



Sea-Bird GmbH
 Postfach 1167
 87401 Kempten
 Germany

+49 831 9 60994 701
 seabird.eu@seabird.com
 www.seabird.com

SENSOR SERIAL NUMBER: 0497
 CALIBRATION DATE: 01-Mar-23

SBE 38 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = 4.069229e-005
 a1 = 2.711427e-004
 a2 = -2.267454e-006
 a3 = 1.455349e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	823745.9	-1.4999	0.0001
1.0000	733694.7	1.0000	-0.0000
4.5000	625760.5	4.4999	-0.0001
8.0000	535497.5	8.0000	-0.0000
11.5000	459751.2	11.5000	0.0000
15.0000	395971.8	15.0000	0.0000
18.4999	342091.7	18.5000	0.0001
22.0000	296427.1	22.0000	-0.0000
25.5000	257605.6	25.4999	-0.0001
29.0000	224500.9	28.9999	-0.0001
32.5000	196187.1	32.5001	0.0001

n = Instrument Output (counts)

$$\text{Temperature ITS-90 (°C)} = 1 / \{ a_0 + a_1[\ln(n)] + a_2[\ln^2(n)] + a_3[\ln^3(n)] \} - 273.15$$

$$\text{Residual (°C)} = \text{instrument temperature} - \text{bath temperature}$$

