

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0573
CALIBRATION DATE: 20-Jul-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.75968056e-003
h = 6.81922349e-004
i = 3.64827201e-005
j = 4.17506437e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121174e-003
b = 5.94012421e-004
c = 1.51294210e-005
d = 4.17679129e-006
f0 = 5512.129

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5512.129	-1.5000	0.00004
1.0000	5833.161	1.0001	0.00011
4.5000	6304.999	4.4999	-0.00013
8.0000	6803.642	7.9997	-0.00027
11.4999	7329.769	11.4998	-0.00008
15.0000	7884.013	15.0002	0.00017
18.5000	8466.910	18.5005	0.00045
21.9999	9078.935	22.0002	0.00034
25.4999	9720.585	25.4995	-0.00039
28.9999	10392.481	28.9991	-0.00084
32.4999	11095.400	32.5005	0.00060

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

