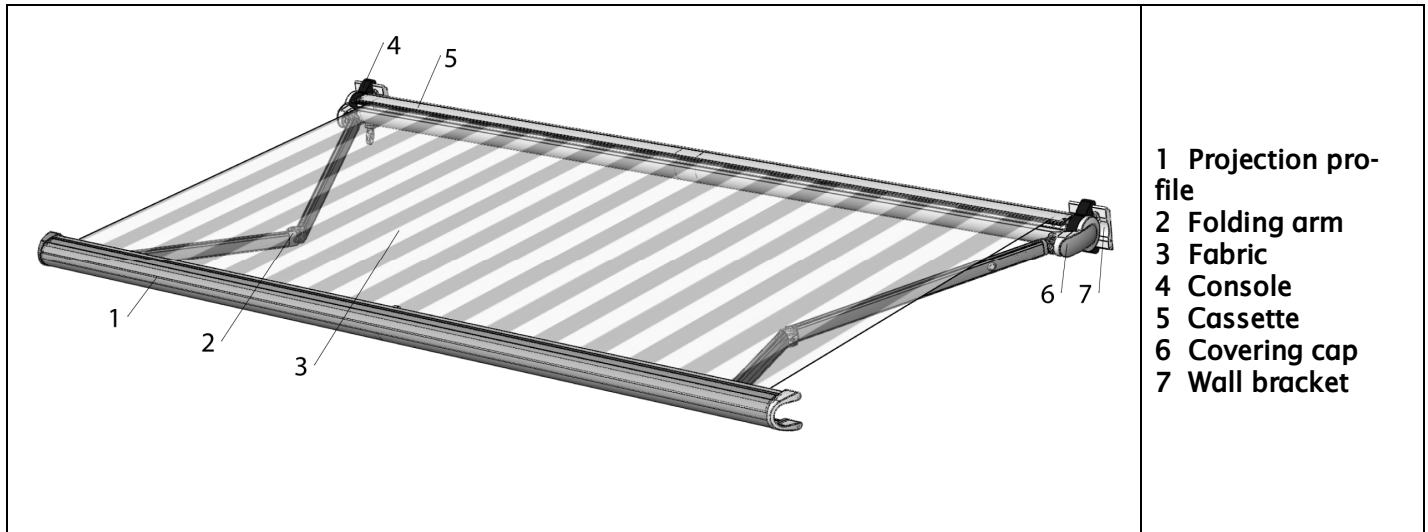


Cassette-folding arm-awning *markilux 990*

Mounting instructions



1. Overview



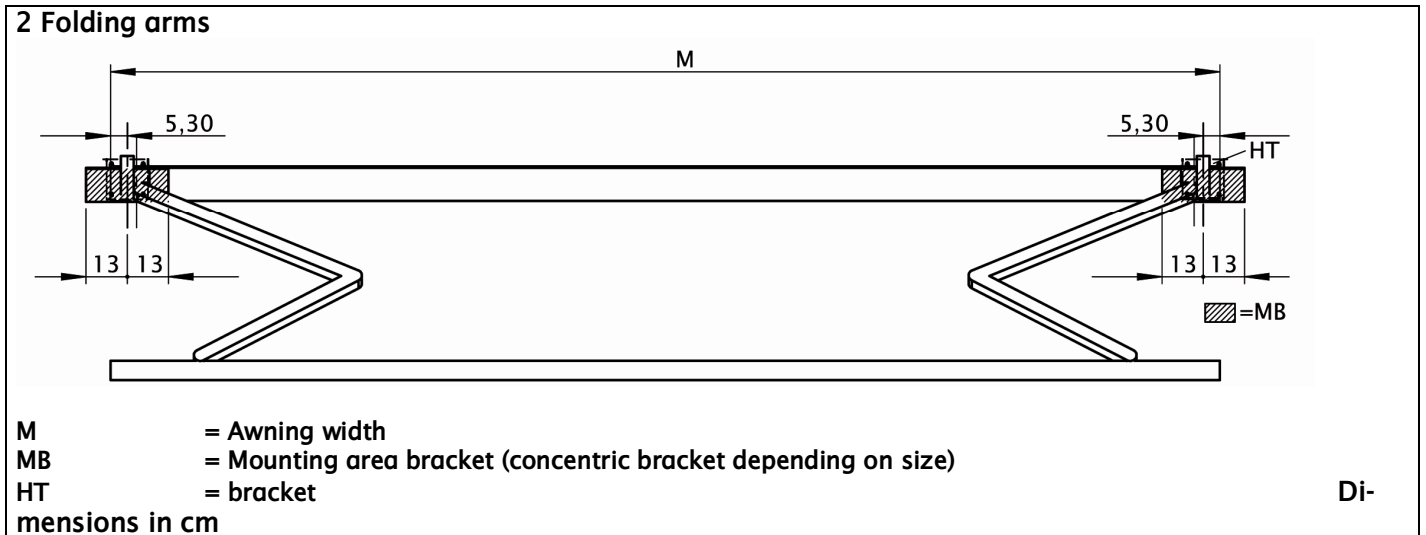
2. Mounting brackets

2.1 Overview mounting brackets

Wall bracket	Ceiling bracket	Rafter holder	
71624.	71625.	71612.	Supplementary bracket for Rafter holder 75383.

Further mounting brackets can be found in the sales information!

2.2 Mounting area for mounting brackets



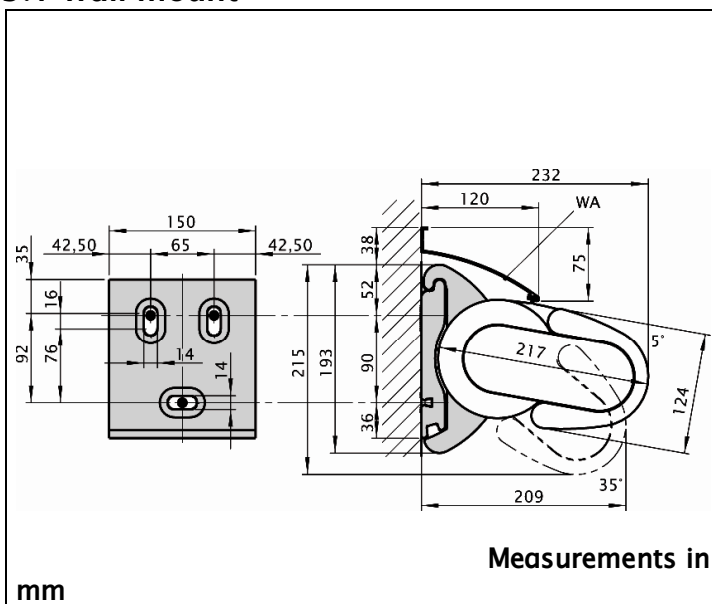
3. Mounting systems

⚠ Attention!

Basically the following is applicable for all mounting systems:

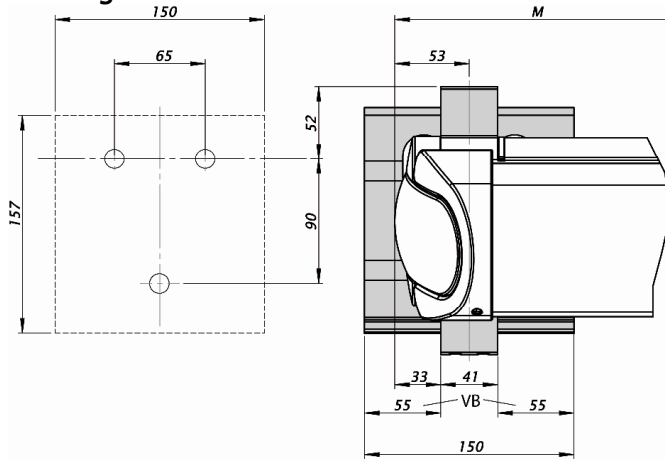
1. The mounting material manufacturers (e.g. Fischer, Hilti, Upat, etc.) offer different mounting systems according to the undersurface. **The corresponding withdrawal and/or shearing forces from our sales documents have to be taken into consideration.** If the conditions for the mounting are met according to DIN EN 13561, the wind resistance class 2 for the mounting can be confirmed to the user.
2. Mounting material is not supplied automatically, as different subsurfaces (e.g. concrete, lime sand stone, autoclaved aerated concrete etc) require different types of mounting material.
3. **IMPORTANT:** Mounting brackets have to be aligned with each other! When subsurfaces are uneven, the clearances are to be checked using a cord pulley and if required compensated accordingly. Due to the horizontal mounting of the folding-arm awning and the perpendicular fit of the mounting brackets, the smooth functioning of the folding-arm awning is guaranteed.

