

FlowTracker Specifications

Standard Features

- Hand-held interface with real-time velocity display
- 4 MB Internal memory for up to 64 discharge measurements (160,000 individual velocity measurements)
- Low-profile 2-D ADV water velocity sensor on 2 m flexible cable (measure in depths down to 1 inch (2cm))
- Automatic discharge measurement and computation program based on USGS/ISO standards
- Remote sampling volume located 10 cm from acoustic transmitter
- RS232 communication protocol
- Temperature sensor
- Velocity range ± 0.001 to 4.5 m/s (± 0.003 to 15 ft/s)
- Velocity resolution: 0.0001 m/s
- Velocity accuracy: $\pm 1\%$ of measured velocity

Optional Features

- 2-D/3-D ADV side-looking probe
- 3-D ADV down-looking probe
- Top-setting wading rod (Metric or English)
- Wading rod mounting bracket for controller
- Offset mounting bracket for ADV probe

Power Requirements

- Operates from 8 AA batteries (Alkaline, NiCad, NiMH)
- Typical battery life 25+ hours continuous operation (alkaline batteries)

Physical/Environmental Parameters

- Weight: 1.8 kg/4.0 lbs
- Probe width: 130 mm (5.1")
- Handheld controller temporarily submersible to 1m
- Operating temperature: -20° to 50°C
- Storage temperature: -20° to 50°C

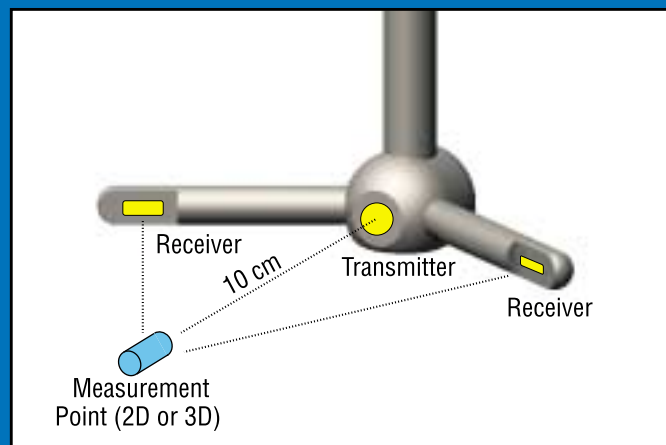
FlowTracker Applications

FlowTracker has applications in:

- Natural Streams
- Mining Channels
- Weirs/Flumes
- Open Channels
- Irrigation
- Water Treatment
- Stormwater
- Lakes



The FlowTracker keypad is custom-designed for both flow measurements and general purpose water velocity. Featuring provisions for starting edges, multiple channels, and even ice-covered water, it is ready for any situation. In addition, the FlowTracker's intelligent algorithm automatically prompts you for the proper measurement method based on your previous stations.

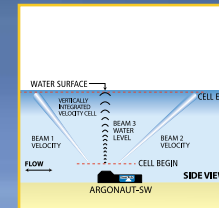


The FlowTracker uses SonTek's exclusive ADV® technology to measure precise 2-D or 3-D water velocity in a small measurement point located 10 cm from the acoustic transmitter. This enables the user to measure natural flow that is free of any wake field caused by the instrument.

Other Great Products From SonTek:



RiverCAT system for open channel discharge measurement



Argonaut-SW up looking Doppler flow sensor for natural streams, irrigation canals, and pipes/culverts.



Argonaut-SL for real-time flow and water level measurements.

FlowTracker Handheld ADV®

Make Laboratory-Precision Flow Measurements Anywhere...



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The FlowTracker is made in the USA.
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THE WORLD LEADER FOR WATER VELOCITY MEASUREMENT
www.sontek.com

Putting **Laboratory-Precision Flow Measurement** at Your **Fingertips...**

FlowTracker Handheld ADV®

BENEFITS:

- Measure in water as shallow as 1 inch (2 cm)
- Measure velocities down to 0.003 ft/s (0.001 m/s)
- Laboratory-proven Acoustic Doppler Velocimeter (ADV) – up to 15X better than electromagnetic flowmeters
- Lightweight, rugged, and water-proof
- Keypad interface with real-time velocity display
- Two or three dimensional velocity measurement
- Built-in temperature sensor
- Never requires calibration

Offering laboratory precision in a practical and easy-to-use format, the new SonTek FlowTracker goes where no current meter has gone before. Using SonTek's exclusive ADV® technology, it is as capable of measuring velocities down to 0.001m/s (0.003 ft/s) as it is for velocities up to 4.5 m/s (15 ft/s). Simply put, it out-performs every other hand-held current meter on the market.

Designed with the field user in mind, this handheld ADV easily attaches to wading rods and features an automatic discharge computation program based on USGS/ISO standards. At the end of the data run, just press a button and the FlowTracker calculates the discharge for you.

In addition, a general purpose data collection mode supporting both English and Metric units makes simple current measurements a snap. Averaging times can be set by the user from 10 to 1000 seconds and precise second by second velocity data is displayed on screen and recorded to the FlowTracker's non-volatile memory.

Though able to work robustly in any natural environment, its performance in shallow water and low flows is unparalleled. By selecting one of the 3-D probe options, the FlowTracker reports precise water velocity in 3 dimensions. This makes it a powerful tool for special applications requiring the measurement of water velocity on the vertical axis.



By using the included FlowTracker software package you can quickly download data and report it as shown below.

FlowTracker - Measurement Section														
Station	Date	Time	Flow	Area	Velocity	Temp	Depth	Width	Length	Volume	Discharge	Velocity Error	Temp Error	Depth Error
101	10/10/00	10:00	1.2	1.5	0.8	15.0	0.5	2.0	3.0	1.2	1.8	0.05	0.02	0.01
102	10/10/00	10:05	1.5	1.8	0.9	15.0	0.5	2.0	3.0	1.5	2.2	0.05	0.02	0.01
103	10/10/00	10:10	1.8	2.1	1.0	15.0	0.5	2.0	3.0	1.8	2.7	0.05	0.02	0.01

Example of FlowTracker discharge output in spreadsheet format.

With rugged construction for any climate, a backlit display readable in both day and night, the FlowTracker goes wherever you go. You needn't worry about losing or compromising data when the batteries drain as the FlowTracker's memory is non-volatile and measurement accuracy is independent of battery voltage. Delivered "ready-to-go" from the factory, gone are the days of spin tests and other complicated instrument calibrations.



Standard 2D side-looking probe



3D down-looking probe (not intended for wading rod use)



2D/3D side-looking probe