# Velocity SOFTWARE

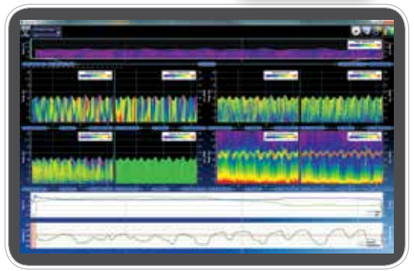
Sentinel V's latest **Velocity** and **ReadyV** software are sure to become the industry benchmarks, with their powerful features, multiple views, touch-screen capability, and highly intuitive interface. If you can navigate a smart phone—you're ready for Velocity and ReadyV.

## ReadyV: Pre-Deployment Software


Our pre-deployment software is an all-purpose, real-time planning tool with an interface simple enough for a brand new ADCP user, yet powerful enough for the seasoned pro. Available via desktop or mobile app.

**Features include:**

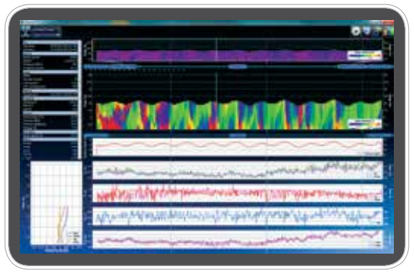
- **Onboard Software.** The software required to configure, deploy, and recover your data is resident on the ADCP. That means no software to install, no administrator access needed to acquire, and no need for a dedicated computer. All that's required to communicate with your ADCP is a wireless computer of opportunity and web browser. This feature also allows you to keep your system's software and firmware up to date.
- **Intuitive Interface.** ReadyV delivers a user-friendly interface that literally steps you through your pre-deployment planning to configure the Sentinel V for deployment, running all pre-deployment tests, and starting the deployment properly configured for the task at hand.
- **Onboard Maintenance Log.** When was the last time the compass was calibrated? The batteries changed? O-rings replaced? Now this information and more can be stored on the Sentinel V itself, for ready access whenever you are connected to the instrument.



## Velocity: Post-Processing Software

Sentinel V's latest ADCP post-processing software provides users with turnkey processes and tools that will wow even our most seasoned ADCP veterans. The features are too many to list in this small space, but highlights include:

- Intricate 2D and 3D graphs including:
  - Time series graphs
  - Contour graphs
  - Profile graphs
  - 3D surface/contour/profile graphs
- Basic/conventional processing features including averaging, coordinate transforms, and velocity reference
- Comprehensive, advanced, and fully customizable data processing engine
- Comprehensive log of all loaded and recent data files
- Export to multiple output formats



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# Teledyne RD Instruments

## Measuring Water in Motion and Motion in Water

### SENTINEL V—NEXT GEN ADCP Product Line

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SENTINEL V
TELEDYNE RD INSTRUMENTS

# The Next Generation of ADCP Products

**The self-contained Sentinel V is the first in a series of exciting, next-gen Acoustic Doppler Current Profilers (ADCPs) to be released by Teledyne RD Instruments. Building upon the unparalleled success of our Workhorse ADCP products, our next generation V products offer a new level of features and versatility.**

**With profiling ranges from <1m to >150m and a 200m depth rating, the Sentinel V ADCP is ideally suited for a wide variety of coastal applications.**

**The lightweight and adaptable Sentinel V is easily deployed on buoys or mounted on the seafloor. Real-time data can be transmitted to shore via a cable link or acoustic modem, or data can be stored internally for short or long-term deployments. With a pressure sensor delivered standard in Sentinel V, this highly versatile tool can be easily upgraded via an electronic firmware update to calculate directional and non-directional wave parameters.**

## Awesome Versatility for all Coastal Applications…

## A comprehensive feature set that will handle anything your operational needs can throw at it:

### Multiple simultaneous sampling strategies

Two users with different interests in the same environment can share a single ADCP to accomplish the data collection goals of both, essentially doubling hardware output.

### High-speed wireless data download

Lose the cables. Wireless functionality allows you to fly through your data download and instrument reconfiguration, saving you time and money. This feature also allows for wireless setup and software/firmware updates.

### Record every measurement

There's no need to decide in advance what time scales are of interest. Sentinel V has the memory and ability to record all raw data, allowing you to investigate features of interest over time scales that you can determine at a later date.

### Multiple bandwidths

User-selectable bandwidth options offer you the best of both worlds: wide bandwidth for high resolution and low noise measurements, narrow bandwidth for equal accuracy with extended profiling range.

### Off-the-shelf battery option

Now you can gear up for your deployment using supplies found at the corner store. The Sentinel V is available in two configurations. For short term deployments (<30 days), or when your sampling strategy is spread out over longer periods of time, Sentinel V can be designed to accept standard alkaline D batteries, resulting in reduced operating costs and increased convenience. For longer deployments, you can order an optional external battery case for extended life, or purchase a Sentinel V configured with a standard internal battery pack.

### 5 beams: Sentinel V data redundancy and enhanced measurements

An integrated 5th beam provides a direct vertical velocity measurement and a 5th range to the surface measurement, allowing for enhanced turbulence and waves measurement capabilities.

- Measure vertical velocity profile
- Measure high-resolution echo intensity profile
- Measure range to the surface
- Allows turbulence measurements
- Allows error velocity validation with 3 beam solutions
- Allows redundant error velocity validation with 4 beams
- Allows robust zero-up waves parameter

### Captured O-rings

A dovetail groove retains the O-ring, which "snaps" into place so you know it's properly seated.

### Flood-resistant electronics chamber

Separate battery and electronics chambers help to safeguard your system's electronics.

### Increased portability

Grab it and go! The Sentinel V is smaller than its Workhorse predecessor and includes a convenient removable carrying handle. Cradling is for babies—not instruments.

### One-touch activation

Start your ADCP with a simple touch of your finger. The instrument will give an audible signal to know you've turned it on, and will time out to save battery life if not engaged.

### Individual transducers

Sentinel V's transducers are compact, self-contained discs, which allows for quick, cost effective repairs at our factory if damage occurs in the field.