

## CTD Profiling Instruments



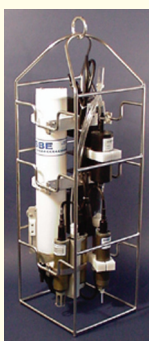
### SBE 911plus CTD

World's most accurate — used by most leading oceanographic institutions, and known for superior performance, reliability, and ease-of-use. Modular C and T sensors with interface for redundant pair, Digiquartz pressure sensor, pump-controlled *TC-Ducted Flow*, 24 Hz sampling, 8 A/D channels for auxiliary sensors, and water sampler control. Real-time operation with 11plus Deck Unit, or autonomous operation with SBE 17plus V2 SEARAM (provides power and memory). **Accuracy** 0.0003S/m, 0.001°C, 0.015% full scale pressure; **Resolution** 0.00004S/m, 0.0002°C, 0.001% full scale pressure.



### SBE 25 SEALOGGER CTD

Battery-powered, internally recording CTD for high accuracy and resolution. Utilizes same modular C and T sensors used on 9plus, modular strain gauge pressure sensor, 8 Hz sampling, memory, pump-controlled *TC-Ducted Flow*, and 7 A/D channels for auxiliary sensors. Simultaneous with data recording, real-time data can be transmitted when interfaced with SBE deck unit. **Accuracy** 0.0003S/m, 0.002°C, 0.1% full scale pressure; **Resolution** 0.00004S/m, 0.0003°C, 0.015% full scale pressure.



### SBE 19plus V2 SEACAT Profiler CTD

Economical, battery-powered, internally recording mini-CTD ideal for basic hydrography, fisheries research, environmental monitoring, and sound velocity profiling. 4 Hz sampling, 6 A/D and 1 RS-232 channel for auxiliary sensors, memory, and pump-controlled *TC-Ducted Flow*. Simultaneous with data recording, real-time data can be transmitted when interfaced with SBE deck unit. **Accuracy** 0.0005S/m, 0.005°C, 0.1% or 0.02% full scale pressure; **Resolution** 0.00005S/m, 0.0001°C, 0.002% or greater full scale pressure.



### SBE 49 FastCAT CTD Sensor

For towed vehicle, ROV, AUV, autonomous profiling applications. 16 Hz sampling, and pump-controlled *TC-Ducted Flow*. Real-time RS-232 data. No memory, batteries, or auxiliary sensor support. **Accuracy** 0.0003S/m, 0.002°C, 0.1% full scale pressure; **Resolution** 0.00005S/m, 0.0001°C, 0.002% full scale pressure.



### SBE 52-MP Moored Profiler CTD (optional DO) Sensor

For moored vertical profile measurements. 1 Hz sampling, and pump-controlled *TC-Ducted Flow*. Real-time data via RS-232 or logic level serial. No memory or batteries; supports additional dissolved oxygen sensor only. **Accuracy** 0.0003S/m, 0.002°C, 0.1% full scale pressure; **Resolution** 0.00005S/m, 0.0001°C, 0.002% full scale pressure.



### Glider Payload CTD (optional DO)

Modular, low-power, high-accuracy CTD for autonomous gliders. 1 Hz sampling, memory, and pump-controlled *TC-Ducted Flow*. No batteries or auxiliary sensor support (except dissolved oxygen). **Accuracy** 0.0003S/m, 0.002°C, 0.1% full scale pressure; **Resolution** 0.00001S/m, 0.001°C, 0.002% full scale pressure.



