

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4126
CALIBRATION DATE: 13-Jan-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38551263e-003
h = 6.45671874e-004
i = 2.32356573e-005
j = 2.11340376e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121402e-003
b = 6.01330724e-004
c = 1.60848441e-005
d = 2.11493347e-006
f0 = 3102.432

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3102.432	-1.5001	-0.00003
0.9999	3280.870	0.9999	0.00001
4.4999	3543.003	4.5000	0.00008
8.0000	3819.867	7.9999	-0.00006
11.4999	4111.867	11.4999	-0.00002
14.9999	4419.399	14.9999	-0.00001
18.5000	4742.842	18.5000	0.00000
21.9999	5082.533	21.9999	0.00002
25.4999	5438.848	25.4999	0.00003
28.9999	5812.112	28.9999	-0.00002
32.4999	6202.662	32.4999	-0.00000

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

