

Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0113
CALIBRATION DATE: 06-Feb-16

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.4180
Voffset = -0.5023
Tau20 = 0.95
A = -3.6606e-003
B = 1.5752e-004
C = -2.5279e-006
E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS
D1 = 1.92634e-4 H1 = -3.300000e-2
D2 = -4.64803e-2 H2 = 5.00000e+3
H3 = 1.45000e+3

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.13	12.00	0.00	0.871	1.13	-0.00
1.15	2.00	0.00	0.788	1.15	-0.00
1.16	20.00	0.00	0.950	1.16	-0.00
1.16	6.00	0.00	0.825	1.16	-0.00
1.16	26.00	0.00	1.011	1.17	0.00
1.16	30.00	0.00	1.050	1.17	0.00
3.90	6.00	0.00	1.593	3.90	0.00
3.91	12.00	0.00	1.776	3.91	0.00
3.93	2.00	0.00	1.480	3.93	-0.00
3.94	30.00	0.00	2.353	3.94	0.00
3.95	20.00	0.00	2.034	3.95	0.00
3.95	26.00	0.00	2.228	3.96	0.01
6.67	30.00	0.00	3.628	6.66	-0.00
6.67	2.00	0.00	2.162	6.67	-0.00
6.72	6.00	0.00	2.381	6.73	0.01
6.72	12.00	0.00	2.690	6.72	-0.00
6.74	26.00	0.00	3.442	6.75	0.00
6.74	20.00	0.00	3.116	6.74	-0.01

V = instrument output (volts); T = temperature (°C); S = salinity (PSU); K = temperature (°K)

Oxsol(T,S) = oxygen saturation (ml/l); P = pressure (dbar)

Oxygen (ml/l) = Soc * (V + Voffset) * (1.0 + A * T + B * T² + C * T³) * Oxsol(T,S) * exp(E * P / K)

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

