

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4252
CALIBRATION DATE: 14-Feb-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35810956e-003
h = 6.46032952e-004
i = 2.21877405e-005
j = 1.73005167e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121213e-003
b = 6.04149390e-004
c = 1.65854164e-005
d = 1.73157379e-006
f0 = 2958.787

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2958.787	-1.5000	0.00001
1.0000	3128.147	1.0000	-0.00003
4.5000	3376.898	4.5000	0.00002
8.0000	3639.576	8.0000	-0.00001
11.5000	3916.574	11.5000	0.00002
15.0000	4208.264	15.0001	0.00008
18.5000	4514.986	18.4999	-0.00011
22.0000	4837.139	21.9999	-0.00005
25.5000	5175.050	25.5001	0.00006
29.0000	5529.038	29.0001	0.00007
32.5000	5899.419	32.5000	-0.00005

$$\text{Temperature ITS-90} = 1 / \{ g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)] \} - 273.15 \text{ (}^\circ\text{C)}$$

$$\text{Temperature IPTS-68} = 1 / \{ a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)] \} - 273.15 \text{ (}^\circ\text{C)}$$

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

