

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2958
CALIBRATION DATE: 13-Mar-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39493929e-003
h = 6.73116035e-004
i = 3.01662761e-005
j = 2.82477227e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121242e-003
b = 6.16745951e-004
c = 2.07912926e-005
d = 2.82679906e-006
f0 = 3033.756

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3033.756	-1.5000	0.00009
0.9999	3203.808	0.9998	-0.00008
4.4999	3453.428	4.4997	-0.00015
7.9999	3716.877	8.0000	0.00009
11.4999	3994.481	11.4999	0.00005
14.9999	4286.627	14.9999	0.00004
18.4999	4593.665	18.5000	0.00006
21.9999	4915.921	21.9998	-0.00006
25.4999	5253.749	25.4999	-0.00002
28.9999	5607.437	28.9998	-0.00012
32.4999	5977.333	32.5000	0.00010

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

