

Argonaut-SL

Useful options and accessories make the Argonaut-SL a complete, turn-key solution.



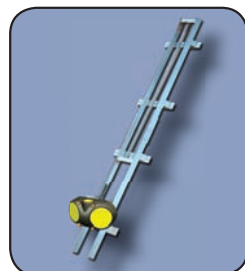
Real-time Flow Display: Provides an easy-to-use interface for monitoring both output data and the system status.



Modbus Interface Module (MIM): Integrate into any Modbus-enabled system using Modbus RS-232 protocol. Acting as an RTU slave device, the MIM stores data in a series of registers so it can be reported to the master unit in real-time.



SonUtils PDA Edition: An easy answer for both set-up and analysis, SonUtils PDA software allows for quick programming and automatic downloads.



Canal Mount: An easy solution for installation in open channels.

Specifications

Water Velocity

- Transducer: Two-beam horizontal, 25° slant angle for 2D water velocity
- Range: ± 6 m/s (20 ft/s)
- Resolution: 0.1 cm/s (0.003 ft/s)
- Accuracy: $\pm 1\%$ of measured velocity ± 0.5 cm/s (0.015 ft/s)

Standard Features

- Vertical acoustic beam for water level
- "Multicell" velocity profiling (programmable, up to 10 equally-spaced cells)
- "Independent" velocity measurement cell. This cell can be different in size from the 10 Multicells and located anywhere within the instrument's sampling range. This cell is used for flow calculations or other specialized functions.
- Flow computation and output, including total volume
- FlowPack Velocity-Index Discharge Rating software package
- 4MB internal nonvolatile memory
- Temperature sensor
 - Resolution: $\pm 0.01^\circ\text{C}$
 - Accuracy: $\pm 0.1^\circ\text{C}$

Communications

- RS 232/SDI-12 power/communications cable (10m standard. Longer cables are also available up to 100m)
- ViewArgonaut Software (Windows 95/98/NT/2000/XP/Vista) for instrument setup, data collection, flow calculation
- SonUtils PDA software for PocketPC



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

SonTek/YSI, founded in 1992 and advancing environmental science in over 100 countries, manufactures affordable, reliable acoustic Doppler instruments for water velocity measurement in oceans, rivers, lakes, harbors, estuaries, and laboratories. SonTek/YSI is an employee-owned company.

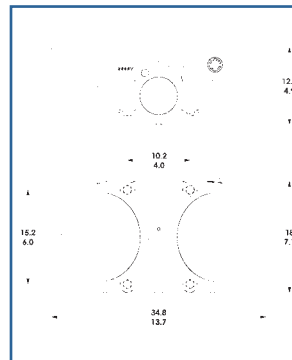
SonTek and Argonaut are trademarks of SonTek/YSI, San Diego, CA USA
 The Argonaut-SL is made in the USA. Lit. code S04-05 0307

Physical Parameters

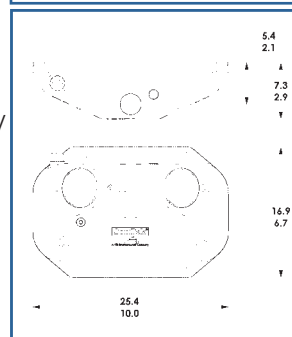
- Operating temperature: -5° to 60°C (23°F to 140°F)
- Storage temperature: -10° to 70°C (14°F to 148°F)

Optional Features

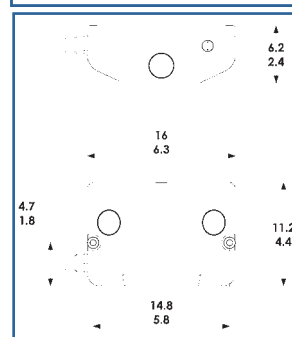
- Real-time Flow Display
- External battery pack for autonomous operation (500WH)
- Wave Spectra output (SL500 and SL1500 models only)
- Analog output module (4-20mA or 0-5V)
- Modbus Interface Module (MIM)
- RS422 output for cable lengths to 1500 m
- Canal Mounting Apparatus
- YSI ECONET satellite or radio telemetry



