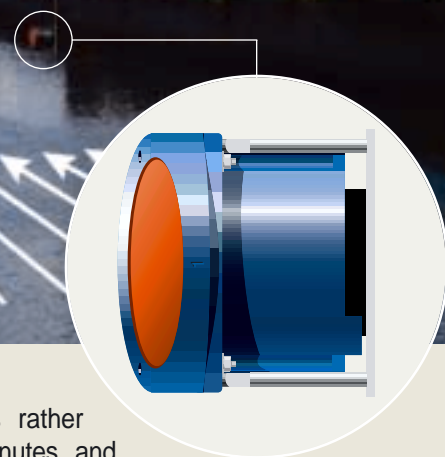


# ChannelMaster H-ADCP

Low-cost, high-performance  
Horizontal Acoustic Doppler  
Current Profiler



The **compact**, **flexible**, and **affordable** ChannelMaster is a horizontally oriented ADCP designed to provide you with high quality data meeting your specific requirements for accuracy, spatial resolution, and sampling interval.

By leveraging RDI's patented Broad-band technology, ChannelMaster allows you to obtain the best possible data, even in low velocities and complex flows, where a single cell does not provide enough information.

The ChannelMaster's innovative new design includes everything you need to collect high quality data, without costly options. Our standard unit comes

equipped with an SDI-12 interface, temperature, pressure, pitch and roll, and a vertical beam, all of which are generally considered to be upgrades. This standardization provides great value, while ensuring product quality and reduced delivery lead-times.

## What sets us apart

**Versatility:** Collect exactly the information you need for your unique application. You can select from 1 to 128 cells of data with cells sized from 25 cm to 10 m to profile from 1 to 300 meters.

**Accuracy:** Obtain detailed and accurate data across the entire profile in

seconds rather than minutes and do so with very low power consumption. You can achieve 1 cm/s accuracy in two seconds of averaging using a 1200-kHz ChannelMaster with 1-meter cells, allowing you to obtain precise velocity data even in very slow water.

**Ease of Operation:** Relax, knowing that the software gives you an intuitive view of the data and makes configuring the instrument straightforward. First-time users and researchers can quickly and easily obtain the data they desire.

## Applications

The ChannelMaster's accuracy and versatility are ideally suited for:

- **Streams and Rivers.** Obtain high accuracy velocity data for use in computing discharge. The unit includes an accurate acoustic level sensor and pressure sensor to determine stage as well.

- **Open Channels.** Obtain accurate velocity data for pacing water quality samplers.
- **Estuaries.** Measure the complex currents for environmental monitoring or circulation model calibrations.
- **Ports and Harbors.** Monitor currents to provide accurate information for mariners.



## RD Instruments

Acoustic Doppler Solutions

## Velocity Profiling (Broadband Mode)

	300kHz	600kHz	1200kHz
# Cells:	1-128	1-128	1-128
Min. Cell Size (m):	1	1	0.1
Max. Cell Size (m):	10	8	4
Max. Range (m):*	300	90	20
1st Cell Start (m):	2-10	1-10	0.25-10
Accuracy (cell = 1/2 max.):	±0.5%	±0.5%	±0.5%
	±0.2 cm/s	±0.2 cm/s	±0.2 cm/s
Resolution (mm/s):	1	1	1
Vel. (m/s):	±5	±5	±5

\*Maximum range depends on a number of factors including temperature, salinity, suspended materials, etc.

## Transducer

**Geometry:** 2 beams, ±20° beam angle  
**Beam Width:** 1.5° for 1200kHz & 600kHz, 2.2° for 300kHz

## Standard Sensors

<b>Acoustic Stage:</b>	Range:	0.1-10 meters
	Accuracy:	± 2 mm
	Resolution:	0.1 mm
<b>Pressure:</b>	Range:	0.1-10 meters
	Accuracy:	± 2 mm
	Resolution:	1.0 mm
<b>Temperature:</b>	Range:	-4° to 35°C
	Accuracy:	± 0.2°C
	Resolution:	0.01°C

## Communications

**RS-232 with SDI-12, RS-422, RS-485**

- SDI-12 supports v 1.3
- Simultaneous RS-232, SDI-12, and internal logging supported.

**Serial Baud Rates:** 300-115,200 bps

## Construction

Cast polyurethane with titanium hardware.  
 Mounting plate included.

## Power

**Voltage:** 9-18 VDC

**Maximum Current:** 1.5A

**Note:** Energy consumption depends on velocity profiling parameters. Contact RD Instruments or a representative for an accurate prediction to your application.

## Physical Properties

	300kHz	600kHz	1200kHz
<b>Weight:</b>	6.8 kg	4.76 kg	3.4 kg
<b>Weight in Air:</b>	15 lb	10.5 lb	7.5 lb
<b>Weight in Water:</b>	3.17 kg	2 kg	1.58 kg
	7 lb	4.4 lb	3.5 lb
<b>Dimensions:*</b>			
<b>Height:</b>	18.3 cm	18.3 cm	18.3 cm
	7.2 in	7.2 in	7.2 in
<b>Width:</b>	32.5 cm	26.4 cm	18.3 cm
	12.8 in	10.4 in	7.2 in
<b>Depth:</b>	19.8 cm	19.3 cm	18.9 cm
	7.8 in	7.6 in	7.4 in

\* mounted horizontally



## For More Information

Call, e-mail, or visit our web page. Ask for our primer about ADCPs.



**RD Instruments**  
[www.rdinstruments.com](http://www.rdinstruments.com)

## RD Instruments

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