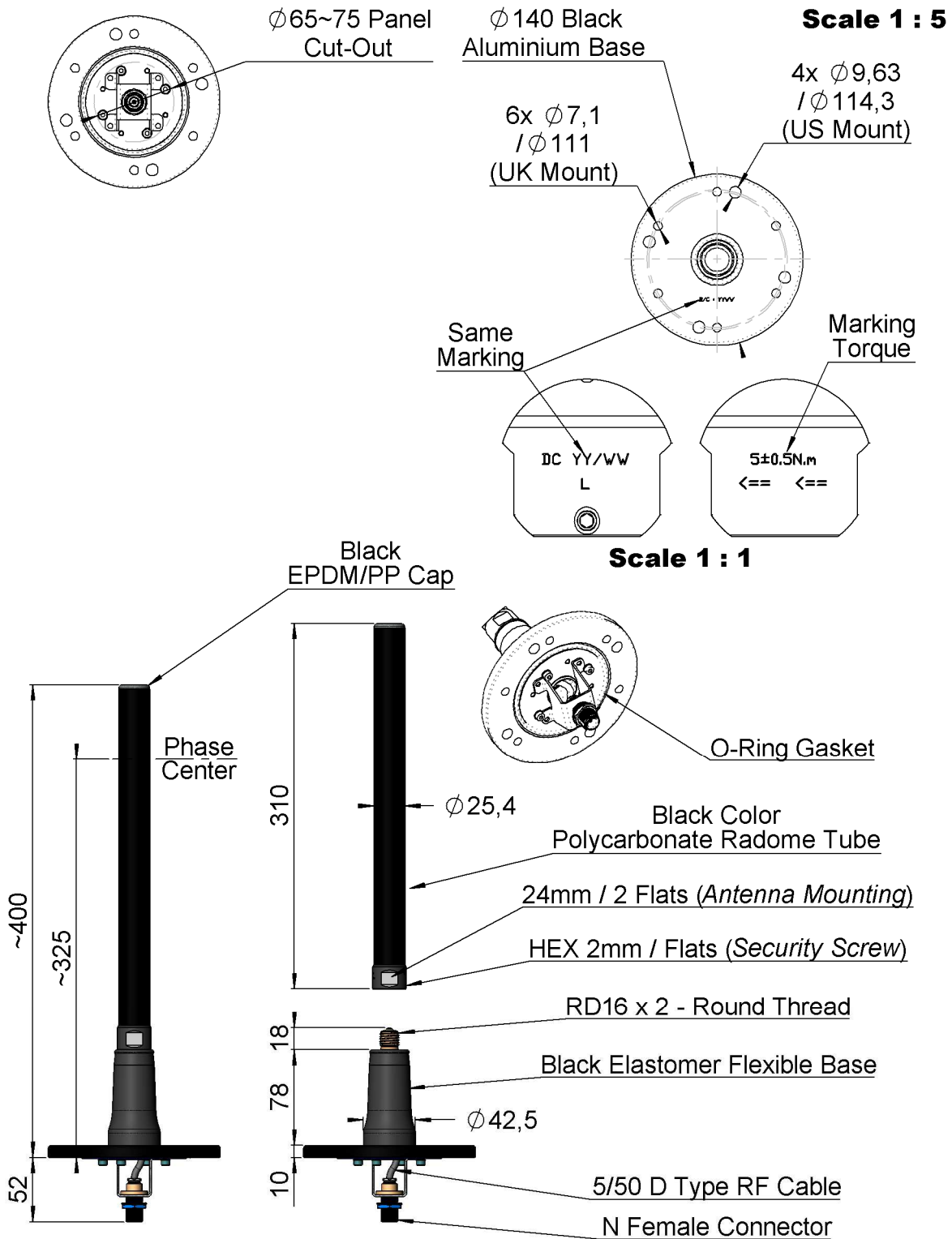


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All dimensions are in mm

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Part	Material
Radome	Polycarbonate, Black, Matt
Antenna Base	Aluminum, Black
Base Body	Aluminum, Black
Connector bodies	Brass, Black Cr.
Insulators	PTFE
Central Contacts	Brass, Ni2Au1.3
Coaxial Cable	Specially developed 5/50Ω coax

The **R380.990.020 antenna** is an 80W, Dipolar Design, Broadband Vehicular Antenna. The Phase-Center is located close to the top of the Tubular Radome. The **R380.990.020** is a Ground plane Independent Antenna that can be Mast-Mounted without particular impact on electrical performances.

