

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2308
CALIBRATION DATE: 25-Jul-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34511630e-003
h = 6.44659687e-004
i = 2.32771907e-005
j = 2.17764963e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121214e-003
b = 6.02574747e-004
c = 1.63351253e-005
d = 2.17921037e-006
f0 = 2906.225

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2906.225	-1.5000	0.00001
1.0000	3073.023	1.0000	0.00001
4.5000	3318.028	4.5000	-0.00005
8.0000	3576.787	8.0000	-0.00002
11.5000	3849.669	11.5000	0.00005
15.0000	4137.026	15.0001	0.00006
18.5000	4439.201	18.5000	-0.00003
22.0000	4756.547	21.9999	-0.00005
25.5000	5089.392	25.5000	0.00001
29.0000	5438.034	29.0000	0.00000
32.5000	5802.781	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

