

GPS 4/...

Active Receiving Antenna for the 1575 MHz NAVSTAR GPS Satellite

- Full hemispherical coverage due to quadrifilar helix antenna element.
- Built-in high gain, low noise amplifier.
- Input filter for thorough RF-overload protection.
- Right-hand circular polarization (RHCP).

DESCRIPTION

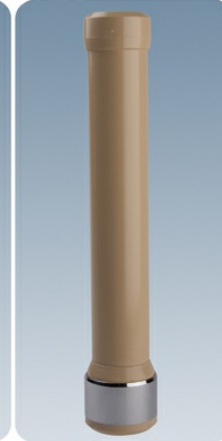
- High rejection of cross-polarized reflections prevents fading caused by multipath propagation.
- 5 V supply voltage (3 V respectively 12 V available on request).
- DC supply via RF-connector.
- EMC tested to IEC 801 and IEC 255.
- Total design carried out to make the antenna withstand tough environments.
- Comprehensive range of accessory mounting brackets available.
- Colour opportunities:
 - White (Standard)
 - Black
 - Sand



GPS 4/...-B



GPS 4/...-S



ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	SUPPLY VOLTAGE	TYPE	PRODUCT NO.
GPS 4	112000017	5 VDC (4.5 - 5.5 V)	GPS 4-S	112000066
GPS 4/3 V	112000015	3 VDC (3 - 3.5 V)	GPS 4/3 V-S	112000068
GPS 4/12 V	112000016	12 VDC (9 - 15 V)	GPS 4/12 V-S	112000070
GPS 4-B	112000065	5 VDC (4.5 - 5.5 V)	GPS 4/5 V-TNC	112000014
GPS 4/3 V-B	112000067	3 VDC (3 - 3.5 V)	GPS 4/3 V-TNC	112000010
GPS 4/12 V-B	112000069	12 VDC (9 - 15 V)	GPS 4/12 V-TNC	112000012

SPECIFICATIONS

ELECTRICAL General Specifications	
MODEL	GPS 4/...
ANTENNA TYPE	Quadrifilar helix active antenna
FREQUENCY	1575 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular right-hand
COVERAGE	Hemispherical
GAIN (in axial direction)	> 32 dBi
CROSSPOLARIZATION ATT.	> 10 dB
SELECTIVITY	> 20 dB down @ ± 100 MHz
Built-in Amplifier	
GAIN	> 30 dB
NOISE FIGURE	< 3 dB (incl. input filter). Typ. approx. 3 dB
1 dB COMPRESSION POINT	> 10 dBm
OUT OF BAND ATTENUATION	0.03 – 1 GHz : > 40 dB down 2 – 10 GHz : > 40 dB down
SWR (output)	< 2.0
SUPPLY VOLTAGE	GPS 4: 5±0.5 V DC GPS 4/3 V: 3-3.5 V DC GPS 4/12V: 9-15 V DC
CURRENT CONSUMPTION	Approx. 44 mA
EMC	Full protection (IEC 801, IEC 255)
MECHANICAL	
MATERIALS	Antenna dome: Weather-resistant low-loss plastic
ANTENNA COLOUR	Marine white, black or sand
INSULATION	Connector ground terminal galvanically insulated from the mounting hardware
WIND SURFACE	Approx. 0.0072 m ² / 0.08 ft ²
MAX. WIND SPEED	200 km/h / 124.27 mph.
WIND LOAD	Approx. 9.6 N @ 150 km/h / 93.21 mph.
CONNECTOR	FME-male (pin) or TNC-female
SUGGESTED DOWNLEAD CABLE	< 10 m: RG 58 10 - 30 m: RG 213
TOTAL HEIGHT	Approx. 23 cm / 9.06 in.
ANTENNA DIA.	33 mm / 1.30 in.
WEIGHT	Approx. 150 g / 0.33 lb.
MOUNTING	Vertical on 1" water pipe or on PROCOM 1" mounting brackets (see accessories)
ENVIRONMENTAL	
TEMP. RANGE	-50° C → +70° C
IP-RATING	IP-56 (IP-66 on request)

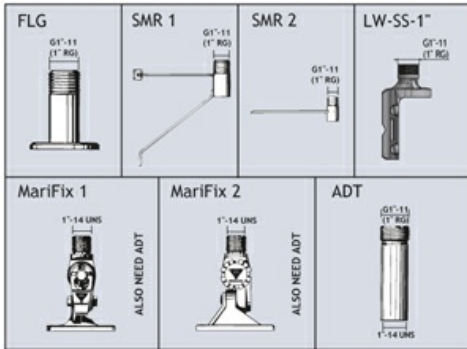
FME-SYSTEM ACCESSORIES

FME-CABLES	
TYPE	PRODUCT NO.
1 m FME(f)	130000437
2 m FME(f)	130000447
3 m FME(f)	130000457
4 m FME(f)	130000466
5 m FME(f)	130000474
6 m FME(f)	130000483
4 m FME-white(f)	110000064
6 m FME-white(f)	110000066
12 m FME-white(f)	110000068
18 m FME-white(f)	110000069

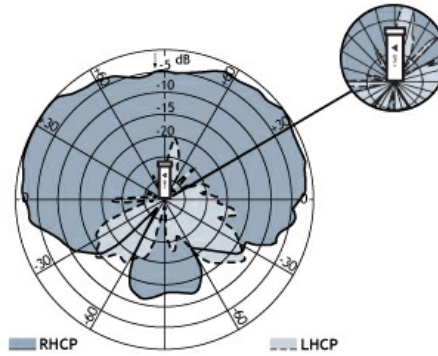
FME-CONNECTORS	
TYPE	PRODUCT NO.
FME(f)-FME(f)	130000583
FME(m)-P(m) (Prolongation)	130000565
FME(m)-N(m)	130000571
FME(m)-FSMA (Female-SMA)	130000578
FME(m)-BNC(m)	130000566
FME(m)-TNC(m)	130000569
FME(m)-UHF(m)	130000572
FME(m)-MUHF(m) (Mini-UHF)	130000573
FME(m)-EMUHF(m) (Elbow-MUHF)	130000582

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

ACCESSORIES (TO BE ORDERED SEPARATELY)



VERTICAL RADIATION PATTERN



TYPICAL RESPONSE CURVES

