



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: 1756  
CALIBRATION DATE: 27-Mar-25

SBE 63 OXYGEN TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

TA0 = 7.059093e-04    TA2 = 8.459343e-07  
TA1 = 2.495077e-04    TA3 = 9.643240e-08

BATH TEMP (° C)	INSTRUMENT OUTPUT(V)	INST TEMP (° C)	RESIDUAL (° C)
2.0001	1.11873	2.0001	0.00003
2.0001	1.11873	2.0001	0.00003
2.0001	1.11873	2.0001	0.00003
2.0001	1.11873	2.0001	0.00003
6.0000	0.99464	6.0000	0.00003
6.0000	0.99465	5.9997	-0.00031
6.0001	0.99464	6.0000	-0.00007
6.0001	0.99464	6.0000	-0.00007
12.0000	0.82893	12.0002	0.00023
12.0000	0.82893	12.0002	0.00023
12.0001	0.82893	12.0002	0.00013
12.0001	0.82893	12.0002	0.00013
20.0000	0.64542	19.9998	-0.00018
20.0000	0.64542	19.9998	-0.00018
20.0001	0.64542	19.9998	-0.00028
20.0001	0.64542	19.9998	-0.00028
25.9999	0.53349	26.0002	0.00031
25.9999	0.53349	26.0002	0.00031
26.0000	0.53349	26.0002	0.00021
26.0002	0.53349	26.0002	0.00001
29.9999	0.46971	30.0001	0.00021
30.0000	0.46971	30.0001	0.00011
30.0001	0.46972	29.9994	-0.00065
30.0001	0.46971	30.0001	0.00001

V = Instrument Output (Volts)

$L = \ln(100000 * V / (3.3 - V))$

Temperature ITS-90 (°C) =  $1 / (TA0 + (TA1 * L) + (TA2 * L^2) + (TA3 * L^3)) - 273.15$

Residual (°C) = instrument temperature - bath temperature

