

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2492
CALIBRATION DATE: 17-Jul-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39936039e-003
h = 6.59705008e-004
i = 2.47184141e-005
j = 2.20938383e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121334e-003
b = 6.12393774e-004
c = 1.72457702e-005
d = 2.21104049e-006
f0 = 3101.022

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3101.022	-1.5001	0.00002
0.9999	3276.069	0.9999	-0.00005
4.4999	3532.953	4.4999	-0.00001
7.9999	3803.953	7.9999	0.00003
11.4999	4089.432	11.4999	0.00003
14.9999	4389.748	14.9999	0.00003
18.4999	4705.232	18.4998	-0.00011
21.9999	5036.248	21.9999	-0.00004
25.4999	5383.104	25.5000	0.00008
28.9999	5746.084	28.9999	0.00004
32.4999	6125.494	32.4999	-0.00004

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

