

# ChannelMaster H-ADCP

MARINE MEASUREMENTS

NAVIGATION

WATER RESOURCES

LOW-COST, HIGH-PERFORMANCE HORIZONTAL  
ACOUSTIC DOPPLER CURRENT PROFILER

## Reliable Remote Monitoring

The **compact, flexible, and affordable** ChannelMaster is a horizontally-oriented Acoustic Doppler Current Profiler (ADCP) designed to provide you with high-quality data in an affordably-priced package.

By leveraging RDI's patented 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, without costly options. The standard unit comes equipped with an SDI-12 interface, temperature, pressure, pitch and roll, and a vertical beam—in many other systems these are all generally considered to be upgrades.

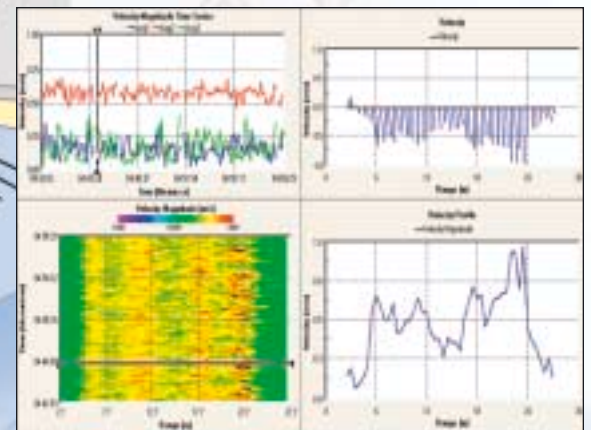
### Only ChannelMaster provides:

- RDI's patented BroadBand technology, which allows for small cells and/or short averaging/sampling intervals, resulting in highly accurate velocity data
- Ability to measure highly accurate velocities even in difficult environments such as slow flow or rapidly changing flow
- A range of 1–128 user-selectable cells, with cell sizes from 10cm to 10m and profiling ranges from 1m to 200m (depending on system frequency)
- A highly intuitive user interface designed to meet the needs of first-time users and seasoned researchers alike
- Standard stainless steel mounting fixture



### ChannelMaster Applications:

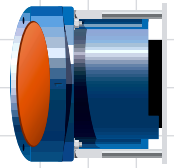
- **Rivers, streams, and waterways:** Obtain high-accuracy data for monitoring velocity, stage, and discharge for a wide array of applications.
- **Estuaries:** Measure complex currents for environmental monitoring or circulation model calibrations.
- **Ports and Harbors.** Monitor currents to provide accurate information for vessel maneuvering and safety.



RD Instruments  
Acoustic Doppler Solutions

# ChannelMaster H-ADCP

## HORIZONTAL ACOUSTIC DOPPLER CURRENT PROFILER

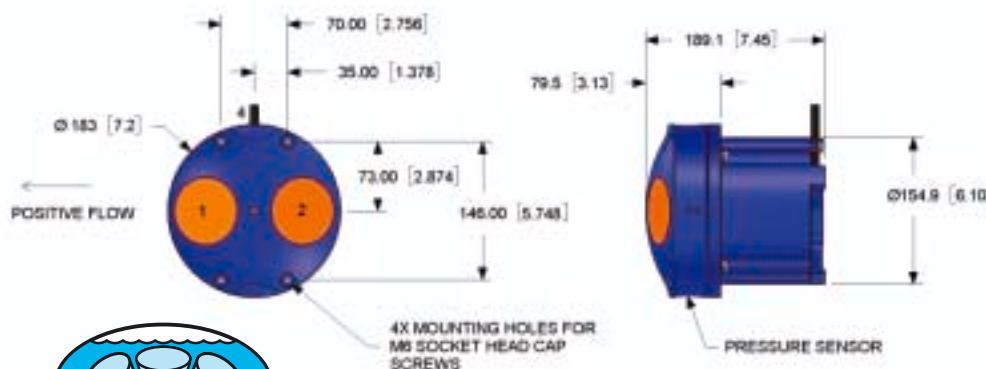


### Technical Specifications

Model	300	600	1200
<b>Velocity Profiling (BroadBand mode)</b>			
# cells	1-128	1-128	1-128
Min. cell size (m)	1	0.5	0.25
Max. cell size (m)	8	4	4
Max. profiling range (m) <sup>1</sup>	300	90	20
1st cell start (m)	2-40	1-20	0.5-10
Accuracy (cell = 1/2 max.)	±0.5%	±0.5%	±0.5%
	±0.2cm/s	±0.2cm/s	±0.2cm/s
Resolution (cm/s)	0.1	0.1	0.1
Velocity range (m/s)	±5	±5	±5
<b>Physical Properties</b>			
Weight in air	6.8kg 15lb	4.76kg 10.5lb	3.4kg 7.5lb
Weight in water	3.17kg 7lb	2 kg 4.4lb	1.58kg 3.5lb
Height <sup>2</sup>	18.3cm 7.2in	18.3cm 7.2in	18.3cm 7.2in
Width <sup>2</sup>	32.5cm 12.8in	26.4cm 10.4in	18.3cm 7.2in
Depth <sup>2</sup>	19.8cm 7.8in	19.3cm 7.6in	18.9cm 7.4in
<b>Transducer</b>			
Geometry	2 beams, ±20°	2 beams, ±20°	2 beams, ±20°
Beam width	2.2°	1.5°	1.5°

<sup>1</sup> Maximum range depends on a number of factors, including temperature, salinity, suspended materials, etc.

<sup>2</sup> Mounted horizontally.



### Standard Sensors

<b>Acoustic stage:</b>	Range 0.1-10.0m Accuracy ±0.25% Resolution 0.01cm
<b>Pressure:</b>	Range 0.1-10 m Accuracy 0.5% Resolution 0.1cm
<b>Temperature:</b>	Range -4°-40°C Accuracy ±0.2°C Resolution 0.01°

### 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

<b>Voltage:</b>	9-18VDC
<b>Max. current:</b>	1.5A

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



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

#### RD Instruments

9855 Businesspark Avenue, San Diego, CA 92131 USA  
Tel. +1-858-693-1178 • Fax +1-858-695-1459 • E-mail: [sales@rdinstruments.com](mailto:sales@rdinstruments.com)

RD Instruments Europe, Les Nertières, 5 allée Hector Pintus, 06610 La Gaude, France  
Tel. +33-49-211-0930 • Fax +33-49-211-0931 • E-mail: [rdi@rdieurope.com](mailto:rdi@rdieurope.com)

