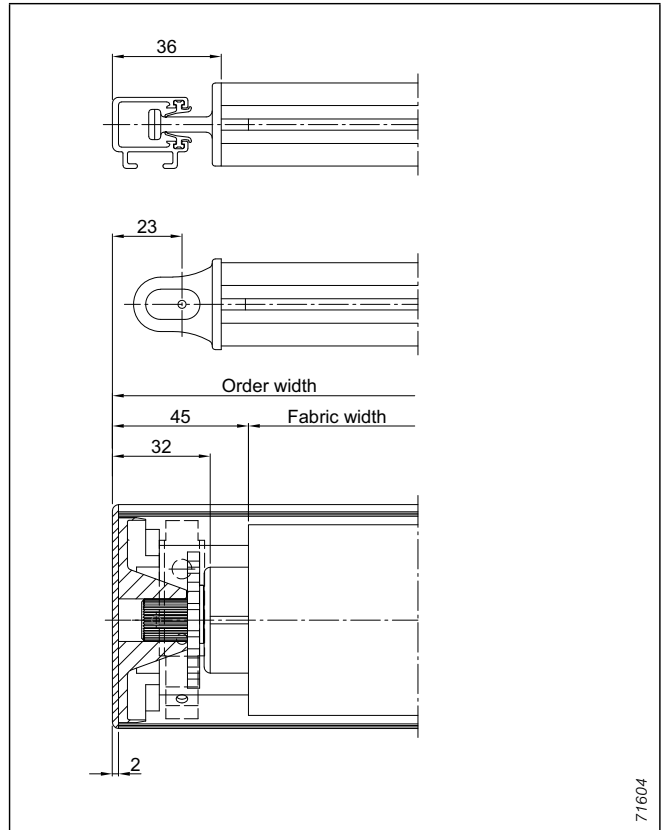


fig. 18: Limit position situation individual unit, spindle lock, standard

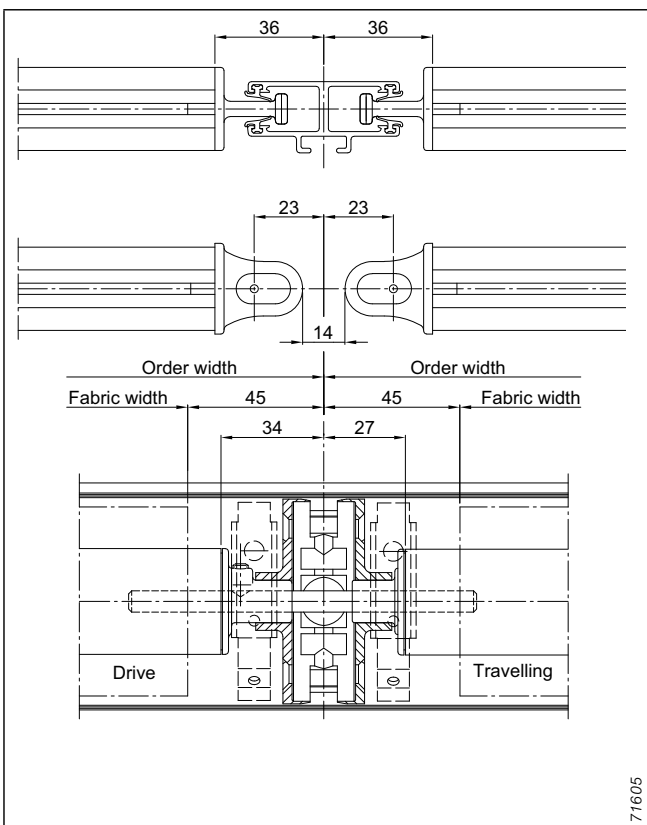


fig. 19: Coupled unit, continuous cover panel, standard

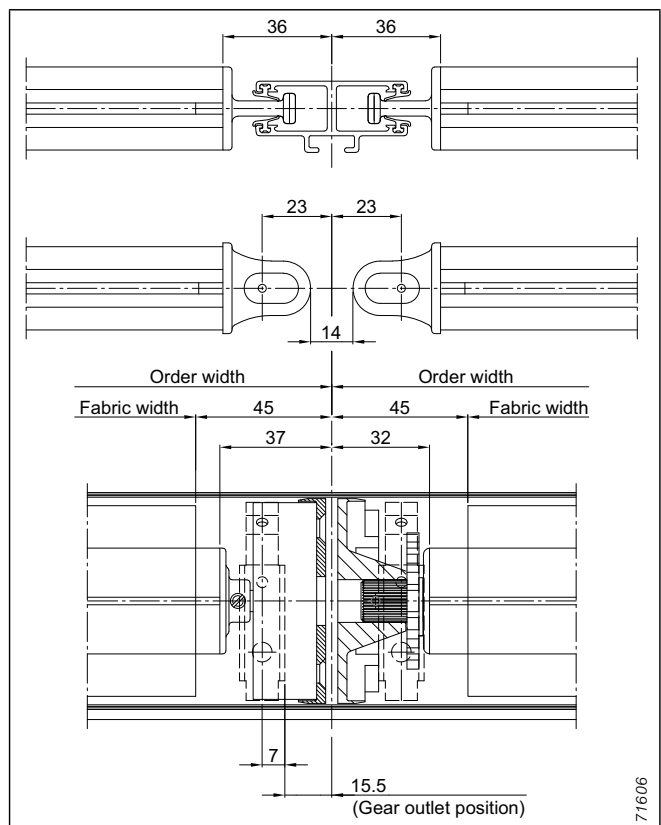


fig. 20: Gear – spindle lock, continuous cover panel, standard

## Details

### Vertical awning 470 with cable or rail guidance Possible drives

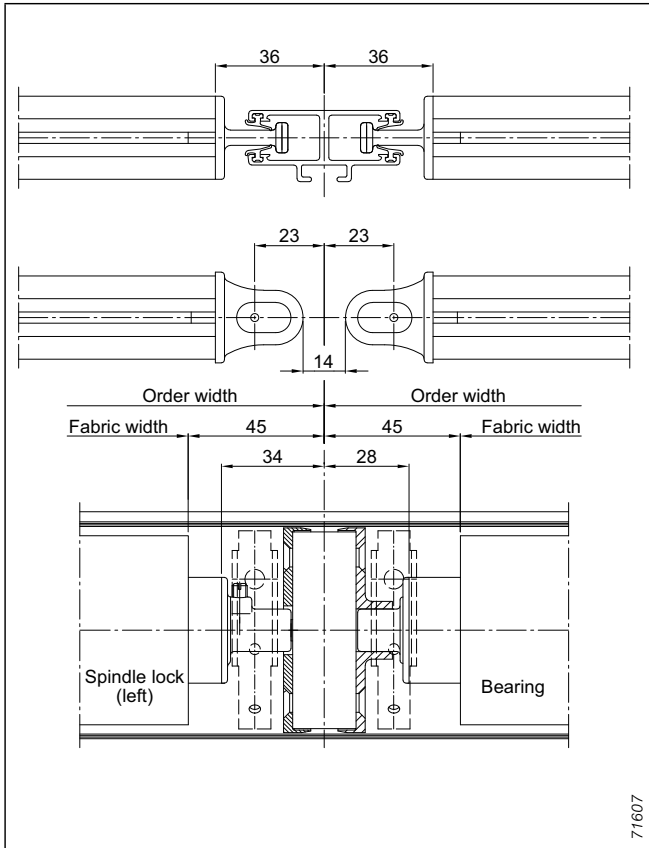


fig. 21: Central gear, standard (only continuous cover panel!)

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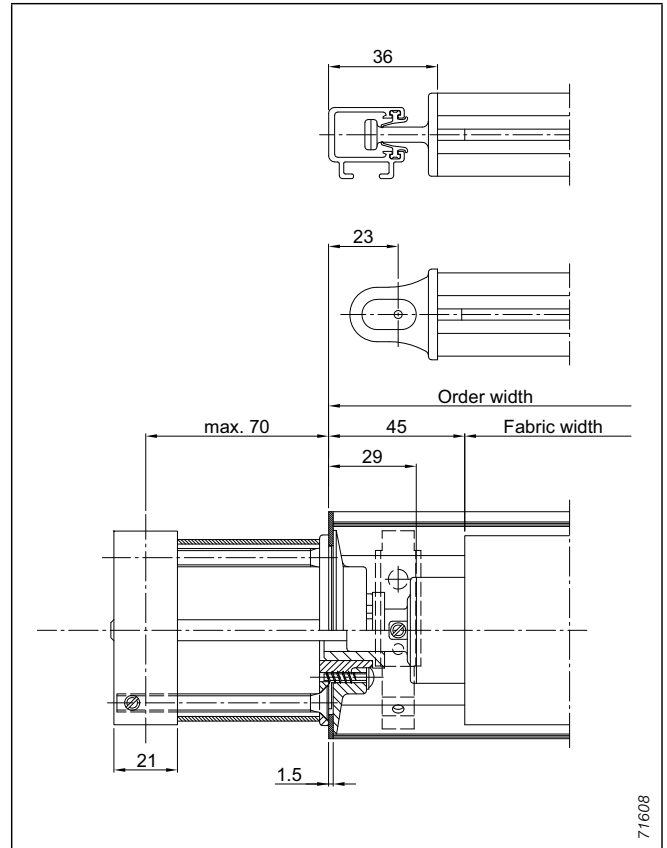


fig. 22: External gear, standard

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## Details

### Vertical awning 470 Wall/ceiling installation

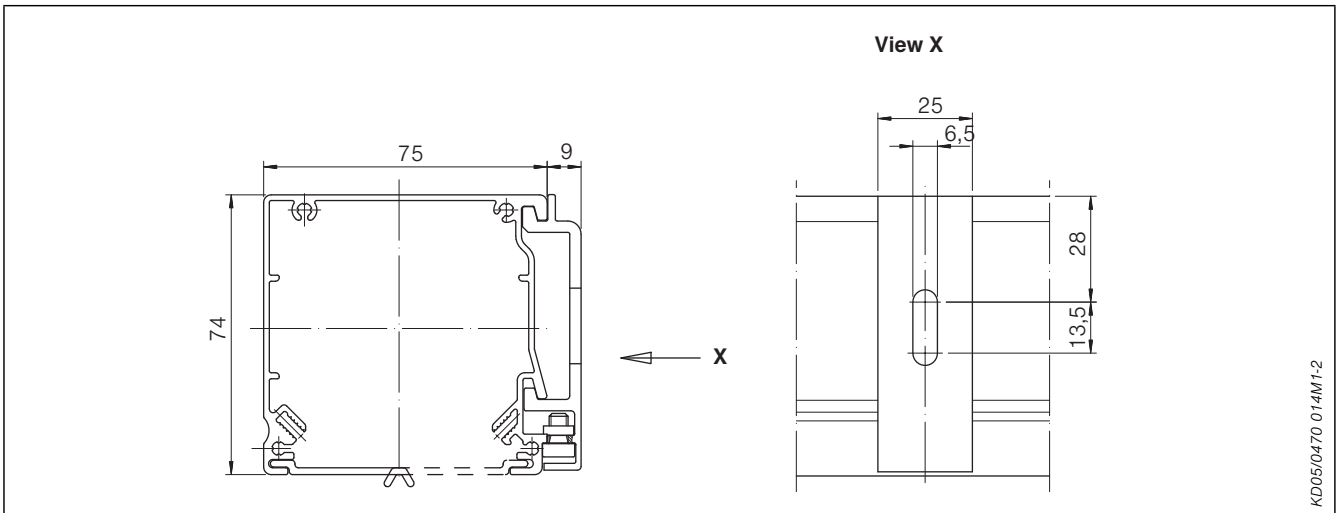


fig. 23: Cover panel type 470 – wall installation

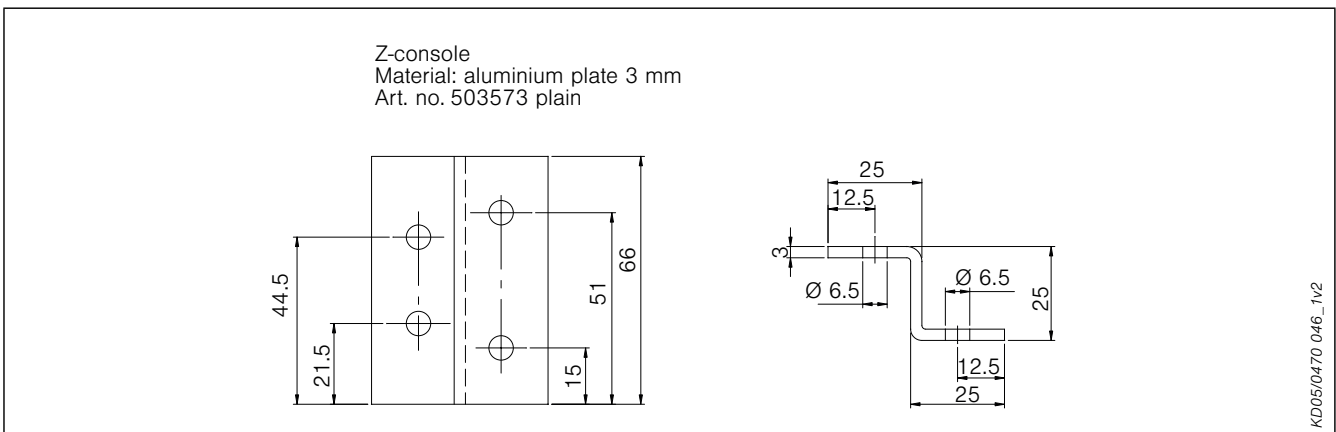


fig. 24: Z console for rail guidance with wall installation

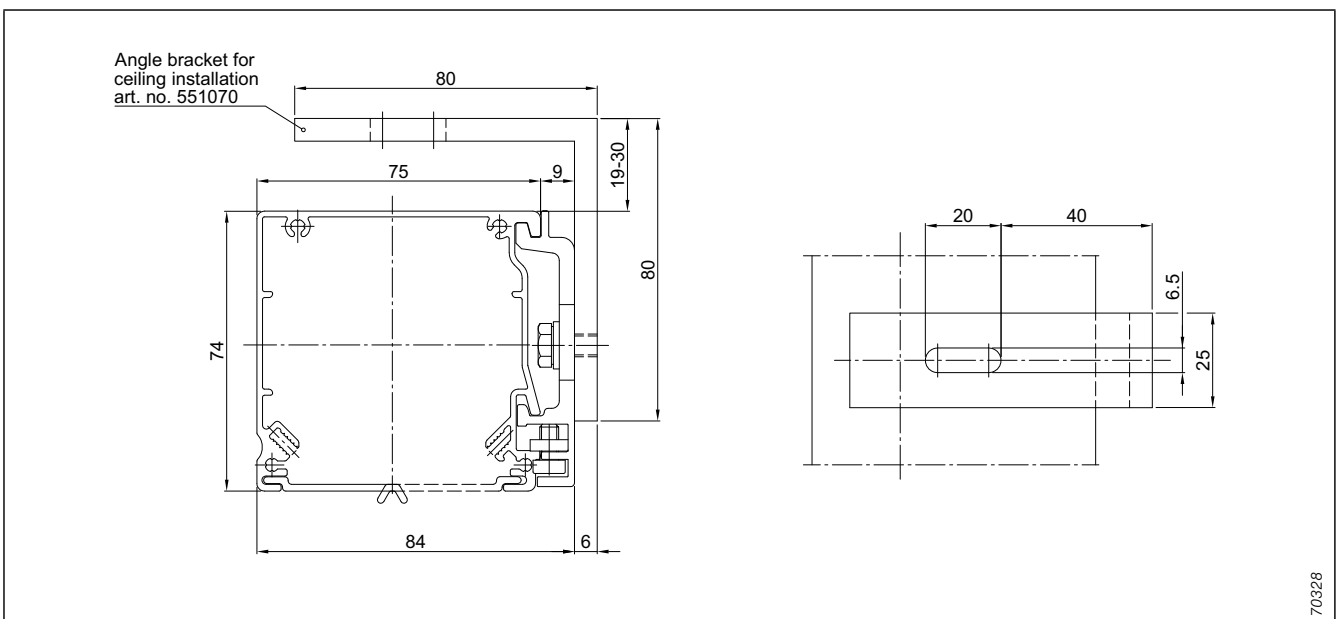


fig. 25: Cover panel 470 – ceiling installation

## Description

### Vertical awning 490

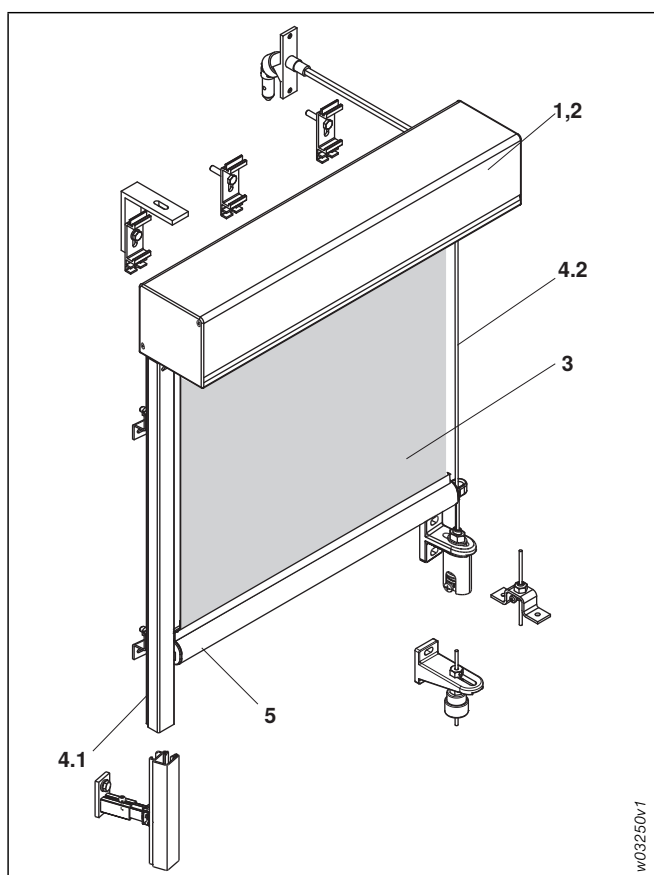


fig. 26: Vertical awning 490

- 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 installation 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 218.

### Crank

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

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  $\pm 20$  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 (H×D): 94×100 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  
 Perfora/All Weather acrylic  
 Soltis-92  
 Screen  
 Twilight Pearl/Metal  
 WAREMA SecuTex fabric A2  
 More information about the fabrics on page 214

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 beads inserted for noise reduction  
Material: aluminium, extruded  
Dimensions (W×H): 25×18 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 cord  
Material: steel, resistant to corrosion  
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 (Ø): 27.5 mm  
Profile: round profile, mounting groove optional  
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

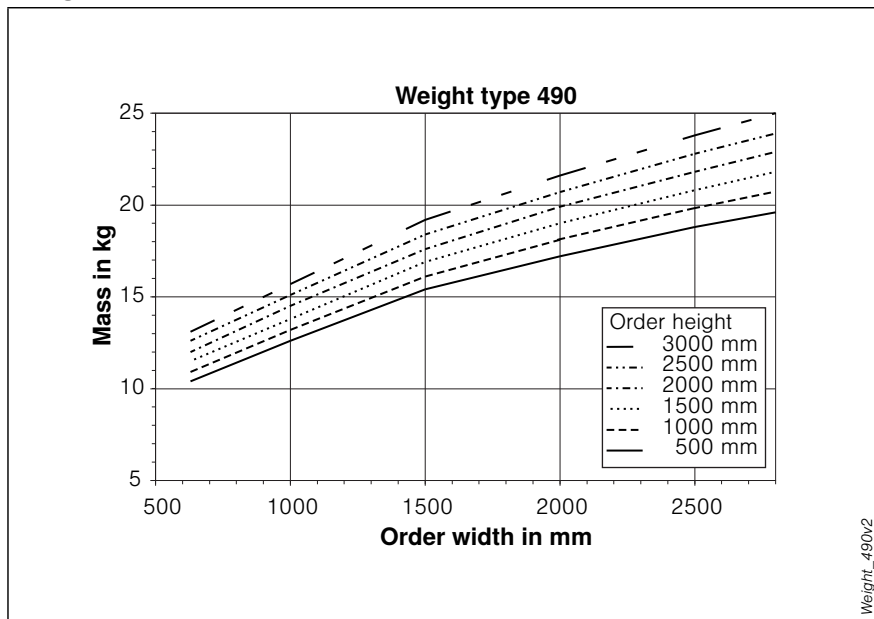


fig. 27: Weight type 490

#### 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, 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 and are subject to surcharge.  
Optional C0 anodisation.

## Construction limit values

### Vertical awning 490

Use our free planning program at [www.sunshadingplanner.com](http://www.sunshadingplanner.com) to plan your sun shading

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 <sup>1)</sup> (mm)		600	640	600	640 <sup>2)</sup>
Max. width (mm)	Acrylic – all qualities –	3000	3000	7000 <sup>3)</sup>	7000 <sup>3)</sup>
	Screen	3000	3000	7000 <sup>3)</sup>	7000 <sup>3)</sup>
	Soltis-92	3000	3000	7000 <sup>3)</sup>	7000 <sup>3)</sup>
	Twilight Pearl/Metal	2500	2500	7000 <sup>3)</sup>	7000 <sup>3)</sup>
	WAREMA SecuTex fabric A2	2800	2800	7000 <sup>3)</sup>	7000 <sup>3)</sup>
Max. height (mm)	Standard/Lumera acrylic	2500 <sup>4)</sup>	2500 <sup>4)</sup>	2500 <sup>4)</sup>	2500 <sup>4)</sup>
	Perfora acrylic				
	All Weather acrylic	2200	2200	2200	2200
	Screen	3000	3000	3000	3000
	Soltis-92	3000	3000	3000	3000
	Twilight Pearl/Metal	3000	3000	3000	3000
	WAREMA SecuTex fabric A2	2700	2700	2700	2700
Max. area <sup>5)</sup> (m <sup>2</sup> )	Standard/Lumera acrylic	7.5	7.5	17.5	17.5
	Perfora acrylic				
	All Weather acrylic	6.6	6.6	15.4	15.4
	Screen	9.0	9.0	21.0	21.0
	Soltis-92	9.0	9.0	21.0	21.0
	Twilight Pearl/Metal	7.5	7.5	20.0	20.0
	WAREMA SecuTex fabric A2	7.6	7.6	18.9	18.9

#### Notices:

- 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.
- Screen fabrics are bonded crosswise for order widths starting at 2500 mm.

<sup>1)</sup> Smaller widths are possible after consultation with the Applied Engineering department!

<sup>2)</sup> for unit with motor

<sup>3)</sup> Maximum width with continuous cover panel is 5000 mm!

<sup>4)</sup> Glued fabric connection optional for Standard and Perfora qualities. Max. height reduced by 300 mm.

<sup>5)</sup> The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 18).

# Construction limit values

## Vertical awning 490

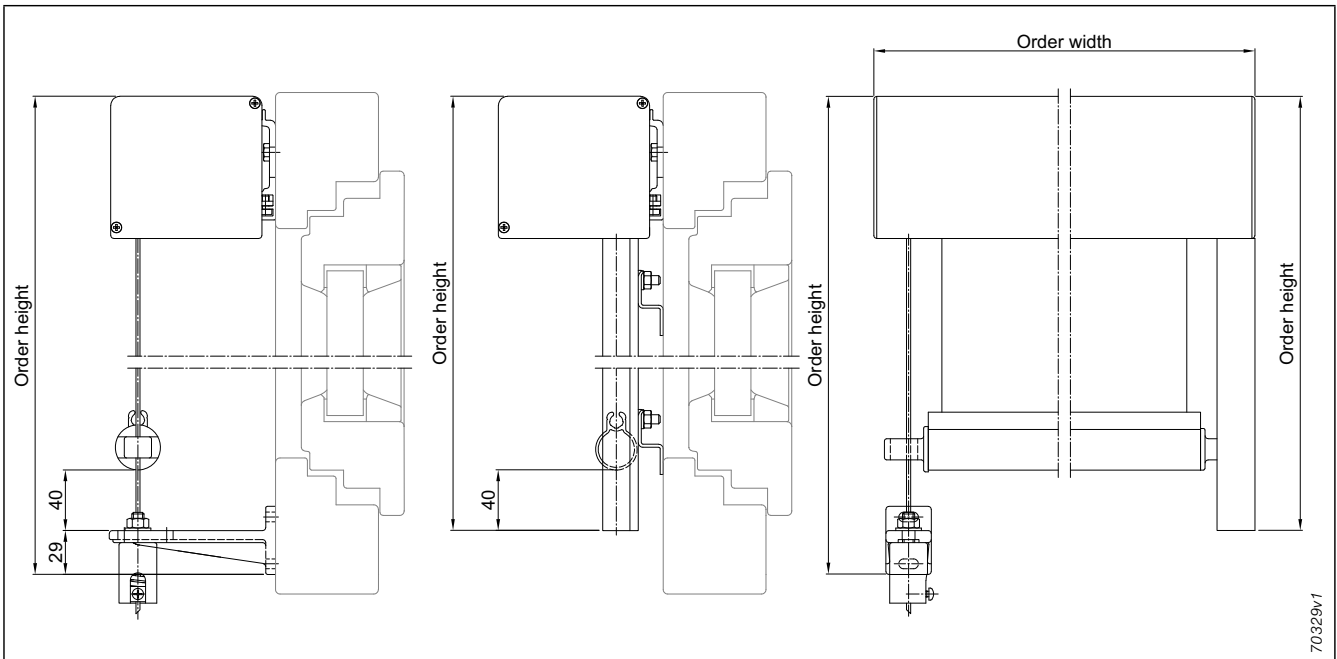


fig. 28: Measuring instructions



## Details

### Vertical awning 490

### Wall/ceiling brackets, guide rail brackets

#### Number of required wall/ceiling brackets

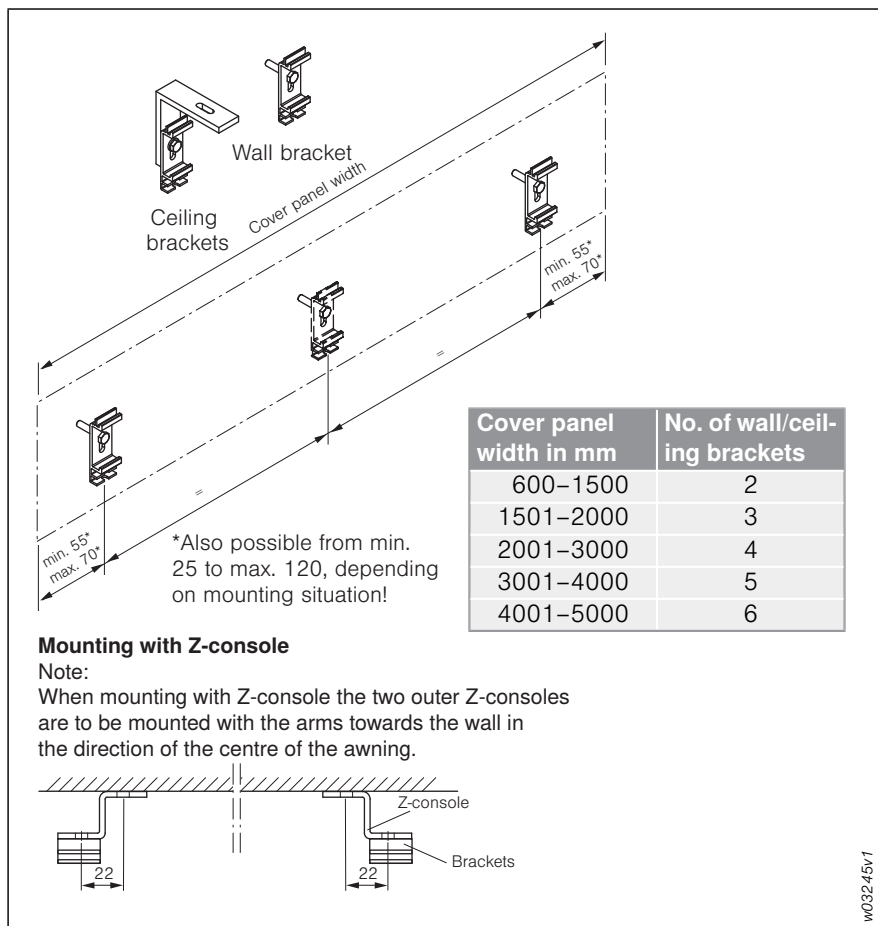


fig. 29: Measuring instructions for wall/ceiling brackets

#### Number of required guide rail brackets

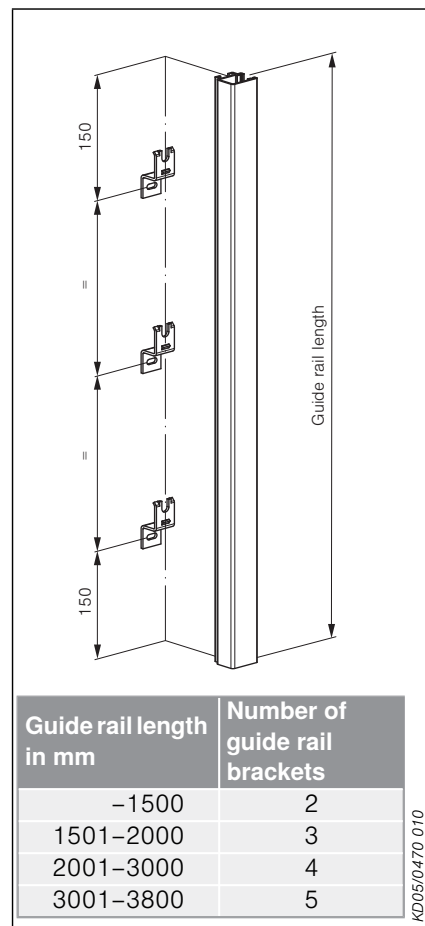


fig. 30: Measuring instructions for guide rail brackets

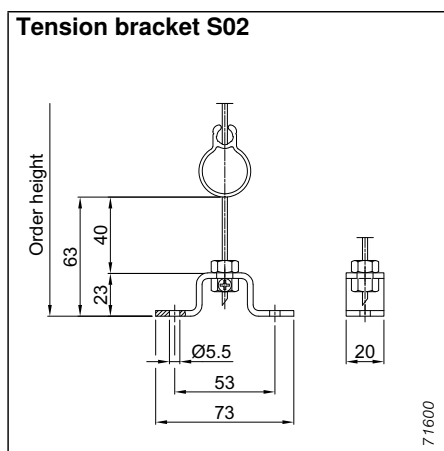


fig. 31: Tension bracket S02

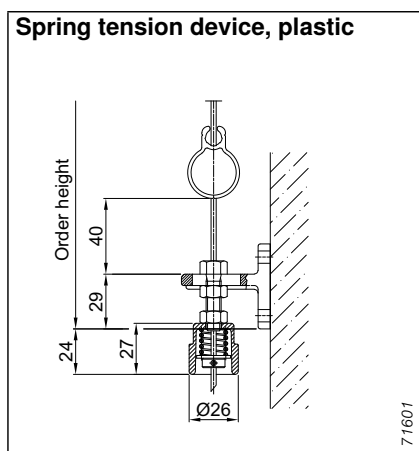


fig. 32: Spring tension device, plastic

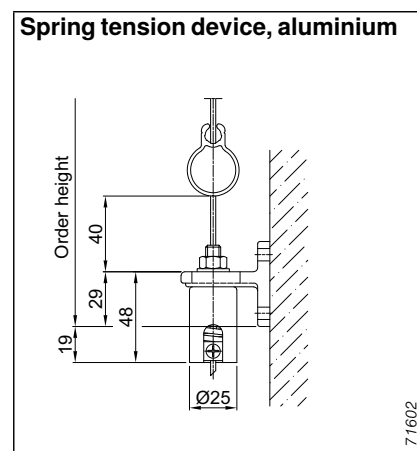
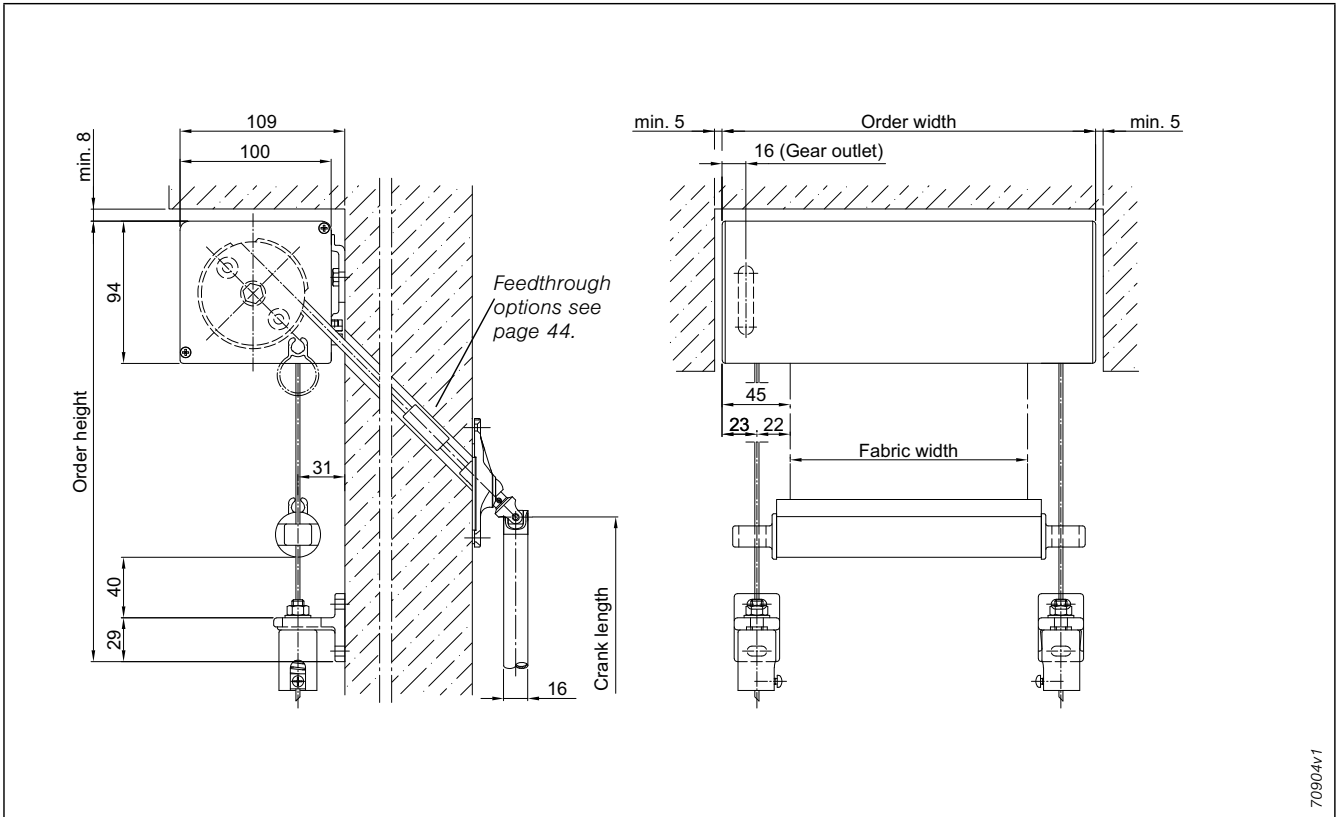


