

## 2 Overview

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The 3410 is an AIS Electronics Unit which receives data from other vessels by means of a VHF radio and sends these data to the radar/navigation system. In the opposite direction, the AIS receives data from the radar/navigation system and the ship's sensors and transmits these data by means of the VHF radio.

Access to these data and access to the VHF radio for a pilot is prepared by means of an additional pilot port.

The AIS has a long range port to connect a long distance communication system, for instance a satellite communication system. In this way, the AIS can be called to send the ship's data. These data are sent back via the long range port to the questioner.

The AIS 3410 is equipped with a 16 channel GPS receiver and provides position data according to IEC 61162 Edition 3, so that it is suitable for the use as a position sensor. In areas where the VTS stations provide differential correction data via VHF link the AIS 3410 switches automatically into DGPS mode.

For further details see [Section 4](#).

### 2.1 Compatibility with Other Systems

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The AIS 3410 can be used in the following system:

- RADARPILOT/CHARTRADAR 1000/1100
- NACOS xx-5
- NACOS xx-4
- CHARTPILOT Stand-alone
- NACOS xx-3 (Radar 9xxx AIS Interface needed for the display of AIS targets at Radar 9xxx indicators and MULTIPILOTS in radar mode)
- mixed systems consisting of Radar 9xxx and RADARPILOT 1000
- Radar 9xxx (with Radar 9xxx AIS Interface)

The AIS might not work with SAM Electronics systems/components which are running with older software versions. For further information, see the Technical Manuals of these systems or the Software Release Notes.

It is also possible to use the AIS 3410 within systems from other manufacturers which support the IEC-defined interfaces.

# CXL 2-1/150-170 MHz-TNC

## Marine VHF Antenna

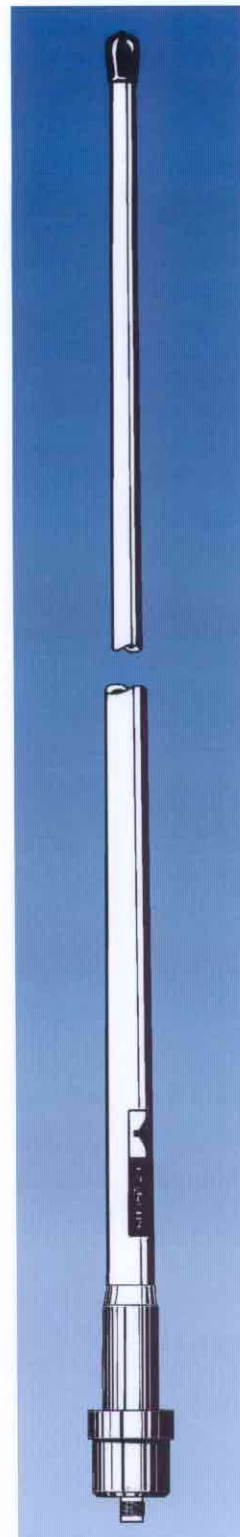
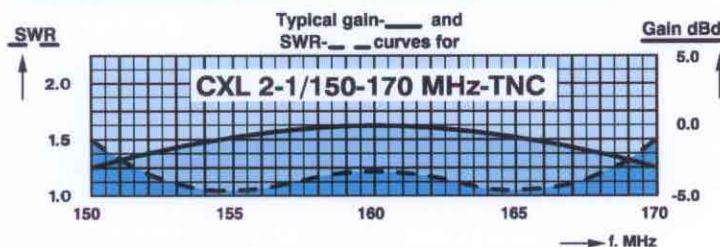
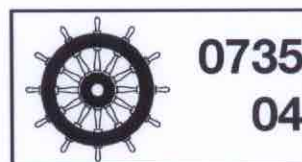
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### DESCRIPTION:

