

<b>4-Port Antenna</b>	<b>Y1</b>	<b>Y2</b>
<b>Frequency Range</b>	<b>1710–2690</b>	<b>1710–2690</b>
<b>Dual Polarization</b>	<b>X</b>	<b>X</b>
<b>HPBW</b>	<b>65°</b>	<b>65°</b>
<b>Adjust. Electr. DT</b>	<b>0°–12°</b>	<b>0°–12°</b>

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



**4-Port Antenna 1710–2690/1710–2690 65°/65° 16.5/16.5dBi 0°–12°/0°–12°T**

<b>Type No.</b>		<b>80010682</b>			
<b>Highband</b>		<b>Y1; Y2</b>			
		<b>1710–2690</b>			
Frequency range	MHz	1710 – 1990	1920 – 2200	2200 – 2490	2490 – 2690
Polarization	°	+45, –45	+45, –45	+45, –45	+45, –45
Gain at 0° tilt	dBi	15.8	16.2	16.6	16.7
<b>Horizontal Pattern:</b>					
Half-power beam width	°	65	64	60	61
Front-to-back ratio, copolar	dB	> 30	> 30	> 30	> 28
Cross polar ratio	0°	Typically: 25	Typically: 25	Typically: 25	Typically: 25
Sector	±60°	> 8	> 8	> 10	> 10
<b>Vertical Pattern:</b>					
Half-power beam width	°	11	10	9	8.7
Electrical tilt	°	0–12, continuously adjustable			
Sidelobe suppression for first sidelobe above main beam	°T	0 ... 6 ... 12	0 ... 6 ... 12	0 ... 6 ... 12	0 ... 6 ... 12
	dB	≥ 12 ... 13 ... 15	≥ 13 ... 14 ... 16	≥ 13 ... 15 ... 16	≥ 15 ... 15 ... 17
Impedance	Ω	50			
VSWR		< 1.5			
Isolation, between ports	dB	> 30			
Intermodulation IM3	dBc	< –150 (2 x 43 dBm carrier)			
Max. eff. power per port	W	200 (at 50 °C ambient temperature)			
Max. eff. power for the antenna		600 (at 50 °C ambient temperature)			



<b>Mechanical specifications</b>	
Input	4 x 7-16 female
Connector position	Bottom
Adjustment mechanism	2x, Position bottom continuously adjustable
Wind load (at Rated Wind Speed: 150 km/h)	N   lbf Frontal: 345   78 Maximal: 380   85
Max. wind velocity	km/h mph 200 124
Height / width / depth	mm inches 855 / 315 / 71 33.7 / 12.4 / 2.8
Category of mounting hardware	M (Medium)
Weight	kg lb 11 / 13.2 (clamps incl.) 24.3 / 29.1 (clamps incl.)
Packing size	mm inches 1146 x 337 x 112 45.1 x 13.3 x 4.4
<b>Scope of supply</b>	Panel and 2 units of clamps for 42–115 mm   1.7–4.5 inches diameter

936.4877/c Subject to alteration.

# Accessories

## General Information

# KATHREIN

### 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
737978	1 downtilt kit	Downtilt angle: 0° – 24°	2.3   5.1	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 71 mm. 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 or hot-dip galvanized steel.

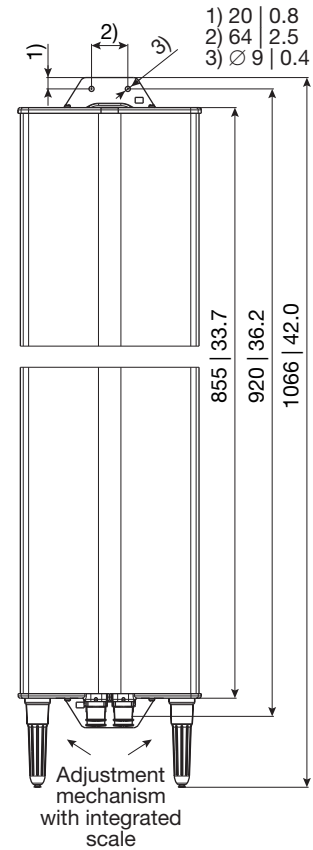
#### Grounding:

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



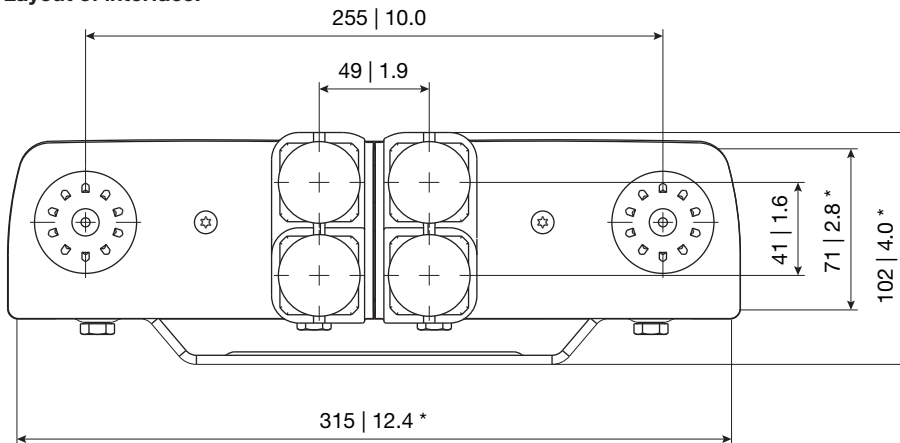
### Correlation Table

Frequency range	Array	Connector
1710–2690 MHz	Y1	1–2
1710–2690 MHz	Y2	3–4



All dimensions in  
mm | inches

### Layout of interface:



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

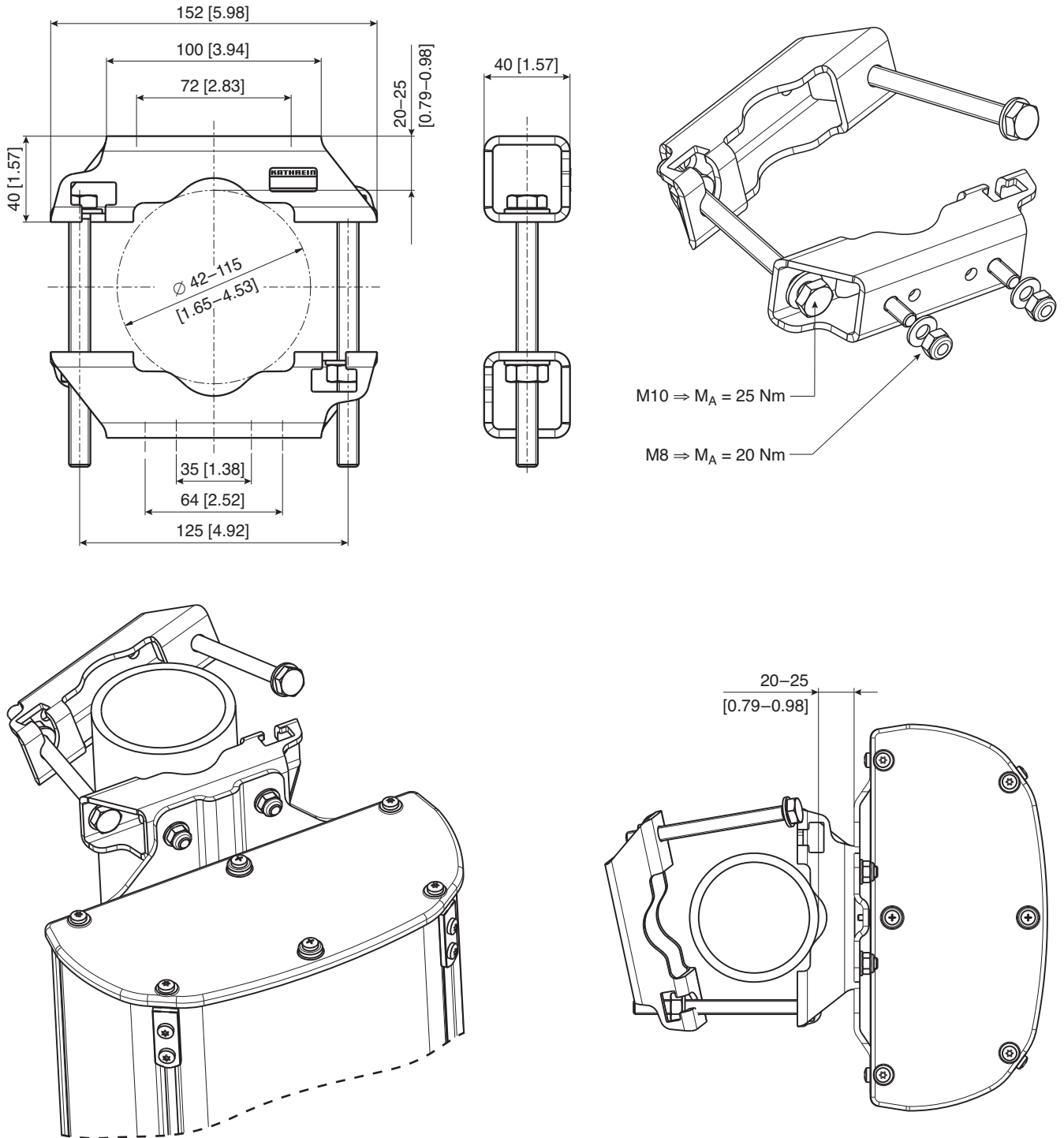
936.4877/c Subject to alteration.