fig. 33: Spring tension device, aluminium

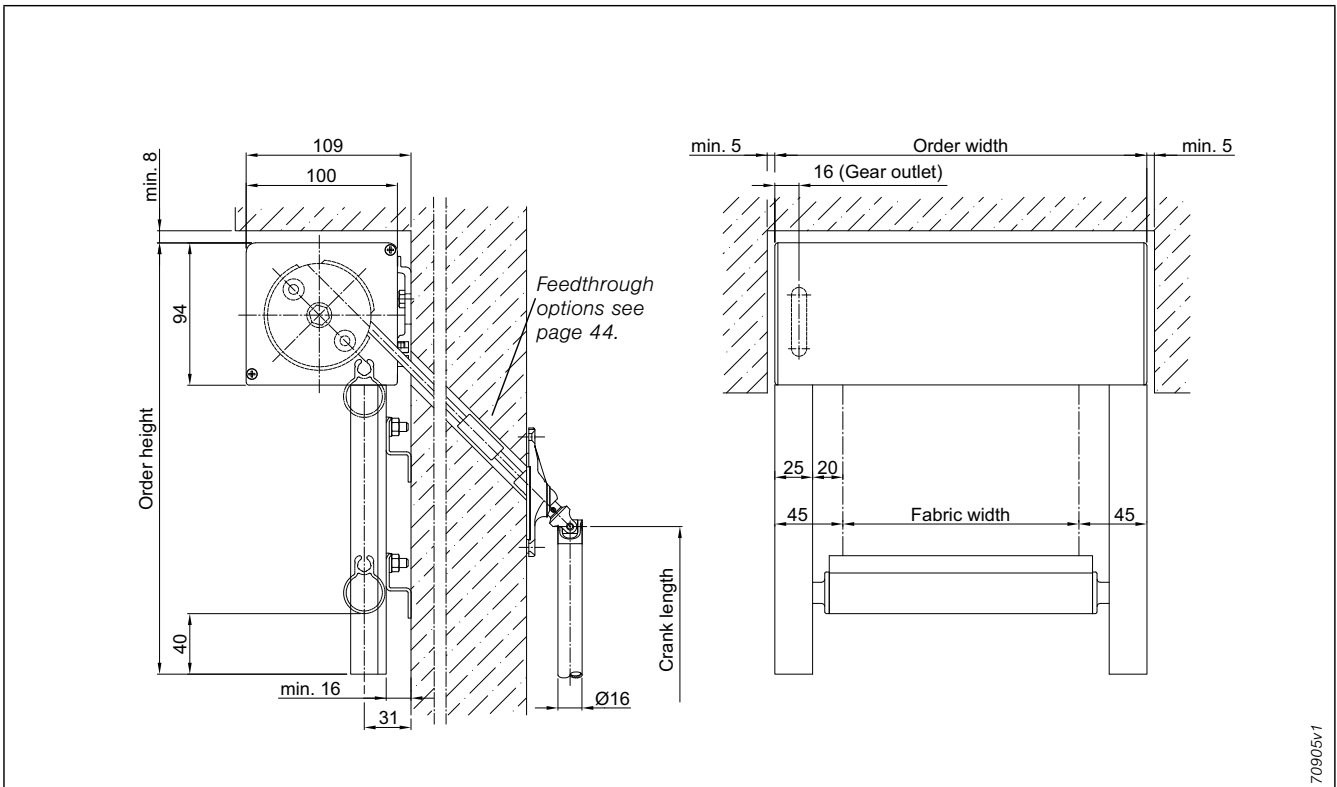
# Application example

## Vertical awning 490



70904v1

fig. 34: Standard model vertical awning 490 with cable guidance, crank drive, individual unit, wall installation, left rolling blind (also available as right rolling blind)



70905v1

fig. 35: 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

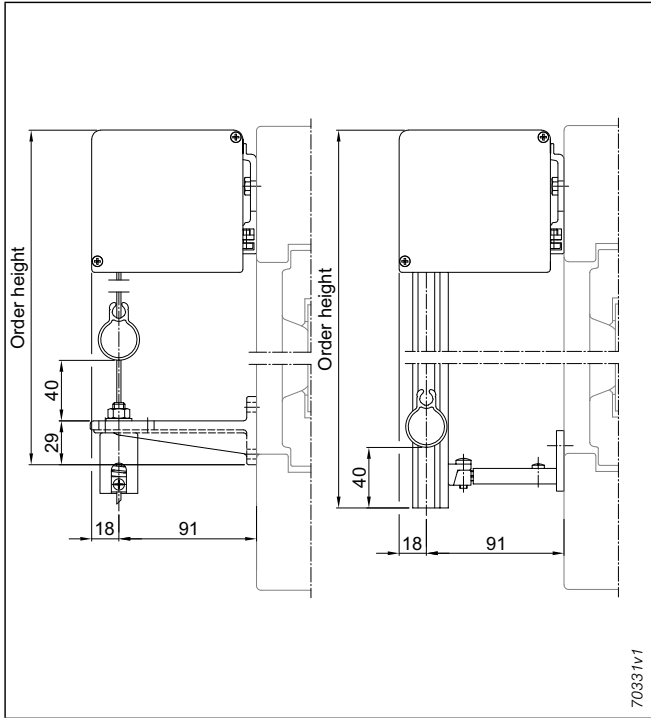


fig. 36: Vertical awning 490, wall installation

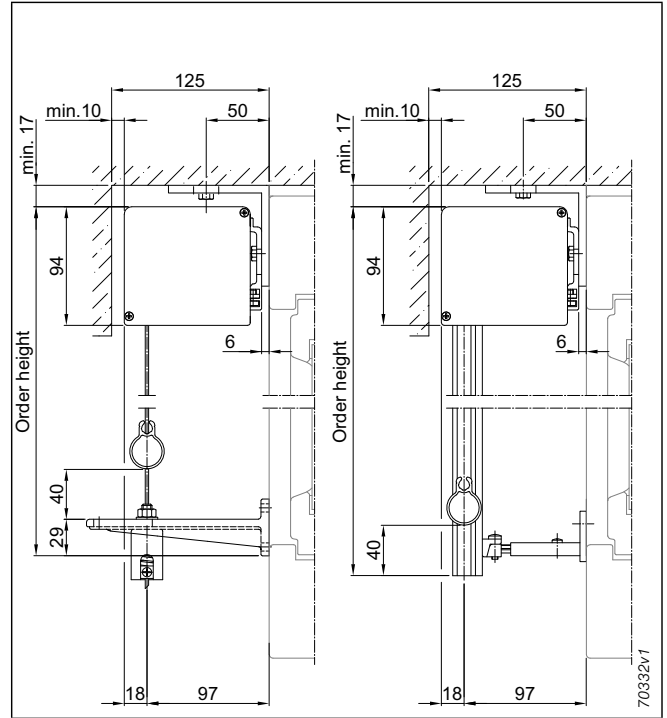


fig. 37: Vertical awning 490, ceiling installation

## Details

### Vertical awning 490

### Possible gear feedthrough options

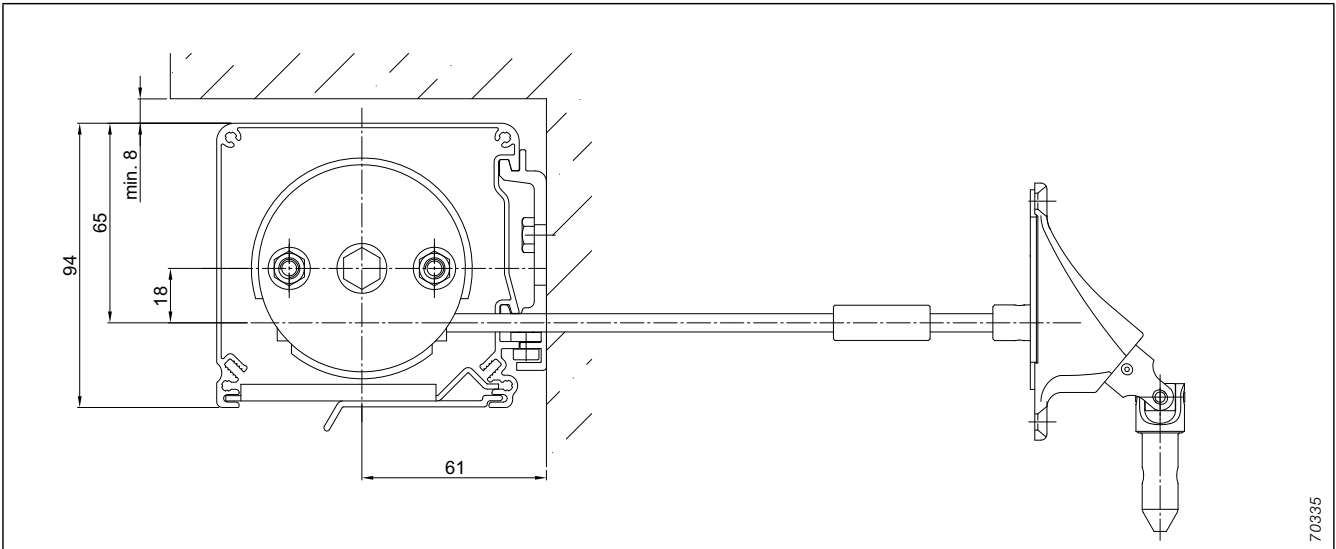


fig. 38: Gear outlet 0°

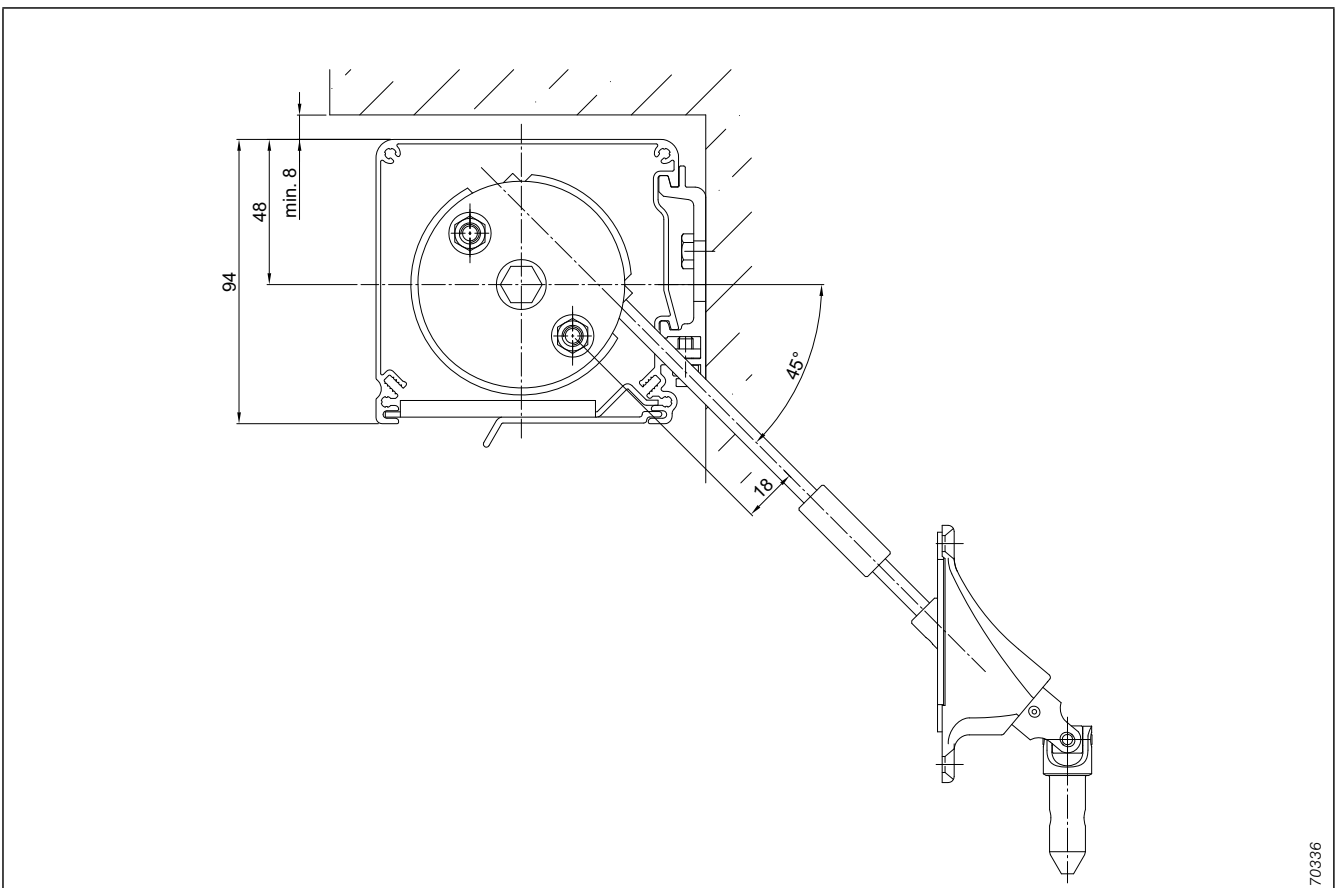


fig. 39: Gear outlet 1-45°

## Application example

### Vertical awning 490

#### Variations for housing the plug-in connector

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

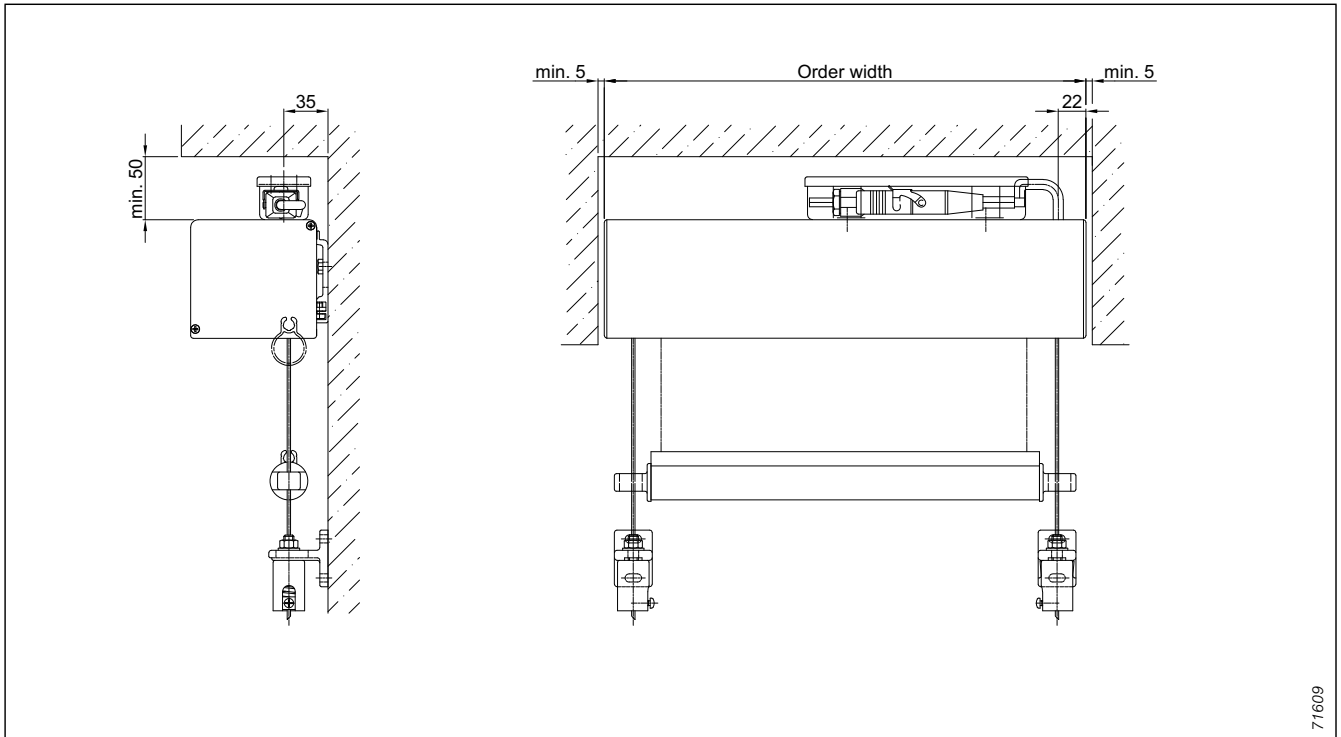


fig. 40: Individual unit, left rolling blind, wall installation, cable guidance with cable exit at the top

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## Application example

### Vertical awning 490

#### Variations for housing the plug-in connector

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

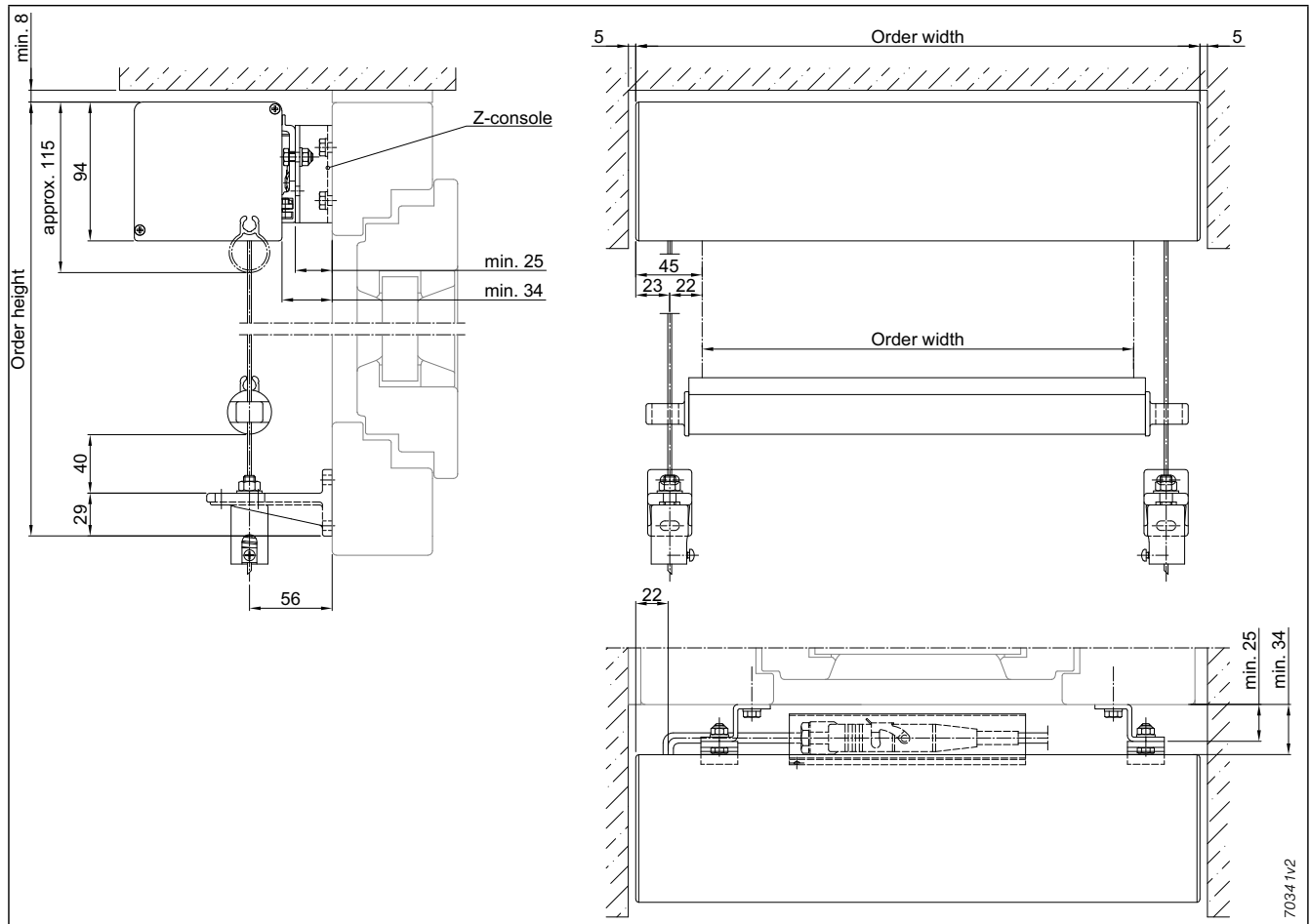


fig. 41: Individual unit, left rolling blind, wall installation, cable guidance with cable exit at the rear

## Application example

### Vertical awning 490

#### Variations for housing the plug-in connector

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

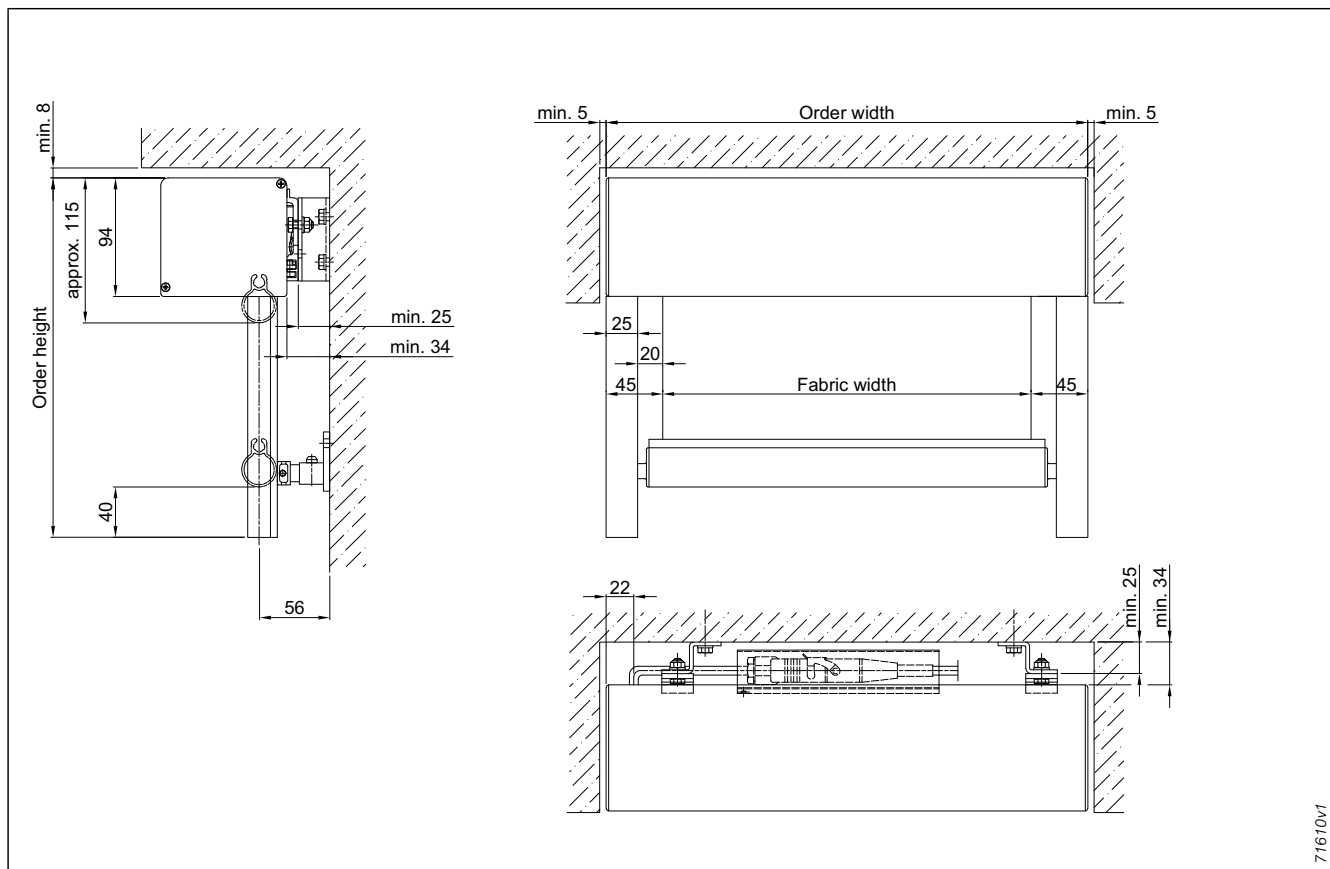


fig. 42: Individual unit, left rolling blind (also available as right rolling blind), wall installation, guide rail, with cable exit at the rear

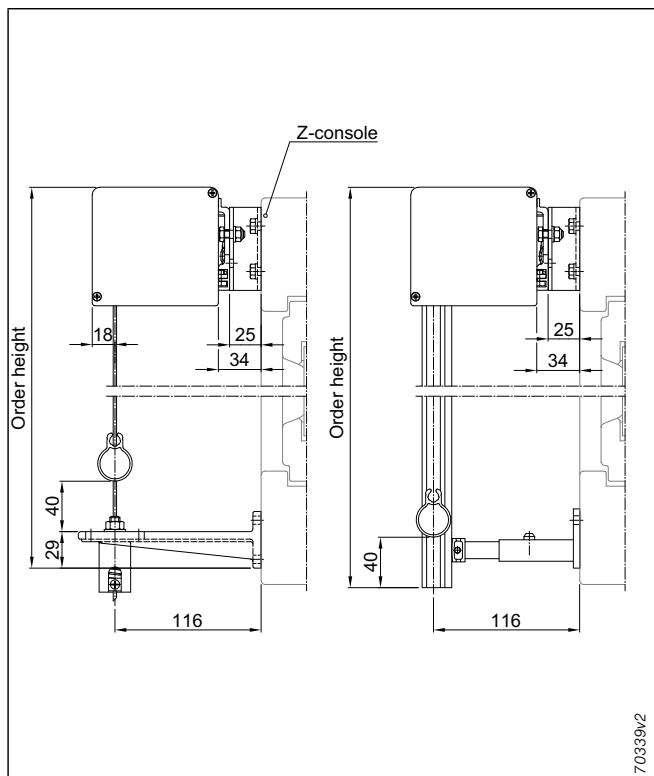


fig. 43: Right rolling blind (also available as left rolling blind), wall installation, cable guidance, guide rail

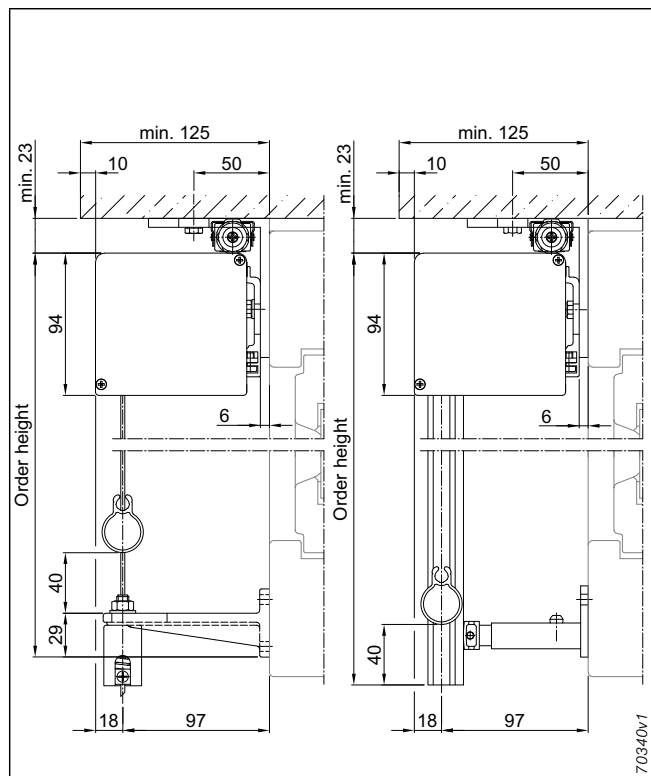


fig. 44: Right rolling blind (also available as left rolling blind), ceiling installation, cable guidance, guide rail

