



markilux Awnings

Handover declaration

To be passed on to the users of folding-arm awnings

The European standard DIN EN 13561 establishes the requirements for the construction and fastening of awnings. The construction of this markilux awning fulfills the requirements of the Wind Resistance Class 2 specified in the CE mark of conformity. The wind resistance class describes the wind speed, at which an awning may be used. If used above the approved wind speed, considerable dangers can occur in rain and in snow, the awning can be destroyed or collapse. Which wind resistance class the installation achieves, critically depends on the type and the number of fastening materials as well as on the existing fastening background.

The awning may only be used up to the wind resistance class declared by the installation firm. This can differ from the wind resistance class specified above in the CE-mark of conformity.

In full knowledge of the local conditions and after completed installation, the installation firm declares to the user, whether the wind resistance class specified by markilux has been achieved in the installed state and documents the actual wind resistance class achieved.

Automatic controllers are to be adjusted to the declared wind resistance class.

CE
markilux
 Schmitz-Werke GmbH & Co.
 KG
 Hansestraße 87
 D-48282 Emsdetten

DIN EN 13561
 Awnings for use on the
 outside of buildings

Wind resistance class 2

Wind resistance class 0	Wind resistance class 1	Wind resistance class 2	Wind resistance class 3
The Wind Resistance Class 0 represents either a performance not required or not measured or a product, which does not fulfill the requirements of class 1.	The awning may remain extended up to maximum Wind Force 4.	The awning may remain extended up to maximum Wind Force 5.	At Wind Force 6 the awning must be retracted!
	Definition according to Beaufort: Moderate breeze, moderate wind Wind moves branches and thinner boughs, raises dust and loose paper.	Definition according to Beaufort: Fresh breeze, fresh wind Small deciduous trees begin to sway, white foam caps form at sea.	Definition according to Beaufort: Strong wind Heavy boughs sway, umbrellas are difficult to hold, telephone lines whistle in the wind.
The awning may not be used during wind.	Speed 20-27 km/h = 5.5-7.4 m/s	Speed 28-37 km/h = 7.5-10.4 m/s	Speed 38-48 km/h = 10.5-13.4 m/s

Source: German Meteorological Service (DWD) - Offenbach, Wind Forces in Beaufort

The user has been properly instructed in the operation of the awning:		<input type="checkbox"/>	yes	<input type="checkbox"/>	no
The user has been handed the following documentation:					
	• Operating instructions	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
	• Installation and setting instructions	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
of the motor, switch and controller manufacturers, if available					
The awning may be used under the following conditions:					
Wind:	<input checked="" type="checkbox"/> permitted up to Wind Resistance Class	<input type="checkbox"/>	= Wind force	<input type="checkbox"/>	
Rain:	<input type="checkbox"/> permitted with awning extended completely				
	<input type="checkbox"/> not permitted at a pitch angle below 25% = 14°, measured from the horizontal				
Danger of frost and snow:	<input checked="" type="checkbox"/> not permitted				

Date: _____ Signature of installation engineer: _____

Signature of user*: _____





markilux Awnings

Handover declaration

To be passed on to the users of folding-arm awnings

The European standard DIN EN 13561 establishes the requirements for the construction and fastening of awnings. The construction of this markilux awning fulfills the requirements of the Wind Resistance Class 2 specified in the CE mark of conformity. The wind resistance class describes the wind speed, at which an awning may be used. If used above the approved wind speed, considerable dangers can occur in rain and in snow, the awning can be destroyed or collapse. Which wind resistance class the installation achieves, critically depends on the type and the number of fastening materials as well as on the existing fastening background.

The awning may only be used up to the wind resistance class declared by the installation firm. This can differ from the wind resistance class specified above in the CE-mark of conformity.

In full knowledge of the local conditions and after completed installation, the installation firm declares to the user, whether the wind resistance class specified by markilux has been achieved in the installed state and documents the actual wind resistance class achieved.

Automatic controllers are to be adjusted to the declared wind resistance class.

CE
markilux
 Schmitz-Werke GmbH & Co.
 KG
 Hansestraße 87
 D-48282 Emsdetten

DIN EN 13561
 Awnings for use on the
 outside of buildings

Wind resistance class 2

Wind resistance class 0	Wind resistance class 1	Wind resistance class 2	Wind resistance class 3
The Wind Resistance Class 0 represents either a performance not required or not measured or a product, which does not fulfill the requirements of class 1.	The awning may remain extended up to maximum Wind Force 4.	The awning may remain extended up to maximum Wind Force 5.	At Wind Force 6 the awning must be retracted!
	Definition according to Beaufort: Moderate breeze, moderate wind Wind moves branches and thinner boughs, raises dust and loose paper.	Definition according to Beaufort: Fresh breeze, fresh wind Small deciduous trees begin to sway, white foam caps form at sea.	Definition according to Beaufort: Strong wind Heavy boughs sway, umbrellas are difficult to hold, telephone lines whistle in the wind.
The awning may not be used during wind.	Speed 20-27 km/h = 5.5-7.4 m/s	Speed 28-37 km/h = 7.5-10.4 m/s	Speed 38-48 km/h = 10.5-13.4 m/s

Source: German Meteorological Service (DWD) - Offenbach, Wind Forces in Beaufort

The user has been properly instructed in the operation of the awning:		<input type="checkbox"/>	yes	<input type="checkbox"/>	no
The user has been handed the following documentation:					
	• Operating instructions	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
	• Installation and setting instructions	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
of the motor, switch and controller manufacturers, if available					
The awning may be used under the following conditions:					
Wind:	<input checked="" type="checkbox"/> permitted up to Wind Resistance Class	<input type="checkbox"/>	= Wind force	<input type="checkbox"/>	
Rain:	<input type="checkbox"/> permitted with awning extended completely				
	<input type="checkbox"/> not permitted at a pitch angle below 25% = 14°, measured from the horizontal				
Danger of frost and snow:	<input checked="" type="checkbox"/> not permitted				

Date: _____ Signature of installation engineer: _____

Signature of user*: _____



markilux Awnings

Important Information



Contents:


1. Who is allowed to fit markilux Awnings?
2. Before beginning with the installation, it is to be checked,...
3. Reading and passing on the instructions
4. Working at greater heights
5. Wind Resistance Class
6. Partly assembled awnings
7. Partly assembled awnings
8. Uncontrolled Operation
9. Proper intended use
10. Crush and Shear Zones

1. Who is allowed to fit markilux Awnings?

The markilux fitting instructions are intended for qualified fitters, who have experienced knowledge in the following fields:

- Work safety, operating safety and regulations for the prevention of accidents
- Handling ladders and scaffolding
- Handling and transport of long, heavy components
- Handling tools and machines
- Attaching fastening materials
- Assessment of the construction material
- Commissioning and operation of the product

If one of these qualifications is lacking, a specialist installation firm must be commissioned.

 **Electrical work:** Electrical installations must be carried by a qualified electrician according to VDE 0100. The installation instructions enclosed with the electrical devices supplied are to be observed.

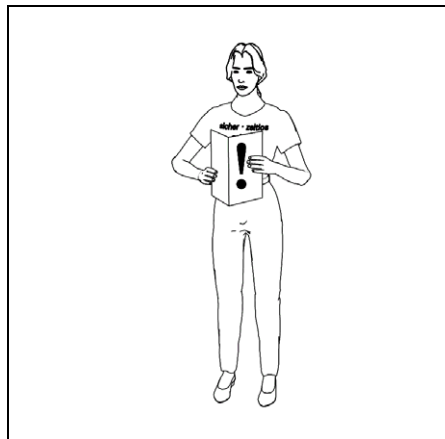
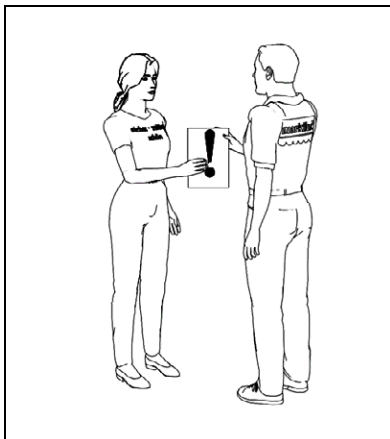
It is recommended that fitting is performed with at least two persons, for larger awnings with three.

2. Before beginning with the installation, it is to be checked,...

- ... whether the fitting fixtures supplied correspond in type and number with the order ,
- ... whether the specifications made with the order concerning the fastening background correspond with the actual fastening background at hand (only for folding-arm awnings).

If divergences are determined herewith, which impair safety, then the fitting may not be carried out.

