SPECIFICATIONS

Echo Sounder
Ver.2025.09.15

Basic Specifications	
Operating Frequency	200kHz
Maximum Sampling Rate	30Hz
Depth Range	0.3 - 200m
Depth Accuracy	±1cm + 0.1% h (h: Water Depth)
Resolution	1cm
Sound Velocity Adjustment Range	1300m/s - 1700m/s
Beam Angle	6°
Maximum Transmit Power	300W
Power Consumption	5W
Data Type	NMEA: SDPT/SDDBT
Operating System	Linux
Interface / Port	RS232 / Transducer Interface
Buttons / Keypad	Power Button
Bluetooth	BT5.0, backward compatible with BT2.x
Lithium Battery	3400mAh, operating time 8 hours
External Power Supply	DC9~28V
Device Weight	1.2kg
Dimensions	Main Unit: 137×72×50 mm, Transducer: D70 mm × H105 mm
Material	316 Stainless Steel
Dustproof & Waterproof	IP67
Temperature	Storage Temperature: -40°C to +70°C Operating Temperature: -20°C to +60°C

AUTHORIZED DISTRIBUTION PARTNER

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ComNavTech

HYD10

Portable Echo Sounder

HYD10 PORTABLE ECHO SOUNDER

The HYD10 is a new-generation portable echo sounder developed by ComNav. Compact in design, it enables automatic depth measurement. With advanced algorithms and high signal-to-noise circuit design, it supports RTK data input and runs on a Linux-based industrial platform with a rugged and stable structure to ensure reliable performance.
Working with the “Survey Master” Android software, the HYD10 supports mobile operations and 64GB storage on a field controller, with real-time online map display to free fieldwork from bulky computers. It supports 200kHz high-precision measurements, balancing accuracy and environmental adaptability.

COMPOSITION

Survey Master
Software Highlights

- Navigation and data collection capabilities
- Multiple output formats, including customizable options
- Flexible planned line module with adjustable intervals
- Comprehensive data corrections: coordinates, water level, draft, sound velocity, time delay
- High performance with up to 30Hz ping rate for maximum efficiency

SOFTWARE INTERFACE

The software interface is designed with a user-friendly approach, eliminating redundant function buttons.

Core operations—such as starting depth measurement, connecting devices, and viewing data—are clear at a glance, enabling users to operate it proficiently without professional training.

High Accuracy

Equipped with next-generation ultrasonic depth measurement technology, the system achieves depth errors within 10 mm with significantly enhanced resolution. It precisely identifies shallow variations and underwater obstacles, ensuring reliable data.

Lightweight and Portable

Unlike traditional bulky echo sounders that require heavy external batteries, the HYD10 is purpose-built for portable hydrographic surveys. Its compact design makes it easy to carry and significantly reduces workload in the field.

Wireless Convenience

Stable Bluetooth connects the main unit with mobile devices without cables, while WiFi enables fast RTK integration. This replaces the traditional “main unit–transducer–RTK” wired setup, avoiding cable breakage or poor connections and making fieldwork easier.

Integrated Functions

The software integrates both RTK surveying and hydrographic modules. Underwater depth measurement and RTK ground point surveying are seamlessly combined, eliminating the need to switch systems and enabling efficient “depth + positioning” operations.

Durable and Reliable Protection

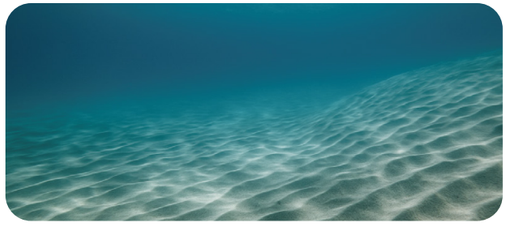
IP67-rated dust and water resistance, tested with 96-hour cyclic salt spray.

User-friendly Software Support

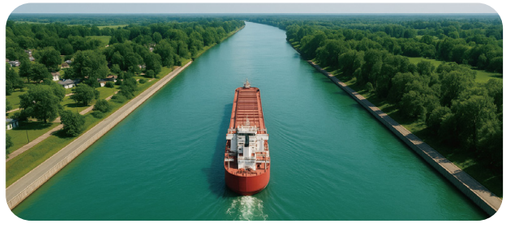
The accompanying software provides navigation, data collection, and multiple output formats for survey results.

APPLICATION

Reservoir capacity measurement



Submerged terrain mapping



Channel surveying

Lake depth measurement