# Mounting Hardware

## Clamp Included in the Scope of Supply

**KATHREIN**

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]

All specifications are subject to change without notice.  
The latest specifications are available at [www.kathreinusa.com](http://www.kathreinusa.com)

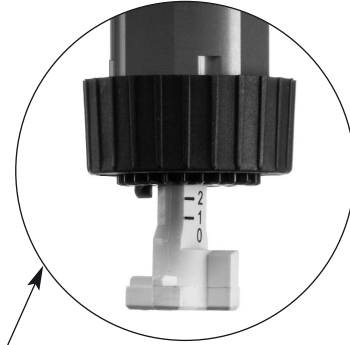
## Description of the adjustment mechanism (protective cap removed):



- 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.

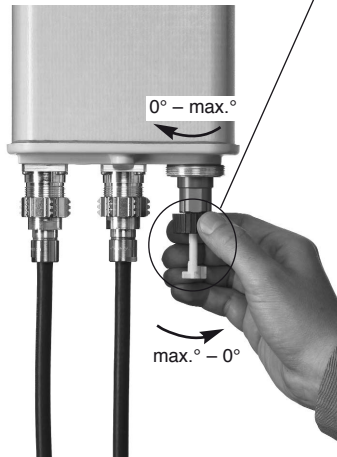


To set the downtilt angle exactly, you must look horizontally at the scale. The lower edge of the gear-wheel must be used for alignment.

## 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:



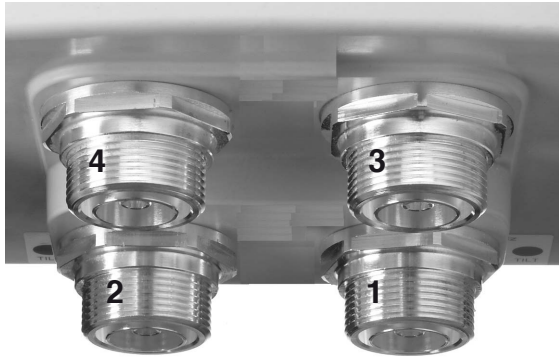
936.4144 Subject to alteration.

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

# General Instructions for Feederline Installation on Panels with four Connectors arranged on two Levels

**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 connector arrangement:



There are four interfaces for feeding the antenna located at the bottom.



The connectors are mounted at two levels in order to facilitate feederline installation.

## Attachment of the feederline connector and RCU (optional):

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



Start with the rearside located interface no. 1.

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

The further sequence for the installation is: feederlines no. 2, 3, 4.



After feederline installation the optional remote control units (RCU) can be mounted if required.



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

**Please note:** Additional weather sealing of correctly installed feederline connector interfaces is not required, nor is it recommended by the connector manufacturers.