

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1371
CALIBRATION DATE: 03-Aug-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83442403e-003
h = 6.79389331e-004
i = 2.70354445e-005
j = 2.16191868e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121255e-003
b = 6.02952177e-004
c = 1.53314822e-005
d = 2.16340196e-006
f0 = 6103.081

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6103.081	-1.5000	-0.00002
1.0000	6453.103	1.0000	0.00001
4.5000	6967.097	4.5000	0.00002
8.0000	7509.747	8.0000	0.00002
11.5000	8081.795	11.5000	-0.00002
15.0000	8683.971	14.9999	-0.00008
18.5000	9317.017	18.5001	0.00006
22.0000	9981.537	22.0000	0.00001
25.5000	10678.232	25.5000	0.00004
29.0000	11407.685	28.9999	-0.00005
32.5000	12170.549	32.5000	0.00001

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

