ADCP-75K Phased Array

Acoustic Doppler Current Profiler 75kHz



Overview

Utilizing advanced, field-proven phased array technology and a proprietary broadband signal processing technique, the ADCP-75K delivers high-precision measurement capabilities for current velocity profiles, water depth, and carrier motion velocity.

The system features a split-type configuration consisting of a 75 kHz phased transducer array and a dedicated electronics enclosure. Engineered for high accuracy in both velocity and current profiling, the instrument offers exceptional installation flexibility and simplified maintenance. Furthermore, it supports various universal communication interfaces customizable to user requirements, rendering it widely applicable in diverse marine engineering sectors.

Applications

- **Offshore Wind Power**: Pre-construction metocean surveys and foundation hydrodynamic load assessment.
- **Vessel Underway Surveys**: Flush-mounted in sea chests for real-time, high-speed current mapping.
- **Deep-Water Mooring**: Deployed on subsurface moorings for long-term ocean circulation and climate research.
- **Subsea Cable & Pipeline**: Current profiling and bottom-tracking for route surveys and trenching support.
- **Environmental Monitoring**: Tracking deep-sea mining sediment plumes via acoustic backscatter.

Target Industries

- Marine & Offshore Renewable Energy
- Oceanographic Research Institutes
- Hydrographic & Marine Survey Agencies
- Subsea Engineering, Oil & Gas
- Environmental Impact Assessment (EIA) Companies

Website: https: //china-sonar.com/
E-mail: sales@china-sonar.com
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TECHNICAL SPECIFICATIONS

Model	ADCP-75K
Transducer frequency	75 kHz
Beam configuration	Phased 4 beams
Current velocity range	±5 m/s (default); ±15 m/s (Max.)
Current velocity precision	±1%V ±0.5 cm/s
Current velocity resolution	1 mm/s
Layer size	4 ~ 32 m
Number of layers	1 ~ 128
Pulse frequency	0.5Hz or 1 Hz
High precision mode range	560 m
Maximum range	650 m
Configurable function	Bottom tracking
Bottom tracking depth	10 ~ 1000 m
Bottom velocity precision	±0.5%V ±0.5 cm/s
Power supply	220 V AC ±10%
Average power consumption	100 W
Communication interface (selectable)	Ethernet, RS422, RS232
Storage capacity	Standard 16 GB
Transducer size	Φ450 mm × 130 mm
Transducer weight	50 kg

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