

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2631
CALIBRATION DATE: 26-Jan-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33805620e-003
h = 6.35181170e-004
i = 2.19076879e-005
j = 2.08338746e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121053e-003
b = 5.95612473e-004
c = 1.52496178e-005
d = 2.08483890e-006
f0 = 2914.090

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	2914.090	-1.4999	0.00003
1.0001	3083.335	1.0001	-0.00002
4.5001	3332.092	4.5001	-0.00004
8.0001	3594.990	8.0001	-0.00001
11.5001	3872.412	11.5001	0.00001
15.0001	4164.739	15.0002	0.00007
18.5001	4472.325	18.5001	0.00003
22.0002	4795.537	22.0001	-0.00005
25.5001	5134.705	25.5001	-0.00000
29.0002	5490.173	29.0001	-0.00006
32.5001	5862.243	32.5001	0.00005

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

