



SBE 37 SMP-ODO with Titanium Housing, 7000 dbar Pressure Sensor, MCBH Connector, RS-232, 7000 meter ODO Sensor, Includes Accessories

Product #: 37SMP.38204S
USD Price: Contact Sea-Bird

Moored Conductivity, Temperature, (optional) Pressure, and Optical Dissolved Oxygen measurements, at user-programmable intervals. RS-232, RS-485, or dual RS-232 and SDI-12 interface, internal memory, and internal battery pack.

The SBE 37-SMP-ODO pumped MicroCAT is a high-accuracy conductivity and temperature (pressure optional) recorder with Serial interface (RS-232 or RS-485), internal batteries, Memory, integral Pump, and Optical Dissolved Oxygen. 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, 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 almost 9 months (25,000 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 (can be powered externally).

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:	RS-232
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
Connector:	MCBH
Dissolved Oxygen Accuracy:	larger of ± 3 μ mol/kg (equivalent to 0.07 ml/L or 0.1 mg/L) or $\pm 2\%$
Dissolved Oxygen Range:	120% of surface saturation in all natural waters (fresh and salt)

Dissolved Oxygen Resolution:	0.2 µmol/kg
Dissolved Oxygen Typical Stability:	Sample-based drift < 1 µmol/kg/100,000 samples (20 °C)
Housing Material:	Titanium
Internal Batteries:	10.6 Amp-hour (nominal) battery pack (derated for calculations)
Power input:	0.25 Amps at 9 - 24 VDC
Pressure Initial Accuracy:	± 0.1% of full scale range
Pressure Resolution:	0.002% of full scale range
Pressure Sensor/Range:	7000 dbar
PressureTypical Stability:	0.05% of full scale range per year
Pumps:	Yes
Sensors:	7000 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
Weight:	4.2 kg in air, 2.3 kg in water.