

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1049
CALIBRATION DATE: 17-Jun-99

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84669615e-003
h = 6.76887819e-004
i = 2.67903102e-005
j = 2.14348514e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68148031e-003
b = 6.00361006e-004
c = 1.50165426e-005
d = 2.14493407e-006
f0 = 6266.140

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5197	6266.140	-1.5198	-0.00002
1.0416	6636.195	1.0416	0.00001
4.6158	7178.559	4.6158	0.00003
8.1228	7740.863	8.1228	0.00002
11.6267	8333.289	11.6266	-0.00001
15.1872	8967.418	15.1871	-0.00008
18.6509	9616.149	18.6509	0.00000
22.1519	10304.436	22.1519	0.00005
25.6795	11031.785	25.6796	0.00004
29.1509	11781.302	29.1508	-0.00002
32.6259	12565.813	32.6259	-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 ITS-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

