

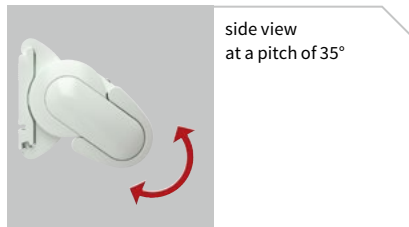


markilux 990

**the compact markilux cassette awning –
slender, practical, functional**



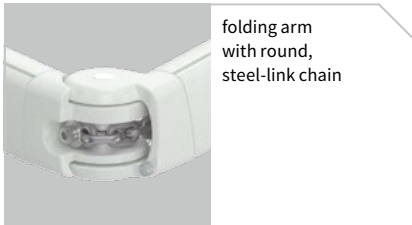
side view
with awning retracted,
face fixture



side view
at a pitch of 35°



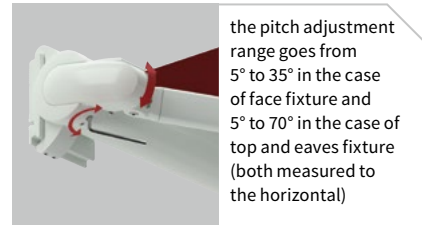
side view
with awning retracted,
top fixture



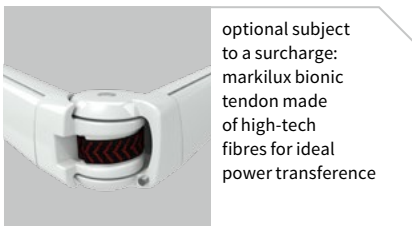
folding arm
with round,
steel-link chain



markilux 990
with wall sealing
profile (optional)



the pitch adjustment
range goes from
5° to 35° in the case
of face fixture and
5° to 70° in the case of
top and eaves fixture
(both measured to
the horizontal)



optional subject
to a surcharge:
markilux bionic
tendon made
of high-tech
fibres for ideal
power transference



side view
during extension:
markilux 990 Lounge
in the combination
anthracite metallic
with end caps in
polished chrome

Design Features

the compact markilux cassette awning – slender, practical, functional

appealing overall appearance thanks to the torque bar-free construction and especially compact cassette, 125 mm in height

the special cassette shape surrounds the roller tube even when the awning is extended so lending an overall harmonious appearance

created by renowned designers

Technical Specification

when the awning is closed the folding arms are protected behind the front profile

front profile with integrated gutter and hidden water drainage spouts

folding arms with perfected power transference by means of a round, steel-link chain

the 85 mm roller tube ensures the highest stiffness and the best possible cover winding characteristics even at the largest widths

folding arms with drop-forged, aluminium joint components and Teflon-coated bronze bushes, which provide superior robustness and durability

Optional Accessories

radio-controlled motor with radio remote control for ease of use

hard-wired motor operation (optionally with automatic weather controls) for straightforward and easy operation

wall sealing profile to cover the gap between awning and wall

in the case of manual operation ease of use is ensured with the spring-assisted gearbox

awning available in non-standard RAL colours

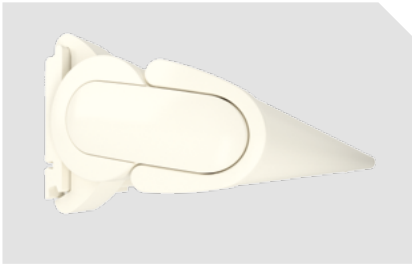
available with a valance

Lounge colours

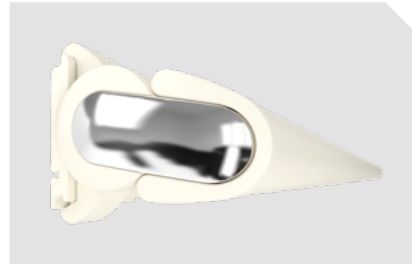
markilux 990

with end cap in polished chrome

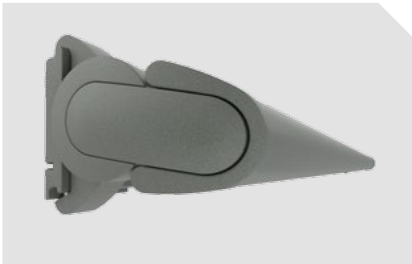
off-white textured finish 5233



off-white textured finish 5233



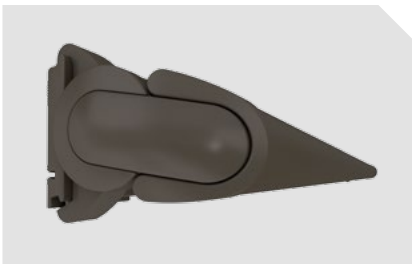
stone grey metallic 5215



stone grey metallic 5215



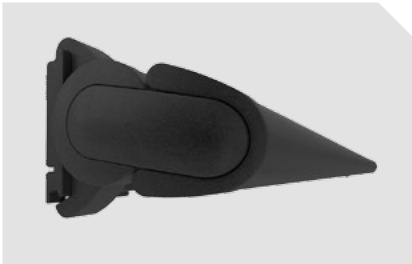
Havana brown textured finish 5229



Havana brown textured finish 5229



anthracite metallic 5204



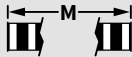
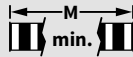


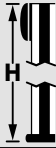
anthracite metallic 5204



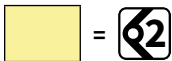
Colours may differ slightly from those depicted in both hue and finish.

- 01
- 02
- 03
- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23

Dimensions and configuration options

									
		250	300	350	400	450	500		
		166 250	251 300	301 350	351 400	401 450	451 500		
	150	1)						179	179
	200	1)						229	229
	250	-	1)					279	279
	300	-	-	1)				329	329

dimensions in cm



1) please note the minimum widths!

