

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4288  
CALIBRATION DATE: 20-Jan-11

SBE16plus TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = 1.255503e-003  
a1 = 2.600331e-004  
a2 = 7.717913e-008  
a3 = 1.418645e-007

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT(n)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	652899.348	1.0000	0.0000
4.4999	580758.409	4.4998	-0.0001
15.0000	400608.182	15.0000	0.0000
18.5000	351999.924	18.5000	0.0000
24.0000	285872.167	24.0001	0.0001
29.0000	235450.045	28.9998	-0.0002
32.5001	204958.303	32.5002	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

