

SBE 55 ECO Water Sampler

The SBE 55 is the ideal small-boat water sampler for coastal, estuarine, and large lake ecological monitoring. The SBE 55 is light and economical and can be integrated with an SBE 19, 19plus, 19plus V2, 25, 25plus, or 49 CTD. It is available in a three- or six-bottle configuration with 4-liter sample bottles uniquely designed for the SBE 55.

The SBE 55 can operate autonomously on internal batteries and be programmed to close bottles at selected depths, allowing deployment using non-electrical wire or line. It also can be used with an SBE 33 Carousel Deck Unit for real-time CTD data acquisition and water sampling. Real-time operation requires an electro-mechanical cable and slip-ring equipped winch.



With one 3-position lanyard release assembly & 3 bottles

Features

- Small, lightweight, robust water sampler package with open structure for better flushing and less drag.
- Three or six 4-liter bottles; easy do-it-yourself expansion from a three- to a six-bottle system.
- Easy integration with Sea-Bird profiling CTDs.
- Autonomous (pre-programmed) or real-time data acquisition and water sampling; bottle firing in any order.
- Depths to 600 or 3500 m.
- Seasoft® V2 Windows software package (setup, data upload, real-time data acquisition and keyboard control of bottle firing, data processing).
- Five-year limited warranty.



Two 3-position lanyard release assemblies (for 6 bottles)

Components

- Electronics Control Module (ECM), one or two lanyard release assemblies, three or six 4-liter ECO sample bottles mounted in saddle brackets and fastened with band clamps, stainless steel guard frame with integral lifting bail, and mesh panels for mounting ECM, CTD, and other sensors that may be integrated with CTD (e.g., dissolved oxygen, fluorometer, turbidity, etc.).
- CTD mounting brackets and interface cable, auxiliary sensors, and (for real-time operation) SBE 33 Carousel Deck Unit are ordered separately.

Autonomous Operation

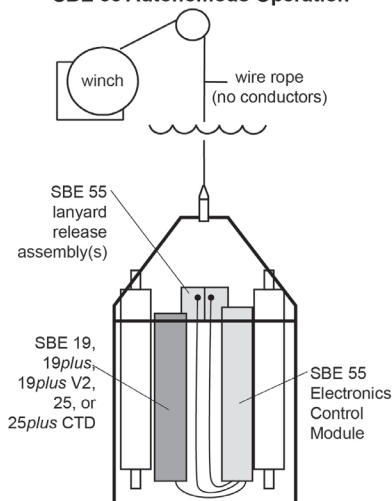
(no electromechanical cable required)

The Electronics Control Module provides power to and programmable control of the water sampler:

- With a CTD, the SBE 55 monitors pressure data and fires bottles at user-programmed pressures or depths, and records bottle number, firing confirmation, and 5 scans of CTD data for each bottle.
- With no CTD, the SBE 55 fires bottles at user-programmed elapsed times, and records bottle number and firing confirmation for each bottle.

Data from the CTD and the SBE 55 are uploaded at the end of a cast. Alkaline D-cells provide several months of daily operation (rechargeable Ni-MH batteries available).

SBE 55 Autonomous Operation



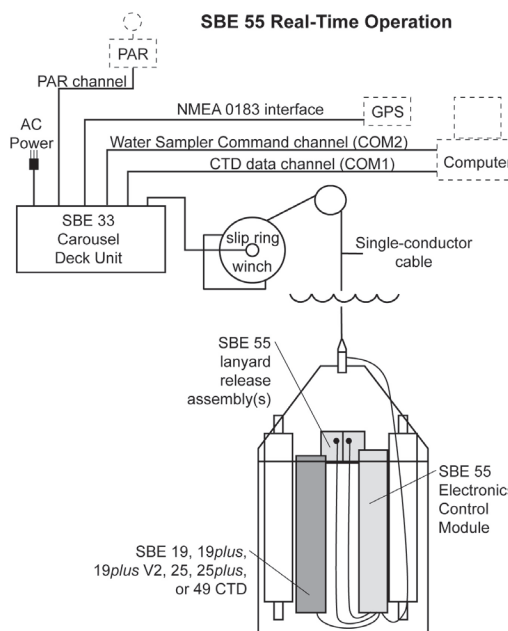
Real-Time Operation

(via electromechanical cable)

Connect the winch cable to the Electronics Control Module and connect the SBE 33 Deck Unit to AC power and the winch slip rings to enable real-time CTD data acquisition and water sampler control from your computer keyboard or Deck Unit panel controls:

- With a CTD, the SBE 33 provides power and real-time control to the SBE 55, and power and real-time telemetry for the CTD and auxiliary sensors.
- With no CTD, the SBE 33 provides power and real-time control to the SBE 55.

SBE 55 Real-Time Operation



Depth Rating

600 m (with plastic ECM) or 3500 m (with titanium ECM)

Materials

316 stainless steel, titanium, anodized aluminum, plastic

Weight (with 600 m plastic ECM, in air)

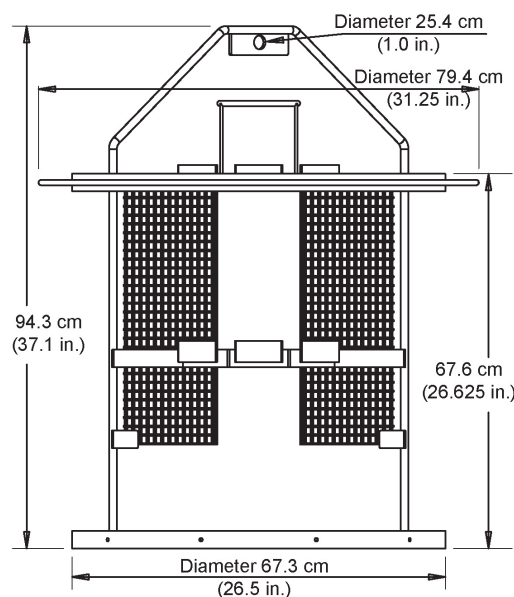
Note: 3500 m version approximately 7 kg heavier.

Without CTD or bottles – 30 kg
 With plastic SBE 19plus* & three 4-liter bottles – 51 kg empty
 With plastic SBE 19plus* & six 4-liter bottles – 60 kg empty, 84 kg full

*Note: 19plus and 19plus V2 weights are identical

Winch Cable Compatibility

Single or multi-core armored cable up to 10,000 m long with inner core resistance of 0 - 350 ohms



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