

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4663
CALIBRATION DATE: 27-Aug-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38632935e-003
h = 6.40679267e-004
i = 2.14673446e-005
j = 1.80960378e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121217e-003
b = 5.98936042e-004
c = 1.53059365e-005
d = 1.81102896e-006
f0 = 3126.589

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3126.589	-1.5000	0.00001
1.0000	3307.141	1.0000	-0.00000
4.5000	3572.410	4.5000	-0.00002
8.0000	3852.636	8.0000	-0.00003
11.5000	4148.232	11.5000	0.00002
15.0000	4459.587	15.0000	0.00003
18.5000	4787.085	18.5000	-0.00002
22.0000	5131.116	22.0000	0.00002
25.5001	5492.037	25.5001	-0.00001
29.0001	5870.181	29.0000	-0.00006
32.5001	6265.917	32.5001	0.00004

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

