

assembly advices

markilux 730 / 830 with gas piston-tensioned arms



Overview

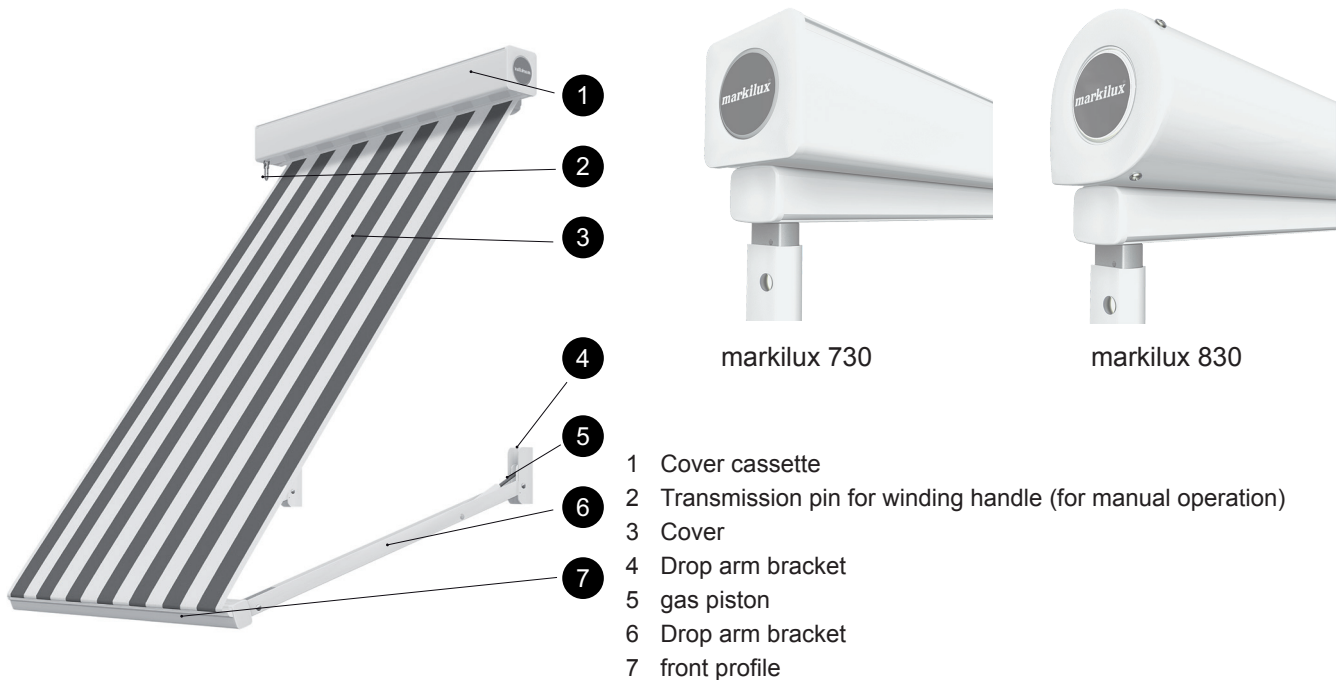


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Scope of the Delivery

The vertical awning is delivered in complete pre-assembled cassette in protective foil with projection profile and 1 pair of guide rails. 3 drop arms are delivered from 401 cm.

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markilux safety instructions


Important information for the installation of markilux awnings

1. Who is allowed to fit markilux awnings?

The markilux installation instructions are to a qualified mechanic who has skilled knowledge in following domains:

- Occupational and operational safety and accident prevention regulations
- Handling of ladders and scaffoldings
- Handling and transport of long and heavy component parts
- Handling of tools and machines
- Fixture device placement
- Assessment of building materials
- Commissioning and operation of the product

If any one of these qualifications is not existent, a qualified installation firm must be engaged.

 Electrical works: electrical installations must be carried out by a certified electrician according to VDE 0100. The enclosed installation instructions of the supplied electronic devices are to be observed.

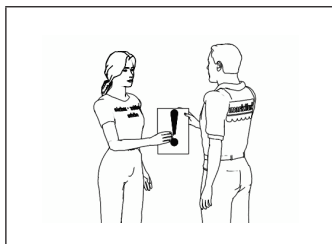
We recommend installation be carried out by at least two people. Larger awnings may require three persons.

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

- does the number and type of fixture brackets match the order?
- do the specifications made with the order concerning the fastening background correspond with the actual fastening background at hand (only for folding-arm awnings)?

If irregularities which may affect the safety of the unit or its users are determined, then the installation must not be undertaken.

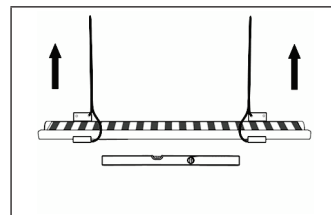
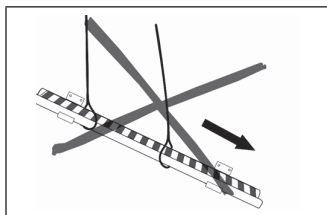
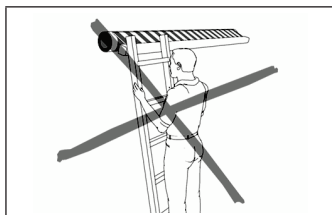
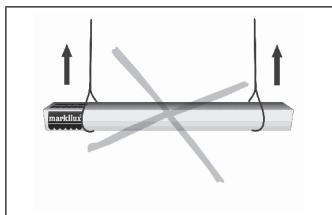
3. Reading and passing on the instructions



The security and attachment notes as well as the operation manuals 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 informed about the safety and usage information of the awning. With nonobservance and improper operation, the awning can suffer damage and accidents can occur.


4. Working at greater heights



If the awning construction has to be pulled up into a higher area with rope support, then the awning has

- to be taken out of the package,
- should be connected with pull ropes in such a way that these cannot slip out,
- are to be pulled up evenly in an horizontal position.

The same also applies for awning deinstallation.

 Working at heights increases the risk of falling. Appropriate climbing aids and safety rails are to be used whilst installing the awning.

5. Wind resistance classes



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

DIN EN 13561

Awnings for exterior applications

wind resistance class 2

markilux folding-arm awnings
markilux 710/810, 720/820, 725/825,
750/850, 730/830, 740/840, 745/845,
893, 869/869 zip/889/889 zip
(depending on size), 8850

wind resistance class 3

markilux 760/860, 620 zip, 660 zip,
680 zip, 780/880, 8800/8800 zip,
869/869 zip/889/889 zip (depending
on size), pergola 110/210

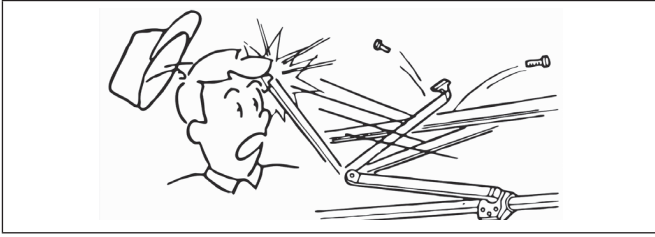
The awning fulfills the requirements of the wind resistance class specified in the CE conformity marking (explanations see „handover declaration“).

In assembled condition, it only fulfills these requirements if...

- ... the awning is mounted in accordance with the type and number of consoles recommended by the manufacturer.
- ... the instructions of the fixing material manufacturer regarding the used dowels were followed during the assembly.
- ... the installation of folding-arm awnings was carried out considering the

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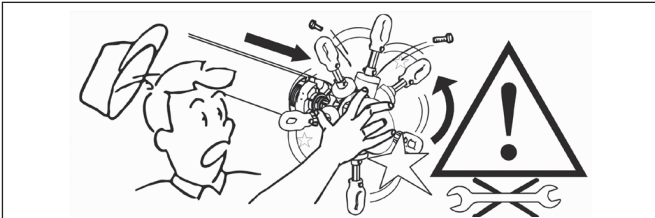
6. Partly assembled awnings



! In case of awnings that come partly-assembled from the factory – e.g. coupled folding-arm awnings without cover - the spring-loaded parts (see figure: Example folding-arm awning) are secured against unintentional opening. These securing means must be removed only after the complete assembly.

The labelled awning parts are under spring tension and can pose an high injury risk.

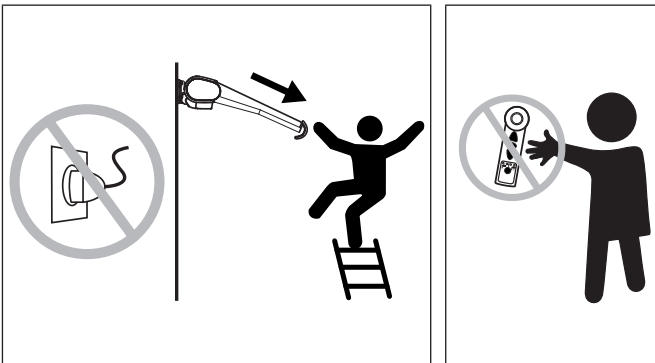
7. Folding arm awnings with servo gear for hand crank



! The servo gear unit of folding-arm awnings (marking by label) must not be dismantled. It is under great tension!