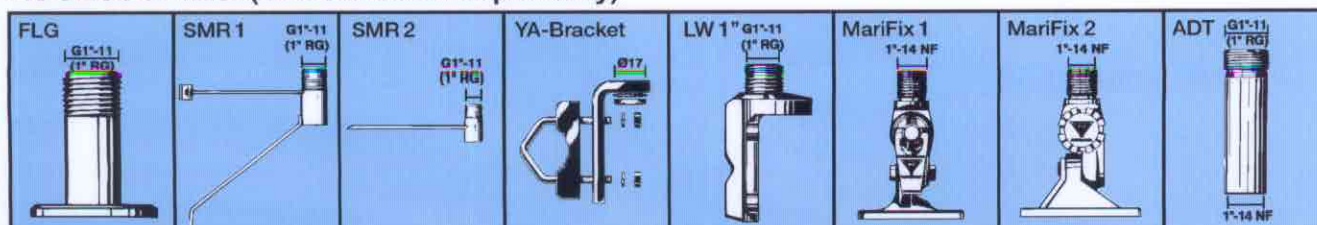
- ★ This maritime VHF antenna is developed for use on board ships as well as on masts and thanks to the 1" revolving nut mounting system it can be mounted in the mast, in the auxilliary mast as well as on the cross-beam. By means of PROCOM's flange mount it can also be mounted on deck or rooftop.
- ★ Bear in mind that the higher the antenna is mounted the better coverage.
- ★ Avoid mounting the antenna parallel with and in the neighbourhood of other metal parts, such as mast, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- ★ The antenna is a  $1/2 \lambda$  design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.
- ★ CXL 2-1/150-170 MHz-TNC can, without problems, operate with duplex radioes and on the semi-duplex channels, owing to the fact that it is broad-banded (see SWR diagram). In other words, CXL 2-1/150-170 MHz-TNC has a shipshape SWR on the RX-frequencies, which is just as important as it is for the TX-frequencies.
- ★ Furthermore, the antenna is a grounded radiator antenna and therefore it shows a DC-short across the coaxial cable.
- ★ A conical glassfiber tube completely encloses the carefully designed radiating element to assure long dependable service in all climates.

### SPECIFICATIONS:

ELECTRICAL	
MODEL	CXL 2-1/150-170 MHz-TNC
ANTENNA TYPE	$1/2 \lambda$ coaxial, broad-band
FREQUENCY	150-170 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	20 MHz
SWR	< 1.5
MAX. POWER	150 watt
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	TNC-female
WIND SURFACE	0.0196 m <sup>2</sup>
WIND LOAD	21.8 (at 150 km/h)
COLOUR	Marine white
MATERIALS	Whip : Glassfiber Mounting bracket : Chromed brass
TOTAL HEIGHT	Approx. 1.2 m
DIA. IN TOP END	8 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 340 g
MOUNTING	On 1" RG (G1"-11) threaded water pipe or on optional mounting brackets (see below)



### ACCESSORIES: (to be ordered separately)



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

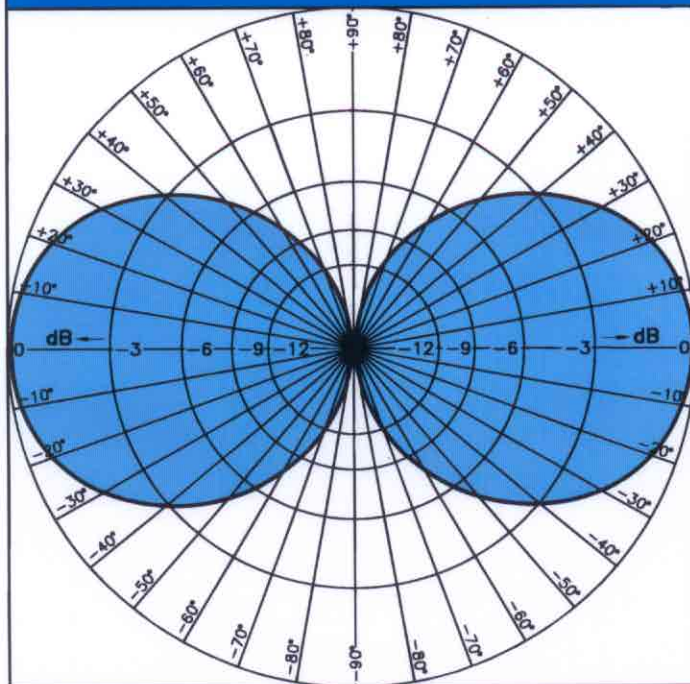


# CXL 2-1/150-170 MHz-TNC

Marine VHF Antenna

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## TYPICAL RADIATION PATTERN (E-PLANE)



## TYPICAL RADIATION PATTERN (H-PLANE)

