

Cassette awning

# markilux MX-4

Avant-garde cassette awning - both functional and attractive - with varied modern lighting technology.

Separate lighting

# markilux MX-4 wall light

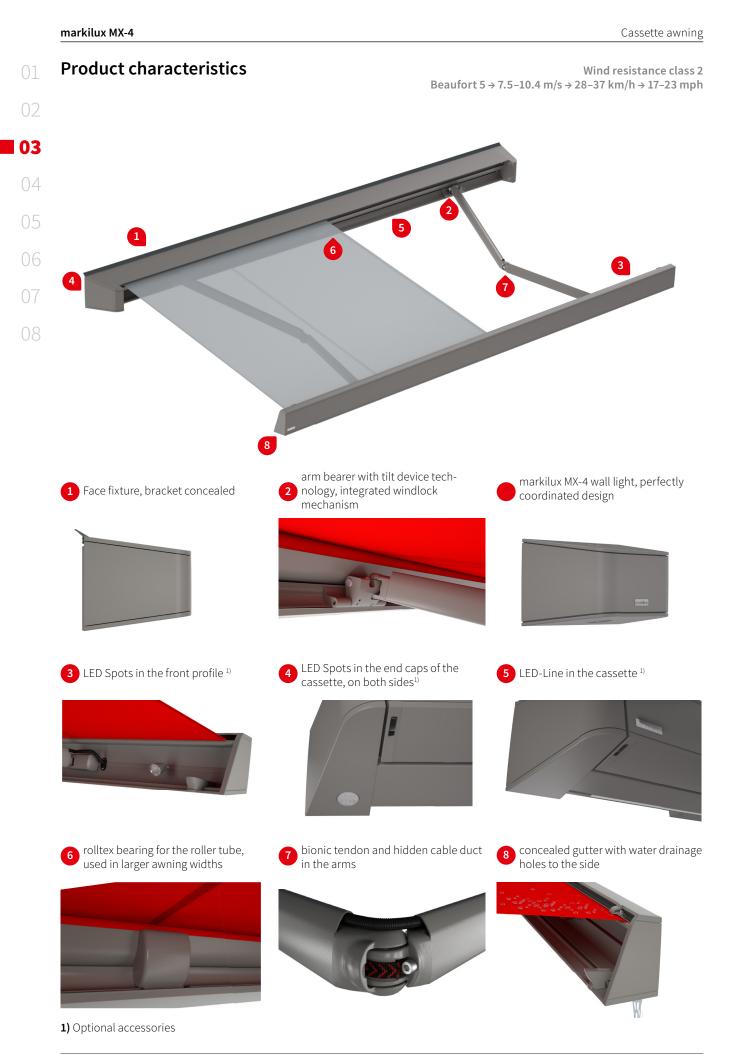
Modern outdoor light in a design perfectly coordinated with the markilux MX-4.







markilux.com



Descrip	Description				
	• cassette awning in avant-garde design with clear lines and multiple lighting options in warm white and coloured, suitable for shading large areas				
Specia	l features				
	<ul> <li>radio-controlled motor io technology as standard</li> </ul>				
	• combinable lighting options in the awning: LED-Spots WW or RGB-WW in the front profile, LED-Spots WW or				
	RGB-WW in the side caps bottom / top or both (always the same on both sides), LED-Line WW or RGB-WW below				
	the cassette, Philips Hue Spots RGB-WW in the side caps bottom / top or both (always the same on both sides)				
	• separate MX-4 wall light in perfectly coordinated design as supplementary lighting option: markilux Spots WW				
	bottom / top or both, markilux Spots RGB-WW bottom / top or both, Philips Hue Spots RGB-WW bottom or top				
	<ul> <li>individual combination of awning colour and screen profile colour possible</li> </ul>				
	• almost invisible wall mounting brackets ensure an optically flush cassette connection to the building				
	• the tilt device technology with integrated windlock mechanism on the folding arms ensures the awning closes				
	cleanly whatever the pitch				
Dimens	sions				
	• cassette in the standard version: depth 275 mm, height 235 mm				
	• single system: minimum width 217 cm with smallest projection 150 cm, maximum width 600 cm with greatest				
	projection 400 cm or 700 cm x projection 350 cm				

