

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5233
CALIBRATION DATE: 17-May-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40262866e-003
h = 6.80188374e-004
i = 2.83505401e-005
j = 2.10109890e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121207e-003
b = 6.25272744e-004
c = 2.14000132e-005
d = 2.10309724e-006
f0 = 3026.938

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3026.938	-1.5000	0.00002
1.0000	3194.241	1.0000	-0.00002
4.5000	3439.613	4.5000	0.00000
8.0000	3698.313	8.0000	-0.00001
11.5000	3970.703	11.5000	-0.00002
14.9999	4257.136	15.0000	0.00009
18.5000	4557.951	18.5000	-0.00004
22.0000	4873.490	22.0000	-0.00001
25.5000	5204.071	25.5000	-0.00000
29.0000	5550.010	29.0000	-0.00001
32.5000	5911.615	32.5000	0.00001

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

