

# Self-Supporting Wide-Band Receiving Whip Antenna for the LF, MF and HF Bands.

#### DESCRIPTION

- This antenna provides a very efficient means of establishing a universal, wideband 50  $\Omega$  receiving aerial system for the complete LF, MF and HF bands in one unit
- The antenna consists of a high-capacitance, 5 m long glass fibre antenna element with a frequency-compensated wide-band impedance transformer mounted in the bottom end
- The transformer converts the widely varying antenna impedance to a constant 50 Ω, making it possible to use length-independent, shielded, standard RG 58 C/U or RG 213/U as downlead cable to the 50 Ω receiver.
- The antenna is protected against noise pick-up running on the outside of the downlead cable, and it is protected against static by DC-grounding.
- Moreover, the 50 Ω receiver and the matching transformer itself are protected against RF overload and violent discharges by an air spark gap (approx. 1 kV), a gas filled spark gap (90 V) and a resistance network.
- To prevent electrolytical corrosion, the coaxial cable braid is only capacitively coupled to the earth connection.
- Installation is easily carried out by means of the two hot galvanized mast clamps. The antenna has very small weight and minimum wind surface, thereby requiring only a minimum of mast strength.
- The glass fibre construction gives a stiff and self-supporting structure with extremely good resistance against the corrosive marine environment with UVradiation, salt, exhaust gases and ice formation as primary factors.
- > RX 5000 is a maintenance-free and very reliable construction.

#### **SPECIFICATIONS**

| Electrical              |  |
|-------------------------|--|
| Model                   | RX 5000  |
| Frequency               | 100 kHz - 30 MHz   |
| Antenna Type            | Self-supporting wide-band receiving whip antenna for LF, MF and HF bands |
| Polarisation            | Vertical   |
| 3 dB Beamwidth, H-Plane | Omnidirectional  |
| Impedance               | 50 Ω   |

| Mechanical         |   |
|--------------------|---|
| Connection(s)      | N(f)  |
| Materials          | Shroud : Glass fibre, stainless steel and chromed brass<br>Housing: Polycarbonate |
| Colour             | Marine white  |
| Wind Area          | 0.082 sq. m / 0.88 sq. ft   |
| Wind Load          | 108 N (160 km/h)  |
| Dia. At Top End    | 5 mm / 0.20 in.   |
| Dia. At Bottom End | 20 mm / 0.79 in.  |
| Height             | Approx. 5170 mm / 203.54 in.  |
| Weight             | Approx. 2.9 kg / 6.39 lb.   |
| Mounting           | With side-mounting clamps on 35 - 65 mm dia. mast tube                            |



| Environmental               |                  |
|-----------------------------|------------------|
| Operating temperature range | -30 °C to +70 °C |
| Survival Wind Speed         | 200 km/h         |

### **ORDERING**

| Model   | Product No. |
|---------|-------------|
| RX 5000 | 110000111   |



## **CLAMP DETAILS**



