

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2890
CALIBRATION DATE: 30-Jun-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38114863e-003
h = 6.47770668e-004
i = 2.36358425e-005
j = 2.20456763e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121198e-003
b = 6.03215672e-004
c = 1.62453115e-005
d = 2.20612698e-006
f0 = 3069.889

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3069.889	-1.5000	0.00002
1.0000	3245.883	1.0000	-0.00002
4.5000	3504.378	4.5000	-0.00001
8.0000	3777.341	7.9999	-0.00007
11.5000	4065.176	11.5000	0.00003
15.0000	4368.245	15.0001	0.00011
18.5000	4686.897	18.5000	0.00000
22.0000	5021.501	21.9999	-0.00008
25.5000	5372.407	25.5000	-0.00003
29.0000	5739.928	29.0000	0.00002
32.5000	6124.369	32.5000	0.00001

$$\text{Temperature ITS-90} = 1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

$$\text{Temperature IPTS-68} = 1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

