

ChannelMaster H-ADCP

AFFORDABLE, 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 Teledyne 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.

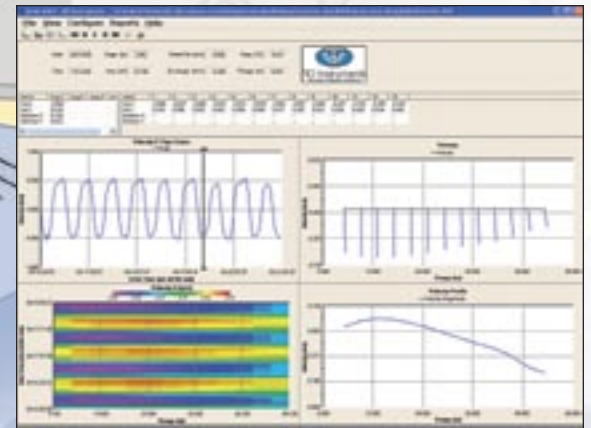
Only ChannelMaster provides:

- Teledyne 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 300m (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.

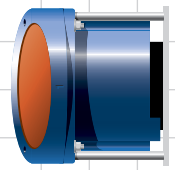


 **TELEDYNE
RD INSTRUMENTS**

A Teledyne Technologies Company

ChannelMaster H-ADCP

HORIZONTAL ACOUSTIC DOPPLER CURRENT PROFILER



Technical Specifications

Model	300	600	1200
Velocity Profiling (BroadBand mode)			
# 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) ¹	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

Physical Properties

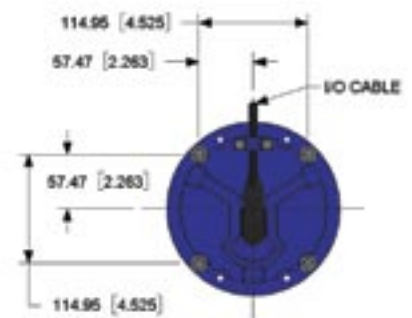
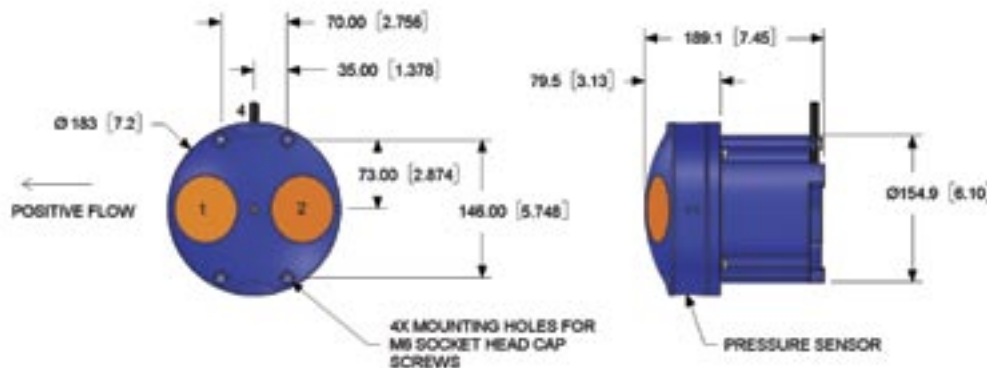
Weight in air	6.8kg 15lb	4.76kg 10.5lb	3.4kg 7.5lb
Weight in water	3.17kg 7lb	2 kg 4.4lb	1.58kg 3.5lb
Height ²	18.3cm 7.2in	18.3cm 7.2in	18.3cm 7.2in
Width ²	32.5cm 12.8in	26.4cm 10.4in	18.3cm 7.2in
Depth ²	19.8cm 7.8in	19.3cm 7.6in	18.9cm 7.4in

Transducer

Geometry	2 beams, ±20°	2 beams, ±20°	2 beams, ±20°
Beam width	2.2°	1.5°	1.5°

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

² Mounted horizontally.



Standard Sensors

Acoustic stage:	Range 0.1-10.0m Accuracy ±0.25% Resolution 0.01cm
Pressure:	Range 0.1-10 m Accuracy 0.5% Resolution 0.1cm
Temperature:	Range -4° to 40°C Accuracy ±0.2°C Resolution 0.01°
Tilt (2 axes):	Range ±10° Accuracy ±0.2° @ 0°, ±0.5° @ 10° Resolution 0.01°

Communications

RS-232 with SDI-12, 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:	9-18VDC
Max. current:	1.5A

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



TELEDYNE
RD INSTRUMENTS

A Teledyne Technologies Company

www.rdinstruments.com

Teledyne 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

Les Nertieres 5 Avenue Hector Pintus 06610 La Gaude France

Tel. +33-49-211-0930 • Fax +33-49-211-0931 • E-mail: rdi@rdieurope.com

