



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

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

SENSOR SERIAL NUMBER: 0399
 CALIBRATION DATE: 01-Mar-20

SBE 45 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = 7.266905e-005
 a1 = 2.701777e-004
 a2 = -2.133510e-006
 a3 = 1.433661e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
1.0000	643665.6	1.0000	0.0000
4.5000	549130.6	4.5000	-0.0000
15.0000	347772.6	15.0000	-0.0000
18.5000	300531.6	18.5000	0.0000
24.0000	240358.9	24.0000	0.0000
29.0000	197384.1	29.0000	-0.0000
32.5000	172535.4	32.5000	0.0000

n = Instrument Output (counts)

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

Residual (°C) = instrument temperature - bath temperature

