

StreamPro ADCP

MARINE MEASUREMENTS

NAVIGATION

WATER RESOURCES

REVOLUTIONARY NEW TOOL FOR VELOCITY AND
DISCHARGE MEASUREMENT IN SHALLOW STREAMS

Your shallow water solution!

Save time and money: RDI's new **StreamPro ADCP** represents a revolutionary advancement in velocity and discharge measurement. Now you can accurately measure discharge in shallow streams in a matter of minutes—a fraction of the time required using traditional handheld devices. With StreamPro there's no need to move from station to station to obtain single-point velocity data or compute the discharge by hand; velocity profiles are obtained in real time.

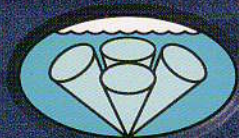
Get out of the water: StreamPro can be tethered to be pulled from a bridge, cableway, or tagline pulley system. This greatly improves operator safety when compared to traditional wading techniques.

Collect high-accuracy data: This dramatic advancement in stream flow measurement is made possible by RD Instruments' patented BroadBand Doppler signal-processing technology, which achieves superior accuracy over an extended range.

Go right to work: StreamPro has been designed to allow any level of user to immediately begin collecting high-quality, accurate data. The simple and highly intuitive user interface has been designed to ensure proper operation.

StreamPro ADCP Highlights

- **Quick:** Collect complete velocity and discharge measurements in streams from 15–200cm deep in a matter of minutes.
- **Convenient:** No need to move from station to station. Simply wade across the stream or cross a bridge to collect data.
- **Easy to Operate:** Data is conveniently acquired using a PocketPC equipped with a highly intuitive user interface.
- **Affordable:** Value-priced system designed to suit your budget.
- **Bottom Tracking:** Reliable bottom-tracking in ~10cm water depth.
- **Wireless:** Bluetooth communications utilized between electronics and PocketPC.
- **Reduced Disturbance:** Small transducer head, 3.5cm in diameter, for minimal flow disturbance.
- **Low Power:** Full day of operation on 8 AA batteries.
- **Versatile:** Minimum cell size 2cm with up to 20 cells. Maximum profiling range of up to 2 meters, at up to 40 pings per second.
- **Flexible Data Format:** All acquired data is compatible with RDI's WinRiver software for detailed data playback and manipulation.

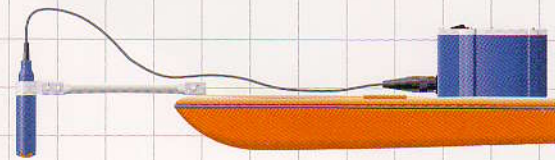


RD Instruments
Acoustic Doppler Solutions

MEASURING WATER IN MOTION AND MOTION IN WATER

StreamPro ADCP

REVOLUTIONARY NEW TOOL FOR VELOCITY AND DISCHARGE MEASUREMENT IN SHALLOW STREAMS



Technical Specifications

Velocity Profiling

# cells	1-20
Min. cell size	2cm
Max. cell size	10cm
Max. range	2m
1st cell start	7-30cm (from transducer); depends on cell's size
Accuracy (cell = 1/2 max.)	$\pm 1.0\% \pm 0.2\text{cm/s}$
Resolution (cm/s)	0.1
Velocity range (m/s)	± 2

Physical Properties

Weight in air	5 kg including electronics, transducer, float, and batteries
Dimensions	Electronics housing: 15 x 20 x 10cm Transducer: 3.5cm diam. x 15cm length Float: 44 x 70 x 11cm

Transducer

Frequency	2.0MHz
Geometry	4 beams, $\pm 20^\circ$ beam angle
Beam width	3°
Material	Polyurethane

Standard Sensors

Temperature: Range -4° to 40°C
Accuracy $\pm 0.5^\circ\text{C}$
Resolution 0.01°

Thermistor in metallic housing in direct contact with water

Communications

Bluetooth wireless
Baud rates: 300-115,200 bps

Construction

Cast polyurethane with titanium hardware.

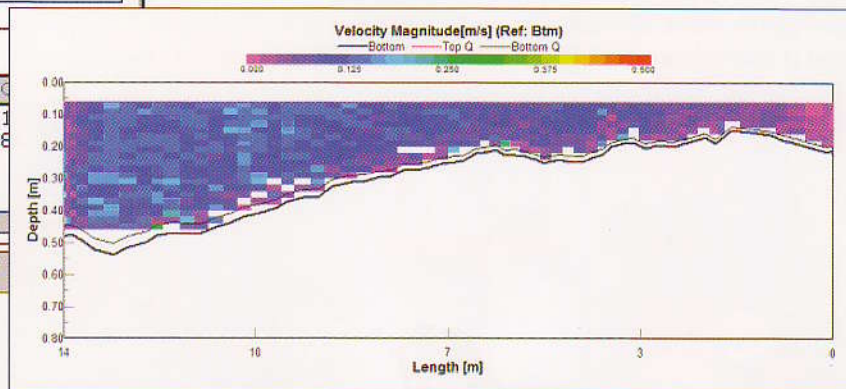
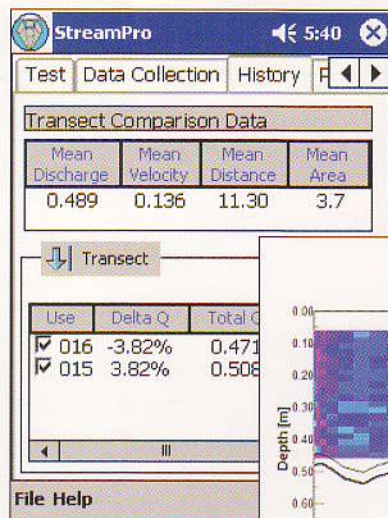
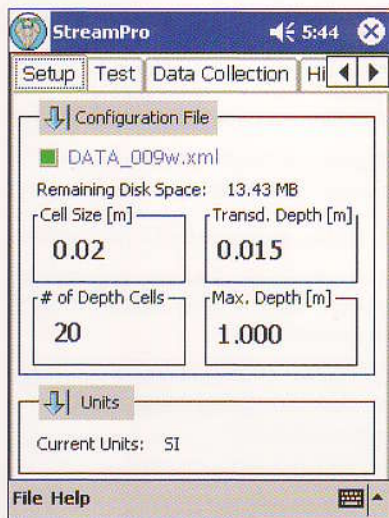
System Components

- Small transducer head
- Electronics case
- Small float
- PocketPC: iPAQ
- Bluetooth wireless
- Data collection software

Power

Voltage: 9-13.5VDC
(8 AA batteries, alkaline or rechargeable NiMH)

Electronics energy consumption: 16 hours continuous with 8 AA alkaline batteries
12 hours continuous with 8 AA NiMH rechargeable batteries



RD Instruments
Acoustic Doppler Solutions
www.rdinstruments.com

RD Instruments

9855 Businesspark Avenue, San Diego, CA 92131 USA
Tel. +1-858-693-1178 • Fax +1-858-695-1459 • E-mail: sales@rdinstruments.com
RDI Europe, Les Nertières, 5 allée Hector Pintus, 06610 La Gaude, France
Tel. +33-49-211-0930 • Fax +33-49-211-0931 • E-mail: rdi@rdieurope.com

