

SEALOGGER CTD



SEALOGGER CTD is the ideal research quality CTD profiling system for coastal, estuarine, and budget-minded deep water work. SEALOGGER CTD is battery powered and is typically used to record data in solid-state memory, eliminating the need for a large vessel, electrical sea cable, and on-board computer. All SEALOGGER CTDs can also operate in real-time, transmitting data via an opto-isolated RS-232 serial port.

STANDARD SENSORS

The basic SEALOGGER CTD consists of Sea-Bird's modular SBE 3F Temperature sensor, SBE 4 Conductivity sensor, SBE 5T Submersible Pump (same as those used on our premium SBE *9plus* CTD), and SBE 29 Temperature Compensated Strain-Gauge Pressure sensor; available in several depth ranges to suit the operating depth requirement.

OPTIONAL BOLT-ON SENSORS

SEALOGGER CTD's modular design makes it easy for users to add more sensors *without* sending it back to the factory. All SEALOGGER CTD's include interface electronics for optional fluorescence, transmissivity, dissolved oxygen, pH, PAR, and optical backscatter sensors.

COMPLETE SOFTWARE

Sea-Bird's SEASOFT (DOS/Windows) software package helps you spend less time getting measurements and processing data and more time on your science. Pre-deployment instrument set-up, real-time data acquisition, post-deployment data retrieval, data processing, and display are simple. SEASOFT's menu-driven user interface makes it easy to compute salinity, density, and sound velocity from the real-time or recorded CTD data. SEASOFT provides ASCII file creation, bin averaging, tabulation, color video graphing, hard copy plotting, and permanent data archival of dissolved oxygen, pH, transmissivity, PAR, and ORP (redox) as well as salinity, density, and sound velocity data. As always, SEASOFT is supplied at no extra charge.

OPERATION

SEALOGGER CTD's scan rate of 8 Hz provides good fine-scale measurement performance and recording endurance of up to 266 minutes with standard 1024K or up to 35 hours with 8MB optional memory. To optimize the use of memory space, SEALOGGER CTD is software configurable for any combination of sensors used. Recording endurance can be extended by programming the SEALOGGER CTD to average the 8 Hz data over longer intervals. 8 Hz data is also available in real-time and can be transmitted over cables up to 7000 meters long. Recorded data are transferred via RS-232 interface to a computer for processing using SEASOFT. Alkaline or rechargeable nickel-cadmium batteries can be used to provide up to 24 hours continuous operation depending on configuration. External power and two-way real-time communication can be provided by using the SBE 36 CTD Deck Unit and the Power Data Interface Module (PDIM).



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SEALOGGER CTD SPECIFICATIONS¹

	<u>Range</u>	<u>Accuracy</u>	<u>Resolution</u>
Conductivity (S/m)	0 to 7	± 0.0003	0.00004
Temperature (°C)	-5 to 35	± 0.002	0.0003
Pressure ²	20/100/350/ 1000/3500/ 7000 meters	± 0.1%	0.002%

¹ Specifications referenced to NIST traceable calibration and applying across the entire oceanographic range.

² Expressed in meters of deployment depth capability; accuracy and resolution as percent of full scale range.

AUXILIARY INPUTS

SEALOGGER CTD has seven 12 bit A/D input channels for optional auxiliary sensors: 4 single-ended, 2 differential (for fluorometer), and 1 log amplified (for PAR sensor).

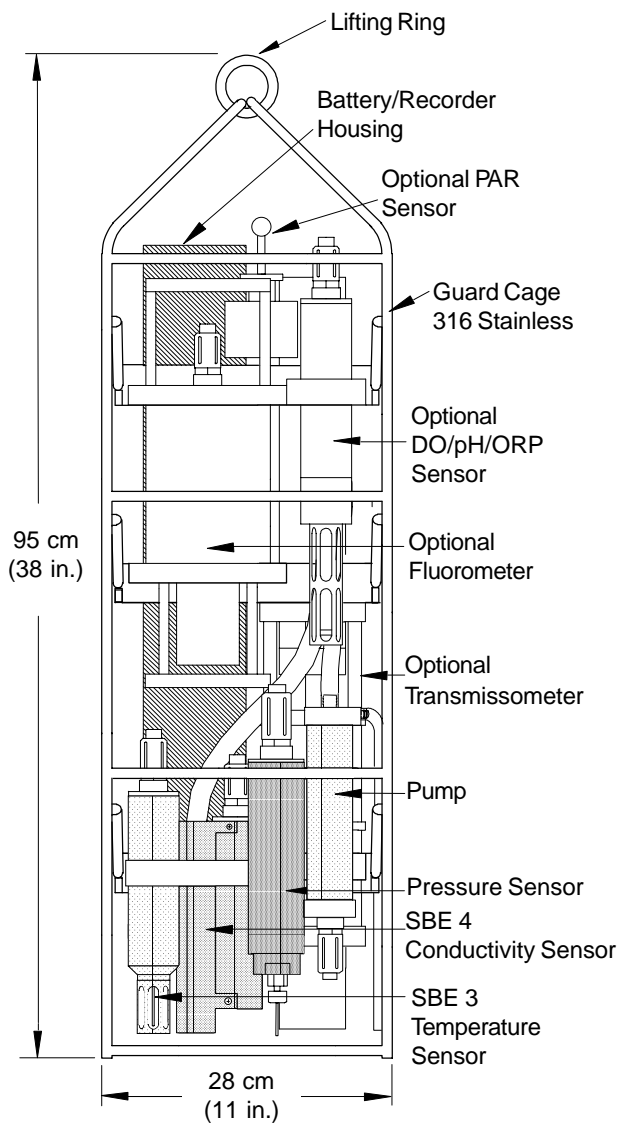
MEMORY AND COMMUNICATIONS

Memory Capacity is 1024K bytes standard (2, 4, or 8 MB optional). Communications Protocol is 600 to 38.4K baud (software selectable), 7 data bits, 1 stop bit, even parity. At maximum baud rate and 1024K byte memory, transfer time is approximately 10 minutes.

Each sample (scan) of temperature, conductivity, and pressure uses 8 bytes. Up to 7 auxiliary voltages can be logged, each requiring 1.5 bytes per sample. Maximum configuration of CTD and auxiliary voltages is 18.5 bytes per scan.

MECHANICAL

<u>Housing</u>	<u>Depth (m)</u>	<u>Material</u>	<u>Weight in air</u>
standard	600	acetal plastic	16.8 kg (37 lbs)
optional	3400	6061 aluminum	19.4 kg (43 lbs)
optional	6800	7075 aluminum	19.4 kg (43 lbs)
optional	10500	6AL4V titanium	29.8 kg (66 lbs)



Shaded Modules are included in basic SEALOGGER CTD



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