

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

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

SENSOR SERIAL NUMBER: 1367
CALIBRATION DATE: 15-Feb-07

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.86091199e-003
h = 6.76549455e-004
i = 2.72934981e-005
j = 2.20147923e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121276e-003
b = 5.97932077e-004
c = 1.50187414e-005
d = 2.20293272e-006
f0 = 6440.742

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6440.742	-1.5000	-0.00003
1.0000	6813.323	1.0000	0.00004
4.5000	7360.726	4.5000	0.00002
8.0000	7938.999	8.0000	-0.00000
11.5000	8548.966	11.5000	-0.00003
15.0000	9191.437	15.0000	-0.00000
18.5000	9867.169	18.5000	-0.00000
22.0000	10576.910	22.0000	-0.00001
25.5000	11321.385	25.5000	0.00002
29.0000	12101.271	29.0000	0.00003
32.5000	12917.212	32.5000	-0.00003

Temperature ITS-90 = $1 / \{ g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)] \} - 273.15$ (°C)

Temperature ITS-68 = $1 / \{ a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)] \} - 273.15$ (°C)

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