3.1 Wall mount



1. Determine mounting height. Mark position of brackets (see also adjusting range at bracket).
2. Consider mounting material and type of mounting according to undersurface (mounting plate A or B).
3. Mark the drilled holes and mount the mounting brackets with the corresponding mounting plate according to the undersurface. Align the mounting brackets **horizontally!**

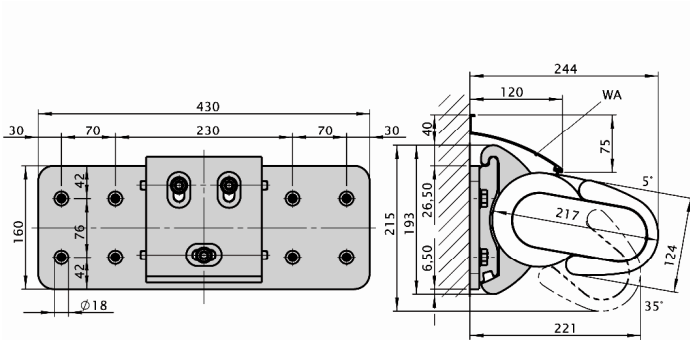
Mounting area of wall brackets



VB = adjusting range
M = width of awning
Dimensions in mm

Dimen-

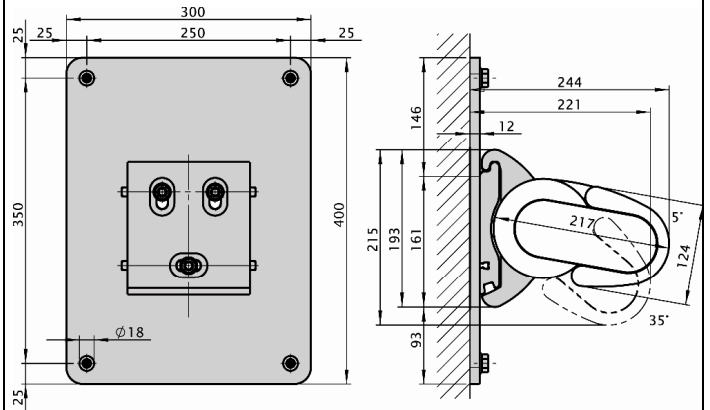
Mounting plate A



Dimensions in

mm

Mounting plate B

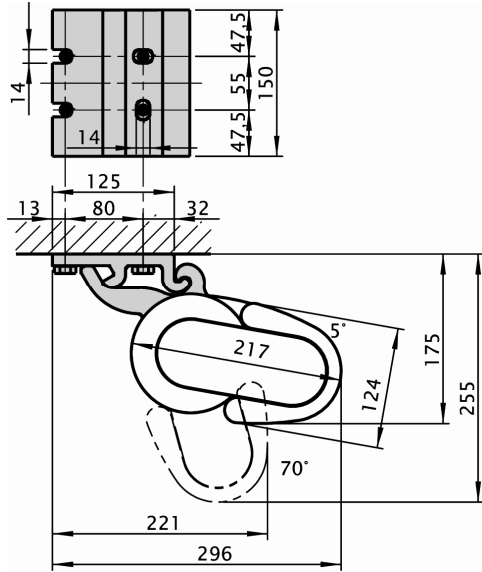


Measurements

in mm



3.2 Ceiling mount

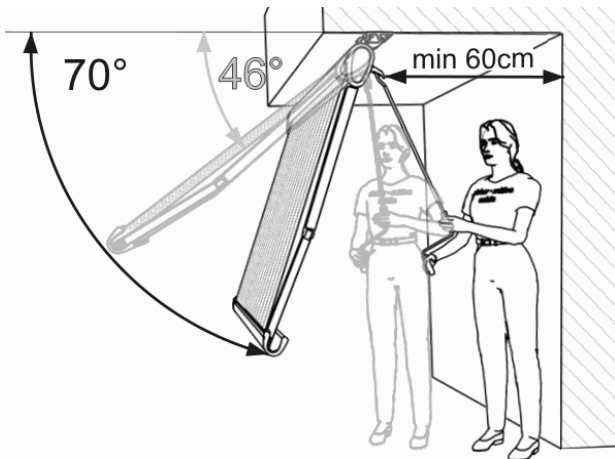


Dimensions in

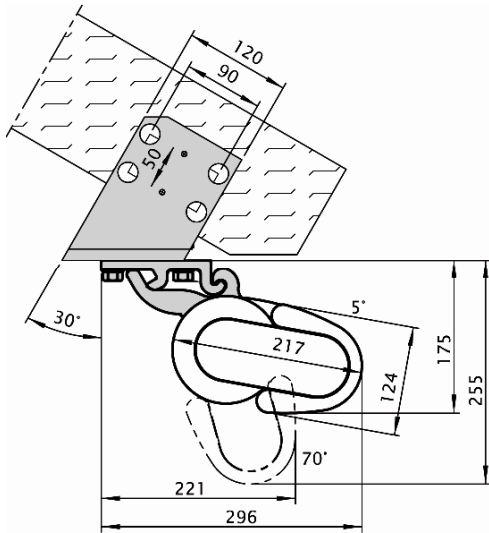
mm

1. The mounting takes place in relation to the wall fitting. The shifting area (VB) for the ceiling brackets is like for the wall mount.

