

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1049
CALIBRATION DATE: 11-Mar-03

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84735959e-003
h = 6.77879651e-004
i = 2.72473335e-005
j = 2.21376012e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121122e-003
b = 6.00374524e-004
c = 1.50842817e-005
d = 2.21522574e-006
f0 = 6268.407

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	6268.407	-1.4999	-0.00002
1.0002	6629.511	1.0002	0.00003
4.5002	7159.886	4.5002	0.00002
8.0002	7719.979	8.0002	-0.00005
11.5002	8310.597	11.5002	-0.00003
15.0002	8932.490	15.0002	0.00003
18.5002	9586.370	18.5002	0.00002
22.0002	10272.952	22.0002	-0.00000
25.5002	10992.922	25.5002	0.00000
29.0002	11746.916	29.0002	-0.00003
32.5002	12535.581	32.5002	0.00002

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