Operation / Drive

	standard	optional
manual operation	<input checked="" type="checkbox"/>	-
servo-assisted operation	-	<input checked="" type="checkbox"/>
hard-wired motor	-	<input checked="" type="checkbox"/>
io radio controls	-	<input checked="" type="checkbox"/>
radio-controlled motor (433 MHz)	-	<input checked="" type="checkbox"/>
radio-controlled motor with manual override 433 MHz	-	<input checked="" type="checkbox"/>

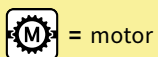
Covers

	fabric range no.	standard	optional
sunsilk snc	324 .. / 328 .. / 369 ..	<input checked="" type="checkbox"/>	-
sunsilk perla FR	374 ..	-	<input checked="" type="checkbox"/>
sunvas snc	310 .. / 311 .. 313 .. - 315 ..	<input checked="" type="checkbox"/>	-
sunvas perla	370 ..	-	<input checked="" type="checkbox"/>

Miscellaneous

	standard	optional
bionic tendon	-	<input checked="" type="checkbox"/>
wall sealing profile	-	<input checked="" type="checkbox"/> ²⁾
light and wind sensor	-	<input checked="" type="checkbox"/>
valance	-	<input checked="" type="checkbox"/>
infra-red heater	-	<input checked="" type="checkbox"/>
vibrabox / radio control light sensor Sunis WireFree	-	<input checked="" type="checkbox"/>

2) up to a maximum awning pitch of 35°



= motor



= manual operation










M = awning width**M min.** = minimum widths**H** = projection

= no. of folding arms

Dimensions and tolerances

	width	projection
housing tolerance	+5 / -5 mm	±40 mm
awning cover width = awning width	-250 mm	
awning cover length = awning projection		+130 mm

Frame colours

		standard	optional
traffic white	RAL 9016		
metallic aluminium	RAL 9006		
grey brown, similar to	RAL 8019		
light ivory	RAL 1015		
anthracite metallic	5204		
stone grey metallic	5215		
off-white textured finish	5233		
Havana brown textured finish	5229		
non-standard powder-coated finish			

Additional information

The width of the awning cover is always **less** than that of the awning.

Pitch adjustment range: from 5° to 35° in the case of face fixture and 5° to 70° in the case of top and eaves fixture (both measured to the horizontal).

Definition of projection:

Please consult the section “Technical Information”.

In the case of manual operation approximately **16 winding handle revolutions can be assumed per metre of awning projection.**

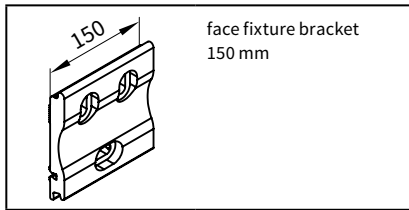
It takes approximately **12 seconds per metre** to extend the awning in the case of **motor-driven units.**

This model is only available as a single unit.

A radio-controlled motor in io technology is available (see “Optional Accessories”).

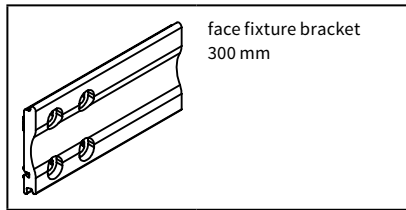
Colours similar to those in the RAL chart. Colours may differ slightly from those depicted in both hue and finish.

Fixtures, fittings and accessories



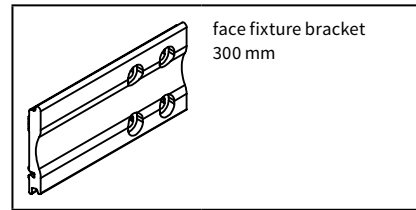
face fixture bracket
150 mm

71624.



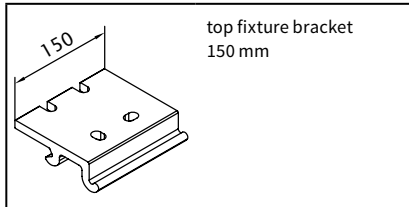
face fixture bracket
300 mm

70617.



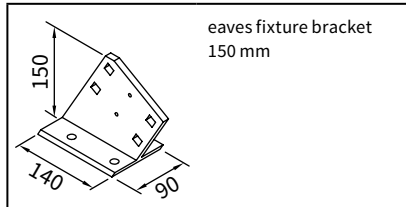
face fixture bracket
300 mm

70600.



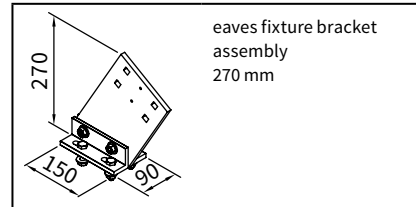
top fixture bracket
150 mm

71625.



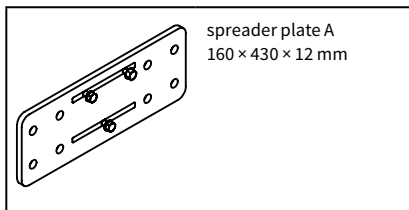
eaves fixture bracket
150 mm

71612.



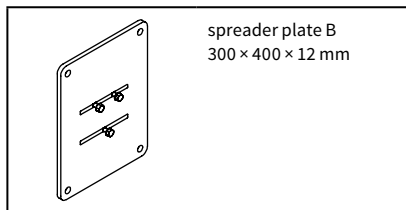
eaves fixture bracket
assembly
270 mm

71659.



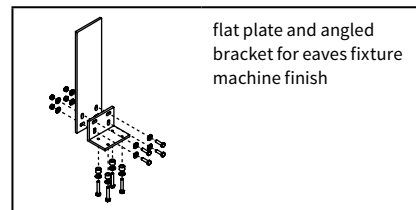
spreader plate A
160 x 430 x 12 mm

75326.



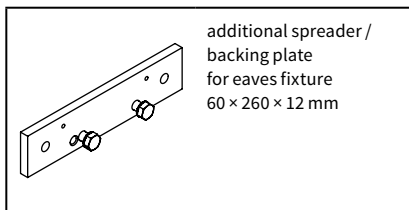
spreader plate B
300 x 400 x 12 mm

75325.



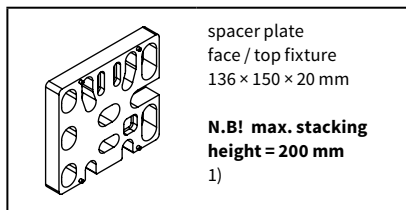
flat plate and angled
bracket for eaves fixture
machine finish

716620



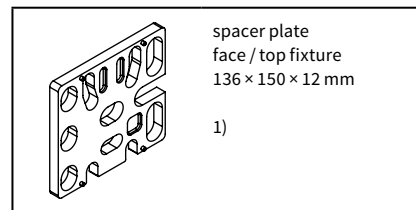
additional spreader /
backing plate
for eaves fixture
60 x 260 x 12 mm

75383.



