

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1324
CALIBRATION DATE: 14-Oct-05

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35202494e-003
h = 6.39598831e-004
i = 2.15274725e-005
j = 1.81749889e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121790e-003
b = 5.99455299e-004
c = 1.56399570e-005
d = 1.81895108e-006
f0 = 2958.790

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5004	2958.790	-1.5004	-0.00001
0.9996	3129.509	0.9996	0.00003
4.4996	3380.330	4.4996	0.00001
7.9997	3645.303	7.9996	-0.00006
11.4996	3924.812	11.4997	0.00005
14.9997	4219.236	14.9997	-0.00003
18.4996	4528.938	18.4996	0.00002
21.9996	4854.284	21.9996	0.00001
25.4996	5195.617	25.4996	0.00001
28.9997	5553.276	28.9996	-0.00005
32.4997	5927.583	32.4997	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

