



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

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

SENSOR SERIAL NUMBER: 5474
CALIBRATION DATE: 26-Apr-24

SBE 39 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = -1.246683e-004
a1 = 3.090895e-004
a2 = -4.532538e-006
a3 = 2.022689e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	640827.5	-1.5000	0.0000
1.0000	572114.1	1.0000	-0.0000
4.5000	489546.1	4.5000	-0.0000
8.0000	420293.0	8.0000	0.0000
11.5000	362008.5	11.5000	0.0000
15.0000	312790.4	15.0001	0.0001
18.5000	271093.9	18.5000	-0.0000
22.0000	235654.5	22.0000	0.0000
25.5000	205442.7	25.5000	-0.0000
29.0000	179608.4	29.0000	-0.0000
32.5000	157452.8	32.5000	0.0000

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

