

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1692
CALIBRATION DATE: 24-Aug-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80166499e-003
h = 6.71566695e-004
i = 2.54112022e-005
j = 1.99151404e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121265e-003
b = 6.00456962e-004
c = 1.48598925e-005
d = 1.99293222e-006
f0 = 5874.292

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5874.292	-1.5000	-0.00002
1.0000	6212.622	1.0000	0.00001
4.5000	6709.547	4.5000	0.00003
8.0001	7234.308	8.0001	0.00002
11.5001	7787.614	11.5001	-0.00001
15.0001	8370.206	15.0001	0.00003
18.5001	8982.719	18.4999	-0.00018
22.0001	9625.947	22.0002	0.00005
25.5001	10300.417	25.5002	0.00009
29.0001	11006.766	29.0001	0.00004
32.5001	11745.586	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