If the awning cloth or the gear have to be changed, kindly enquire before about the instructions „What is to be done, if the servo gear unit has to be dismantled?.

8. Uncontrolled operation



! When working in the range of travel of the awning (see figure: example folding-arm awning) the automatic control has to be deactivated. There is a risk of crushing body parts and falling.

Additionally, the installer must ensure that the unit cannot be unintentionally operated during works. The power supply should be disconnected i.e. by removing or turning off safety fuses and/or removing the power cables and motor socket gear. For works on manually operated units the crank should be removed and stored safely.

If awnings are operated by more than one person, an override locking device (controlled circuit breakers from outside) must be installed so that any retraction or extension of the awning is not possible.

9. Proper intended use



Awnings may only be used according to the purpose defined in the operation manual. Alterations like rebuilding or enlargements which are not intended by the manufacturer may only be carried out with the manufacturers written approval.

Additional awning burdens by means of object attachments or rope wearing can result in damage or dropping of the awning and are therefore not allowed.

The awning must not be subjected to high temperatures, heavy vibrations, jarring or heavy mechanical stress.

A build up of snow behind the awning can be avoided by installation of snow stoppers (snow collecting grid or the like).

10. Crush and shear zones



! Depending on the type of awning there are crush and shear zones, e.g. between front profile and cassette and between moving parts. Items of clothing or limbs can be grabbed by the unit and pulled in. (see figure: example folding-arm awning.)

If the awning is installed at a height less than 2.5 metres above accessible traffic ways, then the awning may only be operated by a pushbutton switch which enables the moving parts to be viewed. Electric controls, radio-controlled motors with click in-switches are not permitted for such installations.

