

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0370  
CALIBRATION DATE: 20-Jan-17

SBE 38 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = 6.850703e-006  
a1 = 2.743206e-004  
a2 = -2.205237e-006  
a3 = 1.544378e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	712444.7	-1.5000	0.0000
1.0000	636684.4	1.0000	-0.0000
4.5000	545510.5	4.5000	-0.0000
8.0000	468908.2	8.0000	-0.0000
11.5000	404332.4	11.5000	0.0000
15.0000	349716.6	15.0000	0.0000
18.5000	303377.2	18.5000	0.0000
22.0000	263938.4	22.0000	0.0000
25.5000	230271.7	25.5000	-0.0000
29.0000	201447.5	28.9999	-0.0001
32.5000	176696.9	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

