SEA-BIRD SCIENTIFIC

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SBE 37-SMP
MicroCAT CT(D)

Deploy in orientation shown (connector end down) for proper operation

The SBE 37-SMP pumped MicroCAT is a high-accuracy conductivity and temperature (pressure optional) recorder with Serial interface (RS-232 or RS-485), internal batteries, Memory, and integral Pump. The MicroCAT is designed for moorings or other long-duration, fixed-site deployments.

Data is recorded in memory and can be output in real-time. Measured data and derived variables (salinity, sound velocity) are output in engineering units.

Memory capacity exceeds 530,000 samples. Battery endurance varies, depending on sampling scheme. Sampling every 2-1/2 minutes, the MicroCAT can be deployed for 2 years (425,000 samples).

Features

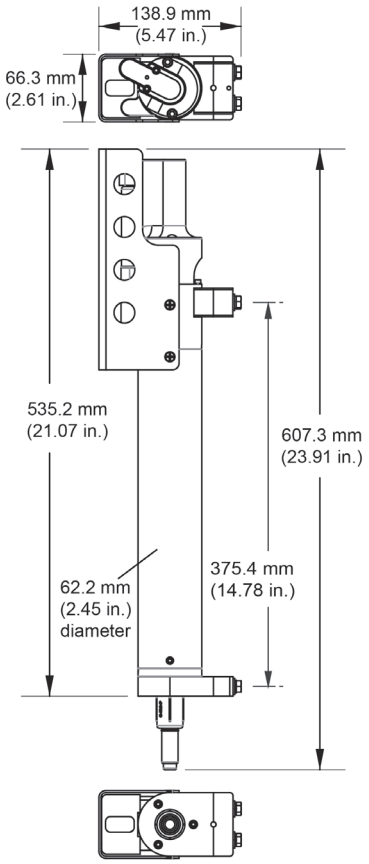
- Moored Conductivity, Temperature, and Pressure (optional), at user-programmable 6-sec to 6-hour intervals.
- Integral pump.
- RS-232 or RS-485 interface.
- Internal memory and battery pack (can be powered externally).
- Expendable anti-foulant devices, unique flow path, and pumping regimen for bio-fouling 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

- 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).
- Pump runs for 1 second for each sample, providing improved conductivity response and bio-fouling protection.

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.
- Wire mounting clamp and guide or brackets for mounting to a flat surface.



With Wire Mounting Clamp and Guide

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

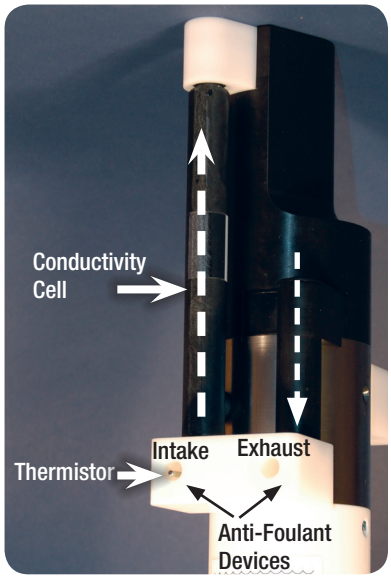
Typical Stability

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	1.9 - 2.9 sec/sample (see manual)
Power Supply & Consumption	7.8 Amp-hour (nominal) battery pack (derated for calculations) 425,000 samples CTD (see manual)
Optional External Power	0.25 Amps at 9-24 VDC
Memory Capacity	530,000 samples CTD
Housing, Depth Rating, & Weight	Plastic: 350 m, 3.4 kg in air, 1.6 kg in water Titanium: 7000 m, 3.7 kg in air, 2.2 kg in water



Pumped flow through conductivity cell (conductivity cell guard removed)

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