SEA-BIRD SCIENTIFIC

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# SBE 56
## Temperature Logger

The SBE 56 is a low-cost, high-accuracy, fast-sampling temperature recorder with USB interface, internal battery, and memory. Data are uploaded upon recovery via the internal USB connector, and output in engineering units (degrees C, date and time). The high stability preserves the initial calibration accuracy and means less frequent (or no) calibrations. The SBE 56 delivers this accuracy and stability at a price you would expect for recorders that are less accurate, and is ideal for countless underwater recording applications.

Memory capacity exceeds 15 million samples. Battery endurance varies, depending on the sampling scheme. Sampling every 0.5 sec, the SBE 56 can be deployed for 1 month (5.3 million samples). Sampling 4 times per minute, the battery lasts almost 2 years.

## Features

- Temperature and time, at user-programmable 0.5-sec to 9-hour intervals.
- Internal memory and battery.
- 1500 m plastic housing.
- Internal USB 2.0 interface; open housing and plug in cable for setup or data upload.
- Fast upload; approximately 40 minutes for full memory (> 15 million samples).
- Easy-to-use Java-based software (compatible with nearly any computer operating system) for setup, upload, and data plotting.
- Rigorous 11-point temperature calibration of each sensor.
- Five-year limited warranty.

## Components

- Aged and pressure-protected thermistor has a long history of exceptional accuracy and stability. The 0.5-sec time constant provides excellent accuracy (initial accuracy 0.002 °C) and resolution when fast sampling at 2 Hz (0.5 sec). It has exceptional stability; drift is typically less than 0.002 °C per year.
- High-accuracy real-time clock.

## Calibration

Cutting edge design and manufacturing make extreme accuracy and precision possible, but our world-leading calibration capability proves it. Every SBE 56 receives a rigorous 11-point temperature calibration in our state-of-the-art computer-controlled calibration bath systems, which are backed by in-house NIST-level metrology standards (water triple point and gallium melting point cells). Every SBE 56 is a true research-quality tool that elevates the quality of your work without straining your budget.

## Performance

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|---|---|
| Measurement Range | -5 to 45 °C |
| Initial Accuracy | ± 0.002 °C (-5 to to 35 °C); ± 0.01 °C (35 °C to 45 °C) |
| Typical Stability | 0.0002 °C/month (0.002 °C/year) |
| Resolution | 0.0001 °C |

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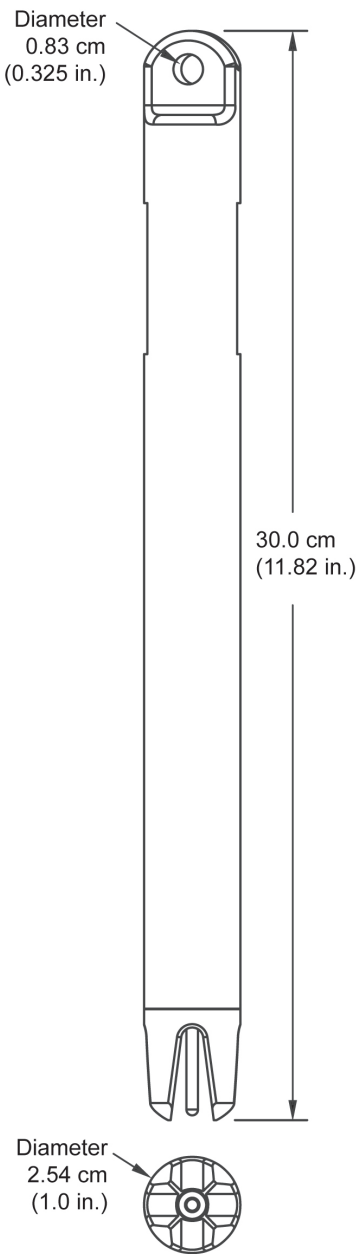
|---|---|
| **Clock Accuracy** | 5 sec/month |
| **Power Supply & Consumption** | 3.6 V AA Saft LS14500 Lithium Battery (non-hazardous)<br>5.3 million samples at 0.5-sec intervals (31 days)<br>5.3 million samples at 1-sec intervals (61 days)<br>4.9 million samples at 5-sec intervals (284 days)<br>4.1 million samples at 15-sec intervals (717 days) |
| **Memory Capacity** | 15.9 million samples |
| **Housing, Depth Rating, & Weight** | Plastic, 1500 m,<br>0.2 kg in air, 0.05 kg in water |




SBE 56, opening tool, desiccant, cable, and spare O-rings



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