

# Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0508  
CALIBRATION DATE: 16-Oct-16

SBE 39 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = 7.190172e-006  
a1 = 2.794003e-004  
a2 = -2.636829e-006  
a3 = 1.679196e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	658880.0	-1.5000	0.0000
1.0000	588845.6	1.0000	-0.0000
4.5000	504554.5	4.4999	-0.0001
8.0000	433726.1	8.0000	-0.0000
11.5000	374010.8	11.5000	0.0000
15.0000	323501.6	15.0001	0.0001
18.5000	280644.3	18.5000	0.0000
22.0000	244166.5	22.0000	-0.0000
25.5000	213025.0	25.5000	-0.0000
29.0000	186361.7	28.9999	-0.0001
32.5000	163467.0	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

