

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2329
CALIBRATION DATE: 15-Feb-07

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34009560e-003
h = 6.41662965e-004
i = 2.34013079e-005
j = 2.28631524e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121260e-003
b = 5.99780983e-004
c = 1.61319360e-005
d = 2.28786874e-006
f0 = 2897.442

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2897.442	-1.5000	-0.00002
1.0000	3064.535	1.0000	0.00002
4.5000	3310.043	4.5000	0.00002
8.0000	3569.411	8.0000	0.00000
11.5000	3843.015	11.5000	-0.00001
15.0000	4131.220	15.0000	-0.00002
18.5000	4434.381	18.5000	0.00000
22.0000	4752.834	22.0000	-0.00002
25.5000	5086.917	25.5000	0.00003
29.0000	5436.936	29.0000	0.00002
32.5000	5803.193	32.5000	-0.00002

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

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

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

Residual = instrument temperature - bath temperature