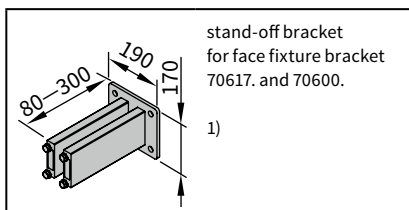
spacer plate
face / top fixture
136 x 150 x 20 mm
**N.B! max. stacking
height = 200 mm**
1)

716331



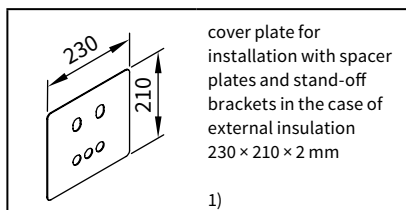
spacer plate
face / top fixture
136 x 150 x 12 mm
1)

71644.



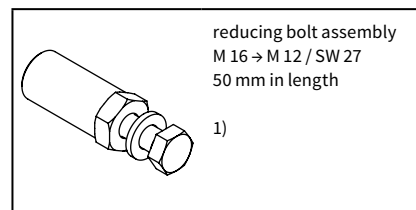
stand-off bracket
for face fixture bracket
70617. and 70600.
1)

77968.



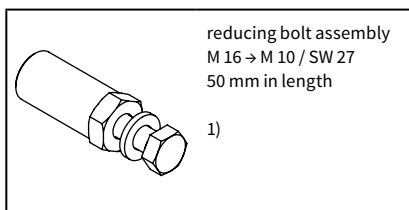
cover plate for
installation with spacer
plates and stand-off
brackets in the case of
external insulation
230 x 210 x 2 mm
1)

71843.



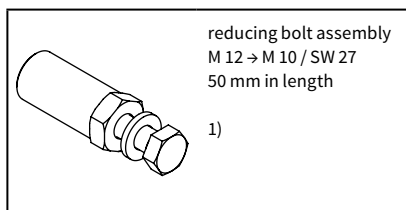
reducing bolt assembly
M 16 to M 12 / SW 27
50 mm in length
1)

753891



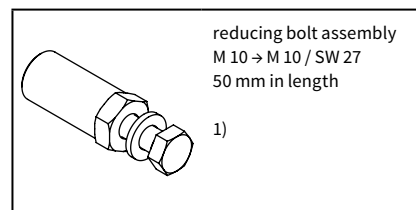
reducing bolt assembly
M 16 to M 10 / SW 27
50 mm in length
1)

754921



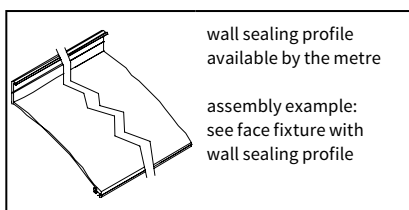
reducing bolt assembly
M 12 to M 10 / SW 27
50 mm in length
1)

954911



reducing bolt assembly
M 10 to M 10 / SW 27
50 mm in length
1)

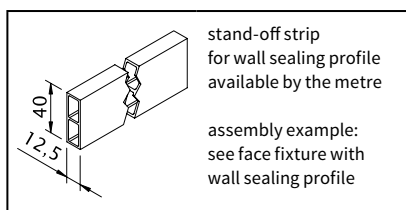
954901



wall sealing profile
available by the metre

assembly example:
see face fixture with
wall sealing profile

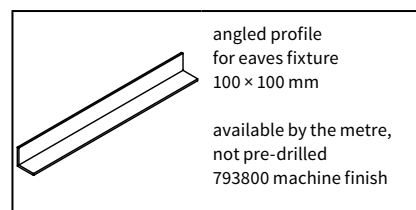
77780.



stand-off strip
for wall sealing profile
available by the metre

assembly example:
see face fixture with
wall sealing profile

751971



angled profile
for eaves fixture
100 x 100 mm

available by the metre,
not pre-drilled
793800 machine finish

79380.

1) please refer to the section "Technical Information"

. = insert RAL colour code no

Face fixture

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate
M [cm]

250	300	350	400	450	500
-----	-----	-----	-----	-----	-----

H [cm]

FB [N]

150	464	536	609	681	754	826
200	753	867	980	1093	1207	1320
250	—	1229	1391	1554	1716	1879
300	—	—	1876	2096	2316	2536

Non compression-proof substrate
M [cm]

250	300	350	400	450	500
-----	-----	-----	-----	-----	-----

FB [N]

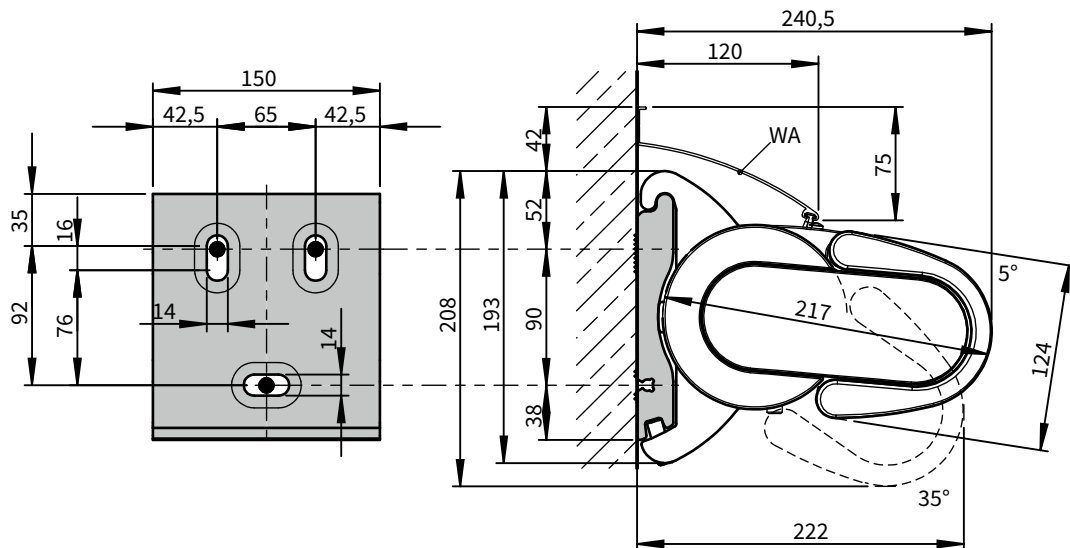
598	691	785	878	972	1065
971	1117	1263	1409	1555	1701
—	1584	1793	2003	2212	2422
—	—	2418	2702	2985	3269

