

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1364
CALIBRATION DATE: 27-Jan-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84812999e-003
h = 6.78106388e-004
i = 2.50471880e-005
j = 1.83340296e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121137e-003
b = 6.05067828e-004
c = 1.50217764e-005
d = 1.83482512e-006
f0 = 6219.818

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6219.818	-1.4999	0.00017
0.9999	6575.190	0.9998	-0.00014
4.4999	7096.938	4.4997	-0.00018
7.9999	7647.603	7.9998	-0.00010
11.4999	8227.945	11.5000	0.00013
15.0000	8838.688	15.0003	0.00035
18.4999	9480.401	18.5000	0.00011
21.9999	10153.861	21.9996	-0.00032
25.4999	10859.867	25.4998	-0.00015
28.9999	11598.936	28.9999	0.00001
32.4999	12371.666	32.5000	0.00011

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

