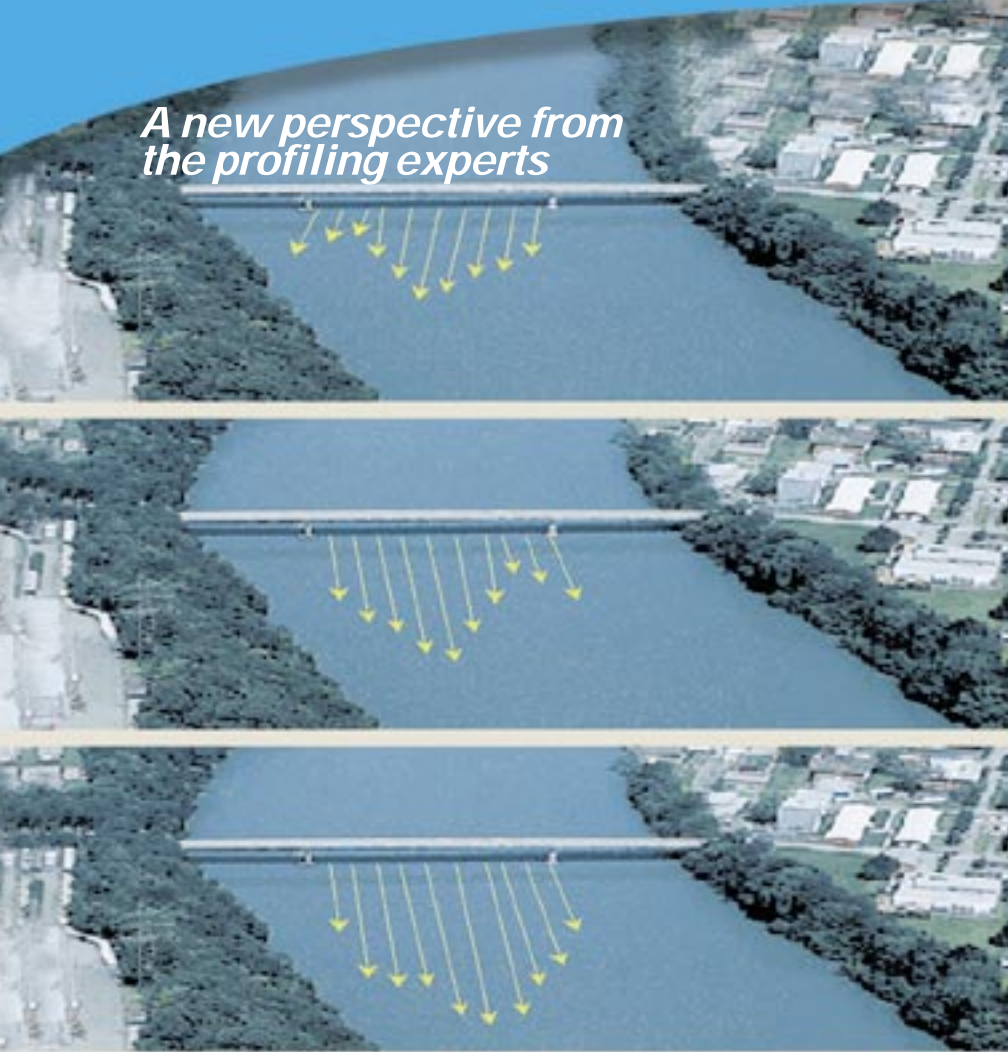


Workhorse H-ADCP *Horizontal ADCP*

*A new perspective from
the profiling experts*



RD Instruments' new Horizontal Acoustic Doppler Current Profiler (H-ADCP) is a monitoring system that 'looks' horizontally across a water body, measuring water currents at numerous locations. The H-ADCP uses patented BroadBand signal processing to obtain the best combination of range, resolution and data quality compared with NarrowBand solutions. The new system measures water velocities up to 5m per second at as many as 128 individual points, giving complete flow structure centered at one depth.

Use H-ADCP:

- In estuaries for defining complex circulation patterns and lateral mixing.
- In ports and harbors where a pier-mounted instrument monitors shipping channels for navigation and safety.
- In rivers where the H-ADCP monitors discharge rates and obtains horizontal flow profiles.
- On oil platforms, seismic vessels and in hydroelectric and tidal power plants.

