*Sea*PROFILER

Direct Reading ADCP

300KHz / 600KHz / 1200KHz

The Rowe Technologies *Sea*PROFILER family of direct-reading Acoustic Doppler Current Profilers (ADCPs) represent the industry state of the art in acoustic Doppler technology. The compact form factor, powerful electronics and robust signal processing, provide a versatile platform capable of producing precise current profile measurements over extended ranges.

Each unit in the family leverage a core, common set of electronics in a flexible form factor. This combined with multiple packaging options, provides for a cost-effective and extremely capable instrument to address a wide variety of oceanographic applications.

The *Sea*PROFILER ADCP's are well suited for real-time current profiling applications such as coastal monitoring, where a bottom-mounted or surface-deployed configuration is used with a hard-wired communications and power source. The ability for the *Sea*PROFILER to also track the bottom allows it to be used in moving boat applications as well.

600 KHz / 300 KHz

1200 KHz

Product Features

- *Multi-Use Configuration - 3-Axis Current Profile and Bottom Track or Water Track Velocity Measurements*
- *User Programmable acoustic transmission - Broad Band, Narrow Band, and Pulse-to-Pulse Coherent Technologies*
- *User selectable signal processing options optimize acquisition parameters for precise, high accuracy measurements*
- *Low power, energy efficient operation facilitates long term deployments*
- *RTI's Windows™-based Pulse Software included for data acquisition, display and export.*

Product Options

- *External battery pressure case options allow the system to function in a self-contained configuration.*
- *Optional pressure sensor*
- *Multiple transducer head configurations for extended range*

300KHz DR ADCP
with Extended Range Option

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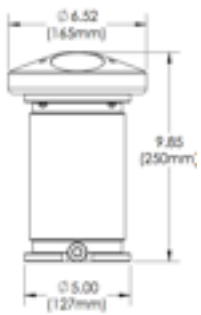
DVL/ADCP Specifications

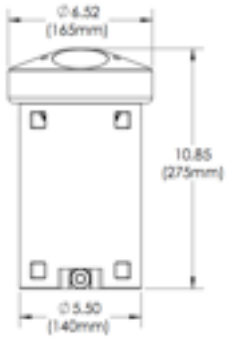
Specification subject to change without notice

Single Frequency (nominal)	1200 kHz	600 KHz		300 KHz
Transducer Type	2-in. Piston	2-in. Piston	3-in. Piston	3-in. Piston
Beams	Four beams Inclined 20˚ in 90 °azimuth increments			
Velocity Range	±20 m/sec Max; ±5 m/sec Typical			
Resolution	0.01 cm/sec			
Number of Cells	up to 200			
Cell Size	2.0 cm minimum			
Current Profiling:				
Range:				
Narrow Band	0.2m - 30m	0.4m - 70m	0.4m - 75m	0.6m - 150m
Broad Band	0.2m - 20m	0.4m - 45m	0.4m - 50m	0.6m - 100m
Long-Term Accuracy (High Accuracy)	± 0.25%, ±2 mm/s	± 0.50%, ±2 mm/s	± 0.25%, ±2 mm/s	± 0.70%, ±2 mm/s
Long-Term Accuracy (Low Accuracy)	±1.0%, ±2 mm/s			
BB Single-Ping Precision	3.5 cm/s @ 1m cell depth; ±5 m/sec max velocity	3.5 cm/s @ 2m cell depth; ±5 m/sec max velocity		3.5 cm/s @ 4m cell depth; ±5 m/sec max velocity
NB Single-Ping Precision	20 cm/s @1m cell depth; ±5 m/sec max velocity	20 cm/s @2m cell depth; ±5 m/sec max velocity		20 cm/s @4m cell depth; ±5 m/sec max velocity
Data Output Rate	1-2 Hz typical; 10 Hz max	1-2 Hz typical; 10 Hz max		1-2 Hz typical; 10 Hz max
Bottom Tracking				
Range:	0.2m- 50m	0.4m- 120m	0.4m- 130m	0.6m- 300m
Velocity Accuracy (High Accuracy)	± 0.25%, ±2 mm/s	± 0.50%, ±2 mm/s	± 0.25%, ±2 mm/s	± 0.70%, ±2 mm/s
Velocity Accuracy (Low Accuracy)	±1.0%, ±2 mm/s			
Single-Ping Precision	±0.4 cm/sec @ 3 m/sec	±0.5 cm/sec @ 3 m/sec	±0.5 cm/sec @ 3 m/sec	±0.6 cm/sec @ 3 m/sec
Resolution	0.01 cm/sec			
Sensors				
Compass: Range/Accuracy/Resolution	0-360 / 1° RMS / 0.01°			
Pitch/Roll: Range/Accuracy/Resolution	Roll ± 180°, Pitch ± 90°/ <1° RMS / 0.01°			
Water Temp: Range/Accuracy/Res	-5C-70C / ± 0.15C / 0.001C			
Pressure: Range/Accuracy	Selectable / ±0.10% Range			
Materials Options	Plastic/Aluminum			
Input Power:				
Voltage Range (Ext DC Input)	11 - 36 VDC	11 - 36 VDC		11 - 36 VDC
Power (nominal for 10% Tx duty cycle)	4W	7W	7W	11W
Output Data:				
Communications	RS485, RS232, 100BaseT Ethernet (SC only)			
Internal Recording	8 GByte			
Environmental				
Temperature	-5˚C to 45˚C (Operating), -30˚C to 60˚C (Storage)			
Depth Rating	300 m, 1000m, 3000m, 6000m			

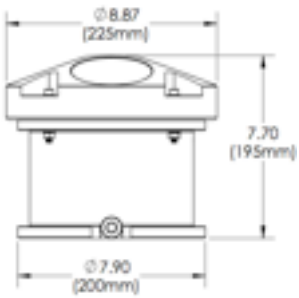
1200KHz
50m & 10000m



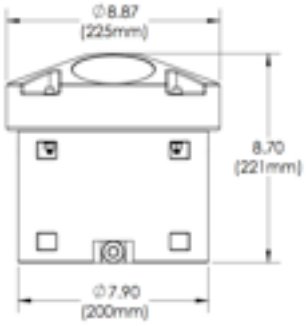
1200KHz / 600KHz



300KHz / 600KHz
300m & 1000m



300KHz / 600KHz
3000m & 6000m



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