

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2329
CALIBRATION DATE: 19-Sep-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33999311e-003
h = 6.41398498e-004
i = 2.32237680e-005
j = 2.24579174e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121531e-003
b = 5.99755384e-004
c = 1.60834445e-005
d = 2.24733594e-006
f0 = 2897.558

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5002	2897.558	-1.5002	-0.00002
0.9998	3064.665	0.9998	0.00003
4.4999	3310.197	4.4999	0.00000
7.9998	3569.576	7.9998	-0.00001
11.4998	3843.201	11.4998	0.00002
14.9998	4131.420	14.9998	-0.00003
18.4999	4434.607	18.4999	-0.00003
21.9998	4753.078	21.9998	0.00003
25.4998	5087.177	25.4998	0.00000
28.9998	5437.224	28.9998	0.00002
32.4998	5803.511	32.4998	-0.00002

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