⚠ Attention! Should the angle of inclination be greater than 46° to the horizontal line, an accessible area of 60 cm has to be available for manual operation behind the awning. There are no limitations for motor-driven installations.



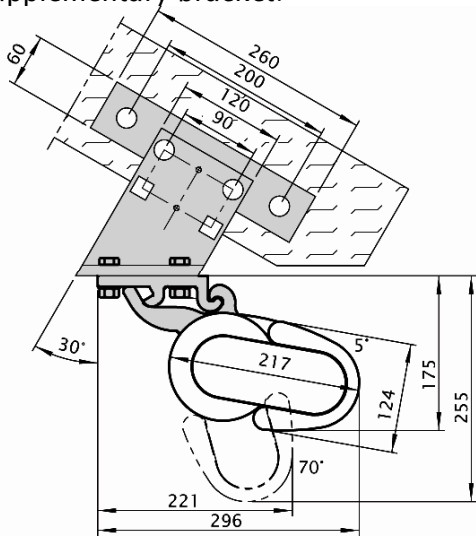
3.3 Rafter mount



Dimensions in

mm

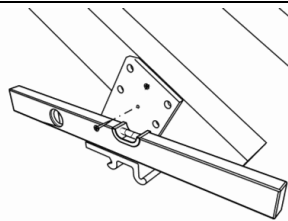
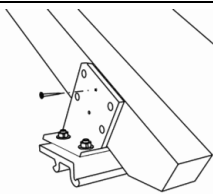
With supplementary bracket:



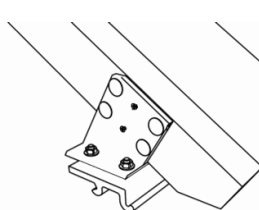
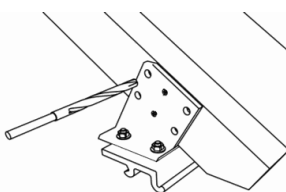
Measurements in

mm

1. The mounting takes place in relation to the wall fitting. The shifting area (VB) for the rafter brackets is like for the wall mount.

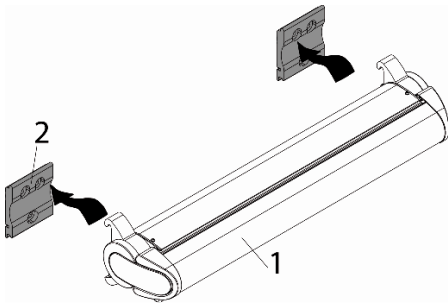


2. Determine mounting height. Hold rafter bracket and mark. Fix the rafter bracket with a nail. Align the brackets horizontally using a spirit level and fix a second nail.



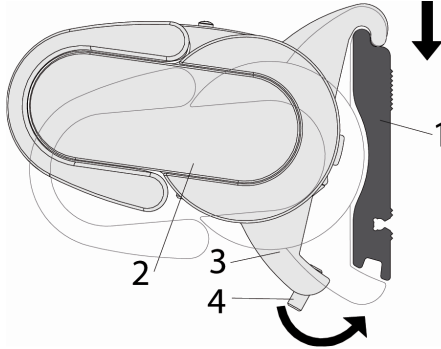
3. Drill through the roof rafter at the screw holes. Screw the bracket with suitable mounting material. Align the roof rafter brackets **horizontally**.

