

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5403
CALIBRATION DATE: 18-Jun-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34811691e-003
h = 6.30354229e-004
i = 1.89818107e-005
j = 1.19581755e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121303e-003
b = 5.93338083e-004
c = 1.50931531e-005
d = 1.19713065e-006
f0 = 2978.420

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2978.420	-1.5001	-0.00005
1.0000	3152.095	1.0001	0.00005
4.5000	3407.420	4.5000	0.00003
8.0000	3677.357	8.0000	-0.00001
11.5000	3962.337	11.5000	0.00002
15.0000	4262.768	15.0000	0.00003
18.5000	4579.042	18.4999	-0.00015
22.0000	4911.600	21.9999	-0.00006
25.5000	5260.810	25.5000	0.00005
28.9999	5627.049	29.0002	0.00025
32.5000	6010.639	32.4998	-0.00016

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

