

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0701
CALIBRATION DATE: 10-Jan-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.81933038e-003
h = 6.82228463e-004
i = 3.11770469e-005
j = 2.91509376e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121045e-003
b = 5.98774863e-004
c = 1.55484907e-005
d = 2.91668844e-006
f0 = 5990.565

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	5990.565	-1.4999	0.00004
1.0001	6336.602	1.0001	0.00000
4.5001	6845.018	4.5001	-0.00005
8.0001	7382.087	8.0000	-0.00008
11.5001	7948.564	11.5001	-0.00002
15.0001	8545.154	15.0002	0.00008
18.5001	9172.531	18.5002	0.00014
22.0001	9831.341	22.0002	0.00011
25.5001	10522.185	25.5000	-0.00012
29.0068	11247.123	29.0065	-0.00029
32.5001	12002.604	32.5003	0.00021

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

