

Certificate no: Oxygen Optode 4831_273_135863
FoilID: 1206EM

Product: **Oxygen Optode 4831**
Serial no: 273
Calibration date: 23.10.2017

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 µM | 0 - 120% | -5 to +40°C |
| Accuracy | < ±3µM or ±2% ¹⁾ | ±2% ²⁾ | ±0.03°C ³⁾ |
| Resolution | < 1 µM | < 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 (°) | 33.80 | 60.47 |
| Temperature reading (°C) | 10.04 | 21.37 |
| Air Pressure (hPa) | 990.00 | |

Giving these coefficients

| Index | 0 (Offset) | 1 (Slope) |
|----------|---------------|--------------|
| ConcCoef | -1.828363E+00 | 1.066724E+00 |

With following settings

| Index | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|------------------|--------------|---------------|--------------|---------------|--------------|--------------|-------------|
| SVUFoilCoef | 2.74763E-03 | 1.16575E-04 | 2.40953E-06 | 2.27171E+02 | -3.73337E-01 | -5.92385E+01 | 4.56562E+00 |
| PhaseCoef | 0.000000E+00 | 1.000000E+00 | 0.000000E+00 | 0.000000E+00 | | | |
| TempCoef | 2.187346E+01 | -3.080033E-02 | 2.804754E-06 | -4.117568E-09 | 0.000000E+00 | 0.000000E+00 | |
| Salinity (mS/cm) | 0.00 | | | | | | |

Date:23.10.2017



Sr. Repair Technician