

Express ADCP Configuration

SELF-CONTAINED ADCP

Express ADCP—High Quality Data/Low Total Cost of Ownership

Now, even on a limited budget, you can experience the quality and proven benefits of a Teledyne RD Instruments Broadband Acoustic Doppler Current Profiler (ADCP)—backed by our legendary worldwide customer service and support.

The Express configuration, priced 30% below our Workhorse family of ADCPs, is ideally suited for basic current-profiling applications. As your needs progress, the Express can be easily upgraded to include the full spectrum of Workhorse flexibility and product features.

For moored current profiling applications without demanding requirements, the Express configuration may be an ideal, economic alternative to our Workhorse ADCPs. The self-contained Express Sentinel is designed to satisfy the needs of scientists, engineers, and managers who must reliably collect low-noise current profiles, with a limited number of depth cells, from stationary platforms.



- **Data quality.** *The Express Sentinel includes an abbreviated menu of operational choices, while retaining Teledyne RDI's hallmarks of unmatched Broadband data quality and ADCP reliability.*
- **Accuracy.** *The Express Sentinel provides an accuracy of 0.8% with temporal update rates of 5 minutes (minimum).*
- **Upgradable.** *As your needs change, the Express Sentinel can be upgraded to a standard Workhorse ADCP, providing you with the capability for moving boat surveys, directional wave measurements or the ability to quantify turbulence parameters.*



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MEASURING WATER IN MOTION

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Catalog #	Description
XPRSZ1200	1200kHz Express Sentinel Self-contained ADCP (includes 128mB memory card, internal alkaline battery pack)
XPRS600	600kHz Express Sentinel Self-contained ADCP (includes 128mB memory card, internal alkaline battery pack)

How does the Express Configuration compare to the Workhorse Sentinel?

Feature	Express Sentinel	Workhorse Sentinel
Accuracy	0.8%	0.3%
Ensemble rate	5, 6, 10, 20, 30 minutes	0.5 seconds to 24 hours
Number of pings/ensemble	100-250*	1-16384
Ping rate	1 to 7 seconds*	0.5 seconds to 23 hours
Bin size	0.25 to 2m for 1200kHz 0.5 to 4m for 600kHz	0.04 to 16m
Burst sample	No*	Yes
Sync. with sensors/sonar	No*	Yes
Polled mode	No*	Yes
Output data format	PDO only	multiple output formats
Cable	Wet pluggable	Wet pluggable
Waves Array firmware upgrade (also requires pressure sensor)**	\$ option	\$ option
Turbulence upgrade (WM12 or WM11)	\$ option	\$ option
Bottom tracking upgrade	\$ option	\$ option
Waves Array firmware and bottom tracking upgrade**	\$ option	\$ option
Additional 128mB memory card	\$ option	\$ option
Add pressure sensor at time of purchase	\$ option	\$ option
Add pressure sensor after purchase (requires return to Teledyne RDI for installation)	\$ option	\$ option

* If the Waves Array, bottom-track, or turbulence upgrade is purchased, these parameters will also be restored to the capability of the Sentinel ADCP.

** A pressure sensor is normally required for use in the Waves Array application. The pressure sensor allows the ADCP to dynamically adjust the placement of the Waves Array so that it is as close to the surface as possible, providing improved high-frequency response.