

WL-11001-2 UNDERWATER GPS G2



DESCRIPTION

Underwater GPS G2 is the most robust acoustic positioning system on the market today.

The Topside with its internal positioning computer uses advanced algorithms to triangulate and calculate the position of the Locator based on the received signals from the Antenna/Receivers. Combined with the integrated GPS and IMU, it will provide the absolute GPS position of the Locator.

The Underwater GPS G2 system is running an internal webserver reachable through Wi-Fi exposing a GUI and a SW API

KEY FEATURES

- Robust acoustic position, even in the most challenging areas like shallow water, inside tanks/pools, around installations etc.
- Fully omnidirectional with 360 degrees operational area.
- Fully flexible depth range where the Locator may be operated all the way up to just barely submerged.
- 100- and 300-meter range versions available.
- Choose between a flexible baseline using the separate Receivers or the quick-deploy Antenna for easy setup.
- On-board user-friendly web-based GUI with comprehensive diagnostic features.
- Open software API for integration.
- Small size enabling easy mounting and integration with other equipment.
- Wide range of interfaces enabling integration to other equipment.

EXTERNAL REQUIREMENTS

To start using your Underwater GPS G2 kit, the only other requirements are:

- A power source (10-30V DC)
- PC/tablet/smartphone with a web browser to show the GUI

MECHANICAL

Kit weight	: ~ 4-6 kg
Housing ext. dimensions	: 30 x 21 x 10 cm (Pelican case)
Depth rating	: 300 meters
Operating temperature	: -10 to +60 °C

ELECTRICAL / INTERFACE

Input voltage	: 10-30 V
Power consumption	: 0.25A at 12V
Power-on current surge	: 2.30A at 12V
Communication	: WiFi (802.11ac/a/b/g/n) : Ethernet (100 Mbps) : NMEA 0183
Protocols	: Water Linked API
User interface	: Web based GUI (local connection)

APPROVALS

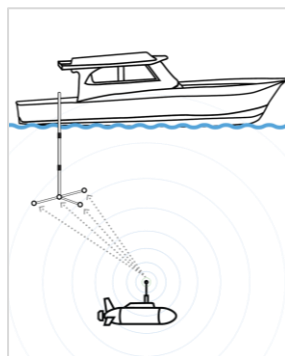
CE

ACOUSTIC / PERFORMANCE

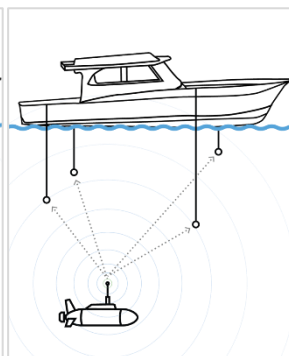
Range	: 100 or 300 meter radius (depending on version)
Ping rate	: 2-4 hz
Accuracy	: Horizontal range : <0.2 % Horizontal angle : <1 deg Vertical (depth) : <1 %
Long term drift	: Locator A1/D1: None : Locator U1: ~1m/6h
Frequency	: 31.25-250 kHz (200 kHz typical)
Directivity	: Omnidirectional (360 degrees)
Operating principle	: Time of flight, Triangulation
Integrated IMUs	: Yost Labs TSS-NANO : TDK Invensense ICM-20948
Integrated GPS	: u-blox NEO-M8T

OPERATING PRINCIPLE

Antenna



Receivers



ORDERING GUIDE

WL-11001-2

SYSTEM PART NUMBER

TOPSIDE

WL-21018	Pelican Case
WL-21025	19" Rack Mount

BASELINE

1x WL-21027	Receiver-D1 (10/50/100m)
4x WL-21005	Antenna

SOFTWARE

WL-71002-R100	100 meter range
WL-71002-R300	300 meter range

LOCATOR

WL-21018	Locator-U1
WL-21016	Locator-D1
WL-21009	Locator-A1