

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1692
CALIBRATION DATE: 27-Oct-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80182570e-003
h = 6.71808457e-004
i = 2.55249450e-005
j = 2.00931191e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121249e-003
b = 6.00463796e-004
c = 1.48791957e-005
d = 2.01073355e-006
f0 = 5874.200

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5874.200	-1.5000	-0.00001
1.0000	6212.521	1.0000	0.00002
4.5000	6709.428	4.5000	-0.00000
8.0000	7234.158	8.0000	-0.00005
11.4999	7787.462	11.5000	0.00008
14.9999	8370.034	15.0000	0.00007
18.5000	8982.541	18.4998	-0.00021
22.0000	9625.758	22.0000	0.00003
25.5000	10300.214	25.5001	0.00007
29.0000	11006.548	29.0000	0.00004
32.5000	11745.353	32.5000	-0.00004

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