SL500



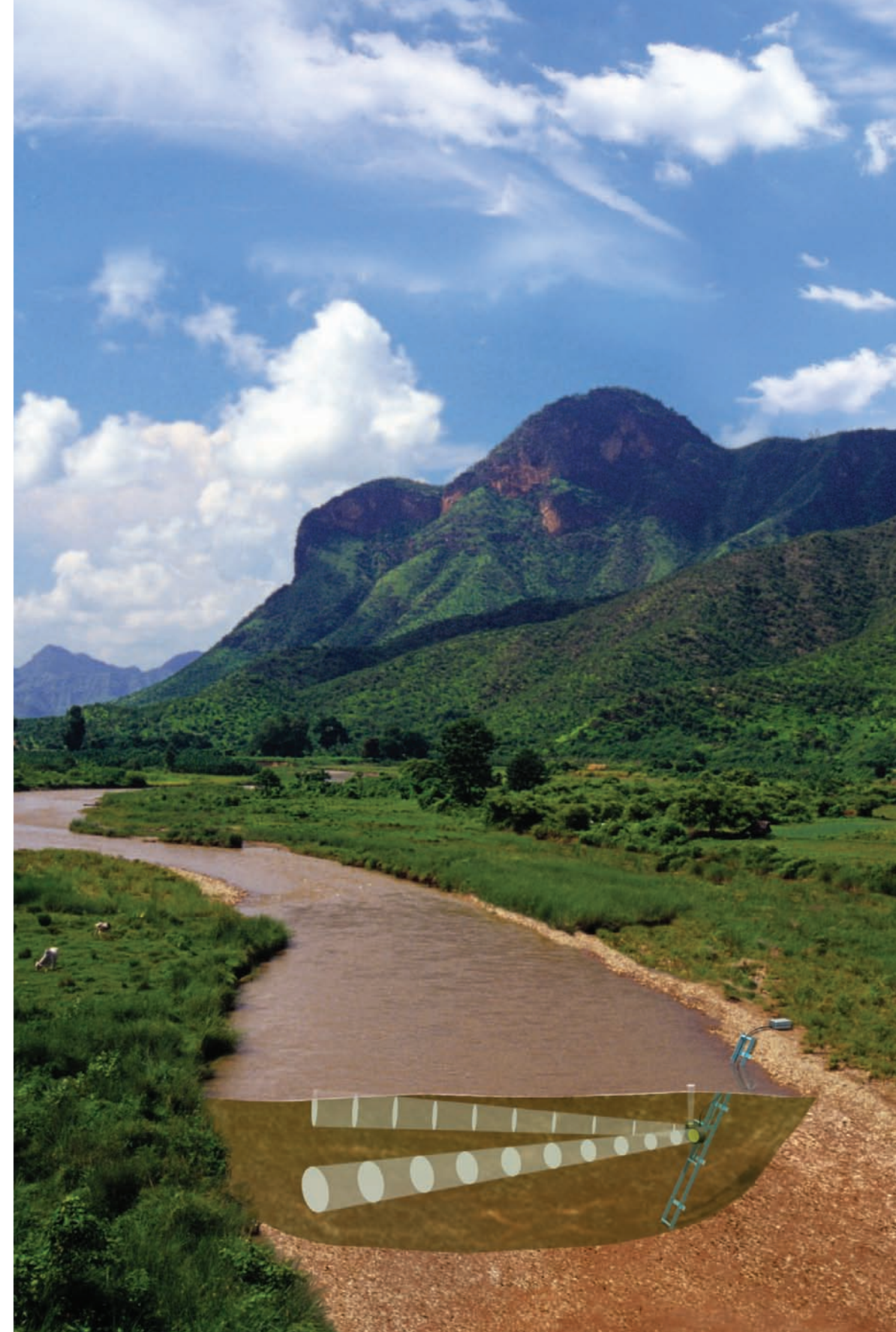
SL1500



SL3000

Argonaut-SL

Side-Looking Doppler Current Meter



Argonaut - SL

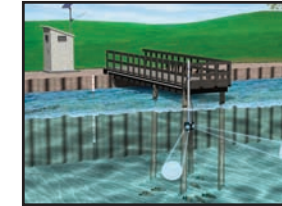
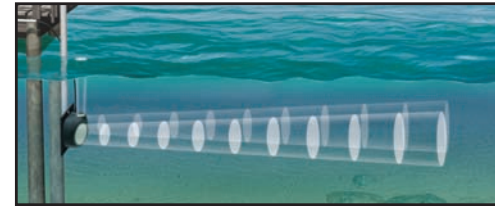
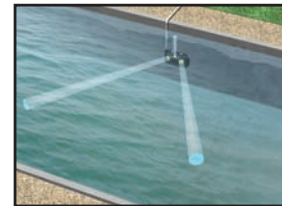
Side-Looking Doppler Current Meter

Sound Principles. Good Advice.



Simple. Sleek. Superior.

Inspired by the need for a **SIMPLE** way to measure water velocity and level in open channels, the Argonaut-SL, (affectionately known as the *Side-Looker*) has earned worldwide acceptance as a long-term monitoring solution. Fully featured with accessories, mounting options, software, and a variety of integration formats, the Argonaut-SL fits your application in the way you need it to.



Argonaut-SL in the Field



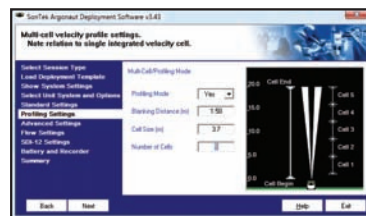
Designed specifically for side mounting on bridges, canal walls, or riverbanks, the SL's **SLEEK** low-profile housing makes installation easy. With three models to choose from, the SL can be used in channels as small as you can jump across to rivers as wide as the Amazon.

