

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2367
CALIBRATION DATE: 25-Jul-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.37178289e-003
h = 6.45874796e-004
i = 2.34063776e-005
j = 2.18001461e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121141e-003
b = 6.02142822e-004
c = 1.61797940e-005
d = 2.18156390e-006
f0 = 3031.904

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3031.904	-1.4999	0.00007
1.0000	3206.034	1.0000	-0.00004
4.5000	3461.822	4.4999	-0.00011
8.0000	3731.979	8.0000	-0.00003
11.5000	4016.883	11.5001	0.00008
15.0000	4316.905	15.0002	0.00016
18.5000	4632.386	18.5000	-0.00001
22.0000	4963.705	21.9999	-0.00013
25.5000	5311.217	25.5000	-0.00004
29.0000	5675.225	29.0000	0.00002
32.5000	6056.039	32.5000	0.00003

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

