

2-Port Antenna B1

Frequency Range 1695-2200

Dual Polarization X

HPBW 65°

Adjust. Electr. DT 0°-10°

set by hand or by optional RCU (Remote Control Unit)



2-Port Antenna 1695-2200 65° 18dBi 0°-10°T

Type No.		742215v01	
Highband		B1	
		1695-2200	
Frequency Range	MHz	1695 – 1880	1920 – 2200
Gain at mid Tilt	dBi	17.5	18.2
Gain over all Tilts	dBi	17.5 ± 0.4	18.1 ± 0.3
Horizontal Pattern:			
Azimuth Beamwidth	°	68 ± 2.0	63 ± 3.4
Front-to-Back Ratio, Total Power, ± 30°	dB	> 26	> 25
Cross Polar Discrimination at Boresight	dB	> 25	> 28
Cross Polar Discrimination over Sector	dB	> 13.0	> 10.5
Azimuth Beam Squint	°	0.5 ± 1.5	0.5 ± 1.2
Azimuth Beam Port-to-Port Tracking	dB	< 1.0	< 1.0
Vertical Pattern:			
Elevation Beamwidth	°	7.1 ± 0.3	6.4 ± 0.4
Electrical Downtilt continuously adjustable	°	0.0 – 10.0	
Tilt Accuracy	°	< 0.2	< 0.2
First Upper Side Lobe Suppression	dB	> 21	> 20
Cross Polar Isolation	dB	> 30	
Max. Effective Power per Port	W	250 (at 50 °C ambient temperature)	

Values based on NGMN-P-BASTA (version 9.6) requirements.



Electrical specifications, all systems		
Impedance	Ω	50
VSWR		< 1.5
Return Loss	dB	> 14
Interband Isolation	dB	> 30
Passive Intermodulation	dBc	< -150 (2 x 43 dBm carrier)
Polarization	$^\circ$	+45, -45
Max. Effective Power for the Antenna	W	500 (at 50 °C ambient temperature)

Values based on NGMN-P-BASTA (version 9.6) requirements.

Mechanical specifications			
Input	2 x 7-16 female		
Connector Position	bottom		
Adjustment Mechanism	1x, Position bottom continuously adjustable		
Wind load (at Rated Wind Speed: 150 km/h)	N lbf	Maximum	340 76
		Frontal	330 74
		Lateral	90 20
		Rearside	340 76
Max. Wind Velocity	km/h mph	200 124	
Height / Width / Depth	mm inches	1314 / 155 / 70 51.7 / 6.1 / 2.8	
Category of Mounting Hardware	L (Light)		
Weight	kg lb	6.5 / 8.7 (clamps incl.) 14.3 / 19.2 (clamps incl.)	
Packing Size	mm inches	1595 / 172 / 92 62.8 / 6.8 / 3.6	
Scope of Supply	Panel and 2 units of clamps for 42–115 mm 1.7–4.5 inches diameter		

Accessories (order separately if required)

Type No.	Description	Remarks mm inches	Weight approx. kg lb	Units per antenna
731651	1 clamp	Mast diameter: 28 – 60 1.1 – 2.4	0.8 1.8	2
85010002	1 clamp	Mast diameter: 110 – 220 4.3 – 8.7	2.7 6.0	2
85010003	1 clamp	Mast diameter: 210 – 380 8.3 – 15.0	4.8 10.6	2
732327	1 downtilt kit	Downtilt angle: 0° – 10°	1.0 2.2	1

Accessories (included in the scope of supply)

738546	1 clamp	Mast diameter: 42 – 115 1.7 – 4.5	1.1 2.4	2
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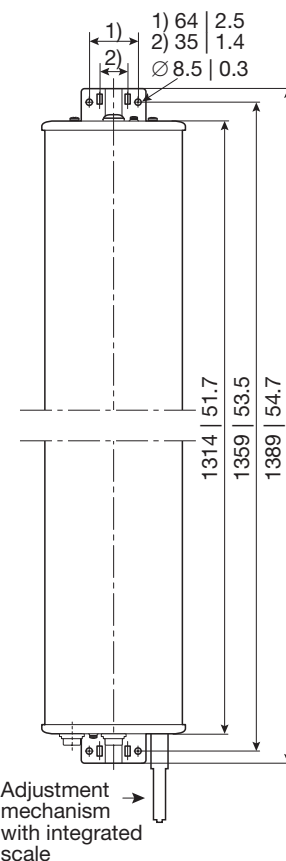
For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.

