

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4252
CALIBRATION DATE: 10-Oct-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35853437e-003
h = 6.46918839e-004
i = 2.28013364e-005
j = 1.87007817e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121231e-003
b = 6.04197998e-004
c = 1.67432898e-005
d = 1.87163140e-006
f0 = 2958.821

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2958.821	-1.5000	0.00000
1.0000	3128.175	1.0000	0.00001
4.5000	3376.913	4.5000	-0.00002
8.0000	3639.591	8.0000	-0.00001
11.5000	3916.591	11.5000	0.00001
14.9999	4208.279	15.0000	0.00008
18.4999	4515.013	18.4998	-0.00006
22.0000	4837.175	21.9999	-0.00007
25.5000	5175.090	25.5000	0.00005
29.0000	5529.072	29.0000	0.00003
32.5000	5899.447	32.5000	-0.00002

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

