

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1369
CALIBRATION DATE: 20-Jul-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83375627e-003
h = 6.74143729e-004
i = 2.50839265e-005
j = 1.90096141e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121233e-003
b = 6.02009736e-004
c = 1.47581097e-005
d = 1.90236370e-006
f0 = 6143.568

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6143.568	-1.5000	-0.00000
1.0000	6496.461	1.0000	0.00002
4.5000	7014.658	4.5000	-0.00003
8.0000	7561.748	8.0000	-0.00004
11.4999	8138.487	11.5000	0.00006
15.0000	8745.614	15.0000	0.00000
18.5000	9383.828	18.5000	0.00000
21.9999	10053.807	21.9999	0.00002
25.4999	10756.233	25.4999	-0.00004
28.9999	11491.759	28.9999	-0.00001
32.4999	12260.976	32.4999	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

