

# 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: 0680  
CALIBRATION DATE: 16-Aug-12

SBE 38 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = 5.672674e-005

a1 = 2.709824e-004

a2 = -2.235260e-006

a3 = 1.456026e-007

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.50000	769022.5	-1.49999	0.00001
1.00000	685018.8	0.99998	-0.00002
4.50000	584322.8	4.50001	0.00001
8.00000	500105.2	7.99997	-0.00003
11.50000	429421.0	11.50000	0.00000
15.00000	369895.9	15.00002	0.00002
18.50000	319603.0	18.50002	0.00002
22.00000	276974.2	22.00001	0.00001
25.50000	240729.1	25.49997	-0.00003
29.00000	209817.8	28.99997	-0.00003
32.50000	183377.5	32.50003	0.00003

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

