

RiverPro 1200 ADCP

Intelligent River Discharge Measurement System

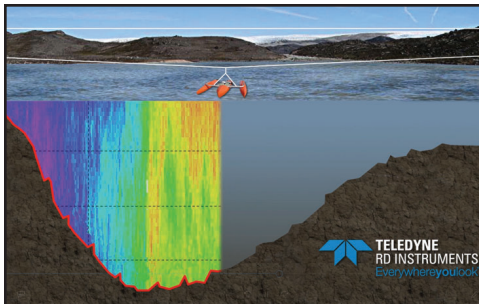
Hits the sweet spot between accurate and easy to use

Unique in its class as a true broadband ADCP, the RiverPro 1200 delivers the very highest accuracy bottom track and water profiling on a second-by-second basis. This is a must for river measurements in which depth and velocity change constantly, often rapidly! RiverPro 1200 users worldwide know that with the right technology, variability between transects can be minimized, saving you time both in the field and back at the office.



We know there's lots to think about in the field!

Rest assured all the setup parameters to make a good measurement are expertly determined by RP1200's "adaptive sampling" algorithms. With the instrument handling data setup and optimization, you can focus on what matters most: field objectives, correct procedure, and skilled execution.



Because the environment matters

Extreme events—both floods and droughts—climate change, pollution, wildlife habitat, and river restoration projects have all increased the need for volumetric flow data. The multi-purpose RiverPro 1200 is the ideal tool to accurately collect the critical in-situ water column and riverbed details needed for actionable analysis.

All the right features you expect from a premium product

RiverPro 1200's option to integrate user-supplied GPS or echosounder, Bluetooth comms, manual configuration, powerful visualization and processing software, and unsurpassed years of expertise in service and support from an ISO-certified company culminate to deliver a best-in-class solution.



IDEAL FIELD ENVIRONMENTS

StreamPro	Shallow 10 cm - 6 m
RiverPro 1200	Mid-Range 20 cm - 25 m
RiverRay	Deep 40 cm - 60 m
RiverPro 600	Advanced Applications 54 cm - 100 m



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TECHNICAL SPECIFICATIONS

Water Velocity Profiling	Operation mode	Broadband / pulse-coherent; automatic / manual			
	Velocity range	±5 m/s default, ±20 m/s maximum			
	Profiling range ^{1,2}	12 cm to 25 m			
	Accuracy	±0.25% of water velocity relative to ADCP, ±2 mm/s			
	Resolution	1 mm/s			
	Number of cells	15-30 typical, 200 maximum			
	Cell size	2 cm to 5 m			
	Data output rate	1-2 Hz (typical)			
Bottom Tracking	Operation mode	Broadband			
	Velocity range	±9 m/s			
	Depth range ²	15 cm to 35 m			
	Accuracy	±0.25% of bottom velocity relative to ADCP, ±2 mm/s			
Slant Beams (Depth Measurement)	Range ²	15 cm to 35 m			
	Accuracy ^{3,4}	±1%			
	Resolution	1 mm			
Vertical Beam (Depth Measurement)	Range ²	20 cm to 120 m			
	Accuracy ⁴	±1%			
	Resolution	1 mm			
Standard Sensors		Temperature	Tilt (pitch and roll)	Compass	GPS (embedded)
	Range	-5°C to 45°C	±90°	0-360°	
	Accuracy ⁵	±0.5°C	±0.3°	±1°	3 m horizontal
Transducer and Hardware	System frequency	Slant beams: 1228.8 kHz / Vertical beam: 614.4 kHz			
	Configuration	4 piston transducers, Janus arrangement with 20° beam angle/ 1 vertically mounted piston transducer			
	Internal memory	16 MB			
	Standard	RS-232, 1200 to 115,200 baud. Bluetooth, 115,200 baud, 200 m range.			
Communications Software (included)		WinRiver II (standard) for moving-boat measurement, Q-View (optional), SxS Pro (optional)			
	Power	Input voltage	10.5-18 VDC		
Float (optional)	Power consumption	1.5W typical			
	Battery (inside float)	12V, 7A-hr lead acid gel cell (rechargeable)			
	Battery capacity	>40 hrs continuous operation			
	Configuration	Three hulls (trimaran)			
	Material	Polyethylene			
GPS Integration (optional)	Dimensions	Length 120 cm, width 80 cm, height 20 cm			
	Weight	10 kg bare; 17 kg with instrument and battery			
	Integration with customer-supplied GPS, depth sounder, gyro compass via RS-232				
Environmental	Operating temperature	-5°C to 45°C			
	Storage temperature	-20°C to 50°C			
Available Upgrades	SxS Pro Software for Stationary Measurement • QView Software for quality assessment and reporting • GPS (position-only or vector) • HSRB				

1 Distance measured from the center of the first cell to the transducer surface.
 2 Assumes fresh water, actual range depends on temperature and suspended solids concentration.
 3 For beam-averaged depth data.
 4 Assumes uniform water temperature and salinity profile.
 5 For combined tilt $\pm 70^\circ$ and dip angle <math>< 70^\circ</math>.



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