

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2946
CALIBRATION DATE: 26-Jun-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34395894e-003
h = 6.39041374e-004
i = 2.13239760e-005
j = 1.82048717e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121172e-003
b = 5.99746424e-004
c = 1.54968684e-005
d = 1.82193013e-006
f0 = 2921.032

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2921.032	-1.5000	0.00004
1.0000	3089.476	1.0000	-0.00005
4.5000	3336.953	4.5000	-0.00003
8.0000	3598.367	8.0000	-0.00002
11.5000	3874.101	11.5000	0.00002
14.9999	4164.523	15.0000	0.00014
18.5000	4469.980	18.4999	-0.00008
22.0000	4790.849	21.9999	-0.00005
25.5000	5127.458	25.5000	0.00002
29.0000	5480.120	29.0000	-0.00001
32.5000	5849.165	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