3. Reading and passing on the instructions

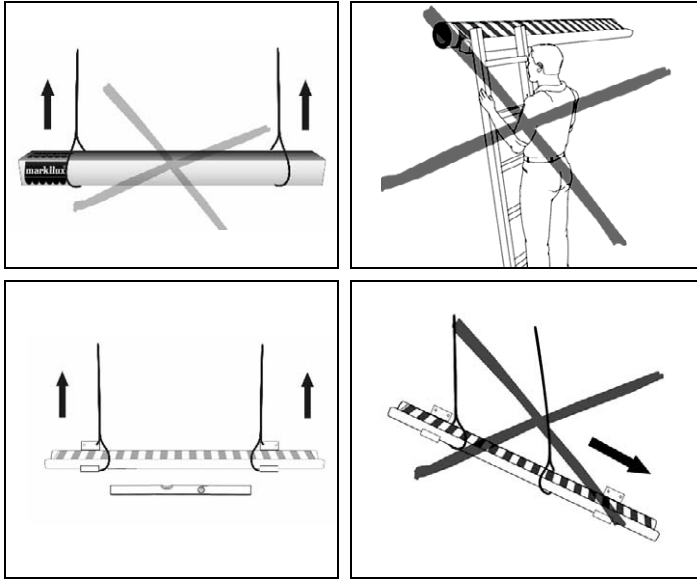


The safety and fitting instructions as well as the operating guides are to be read and observed!

The markilux operating guide, as well as the setting instructions of the motor, switch and controller manufacturers are to be handed over to the user with a **written** confirmation and fitted wind class (see handover declaration) He is to be comprehensively enlightened about the safety and usage information of the awning. With non-observance and maloperation, the awning can suffer damage and accidents can occur.



4. Working at greater heights




If the awning unit has to be hoisted to a higher area with the help of ropes, then the awning is

- to be removed from the packaging,
- to be connected with the lifting ropes in such a way, that it cannot fall out,
- to be pulled up evenly in a horizontal position.

The same also applies for the dismantling of the awning.

⚠ When working at greater heights, there is a risk of falling. Suitable climbing aids and appropriate fall safety devices are to be utilized.

5. Wind Resistance Class



markilux
Schmitz-Werke GmbH & Co. KG
Hansestraße 87
D-48282 Emsdetten

DIN EN 13561
Awnings for use on the outside of buildings

Wind resistance class 2
markilux folding-arm awning,
markilux 710/810, 720/820, 725/825, 750/850, 730/830,
791/891, 740/840, 745/845, 893, 8500, 869 (size-dependent)

Wind resistance class 3
markilux 760/860, 780/880 und 8000, 869 (size-dependent)

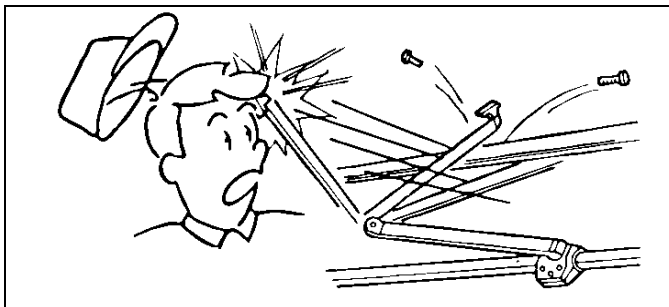
The awning complies with the requirements of the wind resistance class specified in the CE-conformity symbol (see handover declaration). When fitted, it only complies with these requirements, if

- the awning has been fitted with the type and number of brackets recommended by the manufacturer,
- during fitting, the instructions of the fastenings manufacturer of the dowels used have been observed.

For folding-arm awnings:

- the awning has been fitted taking into account the dowel pull-out forces specified by the manufacturer.

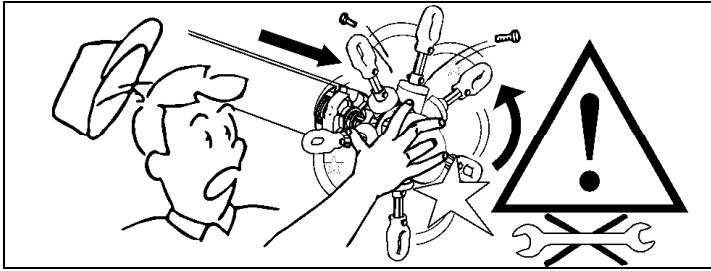
6. Partly assembled awnings



⚠ With awnings partly assembled at works - e.g. coupled folding-arm awnings without cover - those parts under spring tension (see illustration: example folding-arm awning) are to be secured against unintentional opening. These safety devices may only be removed after the installation is complete. There is a high risk of injury from the marked awning parts under tension!



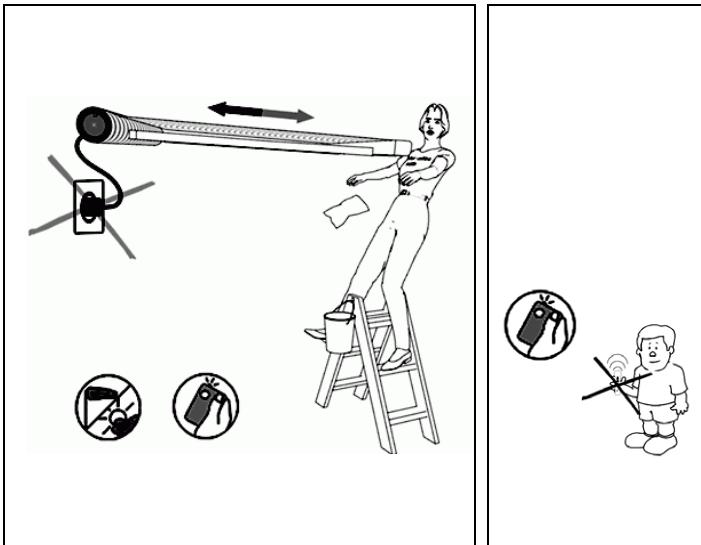
7. Partly assembled awnings



⚠ The servo transmission of folding-arm awnings (marked with a sticker) may not be dismantled, it is under high tension!

If the awning cover or the transmission is to be exchanged, beforehand please request the guide „What to do when... the servo drive needs to be dismantled?“.

8. Uncontrolled Operation

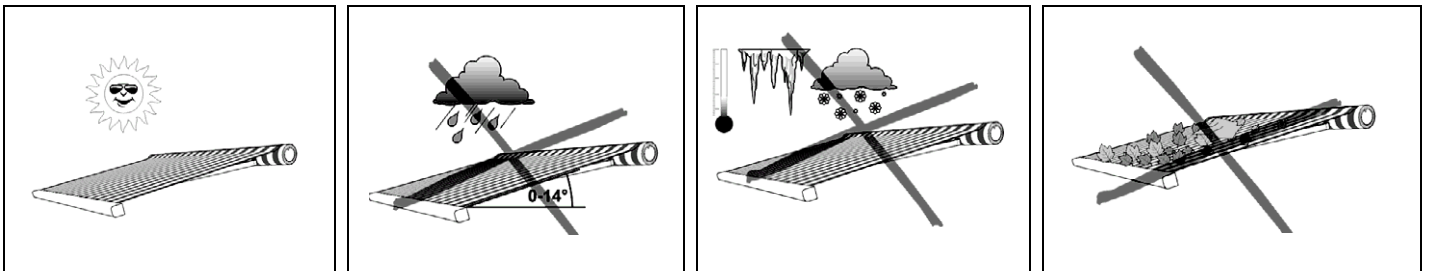


⚠ When working in the range of travel of the awning (see illustration: example folding-arm awning), automatic control must be switched off. There is a risk of being crushed and falling down.

In addition, it must be ensured, that the unit cannot be unintentionally operated manually. For this, the power supply is to be interrupted, e.g. switch off safety switches or disconnect the connector coupling on the motor. Likewise, with manual operation the operating crank must be disengaged and safely stored away.

If awnings are operated by several users, a priority switching interlocking device (controlled power interruption from outside) must be installed, which makes any extending and retracting of the awning impossible.

9. Proper intended use

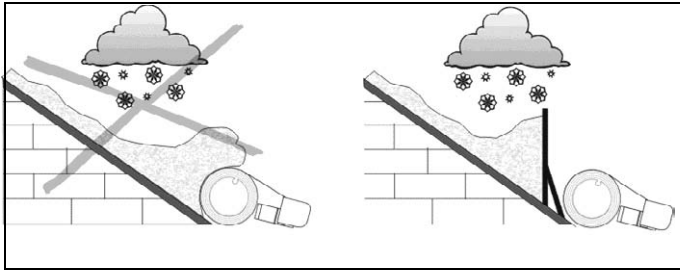


Awnings may only be used for the purpose defined in the operating guide. Modifications, such as add-ons and conversions not intended by the manufacturer, may only be performed with the written consent of the manufacturer.

Additional loading of the awning due to suspended objects or due to tensioned ropes/cables can lead to damage or to the collapse of the awning and are therefore not permitted.

