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## Unity Gain Base Station and Marine UHF Antenna

### DESCRIPTION

- This rod-type UHF antenna is developed for use onboard ships as well as on masts and covers the 450 MHz band in three models.
- The 1" revolving nut mounting system makes it possible to mount the antenna in the mast, in the auxiliary mast or on the cross-beam. By means of Procom's flange mount type "FLG", it can easily be mounted even on the rooftop.
- The antenna is a ½ λ design and this means that it needs neither loading coils, groundplane, radials nor other auxiliary arrangements.
- > Bear in mind that the higher the antenna is mounted the better coverage.
- Avoid mounting the antenna parallel with or in the neighbourhood of other metal parts, such as masts, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the VSWR and the radiation diagram will be influenced.
- The antenna is a grounded radiator antenna and therefore it shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to assure long dependable service in all climates.

#### ORDERING

| Туре        | Product No. | Frequency     |
|-------------|-------------|---------------|
| CXL 70-1/I  | 110000137   | 380 - 430 MHz |
| CXL 70-1/h  | 110000136   | 420 - 470 MHz |
| CXL 70-1/hs | 110000135   | 460 - 510 MHz |



#### SPECIFICATIONS

| Electrical                  |  |  |                |
|-----------------------------|--|--|----------------|
| Model                       |  | CXL 70-1/  |                |
| Frequency                   |  | CXL 70-1/l : 380 - 430 MHz<br>CXL 70-1/h : 420 - 470 MHz<br>CXL 70-1/hs: 460 - 510 MHz |                |
| Antenna Type                |  | Coaxial dipole, broad-banded   |                |
| Max. Input Power            |  | 150 W  |                |
| Polarisation                |  | Vertical   |                |
| Pattern Type                |  | Omnidirectional  |                |
| 3 dB Beamwidth, E-Plane     |  | 80 °   |                |
| 3 dB Beamwidth, H-Plane     |  | Omnidirectional  |                |
| Impedance                   |  | 50 Ω   |                |
| Gain                        |  | 0 dBd (2.0 dBi)  |                |
| VSWR                        |  | < 1.5:1  |                |
| Bandwidth                   |  | 50 MHz   |                |
| HCM Code(s)                 |  | HCM000ND00, 040DE00  |                |
| Mechanical                  |  |  |                |
| Connection(s)               | N(f)   |  |                |
| Materials                   | Shroud: Polyurethane-coated glass fibre<br>Mounting bracket: Chromed brass                 |  |                |
| Colour                      | White (RAL 9003)   |  |                |
| Wind Area                   | 0.0093 sq. m / 0.10 sq. ft   |  |                |
| Wind Load                   | 12 N (160 km/h / 99.42 mph)  |  |                |
| Dia. At Top<br>End          | 12 mm / 0.47 in.   |  |                |
| Dia. At Bottom<br>End       | 16 mm / 0.63 in.   |  |                |
| Height                      | 600 mm (± 1 cm) / 23.62 in.  |  |                |
| Weight                      | Approx. 0.35 kg / 0.77 lb  |  |                |
| Mounting                    | On 1" RG (G1" - 11) threaded water pipe or on optional mounting brackets (see accessories) |  |                |
| Environmental               |  |  |                |
| Operating Temperature Range |  |  | -30°C to +70°C |
| Survival Wind Speed         |  |  | 200 km/h       |
| Ingress Protection          |  |  |                |



Typical Gain and VSWR curves



Typical radiation pattern (E-Plane)



Typical radiation pattern (H-plane)



Accessories (to be ordered separately)



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