• also available as linked awning up to 3 fields with junction roller, optionally with continuous fabric (max. 2 fields / 15° inclination / projection 350 cm)

#### Roller tube and lateral bearings

- round roller tube Ø 85 mm with keyway, galvanised steel excellent stability, ensures near perfect cover performance even at the largest widths
- lateral bearing cassette made of die-cast aluminium, powder coated

#### Awning profiles

- extruded aluminium, in façade quality, powder coated
- one-piece cassette with integrated groove for lighting equipment
- integrated fabric cover optimum protection of the awning fabric against the effects of the weather
- front profile with integrated rain gutter and screen

#### Folding arms

- profiles in extruded aluminium, in façade quality, powder coated
- moving parts made of drop-forged aluminium the arms are therefore extremely fracture resistant
- pivot bolts in stainless steel run in Teflon-coated bronze bushes practically maintenance free, virtually silent and extremely hard wearing
- power transference for fabric tensioning by innovative markilux Bionic tendon in the elbow joint, high tensile hightech fibre – low-friction, noiseless, insensitive to corrosion and UV-resistant

#### End caps

- side caps cassette and integrated end cap inserts made of die-cast aluminium, powder-coated
- end caps of the front profile made of die-cast aluminium, powder-coated, with water drainage

#### Fixture brackets

- face fixture
- extruded aluminium, powder coated
- awning pitch adjustment range 5° to 25°
- spacer plates, stand-off brackets and other accessories are available

#### Frame and end cap colours 01

rkiluv fr ,i+h

00	markilux frame colours without surchar	;e				
02	traffic white, RAL 9016	metallic aluminium, RAL 9006	grey brown, similar to RAL 8019			
03						
04						
05	100	term	-			
06						
07	off-white textured finish, 5233 $^{\scriptscriptstyle 1)}$	stone grey metallic, 5215 $^{1)}$	anthracite metallic, 5204 $^{1)}$			
08						
	havana brown textured finish, 5229 $^{\scriptscriptstyle 1\!\!\!\!)}$	Non-standard powder-coated finish				
		Bespoke frame colours incur a surcharge – finishes as well as other colour ranges (DB, available at a surcharge with enhanced cor	Tiger etc.) on request. All frame colours are			



Colours may differ slightly from those depicted in both hue and finish.

1) textured finish



Frame anthracite metallic 5204 Styling panel / end cap insert stone grey metallic 5215



Frame stone grey metallic 5215 Styling panel / end cap insert anthracite metallic 5204



### 01 Additional front panel colours

The additional styling panel colours can be combined at will with all the standard frame colours <sup>1)</sup>

light ivory RAL 1015 matt

new champagne 5062 matt





golden yellow RAL 1004 matt

deep orange RAL 2011 matt





crimson RAL 3002 matt

pale green RAL 6021 matt





steel blue RAL 5011 matt

jet black RAL 9005 matt





Colours may differ slightly from those depicted in both hue and finish.

1) Illustrations by way of example; fabric pattern with matching front panel.

3

## Dimensions and configuration options

Single unit

																02
					Ove	erall aw	ning wi	dth				Min	imum av	wning w	idth	
		250	300	350	400	450	500	550	600	650	700		Mo	otor		03
Order dimer		217 250	251 300	301 350	351 400	401 450	451 - 500	501 550	551 600	601 650	651 700	<b>6</b> 2	<b>‡</b> 2	<b>§</b> 3	<b>†</b> 3	04
	150	1)										230	217	480	467	05
	200	_	1)									280	267	530	517	00
н	250	-	_	1)								330	317	580	567	06
п	300	_	_	_	1)							380	367	630	617	00
	350	-	_	_	_	1)				—	1)	444	431	-	667	07
	400	_	_	_	_	_	1)			—	_	494	481	-	_	0 I
													[	Dimensio	ns in cm	08
	please note	e the mir	nimum v	vidths!				ding arr ackets	ns			<b>2</b>	= 2 stand	dard arm	S	
H = projection       2 brackets         = 2 folding arms       3 brackets, 1 rolltex bearing																
= 3 folding arms 4 brackets, 2 rolltex bearings = 3 standard arms							S									
												<b>÷3</b>		oke arms a surcha		
															: 350 cm)	

