

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4035
CALIBRATION DATE: 09-Dec-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40699833e-003
h = 6.49936653e-004
i = 2.32820300e-005
j = 2.02719382e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121126e-003
b = 6.04250707e-004
c = 1.62548622e-005
d = 2.02873109e-006
f0 = 3190.089

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3190.089	-1.4999	-0.00002
1.0001	3372.657	1.0001	0.00001
4.5001	3640.770	4.5001	0.00004
8.0001	3923.851	8.0001	-0.00003
11.5001	4222.320	11.5001	0.00001
15.0001	4536.556	15.0001	0.00003
18.5001	4866.927	18.5000	-0.00007
22.0001	5213.824	22.0000	-0.00006
25.5001	5577.601	25.5002	0.00007
29.0001	5958.576	29.0002	0.00008
32.5001	6357.070	32.5000	-0.00006

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