Material:

Reflector screen: Aluminum. **Radiator:** Tin-plated zinc.
Flat fiberglass radome: The max. radome depth is only 70 mm | 2.8 inches. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The color of the radome is grey.
All screws and nuts: Stainless steel.

Grounding:

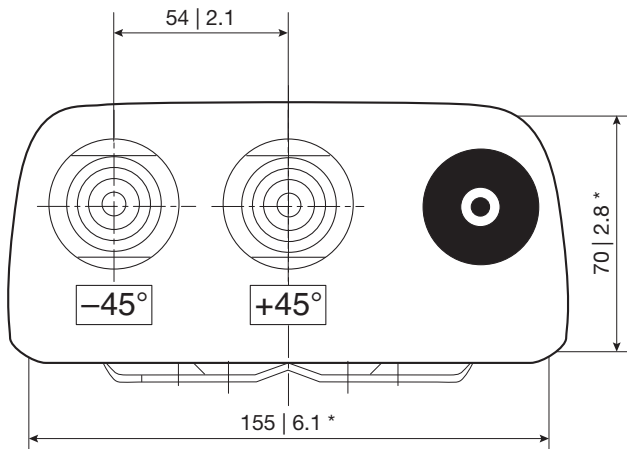
The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.



All dimensions in mm | inches

936.4875/c ngmn 04.18.02.01 Subject to alteration.

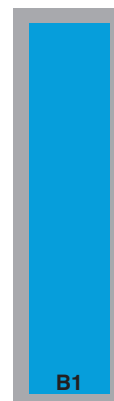
Layout of interface:



Bottom view
 * Dimensions refer to radome
 All dimensions in mm | inches

Correlation Table

Frequency range	Array	Connector
1695–2200 MHz	B1	1–2



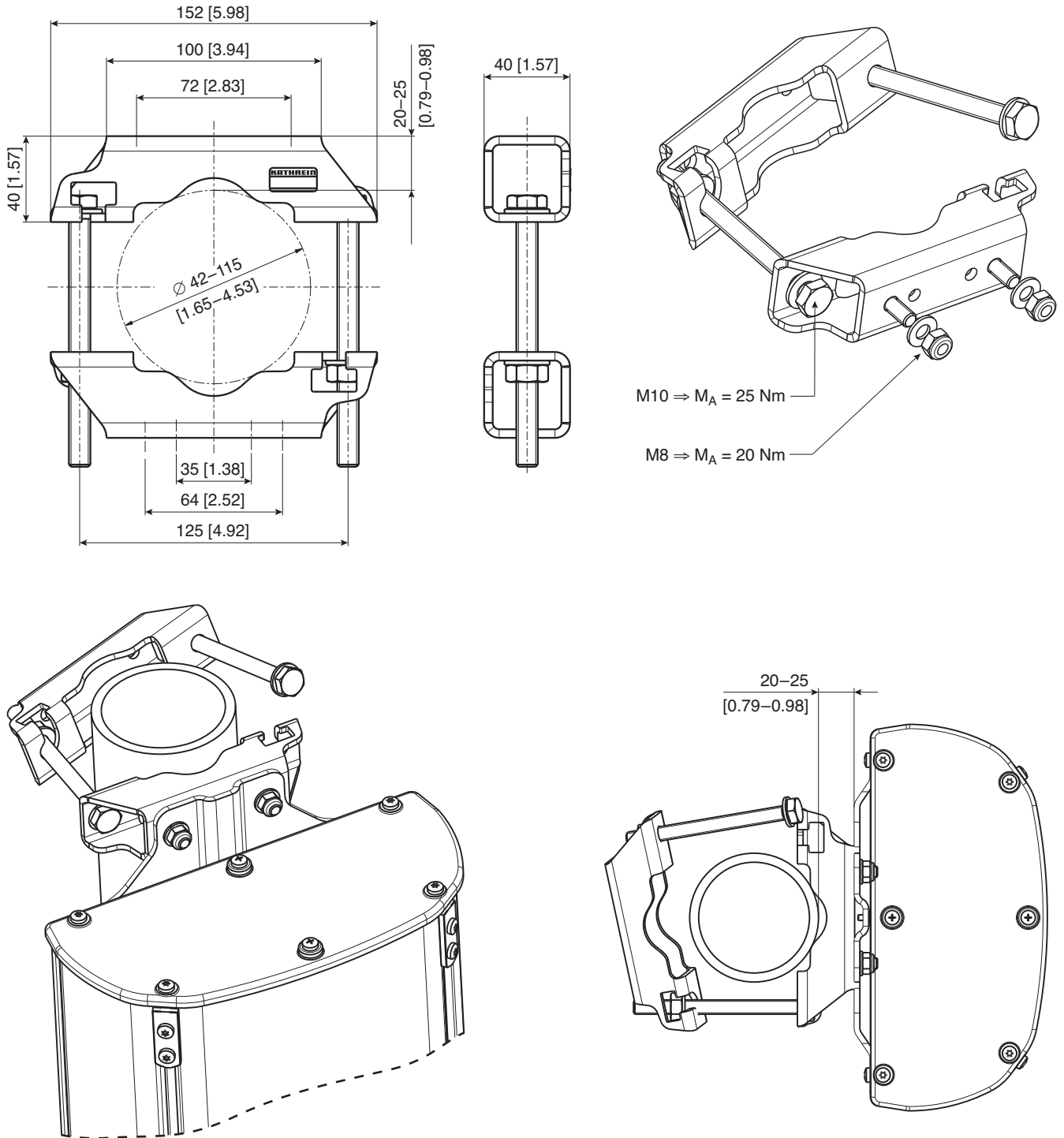
936.4875/c ngmn 04.18.02.01 Subject to alteration.

