



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

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

SENSOR SERIAL NUMBER: 0765
CALIBRATION DATE: 03-Nov-23

SBE 63 OXYGEN CALIBRATION DATA

COEFFICIENTS:

A0 = 1.0513e+000 B0 = -2.4275e-001 C0 = 1.0111e-001 E = 1.1000e-002
A1 = -1.5000e-003 B1 = 1.6427e+000 C1 = 4.3132e-003
A2 = 4.1591e-001 C2 = 6.0917e-005

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (µsec)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
0.754	30.00	0.00	30.73	0.751	-0.003
0.777	26.00	0.00	31.44	0.774	-0.003
0.825	20.00	0.00	32.50	0.822	-0.003
0.924	12.00	0.00	33.81	0.923	-0.001
1.029	6.00	0.00	34.77	1.031	0.002
1.131	2.00	0.00	35.34	1.135	0.004
2.226	30.00	0.00	22.63	2.223	-0.003
2.362	26.00	0.00	23.17	2.361	-0.000
2.515	20.00	0.00	24.32	2.514	-0.001
3.027	12.00	0.00	25.25	3.024	-0.003
3.441	6.00	0.00	26.22	3.439	-0.001
3.689	30.00	0.00	18.70	3.689	0.001
3.778	2.00	0.00	26.90	3.777	-0.001
3.946	26.00	0.00	19.13	3.951	0.005
4.367	20.00	0.00	19.90	4.367	-0.000
5.122	12.00	0.00	20.95	5.123	0.000
5.215	30.00	0.00	16.23	5.213	-0.001
5.589	26.00	0.00	16.60	5.590	0.001
5.864	6.00	0.00	21.81	5.867	0.003
6.236	20.00	0.00	17.22	6.236	0.000
6.460	2.00	0.00	22.44	6.463	0.003
7.303	12.00	0.00	18.18	7.306	0.002
8.342	6.00	0.00	19.00	8.338	-0.003
8.835	2.00	0.00	19.89	8.834	-0.002

T = temperature (°C) , P = pressure (dbar), U = Instrument output (µsec)

S_{corr} (salinity correction function) = 1.0 for calibration in DI water

See the user manual for more information on S_{corr} calculation

$V = U / 39.457071$

Oxygen (ml/l) = $\{((A0 + A1 \cdot T + A2 \cdot V^2) / (B0 + B1 \cdot V) - 1.0) / (C0 + C1 \cdot T + C2 \cdot T^2)\} \cdot S_{corr} \cdot \exp(E \cdot P / (T + 273.15))$

Residual (ml/l) = instrument oxygen - bath oxygen

Date, Slope Correction

