



MicroCAT Feature Comparisons

Sea-Bird manufactures a number of instruments within our MicroCAT CTD family, which make measurements at user-programmable intervals. All MicroCATs:

- Measure Conductivity and Temperature.
- Can include an optional strain-gauge Pressure sensor.
- Can include an integrated pump (**P** in the model number designation) for improved bio-fouling protection and improved conductivity and oxygen sensor response.
- Have 8 Megabyte memory.
- Are available for depths to 350 meters (plastic housing) or 7000 meters (titanium housing).

Some MicroCATs also include **Dissolved Oxygen**:

- **IDO** MicroCATs include a membrane-type Dissolved Oxygen sensor.
- **ODO** MicroCATs include an Optical Dissolved Oxygen sensor.

The SBE 37-SMP-ODO MicroCAT can be integrated with a **pH** sensor to provide CTD + DO + pH:

- **SeapHOx™** (37SMP-ODO with Satlantic SeaFET™ pH Sensor) is rated to 50 m depth.
- **Deep SeapHOx™** (37-SMP-ODO with Satlantic Deep SeaFET™ pH Sensor) is rated to 2000 m depth.

Other features vary:

Sea-Bird Model Number	Additional Included Sensors	Pump *	Power		Communication	Real-Time Data	Minimum Sampling Interval
			Internal	External			
37-SMP-ODO	Optical Dissolved Oxygen (plus pH when integrated with SeaFET™ or Deep SeaFET™)	√	√	√	RS-232, RS-485, or SDI-12	√	10 sec
37-SMP-IDO (Discontinued – replaced by 37-SMP-ODO)	Dissolved Oxygen (membrane-type)	√	√	√	RS-232 or RS-485	√	10 sec
37-SMP		√	√	√	RS-232, RS-485, or SDI-12	√	6 sec
37-SM			√	√	RS-232 or RS-485	√	6 sec
37-SIP-IDO	Dissolved Oxygen (membrane-type)	√		√	RS-232	√	1 sec
37-SIP		√		√	RS-232 or RS-485	√	1.0 – 1.5 sec ***
37-SI				√	RS-232 or RS-485	√	1.0 – 1.5 sec ***
37-IMP-ODO	Optical Dissolved Oxygen	√	√		Inductive modem ****	√ **	10 sec
37-IMP-IDO (Discontinued – replaced by 37-SMP-ODO)	Dissolved Oxygen (membrane-type)	√	√		Inductive modem ****	√ **	10 sec
37-IMP		√	√		Inductive modem ****	√ **	6 sec
37-IM			√		Inductive modem ****	√ **	6 sec

* Integral pump provides improved conductivity and dissolved oxygen (if applicable) response, and conductivity fouling protection.

** Inductive Modem MicroCATs do not automatically transmit real-time data; controller must query for data.

*** Minimum sampling interval 1.0 sec without optional pressure sensor, 1.5 sec with optional pressure sensor.

**** See Application Note 92 for a description of Inductive Modem telemetry.