The awning may not be subjected to high temperatures, strong vibrations or shaking or strong

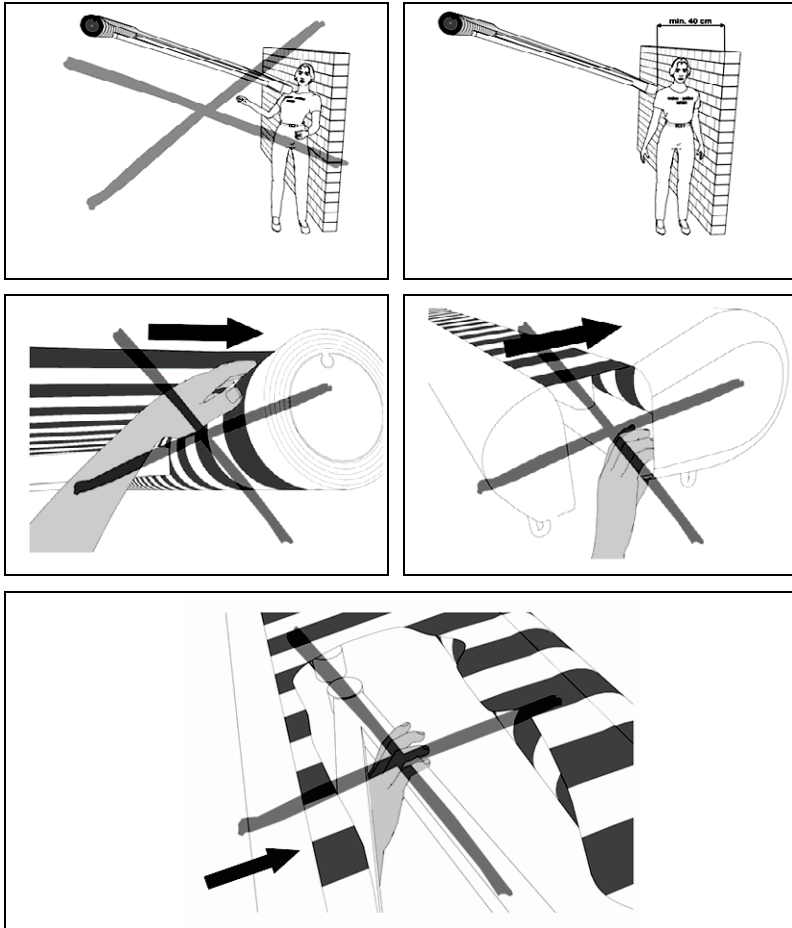




mechanical stress.

An accumulation of snow behind the awning is to be prevented by fitting a snow guard (snow fence or similar).

10. Crush and Shear Zones



⚠ Depending on the type of awning, there exist crush and shear zones, e.g. between drop rod and cassette and between moving parts. Items of clothing or limbs can be grabbed by the unit and pulled in! (See illustration: example folding-arm awning.)

If an awning is fitted at a height under 2.5 meters above accessible traffic routes, then the awning may only be actuated with a push-button switch with a view of the moving parts. Electrical controllers, radio-controlled drives with catch switches, stop switches etc. are in this case not permitted.

Folding-Arm Cassette Awning *markilux 6000*

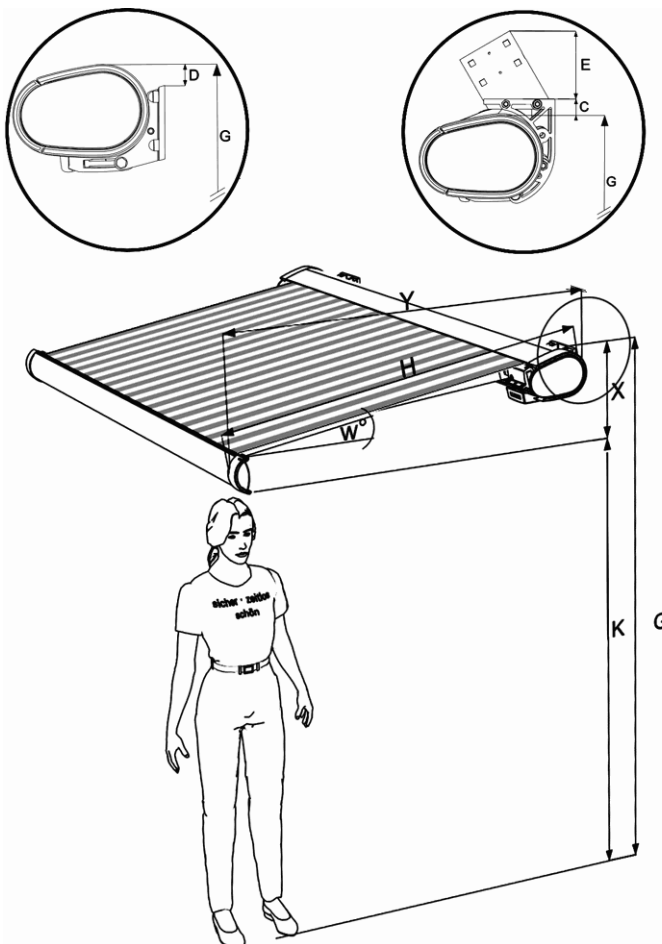


Fitting Instructions

1. Fitting the mounting fixtures

1.1 Fitting height

- H = Projection
- Y = Horizontal cover
- X = Value from Table 2
- K = Headroom = G - X
- G = Fitting height
- W° = Pitch angle

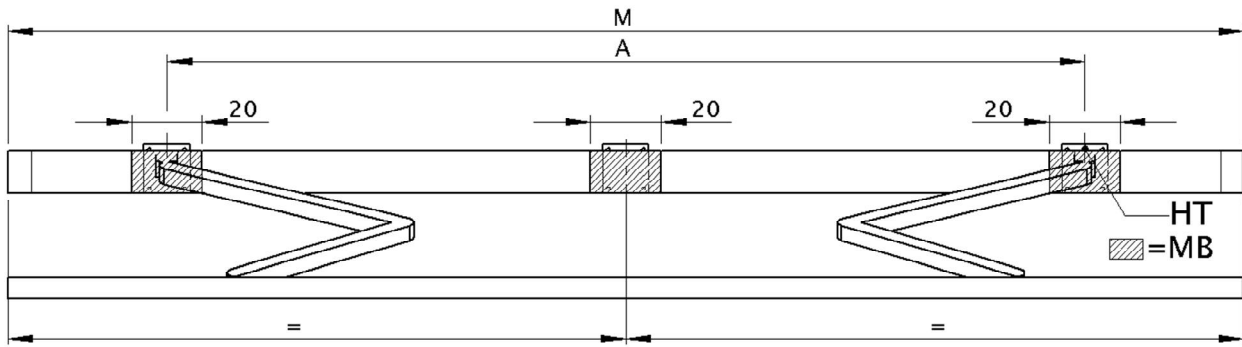


<p>BS-Wall fixture 5 - 35° D = 28 mm</p>	<p>BS-Wall fixture 36 - 70° D = 16 mm</p>																																																																																																																							
<p>BS-Ceiling fixture 5 - 35° C = 30 mm</p>	<p>BS-Ceiling fixture 36 - 70° C = 30 mm</p>																																																																																																																							
<p>BS-Eaves fixture 5 - 35° E = 153 mm</p>	<p>BS-Eaves fixture 5 - 35° E = 270 mm</p>																																																																																																																							
<p>Table of fitting heights at a pitch angle of 5° to 35°</p> <table border="1"> <thead> <tr> <th colspan="2" rowspan="2">Projection in cm</th> <th colspan="6">Projection in</th> </tr> <tr> <th>150</th> <th>200</th> <th>250</th> <th>300</th> <th>350</th> <th>400</th> </tr> </thead> <tbody> <tr> <td rowspan="2">W = 5°</td> <td>X</td> <td>26</td> <td>28</td> <td>30</td> <td>32</td> <td>34</td> <td>36</td> </tr> <tr> <td>Y</td> <td>148</td> <td>198</td> <td>248</td> <td>298</td> <td>348</td> <td>398</td> </tr> <tr> <td rowspan="2">W = 10°</td> <td>X</td> <td>36</td> <td>43</td> <td>50</td> <td>57</td> <td>74</td> <td>81</td> </tr> <tr> <td>Y</td> <td>146</td> <td>196</td> <td>246</td> <td>296</td> <td>346</td> <td>396</td> </tr> <tr> <td rowspan="2">W = 15°</td> <td>X</td> <td>47</td> <td>59</td> <td>70</td> <td>81</td> <td>92</td> <td>103</td> </tr> <tr> <td>Y</td> <td>144</td> <td>193</td> <td>242</td> <td>291</td> <td>340</td> <td>389</td> </tr> <tr> <td rowspan="2">W = 20°</td> <td>X</td> <td>58</td> <td>74</td> <td>90</td> <td>106</td> <td>122</td> <td>138</td> </tr> <tr> <td>Y</td> <td>141</td> <td>189</td> <td>237</td> <td>285</td> <td>333</td> <td>381</td> </tr> <tr> <td rowspan="2">W = 25°</td> <td>X</td> <td>70</td> <td>89</td> <td>108</td> <td>127</td> <td>146</td> <td>165</td> </tr> <tr> <td>Y</td> <td>138</td> <td>184</td> <td>230</td> <td>276</td> <td>316</td> <td>362</td> </tr> <tr> <td rowspan="2">W = 30°</td> <td>X</td> <td>80</td> <td>103</td> <td>126</td> <td>149</td> <td>180</td> <td>205</td> </tr> <tr> <td>Y</td> <td>132</td> <td>176</td> <td>220</td> <td>264</td> <td>308</td> <td>352</td> </tr> <tr> <td rowspan="2">W = 35°</td> <td>X</td> <td>89</td> <td>116</td> <td>143</td> <td>170</td> <td>197</td> <td>224</td> </tr> <tr> <td>Y</td> <td>126</td> <td>168</td> <td>210</td> <td>252</td> <td>294</td> <td>336</td> </tr> </tbody> </table>		Projection in cm		Projection in						150	200	250	300	350	400	W = 5°	X	26	28	30	32	34	36	Y	148	198	248	298	348	398	W = 10°	X	36	43	50	57	74	81	Y	146	196	246	296	346	396	W = 15°	X	47	59	70	81	92	103	Y	144	193	242	291	340	389	W = 20°	X	58	74	90	106	122	138	Y	141	189	237	285	333	381	W = 25°	X	70	89	108	127	146	165	Y	138	184	230	276	316	362	W = 30°	X	80	103	126	149	180	205	Y	132	176	220	264	308	352	W = 35°	X	89	116	143	170	197	224	Y	126	168	210	252	294	336
Projection in cm				Projection in																																																																																																																				
		150	200	250	300	350	400																																																																																																																	
W = 5°	X	26	28	30	32	34	36																																																																																																																	
	Y	148	198	248	298	348	398																																																																																																																	
W = 10°	X	36	43	50	57	74	81																																																																																																																	
	Y	146	196	246	296	346	396																																																																																																																	
W = 15°	X	47	59	70	81	92	103																																																																																																																	
	Y	144	193	242	291	340	389																																																																																																																	
W = 20°	X	58	74	90	106	122	138																																																																																																																	
	Y	141	189	237	285	333	381																																																																																																																	
W = 25°	X	70	89	108	127	146	165																																																																																																																	
	Y	138	184	230	276	316	362																																																																																																																	
W = 30°	X	80	103	126	149	180	205																																																																																																																	
	Y	132	176	220	264	308	352																																																																																																																	
W = 35°	X	89	116	143	170	197	224																																																																																																																	
	Y	126	168	210	252	294	336																																																																																																																	