4. Hanging up the awning (e.g. wall fitting)

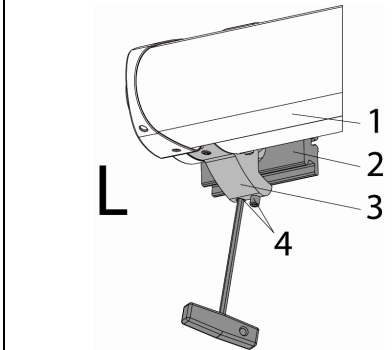


1. Lay the awning (1) on the wall bracket (2).

⚠ Attention! Awning has to be retracted completely (delivery state)!

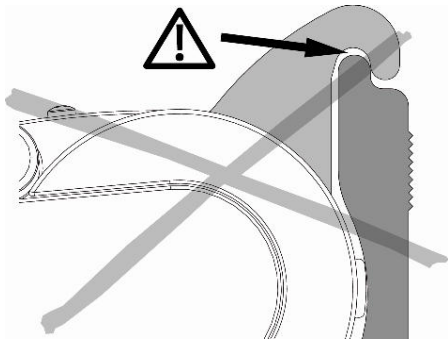


2. Hang the awning (1) in such a way into the wall brackets (2) that the consoles (3) lie flush at the top on the wall brackets and the threaded pins SW 5 (4) can be screwed in.



3. Always tighten first the two threaded pins SW 5 (4) of the left console and then the ones of the right console!

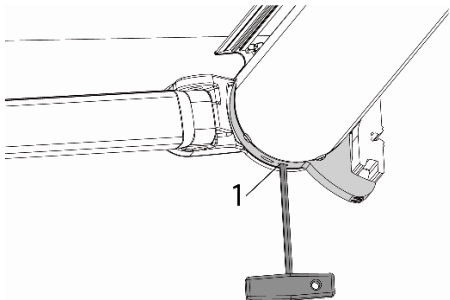
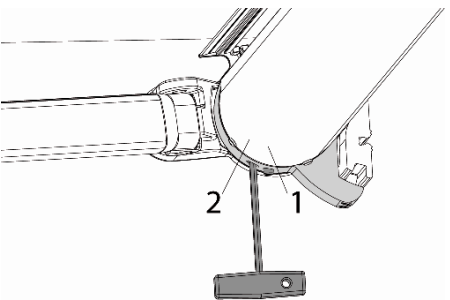
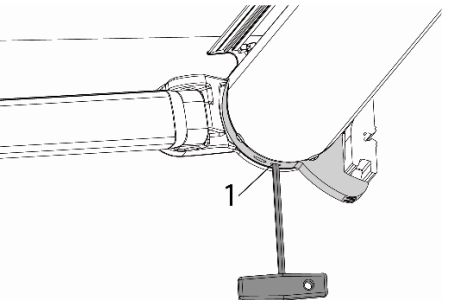
L Left



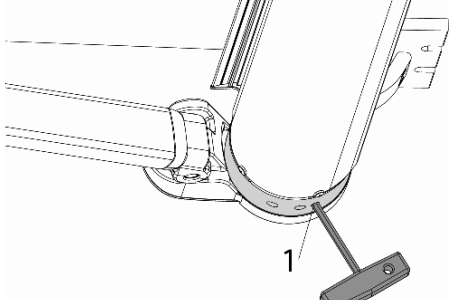
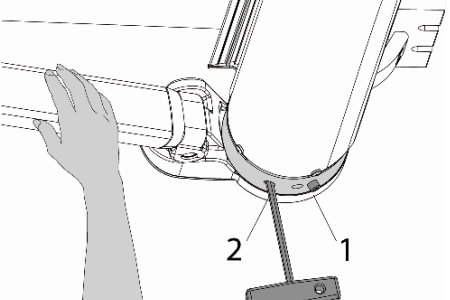
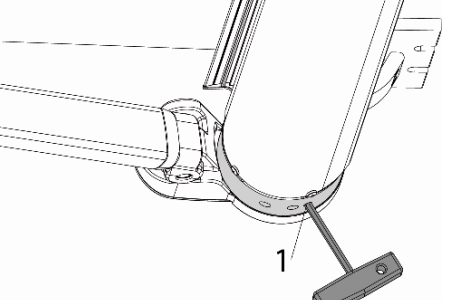
4. **⚠ Attention!** When tightening the threaded pins, no gap must form at the top in the connection area between console and bracket (see drawing)!

