

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1049
CALIBRATION DATE: 15-Mar-05

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84692693e-003
h = 6.77132210e-004
i = 2.69030238e-005
j = 2.16135489e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121029e-003
b = 6.00356161e-004
c = 1.50274054e-005
d = 2.16280872e-006
f0 = 6269.496

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4998	6269.496	-1.4999	-0.00005
1.0002	6630.669	1.0003	0.00008
4.5002	7161.139	4.5002	0.00003
8.0002	7721.328	8.0001	-0.00007
11.5002	8312.052	11.5002	-0.00004
15.0002	8934.049	15.0002	0.00001
18.5002	9588.050	18.5002	0.00005
22.0002	10274.757	22.0002	0.00005
25.5003	10994.847	25.5002	-0.00009
29.0002	11748.997	29.0002	0.00004
32.5003	12537.817	32.5003	-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

