

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4130
CALIBRATION DATE: 13-Dec-06

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39536456e-003
h = 6.50308014e-004
i = 2.38232286e-005
j = 2.14706341e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121136e-003
b = 6.04476660e-004
c = 1.65018545e-005
d = 2.14863596e-006
f0 = 3129.805

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3129.805	-1.4999	-0.00003
1.0000	3308.851	1.0000	0.00001
4.5000	3571.809	4.5000	0.00005
8.0001	3849.468	8.0001	0.00004
11.5000	4142.195	11.5000	-0.00002
15.0001	4450.408	15.0000	-0.00012
18.5001	4774.477	18.5001	0.00001
22.0000	5114.727	22.0000	0.00003
25.4999	5471.527	25.5000	0.00006
29.0000	5845.220	29.0000	0.00001
32.5000	6236.103	32.5000	-0.00004

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 ITS-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