5. Setting the angle of inclination

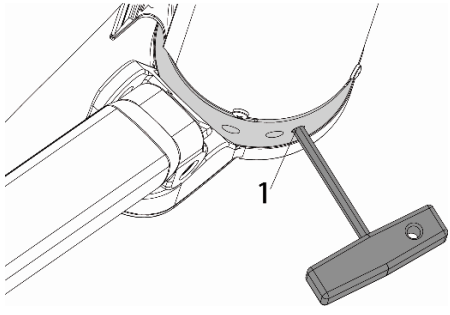
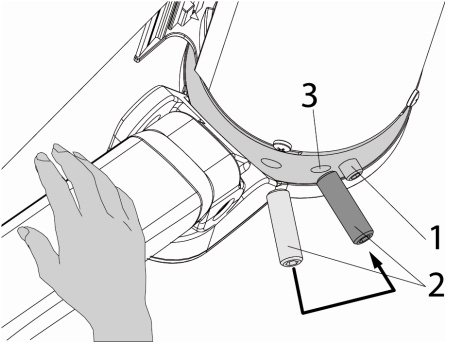
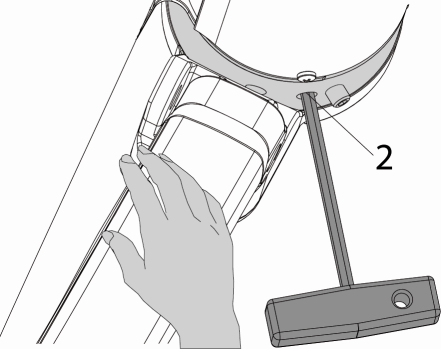
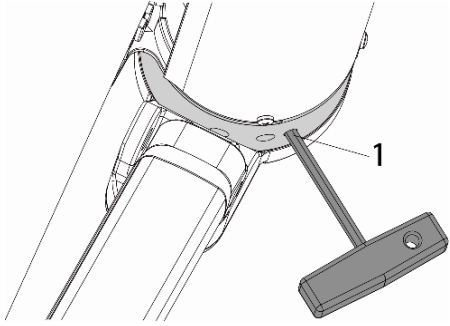
5.1 Wall mount 0° - 35°

		
<p>1. Extend awning and unscrew the rear threaded pin SW 5 (1) at both consoles by approx. 10 mm from the consoles.</p>	<p>2. Set the required inclination by turning the front threaded pin SW 6 (2) either way at both consoles respectively. While doing this take the pressure of the arms by lifting them.</p>	<p>3. ⚠ Attention! Tighten the rear threaded pin SW 5 (1) again at both consoles so that the awning is protected against flipping up!</p>