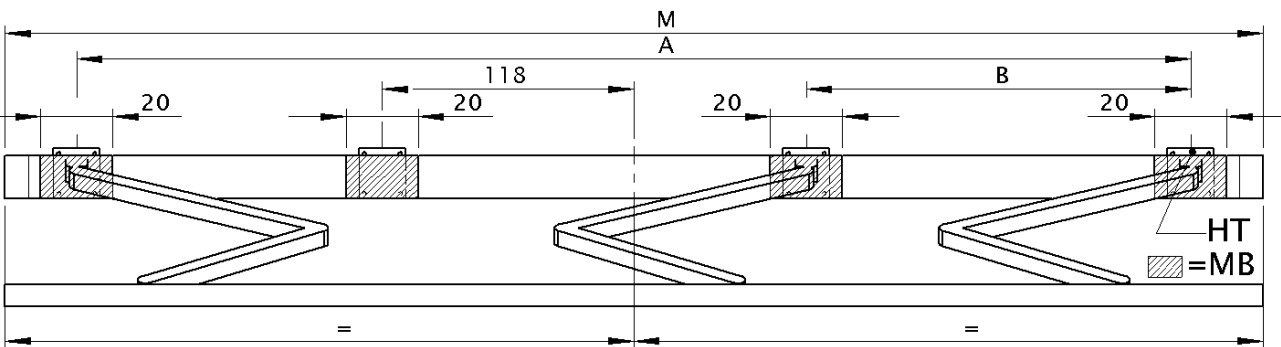
1.2 Face Fixture

2 Folding arms

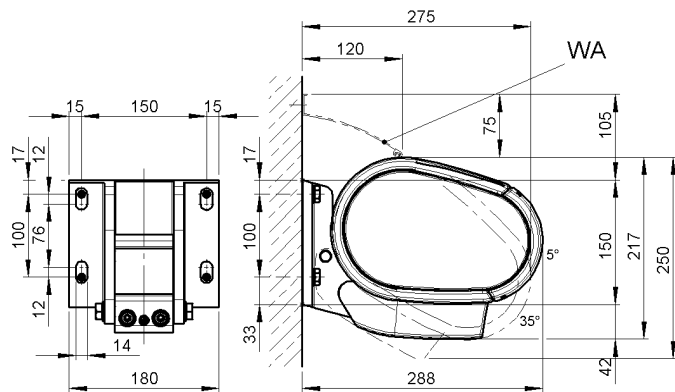


- A = Arm position
 - HT = Fixture
 - M = Awning width
 - MB = Fitting area of middle fixture (size-dependent, with 3 fixtures)
- Sizes in cm

3 Folding arms



- A and B = Arm positions
 - HT = Fixture
 - M = Awning width
 - MB = Fitting area of 4th fixture
- Sizes in cm



The distance to a possibly existent ceiling must be at least 30 mm!

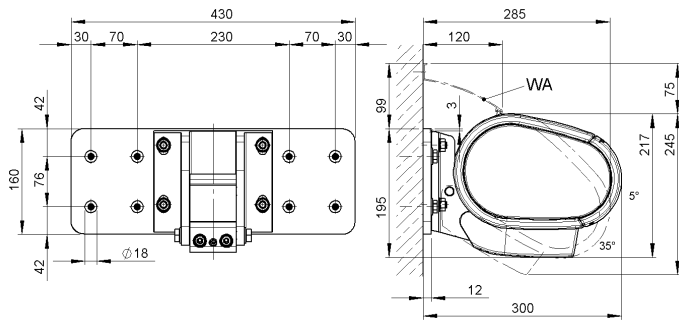
Sizes in mm

1.2.1 Determining the fitting height. Mark out the position of the fixtures on the fitting surface (wall) in accordance with the stickers already provided (red points) on the back of the cassette (A = arm position).

1.2.2 Considering fastening materials and types of mounting according to the background (type of mounting A or B). **The mounting background must be specified when ordering the awning.** Fastening materials are not supplied, since different backgrounds (e.g. concrete, chalky sandstone, gas concrete etc.) require different fastening materials.

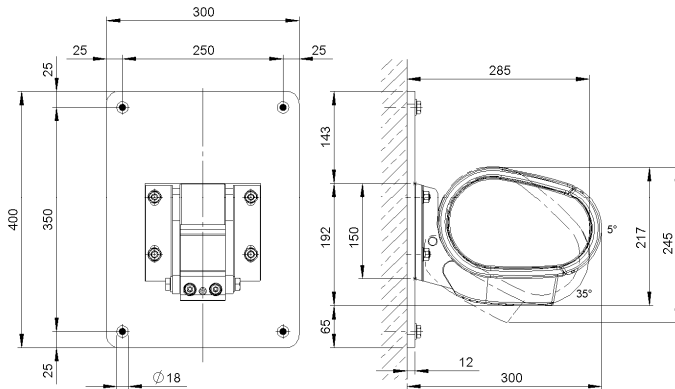
! Depending on the background, different fastening systems are offered by the fastenings manufacturers (e.g. Fischer, Hilti, Upat etc.). **The corresponding extend forces from our sales literature are to be taken into consideration.** If the requirements for fastening are observed, according to DIN EN 13561, for the user **Wind Resistance Class 2** can be confirmed for the installation.



Type of mounting A

The distance to a possibly existent ceiling must be at least 30 mm!

Sizes in mm

Type of mounting B

Sizes in mm

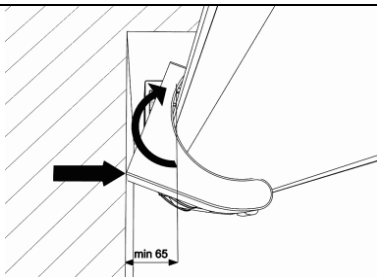
1.2.3 Scribe the drill holes and fit fastening fixtures with suitable fastening plates according to the background. Align the fastening fixtures **horizontally!**

⚠ With uneven facades, check the spaces with a length of cord and if necessary compensate. **Fixtures must be aligned to each other!**

1.3 Top Fixture

1.3.1 Determine the fitting height.

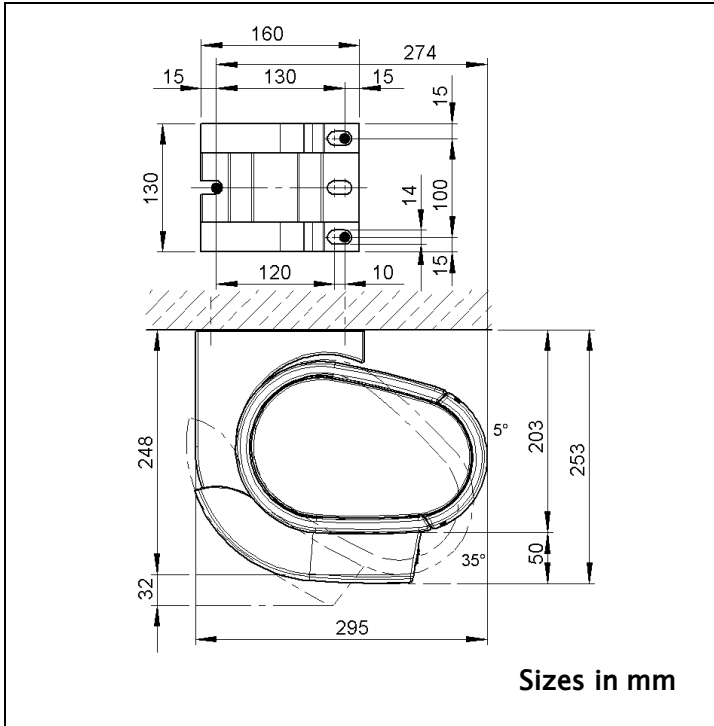
Determine the position of the fixtures according to the stickers already provided (red points) on the back of the cassette (see also 1.2.1 Face Fixture).



