

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: 1367
CALIBRATION DATE: 05-Mar-14

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.85998587e-003
h = 6.75254609e-004
i = 2.67237216e-005
j = 2.11778502e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121223e-003
b = 5.97886180e-004
c = 1.49160846e-005
d = 2.11922052e-006
f0 = 6441.284

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6441.284	-1.5000	0.00001
1.0000	6813.910	1.0000	-0.00000
4.5000	7361.391	4.5000	0.00000
8.0000	7939.734	8.0000	-0.00003
11.5000	8549.784	11.5000	0.00002
15.0000	9192.315	15.0000	0.00000
18.5000	9868.122	18.5000	0.00003
22.0000	10577.930	22.0000	-0.00001
25.5000	11322.476	25.5000	-0.00003
29.0000	12102.460	29.0000	-0.00000
32.5000	12918.530	32.5000	0.00002

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