## Application example

### Vertical awning 490

#### Variations for housing the plug-in connector

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

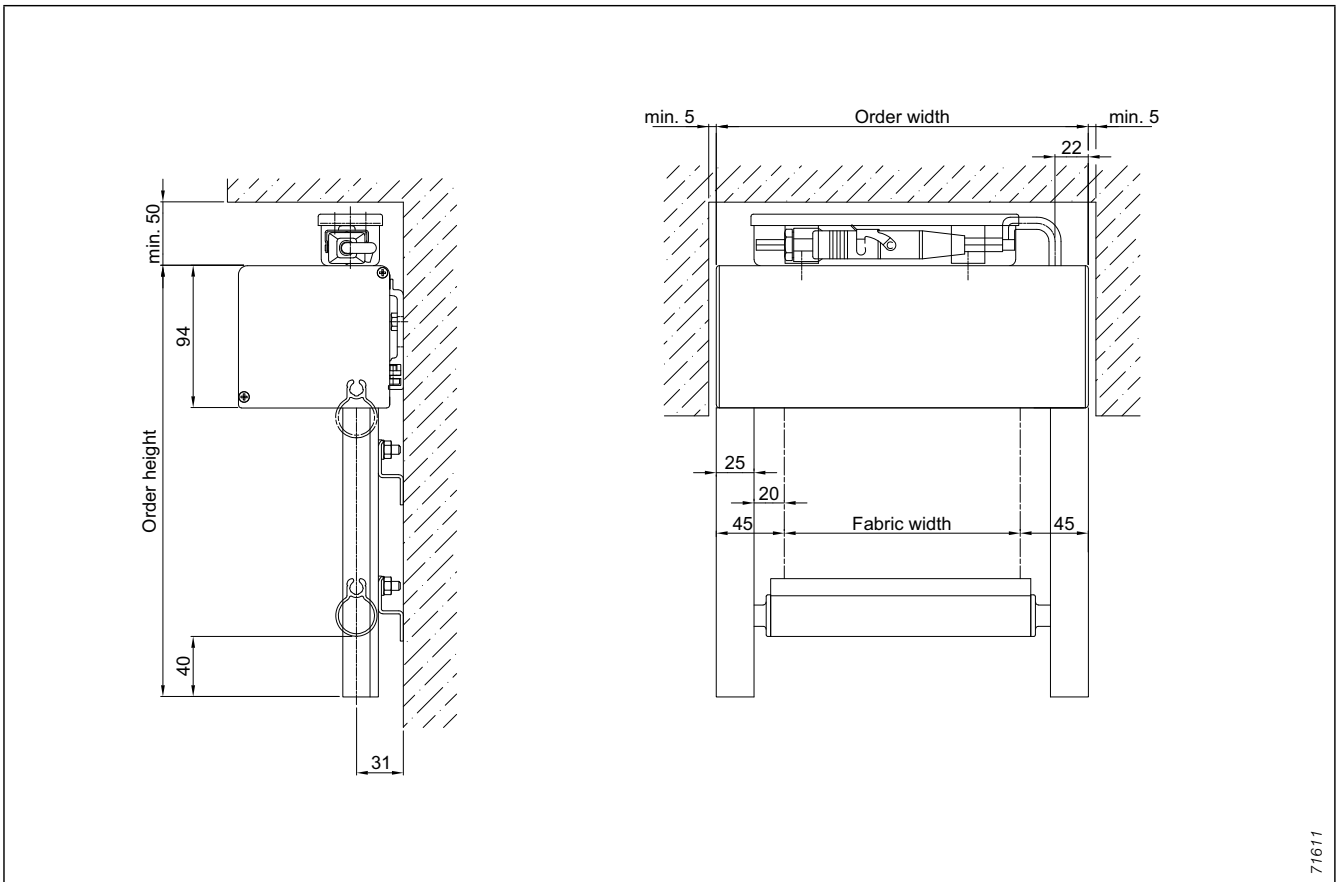


fig. 45: Individual unit, left rolling blind (also available as right rolling blind), wall installation, guide rail, with cable exit at the top

71611



## Details

### Vertical awning 490 Drive variations

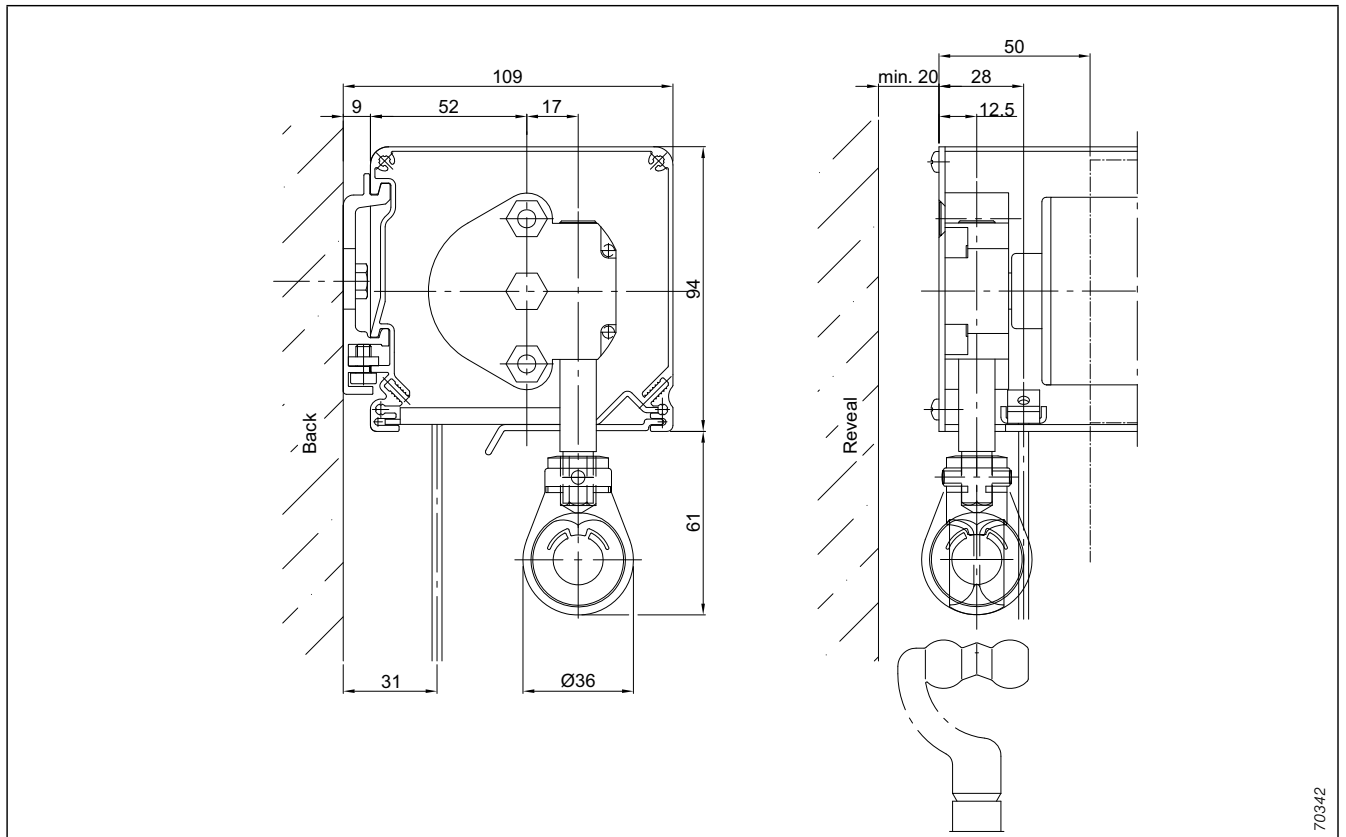


fig. 46: Gear with eyelet; operation seen from the cover panel back side, left rolling blind (also available as right rolling blind)

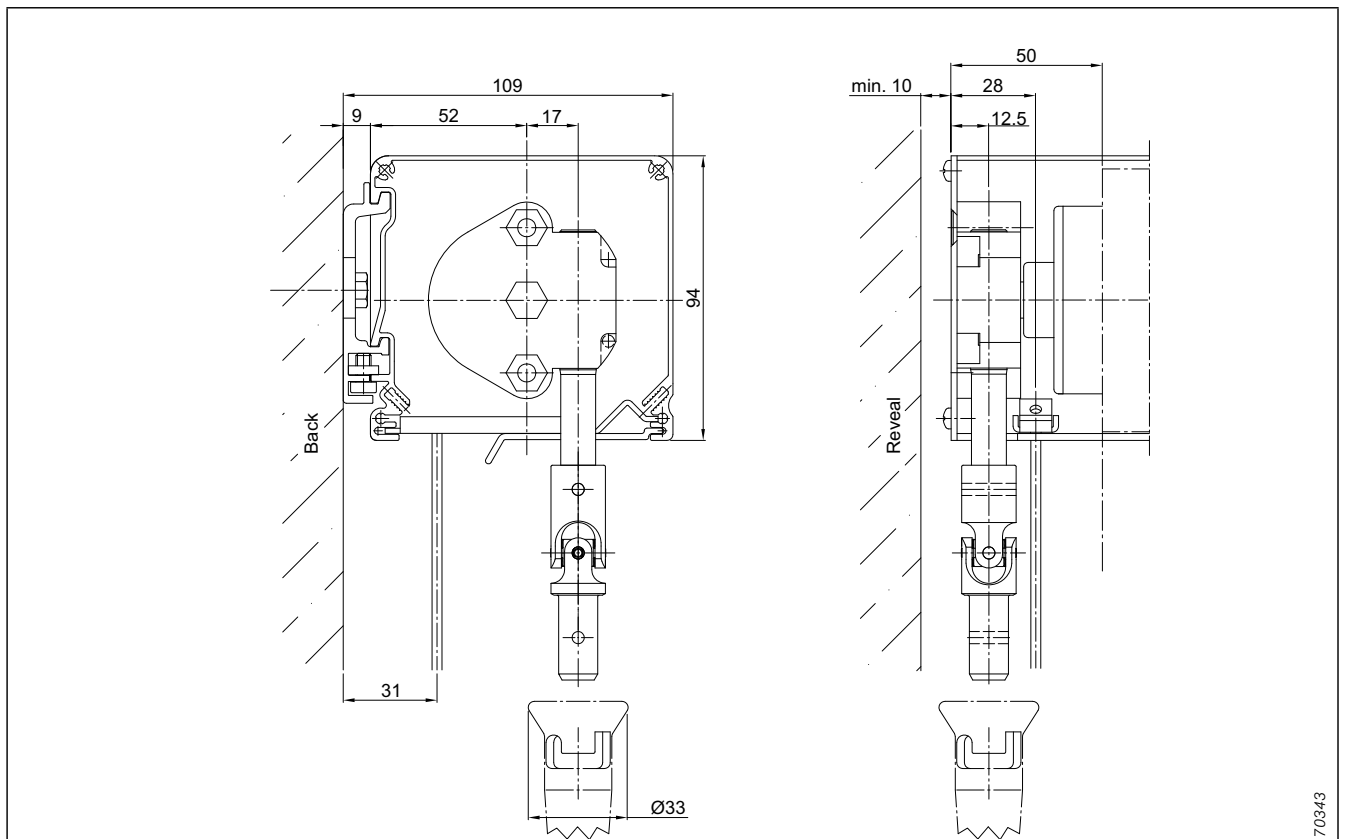


fig. 47: Gear with universal joint; operation seen from the cover panel back side, left rolling blind (also available as right rolling blind)

## Details

### Vertical awning 490

### Drive variations

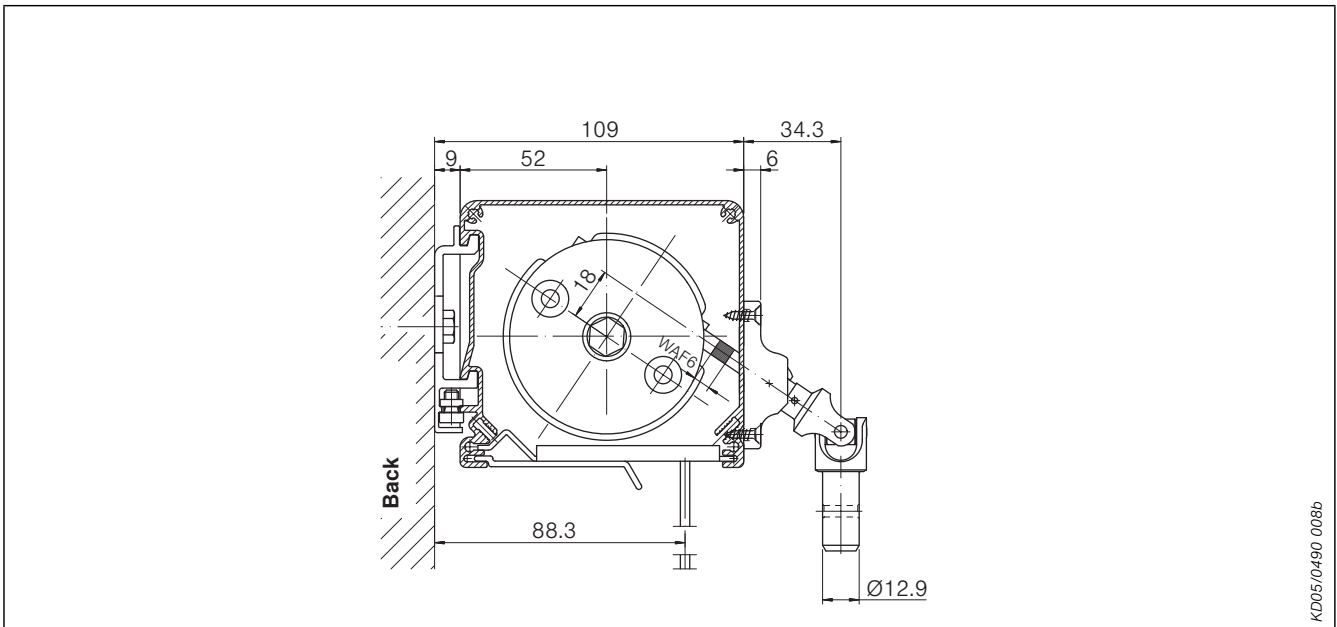


fig. 48: Joint plate on the cover panel – operation seen from the cover panel back side. Right rolling blind (also available as left rolling blind)

## Details

# Vertical awning 490 Limit position situations

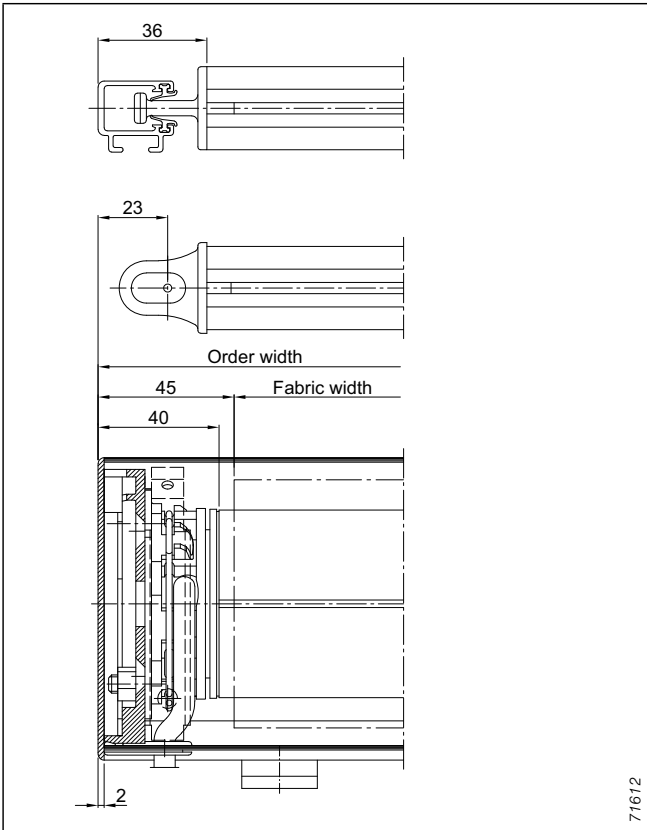


fig. 49: Motor side

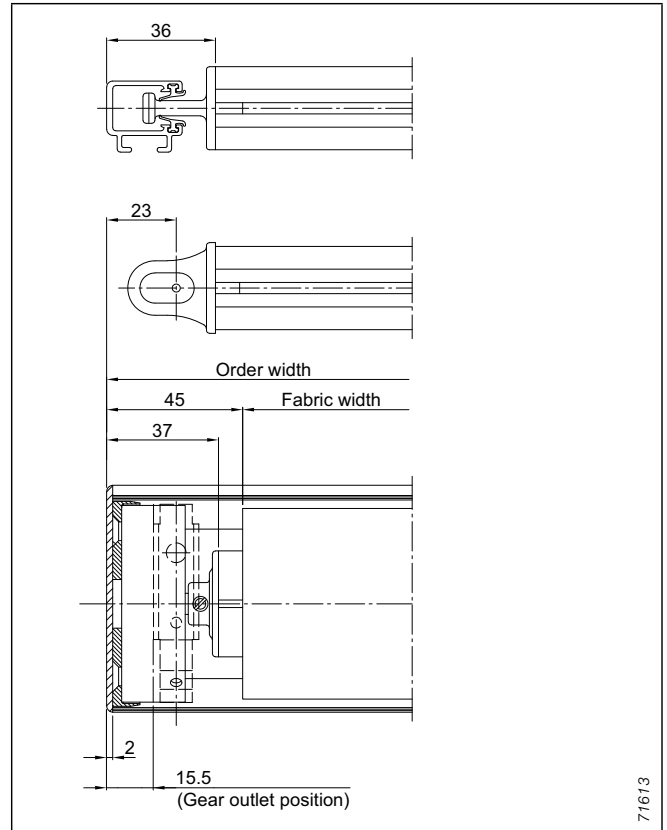


fig. 50: Bearing

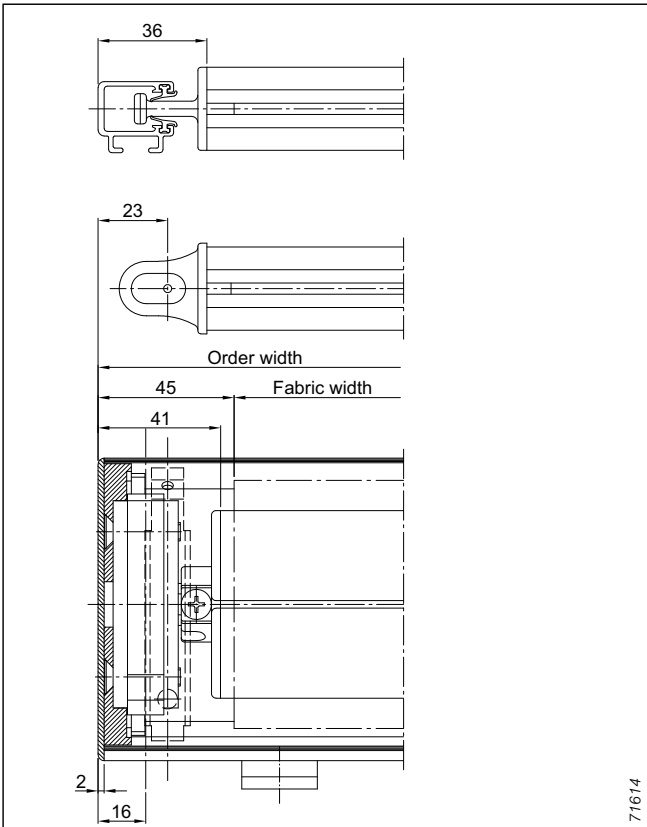


fig. 51: Gear

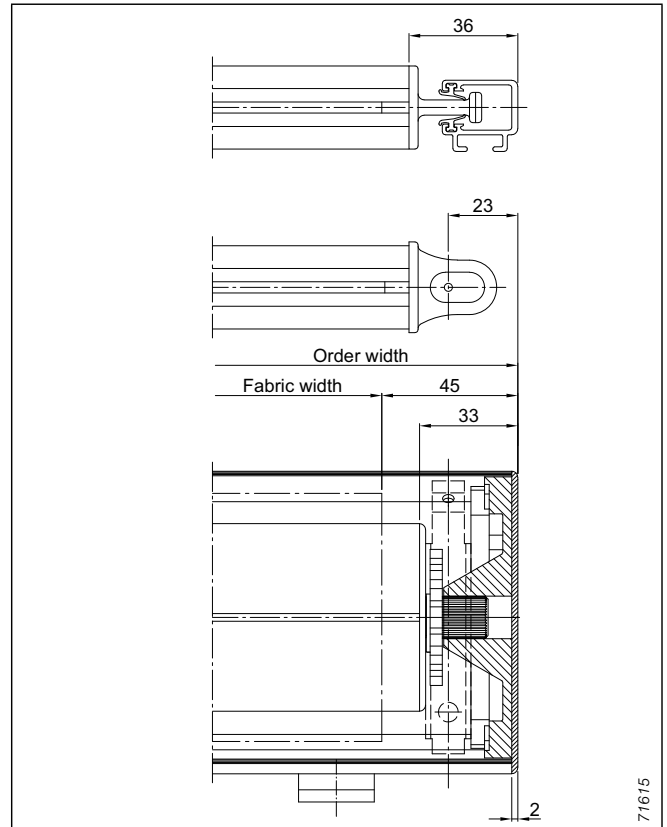


fig. 52: Spindle lock

Details

Vertical awning 490

Possible couplings and linking of several units

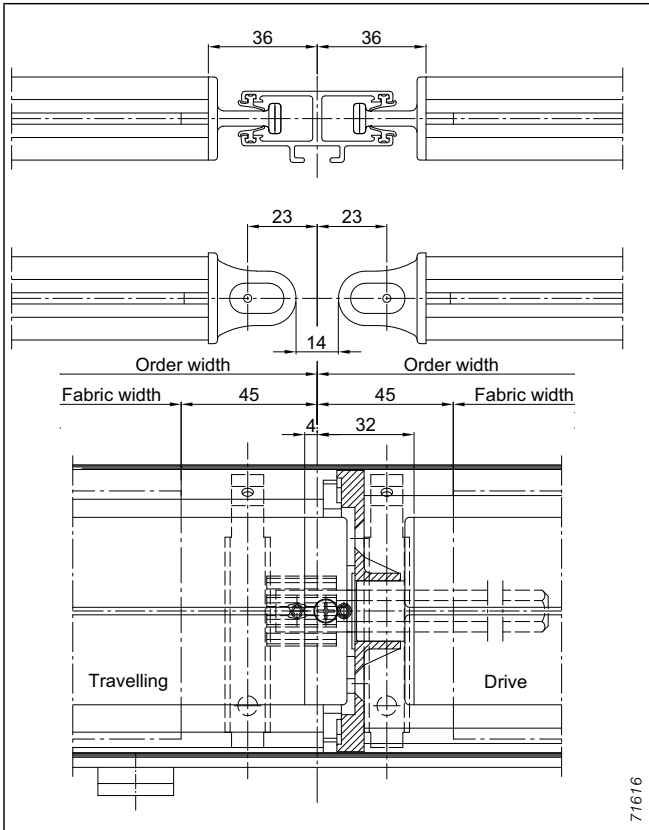


fig. 53: Coupling, continuous cover panel – standard

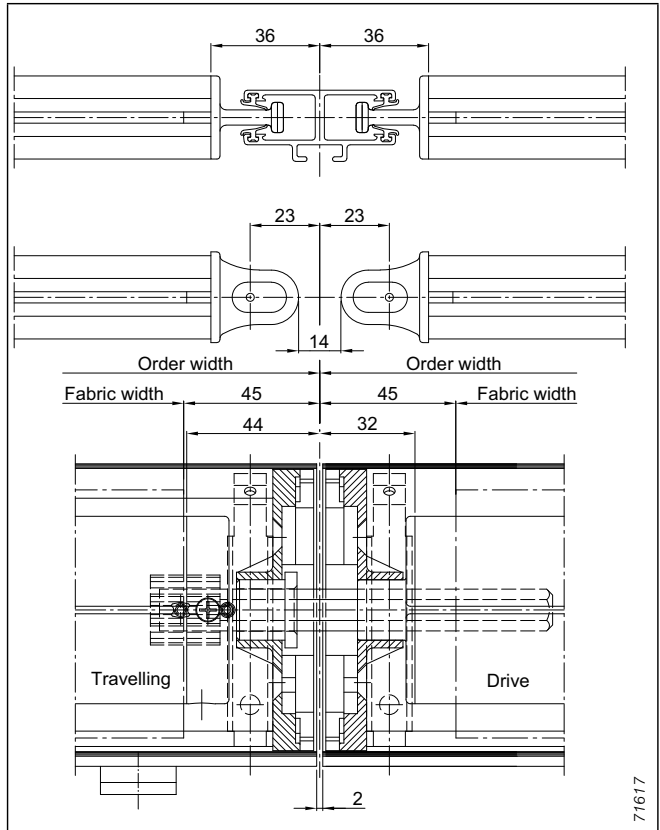


fig. 54: Coupling, individual cover panels – standard

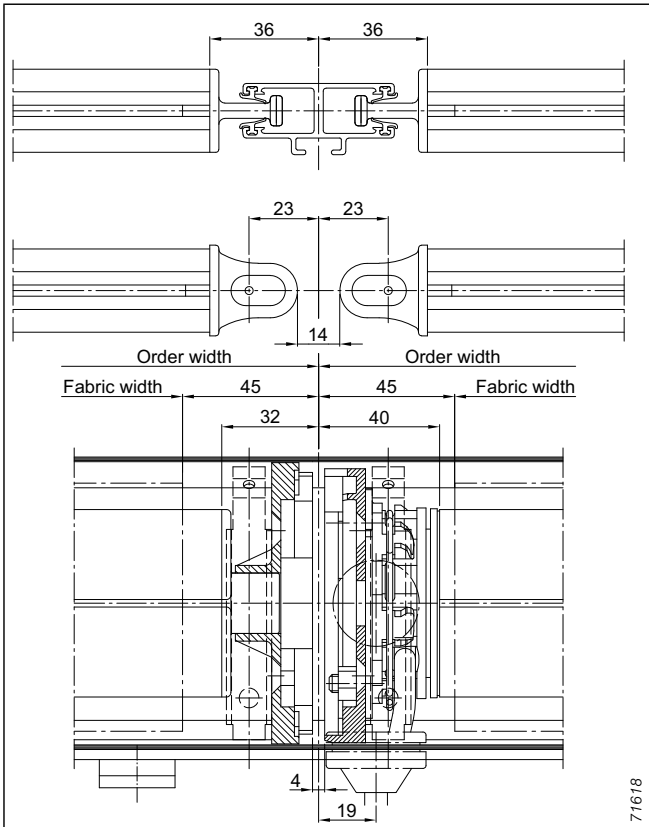


fig. 55: Motor – bearing middle

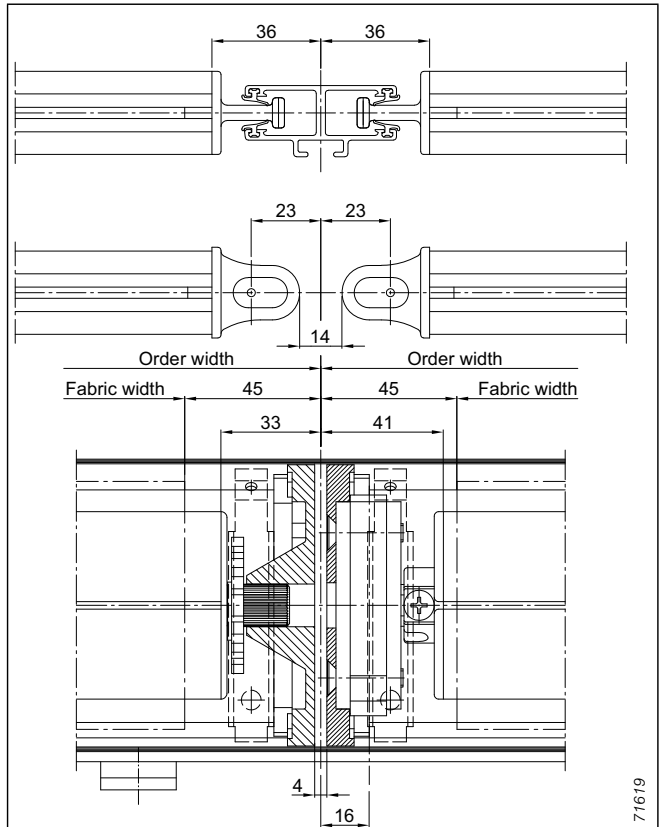


fig. 56: Gear – spindle lock middle

## Details

### Vertical awning 490 Possible drives

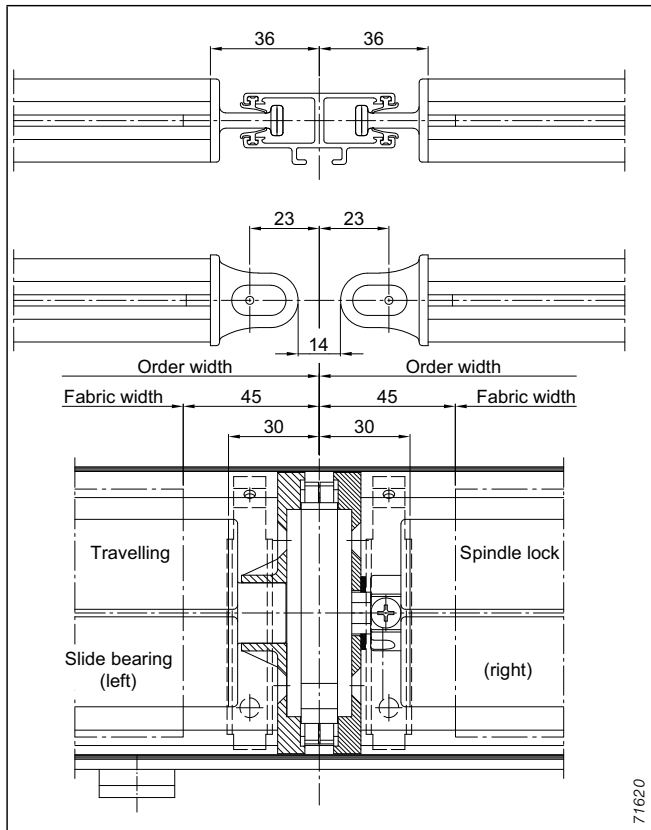


fig. 57: Central gear

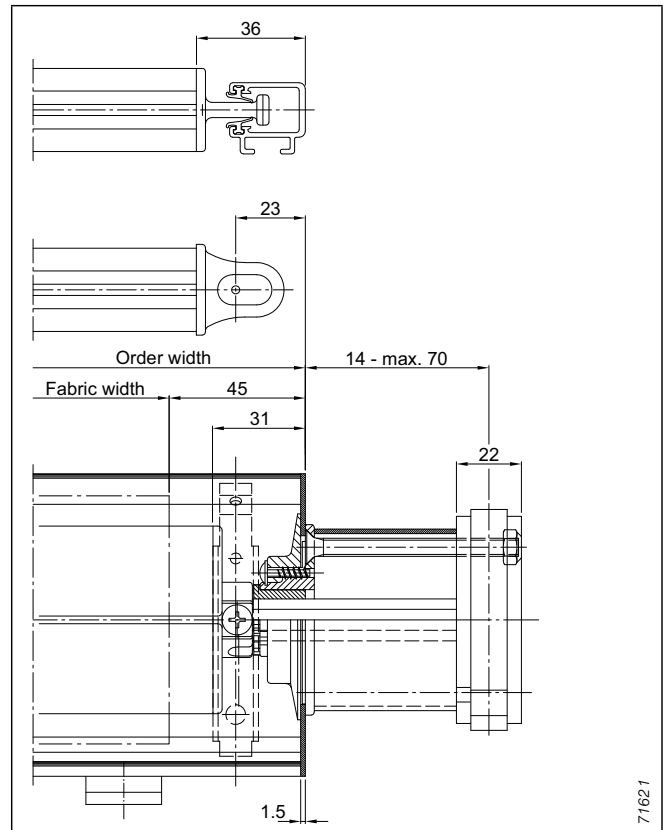
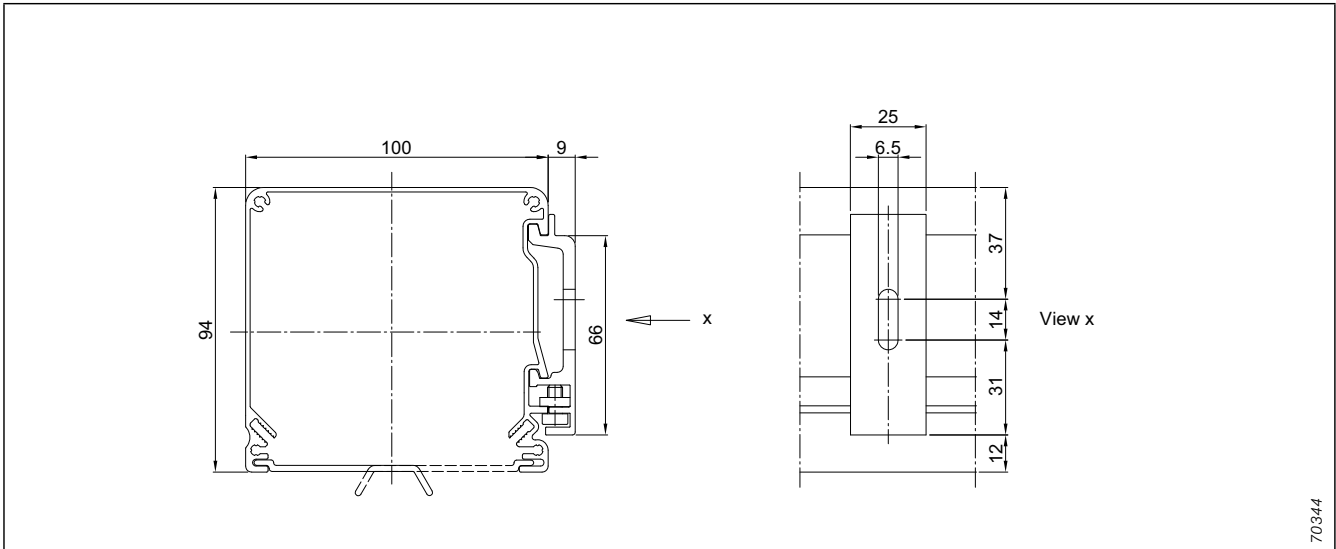


