

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4285  
CALIBRATION DATE: 26-Nov-15

SBE 16plus TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = 1.263326e-003  
a1 = 2.597761e-004  
a2 = 2.843546e-007  
a3 = 1.370478e-007

| BATH TEMP<br>(° C) | INSTRUMENT<br>OUTPUT (counts) | INST TEMP<br>(° C) | RESIDUAL<br>(° C) |
|--------------------|-------------------------------|--------------------|-------------------|
| 1.0000             | 623849.455                    | 1.0000             | 0.0000            |
| 4.5000             | 553948.700                    | 4.5000             | -0.0000           |
| 15.0000            | 380428.500                    | 15.0000            | 0.0000            |
| 18.5000            | 333838.000                    | 18.5000            | 0.0000            |
| 24.0000            | 270593.700                    | 24.0000            | 0.0000            |
| 29.0000            | 222464.182                    | 28.9999            | -0.0001           |
| 32.4999            | 193397.600                    | 32.5000            | 0.0001            |

n = Instrument Output (counts)

MV = (n - 524288) / 1.6e+007

R = (MV \* 2.900e+009 + 1.024e+008) / (2.048e+004 - MV \* 2.0e+005)

Temperature ITS-90 (°C) = 1 / {a0 + a1[ln(R)] + a2[ln<sup>2</sup>(R)] + a3[ln<sup>3</sup>(R)]} - 273.15

Residual (°C) = instrument temperature - bath temperature

