

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 5171
CALIBRATION DATE: 13-Aug-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39243526e-003
h = 6.45531062e-004
i = 2.30771702e-005
j = 2.16710891e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121348e-003
b = 6.01400690e-004
c = 1.56703259e-005
d = 2.16861546e-006
f0 = 3137.716

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3137.716	-1.5001	0.00001
0.9999	3318.151	0.9999	0.00000
4.4999	3583.185	4.4999	-0.00003
7.9999	3863.087	7.9999	-0.00003
11.4999	4158.254	11.4999	0.00002
14.9999	4469.067	15.0000	0.00007
18.4999	4795.886	18.4999	0.00001
21.9999	5139.082	21.9998	-0.00005
25.4999	5499.011	25.4999	-0.00001
28.9999	5875.991	28.9999	-0.00001
32.4999	6270.347	32.4999	0.00002

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

Date, Offset(mdeg C)

● 13-Aug-09 0.00

