



Sea-Bird Scientific
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SENSOR SERIAL NUMBER: 5018
 CALIBRATION DATE: 12-Jan-19

SBE 3 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

g = 4.33581305e-003
 h = 6.39401549e-004
 i = 2.14278002e-005
 j = 1.79588264e-006
 f0 = 1000.0

| BATH TEMP (° C) | INSTRUMENT OUTPUT (Hz) | INST TEMP (° C) | RESIDUAL (° C) |
|--------------------|---------------------------|--------------------|-------------------|
| -1.5000 | 2880.499 | -1.5000 | 0.00005 |
| 1.0000 | 3046.469 | 0.9999 | -0.00005 |
| 4.5000 | 3290.312 | 4.5000 | -0.00004 |
| 8.0000 | 3547.888 | 7.9999 | -0.00006 |
| 11.5000 | 3819.590 | 11.5001 | 0.00010 |
| 15.0000 | 4105.762 | 15.0001 | 0.00013 |
| 18.5000 | 4406.749 | 18.4999 | -0.00010 |
| 22.0000 | 4722.938 | 21.9999 | -0.00011 |
| 25.5000 | 5054.664 | 25.5001 | 0.00005 |
| 29.0000 | 5402.216 | 29.0000 | 0.00001 |
| 32.5000 | 5765.929 | 32.5000 | 0.00000 |

f = Instrument Output (Hz)

$$\text{Temperature ITS-90 (°C)} = 1 / \{g + h[\ln(f_0 / f)] + i[\ln^2(f_0 / f)] + j[\ln^3(f_0 / f)]\} - 273.15$$

$$\text{Residual (°C)} = \text{instrument temperature} - \text{bath temperature}$$

