

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1371
CALIBRATION DATE: 19-Jul-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83523193e-003
h = 6.80352802e-004
i = 2.74661595e-005
j = 2.22639570e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121211e-003
b = 6.02985602e-004
c = 1.54113050e-005
d = 2.22789268e-006
f0 = 6104.025

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6104.025	-1.5000	0.00002
1.0000	6454.076	1.0000	-0.00001
4.5001	6968.137	4.5001	-0.00005
8.0000	7510.857	8.0001	0.00005
11.5000	8082.986	11.5000	0.00003
15.0001	8685.249	15.0000	-0.00013
18.5001	9318.407	18.5002	0.00013
22.0001	9983.013	22.0001	0.00002
25.5001	10679.787	25.5001	-0.00005
29.0001	11409.358	29.0001	-0.00004
32.5001	12172.320	32.5001	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 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

