

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4335
CALIBRATION DATE: 23-Apr-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33675978e-003
h = 6.33581660e-004
i = 2.06620805e-005
j = 1.79058537e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121234e-003
b = 5.95705404e-004
c = 1.49493646e-005
d = 1.79197418e-006
f0 = 2910.891

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2910.891	-1.5000	-0.00000
1.0000	3079.924	1.0000	0.00002
4.5000	3328.339	4.4999	-0.00006
7.9999	3590.861	8.0000	0.00005
11.5000	3867.874	11.5000	-0.00001
15.0000	4159.753	15.0000	0.00000
18.4999	4466.860	18.4999	0.00001
22.0000	4789.574	22.0000	-0.00004
25.5000	5128.229	25.5000	0.00001
29.0000	5483.157	29.0000	0.00002
32.5000	5854.677	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

