

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5171
CALIBRATION DATE: 05-Feb-14

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39212877e-003
h = 6.44869879e-004
i = 2.25913744e-005
j = 2.05304600e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121199e-003
b = 6.01403783e-004
c = 1.55759433e-005
d = 2.05452978e-006
f0 = 3137.645

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3137.645	-1.5000	0.00002
1.0000	3318.071	1.0000	-0.00002
4.5000	3583.091	4.5000	-0.00005
8.0000	3862.978	8.0000	0.00002
11.5000	4158.117	11.5000	0.00001
15.0000	4468.903	15.0001	0.00006
18.5000	4795.694	18.5000	-0.00002
22.0000	5138.868	21.9999	-0.00006
25.5000	5498.781	25.5000	0.00003
29.0000	5875.744	29.0000	-0.00001
32.5000	6270.097	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

