

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 4035
CALIBRATION DATE: 04-Nov-04

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40700095e-003
h = 6.49947059e-004
i = 2.33045699e-005
j = 2.03477261e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121160e-003
b = 6.04238944e-004
c = 1.62509359e-005
d = 2.03630997e-006
f0 = 3190.135

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3190.135	-1.4999	-0.00005
1.0001	3372.714	1.0002	0.00005
4.5001	3640.834	4.5002	0.00005
8.0001	3923.925	8.0001	-0.00003
11.5001	4222.397	11.5000	-0.00006
15.0001	4536.653	15.0002	0.00007
18.5001	4867.030	18.5000	-0.00008
22.0001	5213.940	22.0001	-0.00003
25.5001	5577.722	25.5002	0.00006
29.0001	5958.704	29.0002	0.00006
32.5001	6357.207	32.5000	-0.00006

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