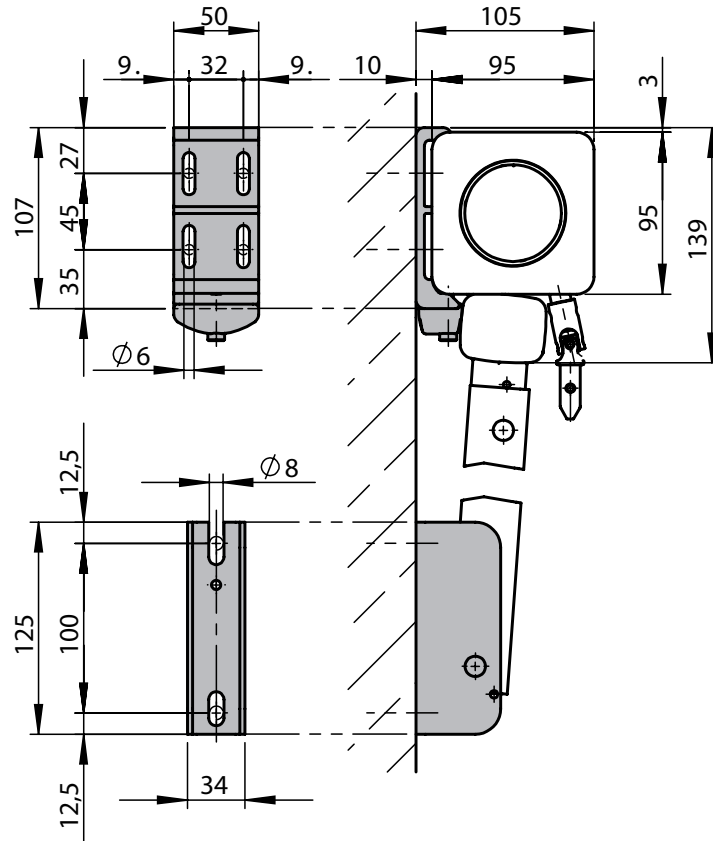
assembly advices

markilux 730 / 830

1. Mounting brackets

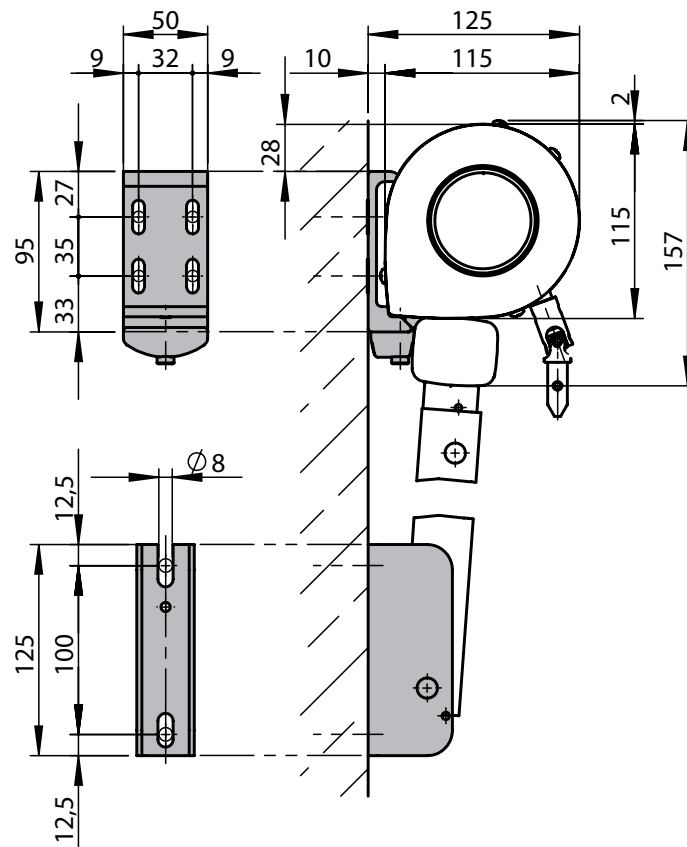
1.1 Face fixture

markilux 730



dimensions in mm

markilux 830

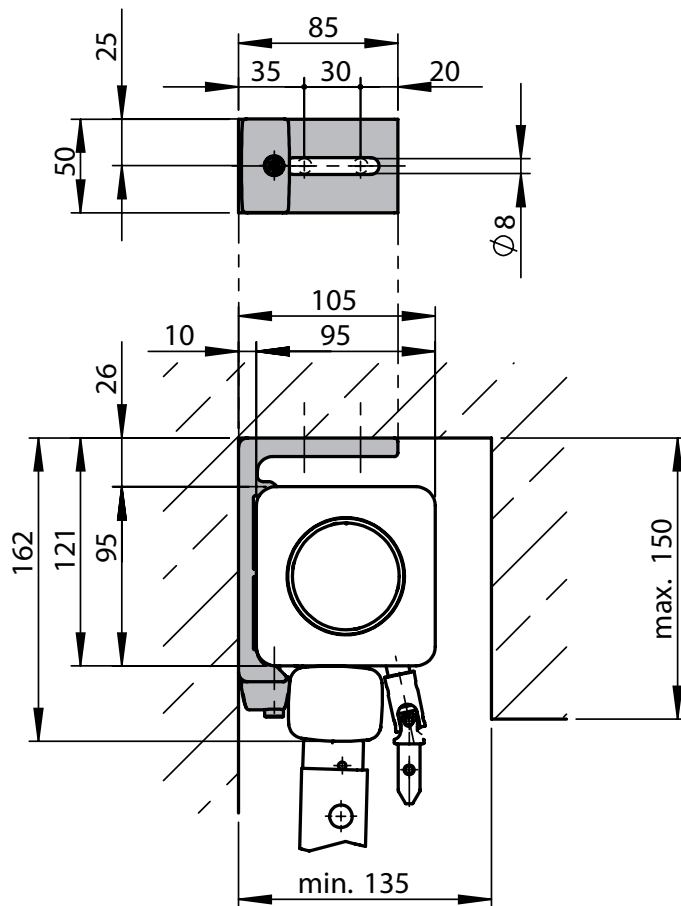


dimensions in mm

www.markilux.com

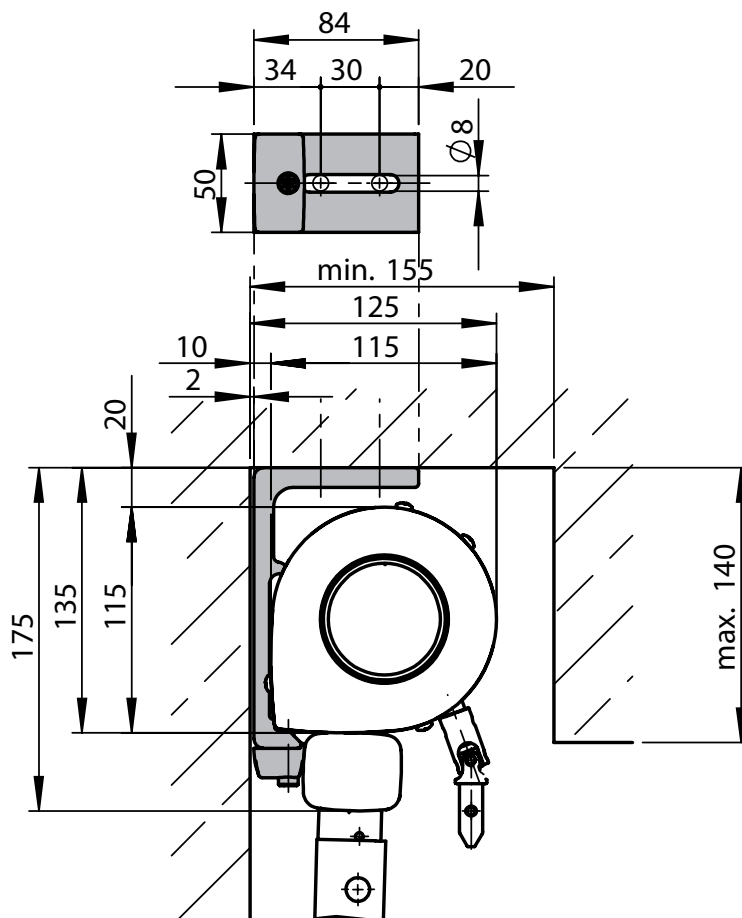
1.2 Top and reveal fixture

markilux 730



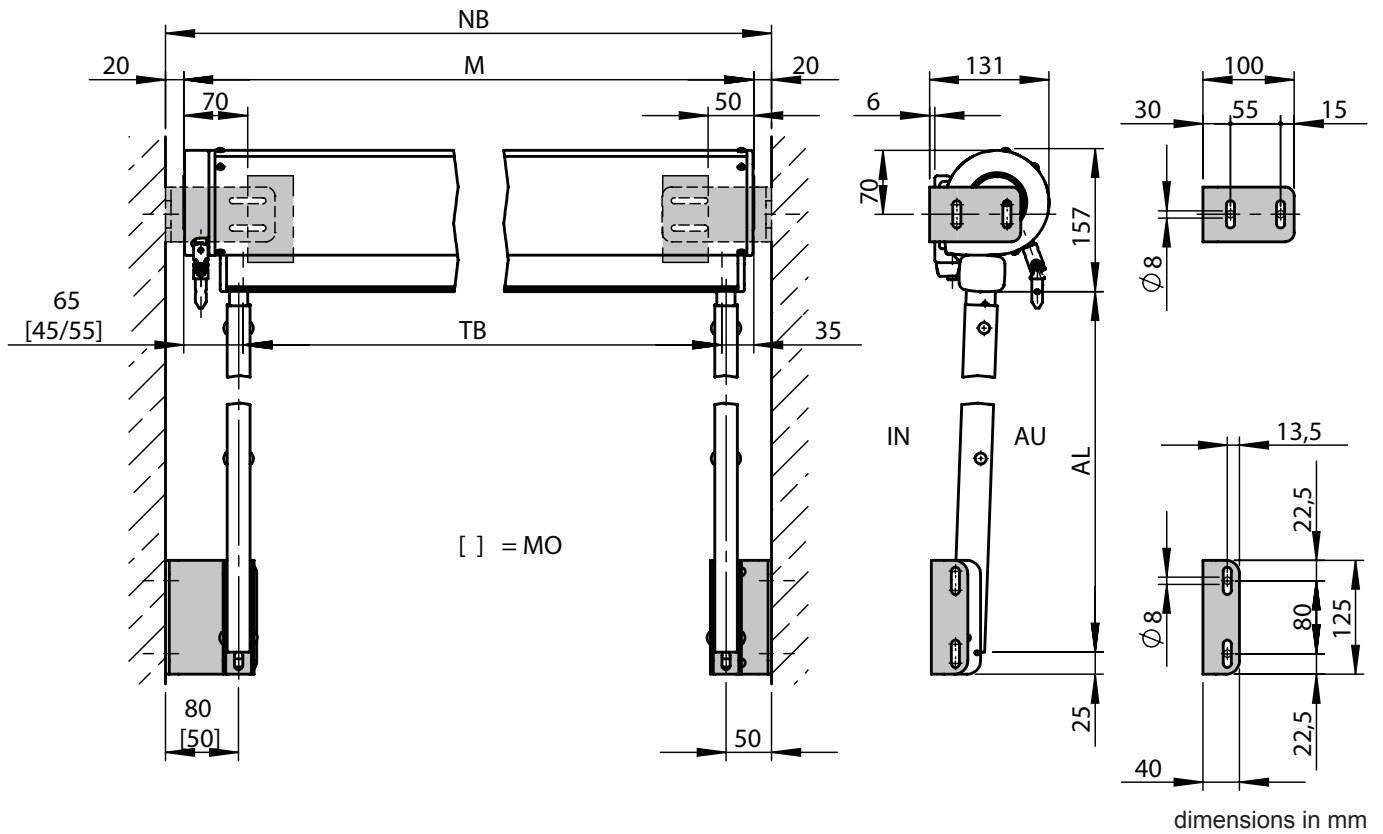
dimensions in mm

markilux 830



dimensions in mm

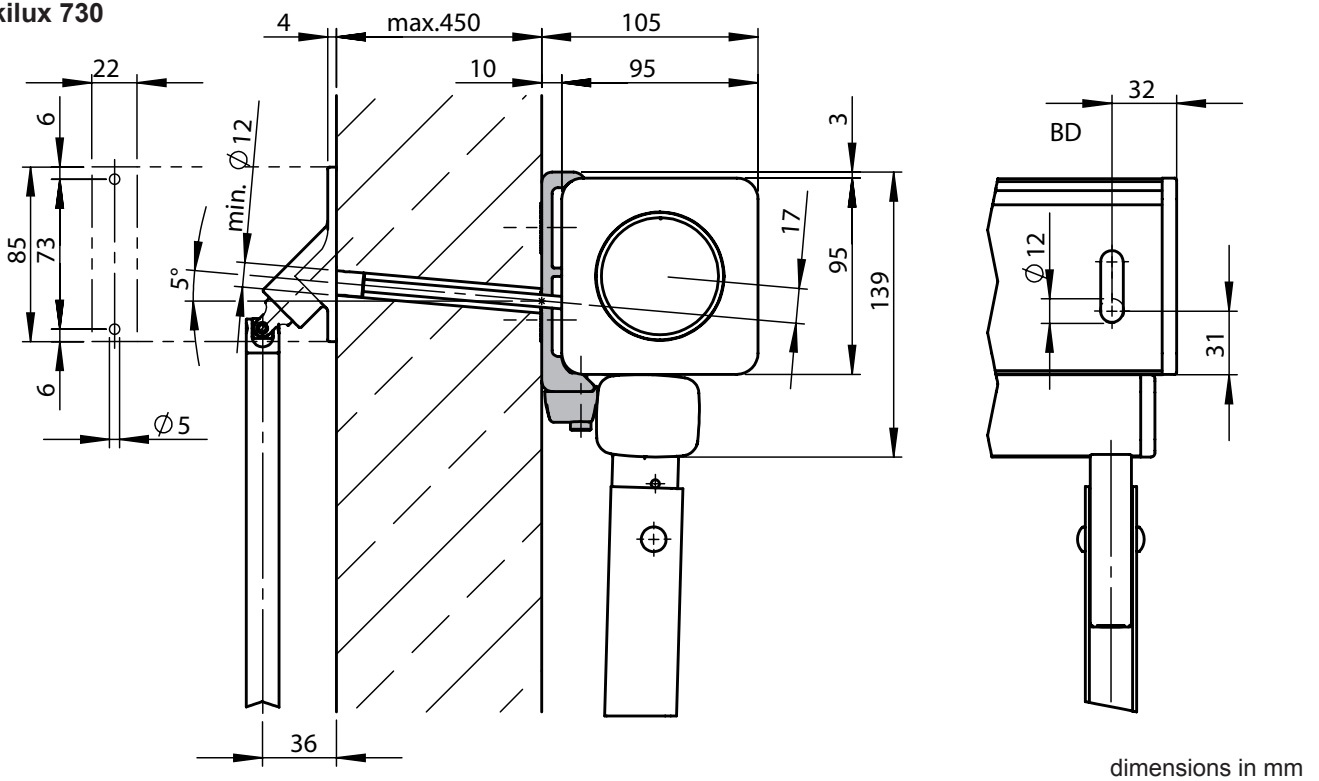
Dimension overview, example markilux 730 (2 drop arms)



