

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1369
CALIBRATION DATE: 21-Jul-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83391503e-003
h = 6.74416458e-004
i = 2.52314535e-005
j = 1.92688420e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121218e-003
b = 6.02003371e-004
c = 1.47645028e-005
d = 1.92828903e-006
f0 = 6143.516

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6143.516	-1.5000	0.00001
1.0000	6496.403	1.0000	-0.00001
4.5000	7014.612	4.5000	0.00000
8.0000	7561.705	8.0000	-0.00001
11.5000	8138.449	11.5000	0.00001
15.0000	8745.569	15.0000	0.00002
18.5001	9383.783	18.5000	-0.00006
22.0000	10053.776	22.0001	0.00007
25.5001	10756.205	25.5001	-0.00001
29.0001	11491.697	29.0001	-0.00004
32.5001	12260.892	32.5001	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 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

