

SBE 37-SI

MICROCAT CT(D)

Overview

The SBE 37-SI MicroCAT is a high-accuracy conductivity and temperature (pressure optional) recorder with Serial RS-232 interface and memory. Externally powered, it can be used for moored applications requiring fast sampling. The MicroCAT is useful as a stand-alone monitoring device and is easily integrated with other instrumentation platforms.

Data is output in real-time and can be recorded in memory; memory capacity exceeds 530,000 samples. Measured data and derived variables (salinity, sound velocity, depth, density) are output in engineering units.

Components

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).



Features

- Moored Conductivity, Temperature, and Pressure (optional), with user-programmable sampling — 6-sec to 6-hour intervals, or continuous (1.0 sec without pressure, 1.5 sec with pressure)
- RS-232 interface.
- Internal memory, external power
- 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

Options

- Plastic (350 m) or titanium (7000 m) housing
- RS-232 or RS-485 interface
- No pressure, or strain-gauge pressure sensor in one of 8 ranges
- XSG or wet-pluggable MCBH connector
- No factory-supplied mount, wire mounting clamp and guide, or brackets for mounting to a flat surface

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.

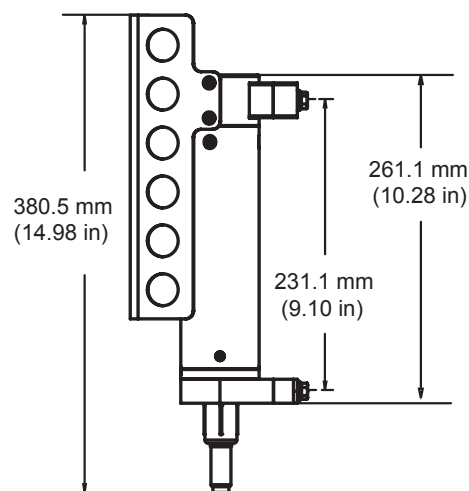
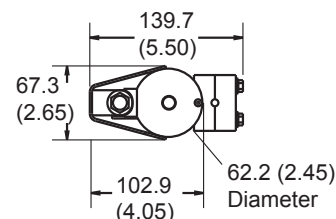
We have chosen to display field specifications to give our users a true measure of how Sea-Bird Scientific instruments perform in harsh environments and applications. It is critical to keep this in mind when comparing specifications with instruments from other manufacturers.

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	0.0003 S/m (0.003 mS/cm) per month
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	1.0 - 2.6 sec/sample (see manual)
External Power	0.5 Amps at 8.5-24 VDC
Memory Capacity	Lithium battery pack (4 AA Saft LS 14500): endurance varies, but is usually limited by memory (see manual)
Housing, Depth Rating, & Weight (without pressure sensor or clamps)	Plastic: 350 m, 2.2 kg in air, 1.2 kg in water Titanium: 7000 m, 2.9 kg in air, 1.9 kg in water

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Optional Wire Mounting
Clamp and Guide