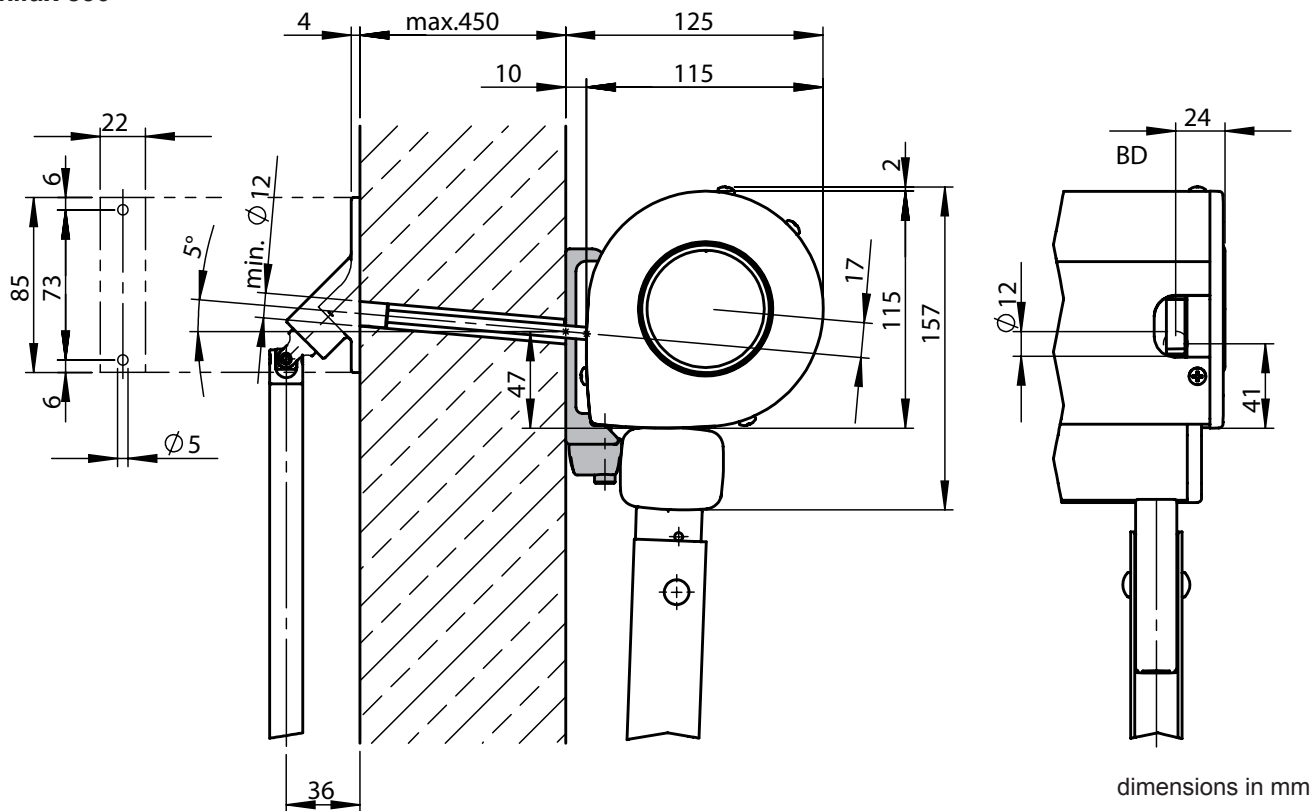
- M = overall blind width
- NB = reveal width
- TB = cover width
- IN = interior
- AU = exterior
- AL = arm lengths
- HT = bracket
- BD = horizontal drill hole
- [...] = dimensions in the case of motor / interior operation respectively

1.3 Face fixture with interior operation

markilux 730



markilux 830



dimensions in mm

1.4 Mounting systems

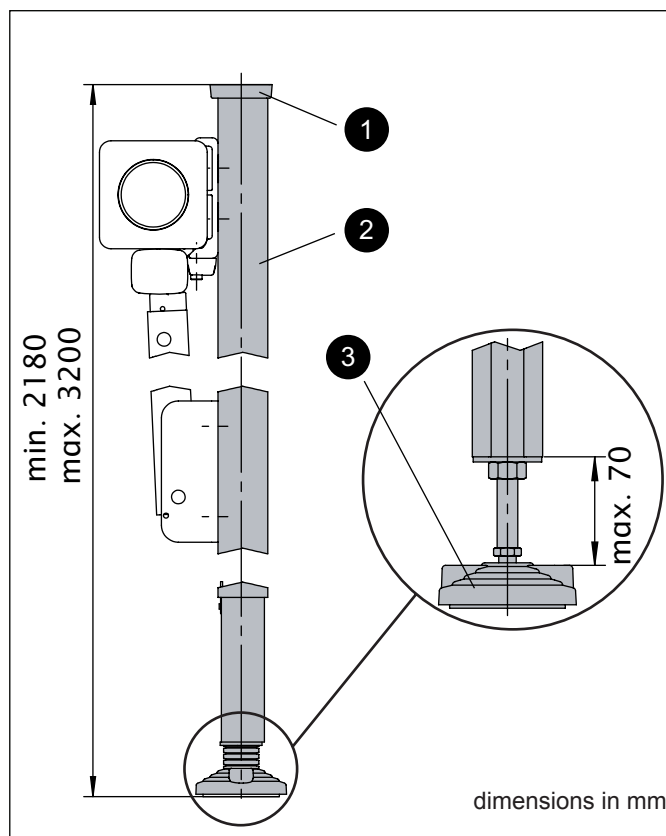
! N.B.!:

Basically the following is applicable for all mounting systems:

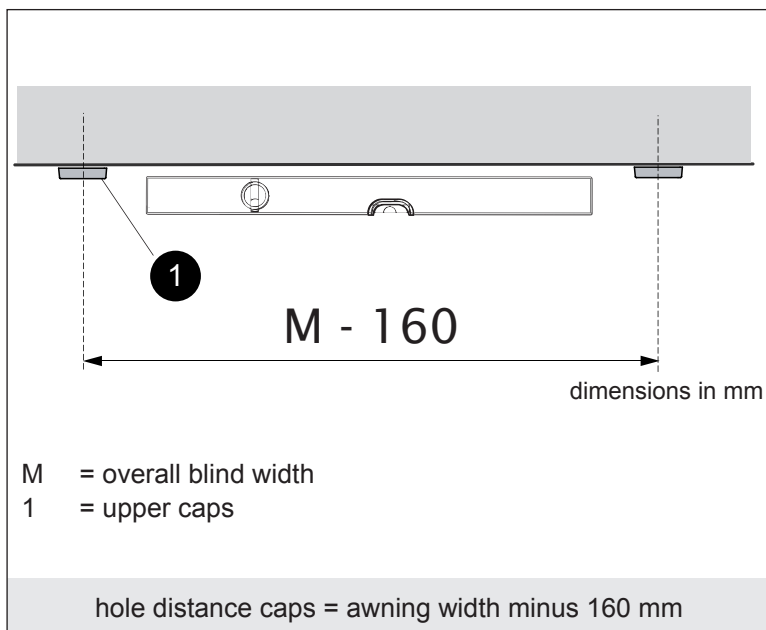
1. The mounting material manufacturers (e.g. Fischer, Hilti, Upat, etc.) offer different mounting systems according to the undersurface. If the requirements for fixture are fulfilled, according to DIN EN 13561 the installation can be verified for wind resistance class 2 to the user. wind resistance class 2 can be verified.
2. Mounting material is not delivered, as different undersurfaces (e.g. concrete, lime sand stone, autoclaved aerated concrete, etc.) require different types of mounting material

