

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0573
CALIBRATION DATE: 11-Aug-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.76020424e-003
h = 6.82681672e-004
i = 3.68572398e-005
j = 4.23636825e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121152e-003
b = 5.94028313e-004
c = 1.51897238e-005
d = 4.23810842e-006
f0 = 5512.260

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5512.260	-1.4999	0.00006
1.0000	5833.286	1.0001	0.00007
4.5000	6305.135	4.4999	-0.00012
8.0000	6803.793	7.9998	-0.00023
11.5001	7329.947	11.4999	-0.00016
15.0000	7884.196	15.0002	0.00023
18.5001	8467.113	18.5005	0.00043
22.0001	9079.177	22.0005	0.00035
25.5001	9720.837	25.4997	-0.00038
29.0001	10392.733	28.9992	-0.00086
32.5001	11095.653	32.5007	0.00061

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

