

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1701
CALIBRATION DATE: 06-Sep-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.79036330e-003
h = 6.53756525e-004
i = 1.84570428e-005
j = 1.00750672e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121207e-003
b = 5.97846906e-004
c = 1.31122689e-005
d = 1.00865346e-006
f0 = 5912.684

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5912.684	-1.5000	0.00002
1.0000	6254.683	0.9999	-0.00008
4.5000	6757.018	4.5001	0.00009
8.0000	7287.424	8.0000	0.00001
11.5000	7846.709	11.5000	0.00001
15.0000	8435.607	15.0001	0.00006
18.5000	9054.786	18.4998	-0.00017
22.0000	9705.057	21.9999	-0.00007
25.5000	10387.061	25.5001	0.00012
29.0000	11101.409	29.0001	0.00013
32.5000	11848.721	32.4999	-0.00011

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

