

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0509  
CALIBRATION DATE: 14-Oct-16

SBE 39 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = -2.885559e-005  
a1 = 2.786976e-004  
a2 = -2.544201e-006  
a3 = 1.644282e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	746066.1	-1.5000	0.0000
1.0000	666993.6	1.0000	-0.0000
4.5000	571786.5	4.5000	-0.0000
8.0000	491749.3	8.0000	-0.0000
11.5000	424239.0	11.5000	0.0000
15.0000	367111.6	15.0000	0.0000
18.5000	318616.1	18.5000	0.0000
22.0000	277321.8	22.0000	-0.0000
25.5000	242053.6	25.4999	-0.0001
29.0000	211843.8	29.0000	-0.0000
32.5000	185893.8	32.5000	0.0000

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