1.3.2 Attention! The distance of the bracket to a possibly existent wall must be at least 65mm!

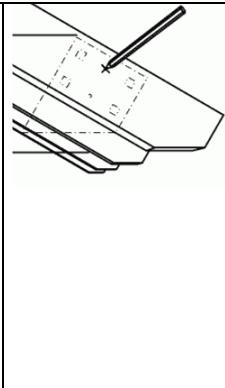
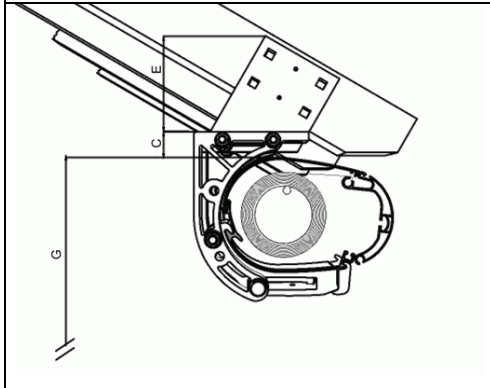
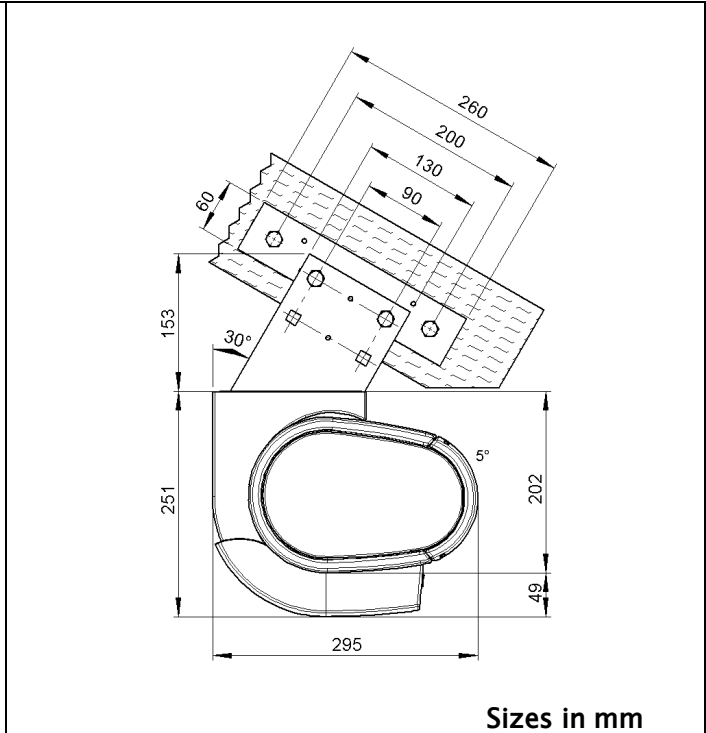
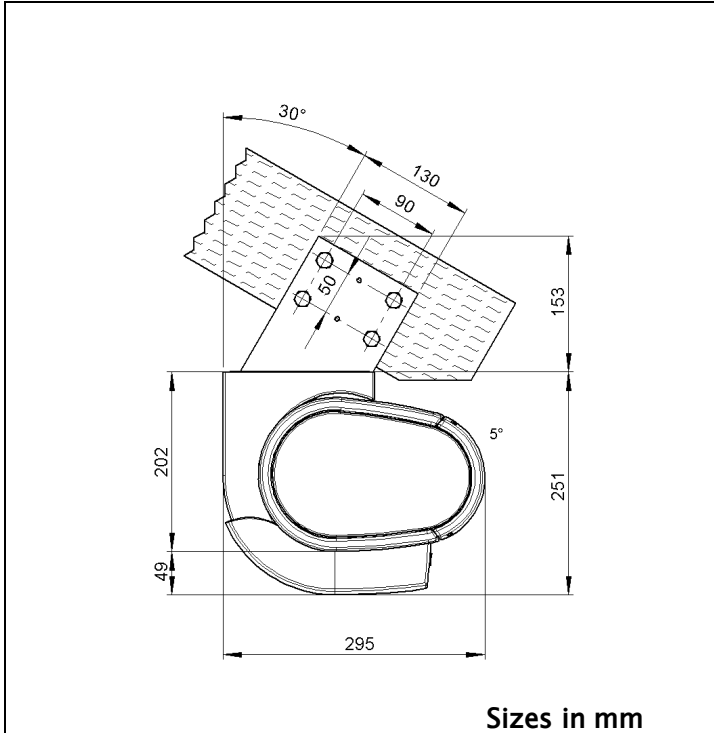
1.3.3 Concrete (B 25) is presumed as fastening background. Fastening materials are not supplied, different fastening systems are offered by fastenings manufacturers (e.g. Fischer, Hilti, Upat etc.).

The corresponding extend forces from our sales literature are to be taken into consideration. If the requirements for fastening are observed, according to DIN EN 13561, for the user **Wind Resistance Class 2** can be confirmed for the installation.



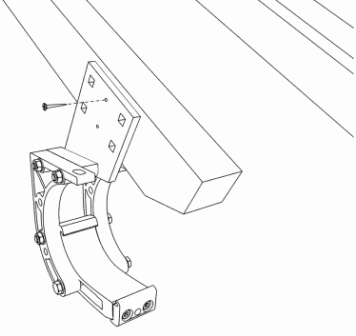
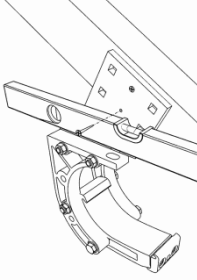
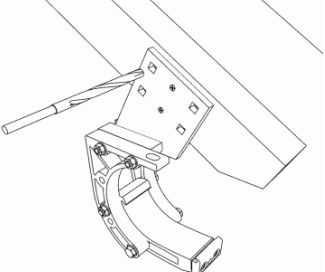
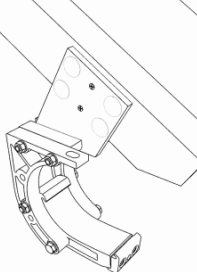
1.3.4 Scribe the drill holes and fit fastening fixtures with suitable fastening plates according to the background. Align the fastening fixtures **horizontally!**

1.4 Eaves Fixture

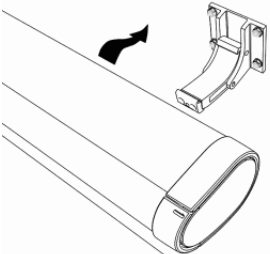
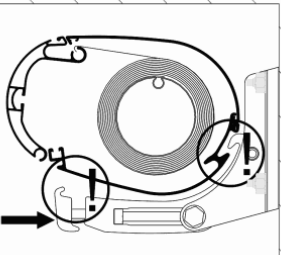
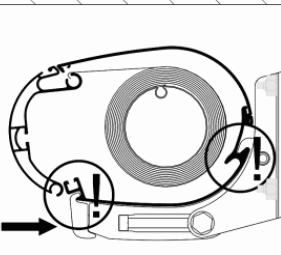
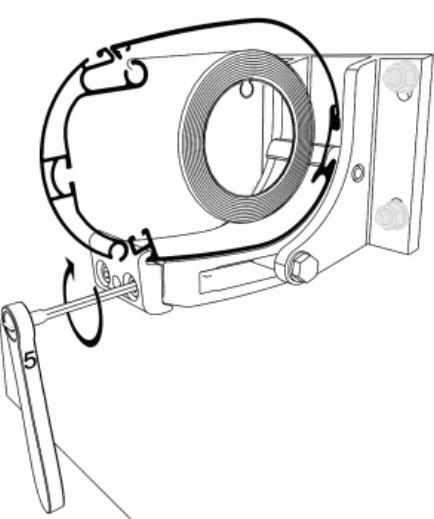


1.4.1 Determine the fitting height. Determine the position of the fixtures according to the stickers already provided (red points) on the back of the cassette (see also 1.2.1 Face Fixture).