fig. 58: External gear

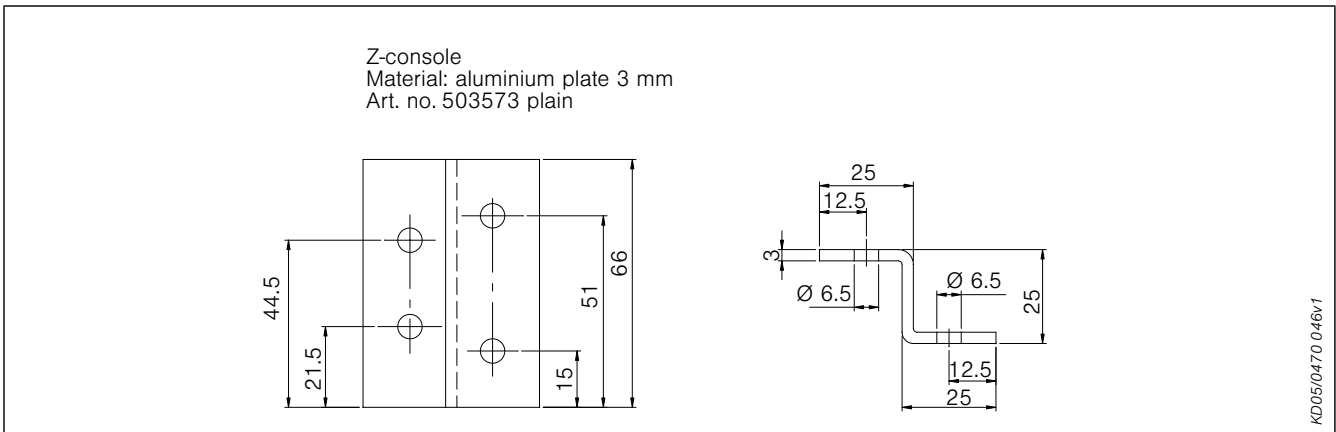
## Details

### Vertical awning 490 Wall/ceiling installation



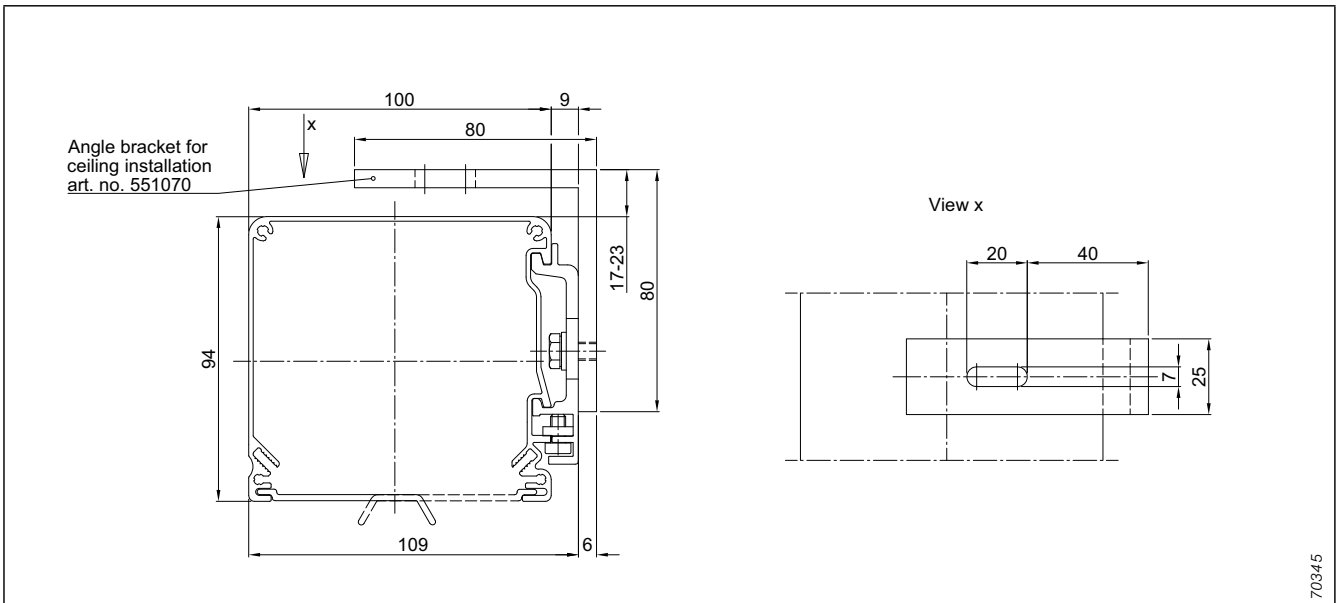
70344

fig. 59: Cover panel type 490 – wall installation



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fig. 60: Z console with wall installation



70345

fig. 61: Cover panel type 490 – ceiling installation

## Description

### Vertical awning 499

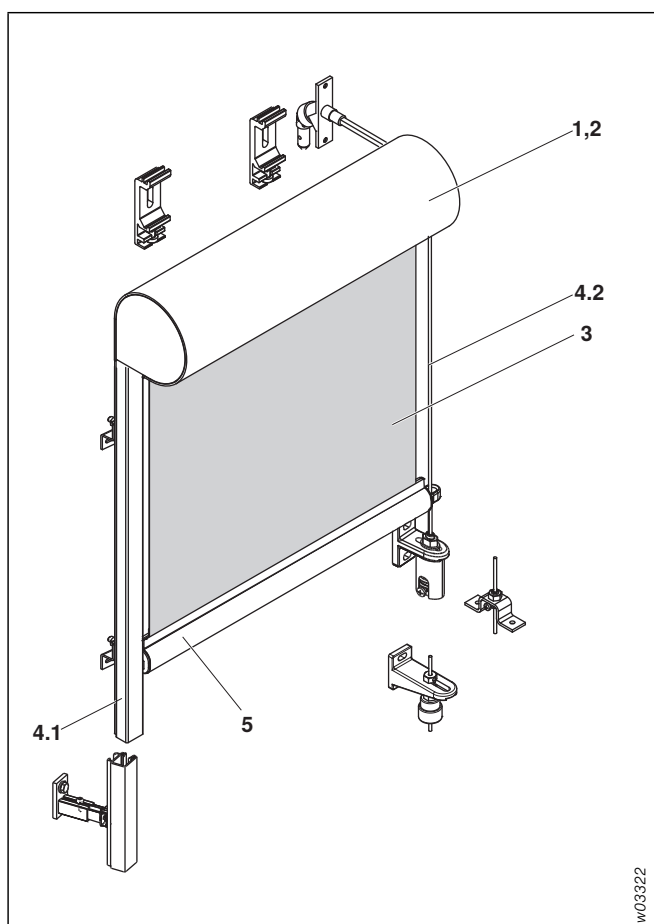


fig. 62: Vertical awning 499

- 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 installation 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 218.

### Crank

Screw gear with crank rod and collapsible crank; sealed 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  $\pm 20$  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 (H×D): 111×111 mm  
 Cover panel rounded at the back

#### Half-round cover panel type 48.3

Dimensions (r): inside 54 mm  
 Dimensions (H×D): 111×111 mm  
 Cover panel vertical at the back

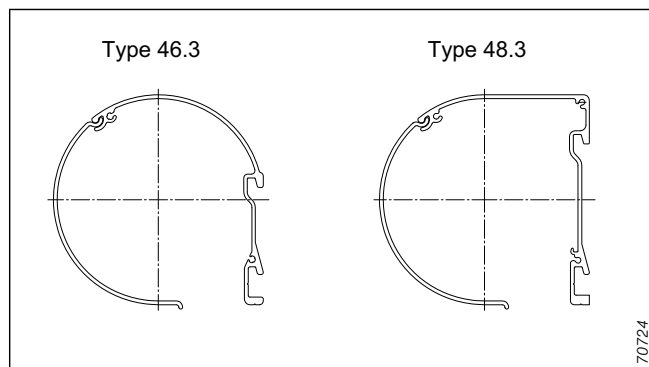


fig. 63: Cover panels

### 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  
Perfora/All Weather acrylic  
Soltis-92  
Screen  
Twilight Pearl/Metal  
WAREMA SecuTex fabric A2  
More information about the fabrics on page 214

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 (W×H): 25×18 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 cord

Material: steel, resistant to corrosion

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 (Ø): 27.5 mm

Profile: round profile, mounting groove optional

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

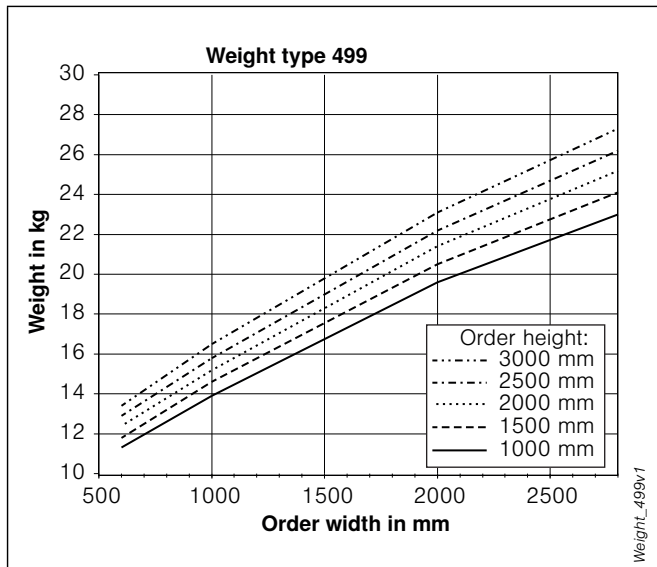


fig. 64: Weight 499

#### 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, 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 anodisation (colour) are available subject to surcharge. All visible plastic parts are black.



## Construction limit values

### Vertical awnings 499

Use our free planning program at [www.sunshadingplanner.com](http://www.sunshadingplanner.com) to plan your sun shading 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 <sup>1)</sup> (mm)		600	640	600	640 <sup>2)</sup>
Max. width (mm)	Acrylic – all qualities –	3000	3000	7000 <sup>2)</sup>	7000 <sup>2)</sup>
	Screen	3000	3000	7000 <sup>2)</sup>	7000 <sup>2)</sup>
	Soltis-92	3000	3000	7000 <sup>2)</sup>	7000 <sup>2)</sup>
	Twilight Pearl/Metal	2500	2500	7000 <sup>2)</sup>	7000 <sup>2)</sup>
	WAREMA SecuTex fabric A2	2800	2800	7000 <sup>2)</sup>	7000 <sup>2)</sup>
Max. height (mm)	Standard/Lumera acrylic	2500 <sup>3)</sup>	2500 <sup>3)</sup>	2500 <sup>3)</sup>	2500 <sup>3)</sup>
	Perfora acrylic				
	All Weather acrylic	2300	2300	2300	2300
	Screen	3000	3000	3000	3000
	Soltis-92	3000	3000	3000	3000
	Twilight Pearl/Metal	3000	3000	3000	3000
	WAREMA SecuTex fabric A2	2700	2700	2700	2700
Max. area <sup>4)</sup> (m <sup>2</sup> )	Standard/Lumera acrylic	7.5	7.5	17.5	17.5
	Perfora acrylic				
	All Weather acrylic	6.9	6.9	16.1	16.1
	Screen	9.0	9.0	21.0	21.0
	Soltis-92	9.0	9.0	21.0	21.0
	Twilight Pearl/Metal	7.5	7.5	20.0	20.0
	WAREMA SecuTex fabric A2	7.6	7.6	18.9	18.9

#### 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.
- Screen fabrics are bonded crosswise for order widths starting at 2500 mm.

<sup>1)</sup> Smaller widths are possible after consultation with the Applied Engineering department!

<sup>2)</sup> Maximum width with continuous cover panel is 5000 mm!

<sup>3)</sup> Glued fabric connection optional for Standard and Perfora qualities. Max. height reduced by 300 mm.

<sup>4)</sup> The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 18).

## Details

### Vertical awning 499

### Wall/ceiling brackets, guide rail brackets

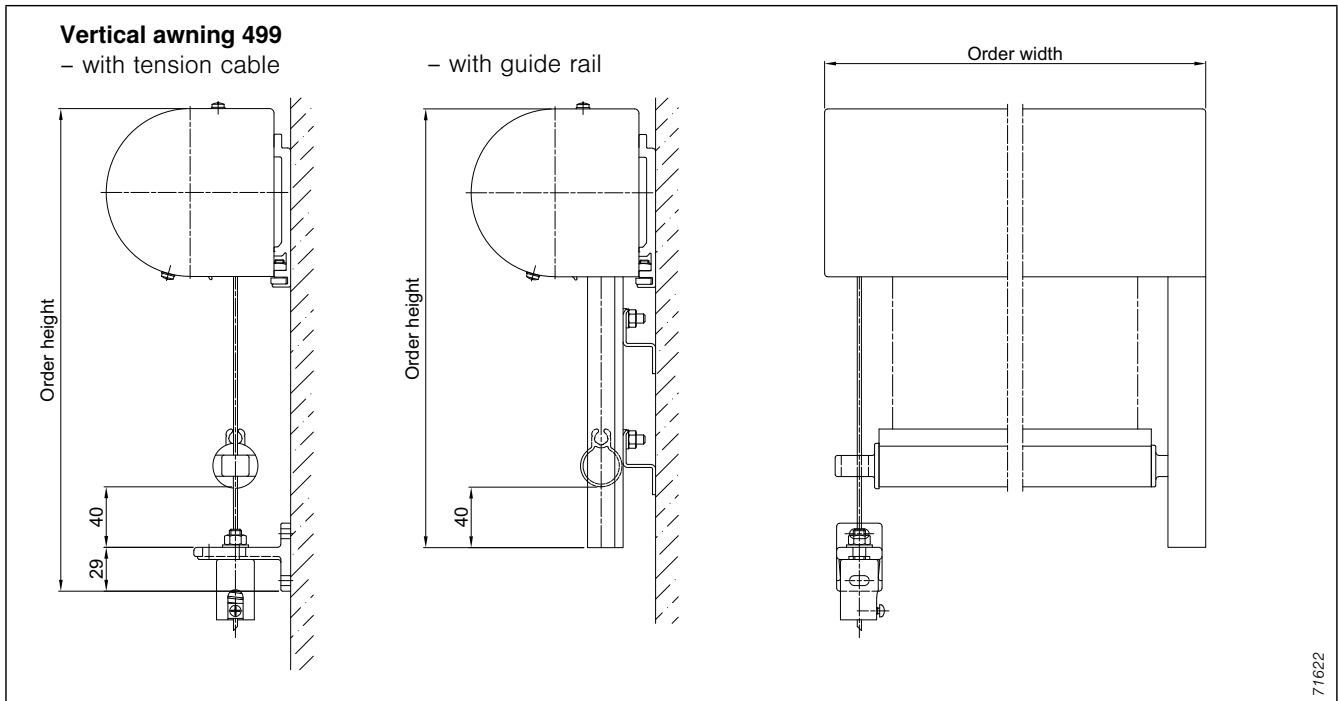


fig. 65: Measuring instructions for vertical awning 499

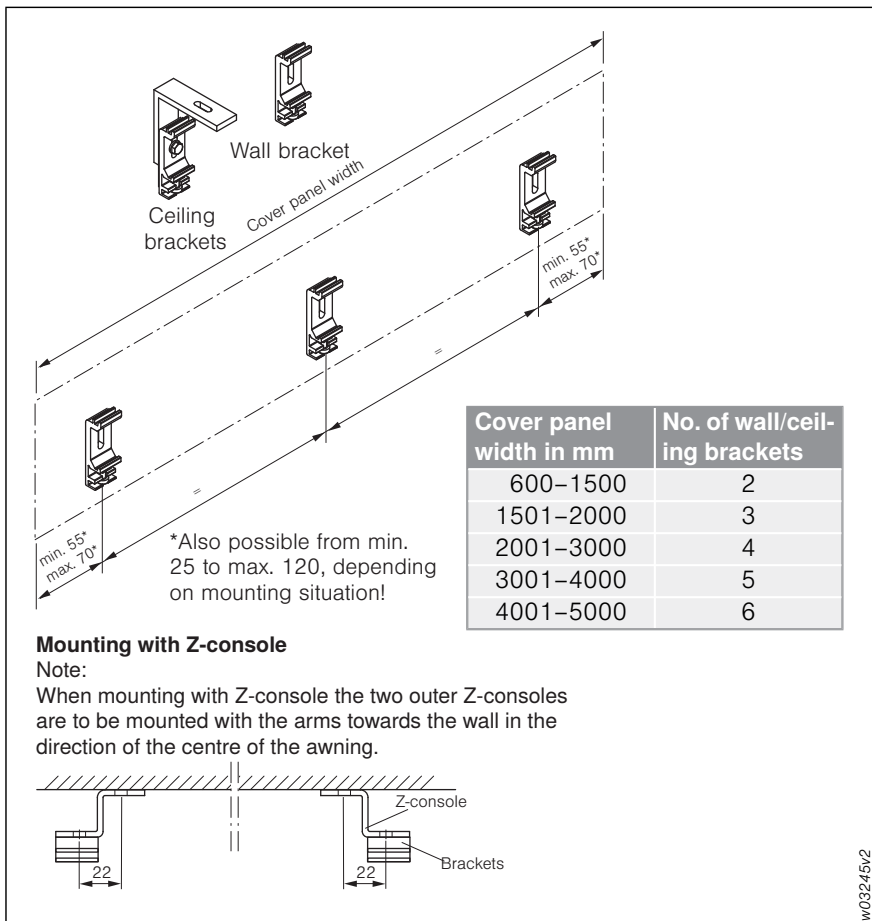


fig. 66: Measuring instructions for wall/ceiling brackets

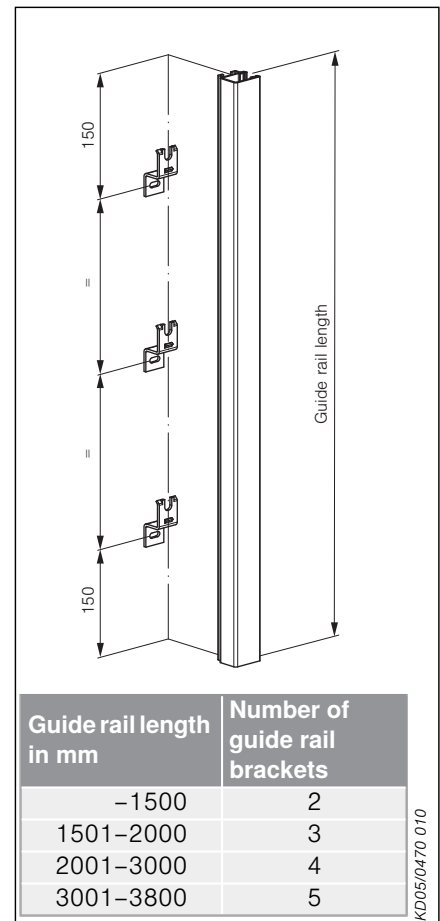


fig. 67: Measuring instructions for guide rail brackets

## Details

### Vertical awning 499

### Tension cable bracket, spring tension devices

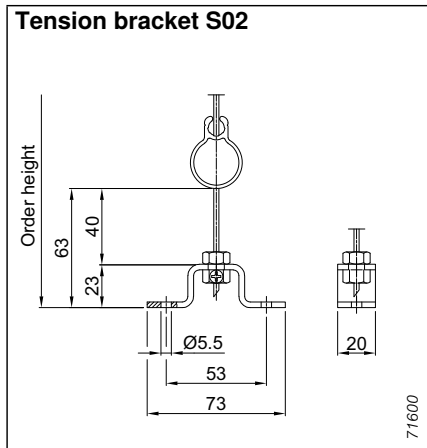


fig. 68: Tension bracket S02

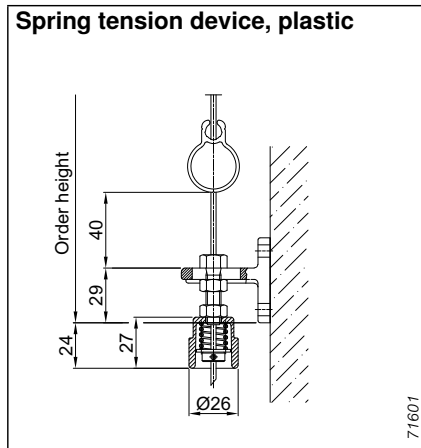


fig. 69: Spring tension device, plastic

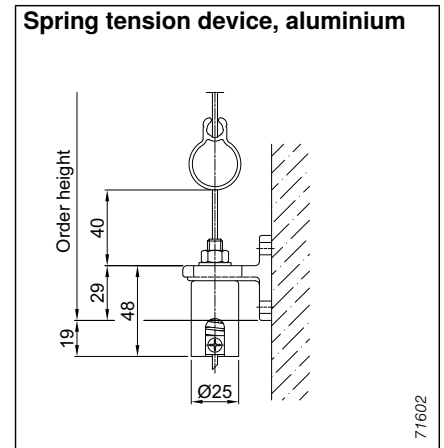
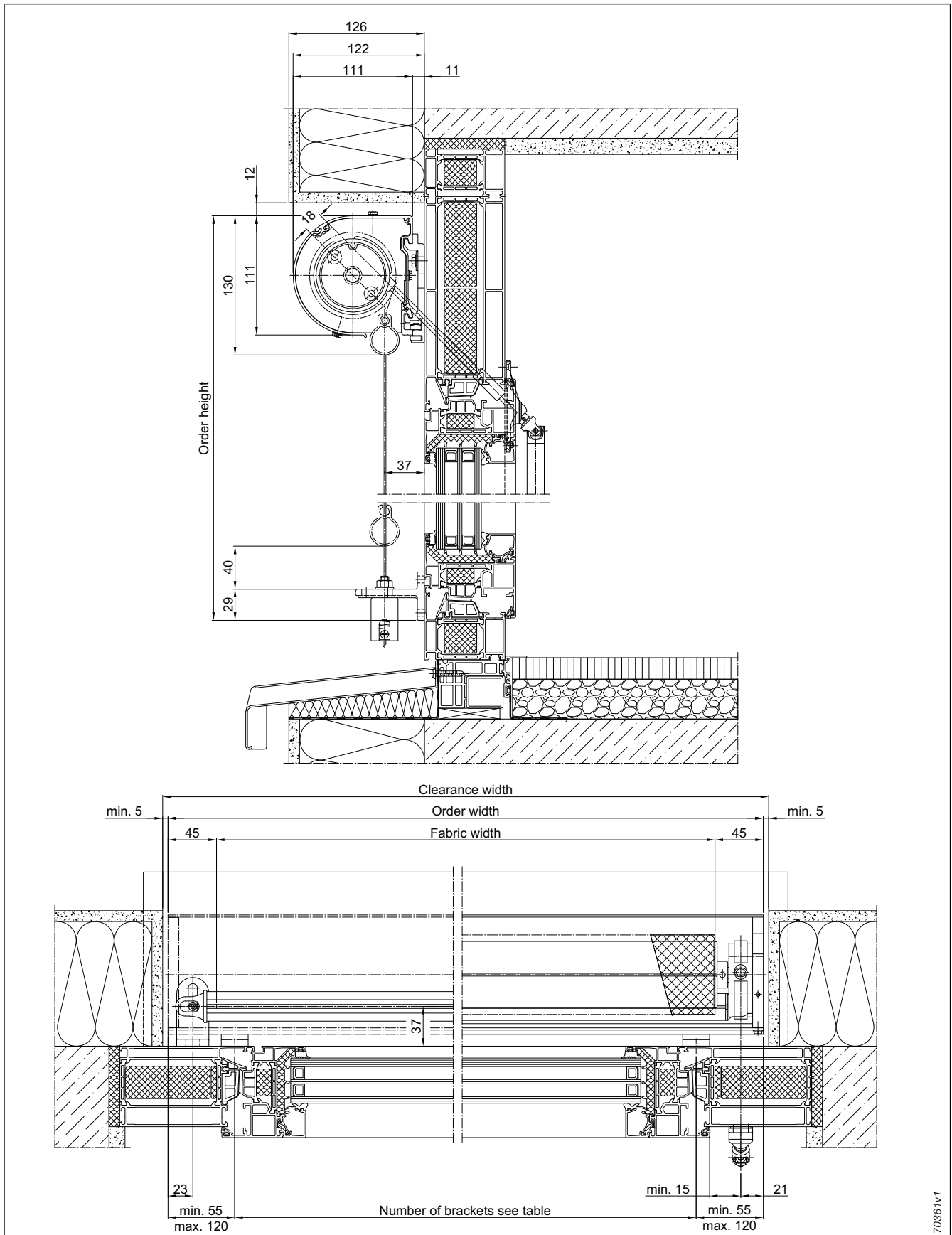


fig. 70: Spring tension device, aluminium

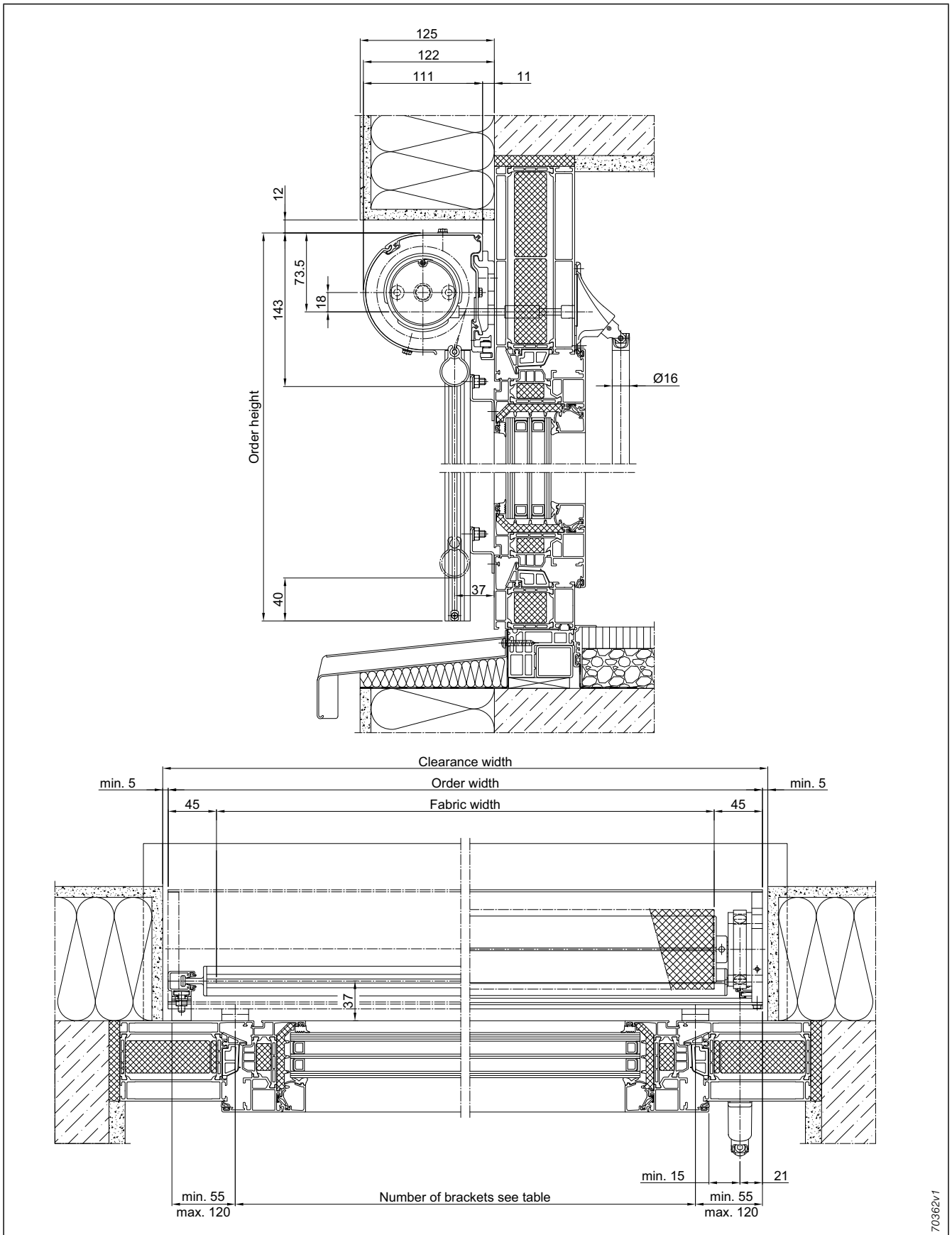
**Application example**  
**Vertical awning 499**  
**Cable guidance**



