

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1692
CALIBRATION DATE: 03-Apr-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80192952e-003
h = 6.71895989e-004
i = 2.55433167e-005
j = 2.00912001e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121263e-003
b = 6.00484106e-004
c = 1.48985198e-005
d = 2.01054378e-006
f0 = 5874.272

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5874.272	-1.5000	-0.00002
1.0000	6212.587	1.0000	0.00002
4.5000	6709.489	4.5000	0.00002
8.0000	7234.215	8.0000	0.00000
11.5000	7787.512	11.5000	0.00003
15.0000	8370.070	15.0000	-0.00003
18.5000	8982.592	18.4999	-0.00012
22.0000	9625.798	22.0001	0.00007
25.5000	10300.247	25.5001	0.00006
29.0000	11006.585	29.0000	0.00001
32.5000	11745.406	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

