

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0813
CALIBRATION DATE: 18-Aug-11

SBE19 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.17025963e-003
h = 5.90216107e-004
i = 1.99545532e-006
j = -2.21775475e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.64763124e-003
b = 5.81519680e-004
c = 7.94646935e-006
d = -2.21745187e-006
f0 = 2437.128

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	2437.128	1.0003	0.00028
4.5000	2637.891	4.4995	-0.00051
15.0000	3310.309	15.0004	0.00041
18.5000	3558.868	18.5001	0.00006
24.0000	3975.492	23.9999	-0.00011
29.0000	4382.786	28.9995	-0.00045
32.5000	4684.717	32.5003	0.00033

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

