

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: 0154

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 05-Apr-17

COEFFICIENTS:

Soc = 0.4465

Voffset = -0.5223

Tau20 = 1.13

A = -4.3209e-003

B = 2.3538e-004

C = -3.2773e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4

D2 = -4.64803e-2

H1 = -3.300000e-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)
1.09	2.00	0.00	0.775	1.08	-0.01
1.09	6.00	0.00	0.807	1.09	-0.01
1.10	12.00	0.00	0.857	1.10	-0.00
1.14	20.00	0.00	0.931	1.14	-0.00
1.15	26.00	0.00	0.984	1.16	0.01
1.16	30.00	0.00	1.022	1.17	0.01
3.85	6.00	0.00	1.530	3.85	-0.00
3.85	12.00	0.00	1.694	3.85	0.00
3.87	20.00	0.00	1.911	3.87	-0.00
3.89	2.00	0.00	1.428	3.88	-0.00
3.92	26.00	0.00	2.085	3.92	0.00
3.97	30.00	0.00	2.219	3.98	0.01
6.61	2.00	0.00	2.063	6.61	0.00
6.66	12.00	0.00	2.549	6.66	0.00
6.67	30.00	0.00	3.357	6.65	-0.02
6.72	20.00	0.00	2.927	6.70	-0.01
6.72	6.00	0.00	2.282	6.72	0.00
6.75	26.00	0.00	3.219	6.76	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

