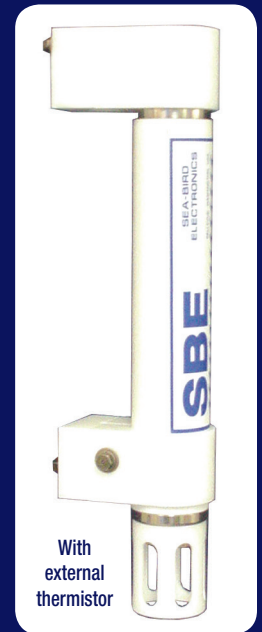


SBE 39-IM Temperature (Depth) Recorder

The SBE 39-IM is a high-accuracy, fast-sampling temperature (pressure optional) recorder with integrated Inductive Modem (IM) interface, internal batteries, and memory. The 39-IM is designed for long-duration deployments on moorings.

Data is recorded in memory and can be transmitted when polled through inductive modem telemetry. Measured data are output in engineering units.

Memory capacity exceeds 4.7 million samples without pressure, or 3.0 million samples with pressure. Battery endurance varies, depending on sampling scheme. Sampling every 2 minutes, the 39-IM can be deployed for 2 years (530,000 samples).



Features

- Moored Temperature, Pressure (optional), and time, at user-programmable 10-sec to 8.3-hour intervals.
- Inductive Modem (IM) interface.
- Internal memory and battery pack; internal RS-232 interface for fast upload.
- 600 m plastic or 10,500 m titanium housing.
- Rigorous 11-point temperature calibration of each sensor.
- Seasoft® V2 Windows software package (setup, data upload, and data processing).
- Five-year limited warranty.

Components

- Inductive Modem (IM) system provides reliable, low-cost, real-time data transmission for up to 100 IM-enabled instruments using plastic-coated wire rope (typically 3x19 galvanized steel) as both transmission line and mooring tension member. IM instruments clamp anywhere along the mooring, which is easily reconfigured by sliding and re-clamping instruments on the cable. In a typical mooring, an Inductive Modem Module (IMM) in the buoy communicates with IM instruments and interfaces to a computer/data logger (not supplied by Sea-Bird) via RS-232. The data logger is programmed to poll each IM instrument for data, and sends the data to a satellite link, cell phone, etc.
- Aged and pressure-protected thermistor has a long history of exceptional accuracy and stability. It is available in two configurations: embedded in titanium endcap (25-sec time constant) for rugged conditions, or external thermistor in pressure-protected sheath (0.5-sec time constant) for fast sampling.
- Optional strain-gauge pressure sensor with temperature compensation is available in eight ranges (maximum depth 7000 m).

Options

- Embedded thermistor (25-sec time constant) for rugged conditions, or external thermistor (0.5-sec time constant) for fast sampling.
- No pressure, or strain-gauge pressure sensor in one of 8 ranges.
- Plastic (600 m) or titanium (10,500 m) housing.
- Wire guide and mounting clamp in one of 9 sizes.
- Net fender/fairing (conical ends shaped to shed fishing lines and nets).

Measurement Range

Temperature	-5 to 45 °C
Optional Pressure	20/100/350/600/1000/2000/3500/7000 (meters of deployment depth capability)

Initial Accuracy

Temperature	± 0.002 °C (-5 to 35 °C); ± 0.01 °C (35 °C to 45 °C)
Optional Pressure	± 0.1% of full scale range

Typical Stability

Temperature	0.0002 °C per month
Optional Pressure	0.05% of full scale range per year

Resolution

Temperature	0.0001 °C
Optional Pressure	0.002% of full scale range

Sampling Speed

User-programmable 10-sec to 8.3-hour intervals

Power Supply & Consumption

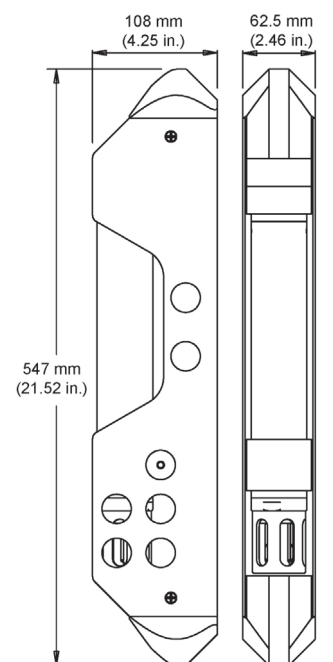
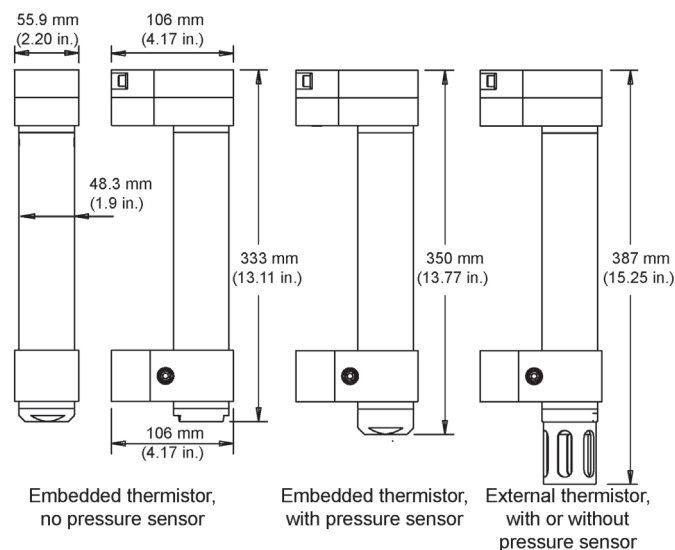
Two 3.6-volt AA lithium batteries: more than 400,000 samples TD (varies; see manual)

Memory Capacity

4.8 million samples T; 3.0 million samples TD

Housing, Depth Rating, & Weight

PET Plastic: 600 m, *Weight (with embedded thermistor)*: 1.1 kg in air, 0.5 kg in water
Titanium: 10,500 m, *Weight (with embedded thermistor)*: 1.6 kg in air, 1.0 kg in water



39-IM with Fairing
(shown with external thermistor)

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