

# ARGONAUT-XR

## MULTI-CELL DOPPLER CURRENT PROFILER

### FEATURE

- 10 cell current profiling
- AutoTide - Additional velocity cell that dynamically adjusts with changing water level
- Pressure
- Temperature
- Internal recorder
- Non-corrosive housing

### OPTIONS

- Waves (height, period, spectra)
- Battery power
- Integrated CTD



## The PRACTICAL SOLUTION to CURRENT and WAVE MEASUREMENT

The Argonaut-XR offers exceptional value for current profiling applications. Its small size, rugged build quality, and flexible system architecture make the Argonaut-XR very attractive for both real-time operation as well as autonomous deployments.

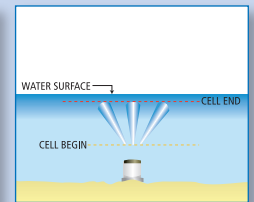
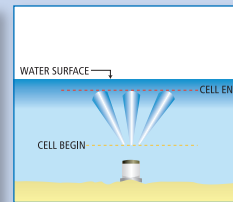
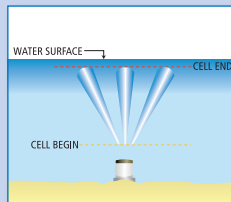
SonTek's exclusive MultiCell feature allows you to preprogram 10 fixed velocity cells wherever you want, then an 11th dynamic cell can be set to automatically change its position or size as the water level changes.

The basic autonomous system includes batteries, internal recorder, compass/tilt sensor, pressure and temperature sensors. Adding options such as the SonWave package, or a CT sensor, make the Argonaut-XR the centerpiece of a complete oceanographic system.



*The Argonaut-XR measures water velocities at each of the profiling cells.*

The additional dynamic cell adjusts with changing water level.



# SPECIFICATIONS

## Argonaut-XR

Select the Argonaut-XR frequency that meets your range and resolution requirements:

Frequency	Maximum Range*	Resolution
3.0 MHz	6.0 m (20.0 ft)	0.2 m (0.6 ft)
1.5 MHz	20.0 m (66.0 ft)	0.4 m (1.2 ft)
0.75 MHz	40.0 m (131.0 ft)	0.8 m (2.5 ft)

\* Maximum range may vary depending on environmental conditions.

### Water Velocity

- Range:  $\pm 6$  m/s (20 ft/s)
- Resolution: 0.1 cm/s
- Accuracy:  $(0.003 \text{ ft/s}) \pm 1\%$  of measured velocity,  $\pm 0.5 \text{ cm/s}$

### Standard Features

- MultiCell feature (10 water velocity cells plus an 11th automatically adjusting cell)
- Three-beam transducer for measuring 3D water velocity
- Integrated piezoresistive pressure sensor (0.1% accuracy)
- Reflected echo intensity output
- SDI-12 (with a limited set of output parameters)
- Mounting plate for easy installation
- RS 232 communication protocol
- ViewArgonaut Windows software for real time data collection, data retrieval, deployment, diagnostics and processing
- Flexible sampling strategies for reduced duty cycle operation and extended deployments of over 1 year
- Internal memory (stores over 20,000 samples)
- Compass/two-axis tilt sensor
- Temperature sensor on exposed titanium pin for fast response

### Optional Features

- External battery pack for autonomous operation
- RS422 output
- RPT Pressure sensor (20 m max depth)
- Integrated CT sensor

- SonWave real-time non-directional wave spectra package

### Temperature Sensor

- Resolution:  $0.01^\circ\text{C}$
- Accuracy:  $\pm 0.1^\circ\text{C}$

### Compass/Tilt Sensor

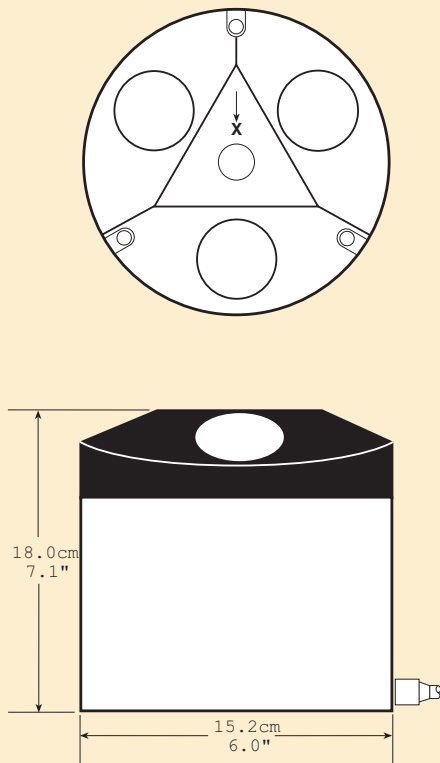
- Resolution: Heading, Pitch, Roll  $0.1^\circ$
- Accuracy: Heading  $\pm 0.5^\circ$
- Accuracy: Pitch, Roll  $\pm 1^\circ$
- Built-in calibration procedure to compensate for ambient magnetic fields

### Physical & Environmental

- Depth rating: 200m (pressure sensor dependant)
- Dimensions: 15.2 cm (6.0 in.) diameter by 18.0 cm (7.1 in.) height
- Weight in air: 2.5 kg (5.5 lb.)
- Weight in water: -0.3 kg (-0.7 lb.)
- Operating Temperature:  $-5^\circ$  to  $40^\circ\text{C}$
- Storage Temperature:  $-10^\circ$  to  $50^\circ\text{C}$

### Power

- Input power: 7-15 V DC
- Typical power consumption: 0.2 to 0.3 W (continuous operation); 0.01W (stand-by)
- Battery capacity (alkaline): 500 W-hr



Argonaut-XR

An XR and battery pack installed in an optional trawl-resistant mount



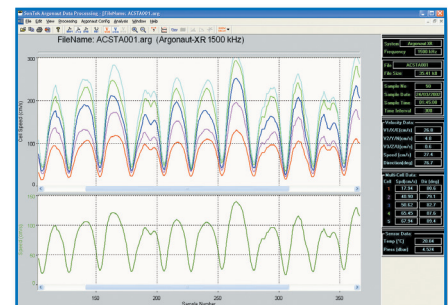
The Argonaut-XR on mounting plate with optional battery pack.

## GLOBAL HEADQUARTERS

### SonTek/YSI

9940 Summers Ridge Road  
San Diego, CA 92121  
Tel: (1) 858-546-8327  
Fax: (1) 858-546-8150  
inquiry@sontek.com  
www.sontek.com

SonTek and Argonaut are registered trademarks of YSI Inc.  
Specifications subject to change without notice.  
Lit: S12-05-1110



Display multi-cell velocities using SonTek's ViewArgonaut software.