

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2533
CALIBRATION DATE: 11-Mar-03

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36979278e-003
h = 6.47394531e-004
i = 2.37005269e-005
j = 2.22532451e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121033e-003
b = 6.03360117e-004
c = 1.63606632e-005
d = 2.22689617e-006
f0 = 3014.987

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3014.987	-1.4999	0.00005
1.0002	3187.797	1.0002	-0.00003
4.5002	3441.610	4.5002	-0.00004
8.0002	3709.637	8.0001	-0.00005
11.5002	3992.265	11.5002	0.00003
15.0002	4289.858	15.0003	0.00012
18.5002	4602.758	18.5002	0.00004
22.0002	4931.320	22.0001	-0.00007
25.5002	5275.896	25.5002	-0.00004
29.0002	5636.788	29.0001	-0.00005
32.5002	6014.320	32.5003	0.00006

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

