



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

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

SENSOR SERIAL NUMBER: 1755
CALIBRATION DATE: 25-Mar-25

SBE 63 OXYGEN TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

TA0 = 7.251369e-04 TA2 = 1.283146e-06
TA1 = 2.446255e-04 TA3 = 8.257018e-08

BATH TEMP (° C)	INSTRUMENT OUTPUT(V)	INST TEMP (° C)	RESIDUAL (° C)
1.9999	1.11868	2.0001	0.00017
2.0000	1.11867	2.0004	0.00038
2.0001	1.11869	1.9998	-0.00034
2.0002	1.11868	2.0001	-0.00013
6.0000	0.99448	5.9999	-0.00012
6.0001	0.99447	6.0002	0.00011
6.0002	0.99447	6.0002	0.00001
6.0004	0.99447	6.0002	-0.00019
11.9998	0.82864	11.9999	0.00013
11.9998	0.82864	11.9999	0.00013
12.0002	0.82864	11.9999	-0.00027
12.0002	0.82863	12.0003	0.00012
19.9998	0.64501	19.9996	-0.00017
20.0000	0.64500	20.0001	0.00012
20.0000	0.64500	20.0001	0.00012
20.0001	0.64500	20.0001	0.00002
26.0000	0.53303	26.0000	0.00000
26.0000	0.53303	26.0000	0.00000
26.0001	0.53303	26.0000	-0.00010
26.0001	0.53303	26.0000	-0.00010
29.9996	0.46924	29.9993	-0.00032
29.9999	0.46923	29.9999	0.00005
29.9999	0.46923	29.9999	0.00005
30.0003	0.46922	30.0006	0.00032

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