HT BHT	2 150 mm
BM	6

HT BHT	2 150 mm
BM	6

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **90 mm**. If this measurement is reduced to the minimum, the pull-out force increases by **14%** in the case of **compression-proof substrates** and by **19%** in the case of **non-compression-proof substrates**.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BM = no. of fixing points
- WA = wall sealing profile



dimensions in mm

Face fixture with spreader plate A

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate
M [cm]

250	300	350	400	450	500
-----	-----	-----	-----	-----	-----

H [cm]	FB [N]					
150	252	292	331	370	410	449
200	408	470	531	593	654	716
250	—	665	753	841	929	1017
300	—	—	1014	1133	1252	1371

Non compression-proof substrate
M [cm]

250	300	350	400	450	500
-----	-----	-----	-----	-----	-----

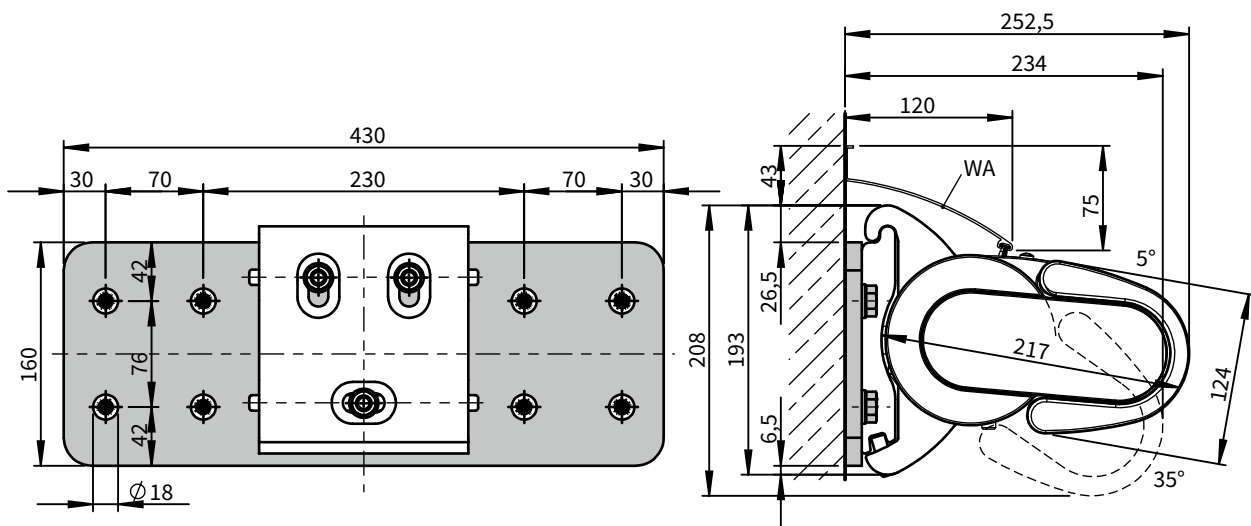
FB [N]					
358	414	470	526	582	638
580	668	755	842	930	1017
—	945	1070	1195	1320	1445
—	—	1441	1610	1780	1949

HT BHT	2 150 mm
BP	2
BM	16

2 150 mm					
2					
16					

The pull-out force refers to the vertical centre to centre measurement between the fixing points of **76 mm**. In the case of spreader plates a washer conforming to DIN 9021 must be used.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BP = no. of spreader plates
- BM = no. of fixing points
- WA = wall sealing profile



