

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: 0696
CALIBRATION DATE: 06-Feb-14

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84660871e-003
h = 6.89394384e-004
i = 3.32912264e-005
j = 3.16798616e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121006e-003
b = 5.99740445e-004
c = 1.59915008e-005
d = 3.16965222e-006
f0 = 6191.251

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6191.251	-1.4998	0.00017
1.0000	6548.261	0.9999	-0.00015
4.5000	7072.848	4.4998	-0.00017
8.0000	7627.002	8.0000	-0.00004
11.5000	8211.463	11.5001	0.00011
15.0000	8826.941	15.0002	0.00015
18.5000	9474.137	18.5001	0.00013
22.0000	10153.713	22.0000	0.00002
25.5000	10866.297	25.4998	-0.00021
29.0000	11612.551	28.9997	-0.00025
32.5000	12393.128	32.5002	0.00024

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

