

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1369
CALIBRATION DATE: 28-Jan-14

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83281805e-003
h = 6.72830470e-004
i = 2.44740111e-005
j = 1.80699581e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121266e-003
b = 6.01982026e-004
c = 1.46599501e-005
d = 1.80837692e-006
f0 = 6143.544

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6143.544	-1.5000	-0.00003
1.0000	6496.455	1.0000	0.00004
4.5000	7014.665	4.5000	0.00001
8.0000	7561.760	8.0000	0.00000
11.5000	8138.490	11.5000	-0.00003
15.0000	8745.609	15.0000	-0.00000
18.5000	9383.819	18.5000	0.00001
22.0000	10053.811	22.0000	0.00002
25.5000	10756.243	25.5000	-0.00003
29.0000	11491.789	29.0000	0.00003
32.5000	12261.019	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

