

# 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: 0564  
CALIBRATION DATE: 11-Oct-16

SBE 39 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = -1.500622e-005  
a1 = 2.771088e-004  
a2 = -2.429408e-006  
a3 = 1.618204e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.4999	729087.1	-1.4999	0.0000
1.0000	651789.9	1.0000	0.0000
4.5000	558723.5	4.5000	-0.0000
8.0000	480489.0	8.0000	-0.0000
11.5000	414503.3	11.5000	0.0000
15.0000	358668.1	15.0000	0.0000
18.5000	311271.0	18.5001	0.0001
22.0000	270914.6	22.0000	0.0000
25.5000	236449.1	25.4999	-0.0001
29.0000	206928.1	29.0000	-0.0000
32.5000	181570.6	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

