

SEA-BIRD ELECTRONICS, INC.

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

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SENSOR SERIAL NUMBER: 0221
CALIBRATION DATE: 18-Jul-11p

SBE 43F OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 3.0169e-004 (DI)
Foffset = -825.41
Tau20 = 2.21

A = -2.9108e-003
B = 1.4796e-004
C = -2.1333e-006
E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

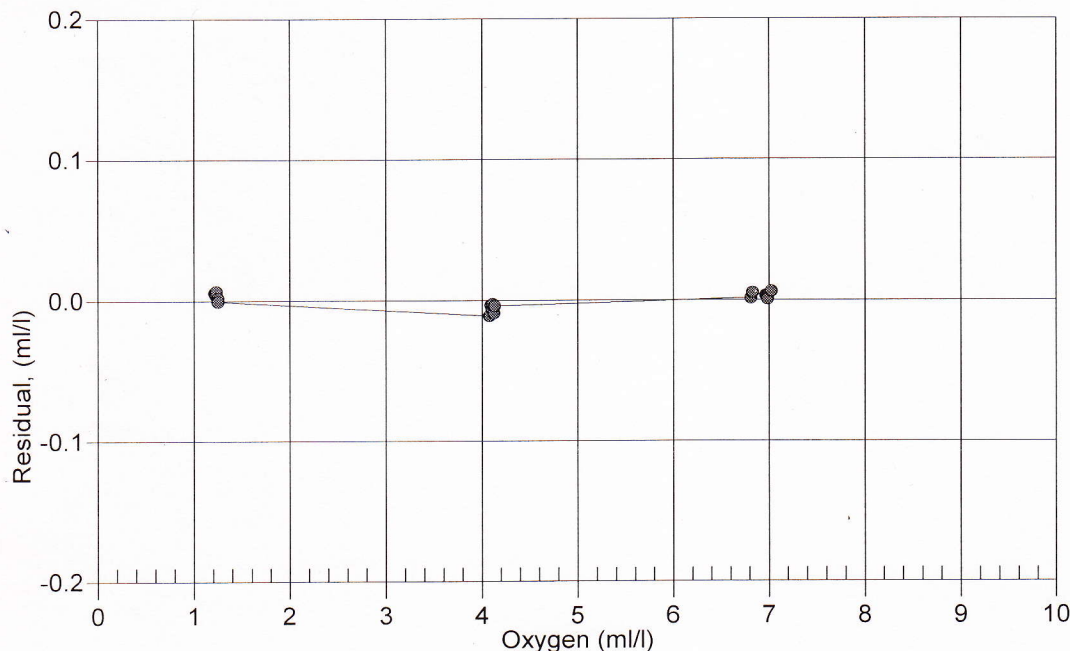
D1 = 1.92634e-4 H1 = -3.30000e-2
D2 = -4.64803e-2 H2 = 5.00000e+3
H3 = 1.45000e+3

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(Hz)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.22	2.00	0.00	1246.54	1.22	0.01
1.23	12.00	0.00	1375.47	1.23	0.00
1.23	6.00	0.00	1301.55	1.24	0.01
1.24	26.00	0.00	1561.16	1.24	-0.00
1.25	20.00	0.00	1487.21	1.25	0.00
1.25	30.00	0.00	1618.72	1.25	-0.00
4.08	2.00	0.00	2226.35	4.07	-0.01
4.09	26.00	0.00	3245.52	4.09	-0.00
4.10	12.00	0.00	2656.37	4.09	-0.01
4.11	30.00	0.00	3432.87	4.11	-0.00
4.12	6.00	0.00	2411.68	4.12	-0.01
4.13	20.00	0.00	3011.20	4.13	-0.00
6.81	30.00	0.00	5146.91	6.81	0.00
6.82	12.00	0.00	3879.63	6.83	0.01
6.96	26.00	0.00	4946.21	6.97	0.00
6.98	6.00	0.00	3516.96	6.98	0.00
6.99	20.00	0.00	4524.92	6.99	0.00
7.03	2.00	0.00	3246.56	7.03	0.01

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

Date, Delta Ox (ml/l)

● 18-Jul-11p 1.0000





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SBE Pressure Test Certificate

Test Date: 6/20/2011 Description SBE-43F DO Sensor

Job Number: 65319P Customer Name iRobot

SBE Sensor Information:

Model Number: 43F

Serial Number: 0221

Pressure Sensor Information:

Sensor Type: 0

Sensor Serial Number: None

Sensor Rating: 0

Pressure Test Protocol:

Low Pressure Test: 50 PSI Held For 15 Minutes

High Pressure Test: 800 PSI Held For 30 Minutes

Passed Test:

Tested By: gw

