

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5773
CALIBRATION DATE: 01-May-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35206338e-003
h = 6.29497192e-004
i = 1.96850887e-005
j = 1.44161134e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121312e-003
b = 5.91550973e-004
c = 1.49519947e-005
d = 1.44294392e-006
f0 = 3005.733

| BATH TEMP (ITS-90) | INSTRUMENT FREQ (Hz) | INST TEMP (ITS-90) | RESIDUAL (ITS-90) |
|-----------------------|-------------------------|-----------------------|----------------------|
| -1.5000 | 3005.733 | -1.5001 | -0.00006 |
| 1.0000 | 3181.546 | 1.0001 | 0.00007 |
| 4.5000 | 3440.058 | 4.5000 | 0.00005 |
| 8.0000 | 3713.412 | 8.0000 | -0.00004 |
| 11.5000 | 4002.051 | 11.5000 | -0.00000 |
| 15.0000 | 4306.378 | 15.0000 | -0.00004 |
| 18.5000 | 4626.816 | 18.5000 | -0.00001 |
| 22.0000 | 4963.758 | 22.0000 | 0.00002 |
| 25.5000 | 5317.592 | 25.5000 | 0.00002 |
| 29.0000 | 5688.702 | 29.0001 | 0.00005 |
| 32.5000 | 6077.436 | 32.5000 | -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

