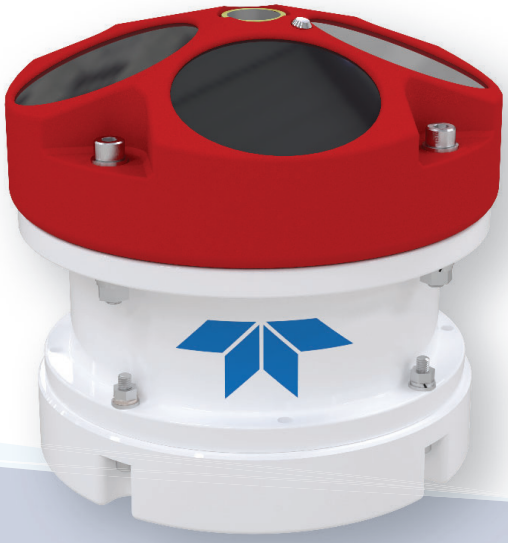
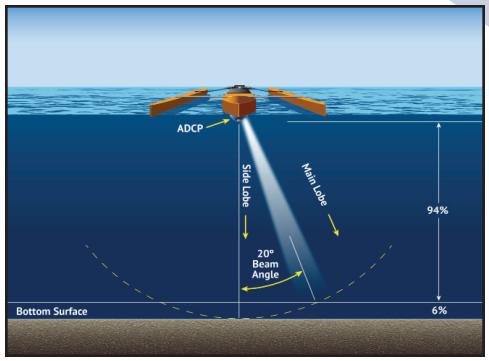
RiverPro 600 ADCP

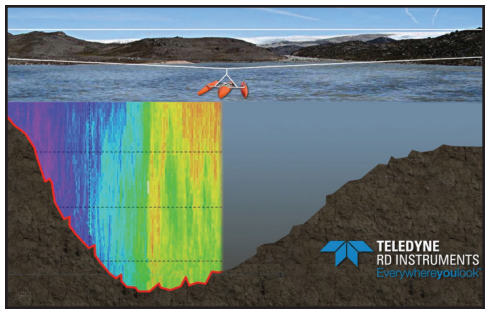
River Discharge Measurement System for Advanced Applications



Maximum power and versatility

Teledyne RD Instruments' RiverPro 600 handles the most demanding water conditions and specialized applications. 600 kHz remains the industry's all-purpose acoustic frequency which is fully leveraged to solidly perform under the widest range of sediment, river depth, and bottom tracking conditions.





Measure more, guess less

The narrow 20° beam angle minimizes bottom reflection effects and thereby maximizes the area that is truly measured. And with optimized vertical orientation, RiverPro 600 can better deliver robust velocity and depth data in deep, and both high or low-sediment rivers and estuaries. This gives RiverPro 600 the ability to deliver comprehensive data where it is otherwise not possible, and to give the highest level of confidence in areas where other systems might struggle.

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 600 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 600'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**

TELEDYNE MARINE
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TECHNICAL SPECIFICATIONS

Water Velocity Profiling	Operation mode	Broadband / pulse-coherent; manual			
	Velocity range	±5 m/s default, ±20 m/s maximum			
	Profiling range[1,2]	54 cm to 100 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	10 cm to 5 m			
	Data output rate	1-2 Hz (typical)			
Bottom Tracking	Operation mode	Broadband			
	Velocity range	±9 m/s			
	Depth range[2]	30 cm to 100 m			
	Accuracy	±0.25% of bottom velocity relative to ADCP, ±2 mm/s			
	Resolution	1 mm/s			
Slant Beams (Depth Measurment)	Range[2]	30 cm to 100 m			
	Accuracy [3,4]	±1%			
	Resolution	1 mm			
Vertical Beam (Depth Measurment)	Range[2]	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 and Vertical beams: 614.4KHz			
	Configuration	4 piston transducers, Janus arrangement with 20° beam angle/ 1 vertically mounted piston transducer			
	Internal memory	16 MB			
Communications	Standard	RS-232, 1200 to 115,200 baud. Bluetooth, 115,200 baud, 200 m range			
Software (included)	**WinRiver II** (standard) for moving boat measurement; **SxS Pro** (optional) for stationary measurement; comes with an uncertainty model for in situ quality evaluation and control; **Q-View**; **RDI Tools**				
Power	Input voltage	10.5-18 Volts			
	Power consumption	1.5W typical			
	Battery (inside float)	12V, 7A-hr lead acid gel cell (rechargeable)			
	Battery capacity	> 40 hrs continuous operation			
Float (optional)	Configuration	Three hulls (trimaran)			
External Sensor Integration	Integration with customer-supplied GPS, depth sounder gyrocompass 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 <+/-70° and dip angle <70°.

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www.teledynemarine.com
14020 Stowe Drive, Poway, CA 92064 USA
Tel. +1-858-842-2600 • Email: rdisales@teledyne.com
Les Nertieres 5 Avenue Hector Pintus 06610 La Gaude France
Tel. +33-49-211-0930 • Email: rdie@teledyne.com

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