

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2224
CALIBRATION DATE: 19-Jul-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36245090e-003
h = 6.42836477e-004
i = 2.32813698e-005
j = 2.19401288e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121193e-003
b = 5.99760716e-004
c = 1.60753580e-005
d = 2.19555042e-006
f0 = 3001.031

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3001.031	-1.5000	0.00003
1.0000	3174.097	1.0000	-0.00001
4.5001	3428.391	4.5000	-0.00008
8.0000	3697.038	8.0000	0.00002
11.5000	3980.434	11.5001	0.00006
15.0001	4278.954	15.0001	-0.00001
18.5001	4592.966	18.5001	0.00001
22.0001	4922.823	22.0001	-0.00001
25.5001	5268.871	25.5001	-0.00004
29.0001	5631.448	29.0001	0.00001
32.5001	6010.860	32.5001	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

