

# ComNav®

New



## G1 GNSS Satellite Compass

### Accurate Heading, Position and Rate of Turn

- **New:** Supports both GPS and **GLONASS** satellites for complete redundancy
- **New:** Heading accuracy < 0.5° rms
- **New:** Position accuracy < 1.0m 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:** G3 color display system (optional)
- **New:** Engineered enhancements to exceed sealed IP67 rating
- **New:** Extended 2 year warranty
- NMEA 0183 and NMEA 2000® interface
- 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 and pole mount
- Pre-programmed default settings for Heading, Rate of Turn, Course over Ground, Lat/Long position, Time & Date
- 15 meter serial cable standard (30 meter optional)
- 6 meter NMEA 2000® Cable (Optional)
- CE certified for EMI and RFI immunity
- Worldwide service

**SPECIFICATIONS:**

<b>Receiver Type:</b>	L1, C/A code, with carrier phase smoothing
<b>Channels:</b>	Two x 32 parallel tracking GPS, GLONASS, SBAS
<b>Update Rate:</b>	Standard 10 Hz, Selectable up to 20 Hz (position and heading)
<b>Horizontal Accuracy:</b>	< 0.5m 95% confidence (DGPS)* < 2.5m 95% confidence (autonomous, no SA)**
<b>Heading Accuracy:</b>	< 0.50° rms
<b>Pitch / Roll Accuracy:</b>	< 1° rms
<b>Heave Accuracy:</b>	< 30 cm rms
<b>Rate of Turn:</b>	90° / sec max
<b>Start-up Time:</b>	< 60 sec typical
<b>Heading Fix:</b>	< 10 sec
<b>Satellite Reacquisition:</b>	< 1 sec

**COMMUNICATIONS**

<b>Serial Ports:</b>	1 full duplex R2-232 and 1 full duplex RS-422
<b>Baud Rates:</b>	4800 - 115200
<b>Correction I/O Protocol:</b>	RTCM SC-104
<b>Data I/O Protocol:</b>	NMEA 0183, NMEA 2000®, CAN
<b>NMEA Heading Messages:</b>	\$GPHDT, \$HEHDT, \$HEHDM, \$GPROT, \$GHEROT, \$GPGGA, \$GPGSV, \$GPVTG, \$GPRMC, \$GPZDA, \$PASHR

**ENVIRONMENTAL**

<b>Operating Temperature:</b>	-30°C to +70°C (-22°F to + 158°F)
<b>Storage Temperature:</b>	-40°C to +85°C (-40°F to + 185°F)
<b>Humidity:</b>	95% non-condensing
<b>EMC:</b>	FCC Part 1.5, Subpart B, Class B, CISPR22, CE

**POWER**

<b>Input Voltage:</b>	10 to 36 VDC
<b>Power Consumption:</b>	~ 2.8 W nominal
<b>Current Consumption:</b>	~ 240 mA @ 12 VDC
<b>Power Isolation:</b>	Power supply isolated from serial ports
<b>Reverse Polarity Protection:</b>	Yes
<b>Power/Data Connection:</b>	18-pin female circular, IP67 sealed 15m cable

**AIDING DEVICES**

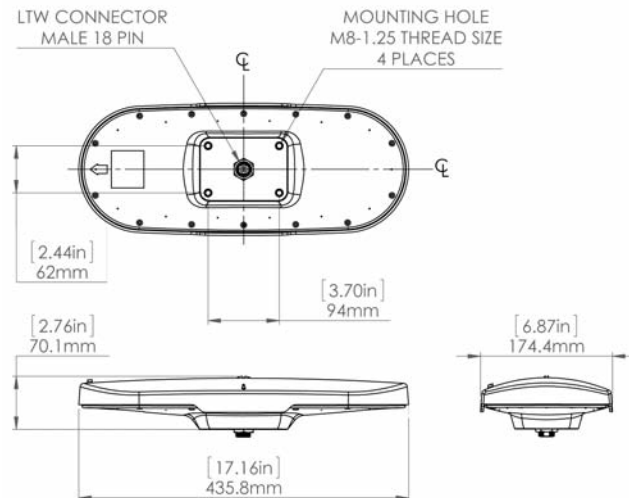
<b>Gyro:</b>	Provides reliable < 1° Heading for up to 3 minutes when loss of GPS has occurred
<b>Tilt Sensor:</b>	Assists in fast start-up of heading solution

- \* 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:** 435.8mm x 70.1mm x 174.4mm / 17.16" x 2.76" x 6.87" LxHxW

**WEIGHT:** 1.1 kg (2.5 lb)

**ADDITIONAL OPTIONS:**

- 30m NMEA 0183 Serial Data Cable
- 6m NMEA 2000® Cable
- Color LCD Sunlight G3 Instrument Display

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ISO 9001

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