70361v1

fig. 71: Vertical awning 499 – cable guidance, crank drive

**Application example**  
**Vertical awning 499**  
**Rail guidance**



70362v1

fig. 72: Vertical awning 499 – rail guidance, crank drive

**Application example**  
**Vertical awning 499**  
**Cable guidance**

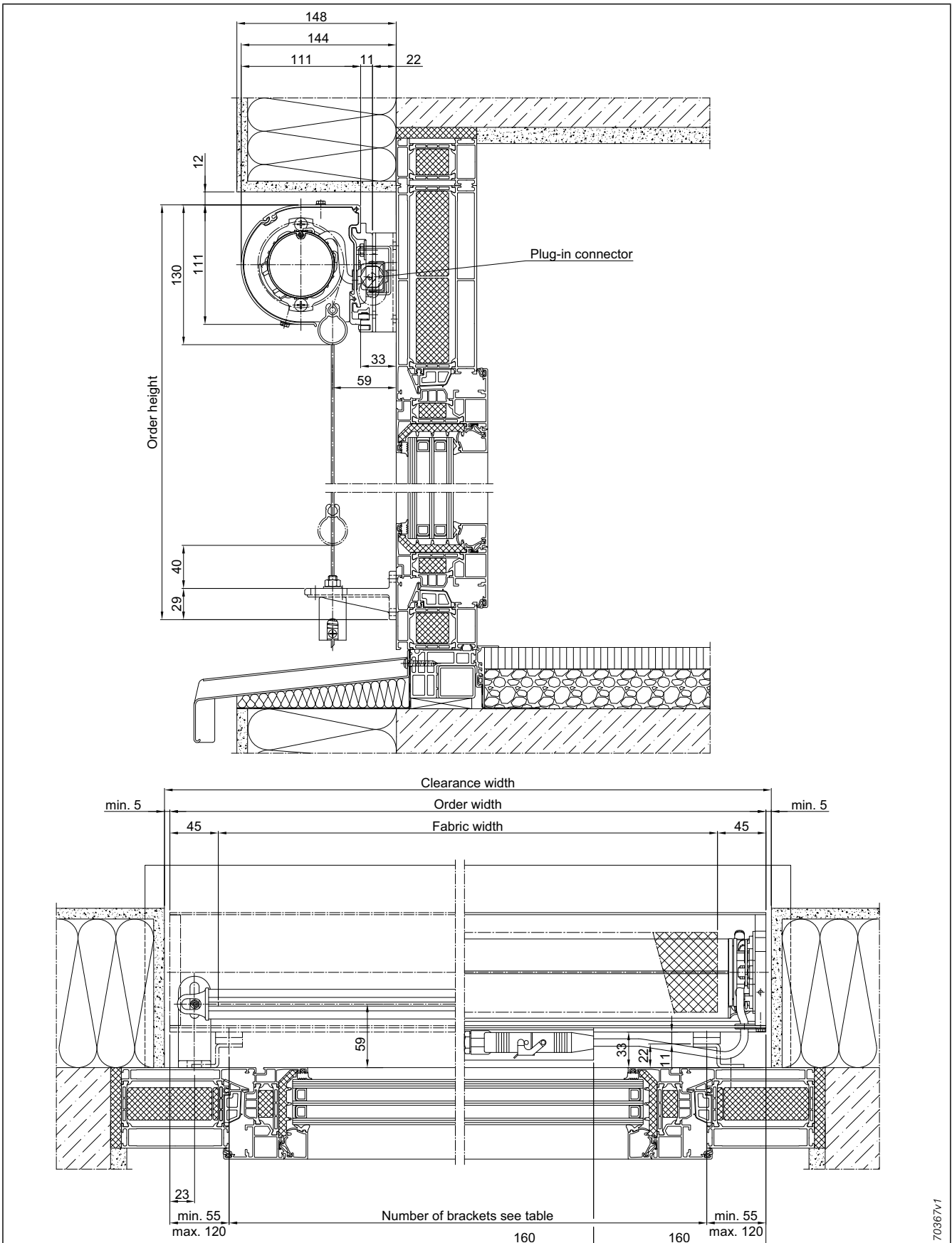


fig. 73: Vertical awning 499 – cable guidance, motor drive

**Application example**  
**Vertical awning 499**  
**Rail guidance**

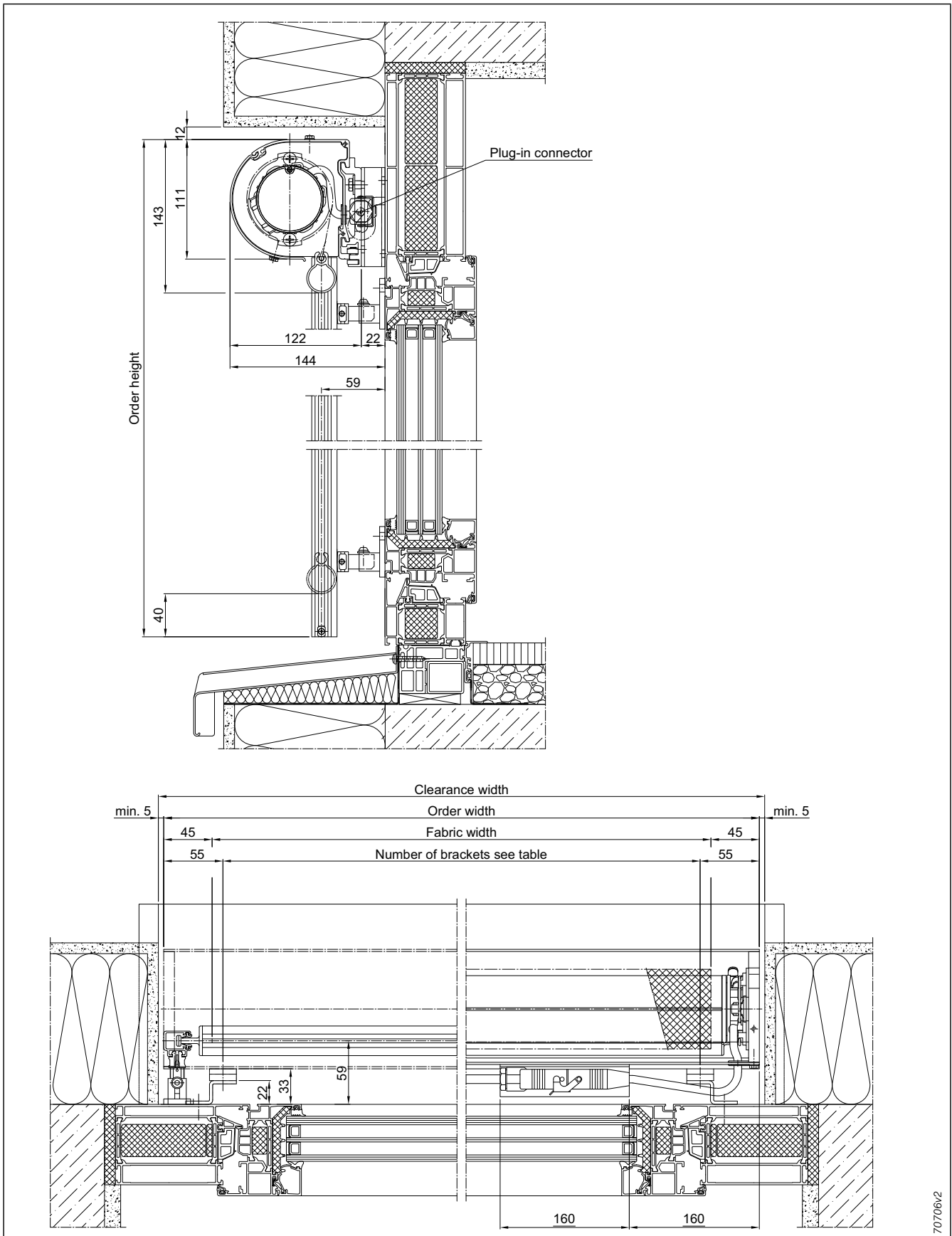


fig. 74: Vertical awning 499 – rail guidance, motor drive

# Details

## Vertical awning 499

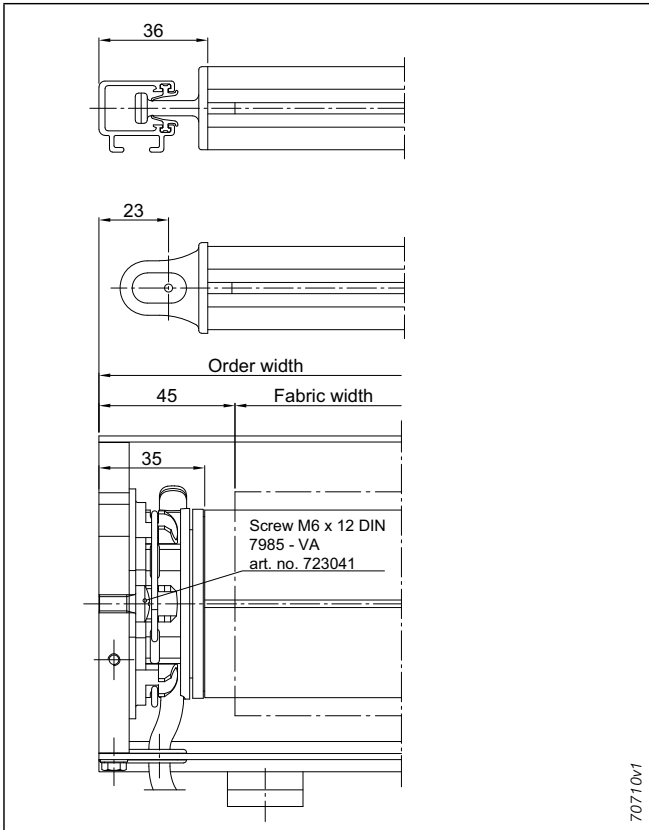


fig. 75: Motor side

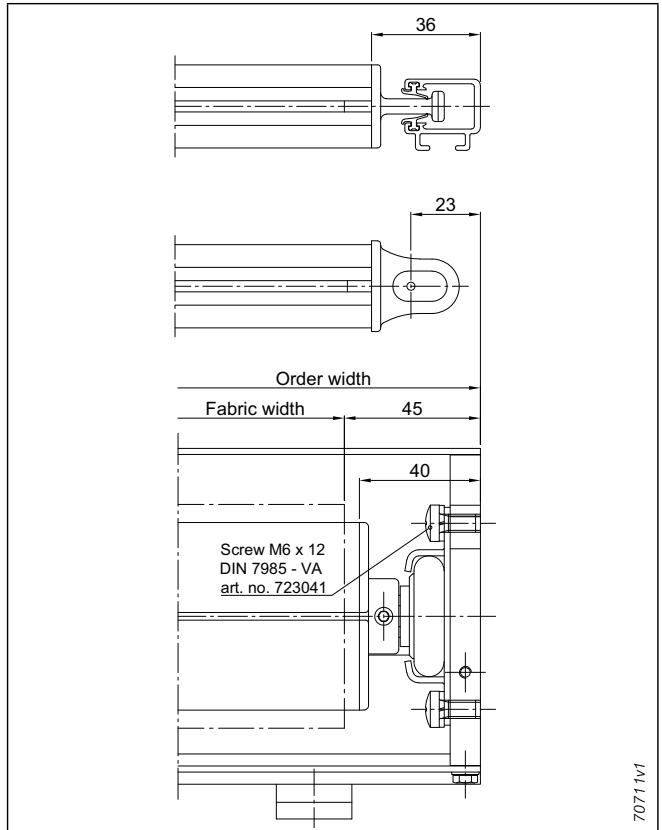


fig. 76: Bearing

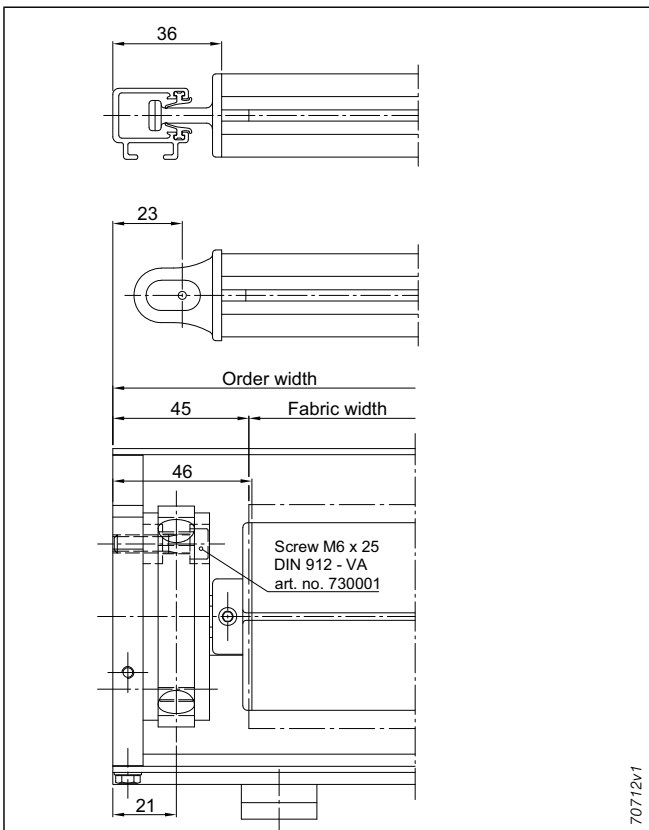


fig. 77: Gear

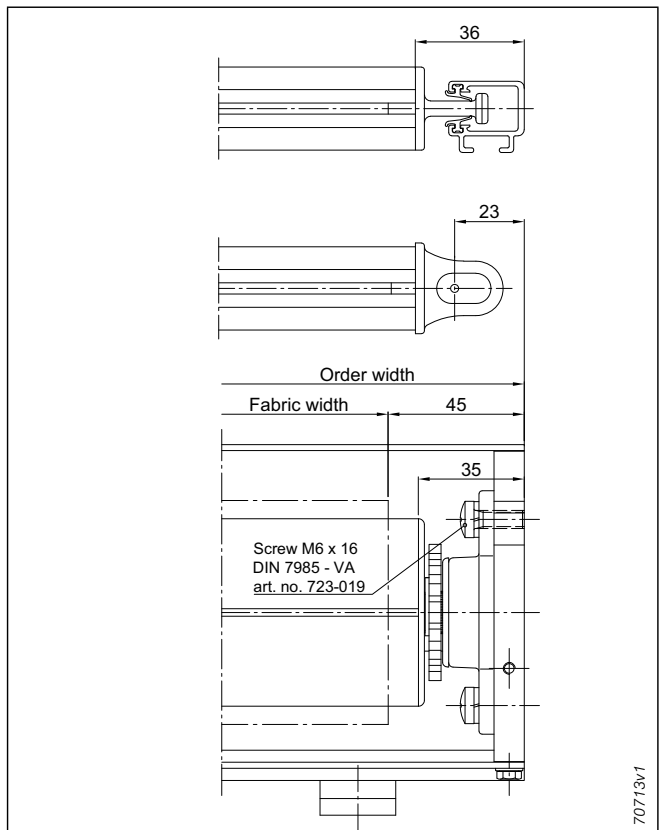


fig. 78: Spindle lock



## Details

### Vertical awning 499 with cable or rail guidance

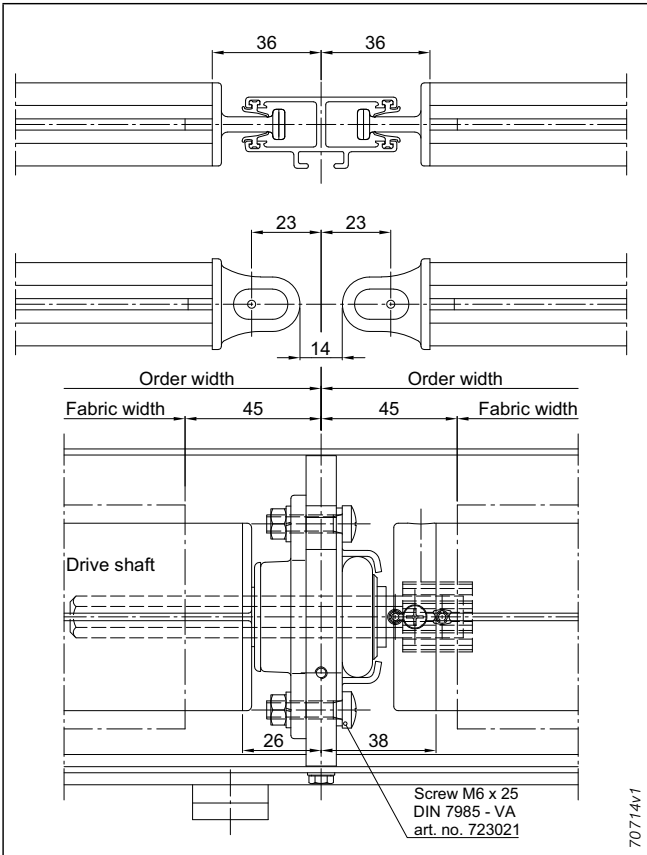


fig. 79: Possible couplings and series-mounted units for type 499: coupling, continuous cover panel

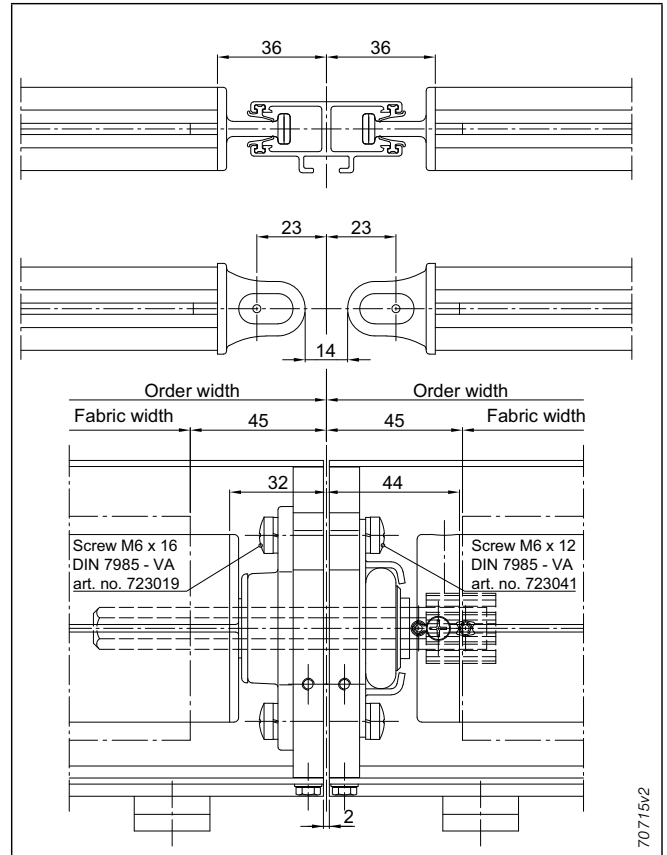


fig. 80: Possible couplings and series-mounted units for type 499: coupling, individual cover panel, standard

## Details

### Vertical awning 499 with cable or rail guidance

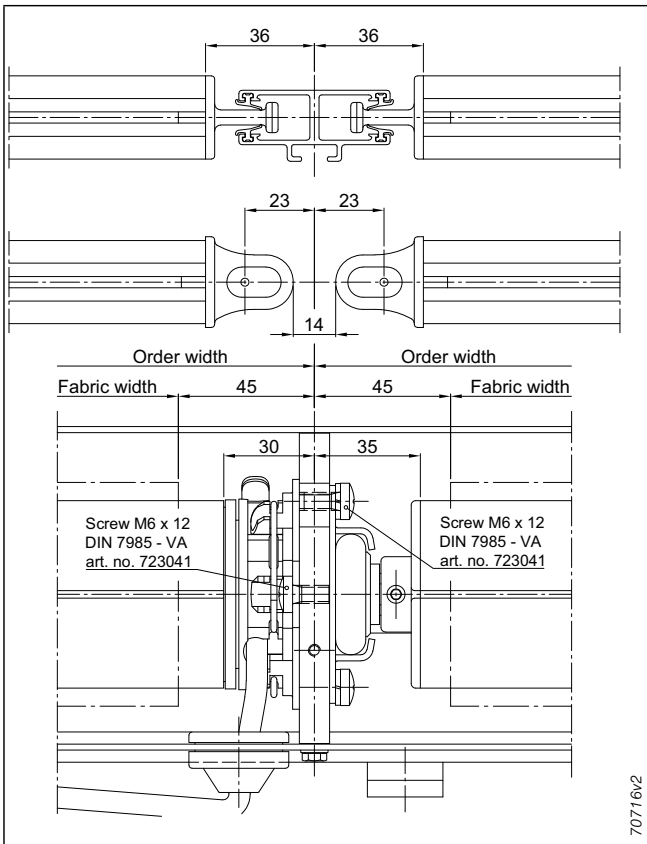


fig. 81: Possible couplings and series-mounted units for type 499: motor – bearing, middle, continuous cover panel

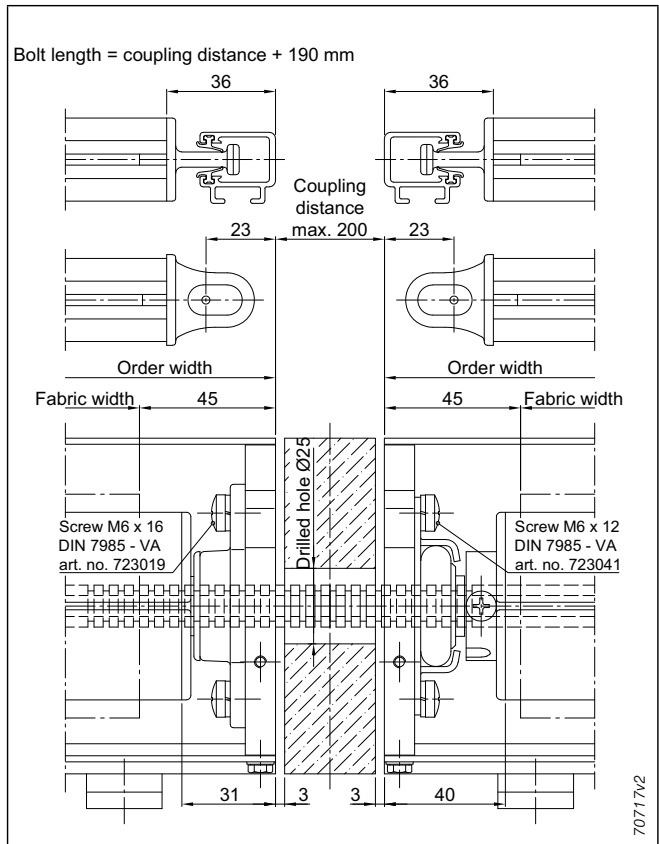


fig. 82: Possible couplings and series-mounted units for type 499: coupling with distance to individual cover panel. Attention! Max. 2 units can be coupled.

