

Active Receiving Antenna for the 1575 MHz NAVSTAR GPS Satellite Navigational System for Maritime and Landmobile Use

DESCRIPTION

- Flat-pack GPS-antenna for fixed installations.
- Full hemispherical coverage.
- Built-in high-gain, low-noise amplifier.
- Right-hand circular polarization (RHCP).
- Available in black or white, see model survey.
- 5 V or 3 V supply voltage (12 V available on request).
- DC supply via RF-connector.
- EMC tested to IEC 801 and IEC 255.
- Provided with FME-male, TNC-female connector, or models with permanently attached 0.15 m cable with FME-male connector, see model survey.
- Wide range of FME-accessories available.

SPECIFICATIONS

| Electrical | |
|--------------------------|--|
| Model | GPS 2000 |
| Frequency | 1575 MHz |
| Antenna Type | Active patch antenna |
| Polarisation | Circular |
| Pattern Type | Hemispherical |
| Impedance | 50 Ω |
| Axial Gain | 28 dBi (typ.) |
| Cross Polar Attenuation | > 10 dB (typ.) |
| Selectivity | > 45 dB down @ ±45 MHz |
| Mechanical | |
| Connection(s) | FME male, TNC female or models with 0.15 m RG 316 permanently attached cable with FME (male) connector, see ordering designations |
| Materials | Cu-nite brass, seawater resistant Lexan |
| Installation Torque | 8.5 ±1 Nm |
| Colour | Black or white, see ordering designations |
| Dimensions | 55 mm dia. |
| Height | 16 mm / 0.63 in. Outer height: 26.5 mm / 1.04 in. total (FME) 38 mm / 1.50 in. total (TNC) 27 mm / 1.22 in. total for P0.15 models |
| Weight | Approx. 0.12 kg / 0.26 lb |
| Mounting | 14 mm / 0.55 in. dia. hole |
| Mounting Plate Thickness | 0.7 - 4.5 mm / 0.03 - 0.18 in. |



| GPS Antenna | |
|-------------------------------------|---|
| P1dB (GPS Amplifier) | Approx. +7 dBm |
| Noise Figure (GPS Amplifier) | < 1 dB (typ.) |
| Gain (GPS Amplifier) | > 30 dB (typ.) |
| VSWR (GPS Amplifier) | < 2.0:1 |
| Power Supply (GPS) | 5 ±0.5 VDC or 3 ± 0.3 VDC (12 V available on request) |
| Current Consumption (GPS Amplifier) | 0.02 mA |
| Environmental | |
| Operating Temperature Range | -50°C to +70°C |

GPS 2000B-P0.15 AND GPS 2000W-P0.15



ORDERING

| Type | Product No. | Description |
|--------------------|-------------|-------------|
| GPS 2000B-FME-5V | 112000026 | Black |
| GPS 2000B-FME-3V | 112000029 | Black |
| GPS 2000W-FME-5V | 112000024 | White |
| GPS 2000W-FME-3V | 112000023 | White |
| GPS 2000B-TNC-5V | 112000028 | Black |
| GPS 2000B-TNC-3V | 112000032 | Black |
| GPS 2000W-TNC-5V | 112000027 | White |
| GPS 2000W-TNC-3V | 112000019 | White |
| GPS 2000B-P0.15-5V | 112000072 | Black |
| GPS 2000B-P0.15-3V | 112000074 | Black |
| GPS 2000W-P0.15-5V | 112000071 | White |
| GPS 2000W-P0.15-3V | 112000073 | White |

FME-System Accessories

FME-Cables

| | | |
|----------------|-----------|--|
| 1 m FME | 130000437 | |
| 2 m FME | 130000447 | |
| 3 m FME | 130000457 | |
| 4 m FME | 130000466 | |
| 5 m FME | 130000474 | |
| 6 m FME | 130000483 | |
| 1 m FME-EFME | 130000526 | |
| 2 m FME-EFME | 130000527 | |
| 3 m FME-EFME | 130000528 | |
| 4 m FME-EFME | 130000529 | |
| 5 m FME-EFME | 130000530 | |
| 6 m FME-EFME | 130000531 | |
| 4 m FME-white | 110000064 | |
| 6 m FME-white | 110000066 | |
| 12 m FME-white | 110000068 | |
| 18 m FME-white | 110000069 | |

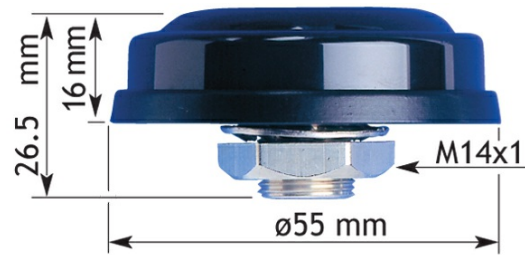
FME-Connectors

| | | |
|------------------------|-----------|--|
| FME-FME | 130000583 | |
| FME-P (Prolongation) | 130000565 | |
| FME-N | 130000571 | |
| FME-FSMA (Female-SMA) | 130000578 | |
| FME-BNC | 130000566 | |
| FME-TNC | 130000569 | |
| FME-UHF | 130000572 | |
| FME-MUHF (Mini-UHF) | 130000573 | |
| FME-EMUHF (Elbow-MUHF) | 130000582 | |
| FME-EBNC (Elbow-BNC) | 130000580 | |
| FME-ETNC (Elbow-TNC) | 130000581 | |
| FME-SMA | 130000577 | |
| MFME-MSMC | 130001573 | |