Operation	standard	optional
crank handle	_	_
spring-assisted crank handle	_	_
hard-wired motor	_	$\checkmark$
silentec motor (optionally with an externalio / RTS receiver) <sup>1)</sup>	_	_
radio-controlled motor io, 868MHz	$\checkmark$	_
radio-controlled motor RTS, 433MHz	_	$\checkmark$
868Mhz radio-controlled motor io with manual override <sup>1)</sup>	_	_

Coupled Awning (only with motor drive ) <sup>1)</sup>
2 fields, 1 motor, maximum width 1400 cm
3 fields, 1 motor, maximum width 1950 cm
junction roller
optional One-piece cover (maximum 2 fields / 15° pitch / 350 cm projection)
1) N.B! Important background information can be found in the chapter "General Information", in the section "Coupled Awnings"

**1)** For awnings with a maximum of 2 arms

Awning cover	fabric pattern no.	standard	optional
sunvas	300 – 315	$\checkmark$	_
sunsilk	324 / 328 / 369	$\checkmark$	_
sunbow	411 427	$\checkmark$	_
smart art	340	_	$\checkmark$
perla FR	371 / 372	_	$\checkmark$

### Shadeplus

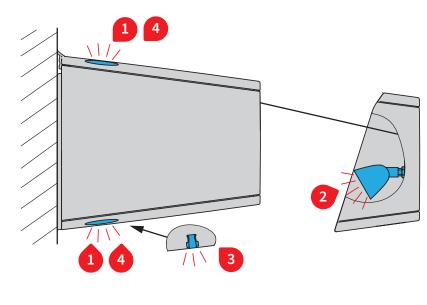
not available

01	Optional accessories	Fixture options	
ΟT	LED-Line WW or RGB-WW in the cassette	face fixture bracket 200 mm	62143.
02	LED-Spots WW or RGB-WW in the side caps bottom / top	face fixture bracket A 300 mm	60775.
02	Philips Hue Spots RGB-WW in the side caps bottom / top	fixture plate B 300 × 400 × 12 mm	75327.
03	LED-Spots WW or RGB-WW in the front profile	markilux panel 250 × 230 × 49 mm	76308.
	markilux MX-4 wall light	markilux panel continuous	701104
04	Infrared heater 2500 W	stand-off bracket 80–300 mm	77970.
05	Infrared heater 2500 W with integrated radio-controlled receiver 868 MHz io	spacer plate wall 180 x 150 x 12 mm spacer plate wall 180 x 150 x 20 mm	74989. 749881.
)6		cover plate for spacer plate and stand-off brackets in the case of external insulation 320 x 210 x 2 mm	71842.
7			

### <sup>8</sup> Lighting options

The light sources WW and RGB-WW can be ordered individually for every lighting option. When there are several lighting options, one standard control technology must be ordered per awning.

Note: With a 5-channel remote control io, a maximum of 2 RGB-WW lighting options can be controlled alongside the io motor of the awning because for each lighting option, an individual channel is required both for coloured light (RGB) and for warm white (WW).



