

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2890
CALIBRATION DATE: 23-Dec-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38120221e-003
h = 6.47930533e-004
i = 2.37517456e-005
j = 2.23218608e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121096e-003
b = 6.03220736e-004
c = 1.62684836e-005
d = 2.23375073e-006
f0 = 3069.798

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3069.798	-1.4999	-0.00000
1.0001	3245.790	1.0001	0.00002
4.5001	3504.273	4.5001	-0.00002
8.0001	3777.232	8.0001	-0.00002
11.5001	4065.051	11.5001	-0.00002
15.0001	4368.112	15.0002	0.00006
18.5001	4686.765	18.5002	0.00007
22.0002	5021.360	22.0001	-0.00009
25.5001	5372.247	25.5001	-0.00000
29.0001	5739.748	29.0001	0.00000
32.5001	6124.172	32.5001	0.00001

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

