

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: 0539
CALIBRATION DATE: 05-Feb-14

SBE16 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.16866197e-003
h = 5.91619267e-004
i = 2.06402625e-006
j = -2.19687546e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.64763701e-003
b = 5.82927184e-004
c = 7.92750486e-006
d = -2.19658562e-006
f0 = 2425.389

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	2425.389	0.9998	-0.00015
4.5000	2624.754	4.5003	0.00028
15.0000	3291.884	14.9998	-0.00019
18.5000	3538.444	18.4998	-0.00020
24.0000	3951.626	24.0004	0.00038
29.0000	4355.368	28.9999	-0.00007
32.5000	4654.532	32.4999	-0.00005

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

