

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1008
CALIBRATION DATE: 09-Feb-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80364166e-003
h = 6.74120921e-004
i = 2.68307375e-005
j = 2.17054877e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121079e-003
b = 5.99621409e-004
c = 1.53185650e-005
d = 2.17202514e-006
f0 = 5883.240

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	5883.240	-1.4999	0.00001
1.0001	6222.578	1.0001	-0.00001
4.5001	6721.093	4.5001	-0.00002
8.0001	7247.655	8.0001	0.00003
11.5002	7802.999	11.5002	-0.00003
15.0001	8387.846	15.0002	0.00006
18.5002	9002.907	18.5002	-0.00004
22.0002	9648.865	22.0002	-0.00000
25.5001	10326.346	25.5001	0.00004
29.0002	11036.008	29.0002	-0.00005
32.5001	11778.428	32.5001	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