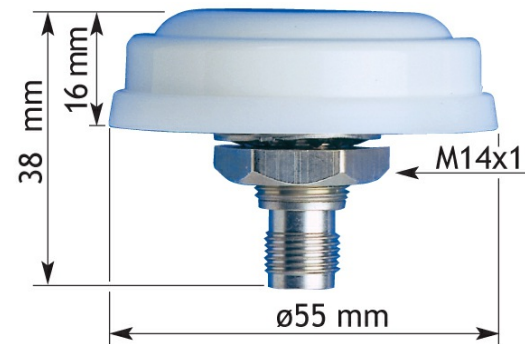
FME-SYSTEM ACCESSORIES - NOTE

For further information about other types of FME-cables and FME-connectors, please compare the cable and connector data sheets under accessories.

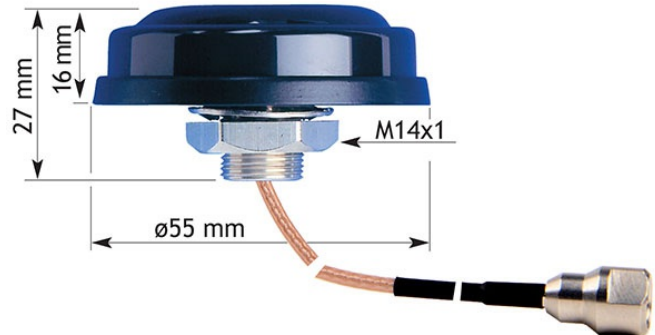
FME-VERSION



TNC-VERSION



MODELS WITH PERMANENTLY ATTACHED CABLE



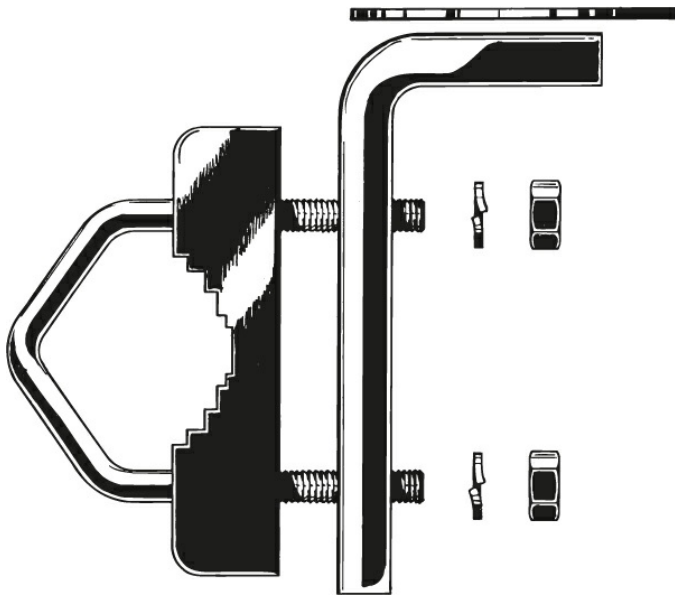
MOUNTING

The gasket should be entirely supported by the mounting plane.

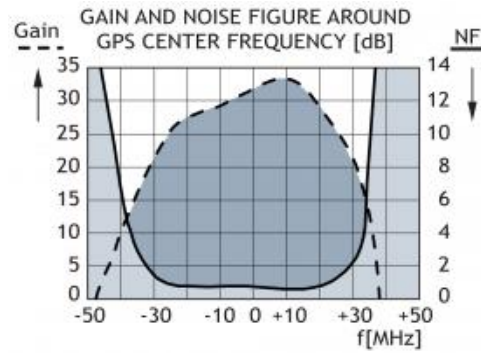
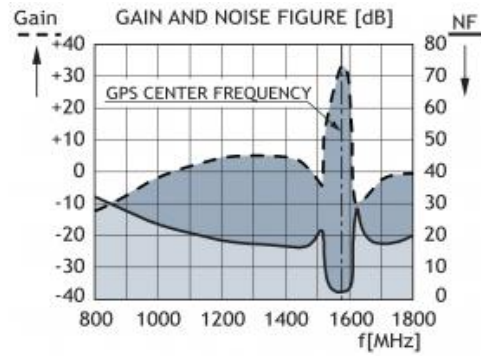
Do not use sealer on rubber gasket or other places.

ACCESSORIES

Stainless steel angle bracket for fixation of GPS 2000... antennas. (To be ordered separately: MB 2000 clamp). Not recommended for GPS 2000...-P0.15 types.



TYPICAL RESPONSE CURVES



VERTICAL RADIATION PATTERN

