



Sea-Bird Scientific
13431 NE 20th Street
Bellevue, WA 98005
USA

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

SENSOR SERIAL NUMBER: 1636
CALIBRATION DATE: 14-Jan-25

SBE 39 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = -1.998746e-004
a1 = 3.068314e-004
a2 = -4.409211e-006
a3 = 2.054871e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	824569.3	-1.4999	0.0001
1.0000	737461.0	1.0000	-0.0000
4.5000	632544.5	4.4999	-0.0001
8.0000	544311.6	8.0000	-0.0000
11.5000	469862.0	11.5001	0.0001
15.0000	406839.6	15.0001	0.0001
18.5000	353320.5	18.5000	0.0000
22.0000	307730.3	22.0000	0.0000
25.5000	268778.2	25.4999	-0.0001
29.0001	235398.9	29.0000	-0.0001
32.5000	206713.5	32.5001	0.0001

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

