

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: 1364
 CALIBRATION DATE: 18-Jul-13

SBE3 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84883505e-003
 h = 6.79121914e-004
 i = 2.55144363e-005
 j = 1.90421044e-006
 f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121214e-003
 b = 6.05086125e-004
 c = 1.51010073e-005
 d = 1.90564725e-006
 f0 = 6219.579

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6219.579	-1.5000	0.00011
1.0000	6574.962	0.9999	-0.00007
4.5000	7096.677	4.4998	-0.00017
7.9999	7647.309	7.9998	-0.00008
11.4999	8227.633	11.5000	0.00013
14.9999	8838.334	15.0002	0.00028
18.4999	9480.042	18.4999	-0.00001
21.9999	10153.544	21.9997	-0.00016
25.5000	10859.533	25.4999	-0.00010
29.0000	11598.564	29.0000	-0.00002
32.5000	12371.264	32.5001	0.00009

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

