

ComNav[®]



VECTOR G2 & G2B GPS Satellite Compass

Precision Heading and Position Solutions

**IMO COMPLIANT
WHEELMARK CERTIFIED**

- Precise 2D heading and positioning data
- Heading accuracy of better than 0.5 degrees
- Rate of turn tracking rates up to 90°/sec
- Provides Heave, Pitch & Roll information
- Pitch and roll accuracy of better than 1 degree
- Fully compatible with Autopilot, Radar, AIS, PC, Sonar
- Better than 1 meter differential position accuracy (DGPS/G2B)
- Differential Correction source options include SBAS (WAAS, EGNOS and MSAS) and RTCM SC-104 data (External Source)
- G2B can also use terrestrial DGPS Radio beacon signals
- Integrated Gyro & Tilt sensors provide heading during momentary loss of satellite signals and speed up GPS signal reacquisition
- Heading Position Updates up to 20 Hz
- Multiple BAUD rate selections: 4800/9600/19200/38400
- Pre-programmed default settings for Heading, Rate of Turn Course over Ground, Lat/Long Geographic position, Time & Date
- Two mounting bases, Pole or Fixed mount option
- Heading solution for steel vessels
- Waterproof — commercial grade IP67 standards
- CE certified for EMI and RFI immunity
- Optional 15m or 30m cable
- IMO Compliant
- Optional Display — Color or Mono Screen
- 1 year warranty
- Worldwide Service

VECTOR G2 and G2B

SYSTEM CONFIGURATION & OPTIONS

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: 2 full duplex RS-232 and 2 half-duplex RS-422
Baud Rates: 4800 - 38400
Correction I/O Protocol: RTCM SC-104
Data I/O Protocol: NMEA 0183
Heading Warning I/O: Open relay system indicates invalid heading
NMEA Heading Messages: \$GPHDT, \$GPROT, \$PSAT, \$GPHDM, \$GPHDG

Environmental

Operating Temperature: -32°C to +74°C (-25°F to + 165°F)
Storage Temperature: -40°C to +85°C (-40°F to + 185°F)
Humidity: 100% non-condensing

Power

Input Voltage: 10 to 36 VDC
Power Consumption: < 5 W
Current Consumption: < 360 mA @ 12 VDC
Isolation: Power supply isolated from serial ports
Reverse Polarity Protection: Yes

Mechanical

Weight: 1.5 kg (3.3 lb)
Power/Data Connection: 18-pin, Environmentally sealed
 15m or 30m cable (options)

Aiding Devices

Gyro: Single axis gyro provides reliable < 1° heading for periods up to 3 minutes when loss of GPS lock has occurred

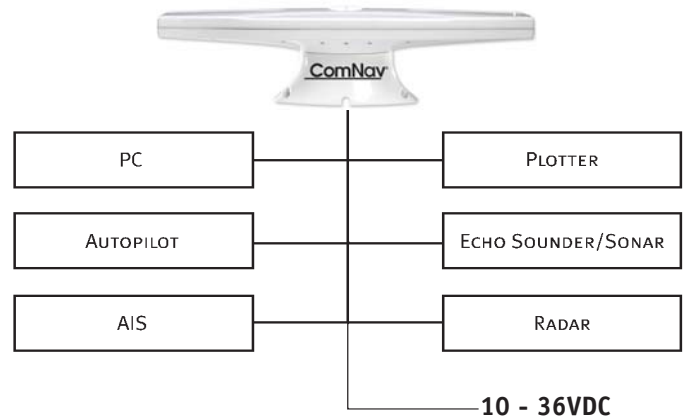
Tilt Sensor: Assists in fast GPS Signal Reacquisition

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

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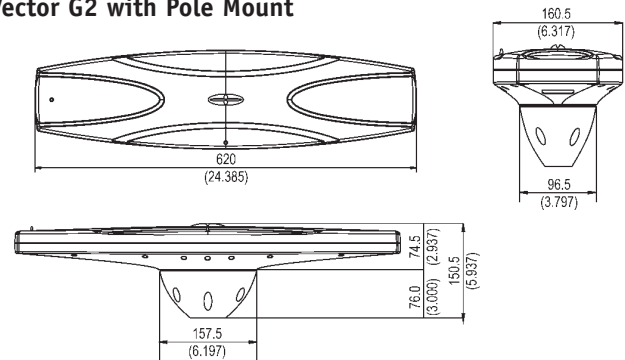
SPECIFICATIONS

Receiver Type: L1, C/A code, with carrier phase smoothing
Channels: 12-channel parallel tracking (10 channel when tracking SBAS / 2 for SBAS)
Update Rate: Standard 5Hz, optional up to 20 Hz (position and heading)
Horizontal Accuracy: < 1 m (DGPS)*
 < 2.5 m (autonomous, no SA)**
Heading Accuracy: < 0.5°
Pitch / Roll Accuracy: < 1°
Rate of Turn: 90° / sec max
Start-up Time: < 60 sec typical
Heading Fix: < 20 sec
Satellite Reacquisition: < 1 sec

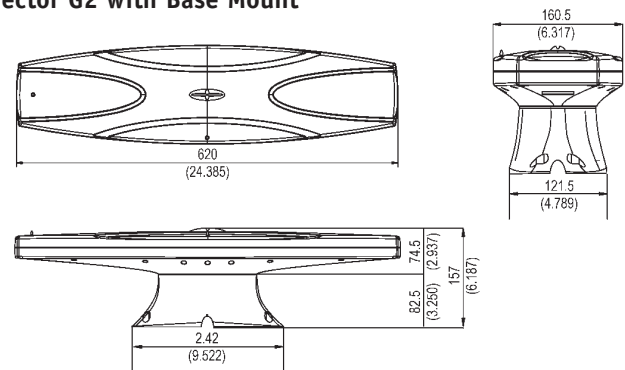


DIMENSIONS

Vector G2 with Pole Mount



Vector G2 with Base Mount



Unit: mm (inch)

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