dimensions in mm

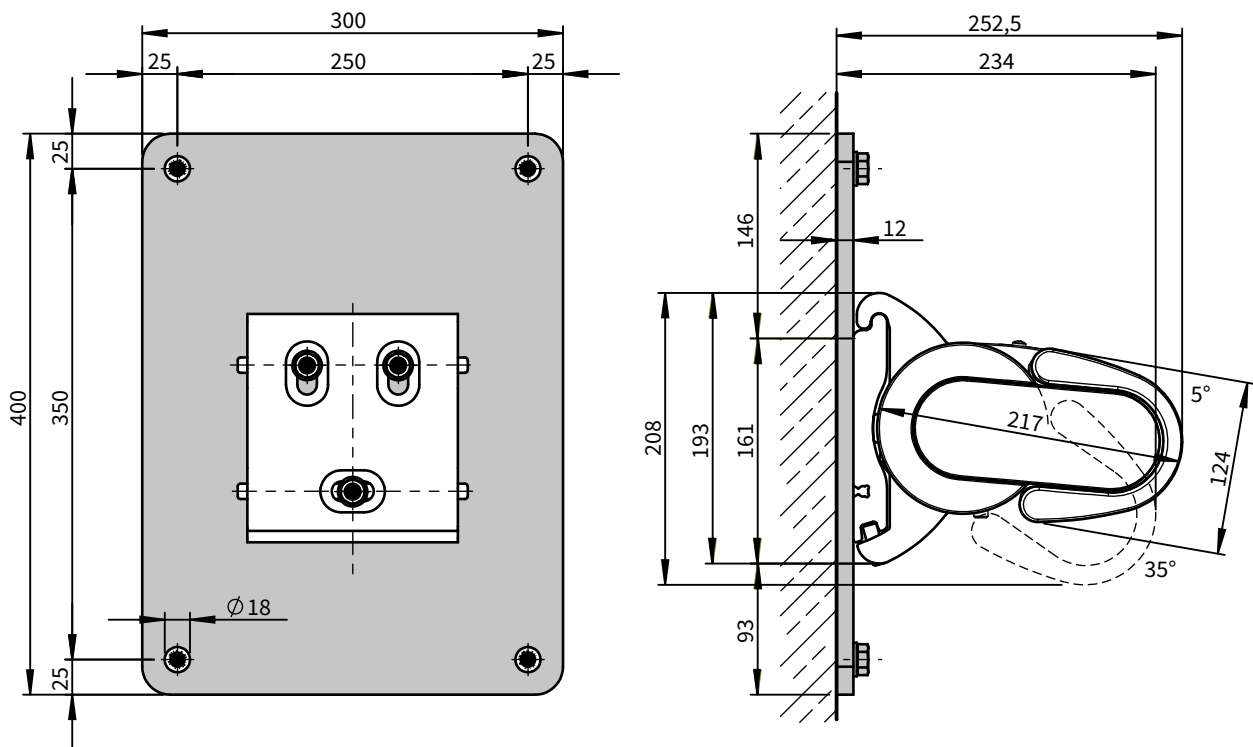
Face fixture with spreader plate B

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate							Non compression-proof substrate					
M [cm]							M [cm]					
250							250					
300							300					
350							350					
400							400					
450							450					
500							500					
H [cm]	FB [N]						FB [N]					
150	149	173	196	219	243	266	156	180	204	229	253	277
200	242	278	314	351	387	424	252	290	328	366	404	442
250	—	394	446	498	550	602	—	410	465	519	573	628
300	—	—	600	671	741	811	—	—	626	699	773	846
HT BHT	2 150 mm						2 150 mm					
BP	2						2					
BM	8						8					

The pull-out force refers to the vertical centre to centre measurement between the fixing points of **350 mm**. In the case of spreader plates a washer conforming to DIN 9021 must be used.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BP = no. of spreader plates
- BM = no. of fixing points



dimensions in mm

Face fixture with stand-off brackets

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate
M [cm]

250	300	350	400	450	500
-----	-----	-----	-----	-----	-----

H [cm]	FB [N]					
150	523	604	684	765	845	926
200	806	926	1046	1166	1286	1406
250	—	1267	1434	1601	1767	1934
300	—	—	1886	2106	2327	2547

Non compression-proof substrate
M [cm]

250	300	350	400	450	500
-----	-----	-----	-----	-----	-----

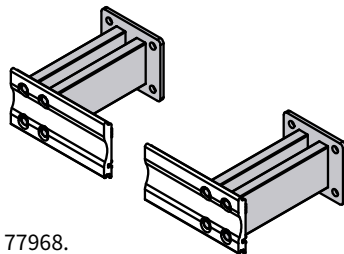
FB [N]					
588	679	770	860	951	1041
907	1042	1177	1312	1447	1582
—	1426	1613	1801	1988	2175
—	—	2122	2370	2617	2865

HT BHT	2 300 mm
DH 77968.	2
BM	8

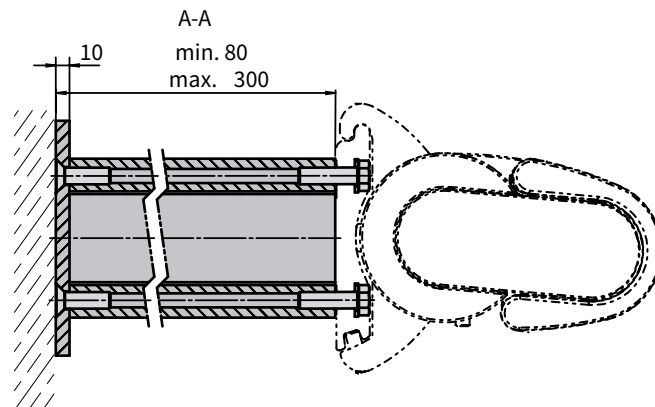
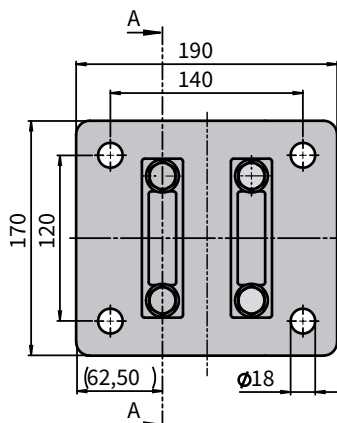
2 300 mm					
2					
8					

The pull-out force refers to the vertical centre to centre measurement between the fixing points of **120 mm**. In the case of stand-off brackets a washer conforming to DIN 9021 must be used.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BM = no. of fixing points
- DH = no. of stand-off brackets
- 77968. = stand-off brackets for face fixture brackets 70617. and 70600.



77968.



dimensions in mm

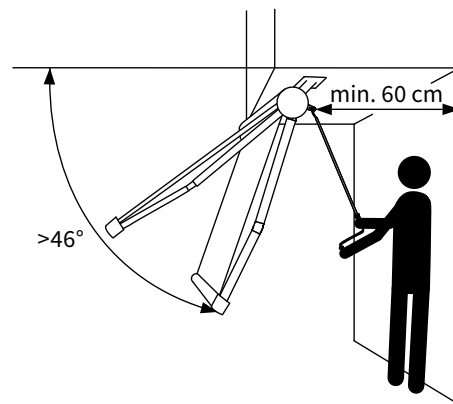
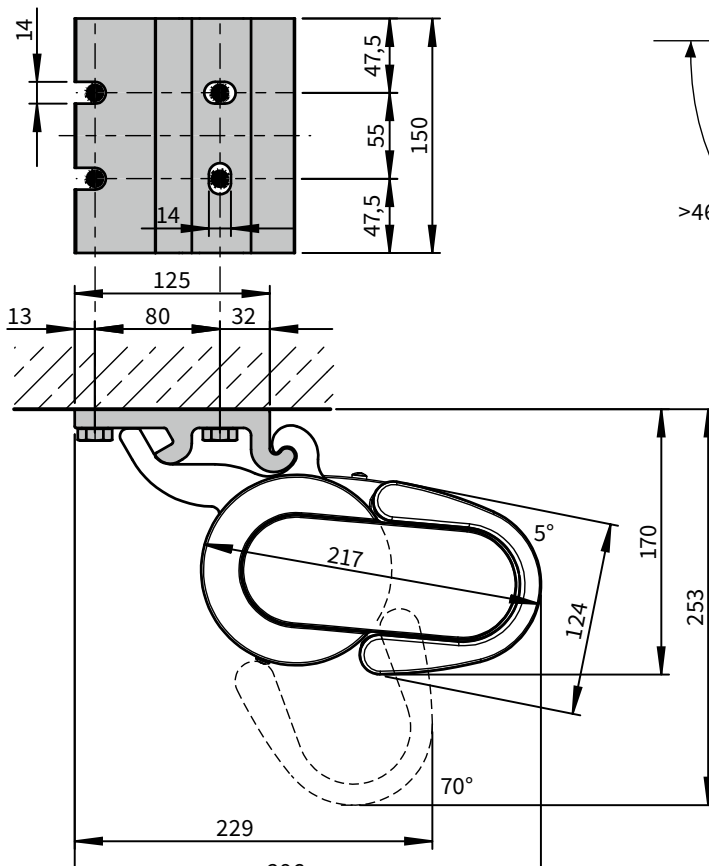
Top fixture

