

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: 4035
CALIBRATION DATE: 28-Jun-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40697597e-003
h = 6.49895184e-004
i = 2.32649113e-005
j = 2.02632054e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121250e-003
b = 6.04245276e-004
c = 1.62407501e-005
d = 2.02785647e-006
f0 = 3190.104

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3190.104	-1.5000	-0.00001
1.0000	3372.674	1.0000	0.00002
4.5000	3640.787	4.5000	0.00001
8.0000	3923.873	8.0000	-0.00003
11.5000	4222.345	11.5000	0.00003
15.0000	4536.580	15.0000	0.00004
18.5000	4866.949	18.4999	-0.00007
22.0000	5213.843	21.9999	-0.00006
25.5000	5577.616	25.5001	0.00006
29.0000	5958.585	29.0001	0.00007
32.5000	6357.074	32.4999	-0.00005

$$\text{Temperature ITS-90} = 1 / \{ g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)] \} - 273.15 \text{ (}^\circ\text{C)}$$

$$\text{Temperature IPTS-68} = 1 / \{ a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)] \} - 273.15 \text{ (}^\circ\text{C)}$$

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

