

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: 2329
 CALIBRATION DATE: 10-Jan-14

SBE3 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33992397e-003
 h = 6.41240391e-004
 i = 2.31095149e-005
 j = 2.22067731e-006
 f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121241e-003
 b = 5.99754948e-004
 c = 1.60493080e-005
 d = 2.22221606e-006
 f0 = 2897.572

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2897.572	-1.5000	-0.00001
1.0000	3064.677	1.0000	0.00001
4.5000	3310.202	4.5000	0.00001
8.0000	3569.582	8.0000	-0.00003
11.5000	3843.202	11.5000	0.00000
15.0000	4131.420	15.0000	0.00002
18.5000	4434.588	18.5000	0.00001
22.0000	4753.050	22.0000	-0.00002
25.5000	5087.142	25.5000	-0.00000
29.0000	5437.177	29.0000	0.00001
32.5000	5803.456	32.5000	-0.00000

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

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

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

Residual = instrument temperature - bath temperature

