SBS2 Unmanned Surface Vehicle System

Swift and intelligent surveying unmanned surface vessel with unmatched usability

Overview

With echosounders selected specifically for the use on a remote vessel, the Satlab SBS2 can be customised to your surveying challenges and needs. Designed for the surveyor in mind, the hull shape, radio communication and sonar instrumentation offers a use-friendly and high performance option with unmatched convenience for jobs with low accessibility and poor unsafe conditions.

Key Features

Hull Structure

- Double-M shaped hull with streamline design that gives more stability
- Compact and portable hull that is convenient for transmission weighs only 14kg in weight
- Features kevlar and carbon fiber that is a high-strength composite, making it resistant to impact

Power System

- Propellers are applied with ducted design and protective shield outside to prevent aquatic plants and fishing nets from twining
- Innovative modular design which features easy to maintain and remove propellers
- Auto-return when battery is low or signal is dropped

Base System

- Industrial controller uses one key to switch between manual and automatic mode while control distance reaches 2km
- Applies directive antenna that communicates more than 2km
- Automatic operation, automatic navigation, auto-return and switch between manual and automatic mode at any time

Surveying System

- High-accuracy professional sounding module that adapts to all kinds of complex topographic surveying
- Surveying software is available for collecting, guiding and post-processing
- Simulative depth and digital depth are combined to judge true water depth

CONTACT

Satlab Geosolutions AB
Datavägen 21B 43632 Askim, Sweden

E-mail : sales@satlabgps.com
Phone: +46 727 120550

Hull Parameter

- Dimension: 1050mm x 550mm x 270mm
  41in x 21in x 10in
- Weight: 14kg (30lb)
- Hull Material: Kevlar and carbon fiber high-strength composite
- Anti-wave and Wind Level: 3rd wind level and 2nd wave level

Power and Electrical Parameter

- Battery Duration: 4hrs at 2m/s
- Top Speed: 4.5m/s
- Propulsion Device: Modular ducted propellers
- Direction Control: Veering without steering engine and sailing reversely

Safety Guarantee

- Auto-return when battery is low and signal is dropped

Shore Base Communication

- Operating System: Supports Windows and Andriod
- Communicating Mode: RF point-to-point in real-time
- Communication Distance: Radio 2km
- Navigation Mode: Manual or autopilot with switchover at any time

Controller

- Communicating Mode: RF point-to-point in real-time
- Reacting Distance: 1km
- Waterproof Grade: IP65
- Function: Work mode switch in real-time with basic information display of USV in real-time; Velocity and direction control of USV

Sounding Performance

- Work frequency:200KHz
- Beam angle: 5°±0.5°
- Sounding range: 0.15m-300m
- Sounding accuracy: 1cm±0.1h (h=depth) 1cm depth resolution

Location Accuracy

RTK

- Horizontal: ±8m + 1ppm RMS
- Vertical: ±15mm + 1ppm RMS
- Beacon(Optional): 0.5m (1δ)
- SBAS: 1.0mCEP

System Software

- Hull Control System: Supports autopilot, hull parameter control, coordinate conversion and more