

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4360
CALIBRATION DATE: 30-Nov-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36276571e-003
h = 6.49987858e-004
i = 2.31687277e-005
j = 1.86800537e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121241e-003
b = 6.06387801e-004
c = 1.71053304e-005
d = 1.86959095e-006
f0 = 2965.353

| BATH TEMP (ITS-90) | INSTRUMENT FREQ (Hz) | INST TEMP (ITS-90) | RESIDUAL (ITS-90) |
|-----------------------|-------------------------|-----------------------|----------------------|
| -1.5000 | 2965.353 | -1.5000 | -0.00001 |
| 1.0000 | 3134.455 | 1.0000 | 0.00000 |
| 4.5000 | 3382.779 | 4.5000 | 0.00001 |
| 8.0000 | 3644.965 | 8.0000 | 0.00001 |
| 11.5000 | 3921.390 | 11.5000 | -0.00001 |
| 15.0000 | 4212.425 | 15.0000 | -0.00002 |
| 18.5000 | 4518.433 | 18.5000 | 0.00001 |
| 22.0000 | 4839.758 | 22.0000 | 0.00001 |
| 25.5000 | 5176.739 | 25.5000 | -0.00001 |
| 29.0000 | 5529.711 | 29.0000 | 0.00003 |
| 32.5000 | 5898.976 | 32.5000 | -0.00002 |

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

