

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1369
CALIBRATION DATE: 03-Aug-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83375578e-003
h = 6.74165580e-004
i = 2.51015565e-005
j = 1.90486330e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121231e-003
b = 6.02006418e-004
c = 1.47545380e-005
d = 1.90626488e-006
f0 = 6143.513

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6143.513	-1.5000	0.00000
1.0000	6496.402	1.0000	0.00001
4.5000	7014.603	4.5000	-0.00000
8.0000	7561.692	8.0000	-0.00001
11.5000	8138.430	11.5000	0.00001
15.0000	8745.540	15.0000	-0.00002
18.5000	9383.758	18.5000	0.00004
22.0000	10053.737	22.0000	-0.00000
25.5000	10756.166	25.5000	-0.00000
29.0000	11491.667	29.0000	-0.00003
32.5000	12260.874	32.5000	0.00002

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

