

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0997
CALIBRATION DATE: 18-Jul-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.88499786e-003
h = 6.84132133e-004
i = 2.91274850e-005
j = 2.46978087e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121313e-003
b = 6.00736017e-004
c = 1.51738319e-005
d = 2.47128888e-006
f0 = 6599.031

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6599.031	-1.5001	0.00004
1.0000	6978.927	1.0000	-0.00005
4.5000	7536.917	4.5000	-0.00004
7.9999	8126.144	7.9999	0.00002
11.4999	8747.439	11.5000	0.00005
14.9999	9401.561	14.9999	0.00002
18.4999	10089.273	18.4999	-0.00002
21.9999	10811.303	21.9999	-0.00005
25.5000	11568.376	25.5000	-0.00004
29.0000	12361.125	29.0001	0.00008
32.5000	13190.126	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

