

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5855
CALIBRATION DATE: 03-Oct-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36501141e-003
h = 6.31011462e-004
i = 1.96169424e-005
j = 1.37342851e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121325e-003
b = 5.92394459e-004
c = 1.50305411e-005
d = 1.37475918e-006
f0 = 3063.551

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3063.551	-1.5001	-0.00007
1.0000	3242.485	1.0001	0.00007
4.5000	3505.564	4.5001	0.00006
8.0000	3783.721	8.0000	-0.00002
11.5000	4077.403	11.5000	-0.00003
15.0000	4387.030	15.0000	-0.00005
18.5000	4713.020	18.4999	-0.00006
22.0000	5055.793	22.0001	0.00005
25.5000	5415.725	25.5001	0.00007
29.0000	5793.203	29.0000	0.00002
32.5000	6188.606	32.5000	-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