Lighting options	Controls	Standard	Optional		
<ol> <li>LED-Spots WW in side caps, bottom/top <sup>1)</sup></li> </ol>	radio-controlled dimmer io 868 MHz $^{\rm 1)}$	$\checkmark$	_		
LED-Spots RGB-WW in side caps, bottom/top <sup>1)</sup>	radio-controlled dimmer RTS 433 MHz	_	$\checkmark$		
2 LED-Spots WW in the front profile	dimmer app (Zigbee) <sup>1)</sup>	_	$\checkmark$		
•	1) For RGB-WW light sources including control				
2 LED-Spots RGB-WW in the front profile	_				
3 LED-Line WW in the cassette Please note:					
3 LED-Line RGB-WW in the cassette	<ol> <li>The control of the lighting options is primarily based on radio technology of the awning motor.</li> </ol>				
Philips Hue Spots RGB-WW in side caps, bottom/top <sup>1)</sup>					
1) Always the same on both sides	with Zigbee-capable components regardless of RTS or nology for the awning motors.				

**3)** In the case of the radio-controlled motor RTS 433 MHz, only WW light sources with RTS technology can be controlled. In this case, RGB-WW light sources have to be controlled with Zigbee-capable components.

WW = Warm white

RGB-WW = RGB colour light change and warm white

## Lighting options

The light sources WW and RGB-WW can be ordered individually for every lighting option. When there are several lighting options, one standard control technology must be ordered per awning.

Note: With a 5-channel remote control io, a maximum of 2 RGB-WW lighting options can be controlled alongside the io motor of the awning because for each lighting option, an individual channel is required both for coloured light (RGB) and for warm white (WW).

1/2 Technical specification LED-	Spots
operating voltage	230 V / 50 Hz
power output of one LED spotlight	5 W
light source	LED (24 V)
number of transformers	1 unit
light temperature (WW)	Warm white
light temperature (RGB-WW)	RGB colour light chan- ge and warm white
IP protection class	IP 44
service life	approx. 20.000 h
plug connection (WW)	SK2
plug connection (RGB-WW)	Mizu-P25

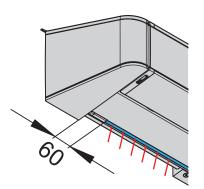
4 Technical details LED-Spots P	hilips Hue	(
Operating voltage	230 V / 50 Hz	
Power output of one LED spotlight	5,7 W	(
Light source	LED (230 V)	
Number of transformers	1 unit	(
light temperature	RGB colour light change and white to warm white	
IP protection class	IP 44	
Service life	approx. 15.000 h	(
Plug connection	GU10	

For the version with Phillips Hue, a ZigBee-capable "bridge" is required on site.

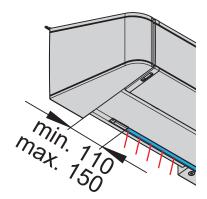
#### **3** Technical details LED-Line in the cassette

operating voltage	230 V / 50 Hz
power output per metre (WW)	7 W / metre
power output per metre (RGB-WW)	11 W / metre
number of LEDs per metre (WW)	160 LEDs/ metre
number of LEDs per metre (RGB-WW)	144 LEDs/ metre
light source	LED (24 V)
number of transformers	1 unit
light temperature (WW)	Warm white
light temperature (RGB-WW)	RGB colour light chan- ge and warm white
IP protection class	IP 44
service life	approx. 15.000 h

Distance bewteen the side caps and the LED-Line

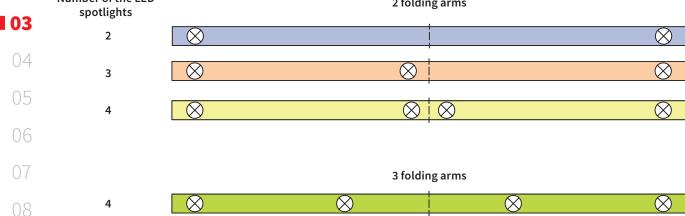


LED-Line WW



LED-Line RGB-WW

#### **Lighting options** 01



#### Number and distribution of the LED spotlights in the front profile

	Projection					
Overall awning width	150	200	250	300	350	400
243-250	2	—	_	_	—	_
251-263	_	—	—	—	—	—
264–292	2	—	—	—	_	—
293-300	2	2	—	—	—	—
301-343	3	2	—	—	—	—
344-350	3	2	2	—	—	—
351-392	3	3	2	—	—	—
393-400	3	3	2	2	—	—
401-413	3	3	3	—	—	_
414-450	3	3	3	2	_	—
451-463	4	4	4	4	_	—
464-500	4	4	4	4	2	_
501-513	4	4	4	4	4	—
514-550	4	4	4	4	4	2
551-600	4	4	4	4	4	4
601-650	4	4	4	4	_	
651-674	4	4	4	_	_	_
675–700	4	4	4	4	_	—

### Lighting options

#### **Examples of control options**

#### 1) Somfy io designcontrol hand-held remote control

The awning and markilux LED-Spots/LED-Line are controlled using the io remote.

