

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: 4039
CALIBRATION DATE: 28-Jun-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.41244151e-003
h = 6.48939510e-004
i = 2.35197736e-005
j = 2.10198156e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121262e-003
b = 6.02638549e-004
c = 1.61610113e-005
d = 2.10351831e-006
f0 = 3226.296

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3226.296	-1.5000	-0.00002
1.0000	3411.445	1.0000	0.00003
4.5000	3683.391	4.5000	0.00003
8.0000	3970.578	8.0000	-0.00003
11.5000	4273.427	11.5000	-0.00001
15.0000	4592.329	15.0000	-0.00000
18.5000	4927.672	18.5000	0.00001
22.0000	5279.828	22.0000	-0.00001
25.5000	5649.162	25.5000	-0.00000
29.0000	6036.023	29.0000	0.00003
32.5000	6440.730	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