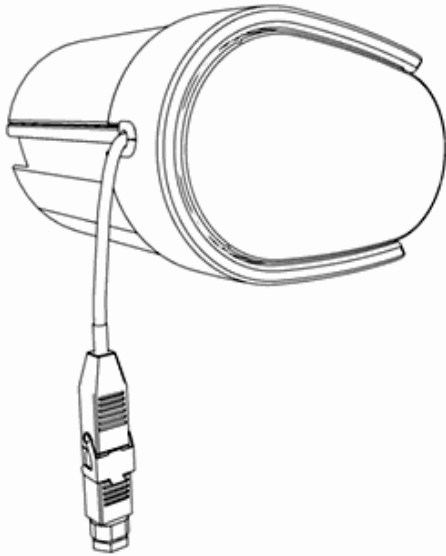


		<p>1.4.2 Fasten the eaves fixture with a nail. Align the fixture horizontally with a spirit level and fix with a second nail.</p>
		<p>1.4.3 Drill through the eaves at the screw holes. Screw fixture with suitable fastening materials. Align the fastening fixtures horizontally.</p>

2. Hanging the awning (e.g. face fixture)

	<p>2.1 Place the awning on the wall fixtures, tilted slightly upwards.</p>	
		<p>2.2 Let the casing rest on the rear slot and the clamping plate.</p>
	<p>2.3 Tightly screw the two outer socket head cap screws of the clamping plate (SW8).</p>	

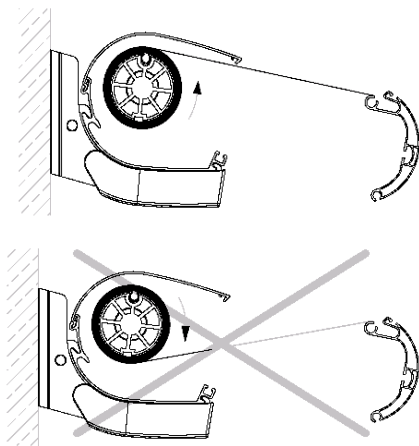
3. Awning with motor drive



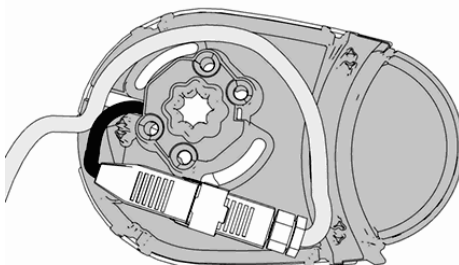
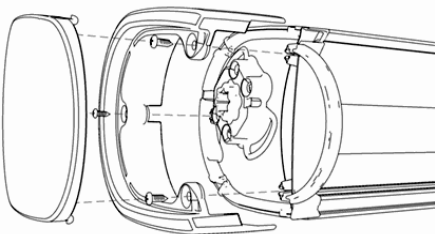
3.1 The electrical connection for motor drive and/or controller connection is to be carried out as prescribed by the motor and controller manufacturer. Modifications, in particular concerning the motor, the controller and the connection lead require written authorization. The installation and setting guide is attached to the power supply cable of the motor. Instructions for other electrical components are to be found in the appropriate packaging.

The integrated motor has a learned end position in the extending direction. This setting is carried out at works. If it needs to be altered or corrected, one must proceed according to the motor instructions (with radio: portable transmitter, without radio: setting cable)

Direction of rotation when retracting





ATTENTION: A coiling of the cover onto the roller from below can lead to the awning being damaged when retracted. When altering the end positions, definitely observe the direction of rotation.



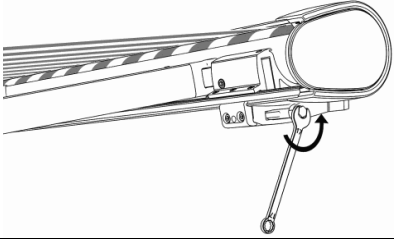
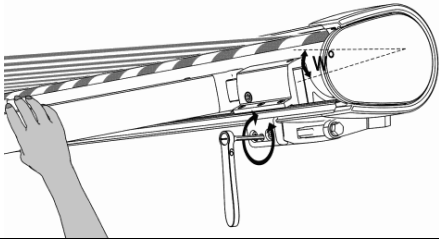
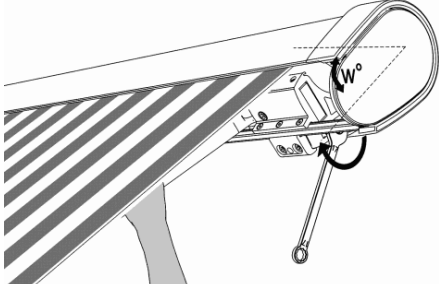
3.2 If required, the Hirschmann plug can be situated behind the side panel. (Not possible with the Studio variant!)

Remove side panel inside (there are four small snaplocks at the edge, which grip behind the outer side panel). Unscrew the sheet metal screws with cross slot for securing the side panel outside. Place the Hirschmann plug in the side panel, shorten the cable if necessary.

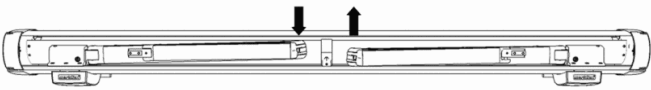
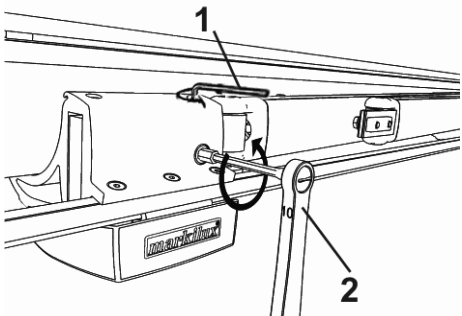
3.3 Motor connection data

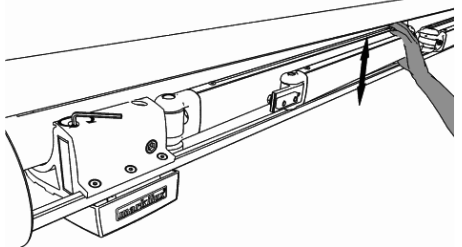
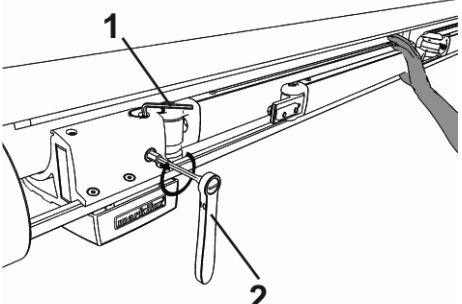
markilux 6000 motor drive: 2 folding arms 	with radio (433 MHz): $U = 230\text{ V} \sim / 240\text{ W}, 50\text{ Hz}, I = 1,00\text{ A}$
	without radio: $U = 230\text{ V} \sim / 240\text{ W}, 50\text{ Hz}, I = 1,10\text{ A}$
markilux 6000 motor drive: 3 - 4 folding arms 	with radio (433 MHz): $U = 230\text{ V} \sim / 290\text{ W}, 50\text{ Hz}, I = 1,25\text{ A}$
	without radio: $U = 230\text{ V} \sim / 350\text{ W}, 50\text{ Hz}, I = 1,50\text{ A}$

4. Setting the pitch angle

	4.1 With awning extended, first loosen the side clamping screws (SW 19) of the fixtures.
	4.2 Raise arm and relieve the load. By turning the front-face socket head cap screw (SW 8), adjust the pitch angle.
	4.3 Firmly retighten the clamping screws (SW 19) of the fixture.

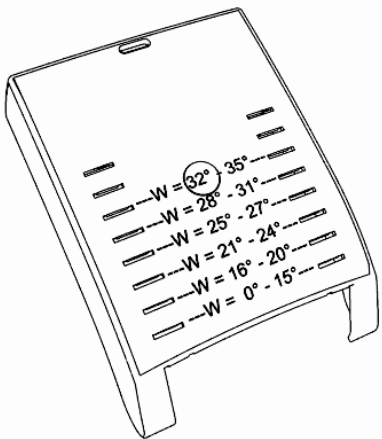
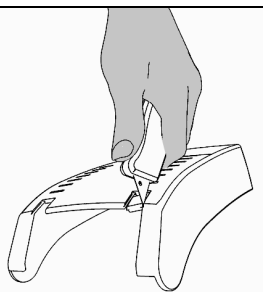
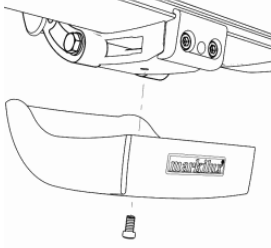
5. Arm position with awning retracted

	5.1 If with awning retracted, one arm is positioned too high or too low and because of this the front profile does not close correctly, then the arm position is to be corrected.
	5.2 Loosen socket head cap screws SW 10 (2) and SW 4 (1) on the inner bracket.


