

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2329
CALIBRATION DATE: 04-Sep-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34002007e-003
h = 6.41440952e-004
i = 2.32459069e-005
j = 2.24951520e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121478e-003
b = 5.99763222e-004
c = 1.60936703e-005
d = 2.25106106e-006
f0 = 2897.572

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5002	2897.572	-1.5002	0.00002
0.9999	3064.677	0.9999	-0.00004
4.4999	3310.206	4.4999	0.00001
7.9998	3569.587	7.9998	0.00005
11.4999	3843.209	11.4999	-0.00005
14.9998	4131.428	14.9998	0.00001
18.4999	4434.614	18.4999	0.00000
21.9999	4753.087	21.9999	-0.00002
25.4999	5087.191	25.4999	0.00001
28.9999	5437.238	28.9999	0.00002
32.4999	5803.528	32.4999	-0.00001

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 IPTS-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

