



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

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

SENSOR SERIAL NUMBER: 1018
CALIBRATION DATE: 24-Sep-22

SBE 63 OXYGEN TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

TA0 = 6.377596e-004 TA2 = -1.080705e-006

TA1 = 2.692798e-004 TA3 = 1.582352e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT(V)	INST TEMP (° C)	RESIDUAL (° C)
2.0000	1.12239	1.9999	-0.00006
2.0000	1.12239	1.9999	-0.00006
2.0001	1.12238	2.0003	0.00015
2.0002	1.12238	2.0003	0.00005
6.0000	0.99801	5.9997	-0.00028
6.0000	0.99800	6.0001	0.00005
6.0000	0.99800	6.0001	0.00005
6.0001	0.99800	6.0001	-0.00005
11.9999	0.83183	12.0000	0.00015
12.0000	0.83183	12.0000	0.00005
12.0000	0.83183	12.0000	0.00005
12.0001	0.83183	12.0000	-0.00005
20.0000	0.64772	20.0000	0.00005
20.0000	0.64772	20.0000	0.00005
20.0001	0.64772	20.0000	-0.00005
20.0001	0.64772	20.0000	-0.00005
26.0001	0.53542	25.9997	-0.00044
26.0001	0.53541	26.0002	0.00014
26.0001	0.53541	26.0002	0.00014
26.0002	0.53541	26.0002	0.00004
29.9999	0.47141	30.0000	0.00014
30.0000	0.47141	30.0000	0.00004
30.0001	0.47141	30.0000	-0.00006
30.0001	0.47141	30.0000	-0.00006

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

