



Sea-Bird Scientific  
13431 NE 20<sup>th</sup> Street  
Bellevue, WA 98005  
USA

+1 425-643-9866  
seabird@seabird.com  
www.seabird.com

SENSOR SERIAL NUMBER: 0970  
CALIBRATION DATE: 11-Jan-25

SBE 39 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = -6.516783e-004  
a1 = 4.439341e-004  
a2 = -1.713411e-005  
a3 = 5.827928e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	802161.4	-1.4997	0.0003
1.0000	717376.0	0.9999	-0.0001
4.5000	615055.0	4.4995	-0.0005
8.0000	528839.5	7.9996	-0.0004
11.5000	455984.3	11.5003	0.0003
15.0000	394266.4	15.0008	0.0008
18.5000	341849.2	18.5004	0.0004
22.0000	297204.7	21.9993	-0.0007
25.5000	259060.2	25.4995	-0.0005
29.0000	226394.2	29.0001	0.0001
32.5000	198354.0	32.5003	0.0003

n = Instrument Output (counts)

Temperature ITS-90 (°C) =  $1/\{a0 + a1[\ln(n)] + a2[\ln^2(n)] + a3[\ln^3(n)]\} - 273.15$

Residual (°C) = instrument temperature - bath temperature