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate							Non compression-proof substrate					
M [cm]							M [cm]					
250							250					
300							300					
350							350					
400							400					
450							450					
500							500					
H [cm]	FB [N]						FB [N]					
150	719	834	949	1064	1179	1294	735	853	970	1088	1206	1323
200	1128	1301	1471	1647	1820	1992	1155	1332	1508	1685	1862	2039
250	—	1813	2056	2298	2541	2783	—	1857	2105	2353	2601	2850
300	—	—	2741	3065	3389	3713	—	—	2808	3139	3471	3803
HT BHT	2 150 mm						2 150 mm					
BM	8						8					

The pull-out force refers to the horizontal centre to centre measurement between the fixture points of 80 mm.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BM = no. of fixing points



At an awning pitch of more than 46 degrees to the horizontal, it is necessary in the case of manual operation, which also includes awnings fitted with a motor with manual override, to have an accessible area at least 60 cm deep behind the awning so the awning can be operated manually.

dimensions in mm

- 01
- 02
- 03
- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23

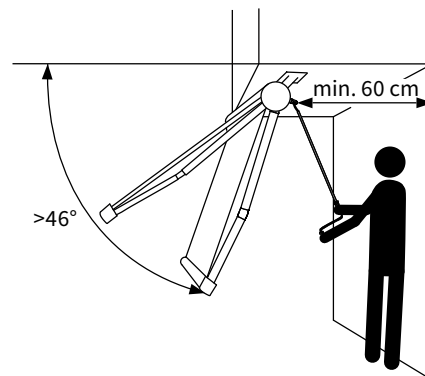
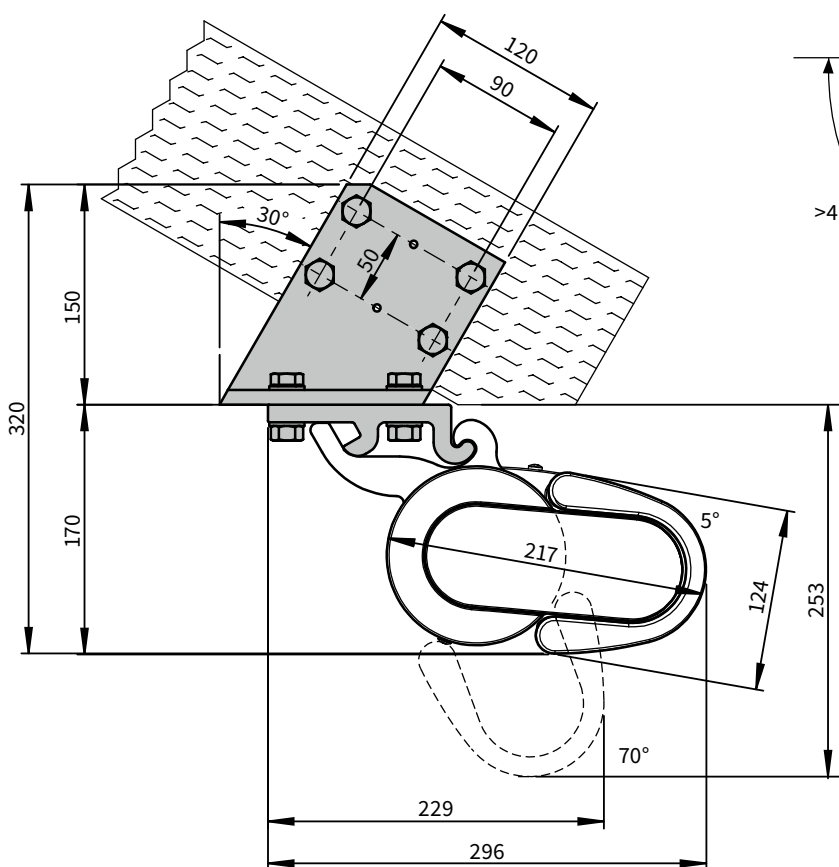
Eaves fixture

Torque [Nm = Newton metres] for the fixture bracket in the immediate vicinity of the arm, shear force [N = Newton] per fixing point according to EN 13561, wind resistance class 2

H [cm]	Torque M [cm]						Shear force M [cm]					
	250	300	350	400	450	500	250	300	350	400	450	500
	FB [N]						FB [N]					
150	108	124	141	158	175	192	1321	1533	1745	1957	2168	2380
200	175	201	227	254	280	306	2067	2384	2701	3018	3336	3653
250	—	285	323	360	398	436	—	3317	3761	4205	4650	5094
300	—	—	435	486	537	588	—	—	5011	5603	6196	6788
HT	2						2					
BM	8						8					

The shear force is calculated on the basis of 2 fixing points per bracket, because – depending on the roof pitch – it cannot be guaranteed that 4 fixing points per bracket can be used.

- M = awning width
- H = projection
- Md = torque value for the bracket in the immediate vicinity of the arm
- HT = no. of brackets
- FS = shear force
- BM = no. of fixing points



At an awning pitch of more than 46 degrees to the horizontal, it is necessary in the case of manual operation, which also includes awnings fitted with a motor with manual override, to have an accessible area at least 60 cm deep behind the awning so the awning can be operated manually.

