

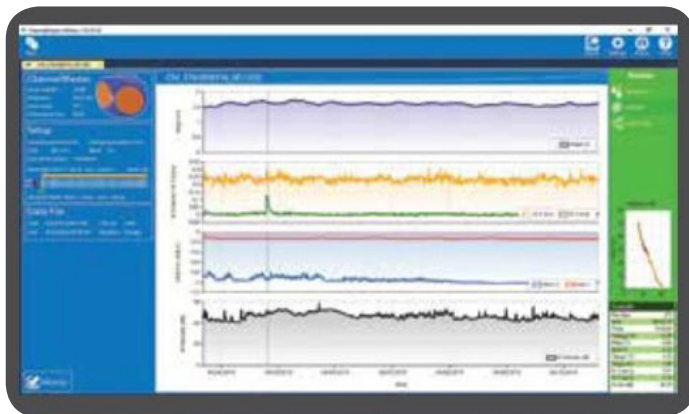
ChannelMaster

Horizontal Acoustic Doppler Current Profiler

The compact, flexible, and affordable **ChannelMaster** is a horizontally-oriented Acoustic Doppler Current Profiler (H-AD-CP) designed to collect high-accuracy water velocity, stage, and discharge data for a wide array of applications.

By leveraging Teledyne RDI's BroadBand technology, **ChannelMaster** allows you to obtain unmatched data quality, even in low velocities and complex flows, where a single cell cannot provide enough information.

The **ChannelMaster's** innovative design includes everything you need to collect high-quality data. The standard unit comes equipped with temperature, pressure, pitch and roll sensors, and a vertical beam.



ChannelMaster H-ADCP data sample.



The ChannelMaster H-ADCP is installed on a riverbank or near-shore structure to acquire real-time velocity, stage, and discharge data.

Product Features

- **Accurate:** Teledyne RDI Broadband technology allows for small cells and/or short averaging sampling intervals, thus increasing your data accuracy.
- **Robust:** Collect highly accurate velocities even in difficult environments such as slow flow or rapidly changing flow.
- **Versatile:** ChannelMaster offers a range of 1-128 user-selectable cell sizes from 25 cm - 8 m and profiling ranges from 1 m - 300 m (frequency dependent).
- **Sturdy:** Comes standard with stainless steel mounting fixture.
- **Rivers, Streams, and Irrigation Canals:** Monitor discharge and water level for a variety of applications. The ChannelMaster easily integrates with a telemetry or SCADA system, providing you with remote access to your data.
- **Estuaries:** Measure complex currents for environmental monitoring or circulation model calibrations or verifications.
- **Port and Harbors:** Monitor currents to provide velocity information for vessel maneuvering and safety.

Technical Specifications

	CM300 300 kHz	CM600 600 kHz	CM1200 1200 kHz	
Water Velocity Profiling:				
Profiling range:	4 m ¹⁾ to 300 m ²⁾	2 m to 90 m ²⁾	1 m to 25 m ²⁾	
Velocity range:	± 5 m/s default, ± 20 m/s maximum			
Accuracy:	± 0,5 % of water velocity relative to ±2 mm/s			
Resolution:	1 mm/s	1 mm/s	1 mm/s	
Number of cells:	1-128	1-128	1-128	
Cell size:	1 m to 8 m	0.5 m to 4 m	0.2 m to 2 m	
Blanking distance:	1 m	0.5 m	0.2 m	
Data output rate:	User-programmable			
Physical Properties:				
Weight in air:	6.8 kg	4.76 kg	3.4 kg	
Weight in water:	3.17 kg	2 kg	1.58 kg	
Height:	18.3 cm	18.3 cm	18.3 cm	
Width:	32.5 cm	26.4 cm	18.3 cm	
Depth:	19.8 cm	19.3 cm	18.9 cm	
Transducer:				
Geometry:	2 beams, ± 20°	2 beams, ± 20°	2 beams, ± 20°	
Beam width:	2.2°	1.5°	1.5°	
	Temperature	Tilt (pitch and roll)	Pressure	Acoustic Stage
Standard Sensors:				
Range:	-4 °C to 40 °C	± 10°	0.1 m to 10 m	0.1 m to 10 m ³⁾
Accuracy:	± 0.2 °C	± 0.2° at 2°, ± 0.5° at 10°	0.5 %	± 0.1 %, ± 3 mm
Resolution:	0.01 °C	0.01°	1 mm	0,1 mm
Software:	<ul style="list-style-type: none"> WinH-ADCP: System setup, data acquisition, discharge calculation, data display, and summary report PlanCV: Deployment planning, predicting precision, power usage, etc. 			
Hardware and Features:	<ul style="list-style-type: none"> 4 MB internal recorder 25 m power and communications cable standard, longer available Stainless steel mounting plate Built-in index-velocity method flow calculator 			
Communications:	RS 232 with SDI-12, or RS 422 SDI-12 supports v 1.3 (concurrent) Simultaneous SDI-12, and internal logging supported Serial baud rates 300–115,200 bps			
Construction:	Cast polyurethane with titanium hardware, mounting plate included			
Power:				
Voltage:	10-18 VDC			
Max. current:	1.5 A			
Power consumption:	0.1 W @ 10 % duty cycle (typical)			
Environmental:				
Operating temperature:	-5 °C to 45 °C			
Storage temperature:	-20 °C to 50 °C			

- 1) Assume one good cell (minimum cell size); range measured from the transducer surface.
 2) Assume fresh water; actual range depends on temperature and suspended solids concentration.
 3) User-programmable to 18m maximum.

Contact:

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