Mounting Hardware

Clamp Included in the Scope of Supply

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Suitable for mast diameter	(mm) [inches]	42 – 115 [1.65 – 4.53]
Antenna – mast distance	(mm) [inches]	20 – 25 [0.79 – 0.98]
Material of clamp and screws		Hot-dip galvanized steel / stainless steel
Weight	(kg) [lb]	1.1 [2.43]



936.3920/c Subject to alteration.

**Please note: Kathrein does not recommend to use counter nuts.
The additional nuts supplied are only meant as spares.**

All dimensions in mm and [inches]

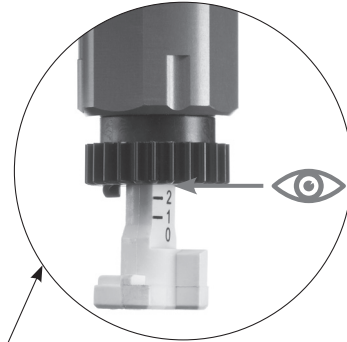
Description of the adjustment mechanism (protective cap removed):



- ① Twist protection.
- ② Downtilt spindle with integrated scale.

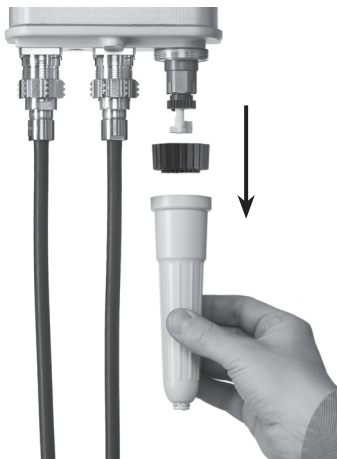


- ① Thread for fixing the protective cap or the RCU (Remote Control Unit).
- ② Gearwheel for RCU power drive.

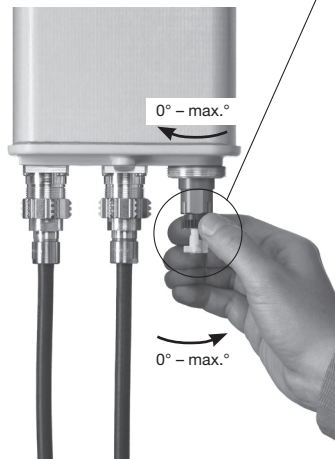


To set the downtilt angle exactly, you must look horizontally at the scale. The lower edge of the gear-wheel must be used for alignment.

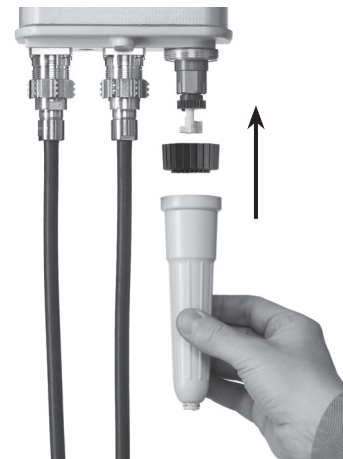
Manual adjustment procedure:



Remove the protective cap and the twist protection completely.

