



## StreamPro ADCP

### Shallow Streamflow Measurement System

- 2 MHz broadband ADCP sensor incl. equipment rack for mobile flow measurement
- Moving boat method
- Fast and accurate throughput measurements
- Wireless communication via Bluetooth transmission to a tablet PC or notebook





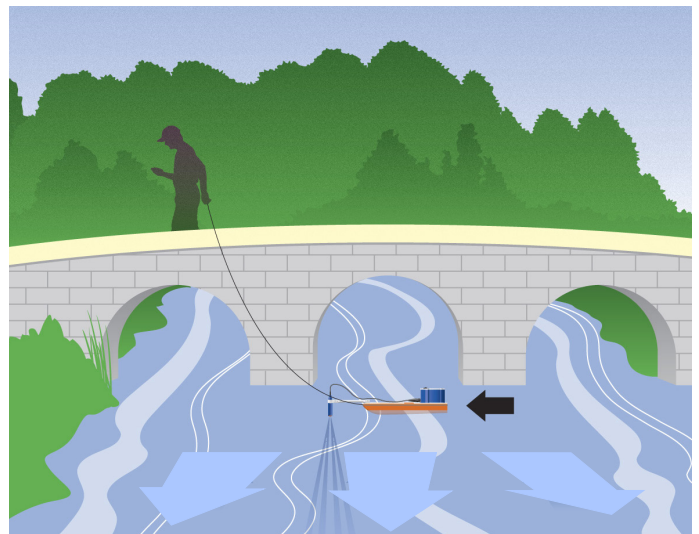
## Your Shallow Water Solution

Teledyne RD Instruments' **StreamPro ADCP** (Acoustic Doppler Current Profiler) represents a revolutionary advancement in streamflow measurement. 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; streamflow 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' Broadband Doppler signal-processing technology, which achieves superior accuracy in velocity measurement.

**Go right to work:** **StreamPro** has been designed to allow any level of user to immediately begin collecting high-quality 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 realtime data.*

## Product Features

- **Quick:** Collect complete streamflow measurements in streams or canals in a matter of minutes.
- **Convenient:** No need to move from station to station. Simply cross a bridge or use a tagline to collect data.
- **Easy to Operate:** Data is conveniently acquired using a mobile device equipped with a highly intuitive user interface.
- **Reduced Disturbance:** Small transducer head, 3.8 cm in diameter, for minimal flow disturbance.
- **Affordable:** Value-priced system designed to suit your budget.
- **Long-Range Bottom Tracking:** Reliable up to 7 m, profiling up to 6 m, standard on all systems.
- **Wireless:** Bluetooth communications utilized between electronics and PocketPC or laptop.
- **Low Power Consumption:** Full day of operation on 8 AA batteries.
- **Versatile:** Minimum cell size 1 cm with up to 30 cells.
- **Flexible Data Format:** All acquired data is compatible with Teledyne
- **GPS option available.**



## Technical Specifications

<b>ADCP (type)</b>	<b>IDEAL FIELD ENVIRONMENT</b>		
StreamPro ADCP	Shallow streams, 10 cm - 6 m		
RiverPro ADCP	Deep streams to shallow rivers, 20 cm - 25 m		
RiverRay ADCP	Shallow to deep rivers, 40 cm - 60 m		
<b>Water Velocity Profiling:</b>	<b>Profiling range:</b>	0,1 m to 6 m	
	<b>Velocity range:</b>	$\pm 5 \text{ m/s}^3$	
	<b>Accuracy:</b>	$\pm 1 \%$ of water velocity relative to ADCP, $\pm 2 \text{ mm/s}$	
	<b>Resolution:</b>	1 mm/s	
	<b>Number of cells:</b>	1-30 cells	
	<b>Cell size:</b>	1 cm to 20 cm	
	<b>Blanking distance:</b>	3 cm	
	<b>Data output rate:</b>	1 Hz	
<b>Bottom Tracking:</b>	<b>Depth range:</b>	0.1 m–7 m <sup>2</sup>	
	<b>Accuracy:</b>	$\pm 1.0 \%$ of bottom velocity relative to ADCP, $\pm 2 \text{ mm/s}$	
	<b>Resolution:</b>	1 mm/s	
<b>Depth Measurement:</b>	<b>Range:</b>	0.1 m–7 m <sup>2</sup>	
	<b>Accuracy:</b>	1 % <sup>4</sup>	
	<b>Resolution:</b>	1 mm	
<b>Sensors:</b>	<b>Temperature (standard):</b>	<b>Tilt (pitch and roll):</b>	<b>Compass (heading):</b>
<b>Range:</b>	-4 °C to 45 °C	$\pm 90^\circ$	0-360°
<b>Accuracy:</b>	$\pm 0.5 \text{ °C}$	$\pm 0.3^\circ$	$\pm 1^\circ$

# Technical Specifications

<b>Operation Modes:</b>	Standard profiling (Broadband) High-precision profiling (included)	
<b>Transducer:</b>	<b>Frequency:</b>	2 MHz
	<b>Configuration:</b>	Janus 4 beams at 20° beam angle
<b>Software (included):</b>	<ul style="list-style-type: none"><li>• StreamPro Software for Pocket PC</li><li>• WinRiver II (included) for moving-boat measurement</li><li>• SxS Pro (optional) for stationary measurement (i.e., under-ice); comes with an uncertainty model for in situ quality evaluation and control</li></ul>	
<b>Available Upgrades:</b>	<ul style="list-style-type: none"><li>• Extended profiling range to 6 meters</li><li>• SxS Pro Software for stationary measurement.</li><li>• Compass and tilt (pitch and roll) sensors</li><li>• GPS</li><li>• High-speed float</li></ul>	
<b>Communications:</b>	Bluetooth wireless Baud rates: 115,200 bps	
<b>Construction:</b>	Cast polyurethane with stainless hardware	
<b>Power:</b>	<b>Voltage:</b>	10.5 – 18 VDC (8 AA batteries, alkaline or rechargeable NiMH)
	<b>Battery capacity:</b>	7.5 hours continuous with 8 AA alkaline batteries; 12.75 hours continuous with 8 AA NiMH rechargeable batteries
<b>Environmental:</b>	<b>Operating temperature:</b>	-5 °C to 45 °C
	<b>Storage temperature:</b>	-20 °C to 50 °C
<b>Physical Properties:</b>	<b>Weight in air:</b>	5.9 kg including electronics, transducer, float, and batteries
	<b>Dimensions:</b>	Electronics housing: 16 x 21 x 11 cm Transducer: 3.5 cm diam. x 15 cm length Float: 42 x 70 x 10 cm

1) Assume one good cell (minimum cell size) with high precision profiling mode, range measured from the transducer surface.

2) Assume fresh water, actual range depends on temperature and suspended solids concentration.

3) 2m/s for standard float; 3.5 m/s for optional high-speed float.

4) Assume uniform water temperature and salinity profile

The right is reserved to change or amend the foregoing technical specification without prior notice.

## Contact:

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