

## SBE 37-SIP-IDO

### MicroCAT CT(D)-DO

The SBE 37-SIP-IDO pumped MicroCAT is a high-accuracy conductivity and temperature (pressure optional) recorder with Serial interface (RS-232), memory, integral Pump, and Integrated Dissolved Oxygen (membrane-type). 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 440,000 samples. Measured data and derived variables (salinity, sound velocity, depth) are output in engineering units.

## Features

- Moored Conductivity, Temperature, Pressure (optional), and Dissolved Oxygen (membrane-type), with user-programmable sampling — 5-sec to 6-hour intervals, or continuous (1.0 sample/sec).
- Integral pump.
- RS-232 interface.
- Internal memory, external power.
- Expendable anti-foulant devices, unique flow path, and pumping regimen for bio-fouling protection.
- Adaptive Pump Control for high-accuracy oxygen data.
- 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.



shown with  
optional clamps

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

## 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).
- Oxygen sensor is field-proven, individually calibrated SBE 43 Dissolved Oxygen sensor.
- Pump runs for each sample, providing improved conductivity and oxygen response, bio-fouling protection, and correlation of CTD and oxygen measurements.

### Options

- Plastic (350 m) or titanium (7000 m) housing.
- 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.

### 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)
Dissolved Oxygen	120% of surface saturation in all natural waters (fresh and salt)

### 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
Dissolved Oxygen	± 2% of saturation

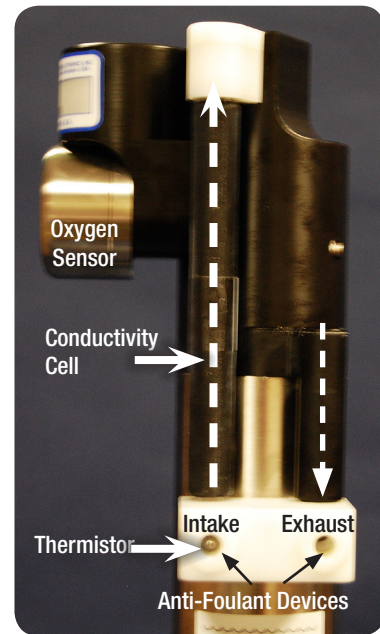
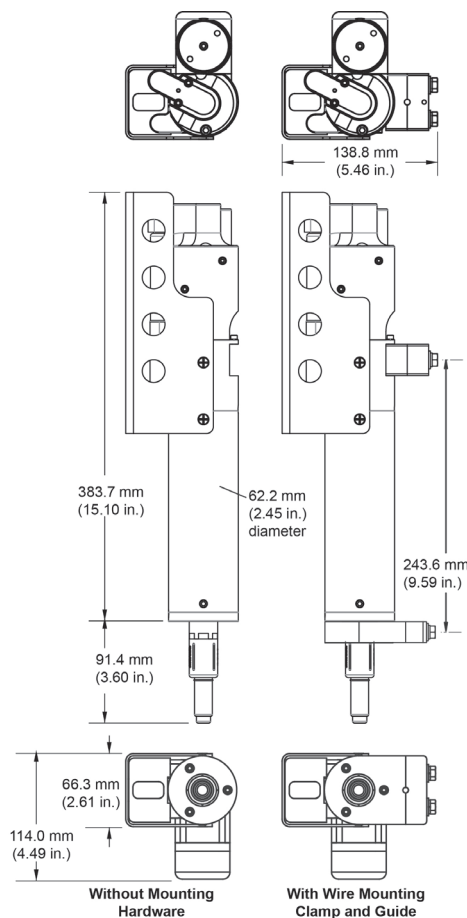
### Typical Stability

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
Dissolved Oxygen	0.5% per 1000 hours

### Resolution

Conductivity	0.00001 S/m (0.0001 mS/cm)
Temperature	0.0001 °C
Optional Pressure	0.002% of full scale range
Dissolved Oxygen	0.035% of saturation (0.003 ml/L at 0 °C and 35 PSU)

Acquisition Time	1.0 - 5.0 sec/sample (see manual)
External Power	0.25 Amps at 9-24 VDC
Memory Capacity	440,000 samples CTD-DO
Housing, Depth Rating, & Weight	Plastic: 350 m, Titanium: 7000 m, 3.6 kg in air, 2.3 kg in water



Pumped flow through conductivity cell and oxygen sensor (conductivity cell guard removed)

Specifications subject to change without notice. ©2014 Sea-Bird Scientific. All rights reserved. Rev. November 2014



Sea-Bird Electronics  
+1 425-643-9866  
sales@seabird.com  
www.seabird.com