#### 2) a. Somfy TaHoma Switch

The awning and markilux LED-Spots/LED-Line in the io version are integrated in the Somfy TaHoma Switch and controlled with the <u>Somfy TaHoma app</u>.

The awning and the markilux LED-Spots/LED-Line are controlled using the io radio protocol and can thus also be controlled via the hand-held remote control io.

# b. Somfy TaHoma Switch in combination with Philips Hue Bridge

The LED-Spots/LED-Line in the version "Zigbee" are controlled using the Zigbee radio protocol and the awning via the Somfy io radio protocol. Once the awning motor and the Philips Hue Bridge have been integrated in the TaHoma Switch, the awning and the lighting can be controlled using the Somfy TaHoma app.

The awning motor can also be controlled using the io handheld remote control.

The markilux LED-Spots/LED-Line can also be controlled using the Philips Hue app.

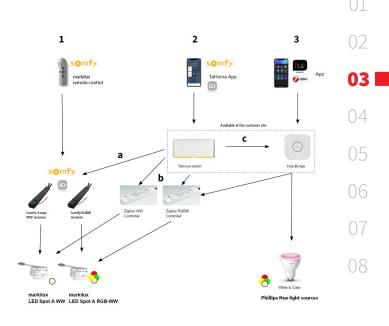
#### 3) Philips Hue Bridge

When using Philips Hue light sources, you need a Hue Bridge or manufacturer-independent Philips Hue compatible bridge. A bridge is called a "hub" or "a "gateway" This makes it possible for the devices in the Zigbee radio protocol to communicate. The light sources are then controlled (incl. dimming) using the relevant app of the bridge.

In the case of the LED-Spots, you can choose between the markilux LED-Spots in the "Zigbee" version or the original Philips Hue Spots. The difference between the two versions is that the markilux LED-Spots are all controlled simultaneously (colour, dimming, on/off) as they are connected to one receiver. The Philips Hue Spots can each be controlled individually with the Philips Hue app (colour, dimming, on/off).

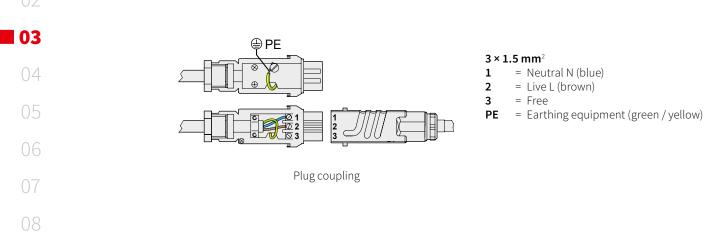
In this case, the LED-Line has to be ordered in the "Zigbee" version.

The light sources to be controlled can also be transferred from the Philips Hue Bridge to the Somfy TaHoma Switch and then also controlled from the Somfy TaHoma Switch. This does not work the other way round though (**c**). The awning motor can also be controlled via the io hand-held remote control.

