GPS 4/...

Active Receiving Antenna for the 1575 MHz NAVSTAR GPS Satellite Navigational System

DESCRIPTION

- 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).
- 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

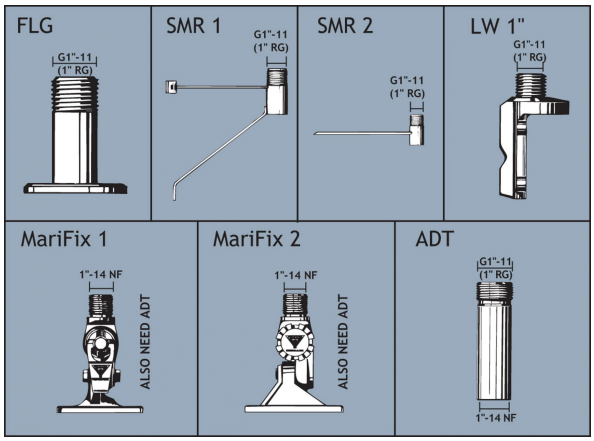
ORDERING DESIGNATIONS

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

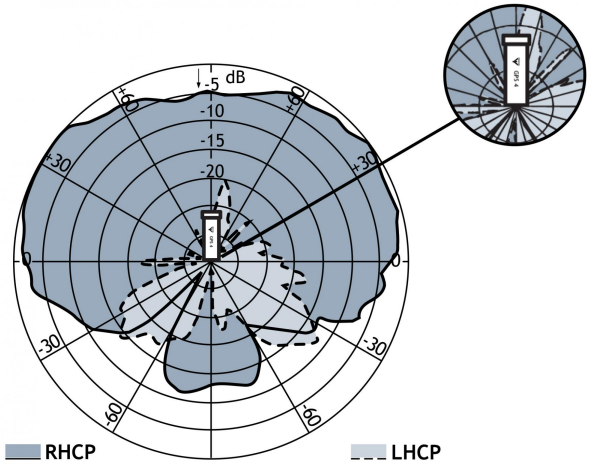
SPECIFICATION

ELECTRICALGENERAL 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 m²
MAX. WIND SPEED	200 km/h
WIND LOAD	Approx. 9.6 N @ 150 km/h
TEMP. RANGE	-50° C → +70° C
CONNECTOR	FME-male (pin) (can be supplied with TNC upon request)
SUGGESTED DOWNLEAD CABLE	< 10 m: RG 58 10 - 30 m: RG 213
TOTAL HEIGHT	Approx. 23 cm
ANTENNA DIA.	33 mm
WEIGHT	Approx. 150 g
MOUNTING	Vertical on 1" water pipe or on PROCOM 1" mounting brackets (see accessories below)

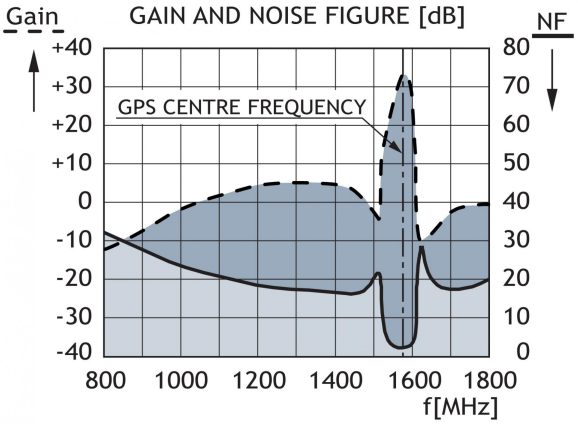
ACCESSORIES



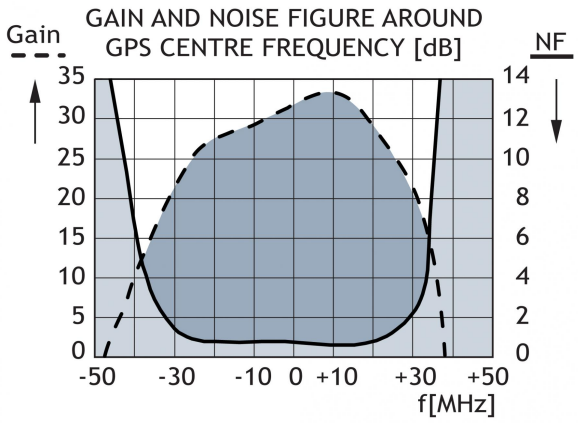
VERTICAL RADIATION PATTERN



TYPICAL RESPONSE CURVES



TYPICAL RESPONSE CURVES



FME-SYSTEM ACCESSORIES

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

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.

FME-CONNECTORS	
TYPE	PRODUCT NO.
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

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PROCOM A/S reserve the right to amend specifications without prior notice.

20/03/14