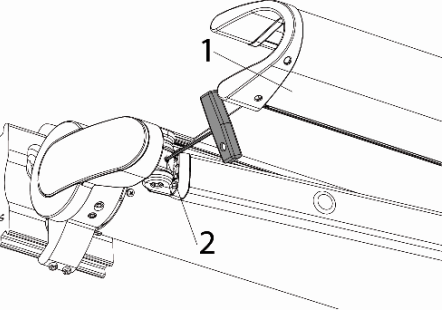
5.2 Ceiling mount 0° - 35°

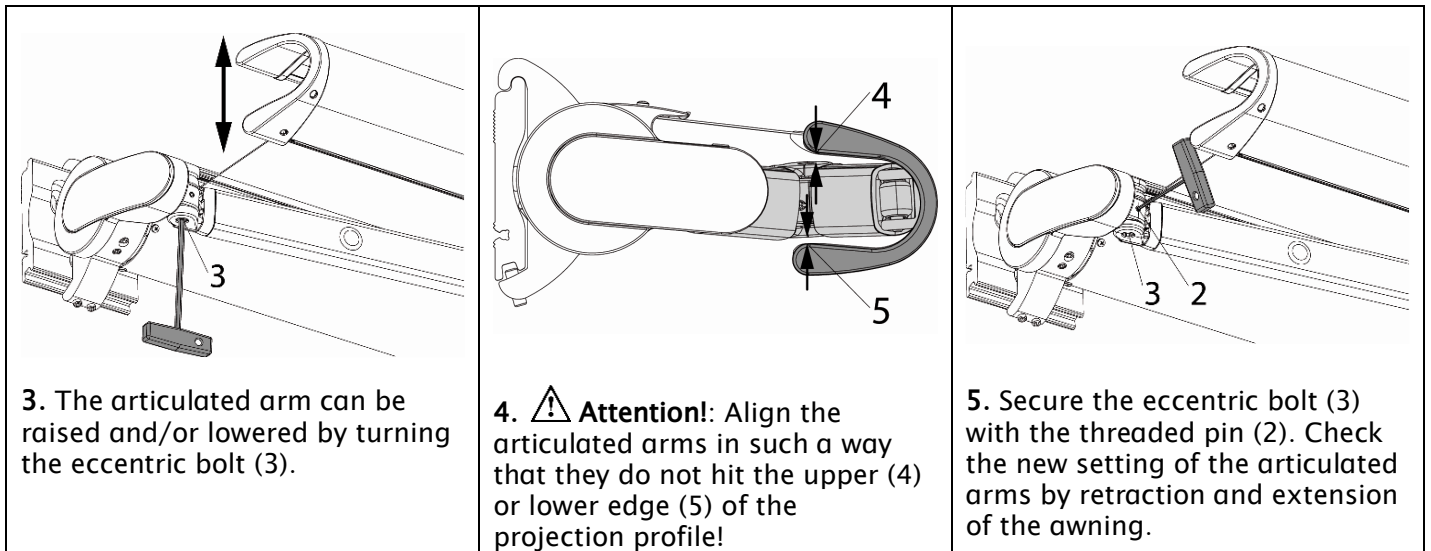
		
<p>1. Extend awning and unscrew the rear threaded pin SW 5 (1) at both consoles by approx. 10 mm from the consoles.</p>	<p>2. Set the required inclination by turning the front threaded pin SW 6 (2) either way at each of the two consoles. While doing this take the pressure of the folding arms by lifting them.</p>	<p>3. If an angle of 35° is sufficient for both consoles, tighten the rear threaded pin SW 5 (1) again so that the awning is protected against flipping up!</p>

5.3 Ceiling-/ Rafter mount 36° - 70°

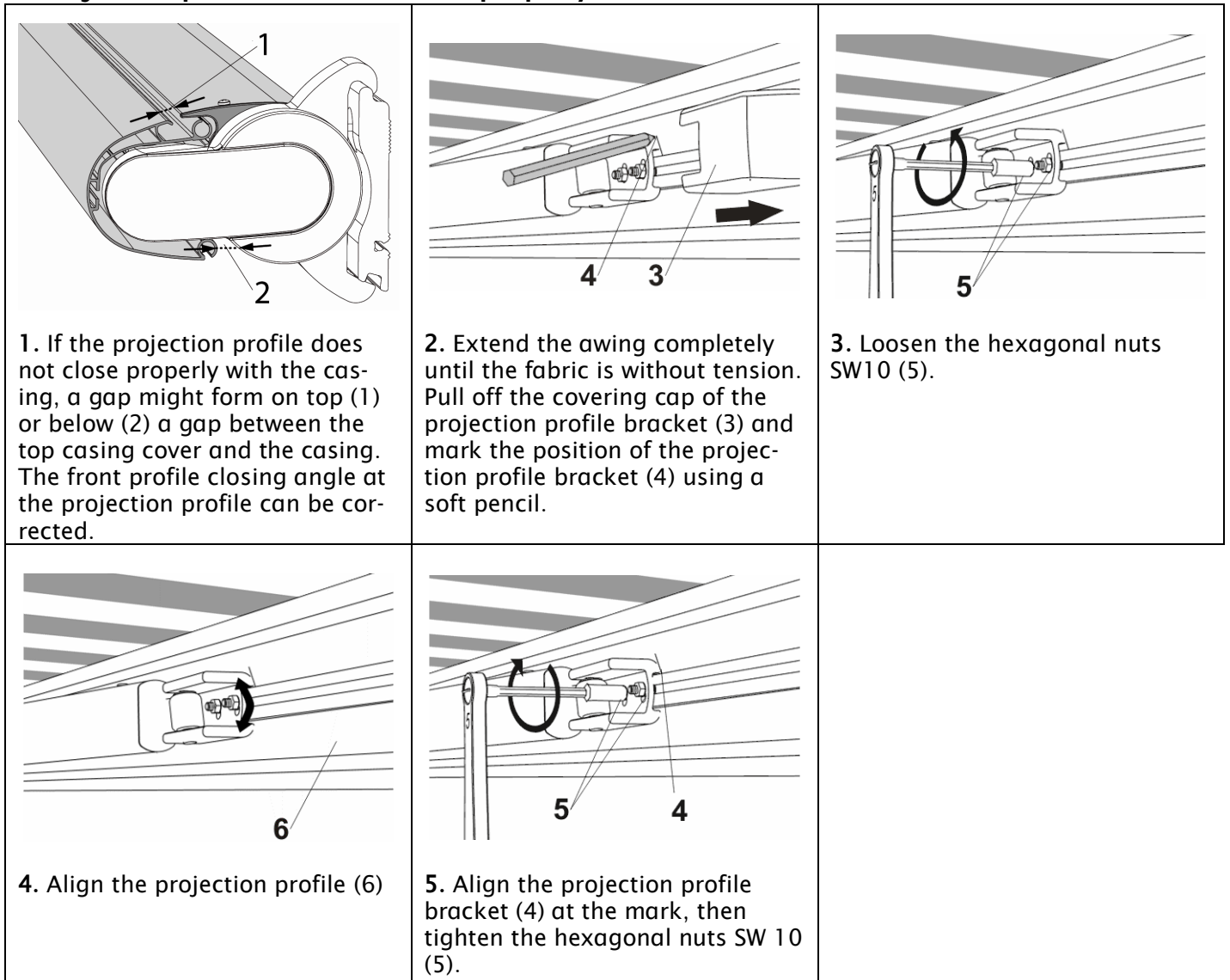
 <p>1. Extend awning and unscrew the rear threaded pin SW 5 (1) at both consoles by approx. 10 mm from the consoles.</p>	 <p>2. Screw the front threaded pin SW 6 (2) at both consoles in the middle threaded drilling (3). While doing this take the pressure of the arms by lifting them.</p>	 <p>3. Set the required inclination by turning the threaded pin SW 6 (2) either way at each of the two consoles. While doing this take the pressure of the arms by lifting them.</p>
 <p>4. ⚠ Attention! Tighten the rear threaded pin SW 5 (1) again at both consoles so that the awning is protected against flipping up!</p>		

