

# SBE 37-IM

MICROCAT CT(D)

## Overview

The SBE 37-IM MicroCAT is a high-accuracy conductivity and temperature (pressure optional) recorder with integrated Inductive Modem (IM) interface, internal batteries, and memory. The MicroCAT 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 530,000 samples. Sampling every 2 minutes, the MicroCAT can be deployed for 2 years (battery endurance exceeds memory capacity).

## Features

- Moored Conductivity, Temperature, and Pressure (optional), at user-programmable 6-second to 6-hour intervals.
- Inductive Modem (IM) interface.
- Internal RS-232 Connector.
- Internal memory and battery pack.
- Expendable anti-foulant devices for bio-fouling protection.
- 350 m plastic or 7000 m titanium housing.
- Seasoft® V2 Windows software package (setup, data upload, and data processing).
- Field-proven MicroCAT family, with more than 10,000 instruments deployed.
- 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.
- Unique internal-field conductivity cell permits use of expendable anti-foulant devices, for long-term bio-fouling protection.
- Aged and pressure-protected thermistor has a long history of exceptional accuracy and stability.
- Optional strain-gauge pressure sensor with temperature compensation is available in eight ranges (maximum depth 7000 m).



## Options

- Plastic (350 m) or titanium (7000 m) housing.
- No pressure, or strain-gauge pressure sensor in one of 8 ranges.
- Wire guide and mounting clamp in one of 10 sizes.

## Field Specifications

The specifications below represent the expected performance of the instrument when deployed in the field. Under controlled circumstances in a lab, we would expect the instrument to outperform these specifications.

We have chosen to display field specifications to give our users a true measure of how Sea-Bird Scientific instruments perform in harsh environments and applications. It is critical to keep this in mind when comparing specifications with instruments from other manufacturers.

Measurement Range	
Conductivity	0 to 7 S/m (0 to 70 mS/cm)
Temperature	-5 to 45 °C
Optional Pressure	20 / 100 / 350 / 600 / 1000 / 2000 / 3500 / 7000 (meters of deployment depth capability)
Initial Accuracy	
Conductivity	± 0.0003 S/m (0.003 mS/cm)
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	
Conductivity	± 0.1% of full scale range
Temperature	0.0002 °C per month
Optional Pressure	0.05% of full scale range per year
Resolution	
Conductivity	0.00001 S/m (0.0001 mS/cm)
Temperature	0.0001 °C
Optional Pressure	0.002% of full scale range
Acquisition Time	
Power Supply & Consumption	Up to 2 Hz (2 samples/sec)
Memory Capacity	Lithium battery pack (4 AA Saft LS 14500): > 11,000,000 samples TD
Housing, Depth Rating, & Weight (without pressure)	530,000 samples CTD
	Plastic: 350 m, 2.9 kg in air, 1.3 kg in water Titanium: 7000 m, 4.0 kg in air, 2.4 kg in water

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Dimensions in mm (inches)

