



**SEA-BIRD**  
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## SBE37-SMP-ODO MicroCAT

### Instrument Configuration

Instrument Serial Number: 37-21148  
Instrument Firmware Version: 6.1.2  
Zero Conductivity Frequency: 2644.05  
Communications Format: RS232  
Communications Settings: 9600 baud, 8 Data Bits, No Parity

### Installed Devices/Sensors

<i>Data Format</i>	<i>Measurement</i>	<i>Sensor Type</i>	<i>Serial Number</i>	<i>Rating</i>
Count	Temperature	Internal	N/A	N/A
Frequency	Conductivity	Internal	N/A	N/A
Count	Pressure Sensor	Kistler	5059701	2000m(2000 dBar)
RS232	Oxygen	SBE 63	63-2330	7000m

Maximum Depth: 2000m

**CAUTION** - The maximum deployment depth will be limited by the measurement range of the pressure sensor, if installed, an attached sensor, if installed, or the housing.

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SENSOR SERIAL NUMBER: 2323  
CALIBRATION DATE: 21-Aug-19

### SBE 63 OXYGEN CALIBRATION DATA

#### COEFFICIENTS:

A0 = 1.0513e+000    B0 = -2.4659e-001    C0 = 1.0492e-001    E = 1.1000e-002  
A1 = -1.5000e-003    B1 = 1.6340e+000    C1 = 4.4592e-003  
A2 = 4.0303e-001    C2 = 6.1770e-005

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (µsec)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
0.696	30.00	0.00	31.18	0.694	-0.002
0.729	26.00	0.00	31.78	0.728	-0.001
0.782	20.00	0.00	32.75	0.780	-0.002
0.867	12.00	0.00	34.09	0.866	-0.000
0.952	6.00	0.00	35.11	0.952	0.001
1.039	2.00	0.00	35.71	1.039	0.000
2.148	30.00	0.00	22.84	2.148	-0.000
2.273	26.00	0.00	23.40	2.274	0.001
2.437	20.00	0.00	24.48	2.437	0.001
2.936	12.00	0.00	25.39	2.937	0.001
3.313	6.00	0.00	26.40	3.315	0.002
3.576	30.00	0.00	18.89	3.574	-0.002
3.646	2.00	0.00	27.07	3.645	-0.002
3.814	26.00	0.00	19.34	3.813	-0.001
4.256	20.00	0.00	20.02	4.255	-0.001
4.993	12.00	0.00	21.06	4.992	-0.001
5.025	30.00	0.00	16.44	5.026	0.001
5.448	26.00	0.00	16.73	5.450	0.002
5.685	6.00	0.00	21.96	5.686	0.001
6.132	20.00	0.00	17.29	6.130	-0.002
6.275	2.00	0.00	22.56	6.279	0.005
7.160	12.00	0.00	18.25	7.162	0.002
8.176	6.00	0.00	19.06	8.173	-0.003
8.664	2.00	0.00	19.94	8.662	-0.002

T = temperature (°C), P = pressure (dbar), U = Instrument output (µsec)

S<sub>corr</sub> (salinity correction function) = 1.0 for calibration in DI water

See the user manual for more information on S<sub>corr</sub> calculation

$$V = U / 39.457071$$

$$\text{Oxygen (ml/l)} = \{((A0 + A1 \cdot T + A2 \cdot V^2) / (B0 + B1 \cdot V) - 1.0) / (C0 + C1 \cdot T + C2 \cdot T^2)\} \cdot S_{\text{corr}} \cdot \exp(E \cdot P / (T + 273.15))$$

Residual (ml/l) = instrument oxygen - bath oxygen

Date, Slope Correction