dimensions in mm

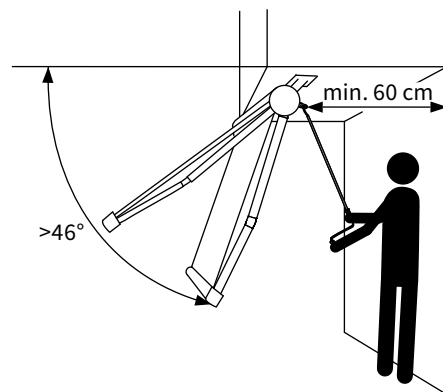
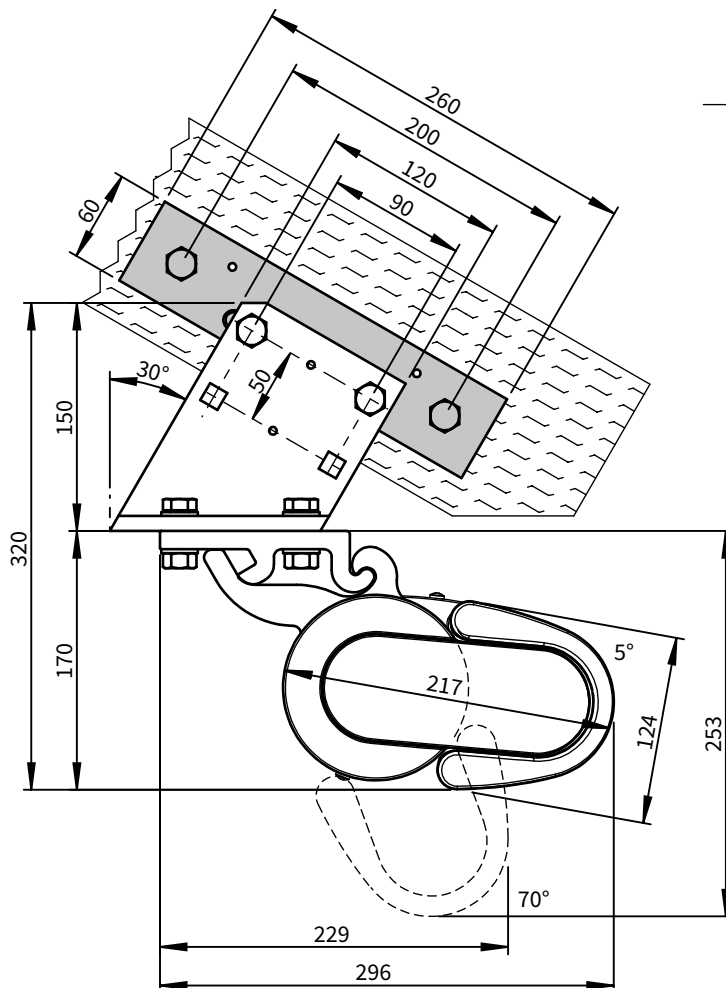
Eaves fixture with additional spreader / backing plate

Torque [Nm = Newton metres] for the fixture bracket in the immediate vicinity of the arm, shear force [N = Newton] per fixing point according to EN 13561, wind resistance class 2

H [cm]	Torque M [cm]						Shear force M [cm]					
	250	300	350	400	450	500	250	300	350	400	450	500
	FB [N]						FB [N]					
150	108	124	141	158	175	192	663	772	881	990	1100	1209
200	175	201	227	254	280	306	999	1155	1312	1468	1625	1781
250	—	285	323	360	398	436	—	1575	1789	2002	2216	2430
300	—	—	435	486	537	588	—	—	2351	2631	2912	3192
HT	2						2					
BM	4						4					

By using the additional spreader / backing plate, the shear force is reduced in comparison with conventional eaves fixture.

- M = awning width
- H = projection
- Md = torque value for the bracket in the immediate vicinity of the arm
- HT = no. of brackets
- FS = shear force
- BM = no. of fixing points

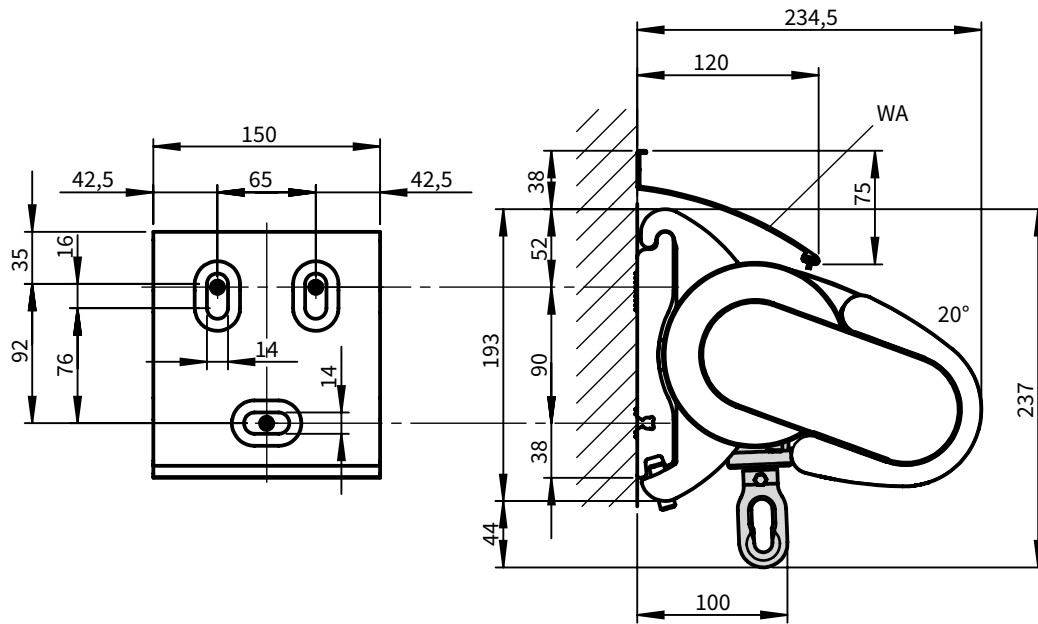


At an awning pitch of more than 46 degrees to the horizontal, it is necessary in the case of manual operation, which also includes awnings fitted with a motor with manual override, to have an accessible area at least 60 cm deep behind the awning so the awning can be operated manually.

