

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2774
CALIBRATION DATE: 23-Jul-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.32557021e-003
h = 6.46881428e-004
i = 2.40788543e-005
j = 2.44531535e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121373e-003
b = 6.05156795e-004
c = 1.65392377e-005
d = 2.44693419e-006
f0 = 2805.452

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	2805.452	-1.5001	-0.00000
0.9999	2965.763	0.9999	0.00002
4.5000	3201.181	4.5000	0.00002
7.9999	3449.707	7.9998	-0.00007
11.5000	3711.730	11.5000	-0.00003
15.0000	3987.555	15.0000	0.00005
18.5000	4277.506	18.5001	0.00007
22.0000	4581.892	22.0000	0.00003
25.5000	4901.010	25.4999	-0.00009
28.9999	5235.157	28.9998	-0.00006
32.4999	5584.621	32.5000	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 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

