



SBE 37 IMP-ODO with Plastic Housing, 100 dbar Pressure Sensor, Inductive Modem Telemetry, 600 meter ODO Sensor

Product #: 37IMP.13002S
USD Price: Contact Sea-Bird

Moored Conductivity, Temperature, Optical Dissolved Oxygen, and (optional) Pressure measurements, at user-programmable intervals. Inductive Modem (IM) interface, internal memory, and internal battery pack.

The SBE 37-IMP-ODO pumped MicroCAT is a high-accuracy conductivity and temperature (pressure optional) recorder with integrated Inductive Modem (IM) interface, internal batteries, memory, integral Pump, and Optical Dissolved Oxygen. 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 and derived variables (salinity, sound velocity, specific conductivity) are output in engineering units.

Memory capacity exceeds 380,000 samples. Battery endurance varies, depending on sampling scheme and deployment temperature and pressure. Sampling every 15 minutes (10 °C, 500 dbar), the MicroCAT can be deployed for 8.5 months (24,000 samples).

Optimal Moored CTD

Moored Conductivity, Temperature, and Pressure (optional), at user-programmable 6-sec to 6-hour intervals.

Flexible Deployment Options

Internal memory and battery pack.

Inductive Modem Telemetry

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.

Integral Pump

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

Optical Dissolved Oxygen Sensor

Integrated SBE 63 Optical Dissolved Oxygen Sensor. Adaptive Pump Control for high-accuracy oxygen data.

Specifications

Communication:	Inductive Modem Telemetry
Conductivity Accuracy:	± 0.0003 S/m (0.003 mS/cm)
Conductivity Measurement Range:	0 - 7 S/m (0 - 70 mS/cm)
Conductivity resolution:	0.00001 S/m (0.0001 mS/cm)
Conductivity Typical Stability:	0.0003 S/m (0.003 mS/cm) per month
Dissolved Oxygen Accuracy:	larger of ± 3 µmol/kg (equivalent to 0.07 ml/L or 0.1 mg/L) or ± 2%

Dissolved Oxygen Range:	120% of surface saturation in all natural waters (fresh and salt)
Dissolved Oxygen Resolution:	0.2 $\mu\text{mol/kg}$
Dissolved Oxygen Typical Stability:	Sample-based drift < 1 $\mu\text{mol/kg}/100,000$ samples (20 °C)
Housing Material:	Plastic
Internal Batteries:	10.6 Amp-hour (nominal) battery pack (derated for calculations)
Pressure Initial Accuracy:	$\pm 0.1\%$ of full scale range
Pressure Resolution:	0.002% of full scale range
Pressure Sensor/Range:	350 dbar Pressure Sensor
Pressure Typical Stability:	0.05% of full scale range per year
Pumps:	Yes
Sensors:	600 meter ODO Sensor
Temperature Accuracy:	± 0.002 °C (-5 to +35 °C); ± 0.01 (+35 to +45 °C)
Temperature Range:	-5 to +45 °C
Temperature Resolution:	0.0001 °C
Temperature Stability:	0.0002 °C per month