What sets us apart:

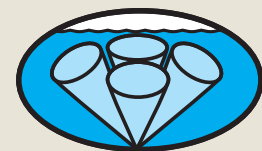
Increased Range—Narrow $<1^\circ$ beam width ensures maximum profiling range while reducing the probability of contamination caused by surface and/or seabed reflections.

Increased Data—The H-ADCP provides users with the capability to measure from 1 to 128 points, greatly increasing information available from one instrument. This represents an exponential performance increase over existing technology.

Improved Security—RDI's three beam configuration provides a third beam for data quality assurance, as well as data redundancy in the event of a blocked or damaged beam, ensuring the unmatched delivery of accurate data.

Rugged Construction—Durable design, including an aluminum transducer and housing, withstands deployments in hostile environments.

Ease of Operation—Units are pre-configured for simple operation, ensuring optimum performance. Users get help from easy-to-use installation guide and intuitive Windows™ software.

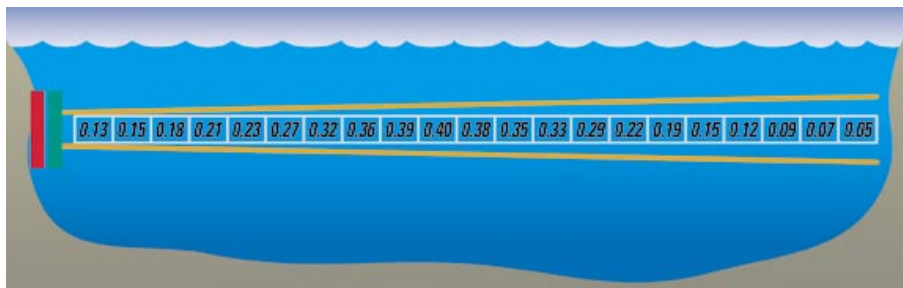


RD Instruments

Acoustic Doppler Solutions

Workhorse H-ADCP Horizontal ADCP

600 kHz or 300 kHz



H-ADCP looks horizontally across a water body, measuring water currents at numerous locations.

RDI horizontal systems are presently in operation worldwide. Here are examples of real data from the DHI Water and Environment website www.dhi.dk. They show real data from DHI's implementation on a bridge in Denmark, where the span of the bridge is approximately 100m. The output from multiple bins more accurately describes the changing dynamics in the river than other systems.

Range

Typical ranges depending on water conditions:

	Max. range
600kHz	70-85m
300kHz	240-300m

Profile Parameters

Velocity accuracy:

600: $\pm 0.25\%$ of water velocity relative to the H-ADCP $\pm 2.5\text{mm/s}$.

300 (optional): $\pm 0.5\%$ of the water velocity relative to the H-ADCP $\pm 5\text{mm/s}$.

Velocity resolution: 1 mm/s

Velocity range: $\pm 5\text{m/s}$ (default) $\pm 10\text{m/s}$ (maximum)

Number of depth cells: 1-128

Transducer and Hardware

Beam width: $< 1^\circ$

Beam angle: 25°

Configuration: 3 beam, convex

Communications: Serial port is switch-selectable for RS-232 or RS-422, ASCII or binary output at 1200-115,200 baud

Standard Sensors

Temperature (mounted on transducer)

- Range: -5° to 45°C
- Precision: $\pm 0.4^\circ\text{C}$
- Resolution: 0.01°

Compass (fluxgate type)

- Accuracy: $\pm 2^\circ$
- Precision: $\pm 0.5^\circ$
- Resolution: 0.01°
- Maximum tilt: 15°

Upgrades Available

- 16-224Mb PCMCIA memory cards
- Pressure sensor

For More Information

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

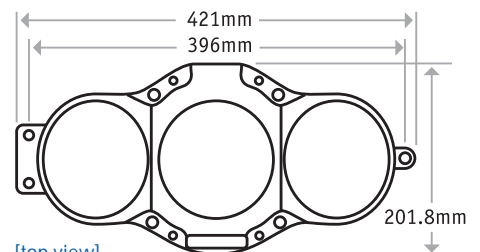
Internet: www.rdinstruments.com

RD Instruments

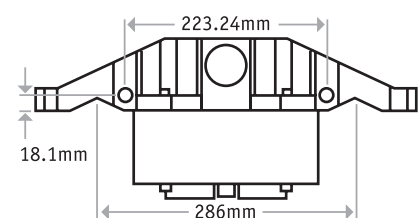
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E-mail: sales@rdinstruments.com

Dimensions

[600kHz]



[top view]



[side view]