

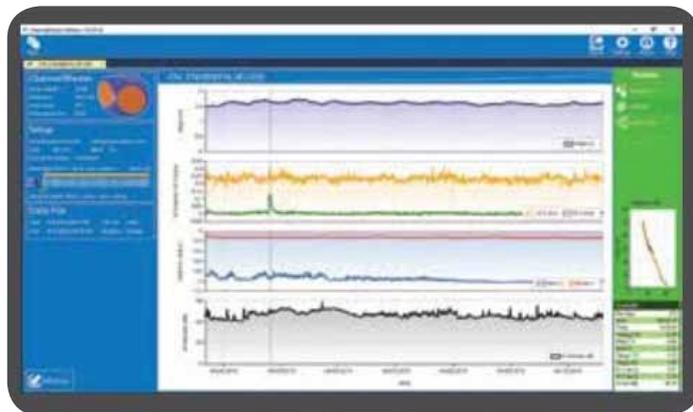
# ChannelMaster

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