2. Installation of the awning

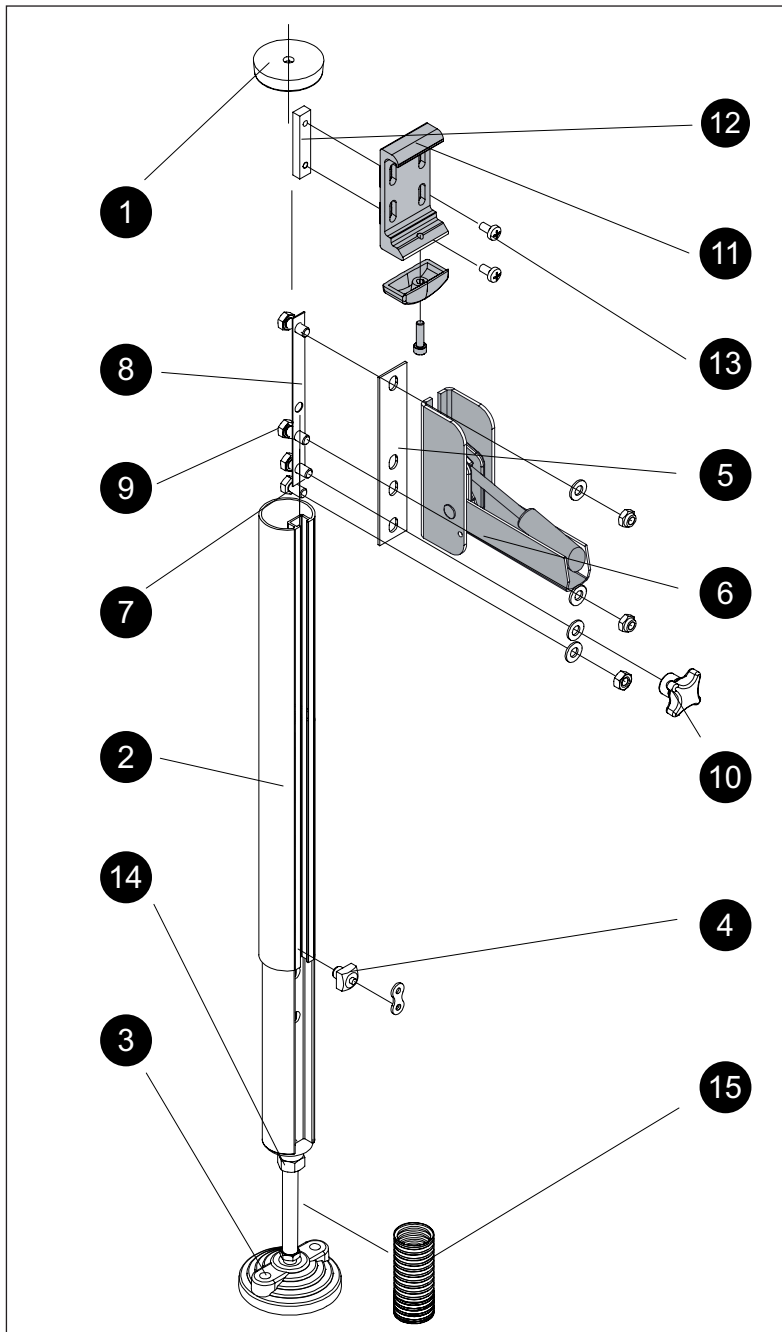
2.1 Assembly of downpipes (optional)



- 1 upper caps
- 2 extendable downpipes (min. 2,180 mm to 3,200 mm)
- 3 base plate



1. Screw the upper caps of the downpipes (1) each with a clearance of 80 mm between middle of cap and outer edge of awning to the ceiling.



2. Adjust extendable downpipes (1) (clamping height max. 3200 mm) roughly with the pawl (4).

3. Insert the downpipes into the upper fixed caps. Align the downpipes vertically and clamp by screwing up the nut SW 18 (14) at the base plate (3) between ceiling and floor.

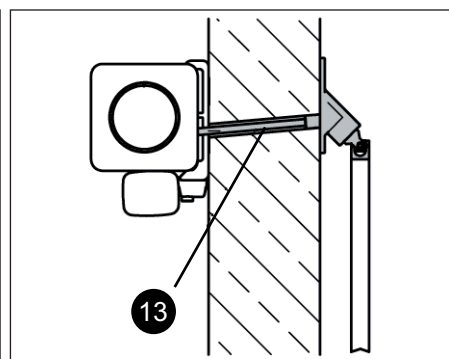
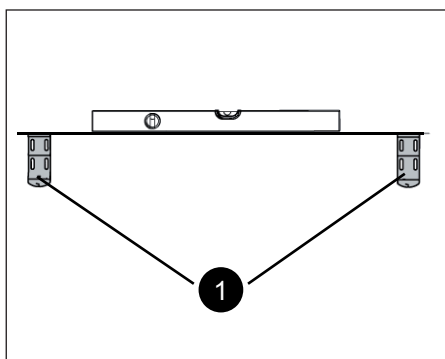
4. Shorten the protective hose (15) to the set dimensions and fix.

5. Fix the awning as described under point 2.2.

6. **⚠ Safety note!** The stability of the downpipes has to be checked from time to time. If required, re-tighten the hexagon nut SW 18 (14) at the base plate (3).

- | | | | |
|---|------------------------|----|-----------------------------------|
| 1 | upper cap | 9 | 3 pieces hexagon screw M 8 x 20 |
| 2 | extendable downpipe | 10 | star knob |
| 3 | base plate | 11 | face fixture bracket of awning |
| 4 | pawl | 12 | pincher carriage |
| 5 | sliding plate | 13 | 2 pieces oval-head screw M 6 x 12 |
| 6 | drop-arm awning | 14 | nut SW 18 |
| 7 | hexagon screw M 8 x 14 | 15 | two-piece protective hose |
| 8 | Spacer plate | | |

2.2 Assembly of awning

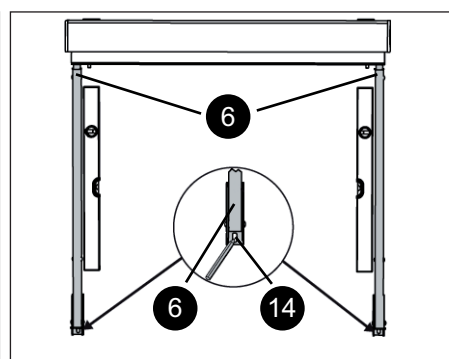
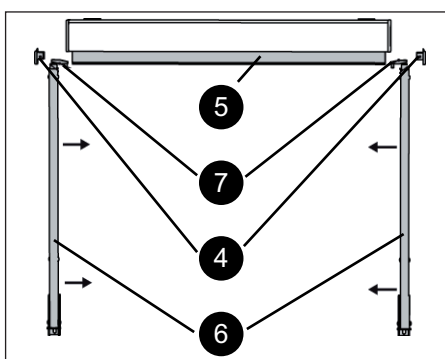
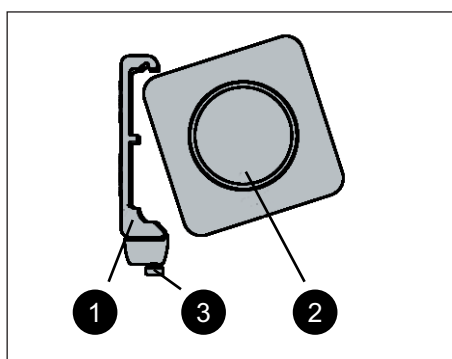


1. Remove protective cover and check individual components. Do not yet remove the tubular foil security and securing tape against automatic extension of gliding arms.

2. Mount the brackets (1) horizontally on the mounting surface. The brackets have to be flush to each other (cord pulley)! A third mounting bracket always has to be put centred.

3. For units with interior operation: Mark drillings for drive pin and console on the drive side according to the supplied template and drill hole.

⚠ Attention: The drilling (13) should have an inclination to the outside so that no moisture can enter.

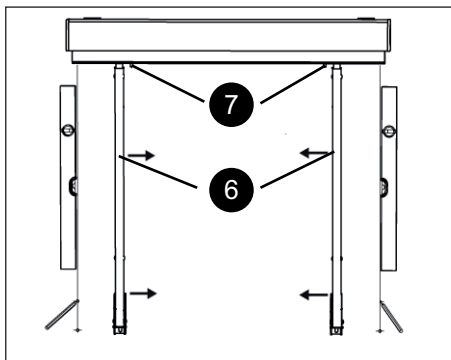


3. Suspend cassette (2) into the brackets (1), put in the requested position and tighten the locking screws SW 5 (3).

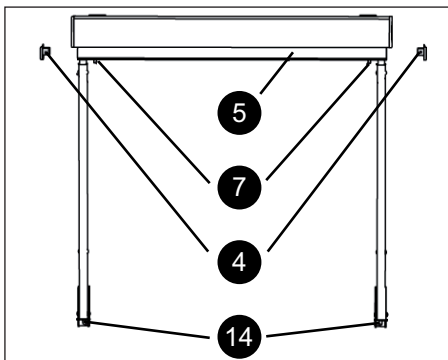
4. Pull of the end caps (4) of the projection profile (5) laterally. Push both drop-arms (6) laterally from outside into the groove of the projection profile (5). Put into position and securing against movement using the threaded pins SW 4 (7).

5. Hold drop arms (6) perpendicularly against the mounting surface, mark lower drillings (14).

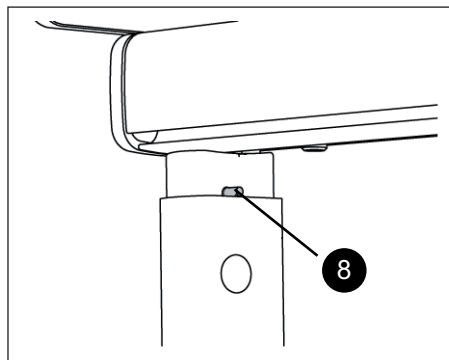
⚠ Attention: Do not tighten the threaded pins (7) a lot, as otherwise the drop-arms will tense up.



