

## CXL 70-1LW/...

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

### DESCRIPTION

- 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 SWR and gain.
- To substantially reduce noise caused by atmospherical 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.
  
- 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  $\frac{1}{2}$   $\lambda$ -dipole radiating element is made of brass tube and sealed in a high-quality conical glass fibre tube with low wind-load.

### ORDERING DESIGNATIONS

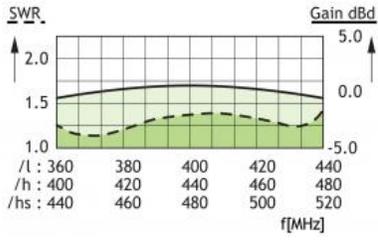
TYPE	FREQUENCY	PRODUCT NO.
CXL 70-1LW/l	380 - 430 MHz	110000087
CXL 70-1LW/h	420 - 470 MHz	110000083
CXL 70-1LW/hs	460 - 510 MHz	110000085



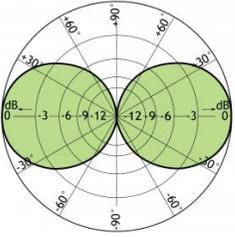
### SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-1LW/...
ANTENNA TYPE	$\frac{1}{2}$ $\lambda$ coaxial dipole, broad-banded
FREQUENCY	CXL 70-1LW/l: 380 - 430 MHz CXL 70-1LW/h: 420 - 470 MHz CXL 70-1LW/hs: 460 - 510 MHz
IMPEDANCE	Nom. 50 $\Omega$
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	50 - 60 MHz dep. of model
SWR	$\leq 1.5$
MAX. POWER	200 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 040DE00
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.0192 m <sup>2</sup>
WIND LOAD	24 N @ 160 km/h
MAX. WIND SPEED	Tested to 200 km/h
COLOUR	White (RAL 9003)
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	0.68 m (+/-1 cm)
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 650 g
MOUNTING	On 16 to 54 mm dia. mast tub
ENVIRONMENTAL	
TEMP. RANGE	-35°C → +70°C
IP RATING	IP 66

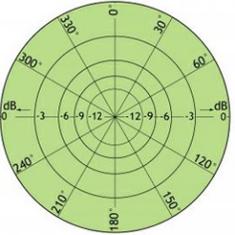
TYPICAL GAIN AND SWR CURVES



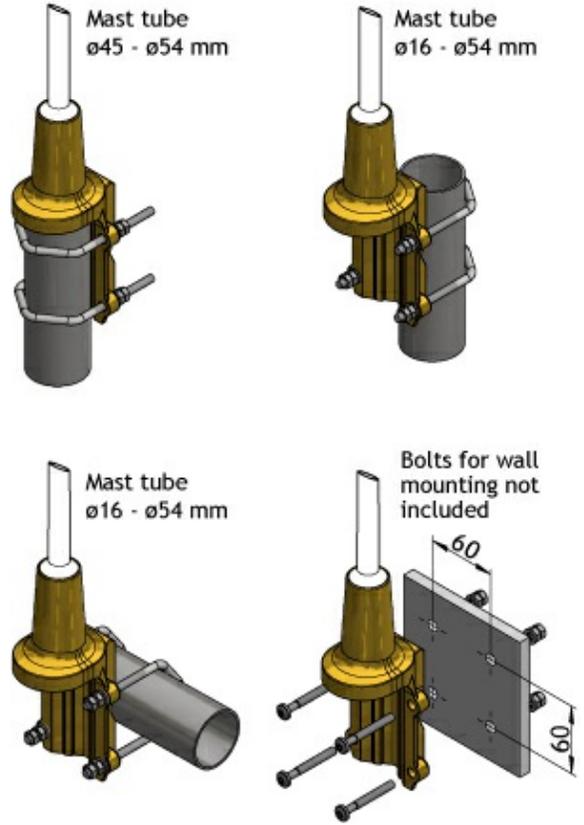
TYPICAL RADIATION PATTERN (E-PLANE)



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.