

Unity-Gain, Omnidirectional Base Station and Marine Antenna for the 450 MHz Band

DESCRIPTION

- CXL 70-1LW/... is a 0 dBd, vertically polarized, omnidirectional base station and marine antenna which covers the 450 MHz band in three models.
- The carefully designed, broadbanded $\frac{1}{2}$ λ -dipole radiating element is made of brass tube and sealed in a high-quality conical glass fibre tube with low wind-load.
- Provided with the sturdy "LW" mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both VSWR and gain.
- To substantially reduce noise caused by atmospheric discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 70-1LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.



SPECIFICATIONS

Electrical	
Model	CXL 70-1LW/...
Frequency	CXL 70-1LW/l: 380 - 430 MHz CXL 70-1LW/h: 420 - 470 MHz CXL 70-1LW/hs: 460 - 510 MHz
Antenna Type	Coaxial dipole, broad-banded
Max. Input Power	200 W
Polarisation	Vertical
Pattern Type	Omnidirectional
3 dB Beamwidth, E-Plane	80 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	0 dBd (2.2 dBi)
VSWR	< 1.5:1
Bandwidth	50 - 60 MHz dep. of model
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	HCM000ND00, 040DE00

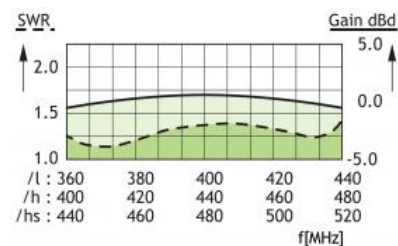
Mechanical	
Connection(s)	N(f)
Materials	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
Colour	White (RAL 9003)
Wind Area	0.0192 sq. m / 0.21 sq. ft
Wind Load	24 N (160 km/h)
Dia. At Top End	12 mm / 0.47 in.
Dia. At Bottom End	16 mm / 0.63 in.
Height	Approx. 680 mm / 26.77 in.
Weight	Approx. 0.65 kg / 1.43 lb.
Mounting	On 16 to 54 mm / 0.62 to 2.12 in. dia. mast tube

Environmental	
Operating temperature range	-35 °C to +70 °C
Survival Wind Speed	290 km/h
Ingress Protection	IP66

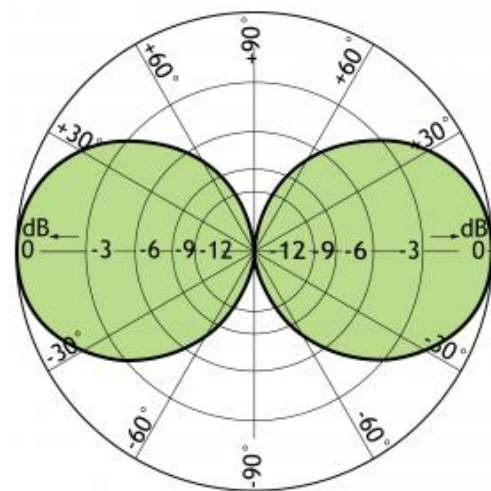
ORDERING

Model	Product No.	Frequency
CXL 70-1LW/l	110000087	380 - 430 MHz
CXL 70-1LW/h	110000083	420 - 470 MHz
CXL 70-1LW/hs	110000085	460 - 510 MHz

TYPICAL GAIN AND SWR CURVES



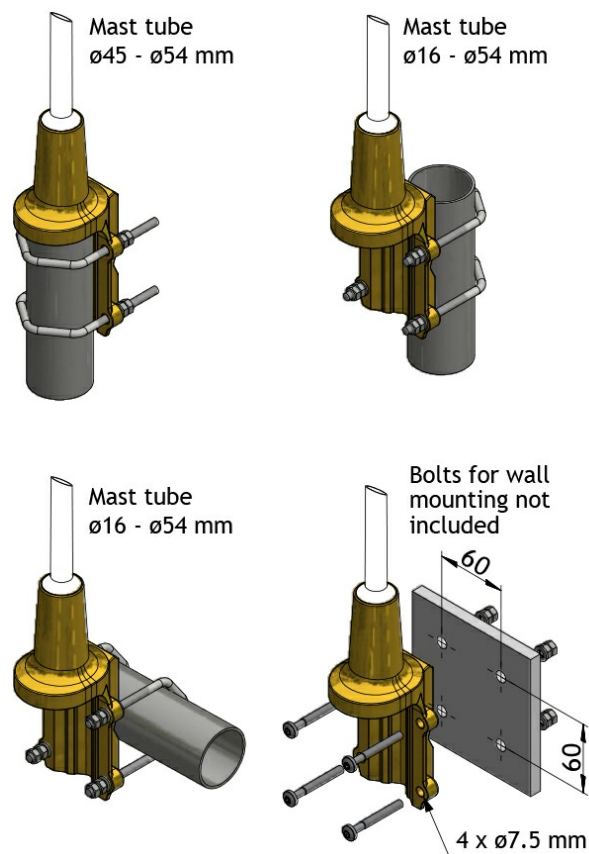
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.