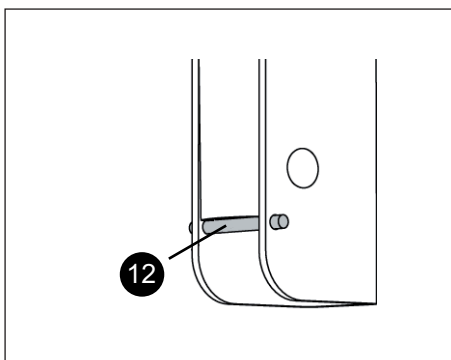
6. Loosen threaded pins (7) SW 4 and push the arms (6) about 10 cm towards the centre. Measure mounting holes, mark perpendicularly and drill.



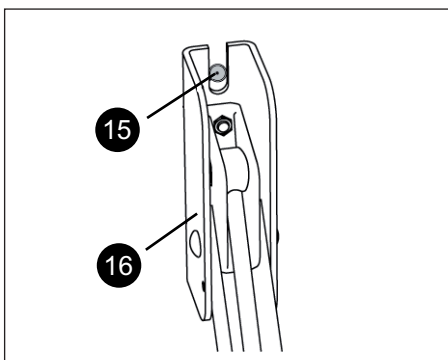
7. Push arms again in position, fix at the lower drilled holes (14) using screws and secure with the threaded pins (7). Fix the end caps (4) laterally at the projection profile (5).



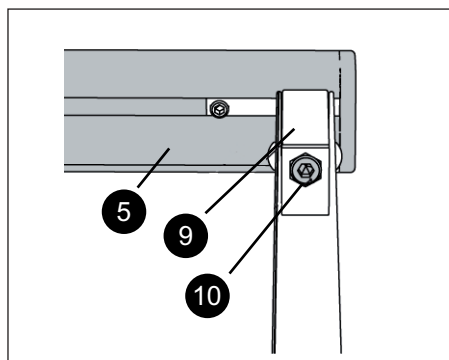
8. Remove the tubular foil security and securing tape of the drop arms (against unfolding). Remove upper arm locking devices (8) (1 pin per arm)!



9. remove lower arm locking devices (12) (1 pin per arm)!



10. Extend awning. Fix the drop-arm bracket (16) at the upper drilled holes (15) using screws.



11. Using a cylindrical head screw (10) SW 6, securely fix the projection profile bracket (9) and projection profile (5) on both sides.

12. If required, the drive end lock has to be adjusted in extension direction of manual-driven units. For motor-driven awnings, the end position setting has to be readjusted on site in extension direction.

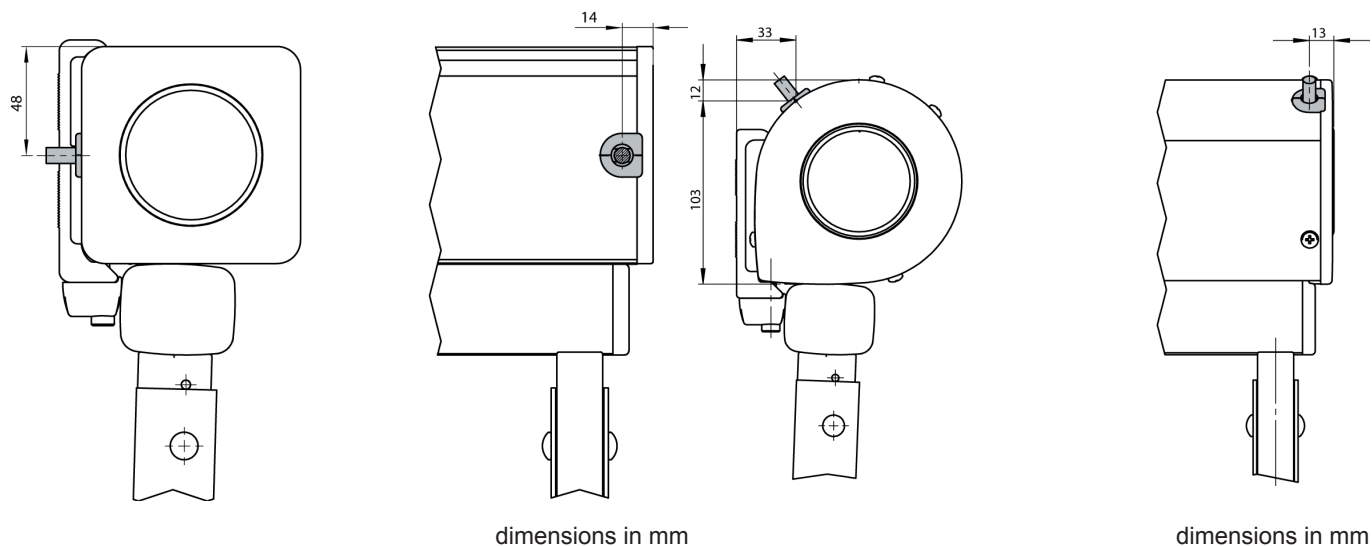
⚠ Attention! Observe sense of rotation of the fabric roller (see point 3.3).

3. Motor-driven awning

3.1 Cable exit position on motor-driven units

markilux 730

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3.2 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 concerning the motor, the control system and the connecting supply lines require authorisation in writing.

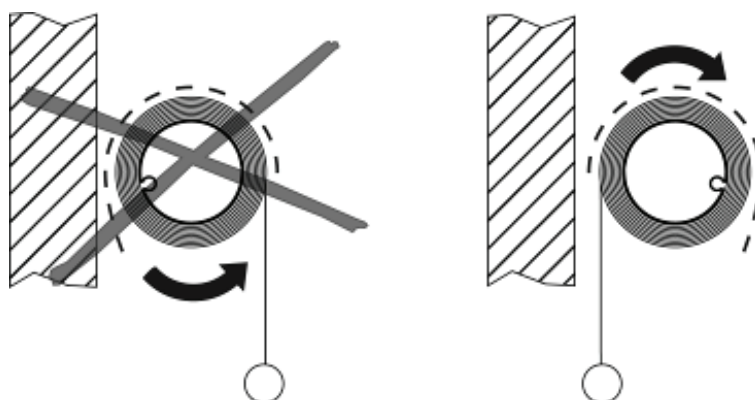
The installation and setting-up instructions are attached to the motor's power supply cable. Instructions for further electric components are inside the belonging package.

⚠ Attention!

The built-in motor does not have an inherently-learned end positions in extension direction. The upper end position always has to be checked on site, the lower end limit has to be set. Pay here particular attention to the direction of rotation during retraction, see point 3.3. Kindly proceed in accordance with the instructions of the motor manufacturer.

3.3 Direction of rotation during retraction

Direction of rotation during retraction



⚠ N.B.!:

The rolling up of the fabric on the fabric roller from below during retraction could lead to damage to the awning. Should you need to change the end stops, it is indispensable to pay attention to the sense of rotation!

3.4 Motor connection data markilux 730 / 830

| | |
|--------------------------------------------------------|-----------------------------------------------------------|
| Single unit with radio-controlled operation (433 MHz): | < 400 cm width: U = 230 V ~ / 140 W, 50 Hz, I = 0.65 A |
| | > 400 cm width: U = 230 V ~ / 170 W, 50 Hz, I = 0.80 A |
| Single unit with radio IO technology (868 - 870 MHz): | U = 230 V ~ / 140 W, 50 Hz, I = 0.65 A |
| Single unit without radio-controlled operation: | < 400 cm width: U = 230 V ~ / 140 W, 50 Hz, I = 0.65 A |
| | > 400 cm width: U = 230 V ~ / 170 W, 50 Hz, I = 0.80 A |
| Coupled unit the radio-controlled operation (433 MHz): | U = 230 V ~ / 170 W, 50 Hz, I = 0.80 A |
| Coupled unit with radio IO technology (868 - 870 MHz): | U = 230 V ~ / 170 W, 50 Hz, I = 0.80 A |
| Coupled unit without radio-controlled operation | U = 230 V ~ / 170 W, 50 Hz, I = 0.80 A |

Mounting instructions window awning

markilux 710 / 810, 720 / 820, 725 / 825, 750 / 850, 730 / 830 / 740 / 840 / 745 / 845



coupled units

Notes on installation

⚠ Attention, when installing coupled awnings in reveals, the following has to be observed:

