

The SBE 25 SEALOGGER CTD is the ideal research-quality CTD profiling system for coastal, estuarine, and budget-minded deep-water work. The SBE 25 is battery powered and is typically used to record data in memory, eliminating the need for a large vessel, electrical sea cable, and on-board computer. All SBE 25s can also operate in real-time, transmitting data via an opto-isolated RS-232 serial port.

## SENSORS

Temperature and conductivity are measured by our modular SBE 3F Temperature sensor and SBE 4 Conductivity sensor. The SBE 25 also includes the SBE 5P (plastic) or 5T (titanium) Submersible Pump and TC Duct. The pump-controlled, TC-ducted flow configuration significantly reduces salinity spiking caused by ship heave, and in calm waters allows slower descent rates for improved resolution of water column features. Pressure is measured by the modular SBE 29 Temperature Compensated Strain-Gauge Pressure sensor (available in eight depth ranges to suit operating depth requirement).

The SBE 25's modular design makes it easy for users to add more sensors *without* sending it back to the factory. All SBE 25s include interface electronics for optional dissolved oxygen, pH, fluorescence, transmissivity, PAR, and optical backscatter sensors.

## OPERATION

The SBE 25's scan rate of 8 Hz provides good fine-scale measurement performance and recording endurance of up to 35 hours with standard 8 MB memory. To optimize the use of memory space, the SBE 25 is software configurable for any combination of sensors used. Recording endurance can be extended by programming the SBE 25 to average the 8 Hz data over longer intervals. Simultaneous with recording, real-time data can be transmitted over single-core, armored cable directly to your PC's serial port (maximum transmission distance dependent on number of auxiliary sensors, baud rate, and cable properties). Recorded data are transferred via RS-232 interface to a computer for processing. Alkaline or rechargeable Nickel Metal Hydride or Nickel-Cadmium batteries can be used. External power and two-way real-time communication over 10,000 meters of cable can be provided with the SBE 36 CTD Deck Unit and the Power and Data Interface Module (PDIM).

## CONFIGURATION AND OPTIONS

A standard SBE 25 is supplied with:

- Plastic housing for depths to 600 meters
- 8 Mbyte memory
- 9 D-size alkaline batteries (Duracell MN 1300, LR20)
- SBE 3F temperature, SBE 4 conductivity, and SBE 29 pressure sensor
- SBE 5P plastic pump (for depths to 600 meters) and T-C Duct
- Glass-reinforced epoxy bulkhead connectors
- Stainless steel cage

Options include:

- Aluminum housing for 6800 meter depths
- SBE 5T titanium pump in place of SBE 5P plastic pump
- Wet-pluggable MCBH series connectors
- Auxiliary sensors for Dissolved Oxygen, pH, fluorescence, radiance (PAR), light transmission, and optical backscatter (turbidity)
- Nickel Metal Hydride (NiMH) batteries and charger

## SOFTWARE

SEASOFT® V2, our complete Windows 2000/XP software package, is included at no extra charge. Its modular programs include:

- SEATERM® — communication and data retrieval
- Seasave® — real-time data acquisition and display
- SBE Data Processing® — filtering, aligning, averaging, and plotting of CTD and auxiliary sensor data and derived variables



## SPECIFICATIONS

### Measurement Range

Temperature	-5 to +35 °C
Conductivity	0 to 7 S/m
Pressure <sup>1</sup>	0 to 20/100/350/600/1000/2000/ 3500/7000 meters

### Initial Accuracy

Temperature	0.002 °C
Conductivity	0.0003 S/m
Pressure	0.1% of full scale range

### Resolution

Temperature	0.0003 °C
Conductivity	0.00004 S/m
Pressure	0.015% of full scale range

<sup>1</sup> Expressed in meters of deployment depth capability.

## 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).

## BATTERY ENDURANCE (NOMINAL)

Battery endurance is approximately 24 hours with standard alkaline batteries, 17 hours with optional NiMH batteries, or 8 hours with optional Ni-Cad batteries.

## MEMORY AND COMMUNICATIONS

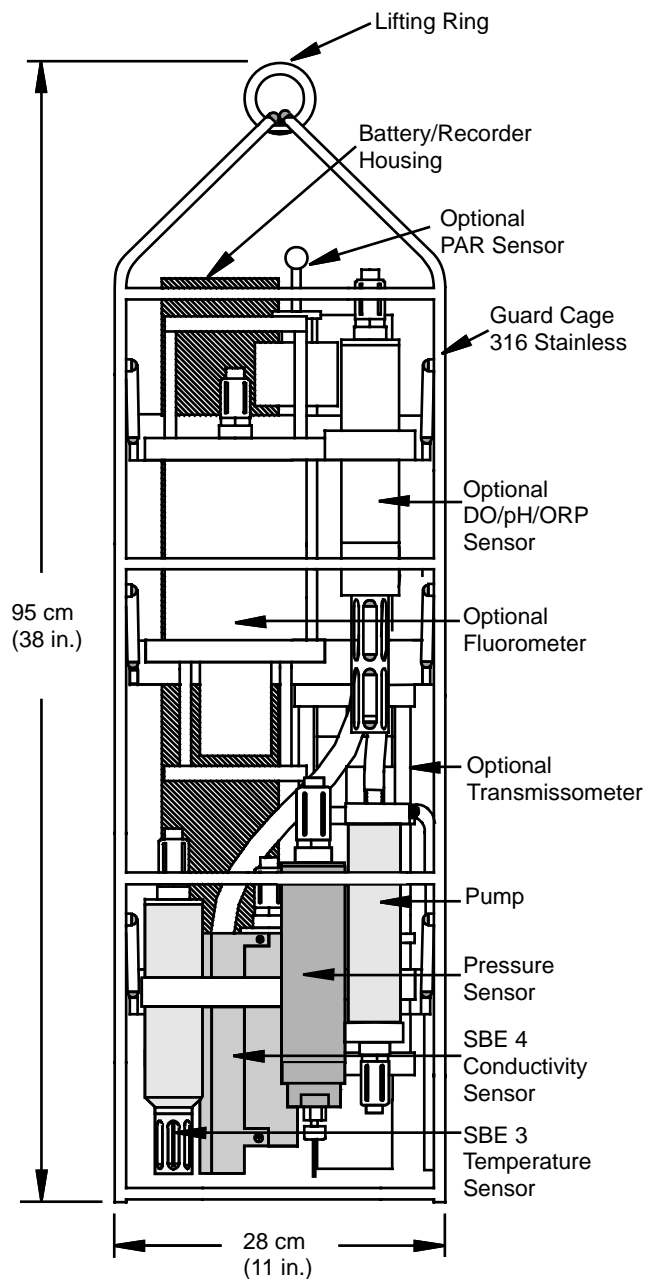
Memory capacity is 8 MByte. Communications protocol is 600 to 38.4K baud (software selectable), 7 data bits, 1 stop bit, even parity. At maximum baud rate and 8 MByte memory, transfer time is approximately 80 minutes.

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

Housing	Depth (m)	Material	Weight in air <sup>1</sup>	Weight in water <sup>1</sup>
standard	600	acetal plastic	16.6 kg (37 lbs)	
optional	6800	7075 aluminum	19.4 kg (43 lbs)	10.2 kg (23 lbs)

<sup>1</sup> Including all standard components and cage.



Shaded Modules are included in basic SEALOGGER CTD