

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2327
CALIBRATION DATE: 10-Aug-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35200119e-003
h = 6.43139838e-004
i = 2.35032789e-005
j = 2.30745154e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121166e-003
b = 6.00554722e-004
c = 1.60463488e-005
d = 2.30900389e-006
f0 = 2948.168

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2948.168	-1.5000	0.00005
1.0001	3117.955	1.0000	-0.00006
4.5001	3367.400	4.5001	-0.00004
8.0000	3630.889	8.0000	0.00005
11.5000	3908.802	11.5000	0.00004
15.0000	4201.501	15.0000	-0.00002
18.5000	4509.350	18.5000	-0.00001
22.0000	4832.686	22.0000	0.00001
25.5000	5171.834	25.5000	-0.00003
29.0000	5527.120	29.0000	-0.00000
32.5000	5898.841	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

