

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0223

SBE 43F OXYGEN CALIBRATION DATA

CALIBRATION DATE: 26-Feb-13

COEFFICIENTS

Soc = 2.0977e-004 (DI)

Foffset = -811.45

Tau20 = 1.72

A = -3.1820e-003

B = 1.6467e-004

C = -2.3278e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.30000e-2

D2 = -4.64803e-2 H2 = 5.00000e+3

H3 = 1.45000e+3

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(Hz)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.21	2.00	0.00	1411.66	1.21	-0.00
1.23	6.00	0.00	1492.29	1.23	0.00
1.25	12.00	0.00	1615.55	1.25	0.00
1.27	20.00	0.00	1782.26	1.27	0.00
1.31	26.00	0.00	1924.26	1.31	0.00
1.31	30.00	0.00	2003.63	1.31	0.00
4.14	2.00	0.00	2862.99	4.14	-0.00
4.19	12.00	0.00	3512.66	4.19	-0.00
4.21	6.00	0.00	3144.21	4.20	-0.00
4.25	20.00	0.00	4048.40	4.25	-0.00
4.32	26.00	0.00	4483.89	4.32	0.00
4.35	30.00	0.00	4776.93	4.36	0.00
7.08	30.00	0.00	7253.88	7.08	-0.00
7.18	26.00	0.00	6918.49	7.18	0.01
7.29	20.00	0.00	6358.52	7.28	-0.00
7.37	12.00	0.00	5558.54	7.37	0.00
7.46	2.00	0.00	4508.16	7.46	0.00
7.48	6.00	0.00	4961.02	7.48	0.00

Oxygen (ml/l) = Soc * (F + Foffset) * (1.0 + A * T + B * T² + C * T³) * OxSol(T,S) * exp(E * P / K)

F = frequency output from SBE43F, T = temperature [deg C], S = salinity [PSU] K = temperature [deg K]

OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar]

Residual = instrument oxygen - bath oxygen

