

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1640  
CALIBRATION DATE: 02-Dec-15

SBE 39 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = -3.941925e-005  
a1 = 2.793996e-004  
a2 = -2.544443e-006  
a3 = 1.611772e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	769250.8	-1.4999	0.0001
1.0000	687509.2	0.9999	-0.0001
4.5000	589127.9	4.5000	-0.0000
8.0000	506464.3	8.0000	-0.0000
11.5000	436771.9	11.5001	0.0001
15.0000	377824.6	15.0001	0.0001
18.5000	327807.3	18.5000	-0.0000
22.0000	285233.9	21.9999	-0.0001
25.5000	248885.0	25.5001	0.0001
29.0000	217764.5	28.9999	-0.0001
32.5000	191039.3	32.5001	0.0001

n = Instrument Output (counts)

Temperature ITS-90 (°C) =  $1 / \{a_0 + a_1[\ln(n)] + a_2[\ln^2(n)] + a_3[\ln^3(n)]\} - 273.15$

Residual (°C) = instrument temperature - bath temperature

