



# SeaWATCH

## Self-Contained ADCP

300KHz / 600KHz / 1200KHz

The Rowe Technologies *SeaWATCH* family of self-contained 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, from shallow water to full-ocean depth.

The *SeaWATCH* ADCP's are well suited for a variety of coastal and offshore oceanographic applications including meteorological and wave data acquisition, environmental management, coastal engineering site assessment, and oil/gas exploration and drilling. Systems are easily deployed on buoys, moorings, or sea-floor structures.



1200 KHz

600 KHz / 300 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 display and export.*

### Product Options

- *Wave data acquisition for computation of first order wave statistics*
- *Configuration to support direct-reading and self-contained applications in the same package.*
- *External battery pressure case options available*



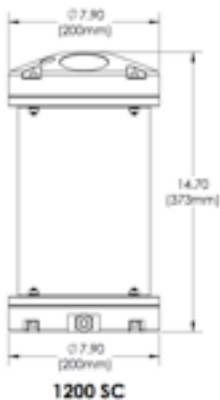
300KHz SC ADCP (rated for 6000m)  
with Extended Range Option

# ADCP Specifications

Specification subject to change without notice

Single Frequency (nominal)	1200 kHz	600 KHz	300 KHz
Transducer Type	Doppler 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 - 90m	0.6m - 180m 200m w/ ext range config
Broad Band	0.2m - 20m	0.4m - 50m	0.6m - 100m 120m w/ ext range config
Long-Term Accuracy	High Accuracy Option ± 0.25%, ±2 mm/s, Low Accuracy Option ± 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; 5 Hz max
Sensors			
Compass: Range/Accuracy/Resolution	0-360 / 1° RMS / 0.01°		
Pitch/Roll: Range/Accuracy/Resolution	± 180°/ 0.05° RMS / 0.01°		
Water Temp: Range/Accuracy	-5C-70C / ± 0.15C		
Pressure: Range/Accuracy	Selectable / ±0.10% Range		
Materials Options	Plastic/Aluminum/Titanium		
Input Power:			
Voltage Range (Ext DC Input)	11 - 36 VDC	11 - 36 VDC	11 - 36 VDC
Battery Capacity	400W-hr (alkaline) or 800W-hr (lithium)		
Output Data:			
Communications	RS485, RS232, 100BaseT Ethernet		
Internal Recording	8 GByte		
Environmental			
Temperature	-5°C to 40°C (Operating), -10°C to 70°C (Storage)		
Depth Rating	300 m, 3000 m and 6000 m		

1200KHz 300m



300KHz / 600KHz  
300m



6000m rated 1200KHz  
Self Contained ADCP



Deep water (6000m) Extended Range  
300KHz ADCPs ready for deployment