

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0854
CALIBRATION DATE: 27-Jan-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83390833e-003
h = 7.16721270e-004
i = 5.15973494e-005
j = 6.44073056e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121975e-003
b = 5.94163488e-004
c = 1.70979080e-005
d = 6.44290108e-006
f0 = 5970.783

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	5970.783	-1.5005	-0.00045
0.9999	6318.612	1.0003	0.00040
4.4999	6829.913	4.5004	0.00051
7.9999	7370.325	7.9999	0.00004
11.4999	7940.592	11.4995	-0.00041
15.0000	8541.404	14.9995	-0.00049
18.4999	9173.296	18.4998	-0.00011
21.9999	9836.732	22.0001	0.00018
25.4999	10532.154	25.5003	0.00041
28.9999	11259.918	29.0003	0.00036
32.4999	12020.259	32.4995	-0.00044

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

