

Sea-Bird Electronics, Inc.

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

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 1075
CALIBRATION DATE: 20-Jun-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.86418876e-003
h = 6.81678375e-004
i = 2.63753508e-005
j = 1.93498752e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121223e-003
b = 6.04109066e-004
c = 1.56647987e-005
d = 1.93646687e-006
f0 = 6358.708

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6358.708	-1.5000	0.00001
1.0000	6722.681	1.0000	0.00003
4.5000	7257.123	4.5000	-0.00005
8.0000	7821.351	8.0000	-0.00005
11.5000	8416.159	11.5000	0.00004
15.0000	9042.285	15.0000	0.00004
18.4999	9700.470	18.5000	0.00006
22.0000	10391.463	21.9999	-0.00007
25.5000	11115.960	25.5000	-0.00003
29.0000	11874.611	29.0000	-0.00001
32.5000	12668.071	32.5000	0.00003

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