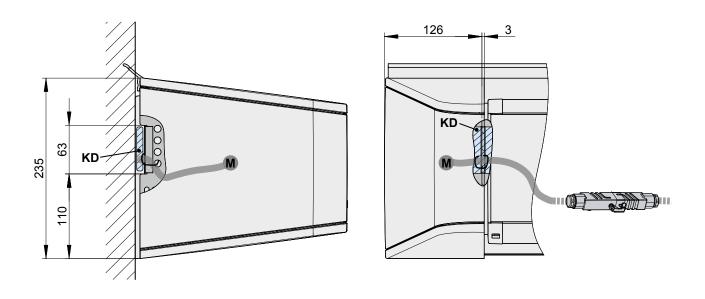


### 01 Electrical connection

Depending on the accessories one to two power supply cables (awning motor / lighting)

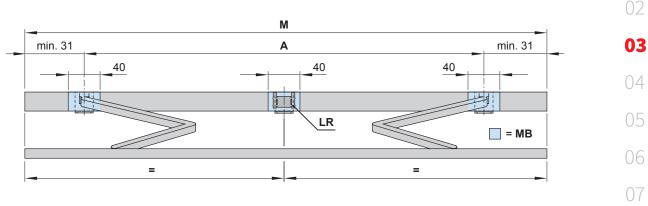


Motor cable exit point



### Bracket fixture range

Awning with 2 folding arms



dimensions in cm

		Awning width								
		250	300	350	400	450	500	550	600	650
Order dimensions		217  250	251 	301 	351 	401  450	451  500	501  550	551 	601 
		Arm position A								
	150	169 <sup>1)</sup>	190	220	270	300	350	400	450	500
	200	-	219 <sup>1)</sup>	220	270	300	350	400	450	500
	250	_	_	269 <sup>1)</sup>	270	300	350	400	450	500
н	300	_	_	_	319 <sup>1)</sup>	340	350	400	450	500
	350	_	_	_	_	383 <sup>1)</sup>	390	400	450	_
	400	_	_	_	_	-	433 <sup>1)</sup>	440	450	—

	BHT	No. of brackets   No. of fixing point	:s
W	20	2   8	3   12
BP		<b>A</b> 2 16 <b>B</b> 2 8	<b>A</b> 2   16 and 1 × 62143.   4 <b>B</b> 3   12

dimensions in cm

1) Dimension A is only valid for standard arms! In the case of bespoke arms: A – 13 cm. please note the minimum widths! If the brackets cannot be positioned in accordance with this table, make sure the actual dimensions are noted on the order form!

**A** = arm position

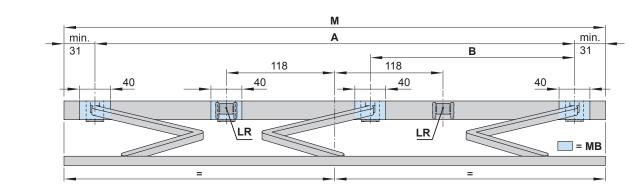
**BHT** = bracket width

- **BP** = spreader plate **A** or **B** ,to be positioned behind the folding arm
- **H** = **order dimension** = projection
- LR = a rolltex bearing with accompanying bracket is always placed under a central seam (depends on the awning size)
- M = order dimension = overall awning width
- **MB** = bracket fixture range

**W** = face fixture

### 01 Bracket fixture range

Awning with 3 folding arms



03

04

dimensions in cm

Overall awning width									
Order dimensions		700							
		65	_	-	75	667			
		674 700 700 Arm position							
		А	В	Annp	B	А	В		
						A	D		
	150	570	250	590	260	—	—		
	200	570	235	590	245	—	—		
	250	570	220	590	230	—	—		
н	300	570	210	590	220	—	_		
	350	—	—	_	—	606	220		
	400	—	—	—	—	—	—		

	BHT	No. of brackets   N	o. of fixing points		
W	20	4   16			
BP		<b>A</b> 3   24 und 1 × 62143.   4	<b>B</b> 4   16		

Dimensions in cm

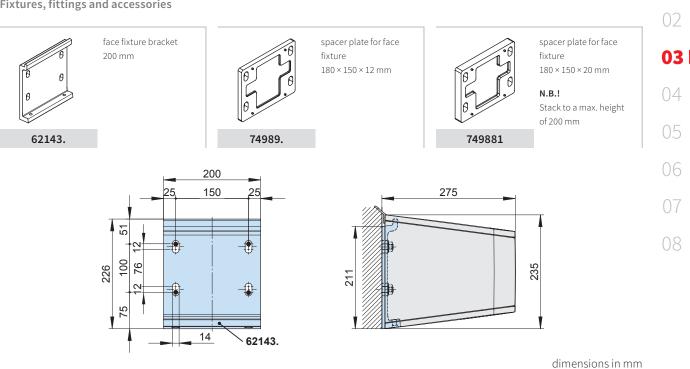
If the brackets cannot be positioned in accordance with this table, make sure the actual dimensions are noted on the order form!

