

CastAway-CTD

WITH PROFILING AND ANALYSIS SOFTWARE



Reliable Data in Minutes

The CastAway®-CTD is a lightweight, easy to use instrument designed for quick and accurate conductivity, temperature, and depth profiles. Each cast is automatically referenced with both time and location using its built-in GPS receiver. The CastAway software displays profiles of the casts in addition to mapping the locations of the data collection points. Data integrate directly with RiverSurveyor Live and HYPACK® software, and can also be exported to MATLAB® for applying sound speed corrections.

The rugged, non-corrosive housing, AA battery power and computer-free operation reflect the technician-friendly pedigree of the CastAway-CTD.



Plots of conductivity, temperature, salinity and sound speed versus depth can be viewed immediately on color LCD screen



5Hz response and sampling rate, accurate to 0.1 (PSS-78), 0.05°C



Internal GPS and Bluetooth wireless data download



Fully compatible with the RiverSurveyor-Live, HydroSurveyor and HYPACK



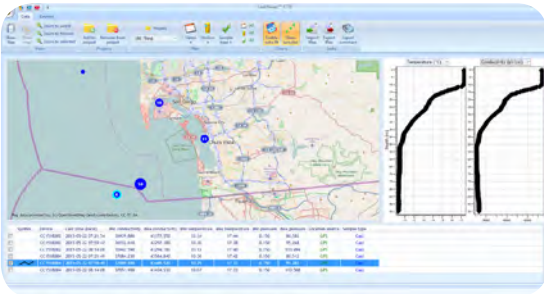
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CastAway-CTD

The CastAway-CTD Output Parameters

	Range	Resolution	Accuracy	Measured or Derived
Conductivity	0 to 100,000 $\mu\text{S}/\text{cm}$	1 $\mu\text{S}/\text{cm}$	$\pm 0.25\% \pm 5 \mu\text{S}/\text{cm}$	Measured
Temperature	-5° - 45° C	0.01° C	$\pm 0.05^\circ \text{C}$	Measured
Pressure	0 to 100 dBar	0.01 dBar	$\pm 0.25\% \text{FS}$	Measured
Salinity	Up to 42 (PSS-78)	0.01 (PSS-78)	± 0.1 (PSS-78)	PSS-78 ³
Sound Speed	1400 - 1730 m/s	0.01 m/s	$\pm 0.15 \text{ m/s}$	Chen-Millero ⁴
Density ¹	990 to 1035 kg/m^3	0.004 kg/m^3	$\pm 0.02 \text{ kg}/\text{m}^3$	EOS80 ⁵
Depth	0 to 100 m	0.01m	$\pm 0.25\% \text{FS}$	EOS80 ⁵
Specific Conductivity ²	0 to 250,000 $\mu\text{S}/\text{cm}$	1 $\mu\text{S}/\text{cm}$	$\pm 0.25\% \pm 5 \mu\text{S}/\text{cm}$	EOS80 ⁵
GPS			10 m	

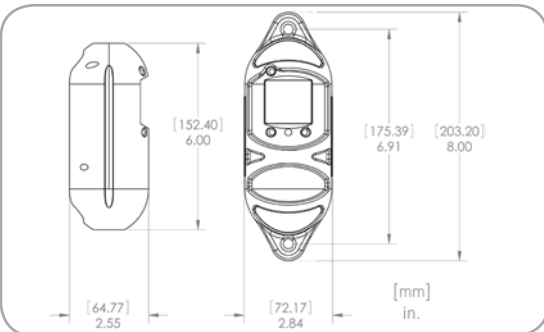
¹Based on temperature resolution and accuracy.
²Based on 100,000 $\mu\text{S}/\text{cm}$ at -5° C.
³1978 Practical Salinity Scale.
⁴Chen-Millero, 1977.
 Speed-of-sound in sea water at high pressures.
⁵International Equation of State for sea water (EOS-80).



Example of CastAway-CTD software



Rugged CastAway-CTD storage case



- Memory** 15 MB (750+ casts based on typical usage)
- Communications** Bluetooth class II, up to 10 m range
- Power** 2 "AA" alkaline batteries, 40 hours continuous use
- Data Output Format**
 - ASCII (CSV)
 - Hypack
 - MATLAB®
 - CARIS
- Environmental**
 - Depth range: 0-100 m
 - Use temperature: -5° to 45° C
 - Storage temperature: -10° to 50° C
- Sampling Modes**
 - Casting (up/down)
 - Point sample (moving the unit back and forth)
- Software**
 - Windows XP/Vista/8/10
 - Geo-referenced
 - Multi-language
 - Data plots, filtering, import/export
- Accessories**
 - Rugged plastic storage/shipping case
 - Polyurethane jacket
 - 15m deployment line
 - Bluetooth dongle
 - 4 "AA" alkaline batteries
 - Two locking carabiners
 - Three magnetic stylus pens
 - Cleaning brush
- Thermistor Response** Less than 200 ms (5 Hz)
- Sampling Rate** 5 Hz
- Weight**
 - In air: 1.0 lb (0.45 kg)
 - In water: 0.06 lbs (0.03 kg)