## Details

### Cover panels type 499 – type 46.3

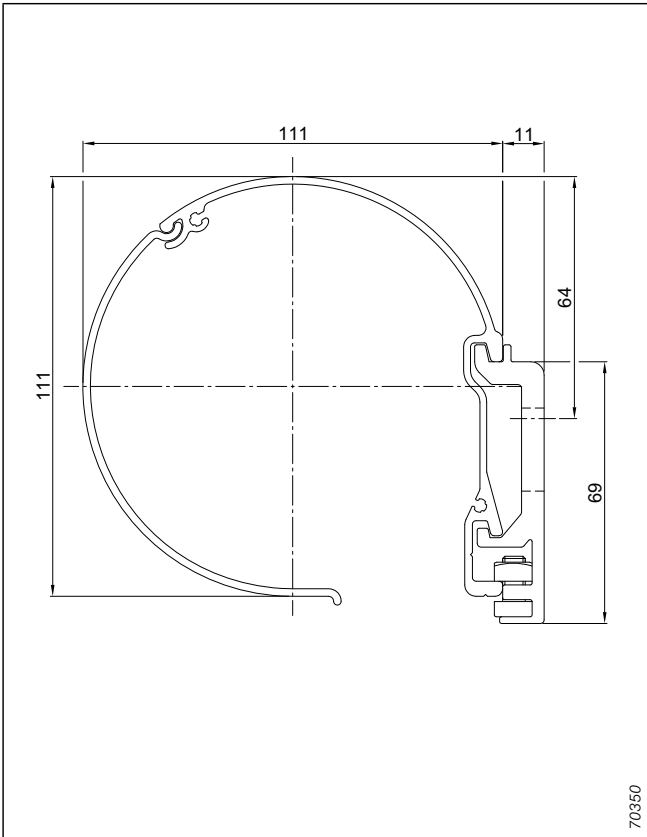


fig. 83: Wall installation type 46.3

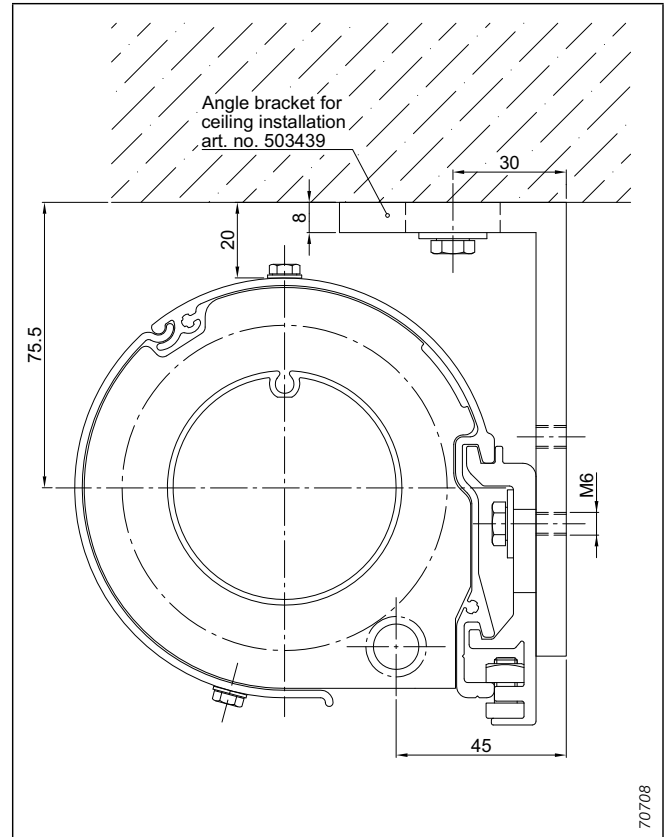


fig. 84: Ceiling installation type 46.3

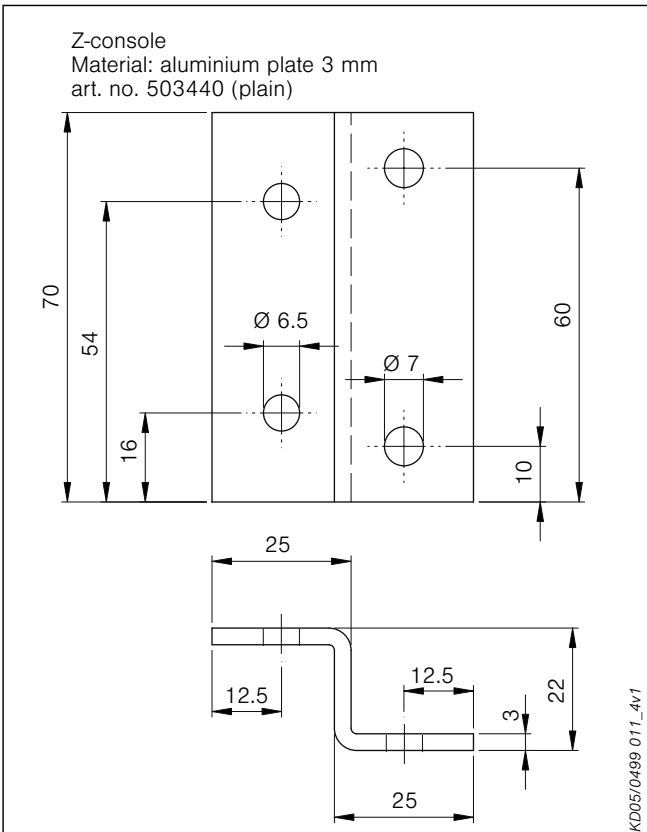


fig. 85: Z console for spacing installations with wall bracket

## Details

### Cover panels type 499 – type 48.3

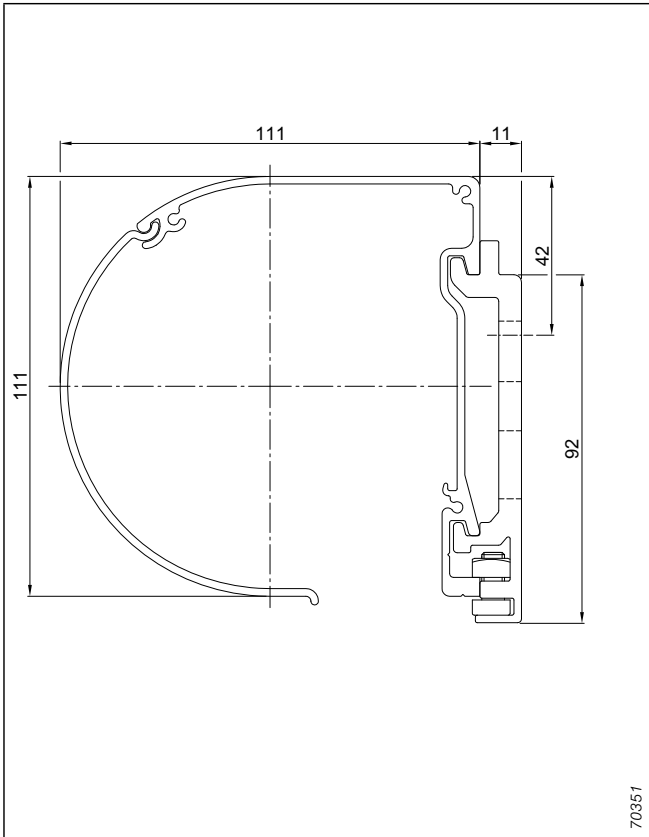


fig. 86: Wall installation type 48.3

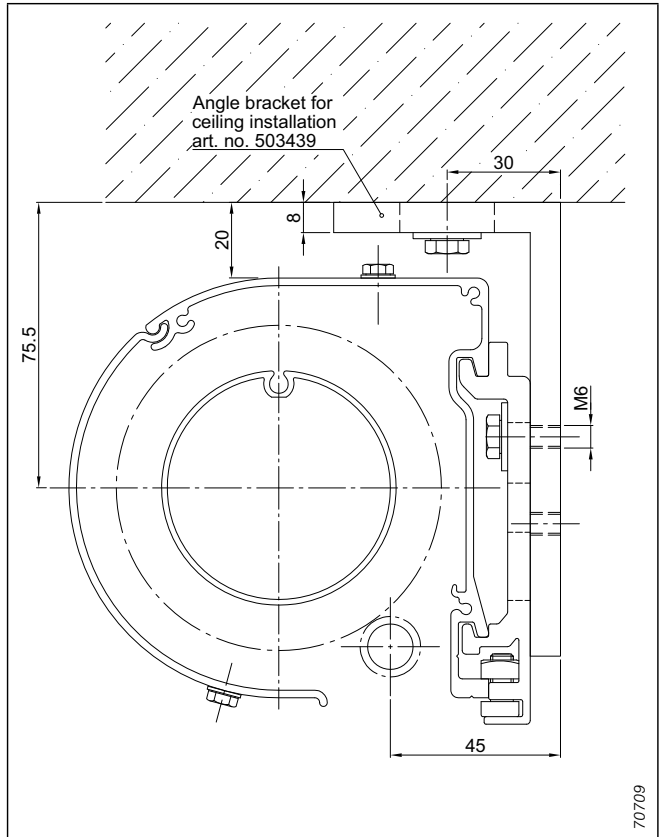


fig. 87: Ceiling installation type 48.3

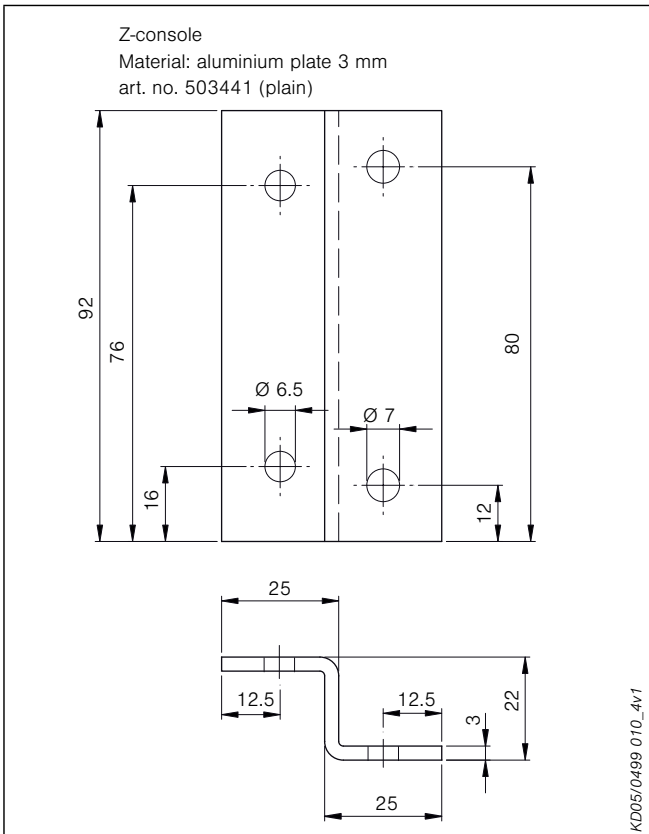


fig. 88: Z console for spacing installations with wall bracket

Guide rails and brackets

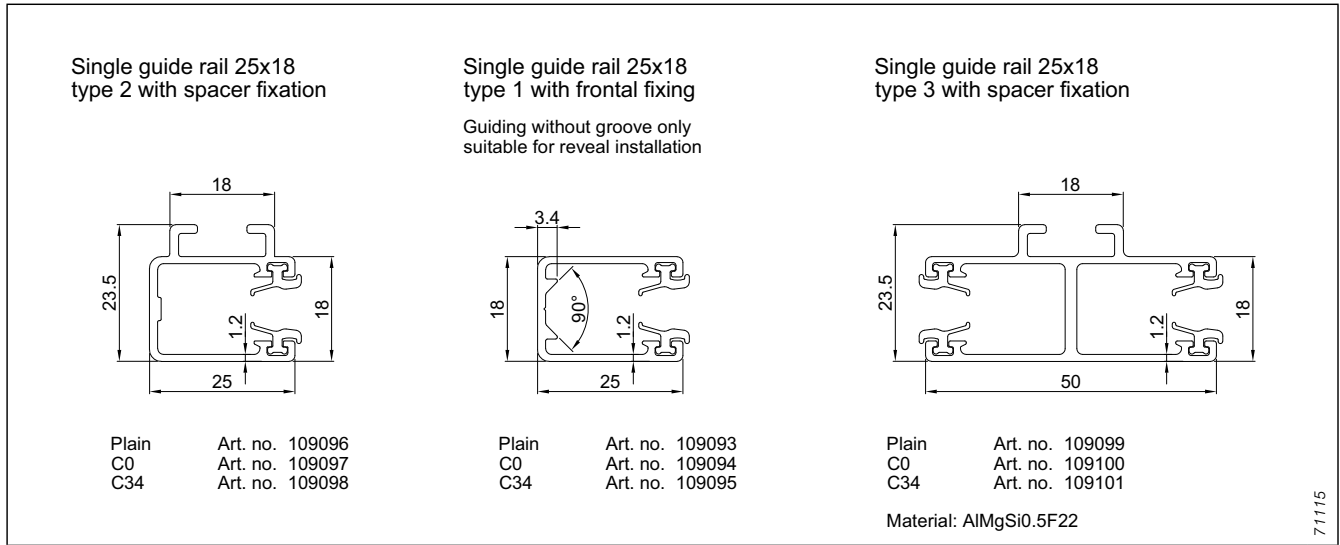


fig. 89: Guide rails

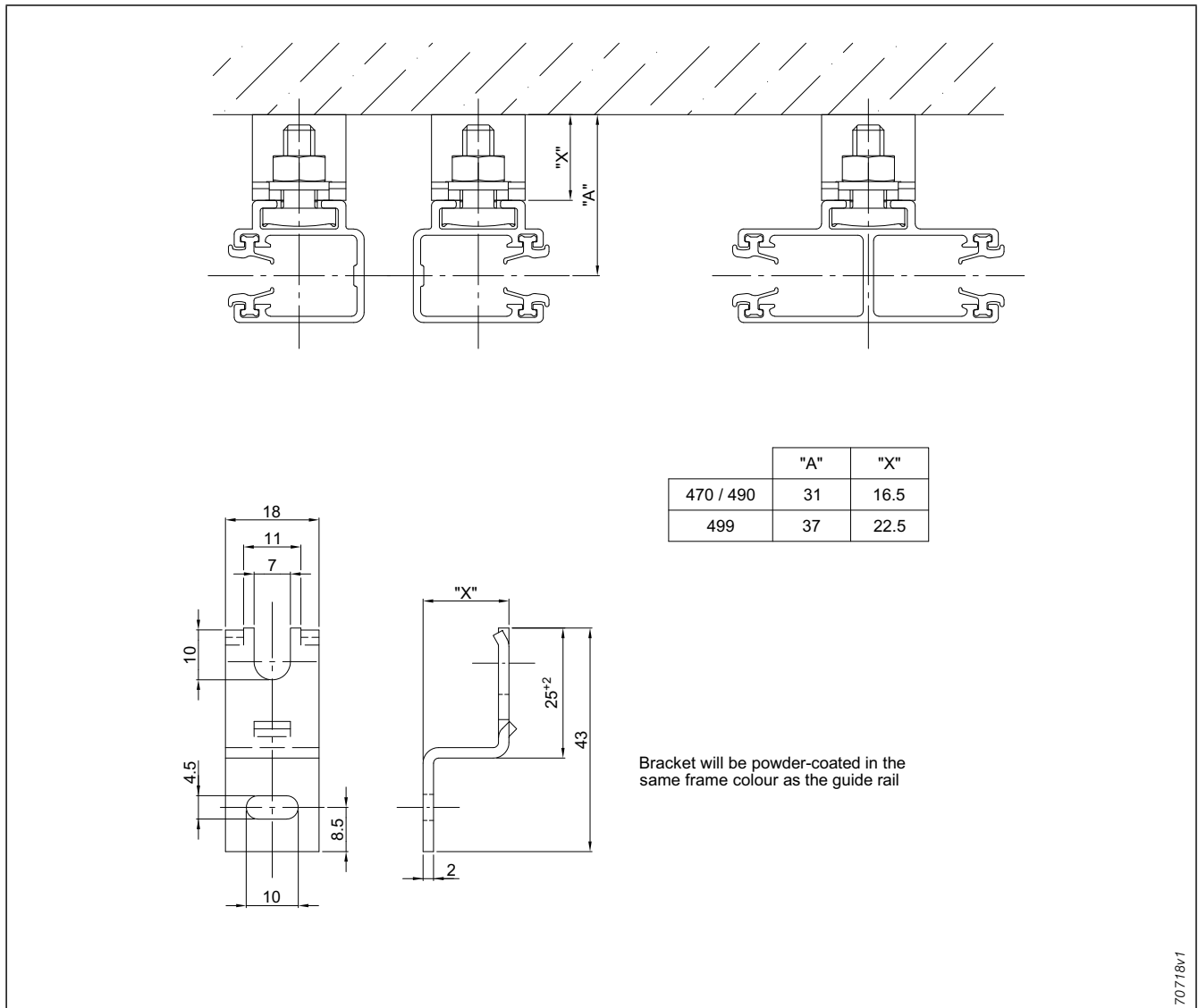


fig. 90: Guide rail brackets

## Details

### Adjustable guide rail bracket H1

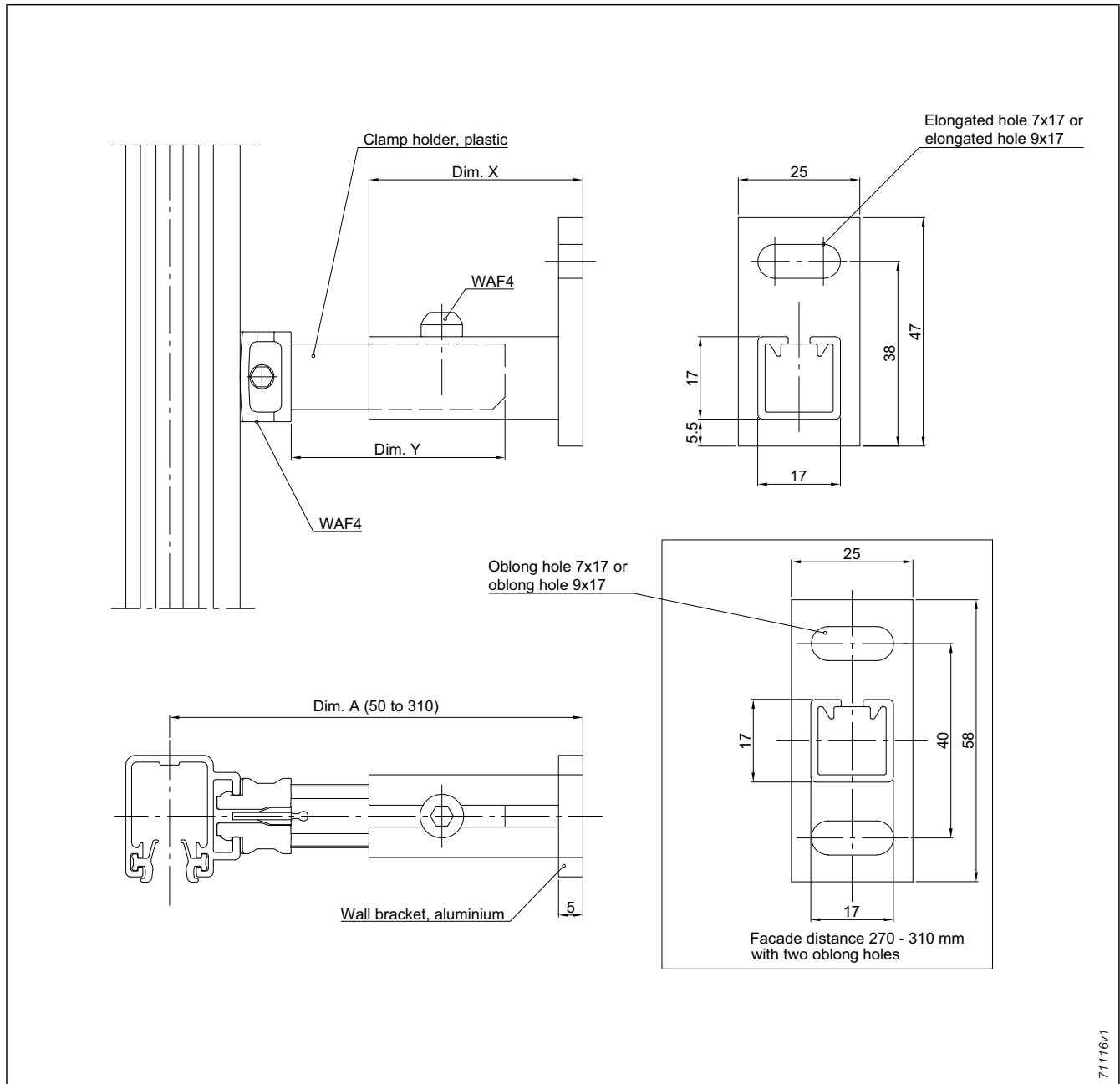


fig. 91: Adjustable guide rail bracket, right rolling blind

Dimension "A"	Wall bracket, aluminium, LL 7x17			Wall bracket, aluminium, LL 9x17		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

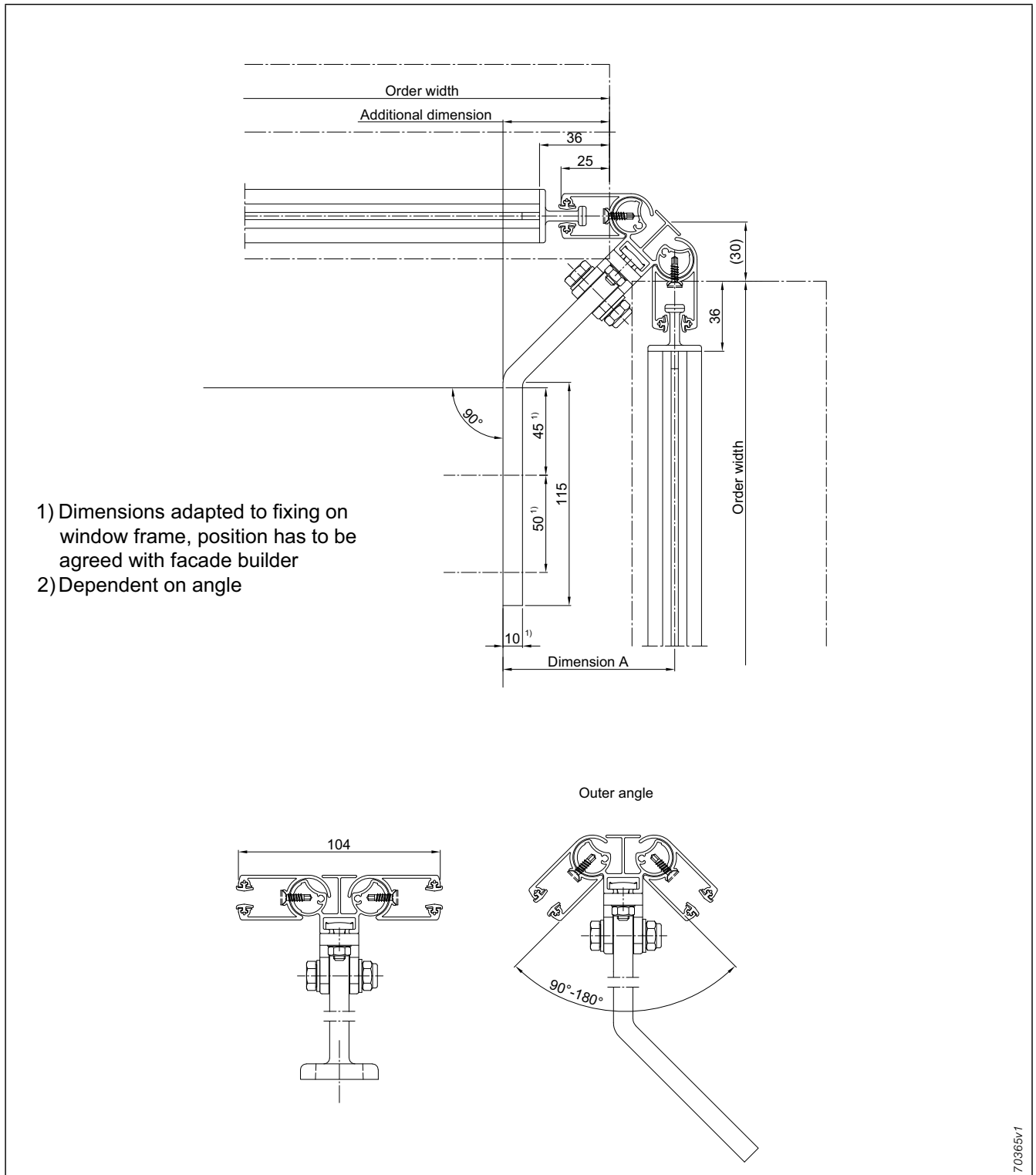


fig. 92: Angle-adjustable corner guide rail for corner positions and polygon facades

#### 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

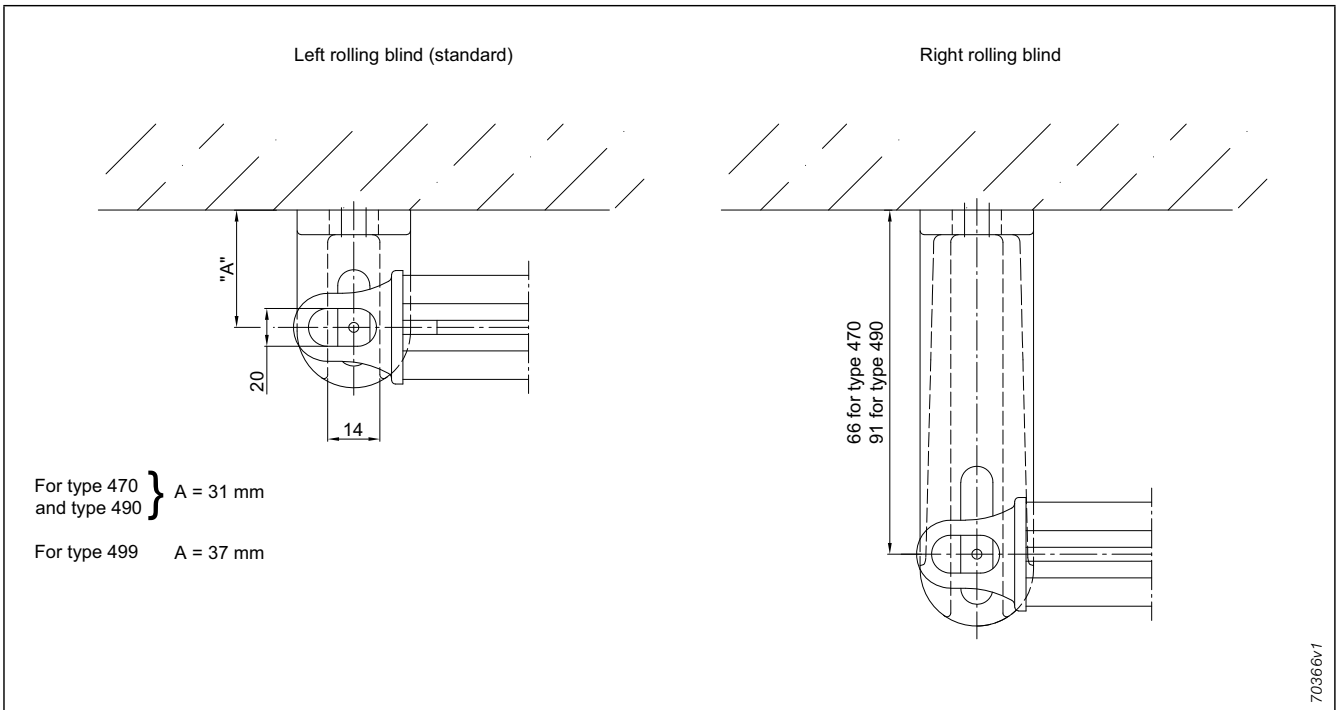


fig. 93: Tension cable bracket

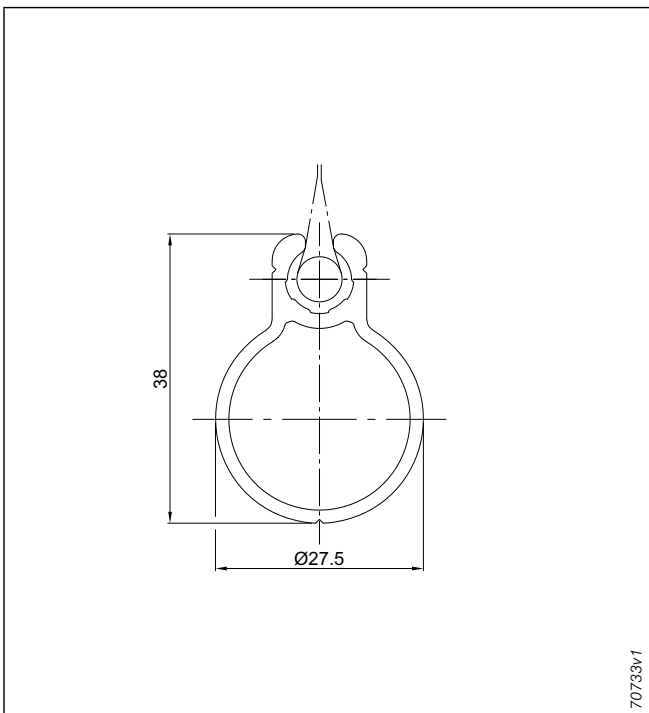


fig. 94: Drop profile Ø27.5 mm with groove (standard)

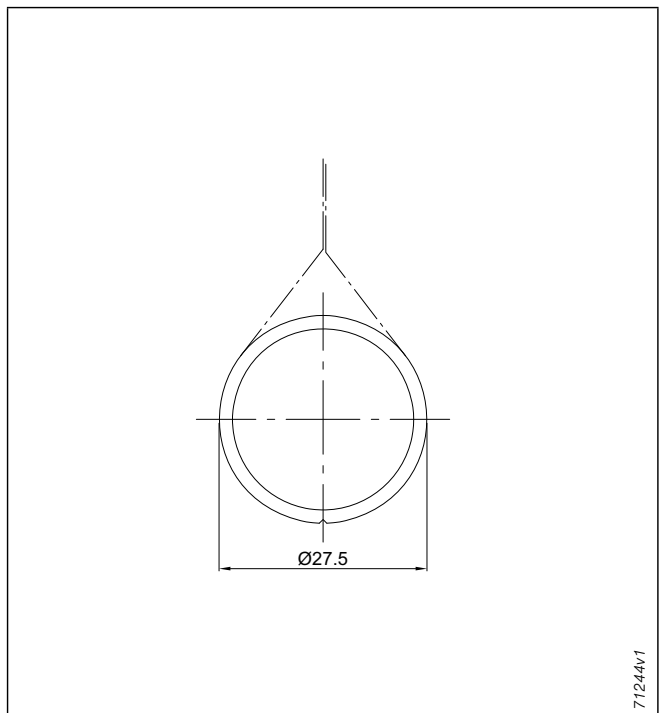
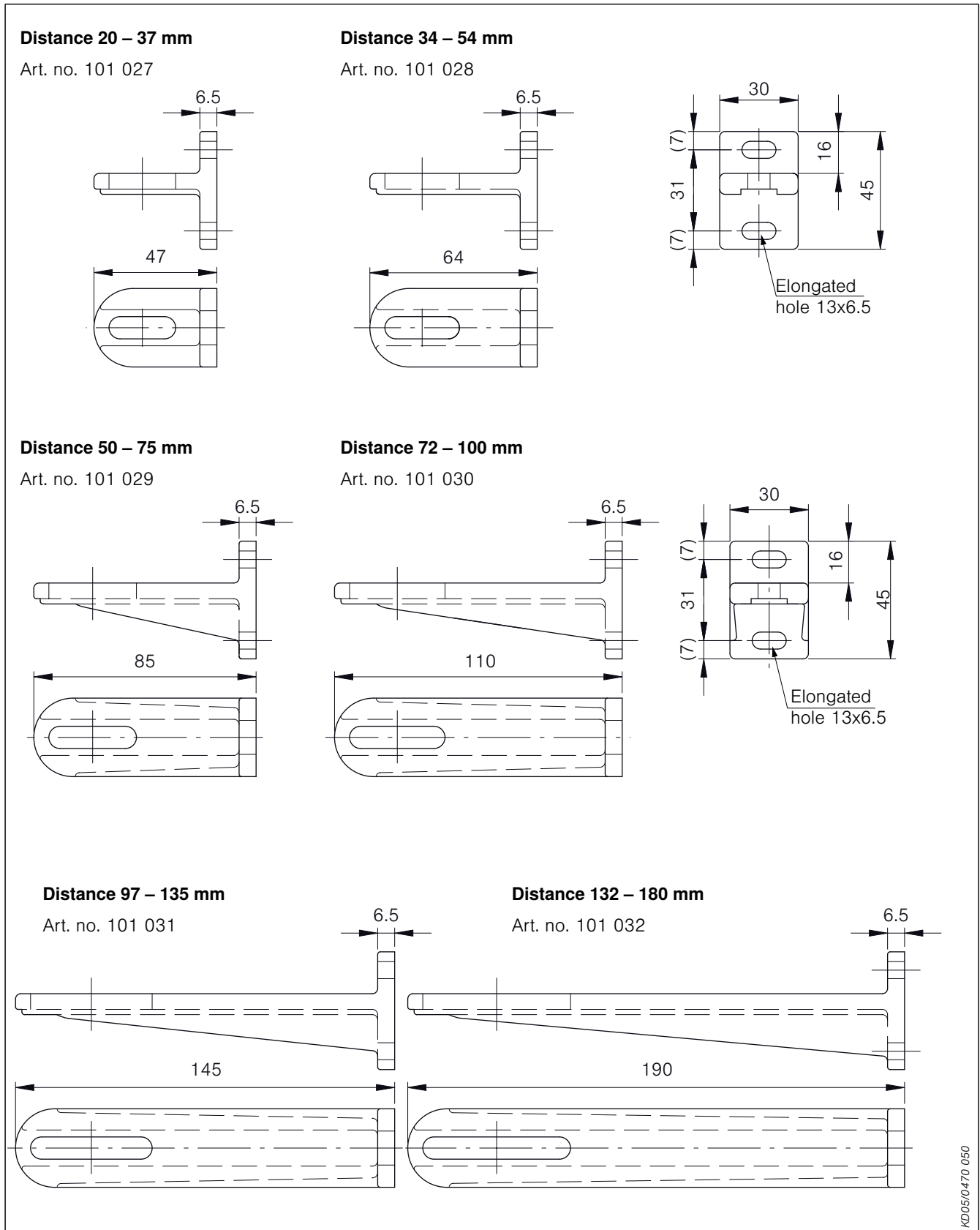


fig. 95: Drop profile Ø27.5 mm without groove (optional)



**Tension cable bracket S01**



KD05/0470 050

fig. 96: Overview of tension cable brackets

## Details

### Cable guidance – special tension cable bracket

#### Tension cable bracket with cross plate, material: aluminium

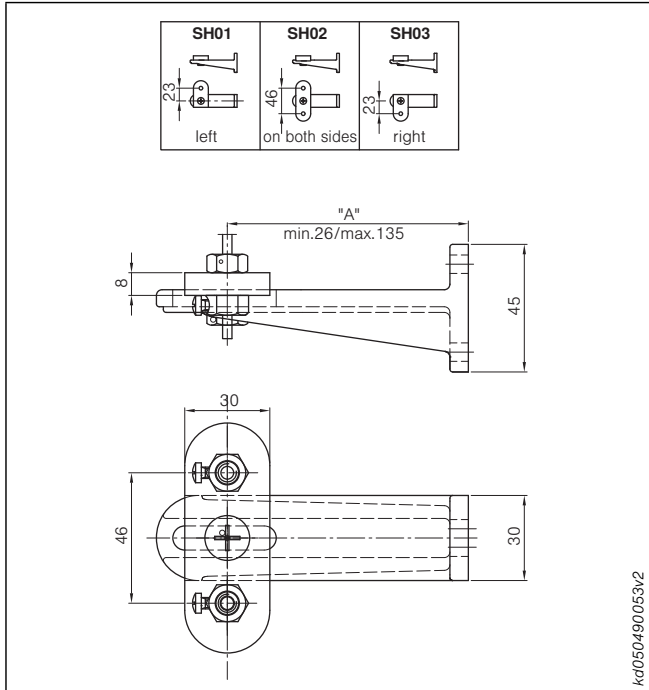


fig. 97: Tension cable bracket SH01, SH02 and SH03 with cross plate

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

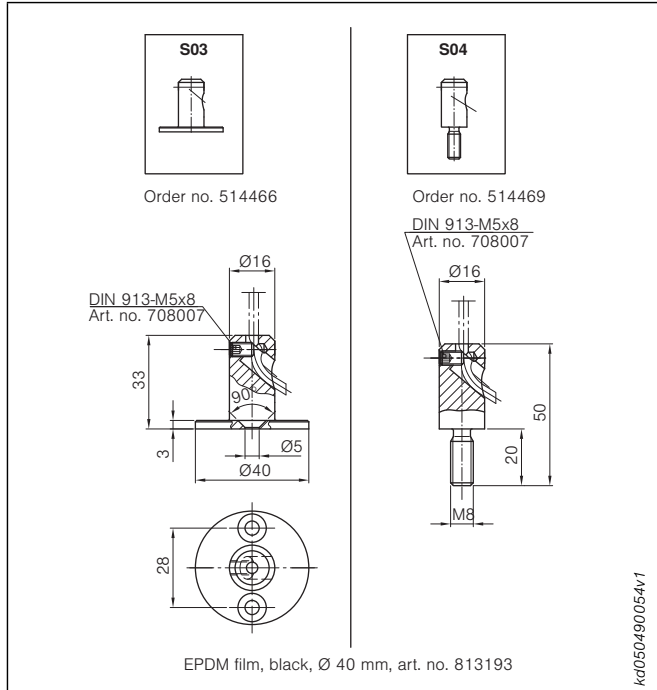
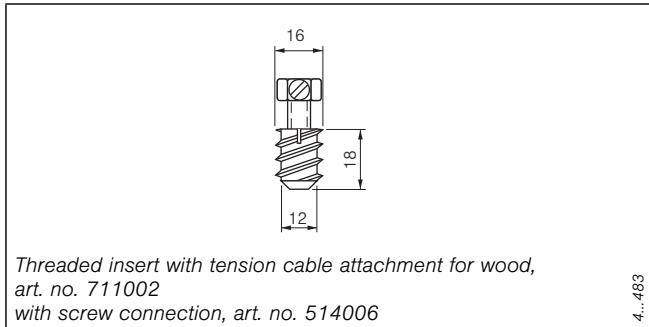


fig. 98: Tension cable bracket S03 and S04 for floor and window sill mounting

#### Threaded insert with tension cable attachment for wood



Threaded insert with tension cable attachment for wood, art. no. 711002 with screw connection, art. no. 514006

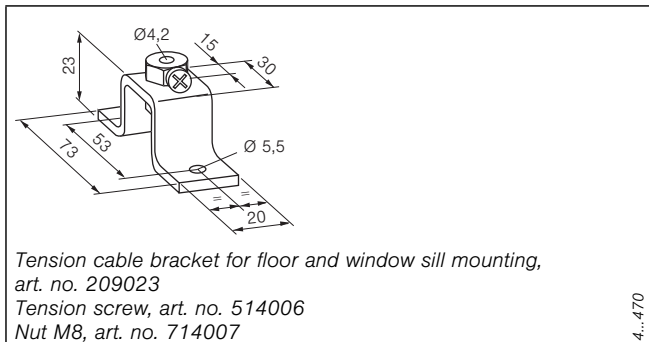
fig. 99: Threaded insert with tension cable attachment for wood

