

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1710
CALIBRATION DATE: 26-Mar-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.81564694e-003
h = 6.72728225e-004
i = 2.55853146e-005
j = 1.98956171e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121183e-003
b = 6.00361812e-004
c = 1.49203149e-005
d = 1.99098467e-006
f0 = 5997.676

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5997.676	-1.5000	0.00004
1.0000	6343.158	1.0000	-0.00002
4.5000	6850.608	4.4999	-0.00007
8.0000	7386.501	8.0000	-0.00005
11.5000	7951.600	11.5001	0.00009
15.0000	8546.611	15.0002	0.00019
18.5000	9172.163	18.4998	-0.00018
22.0000	9829.111	21.9999	-0.00008
25.5000	10518.029	25.5000	0.00003
29.0000	11239.540	29.0001	0.00007
32.5000	11994.227	32.5000	-0.00003

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

