

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5140
CALIBRATION DATE: 27-Oct-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36477740e-003
h = 6.41228274e-004
i = 2.24638617e-005
j = 2.11508151e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121218e-003
b = 5.99497504e-004
c = 1.54839257e-005
d = 2.11656241e-006
f0 = 3017.150

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3017.150	-1.5000	0.00001
1.0000	3191.216	1.0000	-0.00001
4.5000	3446.948	4.5000	-0.00000
8.0000	3717.079	8.0000	-0.00004
11.4999	4002.002	11.5000	0.00006
14.9999	4302.091	15.0000	0.00006
18.5000	4617.708	18.4999	-0.00006
22.0000	4949.210	21.9999	-0.00006
25.5000	5296.943	25.5000	0.00004
29.0000	5661.214	29.0000	0.00003
32.5000	6042.342	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

