

StreamPro ADCP

REVOLUTIONARY TOOL FOR VELOCITY AND DISCHARGE MEASUREMENT IN SHALLOW STREAMS

Your Shallow Water Solution!

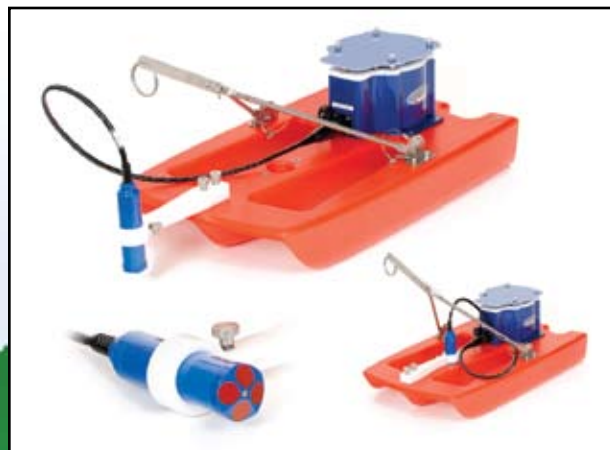
Save time and money: Teledyne RDI's new StreamPro ADCP (Acoustic Doppler Current Profiler) represents a revolutionary advancement in velocity and discharge measurement. Now you can accurately measure discharge in shallow streams in a matter of minutes—a fraction of the time required using traditional hand-held 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; discharge measurements 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 Teledyne 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.

Teledyne RDI's StreamPro ADCP can simply be pulled across the stream as you walk across a bridge, or attached to a tagline to collect real-time data.



The StreamPro's transducer can be towed from different points on board the platform, or can be removed and hand-held in the water for applications such as under ice flow measurements.

StreamPro ADCP Highlights

- **Quick:** Collect complete velocity and discharge measurements in streams from 15–225cm 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 Consumption:** Full day of operation on 8 AA batteries.
- **Versatile:** Minimum cell size 2cm with up to 30 cells. Standard profiling range of up to 2m (6m with upgrade).
- **Flexible Data Format:** All acquired data is compatible with Teledyne RDI's WinRiver software for detailed data playback and processing.



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MEASURING WATER IN MOTION AND MOTION IN WATER

StreamPro ADCP

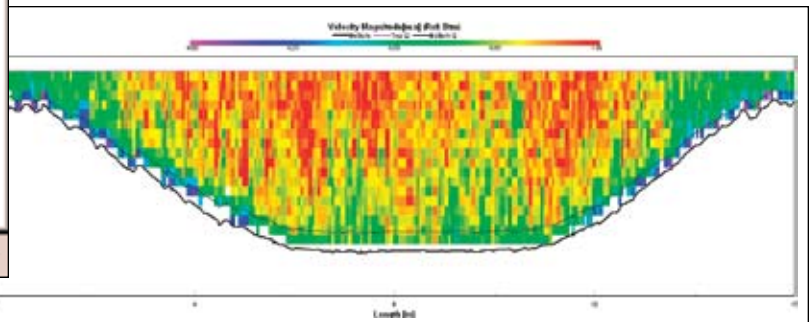
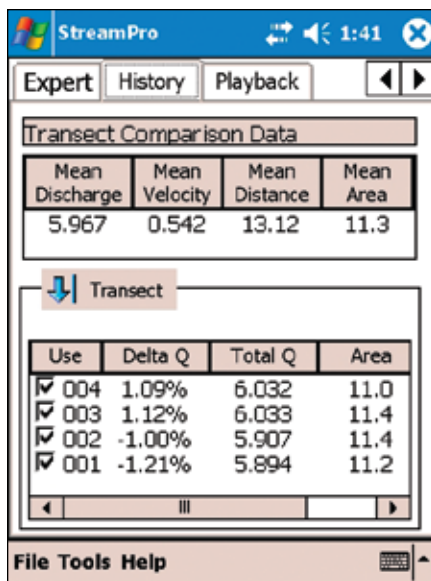
VELOCITY AND DISCHARGE MEASUREMENT IN SHALLOW STREAMS



Technical Specifications

Velocity Profiling	
# cells	1–20 standard; 1–30 with upgrade
Min. cell size	2cm
Max. cell size	10cm standard; 20cm with upgrade
Max. range	2m standard; 6m with upgrade
1st cell start	7–30cm (from transducer); depends on cell size
Accuracy (cell = 1/2 max.)	$\pm 1.0\% \pm 0.2\text{cm/s}$
Resolution	0.1cm/sec
Velocity range	$\pm 5\text{m/sec}$ ($\pm 2\text{m/sec}$ on standard float)
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, 20° beam angle
Beam width	3°
Material	Polyurethane

Sample data using StreamPro's standard software.



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: 115,200 bps

Construction

Cast polyurethane with stainless hardware.

System Components

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

Power

Voltage: 10–13.5VDC (8 AA batteries, alkaline or rechargeable NiMH)

Electronics energy consumption: 10 hours continuous with 8 AA alkaline batteries
12 hours continuous with 8 AA NiMH rechargeable batteries

Upgrades Available

- Firmware to extend profiling range to 6 meters
- Software to add Section-by-Section method
- Compass; includes pitch and roll sensors

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www.rdinstruments.com

Free online product training

Free 24/7 emergency support

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