ADCP-38K Phased Array

Acoustic Doppler Current Profiler 37.5kHz



Overview

The ADCP-38K is a high-performance Phased Array Acoustic Doppler Current Profiler. Utilizing advanced, field-proven phased array technology combined with proprietary broadband signal processing algorithms, it delivers high-precision measurements of current velocity profiles, water depth, and vessel/carrier motion speed.

Featuring a split-component design, the system consists of a 38 kHz phased array transducer assembly and a separate electronic chassis. It is engineered for high accuracy, extended profiling range, and ease of maintenance. With support for multiple universal communication interfaces customizable to user requirements, the ADCP-38K is widely deployed across a diverse range of marine engineering applications.

Applications

- **Deep-Water Oil & Gas:** Platform & Rig Safety: Provides real-time current profiling down to depths exceeding 1,000m to safeguard risers, mooring systems, and ROV operations.
- **Oceanographic Research:** High-Speed Cruising Data: Delivers high-density, low-noise current structures even when the research vessel is cruising at high speeds (>15 knots).
- **Offshore Wind Energy:** Site Assessment & Construction: Evaluates complex macro-tidal profiles to mitigate risks during deep-water turbine foundation engineering and cable laying.
- **Subsea Cable & Pipeline Laying:** Precision Bottom Tracking: Combines accurate current velocity with absolute speed-over-ground tracking to ensure precise engineering vessel navigation.

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TECHNICAL SPECIFICATIONS

Model	ADCP-38K
Transducer frequency	37.5kHz
Beam configuration	Phased 4 beams
Current velocity range	±5m/s (default) ±15m/s (Max.)
Current velocity precision	±1%V ±1cm/s
Current velocity resolution	1mm/s
Layer size	8~32m
Number of layers	1~128
Pulse frequency	0.5 or 1Hz
High precision mode range	800m
Maximum range	1000m
Other configurable function	Bottom tracking
Bottom tracking depth	20~2000m
Bottom velocity precision	±1%V ±1cm/s
Power supply	220V AC ±10%
Average power consumption	200W
Communication interface (selectable)	Ethernet, RS422, RS232
Storage capacity	Standard 16GB
Array size	Φ800mm × 210mm
Array weight	248kg
Transducer frequency	37.5kHz

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