

2-Port Antenna
Frequency Range
Dual Polarization
HPBW

B1

1710–2200

X

65°

0°–15°

18dB

KATHREIN



Adjust. Electr. DT

Enhanced Sidelobe Suppression

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

2-Port Antenna 1710–2200 65° 18dBi 0°–15°T ESLS

Type No.		80010504v01			
Highband		B1			
		1710–2200			
Frequency range	MHz	1710 – 1880	1880 – 1990	1920 – 2170	2000 – 2200
Polarization	°	+45, –45	+45, –45	+45, –45	+45, –45
Gain at 0° tilt	dBi	2 x 17.5	2 x 17.6	2 x 17.7	2 x 17.8
Horizontal Pattern:					
Half-power beam width	°	68	66	64	62
Front-to-back ratio (180°±30°)	dB	≥ 25	≥ 25	≥ 25	≥ 25
Cross polar ratio	0°	22	22	24	26
Sector	±60°	≥ 10	≥ 10	≥ 10	≥ 10
Tracking, Avg.	dB	1.0			
Squint	dB	±2.0			
Vertical Pattern:					
Half-power beam width	°	7.9	7.5	7.2	7.0
Electrical tilt	°	0–15, continuously adjustable			
Sidelobe suppression	°T	0 ... 5 ... 10 ... 15	0 ... 5 ... 10 ... 15	0 ... 5 ... 10 ... 15	0 ... 5 ... 10 ... 15
– for first sidelobe above main beam	dB	≥ 17 ... 20 ... 18 ... 17	≥ 16 ... 20 ... 18 ... 17	≥ 16 ... 20 ... 18 ... 17	≥ 15 ... 20 ... 18 ... 15
– within 0°–20° sector above horizon	dB	≥ 16 ... 18 ... 18 ... 16	≥ 16 ... 18 ... 17 ... 16	≥ 15 ... 18 ... 17 ... 16	≥ 15 ... 16 ... 16 ... 15
Null-fill at 0° tilt	°	21	20	19	18
Impedance	Ω	50			
VSWR		< 1.5			
Isolation, between ports	dB	> 30			
Intermodulation IM3	dBc	< –153 (2 x 43 dBm carrier)			
Max. power per input	W	300 (at 50 °C ambient temperature)			

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	Frontal: 240 54 Maximal: 265 59
Max. wind velocity	km/h mph	200 124
Height/width/depth	mm inches	1387 / 155 / 69 54.6 / 6.1 / 2.7
Category of mounting hardware	L (Light)	
Weight	kg lb	6.5 / 8.5 (clamps incl.) 14.3 / 18.7 (clamps incl.)
Packing size	mm inches	1655 x 172 x 92 65.2 x 6.8 x 3.6
Scope of supply	Panel and 2 units of clamps for 42–115 mm 1.7–4.5 inches diameter	



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All specifications are subject to change without notice.
 The latest specifications are available at www.kathreinusa.com

Accessories

General Information

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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°	1.3 2.9	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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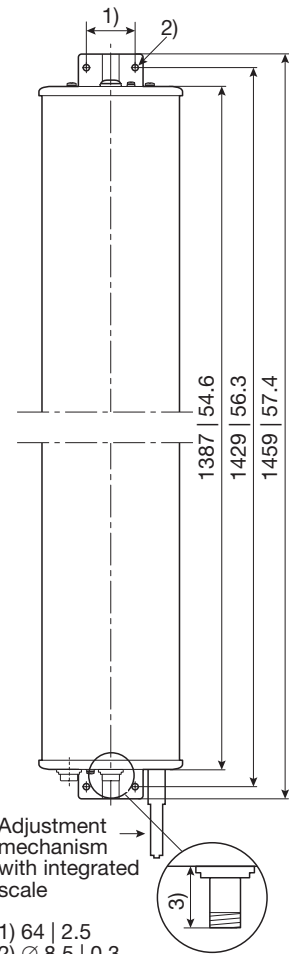
For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.

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.

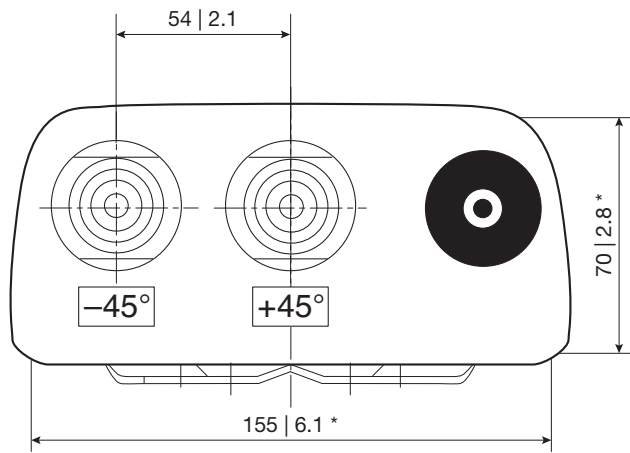


Adjustment mechanism with integrated scale

- 1) 64 | 2.5
- 2) \varnothing 8.5 | 0.3
- 3) 30 | 1.2

All dimensions in mm | inches

Layout of interface:



Bottom view

* Dimensions refer to radome
All dimensions in mm | inches

Any previous data sheet issues have now become invalid.

