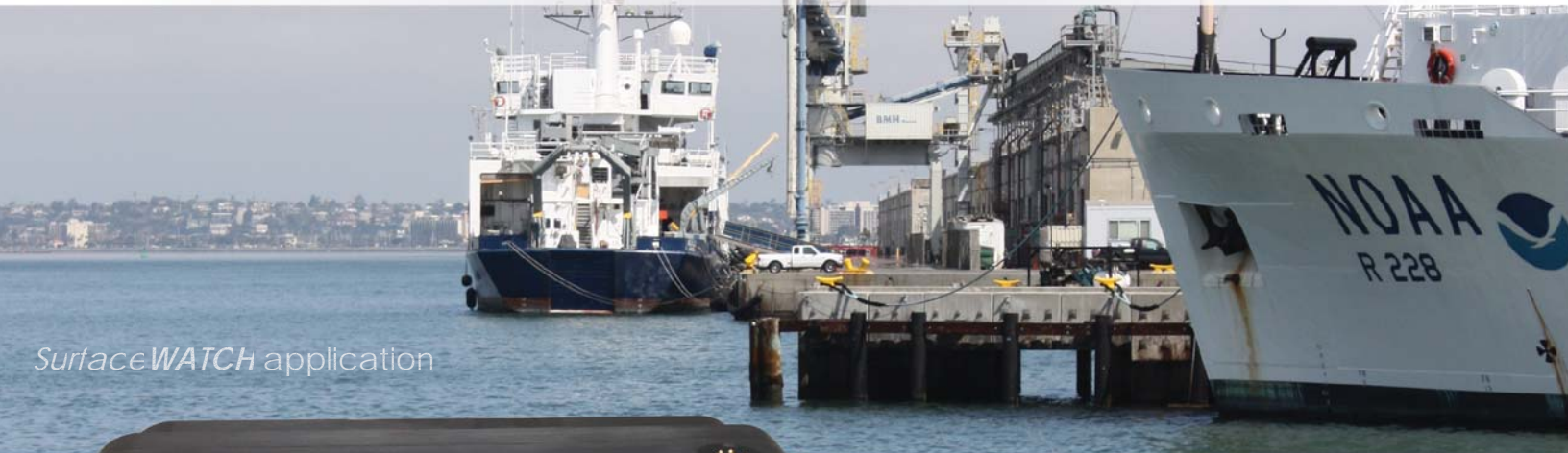




SurfaceWATCH / RiverHQ ADCP



SurfaceWATCH application



600kHz Horizontal ADCP



RiverHQ application

SurfaceWATCH/RiverHQ ADCP's compact size and powerful electronics provide a versatile platform capable of producing precise horizontal current profiles, and underwater depths of transducer measurements. Depth is measured with a high accuracy, high-resolution 1200 kHz vertical transducer and a pressure sensor, outputting redundant depth measurements.

As fresh water resources come under increasing regulatory pressure, management of water resources will become increasingly important. The *RiverHQ* proves to be a robust and reliable tool for single point real-time index velocity discharge measurements.

The *SurfaceWATCH* ADCP generates high resolution, high accuracy horizontal current profiles. *SurfaceWATCH* is useful for monitoring currents near the surface as well as at a single depth or in several locations, using multiple linked systems.

User-selectable signal processing functions produce excellent temporal, spatial, velocity resolution and precision. User-programmability features provide a capability that is particularly useful in measuring velocity profiles and flows.

Rowe Technologies, Inc. offer solutions for measuring currents and flow accurately and reliably.



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Product Features:

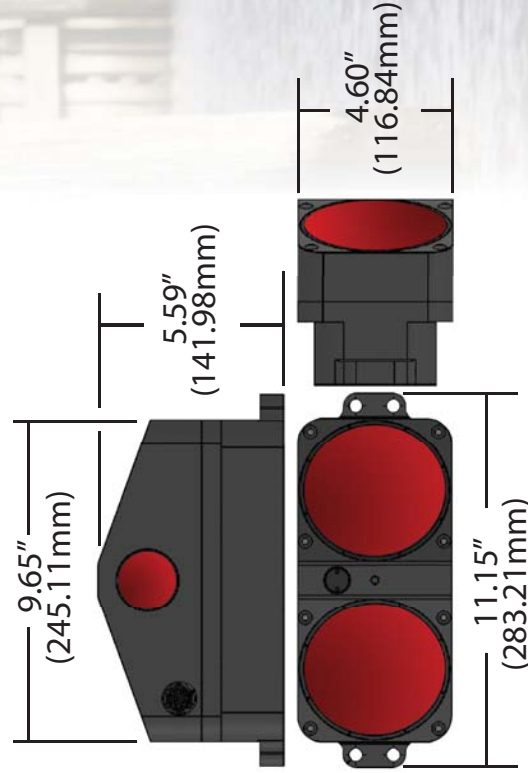
- Vertical beam and pressure sensor for accurate surface height measurement.
- Temperature Sensor for precisely measuring speed of sound in water.
- Multiple unit configuration in a linear array.

Application Areas:

- Port and Harbor:**
- Real-time monitoring of critical points in harbors, near platforms and shipping channels.
 - Can be integrated into AIS or other harbor systems via serial port or Ethernet.

River Discharge:

- High accuracy and fast sampling of data in rivers, estuaries, streams and open channels.
- Collection and transmission of real time data via serial port or Ethernet.
- Direct measurements of river discharge and stage conditions.
- Continuous monitoring of depth and currents to calibrate environmental models.



SurfaceWATCH / RiverHQ Specifications

Single Frequency (nominal):	600 kHz
Piston Transducer Diameter:	10.16 cm / 4 in
Beam widths [2 way]:	1.5°
Beam Spacing:	Two beams 20°azimuth, and one vertical beam
Current Profiling:	
Velocity Range:	±20 m/sec Max; ±5 m/sec Typical
Resolution:	0.01 cm/sec
Number of Cells:	up to 200
Cell Size: Max/Min:	8 m / 2 cm
Ping Rate:	up to 10 Hz
Maximum Range:	
Narrow Band:	90 m
Broad Band:	50 m
Long-Term Accuracy (High Accuracy Option):	± 0.50%, ±2 mm/s
Long-Term Accuracy (Low Accuracy Option):	NA
Data Output Rate:	1-2 Hz typical; 10 Hz max
Surface Tracking:	
Range:	0.1m to 20m
Accuracy:	0.1%+3mm
Resolution:	0.01mm
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/Resolution:	-5° C - 70° C / ±0.15° C / 0.02° C
Pressure: Range/Accuracy:	Selectable / ±0.10% Range
Materials Options:	Acetal / Aluminum / Titanium
Input Power:	
Voltage Range (Ext DC Input):	12 - 36 VDC
Average Power (5% duty cycle) / Peak Current:	10 W / 4 Amps
Output Data:	
Communications:	RS485 (2400-230400 baud), RS232 (2400-921600 baud), 100Base T (self-contained only)
Internal Recording:	8 Gbyte
Environmental:	
Temperature:	-5° C to 45° C (Operating), -30° C to 60° C (Storage)
Depth Rating:	

Specifications are subject to change at anytime in the future