#### 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!

#### Tension bracket S02, for floor and window sill mounting, material: aluminium



Tension cable bracket for floor and window sill mounting, art. no. 209023  
Tension screw, art. no. 514006  
Nut M8, art. no. 714007

fig. 100: Tension bracket S02 curved, for floor and window sill mounting

# Details

## Joint plates

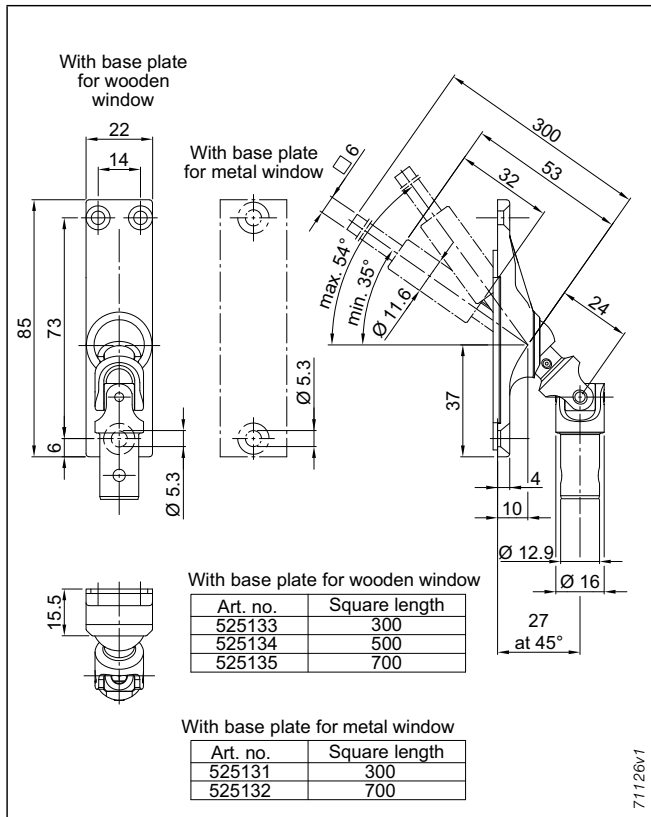


fig. 101: Joint plate 35°-54° for crank drive with thermal barrier

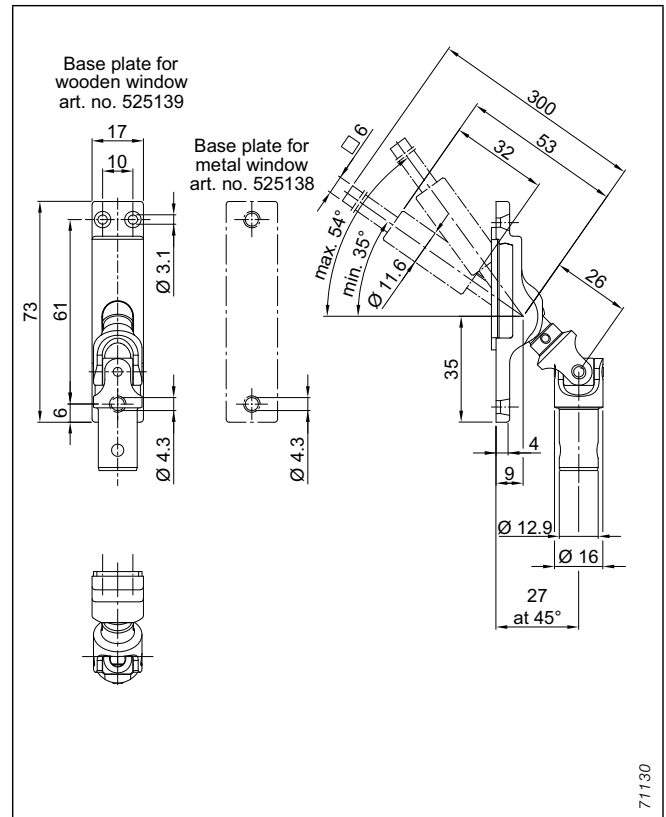


fig. 102: Joint plate 35°-54° for crank drive with thermal barrier

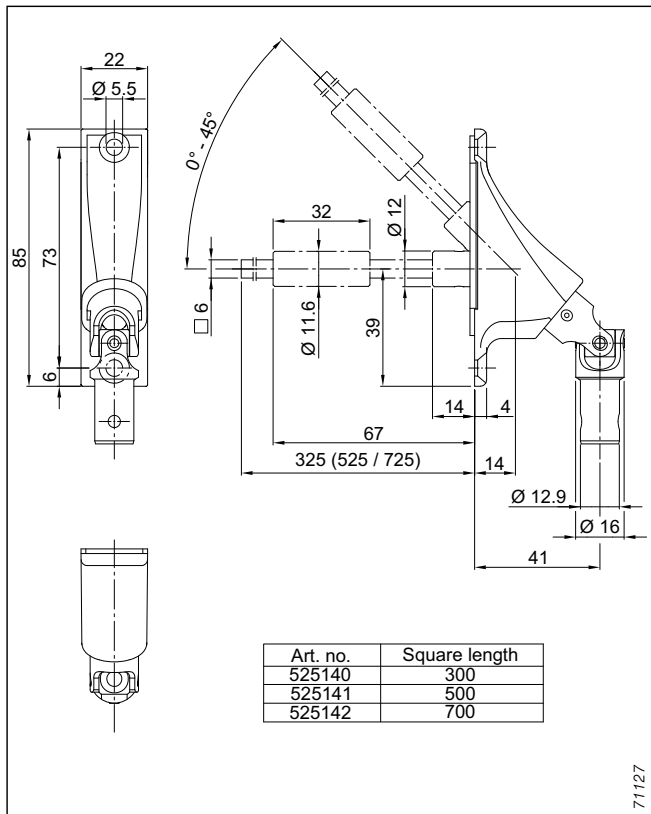


fig. 103: Joint plate 0°-45° for crank drive with thermal barrier

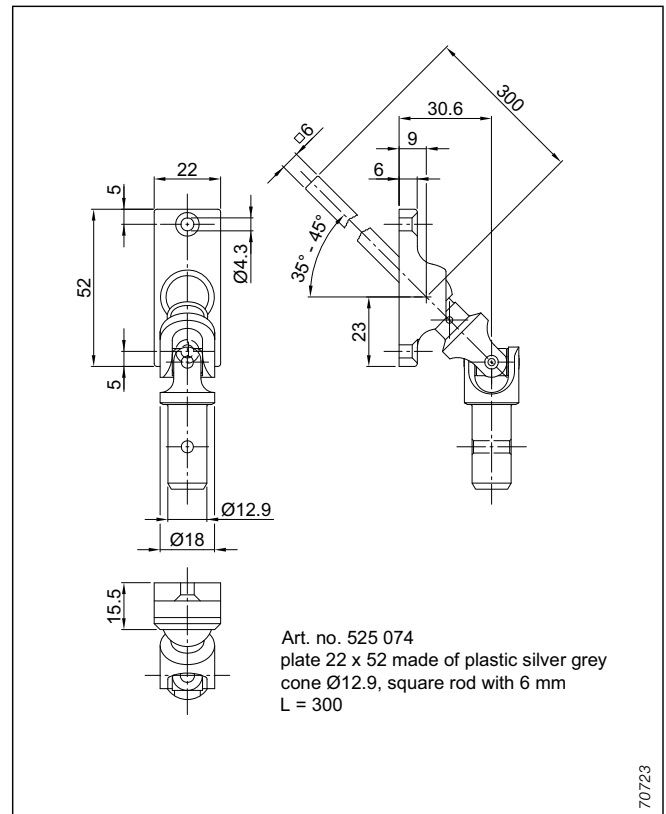


fig. 104: Joint plate 35°-45° for external crank drive

## Notes

## Description

### Vertical awning 450

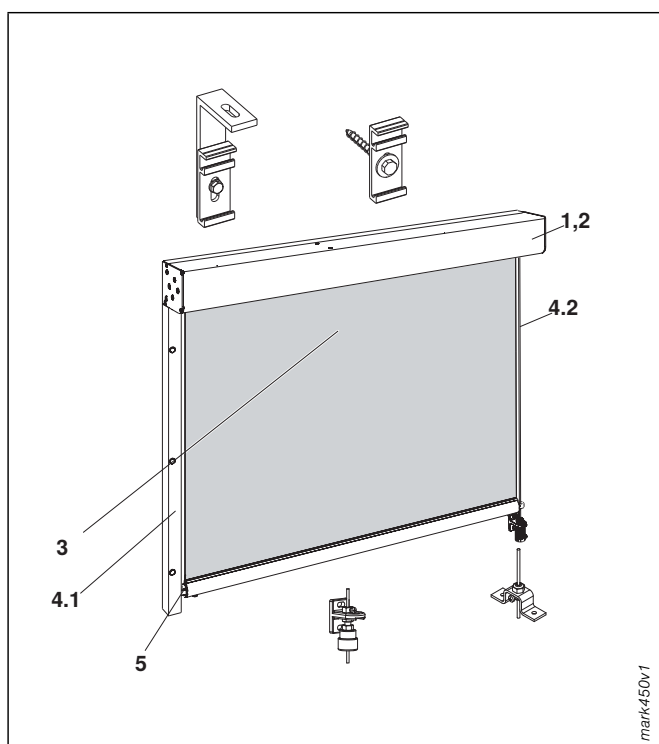


fig. 105: Vertical awning 450

- 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 installation in the reveal (sheltered from the wind).

### 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 coupling (motor line 0.4 m)

More information about drives from page 218.

#### 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  $\pm 20$  mm (coupling play).

### Cover panels (1)

Closed on 3 sides

Material: aluminium, extruded  
 Material thickness: 1.6 mm  
 Dimensions (H × D): 80 × 93 mm or 100 × 114 mm  
 Surface: powder-coated, C0 anodising optional  
 Fixing: tension cable: to wall or ceiling using consoles  
 Rails: using push-on aluminium consoles

Side covers: diecast aluminium, powder-coated  
 Can only be coupled with continuous cover panels.

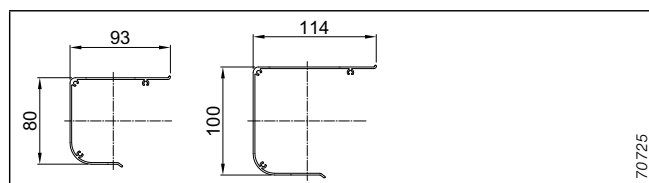


fig. 106: Cover panels

### 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 installation

With piping groove for fixing the fabric.

### Fabric (3)

Fabric qualities: Standard/Lumera acrylic  
 Perfora/All Weather acrylic  
 Soltis-92  
 Screen  
 Twilight Pearl/Metal  
 WAREMA SecuTex fabric A2  
 More information about the fabrics on page 214

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 (W×D): 30×38 mm, 46×38 mm or 30×16 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 cord

Material: steel, resistant to corrosion

Coating: polyamide

Colour: black

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

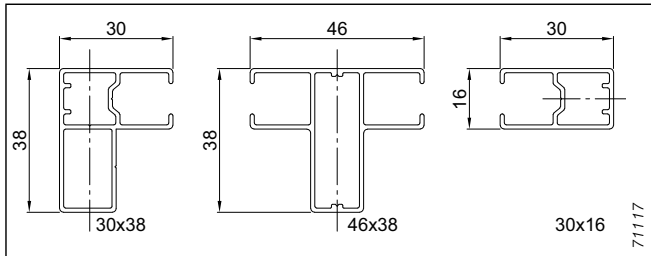


fig. 107: Guide rails

### Drop profile (5)

Material: aluminium, extruded

Material thickness: 1.5 mm

Dimensions (Ø): 27.5 mm

Profile: round profile, mounting groove optional

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

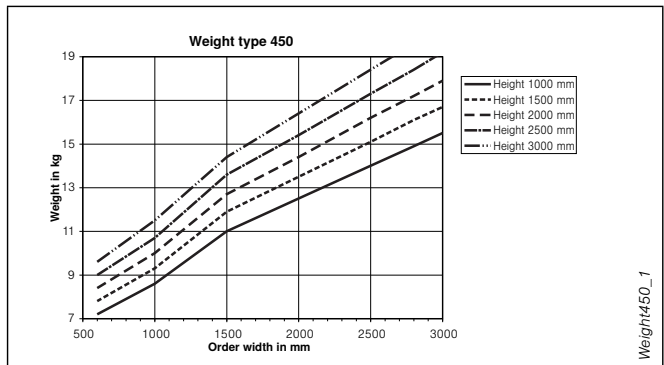


fig. 108: Weight type 450

### 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, four anodised-look colours (WC31 – WC34) and further colours according to the 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 installation.

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

## Construction limit values

### Vertical awning 450

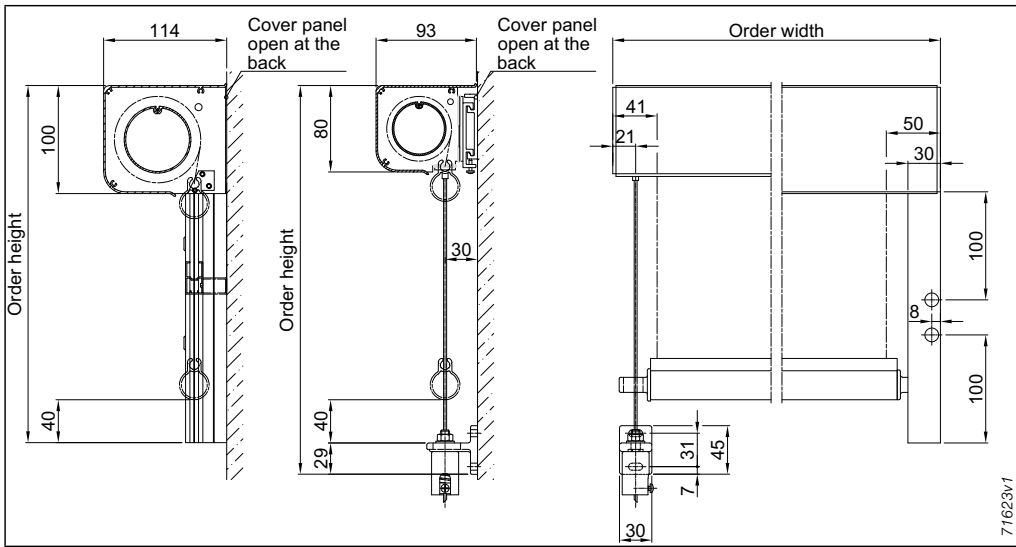


fig. 109: Measuring instructions for vertical awning 450

Use our free planning program at [www.sunshadingplanner.com](http://www.sunshadingplanner.com) to plan your sun shading systems – here you can configure the product and create a technical drawing to be integrated into your plans.

#### 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.

## Construction limit values

### Vertical awning 450

#### 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 <sup>1)</sup>	Crank	Motor <sup>1)</sup>	Crank	Motor <sup>1)</sup>	Crank	Motor <sup>1)</sup>
Min. width <sup>2)</sup> (mm)		500	600	500	630	500	600 <sup>3)</sup>	500	630 <sup>3)</sup>
Max. width (mm)	Acrylic – all qualities –	2400	2800	2400	2800	4000	5000	4000	5600
	Screen	2400	2500	2400	2500	4000	5000	4000	5000
	Soltis-92	2400	2800	2400	2800	4000	5000	4000	5600
	Twilight Pearl/ Metal	2400	2500	2400	2500	4000	5000	4000	5000
	WAREMA Secu- Tex fabric A2	2400	2800	2400	2800	4000	5000	4000	5600
Max. height (mm)	Acrylic – all qualities – <sup>4)</sup>	1800	1600	2700	2700	1800	1600	2700	2700
	Screen	2800	2500	3000	3000	2800	2500	3000	3000
	Soltis-92	3000	3000	3000	3000	3000	3000	3000	3000
	Twilight Pearl/ Metal	2800	2500	3000	3000	2800	2500	3000	3000
	WAREMA Secu- Tex fabric A2	2700	2700	2700	2700	2700	2700	2700	2700
Max. area <sup>5)</sup> (m <sup>2</sup> )	Acrylic – all qualities –	4.3	4.5	6.5	7.6	7.2	8.0	10.8	15.1
	Screen	6.7	6.3	7.2	7.5	11.2	12.5	12.0	15.0
	Soltis-92	7.2	8.4	7.2	8.4	12.0	15.0	12.0	16.8
	Twilight Pearl/ Metal	6.7	6.3	7.2	7.5	11.2	12.5	12.0	15.0
	WAREMA Secu- Tex fabric A2	6.5	7.6	6.5	7.6	10.8	13.5	10.8	15.1

<sup>1)</sup> Radio motors **not** available. Alternative: plug receiver

<sup>2)</sup> Smaller widths are possible after consultation with the Applied Engineering department!

<sup>3)</sup> for unit with motor

<sup>4)</sup> Glued fabric connection optional for Standard and Perfora qualities. Max. height reduced by 200 mm.

<sup>5)</sup> The specified maximum areas depend on the "width-to-height ratio" and may not exceed 1 to 3 (see also page 18).



## Details

### Vertical awning 450

### Wall/ceiling brackets, guide rail brackets

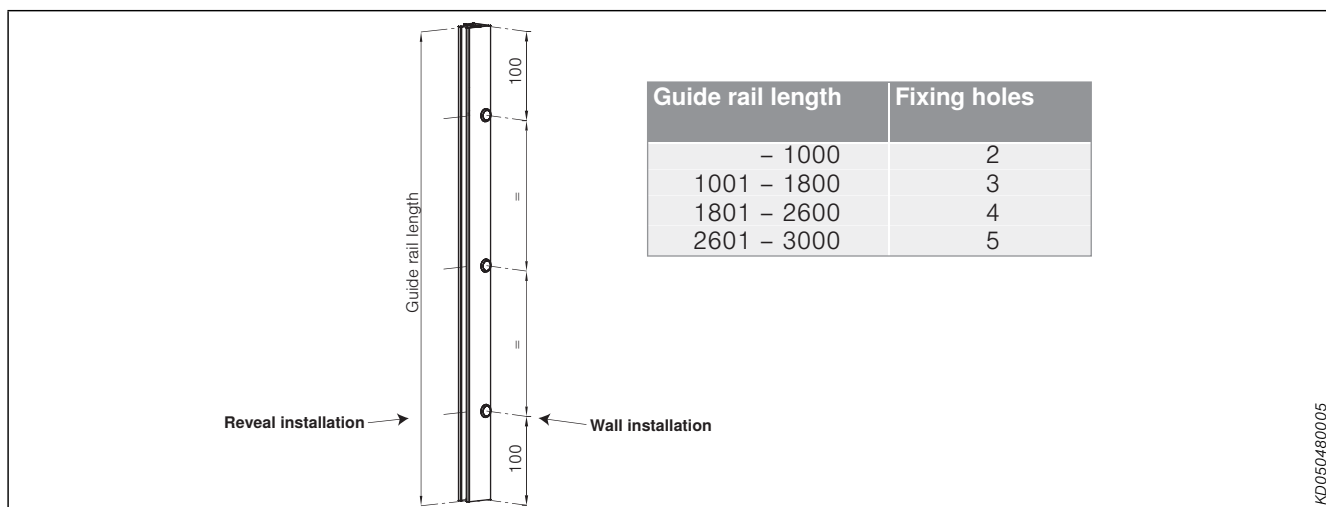


fig. 110: No. of guide rail drilled holes

### Fixing template for guide rails (reveal and wall installation)

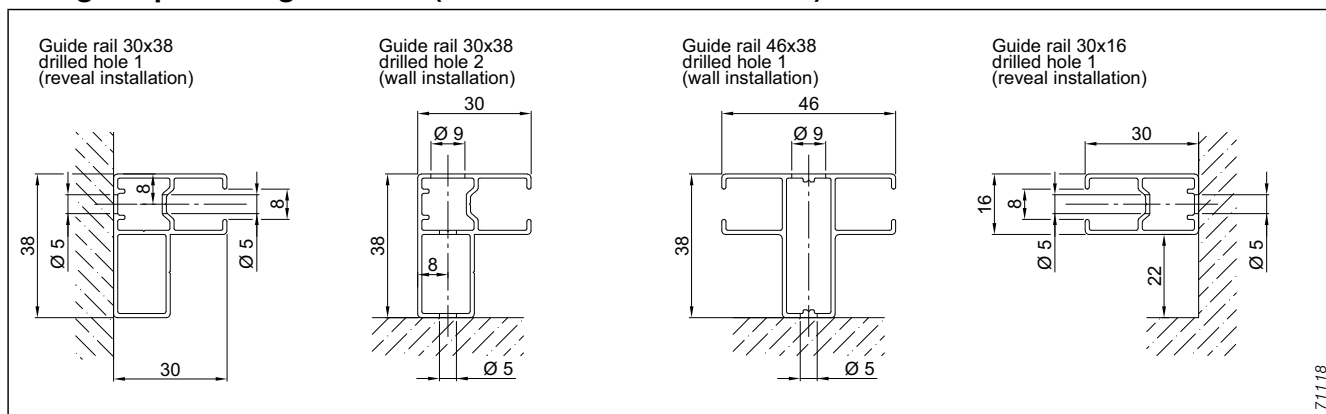


fig. 111: Guide rail drilled holes

#### 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

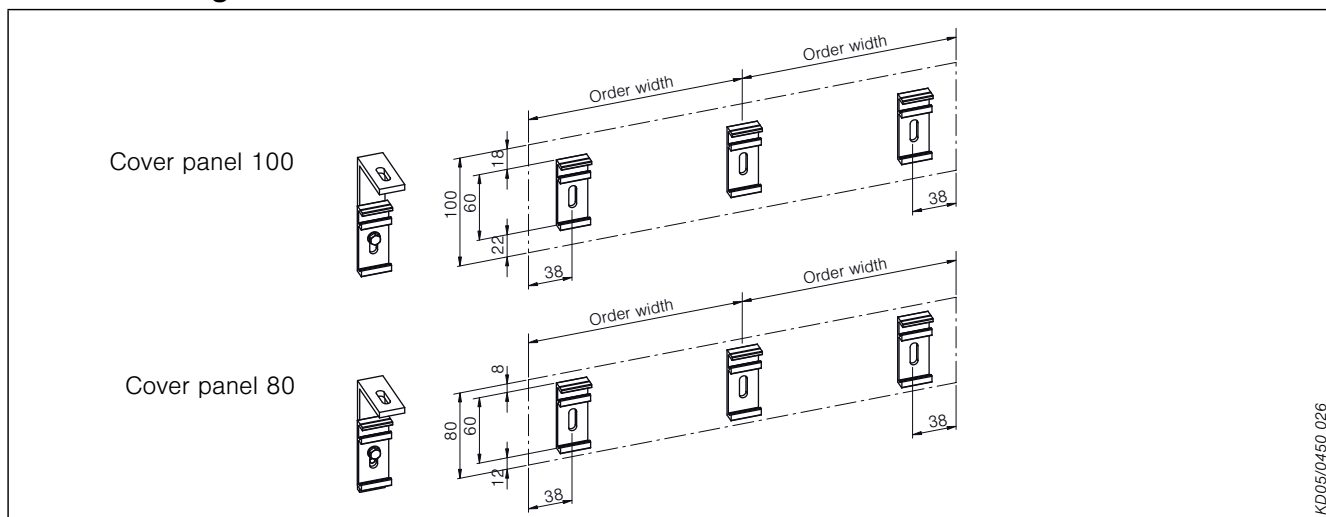
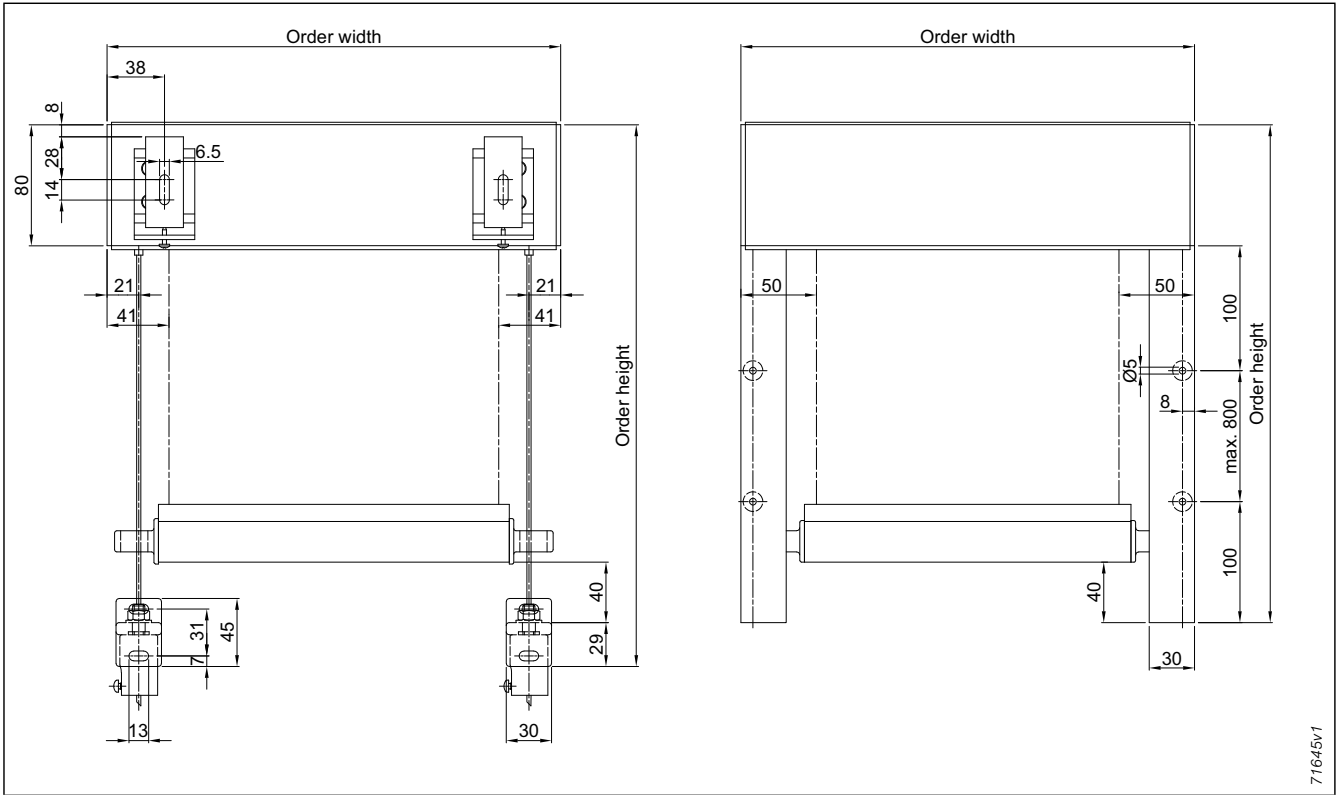