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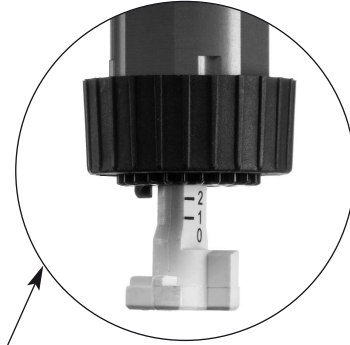
Description of the adjustment mechanism (protective cap removed):



- ① Adjustment wheel with twist-lock function.
- ② Downtilt spindle with integrated scale.

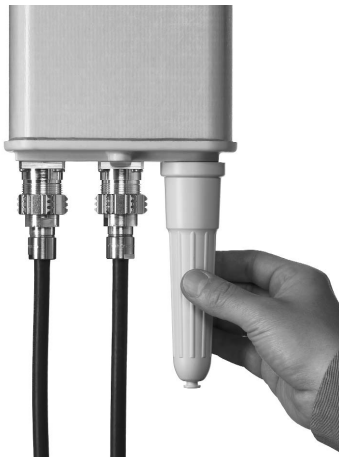


- ① Thread for fixing the protective cap or the RCU (Remote Control Unit).
- ② Gearwheel for RCU power drive.

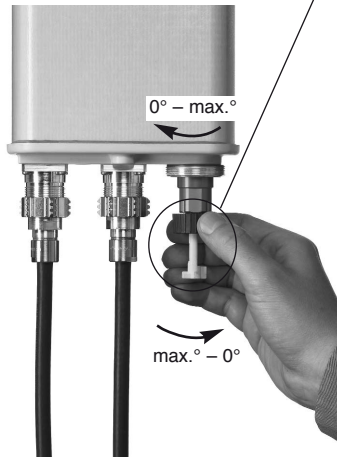


To set the downtilt angle exactly, you must look horizontally at the scale. The lower edge of the gear-wheel must be used for alignment.

Manual adjustment procedure:



Remove the protective cap.



Set downtilt angle by rotating the adjustment wheel.



Screw on the protective cap again.

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



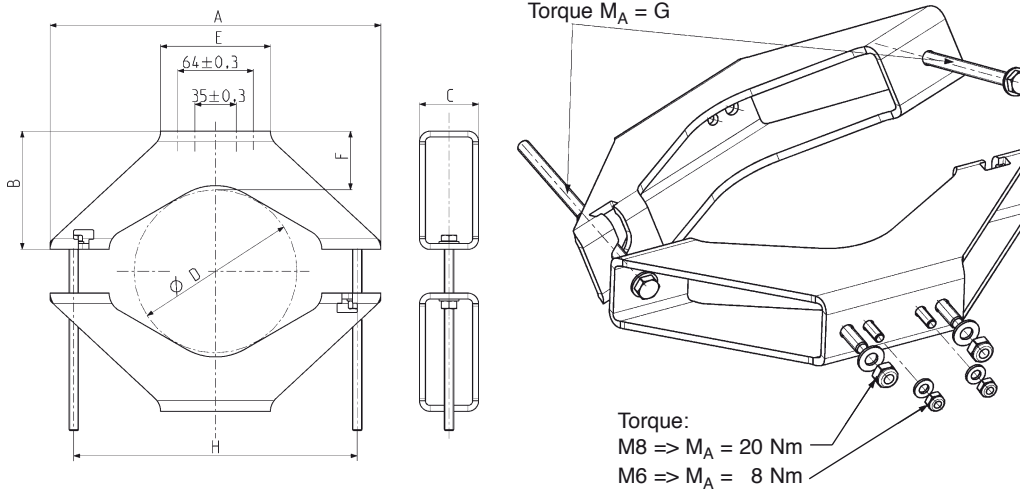
936.4020 Subject to alteration.

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

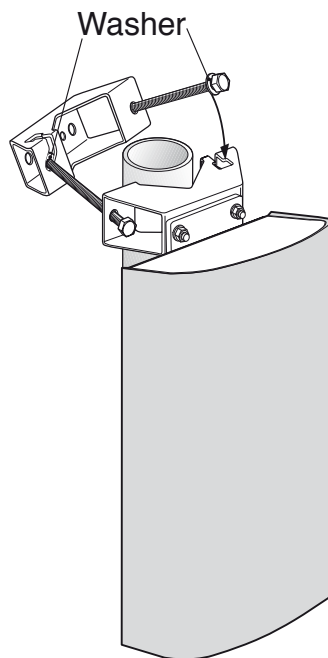
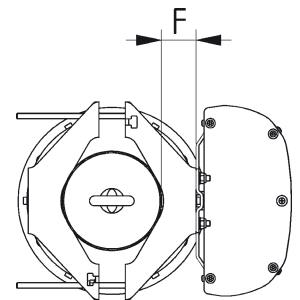
Mounting Hardware

Clamp included in the scope of supply

Suitable for mast diameter	50 – 115 mm
Antenna – mast distance F	18 – 26 mm
Number of pieces	1 clamp
Material of clamp and screws	Hot-dip galvanized steel / stainless steel
Weight	1.0 kg



A	B	C	D	E	F	G	H
152 mm	40 mm	40 mm	50–115 mm	93 mm	18–26 mm	20 Nm	125 mm



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