

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4193
CALIBRATION DATE: 26-Mar-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38065436e-003
h = 6.44299451e-004
i = 2.26963095e-005
j = 2.00152452e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121261e-003
b = 6.00952335e-004
c = 1.59637508e-005
d = 2.00302875e-006
f0 = 3082.704

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3082.704	-1.5000	-0.00002
1.0000	3260.120	1.0000	0.00001
4.5000	3520.755	4.5000	0.00004
8.0000	3796.048	8.0000	-0.00000
11.5000	4086.407	11.5000	-0.00000
15.0000	4392.211	14.9999	-0.00005
18.5000	4713.849	18.5000	-0.00003
22.0000	5051.684	22.0000	0.00005
25.5000	5406.052	25.5000	0.00001
29.0000	5777.309	29.0000	0.00002
32.5000	6165.770	32.5000	-0.00003

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

