

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0515
CALIBRATION DATE: 05-Oct-16

SBE 39 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = 6.489277e-006
a1 = 2.758394e-004
a2 = -2.367238e-006
a3 = 1.595064e-007

| BATH TEMP (° C) | INSTRUMENT OUTPUT (counts) | INST TEMP (° C) | RESIDUAL (° C) |
|--------------------|-------------------------------|--------------------|-------------------|
| -1.5000 | 705114.8 | -1.5000 | 0.0000 |
| 1.0000 | 630091.8 | 1.0000 | -0.0000 |
| 4.5000 | 539811.3 | 4.4999 | -0.0001 |
| 8.0000 | 463963.0 | 7.9999 | -0.0001 |
| 11.5000 | 400025.6 | 11.5000 | 0.0000 |
| 14.9999 | 345954.8 | 15.0001 | 0.0002 |
| 18.5000 | 300082.0 | 18.5000 | -0.0000 |
| 22.0000 | 261042.8 | 22.0000 | -0.0000 |
| 25.5000 | 227719.9 | 25.4999 | -0.0001 |
| 29.0000 | 199190.9 | 29.0000 | 0.0000 |
| 32.5000 | 174699.0 | 32.5000 | 0.0000 |

n = Instrument Output (counts)

Temperature ITS-90 (°C) = $1 / \{a_0 + a_1[\ln(n)] + a_2[\ln^2(n)] + a_3[\ln^3(n)]\} - 273.15$

Residual (°C) = instrument temperature - bath temperature

