ADCP-R9

Acoustic Doppler Current Profiler 3MHz



Overview

The ADCP-R9 River Dual-Frequency ADCP supports water-profile measurement, bottom-track velocity measurement and discharge computation. Equipped with an intelligent dual-frequency auto-switching operating mode, it integrates an additional 500 kHz central beam for river cross-section bathymetry.

This dual-frequency ADCP adapts to velocity and discharge measurement across diverse aquatic environments, with superior performance for high-precision flow monitoring in shallow water channels. It can be mounted on survey boats and trimarans for moving-vessel transect surveys, and supports external peripherals including compass, GPS and radio modem.

Compact, powerful and user-friendly, it ranks among the world's state-of-the-art current profilers, delivering reliable, high-accuracy datasets for hydrological surveys, flood early-warning systems, water diversion projects, water environmental monitoring, smart agriculture and smart water management.

Applications

- **Hydrology**: River & shallow channel discharge measurement, flood early warning and water diversion flow verification
- **Bathymetric Survey**: River cross-section bathymetry, reservoir capacity calculation and fluvial geomorphology research
- **Hydrodynamic Research**: High-definition velocity profiling, index velocity calibration and sediment flux monitoring
- **Watershed Environment Monitoring**: Watershed pollutant load detection and aquatic habitat ecological studies
- **Smart Water & Agriculture**: Urban smart water real-time flow monitoring and agricultural irrigation flow metering
- **Mobile Underway Survey**: Deployable on survey boats, trimarans and USVs for long-section river reconnaissance

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TECHNICAL SPECIFICATIONS

Model	ADCP-R9
Transducer frequency	1000 / 3000kHz
Depth sounding beam frequency	500kHz
Current velocity range	±5m/s (default), ±10m/s (Max.)
Current velocity precision	±0.25%V±0.2cm/s
Current velocity resolution	0.1cm/s
Layer size	0.02~2m
Number of layers	1 ~ 128
Pulse frequency	1~2Hz
Profile depth range	0.06–35m
Input voltage	12V–36V DC
Communication interface (selectable)	Ethernet, RS485, RS232
Storage capacity	Standard 16GB
Dimension	Φ140mm×257mm
Weight	5kg

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