

SEA-BIRD ELECTRONICS, INC.

13431 NE 20th Street, Bellevue, Washington, 98005-2010 USA

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

SENSOR SERIAL NUMBER: 4799
CALIBRATION DATE: 12-Mar-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36398491e-003
h = 6.36970017e-004
i = 2.08492442e-005
j = 1.74232420e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121268e-003
b = 5.97317838e-004
c = 1.50826028e-005
d = 1.74371919e-006
f0 = 3029.514

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3029.514	-1.5000	-0.00003
1.0000	3204.951	1.0000	0.00004
4.5000	3462.733	4.5000	-0.00001
8.0000	3735.100	8.0000	-0.00001
11.4999	4022.444	11.4999	0.00004
15.0000	4325.168	15.0000	-0.00003
18.5000	4643.642	18.5000	-0.00003
22.0000	4978.239	22.0000	-0.00003
25.5000	5329.324	25.5001	0.00006
29.0000	5697.221	29.0000	0.00003
32.5000	6082.271	32.5000	-0.00004

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

