

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4195
CALIBRATION DATE: 23-Jan-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.37127659e-003
h = 6.44072063e-004
i = 2.25168439e-005
j = 1.88097395e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121465e-003
b = 6.01165976e-004
c = 1.62777521e-005
d = 1.88248583e-006
f0 = 3035.961

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3035.961	-1.5002	-0.00007
0.9998	3210.629	0.9999	0.00007
4.4998	3467.240	4.4999	0.00010
7.9999	3738.302	7.9998	-0.00006
11.4998	4024.218	11.4998	-0.00003
14.9998	4325.383	14.9997	-0.00005
18.4998	4642.176	18.4998	-0.00001
21.9998	4974.957	21.9998	0.00001
25.4998	5324.085	25.4998	0.00004
28.9998	5689.904	28.9999	0.00008
32.4999	6072.732	32.4998	-0.00007

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

