

# Argonaut-SW

## Specifications

### Velocity Profiling Range

- Maximum depth 5.0m (16ft)
- Minimum depth 0.3m (1ft) \*

\*Can operate in shallower depths down to 0.2m (0.7ft) with performance limitations

### Water Level Measurement

- Minimum depth:
  - Above transducer 0.10 m (0.3 ft)
  - Total water depth 0.20 m (0.6 ft)
- Maximum depth 5.0m (16ft)
- Accuracy  $\pm 0.1\%$  of measured level,  $\pm 0.3$  cm (0.01ft)

### Water Velocity

- Range  $\pm 5$  m/s (16 ft/s)
- Resolution 0.1 cm/s (0.003 ft/s)
- Accuracy  $\pm 1\%$  of measured velocity,  $\pm 0.5$  cm/s (0.015ft/s)

### Standard Features

- 2-D velocity measurement (using 2 acoustic beams) - along channel and vertical velocity components
- Water level measurement using vertical acoustic beam
- Automatically adjusts sampling volume location to measure the maximum possible portion of the water column
- RS232/SDI-12 communication protocol
- Real-time flow calculations using user-supplied channel geometry
- 4 MB Recorder capacity (over 50,000 samples)
- Temperature sensor (Resolution  $\pm 0.1^\circ\text{C}$ , Accuracy  $\pm 0.5^\circ\text{C}$ )
- ViewArgonaut Windows 95/98/NT/2000/XP software for instrument setup, data collection, and post processing
- PDA software (SonUtils and deployment module)
- Polycarbonate mounting plate

### Optional Features

- 4-20 mA and 0-5VDC output modules; possible variables are X velocity, y velocity, velocity magnitude, temperature, signal strength, water level, and flow
- MultiCell current profiling

### Physical Parameters

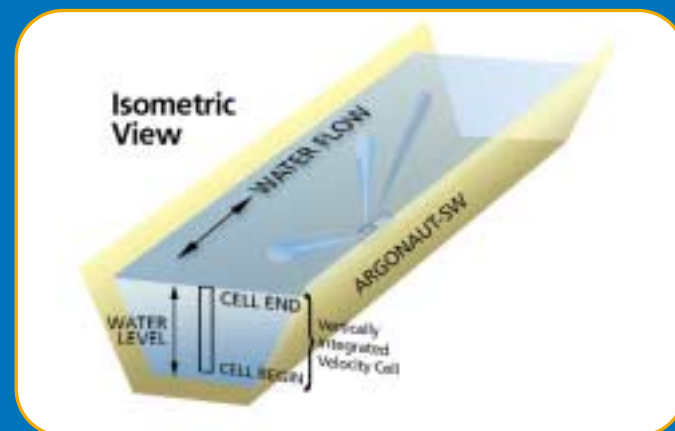
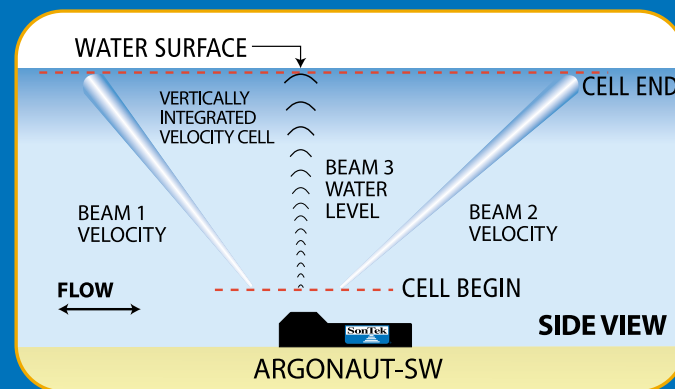
- Dimensions: 24.5 cm (9.7 in) long by 10.0 cm (4.0 in) wide by 6.3 cm (2.5 in) high
- Weight - in air: 1.2 kg (2.6 lb), in water: 0.15 kg (0.3 lb)
- Pressure rating: 25 m (80 ft)
- Operating temperature:  $-5^\circ\text{C}$  to  $60^\circ\text{C}$  ( $23^\circ\text{F}$  to  $140^\circ\text{F}$ )
- Storage temperature:  $-10^\circ\text{C}$  to  $70^\circ\text{C}$  ( $14^\circ\text{F}$  to  $158^\circ\text{F}$ )

### Power Requirements

- Input power 5-15 VDC
- Power consumption 500 mW - 700 mW nominal

# Argonaut-SW

## How it Works



The SW is mounted on the bottom of the channel or pipe and uses two angled acoustic beams to measure a profile of water velocity. A third vertical acoustic beam measures the water level.

Velocity and water level data are combined with user supplied channel geometry to compute total flow in real-time.



## Other Great Products From SonTek:



**FlowTracker**  
Handheld Doppler current meter easily attaches to wading rods and features a built-in discharge measurement algorithm.



**RiverCAT**  
Complete integrated catamaran system for open channel discharge measurement with optional DGPS for bathymetric surveying.



**Argonaut-SL**  
The world's leading instrument for monitoring flow and level from the side of an open channel.

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Argonaut-SW Bro. Rev. 1, 3/03

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# Argonaut-SW

## Shallow Water Flow, Level, and Velocity Measurement.



IRRIGATION

PIPES AND CULVERTS

NATURAL STREAMS AND CANALS



A YSI Environmental Company

THE WORLD LEADER FOR WATER VELOCITY MEASUREMENT

www.sontek.com

# Shallow Water Flow, Level, and Velocity Measurement.



Easily installed onto the bottom of an open channel, the Argonaut-SW measures water velocity, water level, and total flow.



## Flow Monitoring

Monitoring flow in natural streams, concrete lined channels and pipes could never be easier than with the Argonaut-SW. This lightweight and compact system uses SonTek's proven Doppler technology to measure the flow, velocity and water level. The system is designed to account for velocity variations within the channel to produce the most accurate flow calculation possible.



## Features

- Operates in depths from 0.2 to 5.0 meters (0.7 to 16 ft.)
- Water level measurement
- Automatically adjusts for optimal performance with changing water level.
- Windows + PDA software

## Applications

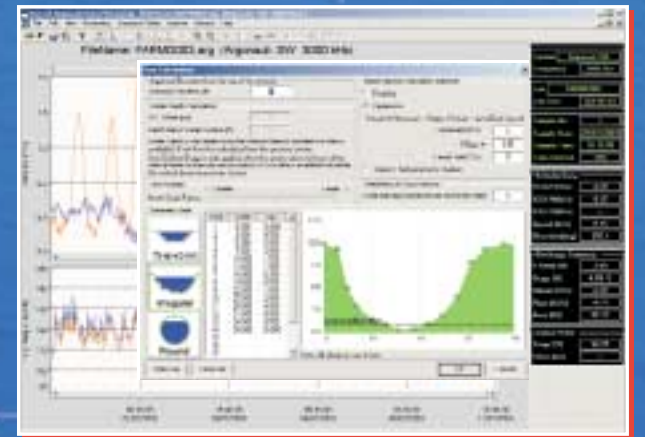
- Open Channels
- Pipes
- Natural Streams
- Shallow Water Conditions
- Water Level Monitoring
- Velocity Indexing



BEAM 3  
WATER LEVEL

BEAM 2  
VELOCITY

BEAM 1  
VELOCITY



## View Argonaut

Every Argonaut-SW comes with user-friendly Windows software for setting up your system and analyzing data. A flow configuration utility makes flow measurement simple.

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