

### Reliable Position Accuracy

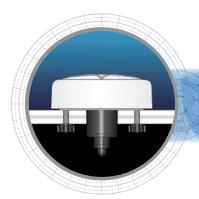
The G2183 is a high-accuracy, NMEA, WAAS/EGNOS, GPS antenna. It scores high in superior sensitivity for quick signal acquisition, reliable position accuracy, and accurate speed and course-over-ground readings. The G2183 can connect to both NMEA 0183 and NMEA 2000® networks that may be installed on the vessel, as the unit outputs both protocols simultaneously. It features a compact size that is easy to flush-mount, pole-mount, or rail-mount. The G2183 is designed for all marine environments, as the IPX6 waterproof housing can withstand virtually any condition Mother Nature throws at it.

# **GPS Sensor**

#### Features

- WAAS/EGNOS GPS with 3 m (10') accuracy
- Provides:
  - —Latitude and Longitude
  - —Course Over Ground (COG)
  - —Speed Over Ground (SOG)
  - —Time and Date
  - —Magnetic Variation
- Outputs NMEA 0183 and NMEA 2000® data simultaneously
- IPX6 waterproof enclosure
- Available as a combination GPS/Heading Sensor (GH2183)





## **Technical Information**

#### **SPECIFICATIONS**

**Supply Voltage:** 9 VDC to 40 VDC \* **Supply Current:** <70 mA at 12 VDC

Operating Temperature Range: -25°C to 55°C (-13°F to 131°F)
Storage Temperature Range: -30°C to 70°C (-22°F to 158°F)

GPS Satellite Tracked: 12-channel (maximum)

WAAS/EGNOS Satellites Tracked: 2-channel (maximum)

GPS Position Accuracy: 3 m (10') with WAAS (95% of the time, SA off)

**GPS-Fix Update Rate:** 1 x per second **Cold Start Acquisition:** 52 seconds **Warm Start Acquisition:** 37 seconds

NMEA 2000<sup>®</sup> Load Equivalency Number (LEN): 5 Certifications and Standards: CE, IPX6, RoHS, IEC60945

#### **DATA OUTPUT PROTOCOL**

#### **NMEA 0183 Sentence Structure**

\$GPDTM ...... Datum Reference \$GPGGA ..... GPS Fix Data

\$GPGLL.....Geographic Position—Latitude and Longitude

\$GPGSA ...... GNSS DOP and Active Satellites

\$GSGSV ..... GNSS Satellites in View

**\$GPRMC** ....... Recommended Minimum Specific GNSS Data **\$GPVTG** ...... Course Over Ground and Ground Speed

\$GPZDA..... Time and Date

#### NMEA 2000® Supported PGNs

127258...... Magnetic Variation

**129025**...... Position and Rapid Update **129026**...... COG and SOG, Rapid Update

129029...... GPS Position Data

**129033**...... Time and Date

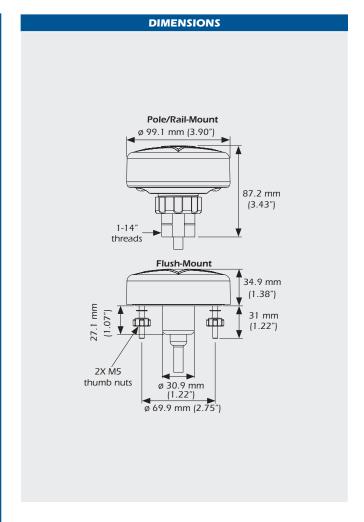
129044..... Datum

129538...... GNSS Control Status

**129539**...... GNSS DOPs

**129540**...... GNSS Sats in View

129541...... GPS Almanac Data







<sup>\*</sup> In support of 24VDC operation on NMEA 2000 networks