

GPS200

GPS Antenna/Receiver

The second generation GPS200 is a state-of-the-art GPS/GLONASS antenna and receiver capable of producing ten position fixes per second. The GPS200 has unprecedented sensitivity and can even be mounted underneath a fiberglass deck. An additional benefit of the GPS200 is that it broadcasts precision magnetic variation information using the current position and world magnetic model (WMM2020).

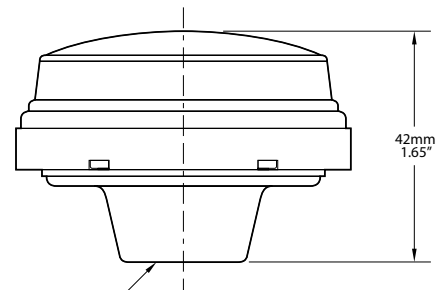
The GPS200 antenna/receiver is a plug-and-play device that is fully compliant and certified to the NMEA 2000® standard. It will directly connect to any NMEA 2000 network and communicate with navigational software, chartplotters, autopilots and dedicated instrument displays—such as Maretron's DSM Series Displays, or N2KView®—and its compact, waterproof housing provides years of reliable performance. The GPS200 automatically decodes GPS correction signals from Satellite Based Augmentation Systems (SBAS) including the North American Wide Area Augmentation System (WAAS), the European

Geostationary Navigation Overlay System (EGNOS), or the Asian Multi-functional Transport Satellite-based Augmentation System (MSAS) to provide better than 2.5m accuracy.

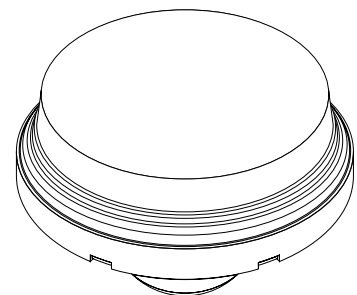
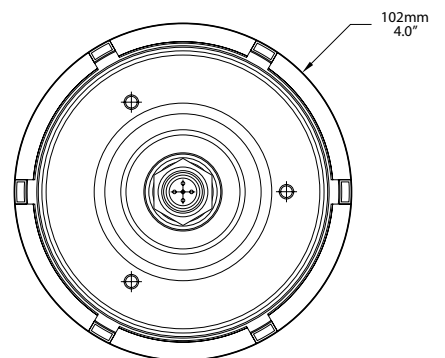
The GPS200 is easily mounted to a standard marine mount with 1"-14 TPI male pipe end. It can also be mounted directly to a deck.



DSM Series Screen Shots



1" - 14 - UNS-2B Thread
(1" - 14 TPI Standard Marine Mount)



PRODUCT

| PART NUMBER | DESCRIPTION |
|-------------|----------------------|
| GPS200-01 | GPS Antenna/Receiver |

SPECIFICATIONS

| PARAMETER | VALUE | COMMENT |
|-------------------------------------|--------------------|---|
| Supported Positioning Systems | GPS, GLONASS | Simultaneously |
| Position Accuracy (Autonomous) | <3m | 2D RMS |
| Position Accuracy (WAAS) | <2.5m | 2D RMS (depends on accuracy of correction data) |
| Channels | 99 | 33 Tracking, 99 Acquisition |
| Tracking Sensitivity | -161dBm | |
| Position Update Rate | 10 per Second | 10 Hz Position Fix Calculation Rate |
| Speed Update Rate | 10 per Second | |
| Time Update Rate | 1 per Second | |
| Hot Start | 1 Seconds | Start Within Hours of Last Power Down |
| Cold Start | 33 Seconds | Start from Unknown Position |
| Satellite Based Augmentation System | WAAS | North America |
| EGNOS | Europe | |
| MSAS | Asia | |
| GAGAN | India | |
| Altitude Limit | 18000 m | |
| Velocity Limit | 515 m/sec | |
| Battery Backup | Lithium (4-5 Days) | Holds Position for Hot Starts |

NMEA 2000® PARAMETER GROUP NUMBERS (PGNs)

| DESCRIPTION | PGN# | PGN NAME | DEFAULT RATE |
|----------------------------|--------|---|----------------|
| Periodic Data PGNs | 126992 | System Time | 1 Time/Second |
| | 128259 | Speed | Disabled |
| | 129025 | Position, Rapid Update | 5 Times/Second |
| | 129026 | COG and SOG, Rapid Update | 4 Times/Second |
| | 129029 | GNSS Position Data | 1 Time/Second |
| | 129539 | GNSS DOPs | 1 Time/Second |
| | 129540 | GNSS Satellites in View | 1 Time/Second |
| Response to Requested PGNs | 127258 | Magnetic Variation | 1 Time/Second |
| | 126464 | PGN List (Transmit and Receive) | N/A |
| | 126996 | Product Information | N/A |
| | 126998 | Configuration Information | N/A |
| | 129538 | GNSS Control Status | N/A |
| Protocol PGNs | 129541 | GPS Almanac Data | N/A |
| | 059392 | ISO Acknowledge | N/A |
| | 059904 | ISO Request | N/A |
| | 060416 | ISO Transport Protocol, Connection Management | N/A |
| | 060160 | ISO Transport Protocol, Data Transfer | N/A |
| | 060928 | ISO Address Claim | N/A |
| Maretron Proprietary PGNs | 065240 | ISO Address Command | N/A |
| | 126720 | Device Configuration Information | N/A |
| | 130818 | Device Label | N/A |

ELECTRICAL

| PARAMETER | VALUE | COMMENT |
|-------------------------------|---------------|--------------------------------|
| Operating Voltage | 9 to 32 Volts | DC Voltage |
| Power Consumption | <150mA | Average Current Drain |
| Load Equivalence Number (LEN) | 3 | NMEA 2000® Spec. (1LEN = 50mA) |
| Reverse Battery Protection | Yes | Indefinitely |
| Load Dump Protection | Yes | Energy Rated per SAE J1113 |

ENVIRONMENTAL

| PARAMETER | VALUE |
|--------------------------|--|
| IEC 60945 Classification | Exposed |
| Degree of Protection | IP67 |
| Operating Temperature | -25°C to 55°C |
| Storage Temperature | -40°C to 70°C |
| Relative Humidity | 93%RH @40° per IEC60945-8.2 |
| Vibration | 2-13.2Hz @ ±1mm, 13.2-100Hz @ 7m/s² per IEC 60945-8.7 |
| Solar Radiation | Ultraviolet B, A, Visible, and Infrared per IEC 60945-8.10 |
| Corrosion (Salt Mist) | 4 times 7days @ 40°C, 95%RH after 2 hour Salt Spray Per IEC 60945-8.12 |
| Electromagnetic Emission | Conducted, Radiated Emission per IEC 60945-9 |
| Electromagnetic Immunity | Conducted, Radiated, Supply, and ESD per IEC 60945-10 |
| Safety Precautions | Dangerous Voltage, Electromagnetic Radio Frequency per IEC 60945-12 |

MECHANICAL

| PARAMETER | VALUE | COMMENT |
|-----------|--------------------------|--------------------------------------|
| Size | 4" Diameter x 1.65" Tall | Not Including Antenna Mount Base |
| Weight | 6 oz. | Not Including Antenna Mount Base |
| Mounting | Deck or Pole | Fits 1"-14 TPI Standard Marine Mount |

CERTIFICATIONS

| PARAMETER | COMMENT |
|---|-------------------------------|
| NMEA 2000® | Level A |
| Maritime Navigation and Radio Communication Equipment & Systems | Tested to IEC 60945 |
| FCC and CE Mark | Electromagnetic Compatibility |