

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2741
CALIBRATION DATE: 12-Jan-16

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34916120e-003
h = 6.34132369e-004
i = 2.18820817e-005
j = 2.04732376e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121176e-003
b = 5.93865808e-004
c = 1.52130267e-005
d = 2.04876418e-006
f0 = 2974.759

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2974.759	-1.5000	0.00004
1.0000	3148.049	1.0000	-0.00004
4.5000	3402.811	4.5000	-0.00003
8.0000	3672.117	8.0000	-0.00001
11.5000	3956.373	11.5000	0.00003
15.0000	4255.968	15.0001	0.00006
18.5001	4571.283	18.5001	-0.00002
22.0000	4902.681	22.0000	0.00001
25.5000	5250.526	25.5000	-0.00004
29.0000	5615.169	29.0000	-0.00003
32.5000	5996.940	32.5000	0.00004

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