fig. 112: Wall and ceiling brackets

**Application example**  
**Vertical awning 450**  
**Cover panel fixing**

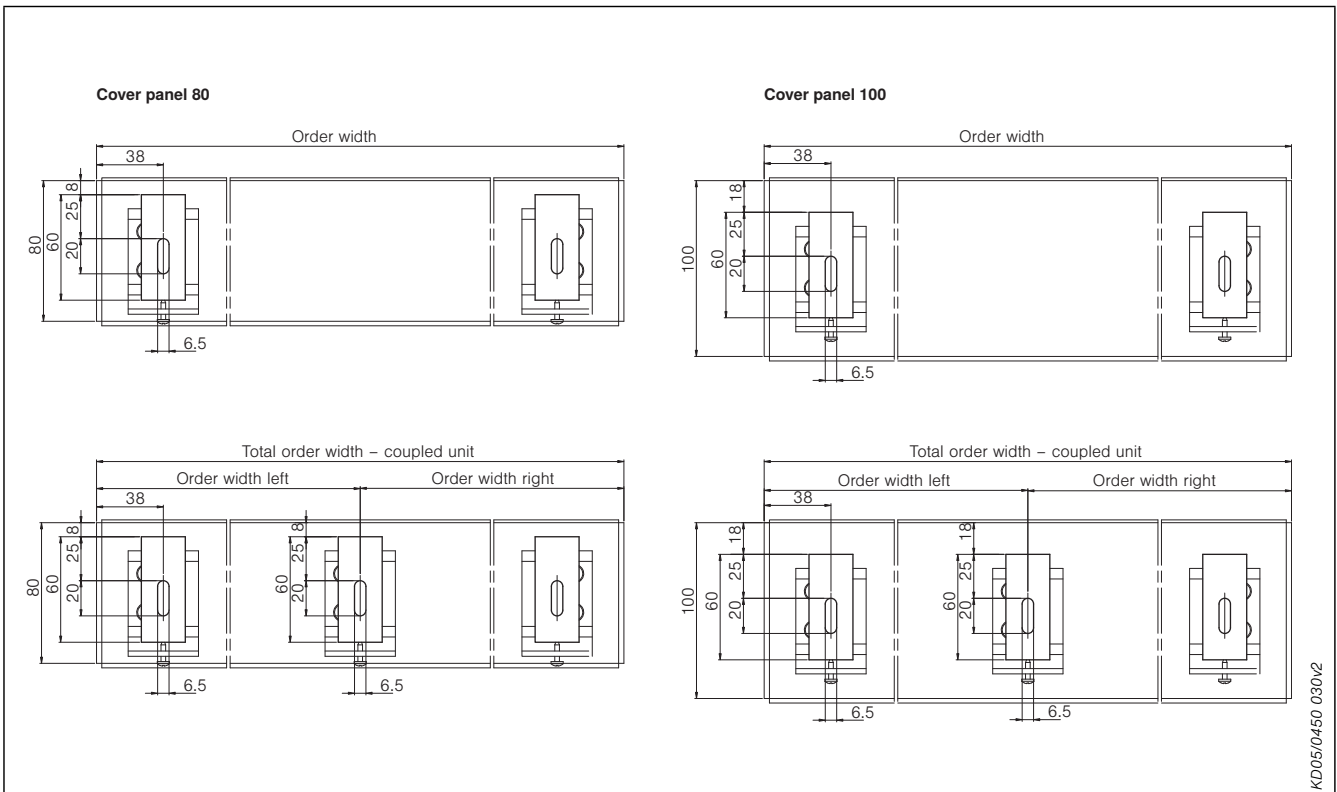
**Dimension diagram**



71645v1

fig. 113: Dimension diagram

**Cover panel mounting**



KD05/0450 030v2

fig. 114: Cover panel mounting

# Application example

## Vertical awning 450

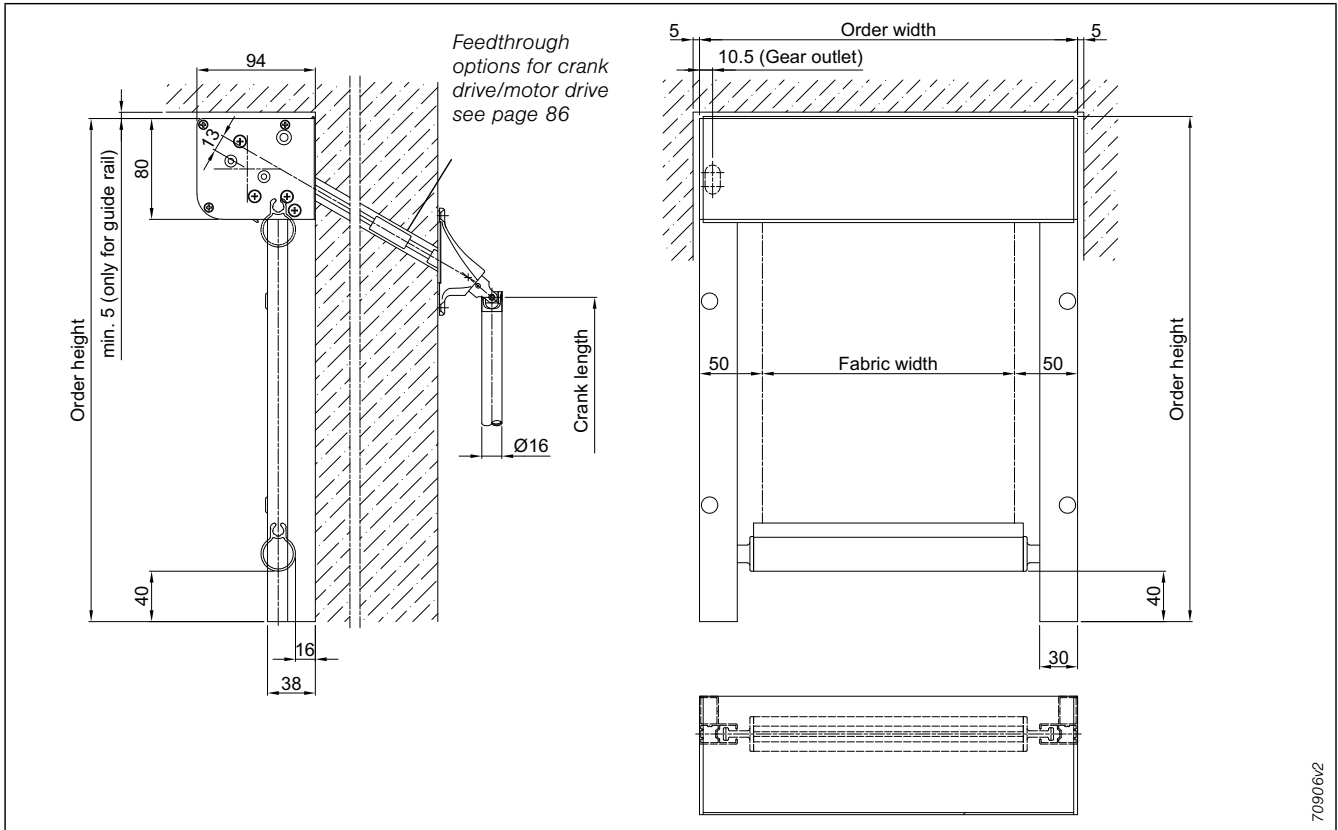


fig. 115: Dimension diagram

## Cover panel 80 – mounting situations

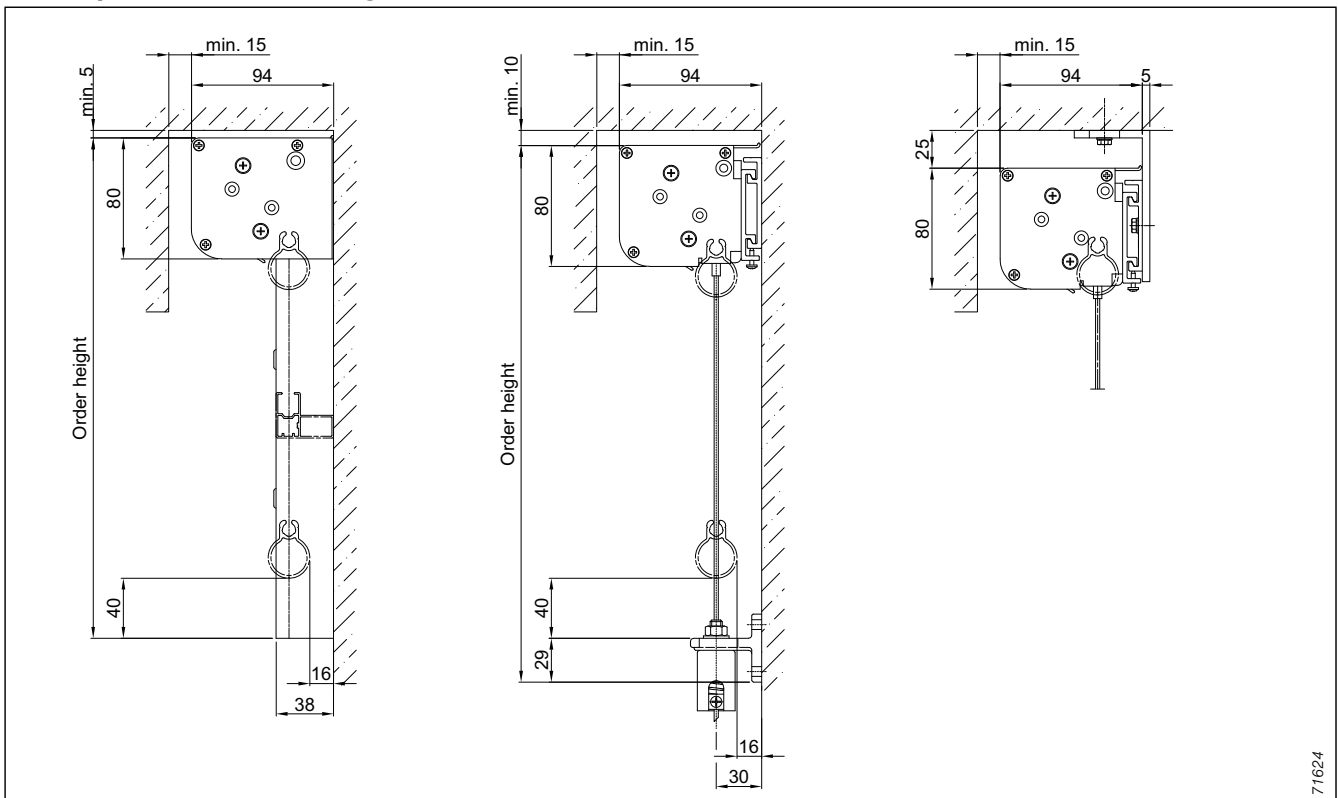


fig. 116: Cover panel 80 – mounting situations

# Application example

## Vertical awning 450

### Cover panel 100 – mounting situations

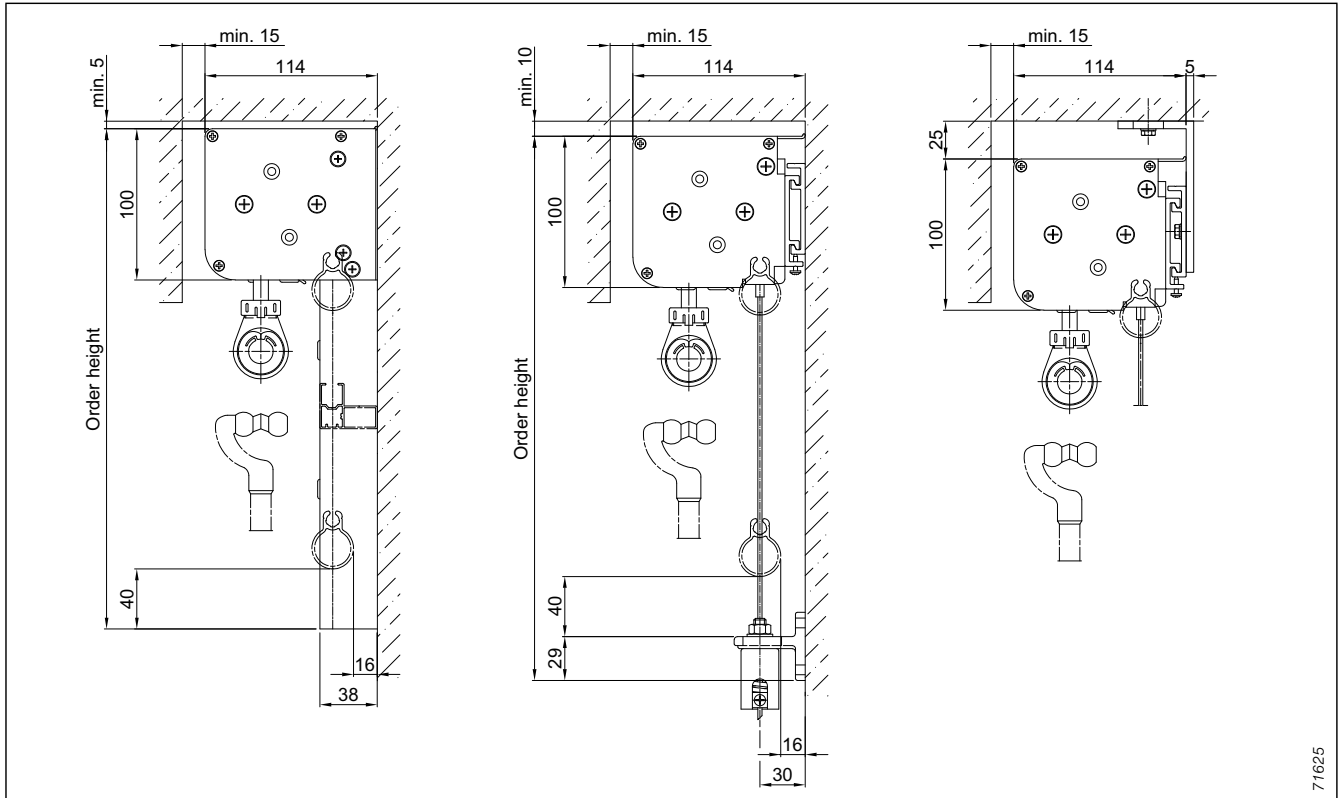


fig. 117: Cover panel 100 – mounting situations

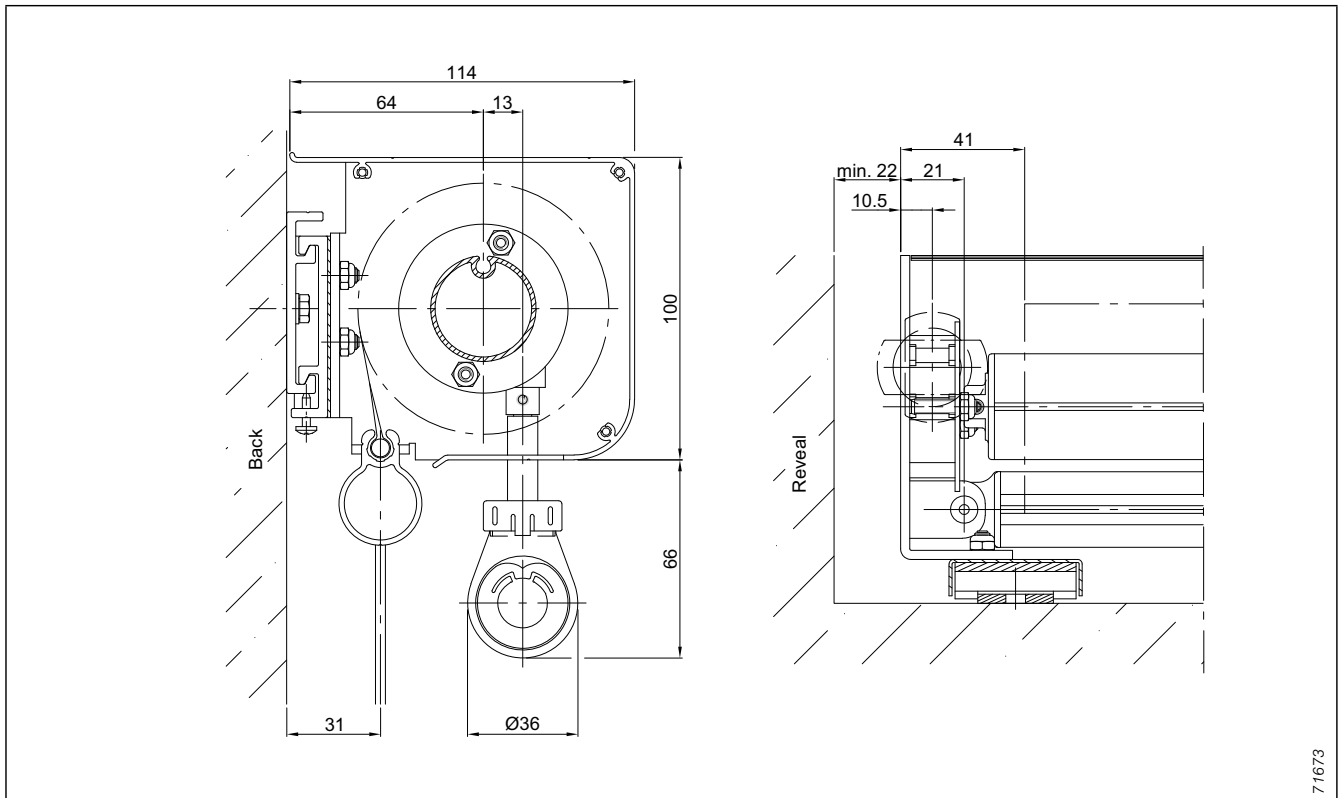


fig. 118: Gear with eyelet

For reveal installation, note lateral crank overhang of 22 mm!

## Details

# Vertical awning 450 with cable guidance

### Individual unit, wall installation with spacing, Z console

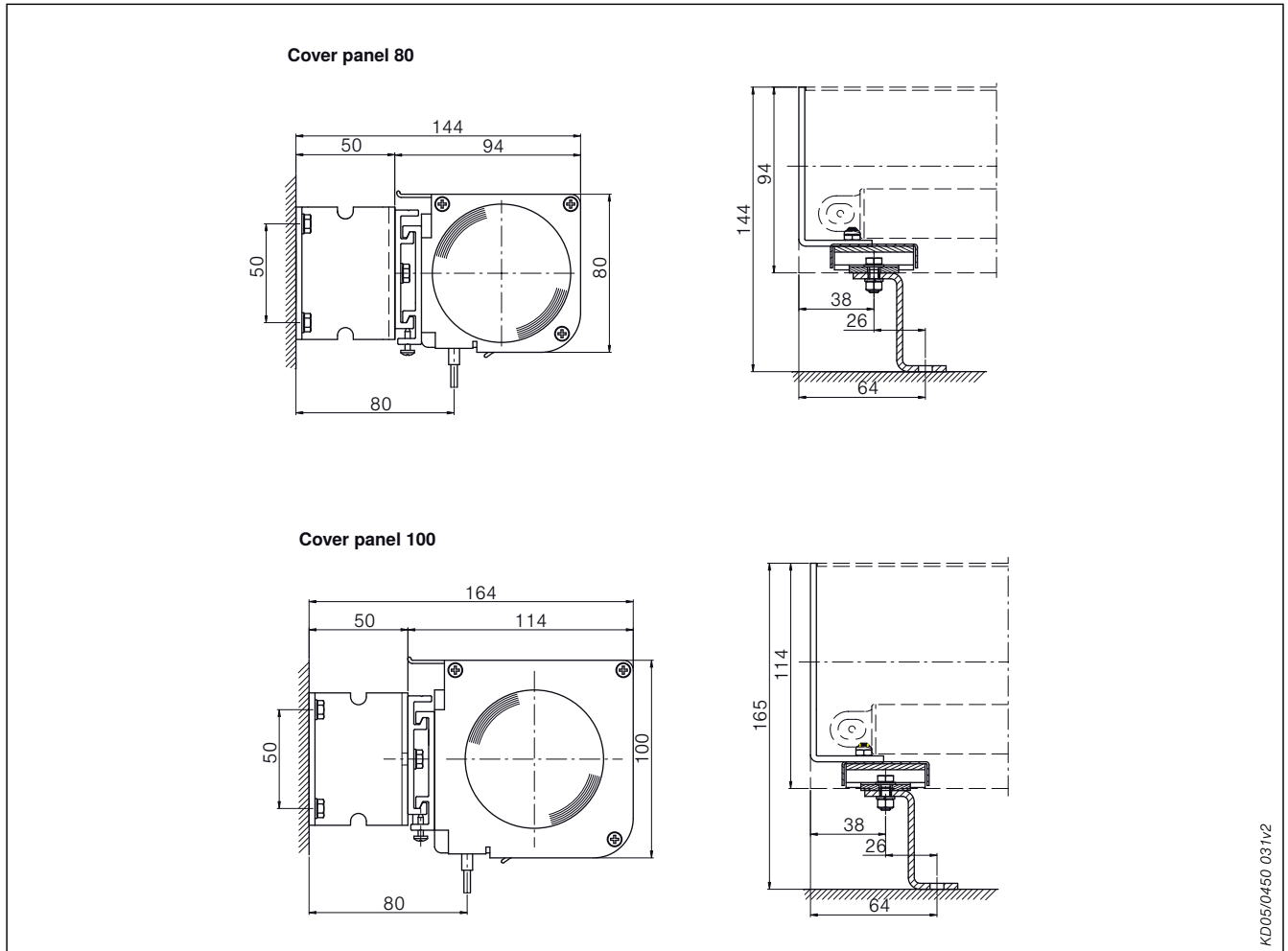


fig. 119: Dimension diagram

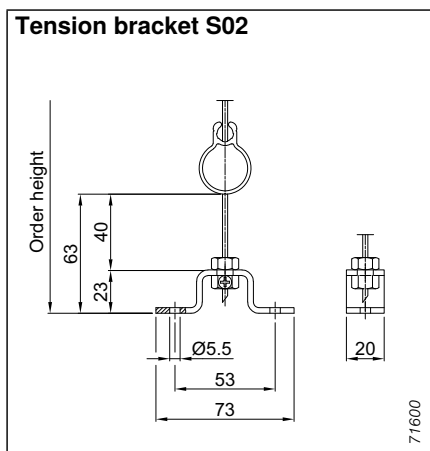


fig. 120: Tension bracket S02

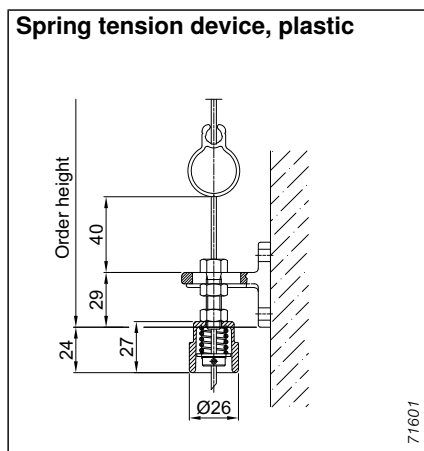


fig. 121: Spring tension device, plastic

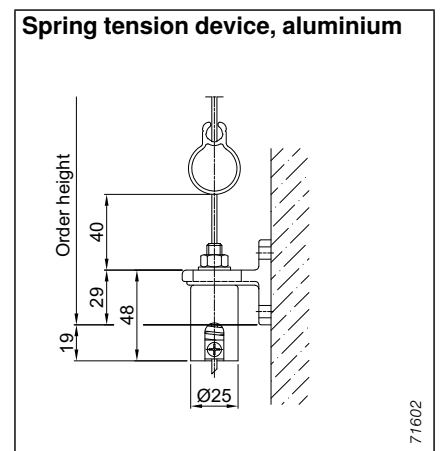


fig. 122: Spring tension device, aluminium

## Details

# Vertical awning 450 Gear outlets

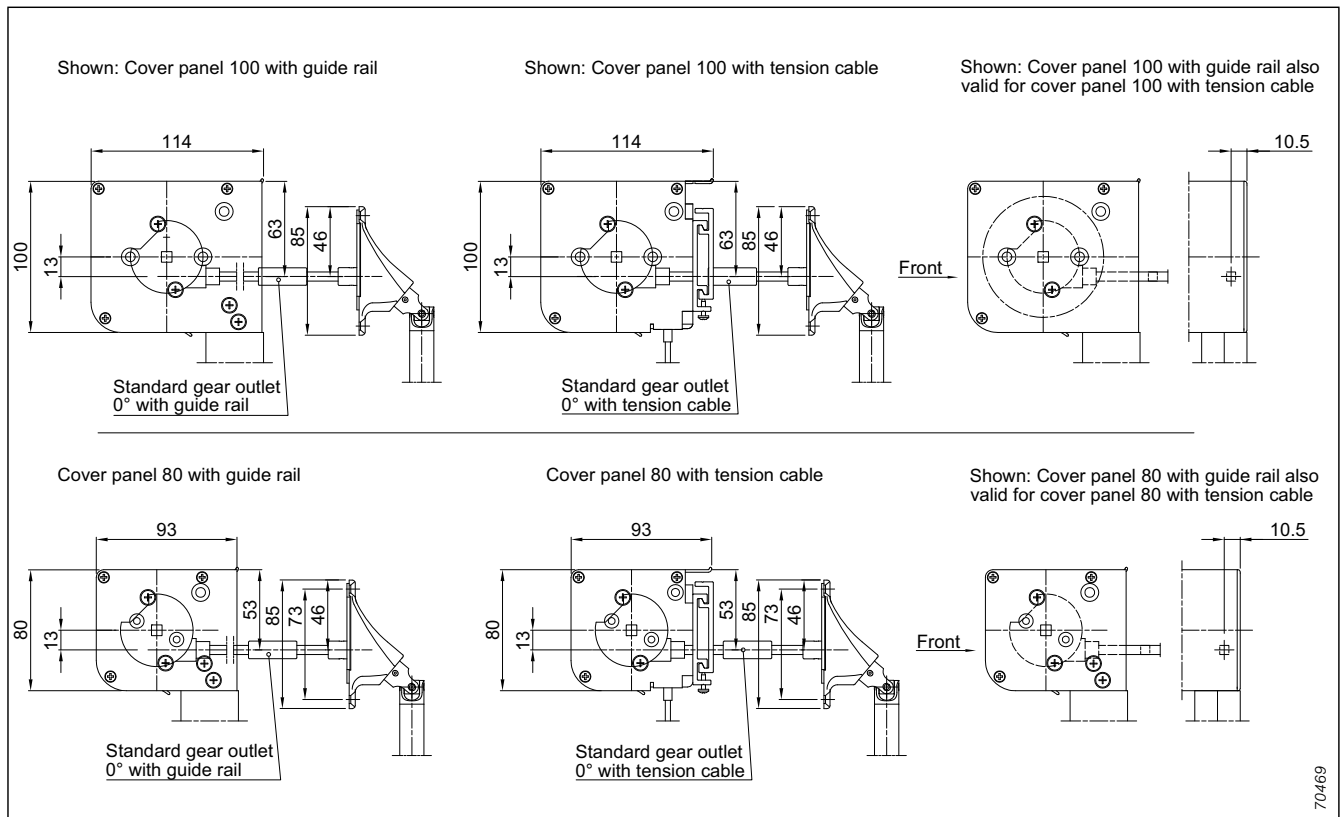


fig. 123: Gear outlet 0°

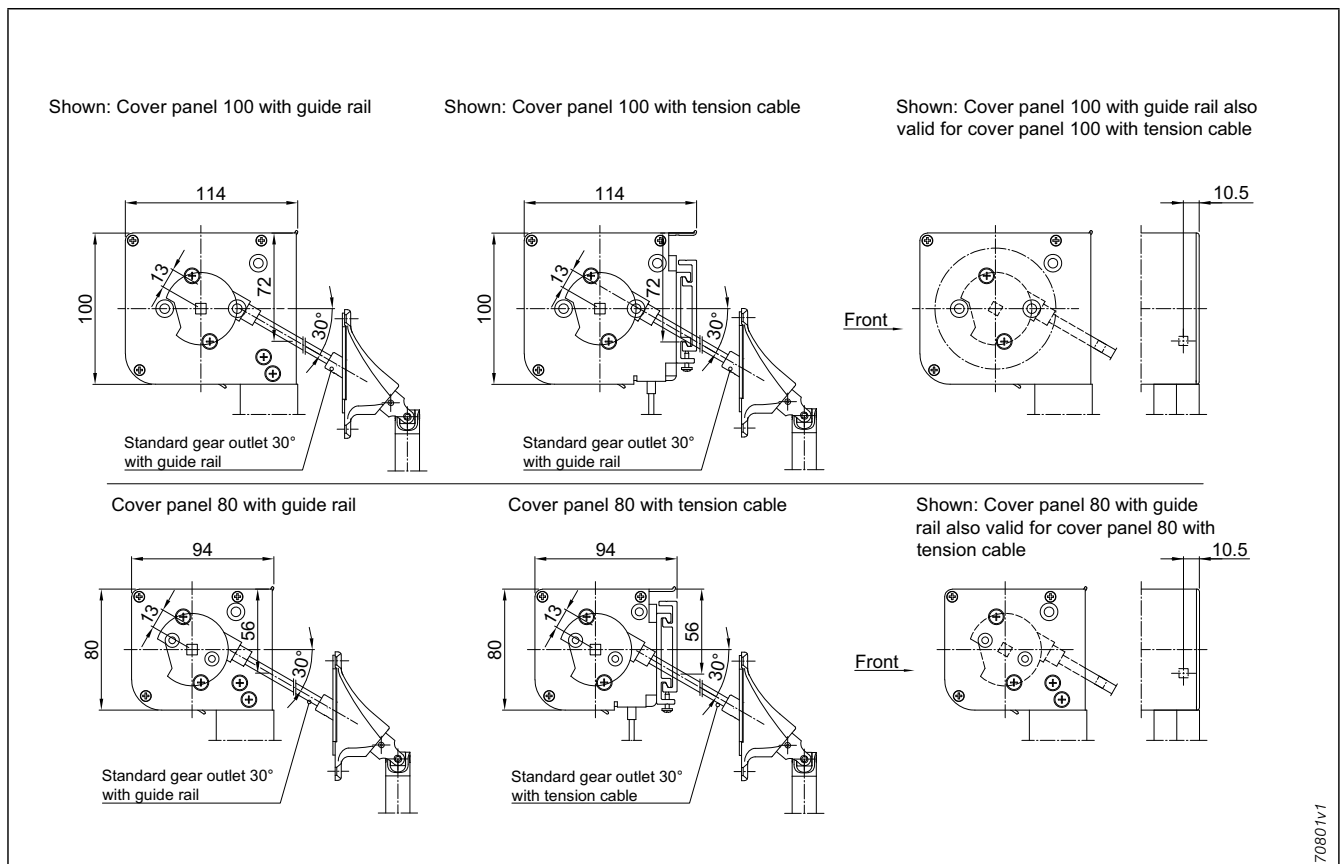
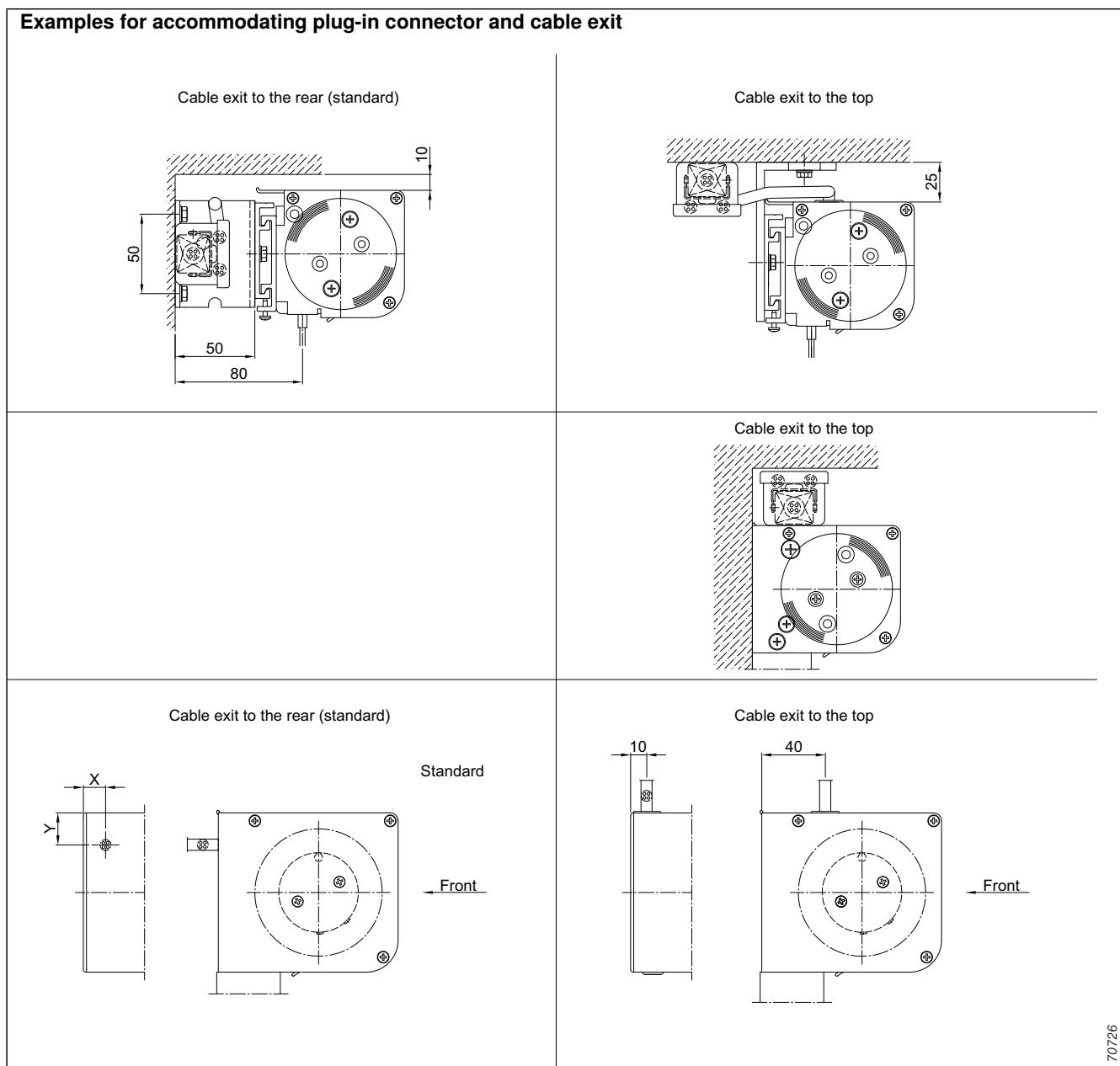


fig. 124: Gear outlet 30°

# Details

## Vertical awning 450

### Cable exits



70726

fig. 125: Cable exits

#### Cable exit at the rear – standard

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

Guide rail and cable guidance.

#### Note:

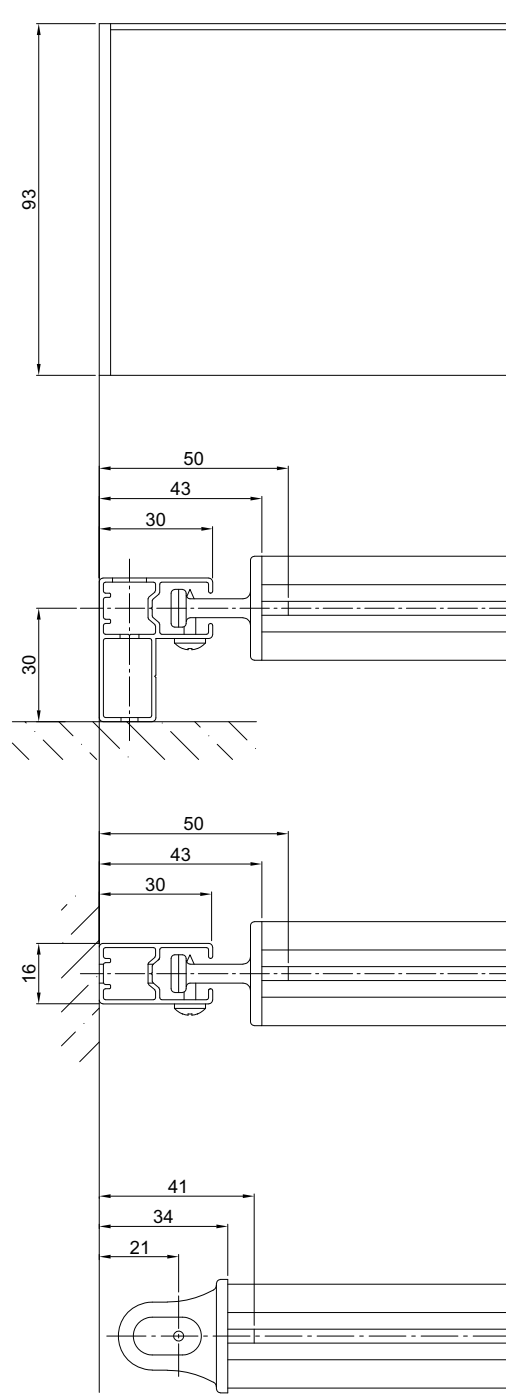
It must be ensured that the plug-in connector is accommodated!  
The end of the motor line has no plug connector by default.

#### Attention!

Plug-in connector or line may not enter the rolling space!  
Electrical devices should be connected by qualified technicians only. Please observe the legal requirements and regulations!

**Details**  
**Vertical awning 450**

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



70353v3

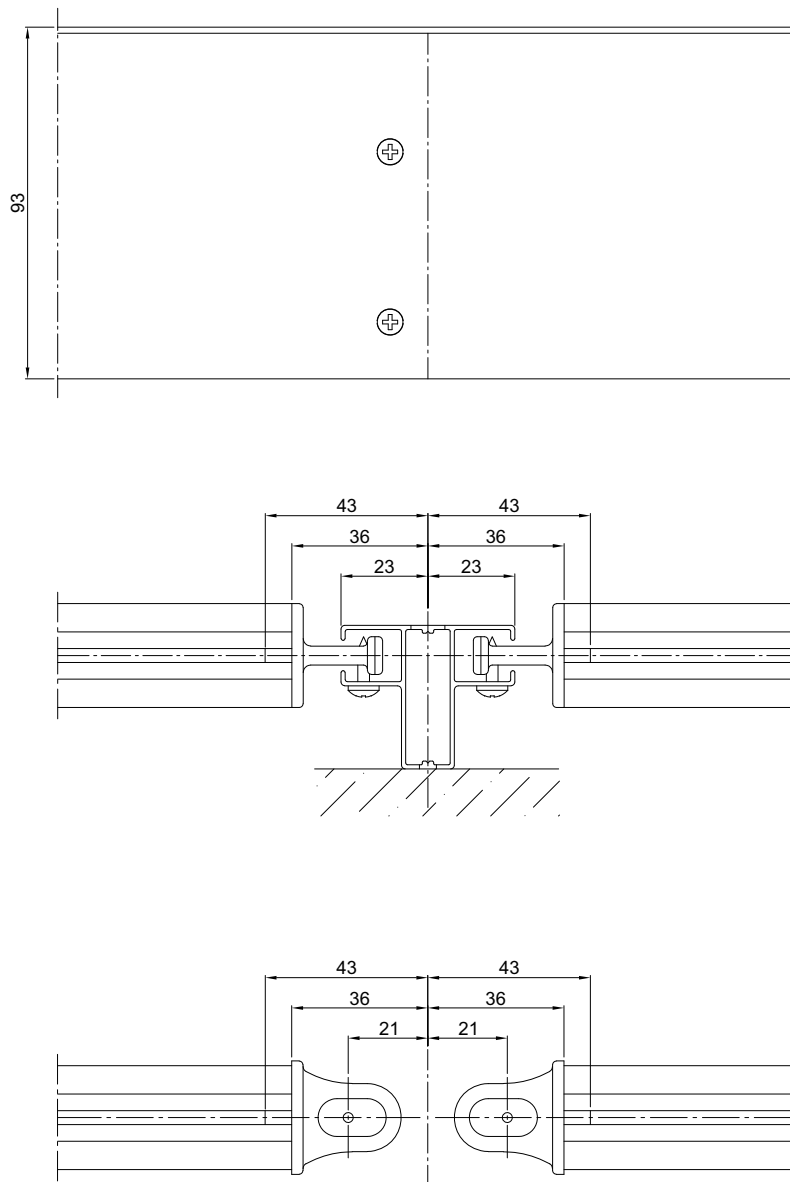
fig. 126: Limit position situation individual unit



# Details

## Vertical awning 450

Coupling in continuous cover panel (view from above)



70358v2

fig. 127: Coupling in continuous cover panel; limit position situation group unit