

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4139  
CALIBRATION DATE: 20-Nov-15

SBE 16plus TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = 1.278634e-003  
a1 = 2.548519e-004  
a2 = 6.742429e-007  
a3 = 1.255846e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
1.0000	632682.200	1.0000	-0.0000
4.5000	562074.182	4.5001	0.0001
15.0000	386463.100	14.9999	-0.0001
18.5001	339229.400	18.5002	0.0001
24.0000	275072.400	24.0000	-0.0000
29.0000	226212.091	29.0001	0.0001
32.4999	196697.500	32.4999	-0.0000

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) =  $1 / \{a_0 + a_1[\ln(R)] + a_2[\ln^2(R)] + a_3[\ln^3(R)]\} - 273.15$

Residual (°C) = instrument temperature - bath temperature