6. Arm position at retracted awning

 <p>1. If an arm is set too high or too low when the awning is retracted and therefore the projection profile does not close properly, the arm position is to be corrected.</p>	 <p>2. Retract the projection profile (1) that much that the security threaded pin SW 3 (2) can still be loosened. Loosen security threaded pin.</p>
---	---



7. Projection profile does not close properly



8. Motor-driven awning

8.1 Motor connection

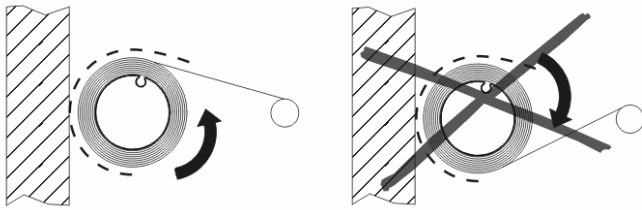
The electrical connection for the motor drive and/or control system connection is to be carried out according to the instructions of the manufacturer of the motor and control system. Modifications, especially in the motor's, the control system's and the connecting cable's area require a written permit.

The installation and setting instructions are indicated on the motor's power supply cable. Instructions for further electrical components are to be found in the corresponding packaging.

⚠ Attention!

The built-in motor has a set end stop both in the extension and retraction direction. These settings were effected in the factory. **They always have to be checked on site**, as the end stops might have shifted e.g. through strong vibrations during transport or the motor does not switch off anymore. For any changes or corrections of these settings please refer to the instructions of the motor.

Sense of rotation during retraction



⚠ Attention!

The rolling up of the fabric on the fabric roller from below during retraction could lead to damage to the awning. When changing the end stop, it is indispensable to pay attention to the sense of rotation!

8.2 Motor connection data markilux 990 ⚠

with radio control (433 MHz):

$U = 230 \text{ V} \sim / 240 \text{ W}, 50 \text{ Hz},$

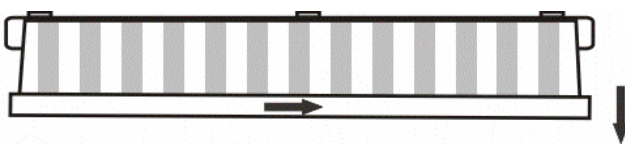
$I = 1.10 \text{ A}$

without radio control:

$U = 230 \text{ V} \sim / 240 \text{ W}, 50 \text{ Hz},$

$I = 1.10 \text{ A}$

9. Rainwater gutter and water discharge



In order to guarantee a safe water discharge from the rainwater gutter, the inclination angle can be set differently for both consoles (see point 4). Like this the projection profile shows a slight incline.