**A** = arm position

- **B** = arm position
- **BHT** = bracket width
- $\mathbf{BP}$  = spreader plate  $\mathbf{A}$  or  $\mathbf{B}$ , to be positioned behind the folding arm
- **H** = **order dimension =** extension
- LR = a rolltex bearing with accompanying bracket is always placed under a central seam (depends on the awning size)
- **M** = **order width** = awning width
- **MB** = bracket fixture range
- **W** = face fixture

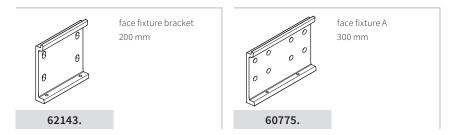
### **Face fixture**

Fixtures, fittings and accessories



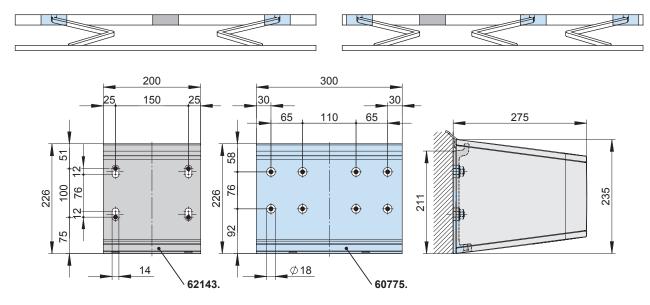
### Face fixture with wall bracket A

Fixtures, fittings and accessories



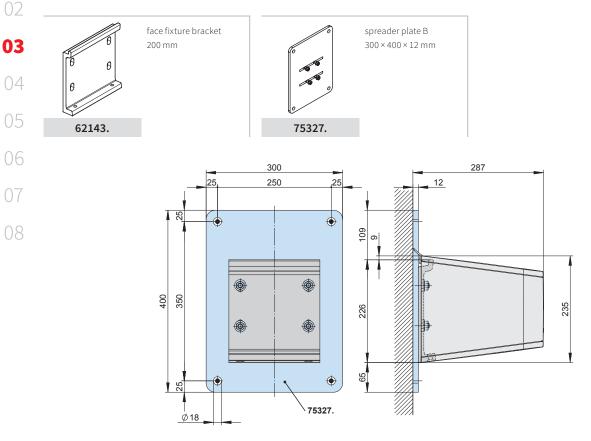
Position of face fixture brackets in the case of 2 folding arms

