

datasheet

HyDrone-RCV-G2™

Remotely-Controlled Survey Vehicle with Autonomous Option

The HyDrone-RCV-G2™ is a one-man portable, remotely controlled catamaran platform developed for hydrographic survey applications. Working in conjunction with the HydroLite-TM portable echosounder kit, the HyDrone-RCV-G2 accomplishes the same results as more expensive RC survey systems. The lightweight, wide profile, and watertight construction provide stability, ruggedness and portability. It is manufactured from high quality marine materials and components and easily disassembles for transport and shipping.

Work environments include mines, sewage treatment plants, contaminated lakes, harbors and rivers.

Remote control of the survey boat is easy using a high-power remote control system that offers up to 2 km range, with a survey endurance of over 8 hours at a survey speed of 3 knots on a single battery pack.



Light-weight and portable



Powerful differential thrusters for maneuverability

With our AutoNav[™] option, the HyDrone is also fully autonomous; the vehicle can be monitored while under way, in both Auto and Manual modes.

The mission planner application runs on a base station laptop connected through a radio telemetry link, and displays the vehicle's graphical position and progress against a background map of the survey area. Battery voltage, current, and capacity remaining is monitored via this link.



HyDrone equipped with the HydroLite-TM survey pole kit and AutoNav™ auto pilot module

- ► Wide profile for stability
- ► Watertight, durable construction
- ▶ Up to 22 Km/h
- ► Easy disassembly for transport and shipping
- ► Competitive pricing
- Optional Auto Pilot module



Side view of HyDrone



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specifications

 Typical survey speed
 3 kts / 1.5 m/s

 Top speed
 12 kts / 22 Km/hr

 Hull Width
 736mm / 29 in

 Hull Length
 1143mm / 45 in

 Battery Endurance
 8 hours

 Payload
 11.3kg / 23 lbs

 Power
 2x 16v 16 Ah battery LiPo

 ECLL (electronic controller unit)
 2x 180 amp water-cooled

ECU (electronic controller unit) 2x 180 amp water-cooled Motor 2x brushless thruster

Hull Material UV resistant HDPE

Frame Aluminum powder coated

Steering Differential
Weight 9 kg / 20 lbs
Hardware Stainless steel

Hatches 4x 7" twist-out watertight closure R/C Futaba® 2.4GHz long range

Remote Range 2 km



HydroLite-TM™

instrumentation options

- · Sound velocity profiler
- · RTK GPS
- · Radio telemetry
- · Side scan sonar module
- · HYPACK software
- · HydroLite-TM

HydroLite Pole Kit SonarMite MILSpec echosounder Rugged shipping case

· Auto Pilot Module

AutoNav™ Control System
Embedded GPS and Compass
Built-in Telemetry System
PC laptop
Mission Planner Application
USB Radio Telemetry



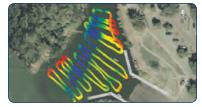
AutoNav™ Control System



HyDrone-ASV-G2™



Mission Planner application installed on a PC laptop showing preplanned survey



Survey data collected through Mission Planner on PC laptop

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