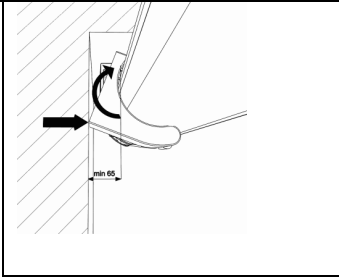
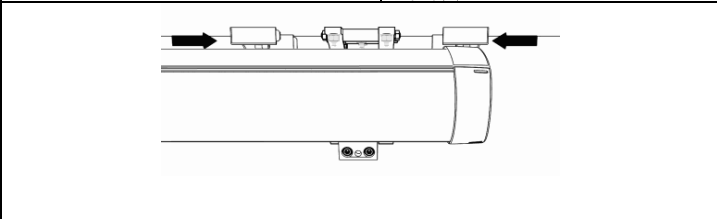
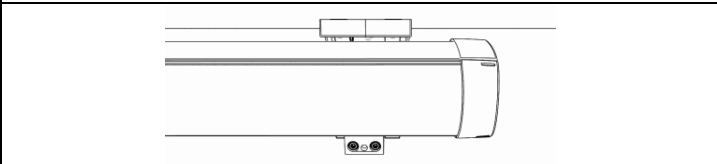
	<p>5.3 Raise arm and relieve the load. By turning the socket head cap screw (SW 4), bring the arm to the horizontal position.</p>
	<p>5.4 Tighten socket head cap screws SW 4 (1) and SW 10 (2) on the inner bracket.</p>

6. Fixture covers

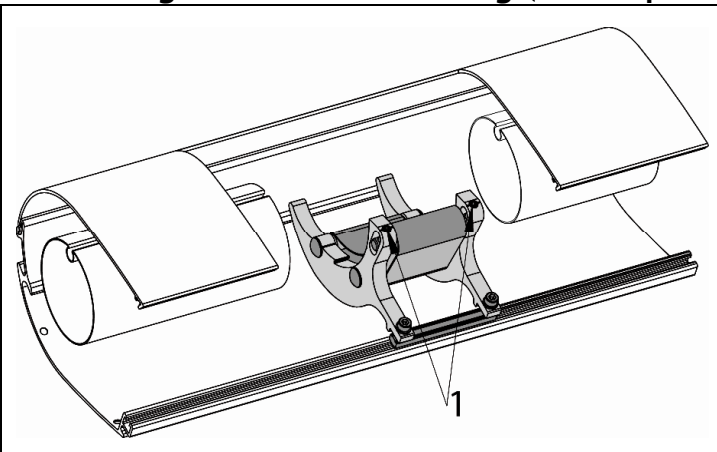
6.1 Face fixture cover

		<p>6.1.1 From an awning pitch angle of approx. 15°, it is necessary to cut out the plastic covers of the wall fixtures at the thin-walled bridges with a safety knife according to the pitch angle setting. Screw on wall cover.</p>
		<p>6.1.2 Screw on wall cover with socket head cap screw (SW 5).</p>

6.2 Top fixture cover

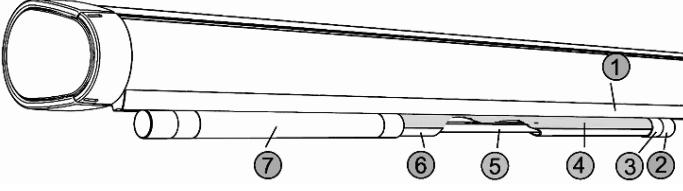

		<p>6.2.1 Guide the inner side cheek of the ceiling fixture around the awning casing with a 90° turn.</p>
	<p>6.2.2 Push outer and inner fixture cheek together.</p>	
	<p>6.2.3. Screw ceiling fixture cover to the bracket with socket head cap screw (SW 5).</p>	

7. Awnings with Rolltex Bearing (size-dependent)


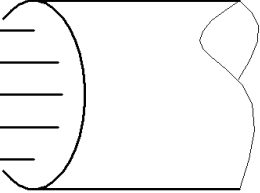

	<p>Despite the factory setting, with local pitch angle adjustment a correction may be necessary. The Rolltex bearing has two setting options for an optimal travel of the cover:</p> <ol style="list-style-type: none"> 1. Greatest tension of the transport band with a small front awning profile. By evenly turning the two SW 3 set screws (1) clockwise, the transport band is tensioned, relieved by turning evenly anti-clockwise. 2. With larger awning widths, it is recommended to set the transport belt more loosely.
---	---

8. Awning with lighting (two lamps per unit)

8.1 Overview

	<p>1 Lighting profile 2 Cap 3 Holder 4 Acrylic glass lighting tube colorless satin finish 5 Fluorescent lamp Osram FQ 39 W / 827 6 Mask 7 Starter casing</p>
<p> Electrical work: Electrical installations must be carried by a qualified electrician according to VDE 0100.</p>	

8.2 Lighting with dimmer

<p> markilux® 6000 DIM IP 54</p> <p>0-10V { + (1) - (2)</p> <p>AC230V~ { L (3) N (4) PE (5)</p> 	<p>8.2.1 The cable for the lighting connection is marked with this sticker. The wiring diagram must definitely be observed, a faulty connection can lead to the destruction of the device!</p>												
<table border="1"> <thead> <tr> <th>Wire color</th> <th>Terminal</th> </tr> </thead> <tbody> <tr> <td>(1) gray</td> <td>Control voltage dimmer 10V (+)</td> </tr> <tr> <td>(2) black</td> <td>Control voltage dimmer 10V (-)</td> </tr> <tr> <td>(3) brown</td> <td>230V~ voltage supply phase</td> </tr> <tr> <td>(4) blue</td> <td>230V~ voltage supply neutral conductor</td> </tr> <tr> <td>(5) green/yellow</td> <td>230V~ voltage supply protective conductor</td> </tr> </tbody> </table>	Wire color	Terminal	(1) gray	Control voltage dimmer 10V (+)	(2) black	Control voltage dimmer 10V (-)	(3) brown	230V~ voltage supply phase	(4) blue	230V~ voltage supply neutral conductor	(5) green/yellow	230V~ voltage supply protective conductor	<p>8.2.2 For the connection of the supply and control cable, 5 approved screw terminals or non-screwed terminals with a rated voltage of at least 230 V~ are required.</p>
Wire color	Terminal												
(1) gray	Control voltage dimmer 10V (+)												
(2) black	Control voltage dimmer 10V (-)												
(3) brown	230V~ voltage supply phase												
(4) blue	230V~ voltage supply neutral conductor												
(5) green/yellow	230V~ voltage supply protective conductor												
<p> Attention Danger to Life: Electrical operation without protective conductor connection is not permitted! It is to be observed, that during operation the protective conductor (5) green/yellow is neither interrupted in/on the product nor by the mains cable.</p> <p>All electrical connections and connection leads must definitely be checked after being connected and before the first trial operation!</p>	<p>8.2.3 Technical data of a lamp:</p> <table> <tr> <td>Power supply:</td> <td>230 VAC 50 Hz (10/16A)</td> </tr> <tr> <td>Max. wattage:</td> <td>39W</td> </tr> <tr> <td>Lamp:</td> <td>OSRAM FQ39W/827</td> </tr> <tr> <td>System of protection:</td> <td>IP54</td> </tr> <tr> <td>Supply cable cross-section:</td> <td>min. 1.0 mm²</td> </tr> </table>	Power supply:	230 VAC 50 Hz (10/16A)	Max. wattage:	39W	Lamp:	OSRAM FQ39W/827	System of protection:	IP54	Supply cable cross-section:	min. 1.0 mm ²		
Power supply:	230 VAC 50 Hz (10/16A)												
Max. wattage:	39W												
Lamp:	OSRAM FQ39W/827												
System of protection:	IP54												
Supply cable cross-section:	min. 1.0 mm ²												

