

# ARGONAUT-ADV

ULTRA-PRECISE 3-D VELOCITY MEASUREMENT IN SHALLOW WATER ENVIRONMENTS

## FEATURES

- Low velocity (down to 0.001 m/s (0.003 ft/s))
- Shallow water (down to 3 cm with 2-D probe option)
- SDI-12 compliant
- Internal logging and battery
- AutoVelocity

## APPLICATIONS

- Wetlands and Marshes
- Shallow streams
- Coastal studies
- Lake studies



## ROBUST AND RELIABLE

The Argonaut-ADV takes SonTek's renown ADV technology and makes it practical and affordable for deployments in shallow streams, lakes, marshes or along the coast. Featuring an AutoVelocity range scaling, there is no need to pre-set the velocity range, it's all done automatically by the instrument. A built-in recorder, SDI-12 interface, and battery enable you to either deploy the Argonaut-ADV for autonomous operation, or connect it in real-time to a data logger. Its low velocity/shallow water capability make it the ultimate solution for marsh and wetland studies.



*Making low-flow measurements in Jacob's Well Spring near Wimberley, Texas.*



*2-D side-looking version deployed for marsh study in Louisiana.*



*The remote sampling volume allows measurements with minimal intrusion.*

# SPECIFICATIONS

## Argonaut-ADV

### Standard Features

- SonTek AutoVelocity range capability
- 3-D down looking probe
- Remote sampling volume of 0.25 cc located 10 cm from center transducer
- Temperature sensors
- Distance to boundary (acoustic altimetry)
- Internal 4 MB recorder
- Internal battery pack
- ViewArgonaut Windows software for data analysis, processing and exporting
- Solid state compass/tilt sensor
- RS232/SDI-12 output

### Optional Features

- 2-D side-looking ADV probe for shallow water (as little as 2 cm) deployments
- ADV probe on 1 m flexible cable
- RS-422 output
- Mounting clamps
- Pressure sensor

### Velocity Specifications

- Range:  $\pm 0.001 - 4.5$  m/s ( $\pm 0.003$  to 15 ft/s)
- Resolution: 0.0001 m/s
- Accuracy:  $\pm 1\%$  of measured velocity,  $\pm 0.001$  m/s
- Sample rate: 1 Hz
- Output rate: programmable, 10-1000 s

### Temperature Specifications

- Accuracy: 0.1 °C
- Resolution: 0.01 °C distance to sampling volume

### Pressure Specifications (range 30 m)

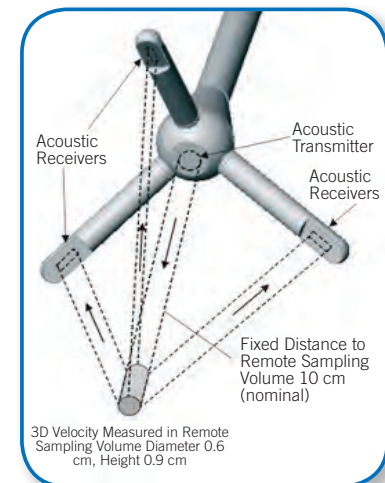
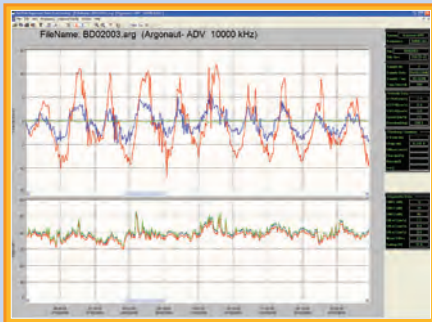
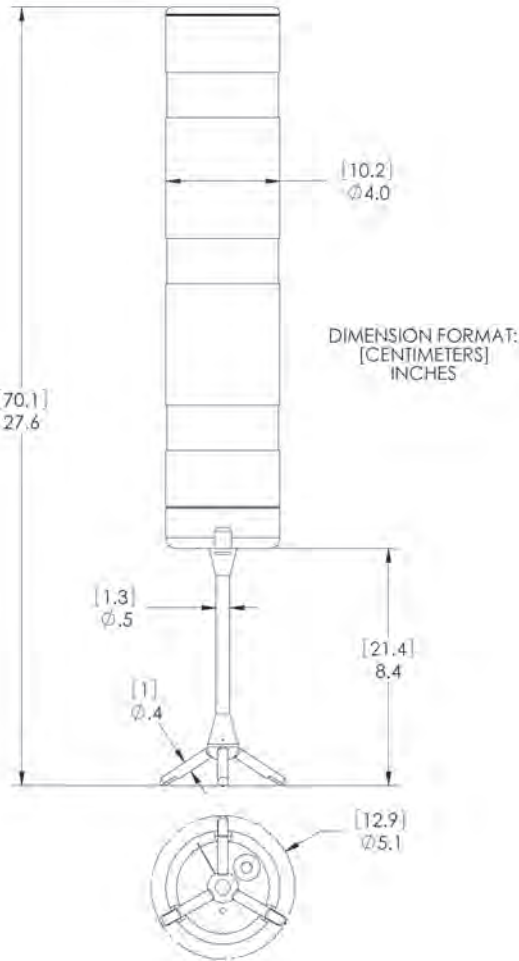
- Type: Piezoresistive (strain gauge)
- Accuracy: 0.1%

### Power Requirements

- 7-15 VDC
- Consumption:
  - Operating only: 0.2 to 0.5 W
  - Sleep mode: 0.001 W
- Nominal battery capacity: 220 W-h
- Optional 500 W-h external battery pack (triples deployment length)

### Environmental

- Depth rating: 60 m (pressure sensor dependent)
- Operating temp: -5 to 40 °C
- Storage temperature: -10 to 50 °C
- Weight in air: 3.2 kg (7 lbs)
- Weight in water: 0.45 kg (1 lb)



### GLOBAL HEADQUARTERS

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