

## SBE 25plus Sealogger CTD

The SBE 25plus Sealogger is the ideal research-quality CTD profiler for coastal, estuarine, and deep-water deployments. The battery-powered 25plus samples at 16 Hz and records data in memory, eliminating the need for a large vessel, electro-mechanical sea cable, and on-board computer, and can also transmit data in real-time. Pump-controlled, T-C ducted flow minimizes salinity spiking caused by ship heave and allows for slow descent rates without slowing sensor responses, improving dynamic accuracy and resolving small scale structure in the water column. The 25plus supports numerous auxiliary sensors with eight A/D channels and two RS-232 data channels, with enough power for power-hungry sensors such as nitrate (e.g., Satlantic SUNA) and CO<sub>2</sub>. The alkaline battery pack provides power for up to 55 hours of profiling. The unique end cap design provides easy access to bulkhead connectors, simplifying the addition and removal of sensors.

The 25plus is frequently used autonomously, recording data internally. It can also provide real-time acquisition and display over short cables via the RS-232 interface; a load-bearing cable for hand-hauled, real-time profiling is available. External power and communication over 10,000 m of single-core, armored cable can be provided with the SBE 36 Deck Unit and PDIM. The 25plus is easily integrated with a Sea-Bird Water Sampler; both real-time and autonomous auto-fire operations are possible.



## Features

- SBE 3F Temperature sensor, SBE 4C Conductivity sensor, strain-gauge Pressure sensor.
- Channels for up to ten auxiliary sensors (eight voltage output sensors and two RS-232 serial output sensors).
- RS-232 interface, internal memory, and internal alkaline battery pack (can be powered externally).
- Pump-controlled, T-C ducted flow to minimize salinity spiking.
- Upload via external bulkhead connector or fast upload of large data sets via internal USB connector.
- Depths to 600 or 6800 m.
- Stainless steel protection cage.
- Seasoft® V2 Windows software package (setup, data upload, real-time data acquisition, and data processing).
- Newest version of our Sealogger, field-proven since 1989.
- Five-year limited warranty.

## Components

- Unique internal-field conductivity cell permits use of T-C Duct, minimizing salinity spiking.
- Aged and pressure-protected thermistor has a long history of exceptional accuracy and stability.
- Strain-gauge pressure sensor with temperature compensation is available in eight ranges (to 7000 m).
- Pump runs continuously, providing correlation of CTD and plumbed auxiliary sensor measurements.

## Options

- Plastic (600 m) or aluminum (6800 m) housing.
- XSG/AG or wet-pluggable MCBH connectors.
- SBE 5P (600 m) or SBE 5T (10,500 m) pump.
- Sea-Bird Scientific auxiliary sensors — dissolved oxygen, pH, fluorescence, oil, radiance (PAR), light transmission, turbidity, nitrates, etc.
- Auxiliary sensors from other manufacturers — altimeter, CO<sub>2</sub>, etc.
- Load-bearing underwater cable for hand-hauled, real-time profiling.
- SBE 36 CTD Deck Unit & PDIM or SBE 33 Deck Unit & Sea-Bird water sampler (real-time operation on single-core armored cable to 10,000 m).
- Plastic shipping case.

## Measurement Range

Conductivity	0 to 7 S/m
Temperature	-5 to 35 °C
Pressure	0 to 20 / 100 / 350 / 600 / 1000 / 2000 / 3500 / 7000 m

## Initial Accuracy

Conductivity	± 0.0003 S/m
Temperature	± 0.001 °C
Pressure	± 0.1% of full scale range

## Resolution

Conductivity	0.00004 S/m
Temperature	0.0003 °C
Pressure	0.002% of full scale range

## Sampling Speed

16 Hz (16 samples/sec)

## Memory & Data Storage

2 GByte non-volatile FLASH  
(~ 1320 hours of data from T, C, P, & 8 auxiliary voltage sensors; auxiliary serial sensor data is sensor dependent)

## Power Supply & Consumption

12 alkaline D-cell battery pack, 55 hours CTD profiling (see manual)

## Optional External Power

14 - 20 VDC; consult factory for required current

## Auxiliary Sensors

Power out up to 1.2 A across all channels at 12 VDC (1 A maximum per channel); Voltage sensor A/D resolution 16 bits and input range 0-5 VDC

## Housing, Depth Rating, & Weight (with pump and cage)

Acetal Copolymer Plastic, 600 m,  
In air 20.0 kg, In water ~ 11.5 kg  
7075 Aluminum, 6800 m,  
In air 22.5 kg, In water ~ 13.5 kg

## Cage

In air 6.7 kg, In water ~ 5.9 kg