Position of face fixture brackets in the case of 3 folding arms



# **D1** Face fixture with spreader plate B

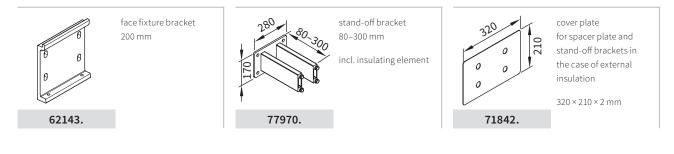
Fixtures, fittings and accessories

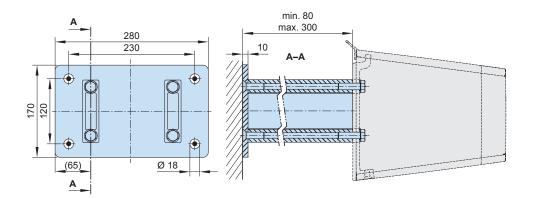


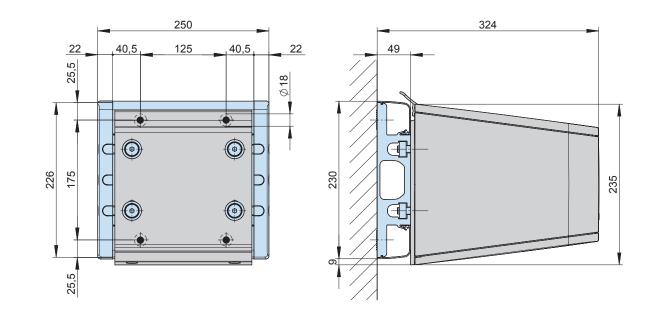
dimensions in mm

### Face fixture with stand-off bracket

Fixtures, fittings and accessories

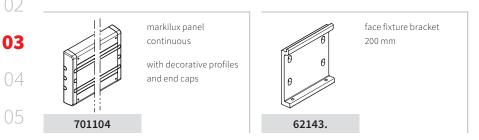




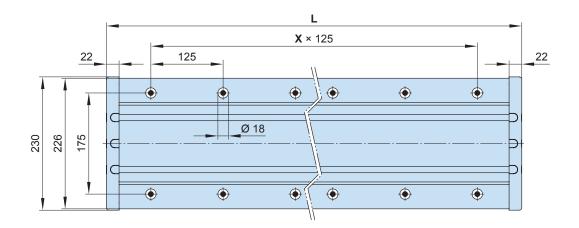


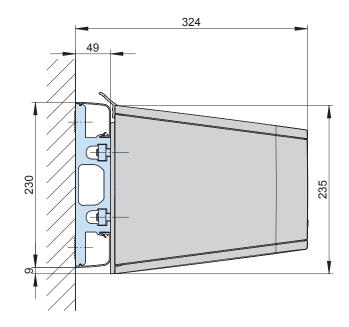
## 01 Face fixture with markilux panel continuous

Fixtures, fittings and accessories



As a **continuous fixture profile** the markilux panel will always be supplied to order on the basis of a technical drawing prepared in the factory in accordance with the awning specification.



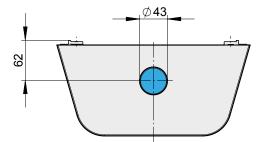


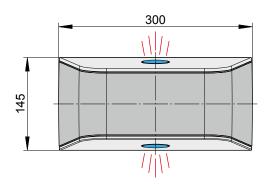
L = individual width, max. 7000 mm

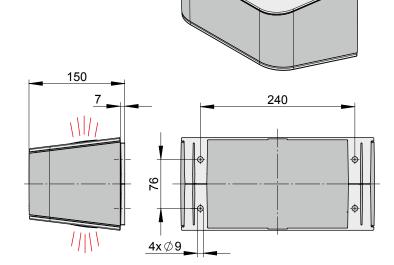
**x** = fixing point separation, **by way of example** 

### markilux MX-4 wall light









Note: standard frame colours, see page 40

#### markilux MX-4 wall light lighting options

LED-Spots WW bottom / top (Zigbee / io) LED-Spots RGB-WW bottom / top (Zigbee / io) Philips Hue Spots RGB-WW bottom or top (Zigbee)

#### **Technical details LED-Spots Philips Hue**

operating voltage	230 V / 50 Hz
power output of one LED spotlight	5,7 W
light source	LED (230 V)
number of transformers	1 unit
light temperature	RGB colour light change and white to warm white
IP protection class	IP 44
service life	approx. 15.000 h
plug connection	GU10

#### Technical details LED-Spots

operating voltage	230 V / 50 Hz
power output of one LED spotlight	5 W
light source	LED (24 V)
number of transformers	1 unit
light temperature (WW)	Warm white
light temperature (RGB-WW)	RGB colour light chan- ge and warm white
IP protection class	IP 44
service life	approx. 20.000 h
plug connection (WW)	SK2
plug connection (RGB-WW)	Mizu-P25

#### markilux MX-4

	markilux MX-4	Cassette awning
01		
02		
03		
04		
05		
06		
07		
08		