

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1652
CALIBRATION DATE: 13-Mar-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83744737e-003
h = 6.78162510e-004
i = 2.59814912e-005
j = 1.98325700e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121198e-003
b = 6.03640991e-004
c = 1.52189384e-005
d = 1.98471057e-006
f0 = 6131.988

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6131.988	-1.5000	0.00012
0.9999	6483.213	0.9998	-0.00011
4.4999	6998.967	4.4998	-0.00014
7.9999	7543.437	7.9998	-0.00005
11.4999	8117.368	11.5000	0.00011
14.9999	8721.489	15.0002	0.00033
18.4999	9356.379	18.4998	-0.00009
21.9999	10022.882	21.9997	-0.00022
25.4999	10721.669	25.4999	-0.00003
28.9999	11453.286	28.9999	0.00003
32.4999	12218.349	32.4999	0.00005

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

