

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4569
CALIBRATION DATE: 19-Apr-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35542567e-003
h = 6.36050800e-004
i = 2.06204157e-005
j = 1.72065635e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121205e-003
b = 5.97215851e-004
c = 1.49931784e-005
d = 1.72204187e-006
f0 = 2990.225

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2990.225	-1.5000	0.00002
1.0000	3163.408	1.0000	-0.00002
4.5000	3417.891	4.5000	-0.00002
8.0000	3686.766	8.0000	-0.00001
11.5000	3970.432	11.5000	0.00004
15.0000	4269.267	15.0000	0.00005
18.5000	4583.641	18.5000	-0.00004
22.0000	4913.932	21.9999	-0.00006
25.5000	5260.498	25.5000	0.00003
29.0000	5623.661	29.0000	0.00003
32.5000	6003.750	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