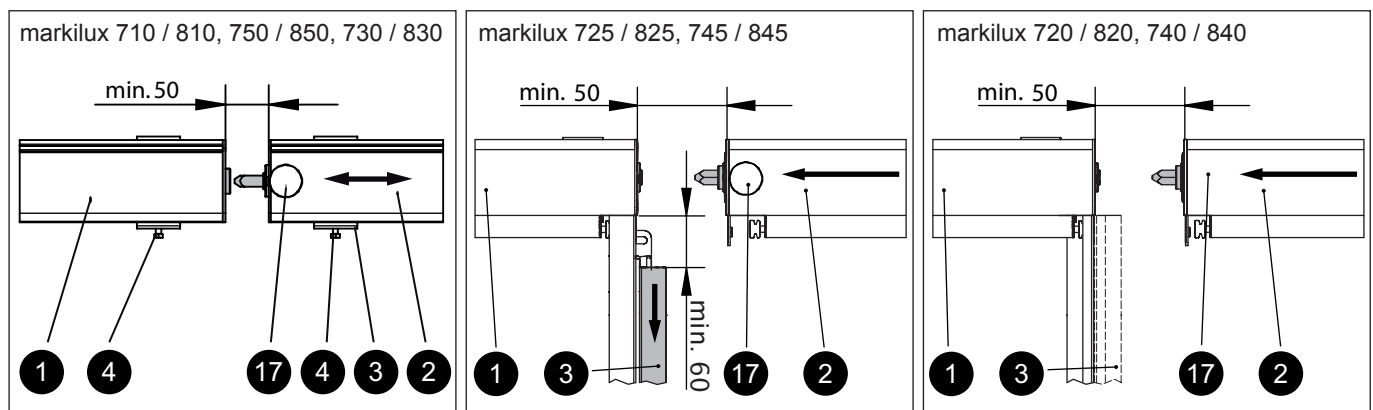
If the following parts of the awning are no longer accessible after installing the awning (also see figures under point 2), it is important to check beforehand that both projection profiles extend to the same length:

markilux 7.. (square cassette): front cover cap at the cassette (17)

markilux 8.. (round cassette): front cassette cover of the drive awning (1)

⚠ Attention Furthermore the space required for the installation has to be observed as described under point 2.

1. Mount the drive awning and the brackets, angled/guide rails of the awning to be coupled as for single units.
2. Suspend the awning to be coupled (2) from the brackets (3), secure the locking screws (4) only lightly so that the cassette can still be shifted laterally. During the coupling process, the unit to be coupled (2) has to be pushed laterally onto the drive awning (1). Therefore, a distance of min. 50 mm is necessary. Observe the below mentioned notes for angle/guide rails.

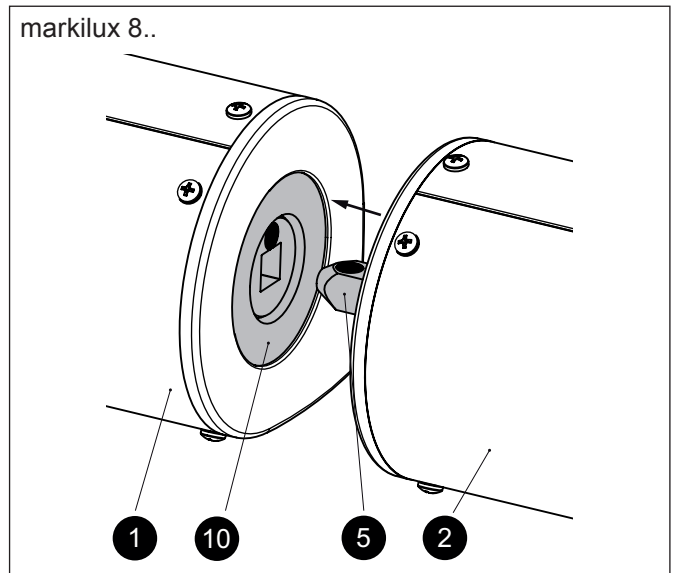
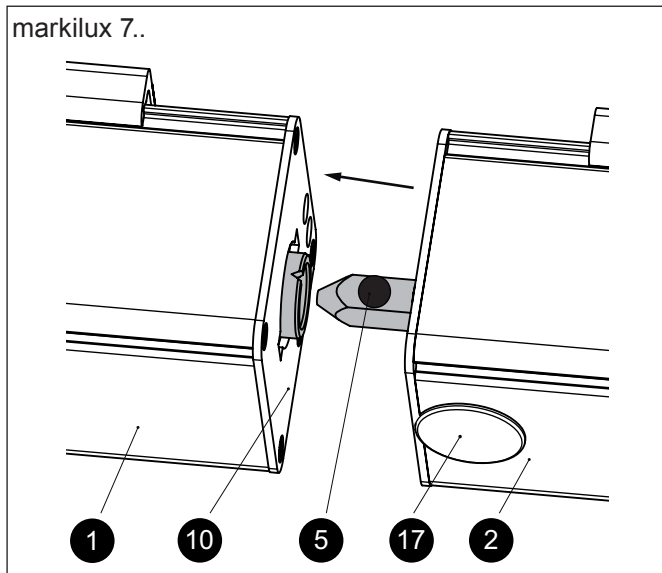


⚠ Attention: The guide rails (3) have to be shifted about 60 mm downwards for mounting the awning to be coupled.

⚠ Attention: For the installation of the awning to be coupled, the angled rails (3) of the same have to be removed again.

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3. Push the square (5) of the awning to be coupled (2) into the square mount (10) of the drive awning (1).



⚠ Attention: The square (5) is marked with a red adhesive point.

The mount (10) is marked with:

- a groove for markilux 7..
- a red adhesive point for markilux 8..

Push the square (5) into the mount (10) in such a way that both markings are opposite each other.

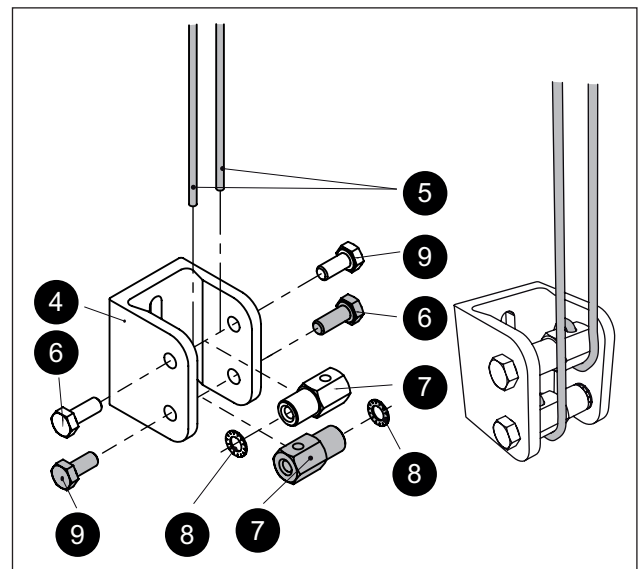
4.

a) For markilux 710 / 810, 750 / 850, 730 / 830:

Tighten the locking screws (4) of the awning to be coupled (2). Remove the tubular foil security and securing tape. Attach floor angle/coupling rope bracket as for the single units.

b) For markilux 710 / 810: Mounting the coupling rope bracket

Mount the tensioning device (7) for the rope guide with the hexagon screws SW 13 - M 6 x 16 (9) and M 6 x 12 (6) with serrated lock washer A 6 (8) at the rope bracket (4), do not tighten the screws. Mount serrated lock washer (8) between tensioning device (7) and rope bracket (4) on the side of the shorter screw (6). Guide the wire ropes (5) through the drillings of the rope tensioning device (7). Tension ropes as for single units.



c) For markilux 725 / 825, 745 / 845:

Push the guide rails (3) of the awning to be coupled again in position and join with cassette and brackets using screws as for the single unit.

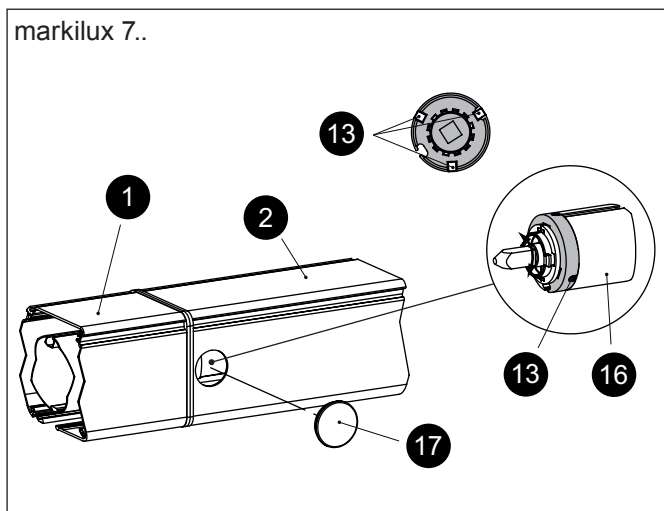
d) For markilux 720 / 820, 740 / 840:

Bring the angled rails (3) of the awning to be coupled again in position and join with cassette and mounting surface as for the single unit.