8.3 Lighting with On/Off switch

<p>CE markilux® 6000 IP 54</p> <p>(6) { (1) (2) (3) (4) (5)</p> <p>AC230V~ { L N PE</p> <p>(6)=Not used!</p>		<p>8.3.1 The cable for the lighting connection is marked with this sticker. The wiring diagram must definitely be observed, a faulty connection can lead to the destruction of the device!</p>											
<table border="1"> <thead> <tr> <th>Wire color</th> <th>Terminal</th> </tr> </thead> <tbody> <tr> <td>(1) gray</td> <td>Not used!</td> </tr> <tr> <td>(2) black</td> <td>Not used!</td> </tr> <tr> <td>(3) brown</td> <td>230 V~ voltage supply phase</td> </tr> <tr> <td>(4) blue</td> <td>230 V~ voltage supply neutral conductor</td> </tr> <tr> <td>(5) green/yellow</td> <td>230 V~ voltage supply protective conductor</td> </tr> </tbody> </table>	Wire color	Terminal	(1) gray	Not used!	(2) black	Not used!	(3) brown	230 V~ voltage supply phase	(4) blue	230 V~ voltage supply neutral conductor	(5) green/yellow	230 V~ voltage supply protective conductor	<p>8.3.2 For the connection of the supply and control cable, 5 approved screw terminals or non-screwed terminals with a rated voltage of at least 230 V~ are required.</p>
Wire color	Terminal												
(1) gray	Not used!												
(2) black	Not used!												
(3) brown	230 V~ voltage supply phase												
(4) blue	230 V~ voltage supply neutral conductor												
(5) green/yellow	230 V~ voltage supply protective conductor												
<p>⚠ Attention Danger to Life: Electrical operation without protective conductor connection is not permitted! It is to be observed, that during operation the protective conductor (5) green/yellow is neither interrupted in/on the product nor by the mains cable. All electrical connections and connection leads must definitely be checked after being connected and before the first trial operation!</p>	<p>8.3.3</p> <p>Technical data of a lamp:</p> <table> <tr> <td>Power supply:</td> <td>230 VAC 50 Hz</td> </tr> <tr> <td>(10/16A)</td> <td></td> </tr> <tr> <td>Max. wattage:</td> <td>39 W</td> </tr> <tr> <td>Lamp:</td> <td>OSRAM FQ39W/827</td> </tr> <tr> <td>System of protection:</td> <td>IP 54</td> </tr> <tr> <td>Supply cable cross-section:</td> <td>min. 1.0 mm²</td> </tr> </table>	Power supply:	230 VAC 50 Hz	(10/16A)		Max. wattage:	39 W	Lamp:	OSRAM FQ39W/827	System of protection:	IP 54	Supply cable cross-section:	min. 1.0 mm ²
Power supply:	230 VAC 50 Hz												
(10/16A)													
Max. wattage:	39 W												
Lamp:	OSRAM FQ39W/827												
System of protection:	IP 54												
Supply cable cross-section:	min. 1.0 mm ²												

9. Awning with Shadeplus and Motor Drive

<p>The electrical connection for motor drive Shadeplus is to be carried out as prescribed by the motor and controller manufacturer. Modifications, in particular concerning the motor, the controller and the connection lead require written authorization. The installation and setting guide for the motor is enclosed with the fitting instructions.</p> <p>The integrated motor has learnt end positions. This setting is carried out at works. If it needs to be altered or corrected, one must proceed according to the motor guide (with radio: portable transmitter)</p>	<p>with radio (433 MHz): U = 230 V ~ / 100 W, 50 Hz, I = 0,80 A</p>
	<p>without radio: U = 230 V ~ / 80 W, 50 Hz, I = 0,40 A</p>

Folding-Arm Cassette Awning

markilux 6000

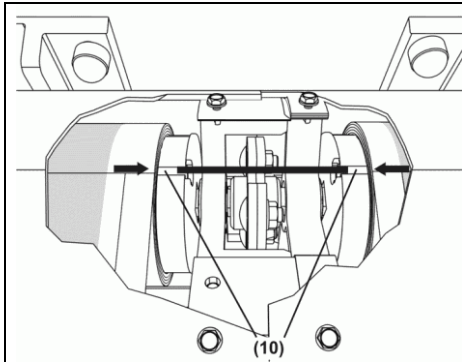


Fitting Instructions for Coupled Units

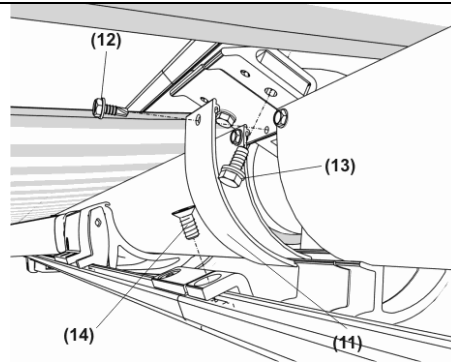
1. Coupled Units

Fit brackets at the points marked with the stickers (red dot) as with single units. (No coupling bracket in the middle of the coupling point). During coupling, the unit to be coupled must be pushed onto the driving awning. For this, a distance of at least 60 mm is required.

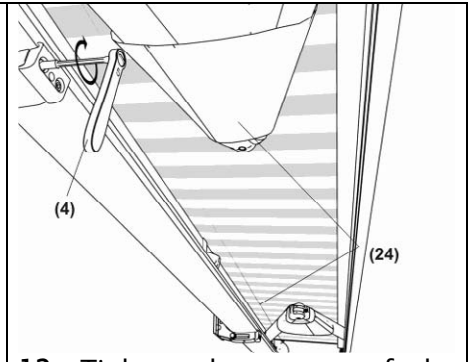
<p>1. Position the driving awning (1) onto the fixture (2), tilted slightly upwards and let the casing rest on the rear slot and the clamping plate.</p>	<p>2. Firmly tighten the SW 5 socket head cap screws (4) of the clamping plates.</p>	<p>3. Hang awning to be coupled (5).</p>
<p>4. A distance of at least 60 mm is required to push the awning to be coupled (5) onto the driving awning (1). Lightly tighten the SW 5 socket head cap screws (4) of the clamping plates, so that the awning remains movable laterally.</p>	<p>5. Remove outer surrounding adhesive strips (6) of the awnings. Attention! Beforehand definitely refer to Point 6.</p>	<p>6. Attention the front profile (7) of the awning to be coupled is under tension and extends approx. 30 cm. The folding arms are protected by foil tubes, which must not yet be removed.</p>
<p>7. Connect the driving awning to the power supply (8).</p>	<p>8. Travel the front profile of the driving awning (9) to the same position as the awning to be coupled (7).</p>	<p>9. Push awning to be coupled (5) onto the protruding coupling fixture of the driving awning (1). Attention! Observe Point 10!</p>



10. Attachment fitting strips of the covers on the roller (10) must be in line.



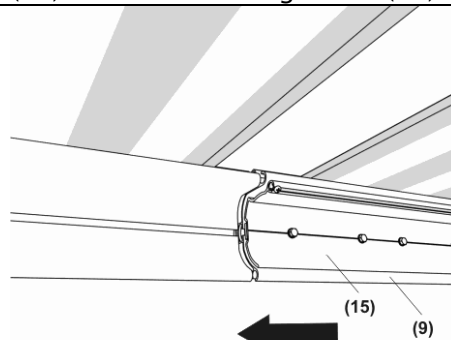
11. Tighten SW 10 hexagon head screw (12) and countersunk screw with SW 4 hexagon socket screw key (14) at the top and bottom clamping slides of the cassette. Firmly tighten inner profile cover (11) with SW 8 drilling screw (12).



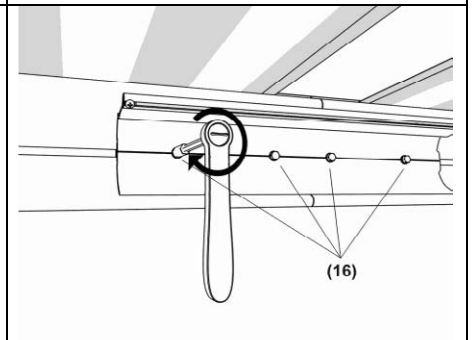
12. Tighten the screws of the clamping plates (4) of the coupled awning. Remove protective foil tubing (24) of the folding arms and extend awning.



13. Adjust pitch angle of the front profiles in non-coupled state as with single units.
See „4. Setting the pitch angle“

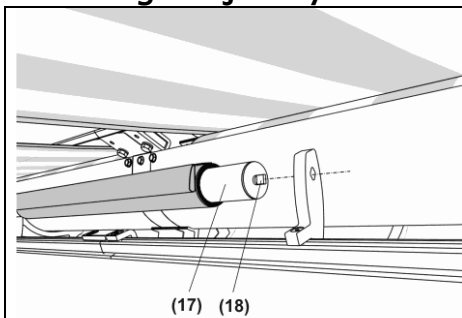


14. Push coupling fixture (15) onto the front profile (9) over the coupling flange.

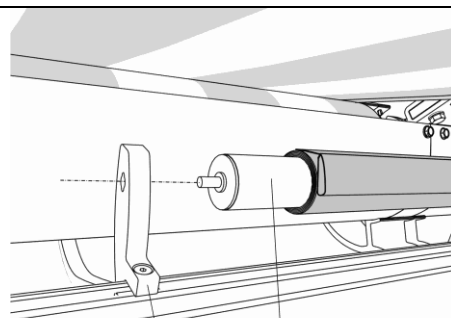


15. Tighten SW 10 hexagon head screws (16).

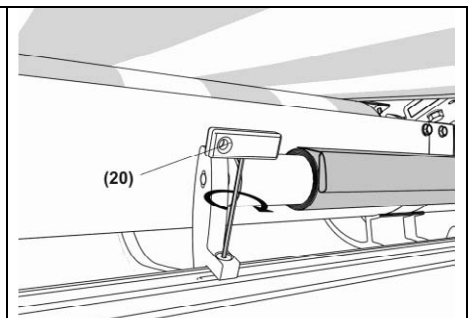
2. Fitting the jockey rollers



1. Extend awning to approx. 1 m. Hang spring tensioner (17). [drive dog (18) always at the right].



2. Push jockey roller holder (19) onto spring tensioner (17).



3. Tighten screws with SW 2.5 hexagon socket screw key (20) and check spring tensioner for easy rotation.

