

VE90

DESIGNED FOR SOLO OPERATION

Featuring a stable trimaran hull, dual pump-jet propulsion, RTK positioning, a single-beam echo sounder, and an HD camera system, the USV provides a reliable and efficient solution for hydrographic surveying. The integrated intelligent control system enables easy operation and high-precision underwater mapping.



USV

Rapid Deployment

Ready for operation or packing within one minute, maximizing field efficiency.

Long-Range Remote Control

4G network connectivity enables virtually unlimited remote control distance, ensuring stable operation beyond visual range.

Rugged Protection Design

The streamlined stern design, combined with a blade-style debris filter and pump protection system, prevents entanglement from aquatic plants and floating debris.

Extended Endurance

Up to 5 hours of continuous operation. Two batteries support a full day of typical survey work.

Intelligent Obstacle Avoidance

A forward-facing radar provides obstacle detection up to 40 meters, with automatic deceleration within 10 meters to ensure real-time collision avoidance.

Detachable Propeller Design

Dual detachable pump-jet thrusters ensure easy maintenance, a maximum speed of 6 m/s, and reliable performance in strong currents and turbulent waters.

Single-Beam Echo Sounder

Built-in high-sensitivity single-beam echo sounder supports depth measurements in waters as shallow as 0.2 meters.



Product Specification

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Hull	
Dimension	900*500*340mm
Material	Polymer material
Design	M-type trimaran
Weight	16kg
Max Payload	20kg
wind/wave resistance	Level 3 wind, Level 2 waves

Echo Sounder	
Range	0.2 - 120m
Accuracy	1cm±0.1%h (h is the meters of water depth)
Resolution	1cm
Beam Angle	7.5°±0.5°

Obstacle avoidance	
Video	1080HD
Millimeter Wave Radar	Optional

Power	
Thruster	DC pumpjet thruster
Propeller	3-piece aviation aluminum alloy paddle
Protection	Double protection from aquatic plants
Speed	Cruise 1.5m/s, maximum 6m/s
Battery	29.6V 888Wh
Working time	4-5h (1.5m/s), customized 8-10h
Battery Type	Detachable

Position and Orientation	
satellite	GPS: L1C/A, L1C, L1P, L2C, L2P, L5 BDS: B1I, B2I, B3I, B1C, B2a GLONASS: G1, G2, G3 Galileo: E1, E5a, E5b QZSS: L1C/A, L1C, L2C, L5
RTK	Built-in GNSS receiver
RTK Accuracy	Horizontal: ±(8+1×10 ⁻⁶ D)mm, Vertical: ±(15+1×10 ⁻⁶ D)mm
Channel	1408
Orientation	Three-dimensional electronic compass Dual GNSS antenna

Communication	
RTK	Built-in radio, 4G network
Remote	5.8GHZ
Video	5.8GHZ
Control distance	Unlimited by network, 2km by radio (Typical Environment)

*The above technical parameters are for your reference. The company reserves the right to change the design and planning of the product based on the actual product.