

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1324
CALIBRATION DATE: 11-Mar-03

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35197010e-003
h = 6.39497101e-004
i = 2.14570532e-005
j = 1.80088622e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121114e-003
b = 5.99447667e-004
c = 1.56235917e-005
d = 1.80233485e-006
f0 = 2958.793

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	2958.793	-1.4999	-0.00001
1.0002	3129.520	1.0002	0.00002
4.5002	3380.345	4.5002	0.00003
8.0002	3645.312	8.0002	-0.00004
11.5002	3924.822	11.5002	-0.00002
15.0002	4219.250	15.0002	0.00003
18.5002	4528.957	18.5002	0.00002
22.0002	4854.303	22.0002	-0.00000
25.5002	5195.640	25.5002	0.00000
29.0002	5553.295	29.0002	-0.00003
32.5002	5927.604	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

