

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5237
CALIBRATION DATE: 17-May-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.41010232e-003
h = 6.79713970e-004
i = 2.83798590e-005
j = 2.16967050e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121225e-003
b = 6.24448194e-004
c = 2.11185880e-005
d = 2.17165369e-006
f0 = 3065.673

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3065.673	-1.5000	0.00000
1.0000	3235.345	1.0000	-0.00001
4.5000	3484.197	4.5000	0.00001
8.0000	3746.573	8.0000	-0.00001
11.5000	4022.840	11.5000	-0.00000
14.9999	4313.348	15.0000	0.00006
18.5000	4618.447	18.5000	-0.00005
22.0000	4938.471	21.9999	-0.00007
25.5000	5273.759	25.5000	0.00004
29.0000	5624.605	29.0001	0.00005
32.5000	5991.313	32.5000	-0.00004

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

