

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5239
CALIBRATION DATE: 18-Jun-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40424943e-003
h = 6.79245046e-004
i = 2.85026804e-005
j = 2.23178548e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121212e-003
b = 6.24292522e-004
c = 2.10890794e-005
d = 2.23377473e-006
f0 = 3039.935

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3039.935	-1.5000	0.00001
1.0000	3208.225	1.0000	-0.00001
4.5000	3455.050	4.5000	-0.00002
8.0000	3715.295	8.0000	-0.00002
11.5000	3989.321	11.5000	0.00003
15.0000	4277.469	15.0000	0.00001
18.5000	4580.089	18.5000	0.00002
22.0000	4897.505	22.0000	-0.00002
25.5000	5230.043	25.4999	-0.00005
28.9999	5578.017	28.9999	0.00003
32.5000	5941.733	32.5000	0.00000

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

