# CXL 70-1LW/...

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

#### DESCRIPTION

- CXL 70-1LW/... is a 0 dBd, vertically polarised, omnidirectional base station and marine antenna which covers the 450 MHz band in three models.
- The carefully designed, broadbanded 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.
- 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.



#### **ORDERING DESIGNATIONS**

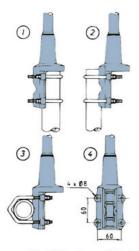
TYPE NO.	FREQUENCY	ORDER NO.
CXL 70-1LW/I	380 - 430 MHz	
CXL 70-1LW/h	420 - 470 MHz	
CXL 70-1LW/hs	460 - 510 MHz	

#### **SPECIFICATIONS**

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ELECTRICAL	
MODEL	CXL 70-1LW/
ANTENNA TYPE	1/2 λ coaxial dipole, broad-banded
FREQUENCY	CXL 70-1LW/I : 380 - 430 MHz CXL 70-1LW/h : 420 - 470 MHz CXL 70-1LW/hs : 460 - 510 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARISATION	Vertical
GAIN	2 dBi 0 dBd
BAND WIDTH	50 MHz
SWR	≤ 1.5
MAX. POWER	200 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-35°C → +70°C
TEMP. RANGE CONNECTOR	-35°C → +70°C N-female
CONNECTOR	N-female
CONNECTOR WIND SURFACE	N-female 0.0192 m <sup>2</sup>
CONNECTOR WIND SURFACE WIND LOAD	N-female 0.0192 m <sup>2</sup> 24 N @ 160 km/h
CONNECTOR WIND SURFACE WIND LOAD COLOUR	N-female 0.0192 m² 24 N @ 160 km/h Marine white Shroud: Polyurethane coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
CONNECTOR WIND SURFACE WIND LOAD COLOUR MATERIALS	N-female 0.0192 m² 24 N @ 160 km/h Marine white Shroud: Polyurethane coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
CONNECTOR WIND SURFACE WIND LOAD COLOUR MATERIALS TOTAL HEIGHT	N-female 0.0192 m² 24 N @ 160 km/h Marine white Shroud: Polyurethane coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel Approx. 680 mm
CONNECTOR WIND SURFACE WIND LOAD COLOUR MATERIALS  TOTAL HEIGHT DIA. IN TOP END	N-female 0.0192 m² 24 N @ 160 km/h Marine white Shroud: Polyurethane coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel Approx. 680 mm 12 mm
CONNECTOR WIND SURFACE WIND LOAD COLOUR MATERIALS  TOTAL HEIGHT DIA. IN TOP END DIA. IN BOTTOM END	N-female 0.0192 m² 24 N @ 160 km/h Marine white Shroud: Polyurethane coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel Approx. 680 mm 12 mm 16 mm



### MULTI-PURPOSE MOUNTING BRACKET

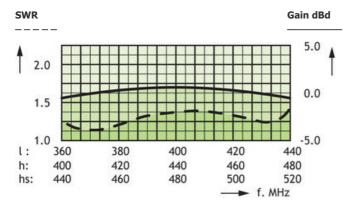


- (3) Mast tube D<sub>0</sub>, max. = 54 mm Mast tube D<sub>0</sub>, min. = 16 mm

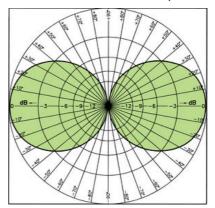
## PLEASE NOTE

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

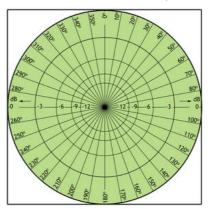
## TYPICAL GAIN AND SWR CURVES



### TYPICAL RADIATION PATTERN (E-PLANE)



## TYPICAL RADIATION PATTERN (H-PLANE)





PROCOM A/S reserve the right to amend specifications without prior notice.

17/07/2009