**ELECTRICAL CHARACTERISTICS**

Frequency :	<b>2.4-6</b>	GHz
Nominal Impedance :	<b>50</b>	Ω
VSWR :	<b>2.5:1</b>	Max
	<b>2.0:1</b>	Typ.
Polarization :	<b>VERTICAL</b>	
Radiation Pattern :	<b>OMNIDIRECTIONAL</b>	
Ripple in Azimuth Plane :	<b>3</b>	dB max
Power withstanding :	<b>80</b>	W CW
Connector (Antenna side) :	<b>Custom</b>	
Connector (NATO Base) :	<b>N Female</b>	
Gain (1.2 x 1.2 m ground plane) :	<b>2</b>	dBi (typ.)
Gain in Azimuth plane (1.2 x 1.2 m ground plane) :	<b>1.5±2</b>	dBi
Resistor:	<b>15</b>	KΩ

**MECHANICAL CHARACTERISTICS**

Radome material :	<b>POLYCARBONATE</b>		
Finish :	<b>Black, Matt</b>		
Weight :	<b>1</b>	Kg	
Antenna length (with Elastomer base) :	<b>~ 400</b>	mm	
Antenna diameter :	<b>~ 25</b>	mm	
“Oak” Beam Test :	<b>25 Times @ 40 km/h @ 0.55 m</b>		
Wind loading :	<b>&gt; 56</b>	m/s	

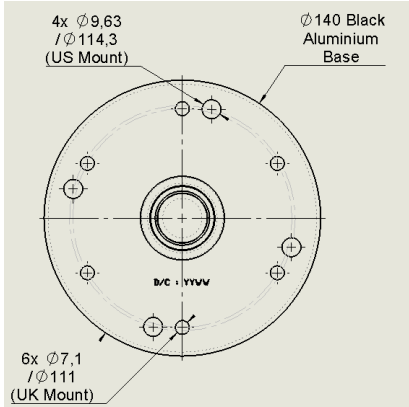
**ENVIRONMENTAL CHARACTERISTICS**

Operating temperature :	<b>-55/+71</b>	° C
	<b>IAW MIL-STD 810G meth. 501.5 &amp; 502.5, proc II</b>	
Storage & transport temperature :	<b>-55/+85</b>	° C
	<b>IAW MIL-STD 810G meth. 501.5 &amp; 502.5, proc I</b>	
Fluid contamination :	<b>IAW MIL-STD 810G meth. 504.1</b>	
Immersion :	<b>1m, for 2h IAW MIL-STD 810G meth. 512.5, proc I</b>	
Salt spray :	<b>96 h IAW MIL-STD 810G,meth.509.4 4 cycles of 24h (2 wet and 2 dry, alternatively)</b>	
Vibration :	<b>IAW MIL-STD 810G,meth.514.6 proc I, cat.20 (Track &amp; wheeled vehicles)</b>	
Shocks :	<b>IAW MIL-STD 810G,meth.516.6 proc I &amp; V</b>	
Solar radiation :	<b>IAW MIL-STD 810G meth. 505.5, proc II, desert conditions</b>	
Sand & Dust :	<b>IAW MIL-STD 810G,meth.510.5 proc I &amp; II</b>	
Wind speed :	<b>&gt;56 m/s</b>	

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**MOUNTING INSTRUCTIONS**

**STEP 1:**



Secure the spring mount on the bracket or on the chassis of the vehicle using one of the two following options:

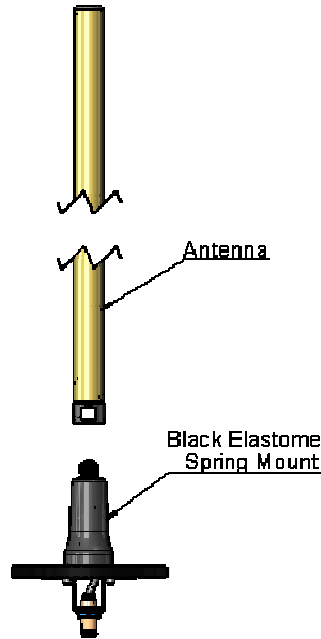
**Option A:** use 4 3/8 screws (or eq.) to secure the mount through 4 holes equally spaced on a Ø114.3 mm circle.

**Option B:** use 1/4 screws (or eq.) to secure the mount through 6 holes located on a Ø111 mm circle

Refer to the technical drawing of the base for more details on both options.

Washers should be used to prevent major scratches that might reduce the mount's compatibility to salt spray.

**STEP 2:**



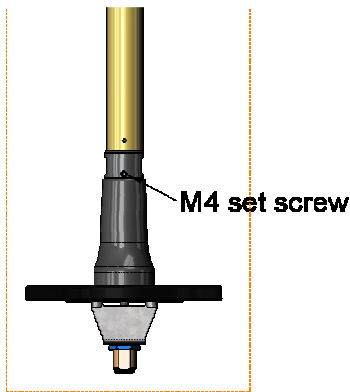
Visually inspect the inner part of the connector of the antenna to make sure no sand, dirt or plastic material will prevent proper electrical mating.

Screw the antenna onto the spring mount until it comes a mechanical stop.

Use torque wrench to tighten antenna to a 5 N.m minimum.

For temperatures lower than -20°C, a torque of 20 N.m shall be used.

**STEP 3:**



Secure the assembly using the M4 set screw provided with the antenna (2mm Allen Wrench).