## Moored Time Series Instruments



### SBE 16plus V2 SEACAT C-T (optional P) Recorder

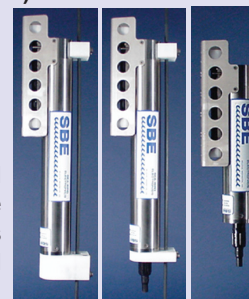
600m or 7000m housing. Internal batteries, memory, sampling intervals from 10 sec to 4 hours, 6A/D channels and 1 RS-232 channel for auxiliary sensors, bio-fouling protection. Real-time data via RS-232 (*optional RS-485*) or inductive modem (**IM**) interface along with recording. **Accuracy** 0.0005S/m, 0.005°C, 0.1% or 0.02% full scale pressure; **Resolution** 0.00005S/m, 0.0001°C, 0.002% or greater full scale pressure.

### SBE 37 MicroCAT C-T (optional P, DO) Recorder

250m or 7000m housing, memory, bio-fouling protection.

**IM** — inductive modem interface, batteries. **SM** — serial interface, batteries. **SI** — serial interface, externally powered. With integral pump for improved anti-foul protection and conductivity response (**IMP**, **SMP**, **SIP**). Pumped versions available with Integrated Dissolved Oxygen (**IMP-IDO**, **SMP-IDO**, **SIP-IDO**).

**Accuracy** 0.0003S/m, 0.002°C, 0.1% full scale pressure, 2% of oxygen saturation; **Resolution** 0.00001S/m, 0.0001°C, 0.002% full scale pressure, 0.035% of oxygen saturation.



### SBE 39 Temperature (optional P) Recorder

600m or 10500m housing. Internal battery, memory, RS-232 or inductive modem interface. Two thermistor options: internal (25 sec time constant) or external (0.5 sec time constant). **Accuracy** 0.002°C, 0.1% full scale pressure; **Resolution** 0.0001°C, 0.002% full scale pressure.

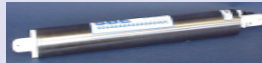
### SBE 26plus SEAGAUGE Wave and Tide Recorder

High-accuracy water level; 4 Hz wave burst sampling. Digiquartz pressure sensor, accurate clock, precision thermometer, optional conductivity sensor. Recording in memory; real-time tide data, and wave data and statistics. **Accuracy** 0.01% of full scale pressure; **Resolution** (with 45 psia sensor) Tide 0.2mm (1-minute integration) to 0.01mm (15-minute integration), Wave 0.4mm (0.25-sec integration) to 0.1mm (1-sec integration).



### SBE 53 BPR Bottom Pressure Recorder

Full ocean depth water level with extremely high resolution, accuracy, and stability. Precise and stable time base, low power frequency acquisition circuitry, Digiquartz pressure, precision thermometer. Recording in memory and real-time data. **Accuracy** 0.01% of full scale pressure; **Resolution** 0.045 ppm (0.3mm for 10,000 psia sensor, 1-minute integration).



# Sea-Bird Products Quick Guide



## Shipboard Thermosalinographs

Accurate, externally powered instruments for shipboard determination of sea surface (pumped) C and T.



### SBE 21 SEACAT

Simultaneously stores data in memory and provides real-time data over optically isolated RS-232 link. C and T, auxiliary sensor data from 4 A/D channels, remote temperature, and GPS data. **Specifications:** Accuracy 0.001S/m, 0.01°C primary, 0.001°C remote; Resolution 0.0001S/m, 0.001°C primary, 0.0003°C remote.

### SBE 45 MicroTSG

Compact instrument, no memory. Provides real-time data over RS-232 link. Accessory interface can append GPS and remote temperature data. **Specifications:** Accuracy 0.0003S/m, 0.002°C primary, 0.001°C remote; Resolution 0.00001S/m, 0.0001°C primary, 0.0003°C remote.



## Water Samplers

### SBE 32 Carousel

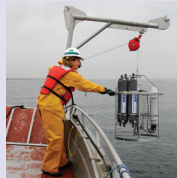


Industry standard carousel/rosette, in various sizes and configurations (12-36 bottles, 1.7-30 liters), to 10,500m. Compatible with 9*plus*, 19, 19*plus*, 19*plus* V2, and 25 CTDs. Real-time operation via SBE deck unit or self-contained autonomous operation via SBE

instrument that triggers bottle closures at pre-programmed depths.

