

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2329
CALIBRATION DATE: 23-Jan-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34006770e-003
h = 6.41602282e-004
i = 2.33623191e-005
j = 2.27832496e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121392e-003
b = 5.99776081e-004
c = 1.61184350e-005
d = 2.27987609e-006
f0 = 2897.446

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	2897.446	-1.5001	-0.00002
0.9999	3064.539	0.9999	0.00000
4.4999	3310.052	4.4999	0.00004
7.9999	3569.420	7.9999	0.00001
11.4999	3843.024	11.4999	-0.00001
14.9999	4131.226	14.9998	-0.00006
18.4999	4434.391	18.4999	0.00001
21.9999	4752.844	21.9999	-0.00000
25.4999	5086.923	25.4999	0.00001
28.9999	5436.947	29.0000	0.00006
32.4999	5803.197	32.4999	-0.00005

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

