

Certificate no: Oxygen Optode 4831_991_216733
 FoilID: 1824M

Product: **Oxygen Optode 4831**
 Serial no: 991
 Calibration date: 23.06.2023

2-POINT RECALIBRATION, MULTIPOINT CALIBRATED OXYGEN OPTODE

This is to certify that this product has been calibrated and verified using the following reference equipment:

Reference Equipment	Serial
Calibration Bath Model Toho TM-005-P-A	12-K
Fluke 5615 PRT	Serial No. 802054 and Serial No. 849155
Fluke CHUB E-4	Serial No. A7C677
Reference sensor 4330	338

Specification

	O2 Concentration	Air Saturation	Temperature
Range	0-500 μ M	0 - 120%	-5 to +40°C
Accuracy	< $\pm 3\mu$ M or $\pm 2\%$ ¹⁾	$\pm 2\%$ ²⁾	$\pm 0.03^\circ$ C ³⁾
Resolution	< 1 μ M	< 0.4%	0.01°C
Settling Time (63%)	< 25 seconds	< 25 seconds	< 2 seconds

1) Requires salinity compensation for salinity variations > 1mS/cm, and pressure compensation for pressure > 100meter

2) Within calibrated range 0 - 120% / 0 - 30°C

3) Within calibrated range 0 - 36°C for standard version and 0 - 30°C for multipoint version

Calibration points and readings:

	Air Saturated Water	Zero Solution (Na2SO3)
Phase reading (°)	31.22	59.24
Temperature reading (°C)	20.85	22.23
Air Pressure (hPa)	952.61	

Giving these coefficients

Index	0 (Offset)	1 (Slope)
ConcCoef	-1.478841E+00	1.024195E+00

With following settings

Index	0	1	2	3	4	5	6
SVUFoilCoef	2.62643E-03	1.11006E-04	2.28878E-06	2.03607E+02	-2.73815E-01	-4.36347E+01	4.19276E+00
PhaseCoef	-2.141000E+00	1.000000E+00	0.000000E+00	0.000000E+00			
TempCoef	2.609827E+01	-3.105461E-02	3.017279E-06	-4.466288E-09	0.000000E+00	0.000000E+00	
Salinity (mS/cm)	0.00						
Firmware Version	5.3.1						

Date:23.06.2023

Sr. Repair Technician