

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4139  
CALIBRATION DATE: 19-Aug-11

SBE16plus TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = 1.258854e-003  
a1 = 2.621896e-004  
a2 = -2.306279e-007  
a3 = 1.627175e-007

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT(n)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	632643.167	1.0001	0.0001
4.5000	562052.000	4.4998	-0.0002
15.0000	386435.545	15.0002	0.0002
18.5000	339205.818	18.5001	0.0001
24.0000	275052.417	23.9998	-0.0002
29.0000	226195.333	28.9999	-0.0001
32.5000	196682.000	32.5001	0.0001

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

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

$$\text{Temperature ITS-90} = 1 / \{ a0 + a1[\ln(R)] + a2[\ln^2(R)] + a3[\ln^3(R)] \} - 273.15 \text{ (}^\circ\text{C)}$$

Residual = instrument temperature - bath temperature

