*Sea*PROFILER DF

Dual Frequency Direct Reading ADCP

300KHz / 600KHz / 1200KHz

The Rowe Technologies *Sea*PROFILER DF model ADCP extends the capabilities of its popular *Sea*PROFILER direct-reading product family in introducing an ADCP that uses **two independent** acoustic frequencies, in the same instrument.

Each of the frequencies can be independently controlled allowing for near simultaneous acquisition of high resolution, short range current profiles from the high frequency channels, and longer range, lower resolution profiles from the low frequency channels. With the *Sea*PROFILER DF you truly have two ADCPs in one!

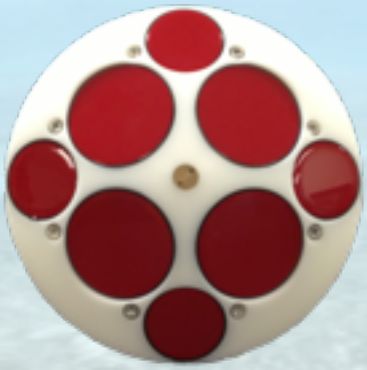
With *Sea*PROFILER DF you do not need to forfeit performance or flexibility. All of the same core signal processing functions available in the single frequency *Sea*PROFILER model are available in the DF. This includes broadband and narrow band signal processing as well as the ability to track the bottom and obtain earth-referenced velocity measurements.

The *Sea*PROFILER DF 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. In this application a low frequency option could be especially useful in penetrating high sediment concentrations.

Dual Frequency 600 KHz & 300 KHz

Product Features

- *Sea*PROFILER DF *is available in 300KHz, 600KHz, or 1200KHz - You select which two frequencies.*
- *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*



Dual Frequency Transducer arrangement showing dual, 4-beam Janus configurations

Product Options

- *External battery pressure case options allow the system to function in a self-contained configuration.*
- *Optional pressure sensor available*

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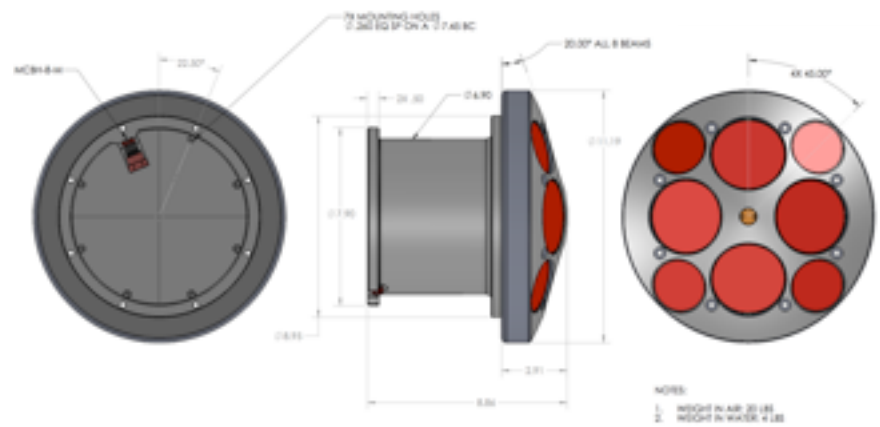
DVL/ADCP Specifications

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	4 cm/s @ 1m cell depth; ±5 m/sec max velocity	4 cm/s @ 2m cell depth; ±5 m/sec max velocity		4 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/Resoluti	0-360 / 1° RMS / 0.01°			
Pitch/Roll: Range/Accuracy/Resoluti	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 cycl	1200 & 600 ~ 7W / 1200 & 300 ~8W / 300 & 600 ~9W			
Output Data:				
Communications	RS485, RS232, 100BaseT Ethernet (SC only)			
Internal Recording	8 GByte			
Environmental				
Temperature	-5˚C to 40˚C (Operating), -30˚C to 60˚C (Storage)			
Depth Rating	300 m, 1500m, 3000m			



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