5. Set the end position of the motor at the extended driven awning.

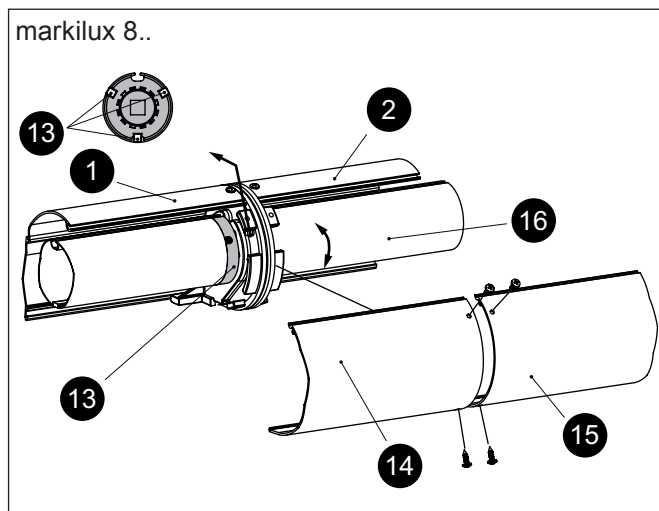
If the projection profiles are not at the same height, the cover of the awning to be coupled has to be readjusted as described below.

6. Readjusting the covers



a) For markilux 7..:

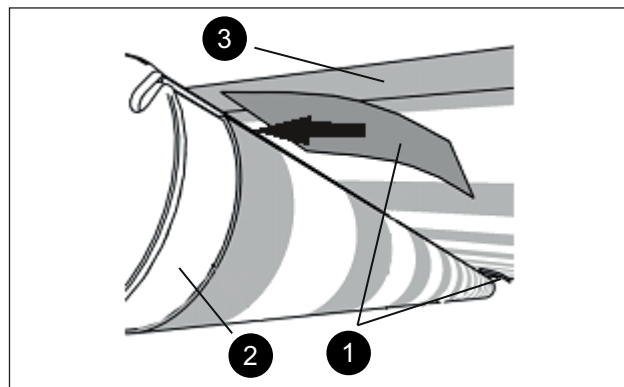
Remove the cover caps (17) of the awning to be coupled (2). Loosen the three locking pins with an Allen key SW 3 (13) at the coupling position. After loosening the last locking pin (13), the fabric roller (16) of the coupled awning can be turned freely so that the position of the projection profile of the coupled awning (2) can be adjusted. Screw in again the 3 locking pins (13). Fix cover caps (17) again.



b) For markilux 8..:

Remove the front cover of the awning's cassette profiles (14 + 15). Loosen the three locking pins of the coupling position with an Allen key SW 3 (13). After loosening the last locking pin (13), the fabric roller (16) of the coupled awning can be turned freely so that the position of the projection profile of the coupled awning (2) can be adjusted. Screw in again the 3 locking pins (13). Reattach the cassette covers (14 + 15).

7. Carry out a trial run of the awning: Extend the awning and then retract until there is a gap of about 2 cm between projection profile and cassette. An irregular width of the gap along the entire length can be corrected afterwards by putting fabric strips (1) under the seam area. Extend the awning completely and place the fabric strip (1) between fabric roller (2) and cover (3). After a trial run, place further fabric strips or shorten the length of the strip. Adjust the end positions of the motor.



markilux Handover Declaration



For the users of vertical blinds and conservatora awnings


markilux awnings for exterior use conform to the standard EN 13561 for awnings and thus to the current technical requirements in relation to their construction and installation brackets.

The wind resistance class the installation conforms to, is determined specifically by the type and number of fixture brackets as well as the fixture substrate being fitted to.

The awning **may be used only up to the wind resistance class declared permissible by the installing company**. This may differ from the wind resistance class specified in the CE conformity mark.

In accordance with its knowledge of local conditions and the type of installation it has carried out, the installing company shall inform the user as to whether the wind resistance class permitted by markilux has been met and shall document the actual wind resistance class met by the installation.

Automatic control mechanisms are to be adjusted so that they react to the appropriate wind resistance class.

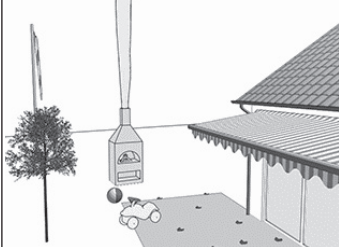
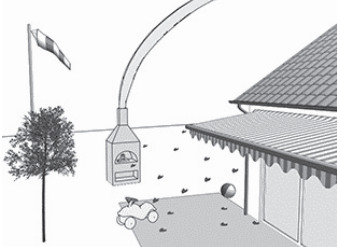
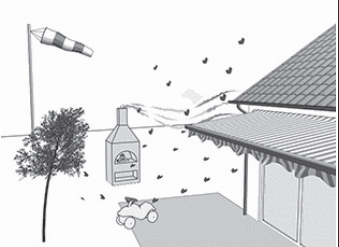
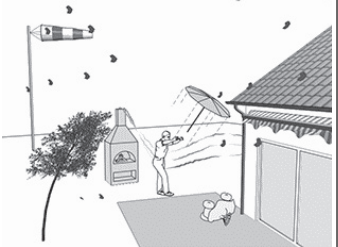


markilux
Schmitz-Werke GmbH & Co.KG
Hansestraße 87
D-48282 Emsdetten

DIN EN 13561
Blinds and awnings for exterior applications

wind resistance class 2
markilux 710/810, 720/820, 725/825, 750/850,
730/830, 740/840, 745/845, 893, 869/869 tracfix
(depending on size), and 8850

wind resistance class 3
markilux 760/860, 620 tracfix, 660 tracfix, 869/869
tracfix (depending on size), 780/880, 8800/8800 tracfix
and pergola

| wind resistance class 0 | wind resistance class 1 | wind resistance class 2 | wind resistance class 3 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  |  |
| Wind resistance class 0 corresponds either to performance criteria that we were not asked to meet or to those that have not been measured or to a product that does not fulfil the requirements of wind resistance class 1. | The awning may remain extended up to a maximum of Beaufort force 4. | The awning may remain extended up to a maximum of Beaufort force 5. | The awning may remain extended up to a maximum of Beaufort force 6. |
| | Definition according to Beaufort: moderate breeze, moderate wind The wind moves twigs and smaller branches, lifts dust and loose paper. | Definition according to Beaufort: fresh breeze, fresh wind Small deciduous trees begin to sway, white crests forms on seas | Definition according to Beaufort: strong breeze Large boughs move, umbrellas are difficult to keep under control, telephone wires "whistle" in the wind |
| Use only under supervision. The awning must be retracted if there is any wind. | wind speed 5.5-7.4 m/s = 20-27 km/h = 12-16 mph | wind speed 7.5-10.4 m/s = 28-37 km/h = 17-23 mph | wind speed 10.5-13.4 m/s = 38-48 km/h = 24-30 mph |

The user was duly informed as the operation of the awning: yes no

Following documents have been handed to the user:

- Operation manual yes no
- Installation and setting instructions supplied by the motor, switch and control unit manufacturer(s) (if available) yes no

The awning may be used under the following conditions:

Wind: permissible up to wind resistance class = wind speed

Rain: permissible by completely extended awning
 not permitted with angle of inclination below 25% = 14°, measured from the horizontal plane

Danger of frost and snow: not permitted

Date: _____ Signature of fitter: _____

Signature of user*: _____

* with your signature you confirm that you have received a copy of the handover declaration!



markilux Handover Declaration



For the users of vertical blinds and conservatora awnings


markilux awnings for exterior use conform to the standard EN 13561 for awnings and thus to the current technical requirements in relation to their construction and installation brackets.

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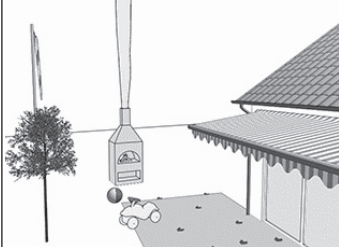
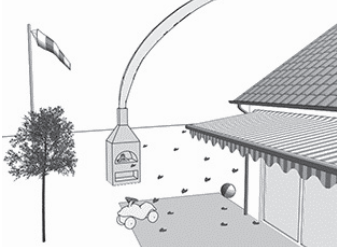
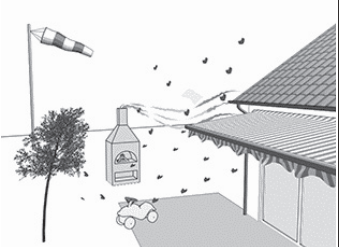
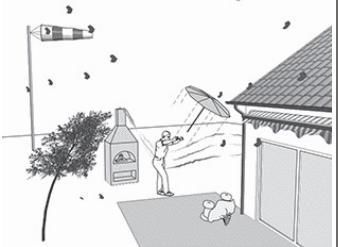


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