

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4139  
CALIBRATION DATE: 02-Jul-10

SBE16plus TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = 1.258303e-003  
a1 = 2.624513e-004  
a2 = -2.702288e-007  
a3 = 1.646434e-007

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT(n)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
0.9999	632648.727	1.0000	0.0001
4.5000	562057.300	4.4998	-0.0002
15.0000	386441.818	15.0002	0.0002
18.5000	339211.636	18.5001	0.0001
24.0000	275056.818	23.9998	-0.0002
28.9999	226198.727	28.9999	-0.0000
32.5000	196684.000	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

