

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2958
CALIBRATION DATE: 10-May-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39479263e-003
h = 6.72823388e-004
i = 2.99477848e-005
j = 2.77035344e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121146e-003
b = 6.16738241e-004
c = 2.07541873e-005
d = 2.77236976e-006
f0 = 3033.679

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3033.679	-1.4999	0.00006
0.9999	3203.726	0.9999	-0.00004
4.5000	3453.350	4.4999	-0.00009
8.0000	3716.778	8.0000	-0.00003
11.5000	3994.386	11.5001	0.00007
15.0000	4286.522	15.0000	0.00003
18.4999	4593.554	18.5000	0.00014
22.0000	4915.809	22.0000	-0.00004
25.5000	5253.627	25.4999	-0.00010
29.0000	5607.330	28.9999	-0.00009
32.5000	5977.235	32.5001	0.00010

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