Ultra narrow beam widths combined with unmatched side lobe suppression provide the **SUPERIOR** acoustic directivity necessary for achieving maximum horizontal range free of interference from surface or bottom boundaries.

Preparing an SL500 for an irrigation channel in India.

Display. Process. Analyze.

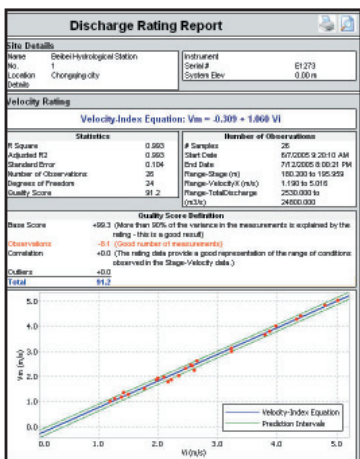
Each Argonaut-SL comes complete with the industry leading Windows software packages **VIEWARGONAUT** and **FLOWPACK**. ViewArgonaut provides comprehensive data collection and processing tools and also a full range of export options and a user-friendly deployment wizard.



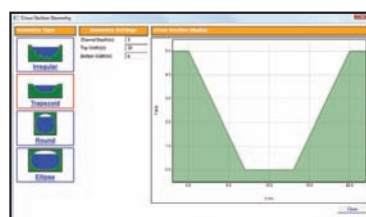
VIEWARGONAUT Set-up Screen

Integrate, store and analyze data from multiple sites with SonTek's Velocity-Indexing discharge rating software, FlowPack. Now you can print professional reports easily and quickly with the confidence that you will produce consistent and robust results.

An entire rating analysis can be completed in a matter of minutes, with automatically developed Stage-Area relationships and selection of the best-fit Velocity-Index equation. Data can be imported from a variety of sources including all SonTek instruments, and other devices.



FLOWPACK Rating and Analysis



Multiple Channel Geometries

Applications

- River Discharge Monitoring
- Irrigation Canals
- Ports and Harbors
- Shallow Streams and Estuaries
- Water Supply

Features

- Water Velocity and Level
- MultiCell Current Profiling
- PowerPing Hi-precision Sampling
- Mounting and Display, and I/O
- Velocity-Indexing Software



River Discharge and Flow



Ports and Harbors



Irrigation Canals

	SL3000	SL1500	SL500
Sampling Range¹	0.1 to 5m (0.3 to 17 ft)	0.2 to 20m (0.7 to 66 ft)	1.5 to 120m (5 to 400 ft)
Minimum Channel Width	0.75m (2.5 ft)	1.50m (5 ft)	6.5m (21 ft)
Acoustics			
-Horizontal Beam Width ²	1.4°	1.4°	1.4°
-Vertical Beam Width ²	1.4°	2.9°	3.8°
-Side Lobe Suppression ³	>60dB	>60dB	>60dB
PowerPing Hi-Precision	✓	✓	n/a
SonTek TrueCompass/Tilt	n/a	✓	✓
Water Level			
-Vertical Beam Range	0.1 to 5.0 m (0.3 to 17 ft)	0.15 to 10m (0.5 to 33 ft)	0.2 to 18.0m (0.7 to 59 ft)
-Accuracy	(depth < 3 m): ±0.3 cm (0.01 ft) (depth ≥ 3 meters): ± 0.1%	(depth < 3 m): ±0.3 cm (0.01 ft) (depth ≥ 3 meters): ±0.1%	(depth < 6 m): ±0.6 cm (0.02 ft) (depth ≥ 6 meters): ±0.1%
-Pressure Sensor (Accuracy)	n/a	0.25%	0.25%
-Wave Height Spectra	n/a	Optional	Optional
Power			
-Input	7-15 VDC	7-15 VDC	7-15 VDC
-Consumption ⁴	0.5 – 0.7 W	0.5 – 0.7 W	0.7 – 1.0 W
Physical			
-Weight in Air	1.2 kg (2.6 lb)	2.4 kg (5.3 lb)	6 kg (13.2 lb)
-Weight in Water	0.3 kg (0.7 lb)	0.2 kg (0.5 lb)	1.1 kg (2.5 lb)
-Pressure Rating (Max Depth)	30 m (98 ft)	30 m (98 ft)	30 m (98 ft)
-Mounting Plate Dimensions	28 x 25 x 1 cm (11" x 8" x 0.4")	Integrated Mount	35.5 x 22.9 x 1.5 cm (14" x 9" x 0.6")

¹ Actual Maximum range depends on environmental conditions

² Full beam width reported at half power level (-3dB)

³ Side lobe suppression improves the aspect ratio of the instrument enabling greater measurement range in shallower water.

⁴ Power consumption will be higher with PowerPing and/or Flow Display enabled

