

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: 0072
CALIBRATION DATE: 16-Jan-16

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.4802
Voffset = -0.5316
Tau20 = 2.50
A = -4.2594e-003
B = 2.1935e-004
C = -3.0959e-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)
1.14	2.00	0.00	0.779	1.14	-0.00
1.15	6.00	0.00	0.812	1.15	-0.00
1.16	12.00	0.00	0.860	1.16	-0.00
1.18	20.00	0.00	0.926	1.18	-0.00
1.18	26.00	0.00	0.973	1.18	-0.00
1.19	30.00	0.00	1.005	1.19	-0.00
3.89	2.00	0.00	1.376	3.90	0.00
3.92	6.00	0.00	1.488	3.93	0.00
3.93	12.00	0.00	1.645	3.93	0.00
3.95	20.00	0.00	1.855	3.95	-0.00
3.96	26.00	0.00	2.011	3.96	0.00
3.98	30.00	0.00	2.120	3.98	0.00
6.65	2.00	0.00	1.972	6.64	-0.00
6.68	6.00	0.00	2.159	6.68	0.00
6.69	20.00	0.00	2.772	6.69	0.00
6.71	12.00	0.00	2.431	6.71	-0.00
6.74	26.00	0.00	3.046	6.74	0.00
6.77	30.00	0.00	3.233	6.77	-0.00

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