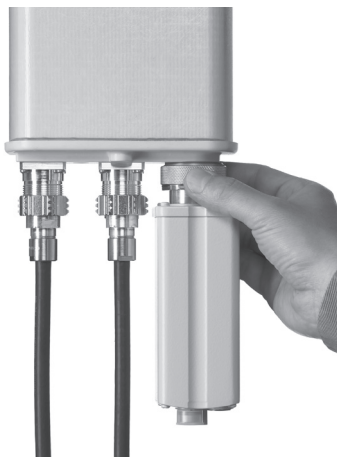


Set downtilt angle by rotating the gearwheel.



Screw on the twist protection and the protective cap again.

Optional: RCU (Remote Control Unit) for remote-controlled downtilt adjustment:



936.4037/a Subject to alteration.

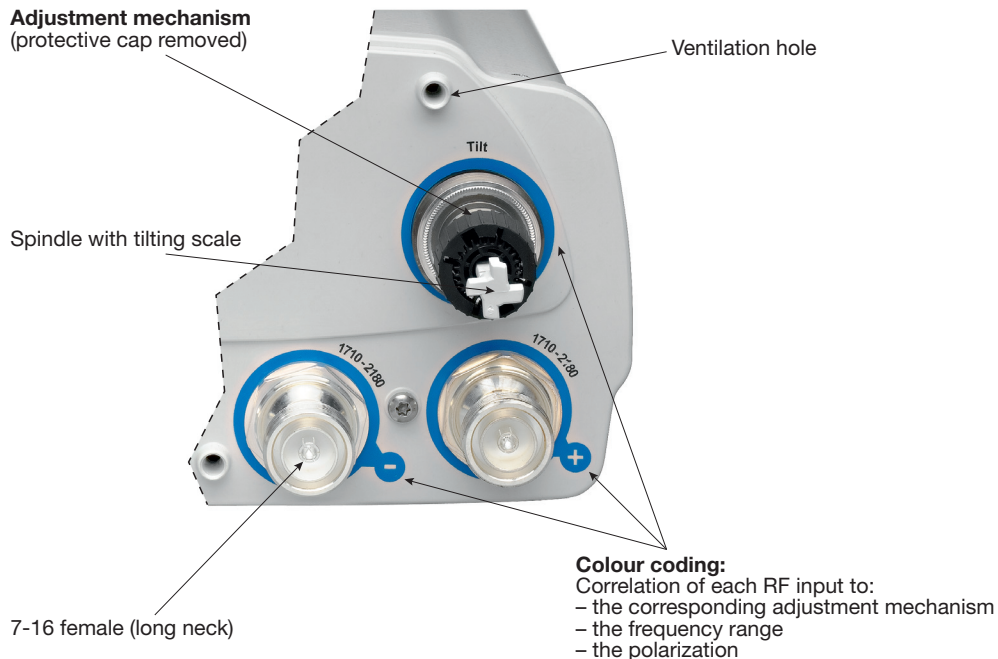
For a description of RCU installation please refer to the respective data sheet.

General Instructions for Feederline and RCU Installation for Antennas

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Please note: In order not to damage the interfaces, please make sure that only the right tools are used. Tighten the feederline connector interfaces solely by using a common torque-wrench with a suitable wrench width.

Description of bottom end cap (exemplary picture):



Installation of the feederline connector and RCU (optional):

In order to protect the adjustment mechanism, the protective caps have to be attached during feederline installation!



Carefully place the connector and fix the nut using a torque-wrench (according to the manufacturers guidelines).

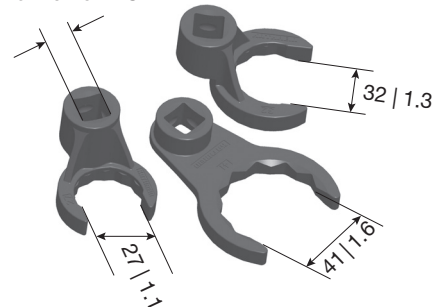


After feederline installation, the optional remote control units (RCUs) can be mounted.

Kathrein installation set: Type No. 85010077 Set has to be ordered separately!

Set consists of three spanners of divers width 27, 32 and 41 mm | 1.1, 1.3 and 1.6 inches

1/2" square actuation according to DIN 3120 Form C



All dimensions in mm | inches

These tools are suitable for 7-16 connectors with a wrench size of 27 or 32 mm | 1.1 or 1.3 inches, and the RCU attachment nut with a wrench size of 41 mm | 1.6 inches.

Tighten nuts within a torque range of 25 – 33 Nm depending on connector manufacturers' specifications, respectively the RCU nut with a torque range of 15 – 18 Nm.