dimensions in mm

01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23

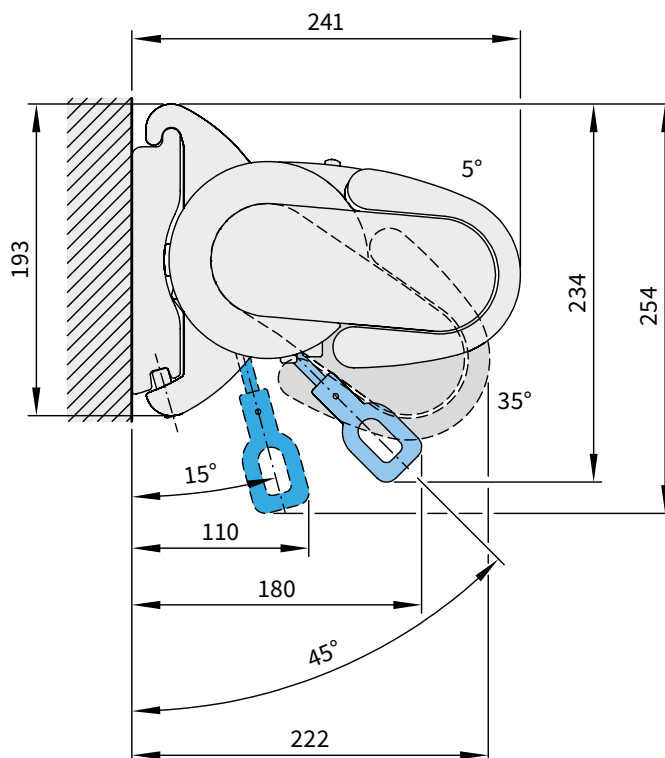
Face fixture with manual operation



WA = wall sealing profile

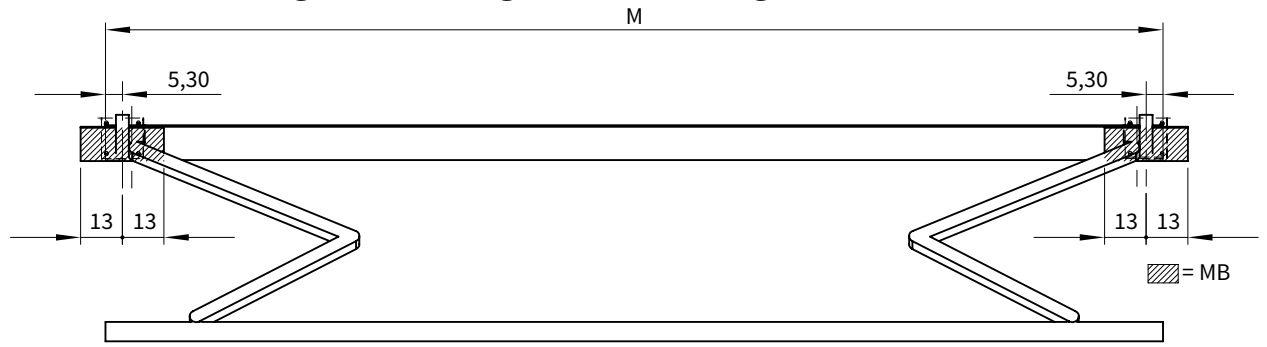
dimensions in mm

Face fixture, radio-controlled motor with manual override



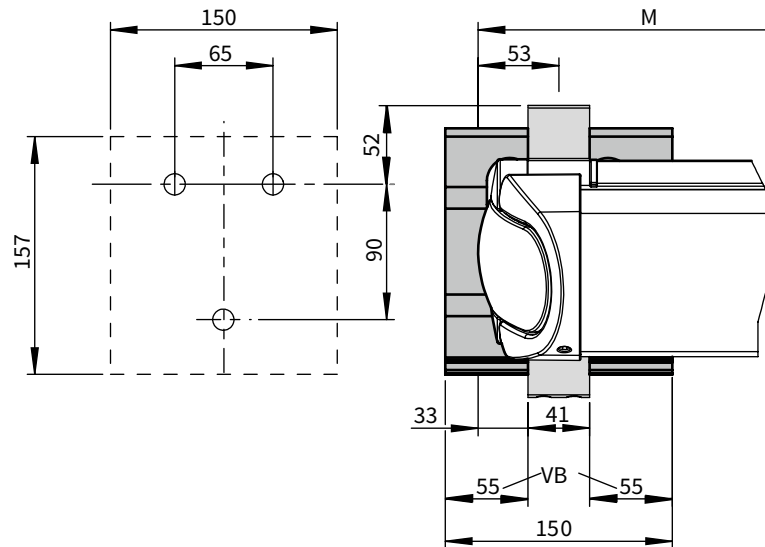
dimensions in mm

Bracket fixture range for awnings with 2 folding arms



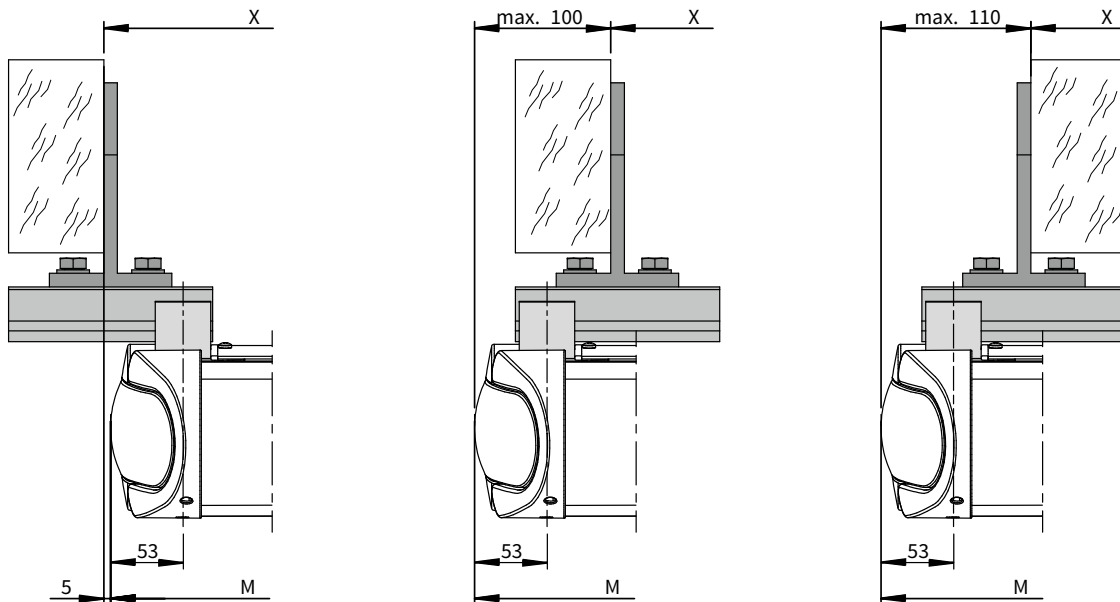
dimensions in cm

Face fixture



dimensions in mm

Eaves fixture



dimensions in mm

- M = awning width
- MB = bracket fixture range
- VB = adjustment range, face fixture bracket
- X = installation dimensions

01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23