### SBE 55 ECO

Small-boat sampler (3 -6 bottles, 4 liters), to 600m. Compatible with 19, 19*plus*, 19*plus* V2, and 25 CTDs. Closes bottles at pre-programmed depths, or real-time operation via SBE deck unit.



## Sea-Bird Website

[www.seabird.com](http://www.seabird.com) is a powerful resource, offering product specifications, technical documentation, scientific references, and user support. Download software and technical documentation, request a quote, or compare products and technologies on-line.

**SBE Sea-Bird Electronics, Inc.**  
Advancing the Science of Ocean Measurement

- Conductivity/Temperature/Depth (CTD) profilers
- Multi-bottle water samplers
- Moored CT(D) recorders & Wave/tide recorders
- Dissolved oxygen & other modular sensors
- Thermosalinographs
- Or see a list of products by model number

Sea-Bird Electronics Products Support Software Sales Service Search/Sitemap

Announcements / What's New

- Introducing SBE 37 MicroCAT moored CTDs with integrated Dissolved Oxygen
- Glider Payload CTD
- Introducing Underwater Inductive Modem Module
- Field Service Bulletins

- Oil Spill Information Center
- Sea-Bird Instructions / Recommendations
- Reference Materials
- Career Opportunities
- More ...

## Auxiliary Sensors

Sea-Bird provides CTDs integrated with a variety of auxiliary sensors. These complete packages simplify deployment, as components work together seamlessly. We also manufacture an assortment of modular sensors for other applications.

### Dissolved Oxygen

SBE 43 DO Sensor

### pH

SBE 18 pH Sensor  
SBE 27 pH/ORP Sensor



### Conductivity

SBE 4 Conductivity Sensor

### Temperature

SBE 3 series Oceanographic Temperature Sensors  
SBE 35 Deep Ocean Standards Thermometer  
SBE 35RT Digital Reversing Thermometer  
SBE 38 Digital Oceanographic Recorder

### Pressure

SBE 29 Strain Gauge Pressure Sensor  
SBE 50 Digital Oceanographic Pressure Sensor

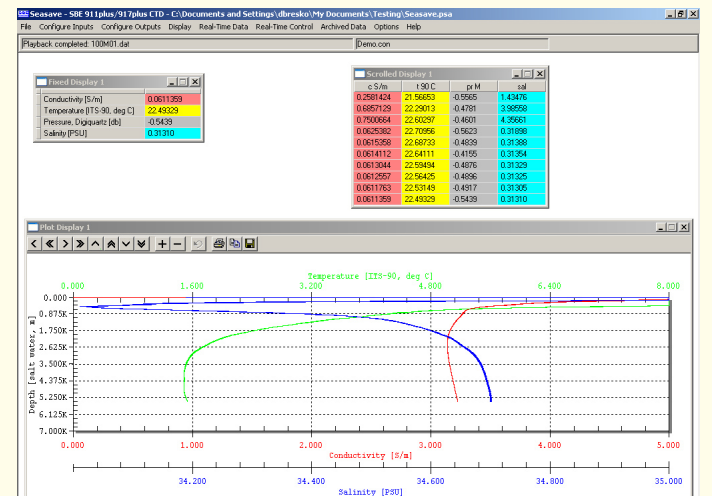
### Third Party Sensors

Transmissometers, fluorometers, turbidity sensors, altimeters, etc., produced by leading manufacturers of those products, integrated with our CTDs.



## SEASOFT® Software

SEASOFT is a powerful modular program for instrument communication, real-time data acquisition, and data retrieval, processing, display, and plotting. An extensive list of seawater parameters can be calculated (using UNESCO equations), dozens of auxiliary sensors are supported, and a variety of color plots can be graphed, printed, and exported in several common graphic file formats. SEASOFT is provided at no charge, and updates are easily downloaded from our website.



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