

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0510  
CALIBRATION DATE: 13-Jan-12

SBE 39 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 =  $-1.776746 \times 10^{-5}$

a1 =  $2.818918 \times 10^{-4}$

a2 =  $-2.745762 \times 10^{-6}$

a3 =  $1.718722 \times 10^{-7}$

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	662447.4	-1.5001	0.0000
0.9999	592419.8	0.9999	-0.0000
4.4999	508070.9	4.4999	-0.0000
7.9999	437132.4	7.9999	-0.0000
11.4999	377271.9	11.4999	0.0000
14.9999	326596.3	15.0000	0.0001
18.4999	283561.7	18.4999	0.0000
21.9999	246903.3	21.9999	-0.0000
25.4999	215582.9	25.4998	-0.0001
28.9999	188745.0	28.9999	-0.0000
32.4999	165683.2	32.4999	0.0000

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

Residual = instrument temperature - bath temperature

