

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2329
CALIBRATION DATE: 31-Jul-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34014150e-003
h = 6.41753721e-004
i = 2.34771472e-005
j = 2.30435794e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121344e-003
b = 5.99770957e-004
c = 1.61500502e-005
d = 2.30591598e-006
f0 = 2897.503

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	2897.503	-1.5001	0.00002
0.9999	3064.597	0.9999	-0.00002
4.4999	3310.118	4.4999	0.00000
7.9999	3569.498	7.9999	-0.00002
11.4998	3843.114	11.4998	0.00003
14.9999	4131.343	14.9999	0.00002
18.4999	4434.519	18.4999	0.00001
21.9999	4752.986	21.9998	-0.00006
25.4999	5087.092	25.4999	0.00002
28.9999	5437.130	28.9999	0.00001
32.4999	5803.412	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

