

Accurate Heading and Precise Position for Professionals

• New: Supports both GPS and GLONASS satellites for complete redundancy

GNSS Satellite Compass

- New: Heading accuracy < 0.25° rms
- New: Position accuracy < 0.3m 95% confidence (DGPS)
- New: An integrated 9 Axis Inertial Measurement Core (IMC technology)
 provides enhanced roll, tilt and heading stability even during momentary
 loss of satellite signals
- New: IMO Compliant G3 color display system (optional)
- New: Engineered enhancements to exceed sealed IP67 rating
- New: Extended 2 year warranty
- NMEA 0183 and NMEA 2000® interface
- Type approved as primary heading AND positioning device
- Heave, Pitch, Roll and Rate of Turn as standard output
- Heading updates 1 to 20 Hz
- BAUD Rate selectable: 4800, 9600, 19200, 38400,115200
- Fully compatible with on board NMEA 0183 and NMEA 2000® RADAR, ECDIS, AIS, Cameras, SONAR, PC and Autopilots
- Compact integrated surface mounting (Pole mount optional)
- IMO Compliant, Wheelmark and USCG approved
- Pre-programmed default settings for Heading, Rate of Turn,
 Course over Ground, Lat/Long position, Time & Date
- 1PPS output standard
- 15 meter serial cable standard (30 meter optional)
- 6 meter NMEA 2000® Cable (Optional)
- CE certified for EMI and RFI immunity
- Worldwide service

SPECIFICATIONS

Receiver Type: L1, C/A code, with carrier phase smoothing
Channels: Two x 32 parallel tracking GPS, GLONASS, SBAS
Update Rate: Standard 10 Hz, Selectable up to 20 Hz

(position and heading)

Horizontal Accuracy: < 0.3 m 95% confidence (DGPS)*

< 2.5 m 95% confidence (autonomous, no SA)**

Heading Accuracy: < 0.25° rms

Pitch / Roll Accuracy: < 1° rms

Heave Accuracy: < 30 cm rms

90° / sec max

Start-up Time: < 60 sec typical

Heading Fix: < 10 sec

Satellite Reacquisition: < 1 sec

Timing Output: 1PPS, 50 ns accuracy, CMOS BEACON RECEIVER SPECIFICATIONS (G2B)

Channels: 2-channel, parallel tracking

Frequency Range: 283.5 to 325 kHz

Operating Modes: Automatic (signal strength or range) and manual

Compliance: IEC 61108-4 Beacon Standard

COMMUNICATIONS

Serial Ports: 1 full-duplex RS-232 and 1 full-duplex RS-422,

Baud Rates: Selectable 4800 - 115200 Correction I/O Protocol: RTCM v2.3 (DGPS), RTCM SC-104

Data I/O Protocol:NMEA 0183 / NMEA 2000® / Proprietary ASCIIHeading Warning I/O:Open relay system indicates invalid headingNMEA Heading Messages:\$GPHDT, \$GPROT, \$PSAT, \$GPHDM, \$GPHDGTiming Output:1PPS CMOS, active low, 10KΩ, 10pF load

ENVIRONMENTAL

Operating Temperature: -32°C to $+74^{\circ}\text{C}$ (-25°F to + 165°F) Storage Temperature: -40°C to $+85^{\circ}\text{C}$ (-40°F to + 185°F)

Humidity: 0 - 99% non-condensing

POWER

Input Voltage: 10 to 36 VDC

Power Consumption: ~ 3 W nominal

Current Consumption: ~ 250 mA @ 12 VDC

Isolation: Power supply isolated from serial ports

Reverse Polarity Protect: Yes

MECHANICAL

Weight: G2: 2.2 kg (4.8 lb) / G2B: 2.7 kg (5.9 lb)

Power/Data Connection: 18-pin female circular, IP67 sealed 15m cable

AIDING DEVICES

Gyro: Provides smooth heading, fast heading reacquision

and reliable < 1° heading for periods up to 3 minutes when loss of GPS has occured (static conditions)

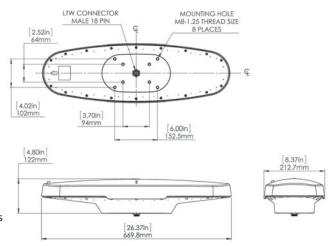
Tilt Sensor: Assists in fast start up of heading solutions

 Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services), and Ionospheric activity.

** Depends on multipath environment, number of satellites in view, and satellite geometry.



DIMENSIONS: 669.8mm x 122mm x 212.7mm /26.37" x 4.80" x 8.37" LxHxW **WEIGHT:** G2: 2.2 kg (4.8 lb) / G2B: 2.7 kg (5.9 lb)



ADDITIONAL OPTIONS:

- 30m NMEA 0183 Serial Data Cable
- 6m NMEA 2000® Cable (not IMO compliant)
- Color LCD Sunlight G3 Instrument Display







