

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	

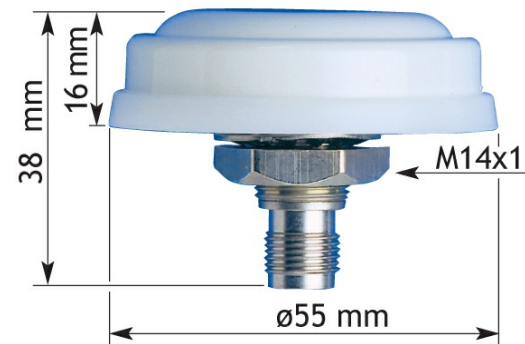
FME-SYSTEM ACCESSORIES - NOTE

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

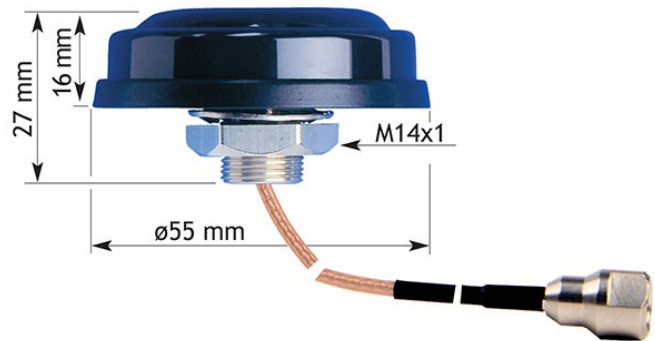
FME-VERSION



TNC-VERSION



MODELS WITH PERMANENTLY ATTACHED CABLE



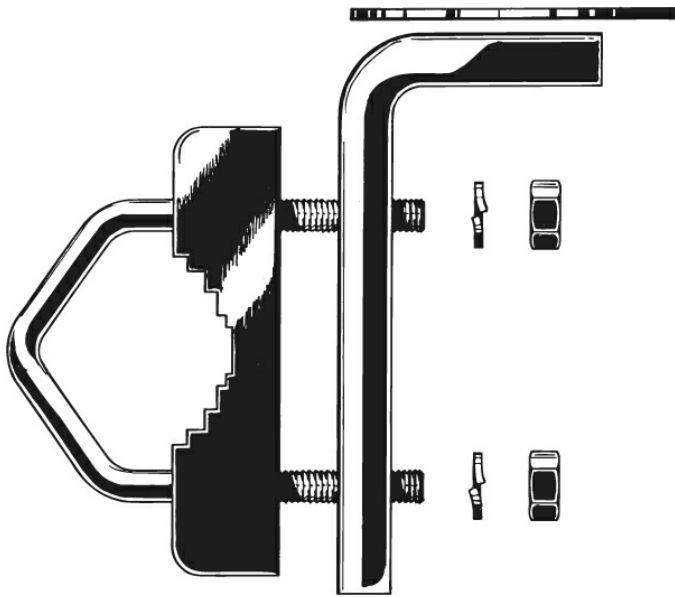
MOUNTING

The gasket should be entirely supported by the mounting plane.

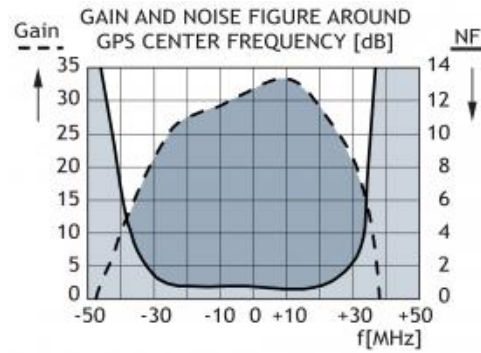
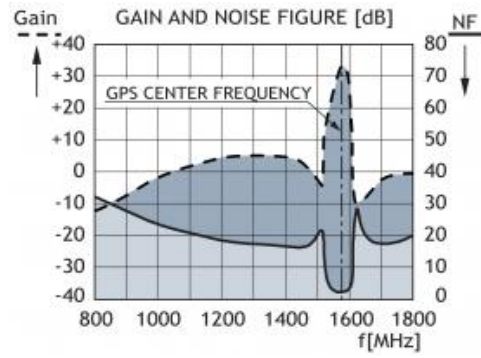
Do not use sealer on rubber gasket or other places.

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

