

Program Version: 4:09:01 AM

Product: Oxygen Optode 4831

Serial No: 665

Visual and Mechanical Checks:

- 1.1 Soldering quality
- 1.2 Visual surface
- 1.3 Galvanic isolation between housing and electronics

Current Drain and Voltages:

2.1 Average current drain at 0.5 Hz sampling (Max.: 33 mA)	23.0	mA
2.2 CANBus Current drain at 0.5 Hz sampling (Max.: 33 mA)		mA
2.3 Current drain in sleep (Max.: 180 μ A)	218	μ A
2.4 CANBus Current drain in sleep (Max.: 180 μ A)		μ A
2.5 DSP IO voltage, J4.18 (3.3 \pm 0.15V)		V
2.6 DSP Core voltage, J4.17(1.8 \pm 0.05 V)	1.81	V
2.7 Excitation driver voltage, C4 Analog Board (4.5 \pm 0.15 V)	4.36	V

Performance test:

	Channel:	Blue	Red
3.1 Average of Receiver readings (0 \pm 150mV)		-8.8 mV	-4.6 mV
3.2 Standard Deviation of Receiver readings (Max.: 45mV/10mV)		2.46 mV	0.42 mV
3.3 Amplitude measm. with non-fluorescence foil (<60mV/650-1200mV)		16.8 mV	957.1 mV
3.4 CANBus Output test			

Function test from 0 to 40°C:

	Channel:	Blue	Red
4.1 Minimum amplitude measurement (Blue: >550 mV, Red >650 mV)		645 mV	687.5 mV
4.2 Maximum amplitude measurement (Blue: <1600 mV, Red <1400 mV)		1015.2 mV	1144.7 mV
4.3 Minimum phase measurement (Blue: >24°, Red: >1°)		36.31 °	7.89 °
4.4 Maximum phase measurement (Blue: <34°, Red: <5°)		43.32 °	8.82 °
4.5 Maximum standard deviation of Phase measurement: (< 0.02°)		0.03 °	0.02 °
4.6 Minimum temperature raw data measurement: (<-200 mV)			-457.9 mV
4.7 Maximum temperature raw data measurement: (>450 mV)			740.3 mV

Pressure test :

5.1 Pressure (IW version: 20MPa, DW version 60MPa)	60MPa
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Date: 21 Nov 2016

Sign:



Vidar Selsvik, Production Engineer



PRESSURE CERTIFICATE

Product: Oxygen Optode 4831
Serial No: 665
Date: 14.11.2016

Certificate No: 124232260665

This is to certify that this product has been pressure tested with the following instrument, and we confirm that no irregularities were found during the test:

Autoklav 800 bar – sn: 0210005

Pressure readings:

Pressure (Bar)	Pressure time (hour)
600	1

Date: 21 Nov 2016

Sign:

Vidar Selsvik, Production Engineer



a xylem brand

CALIBRATION CERTIFICATE

Form No 830, Juli 2012

Certificate no: 4831_665_00124186
Foil batch no: 1517M

Product: 4831
Calibration date: 20.11.2016

Serial no: 665
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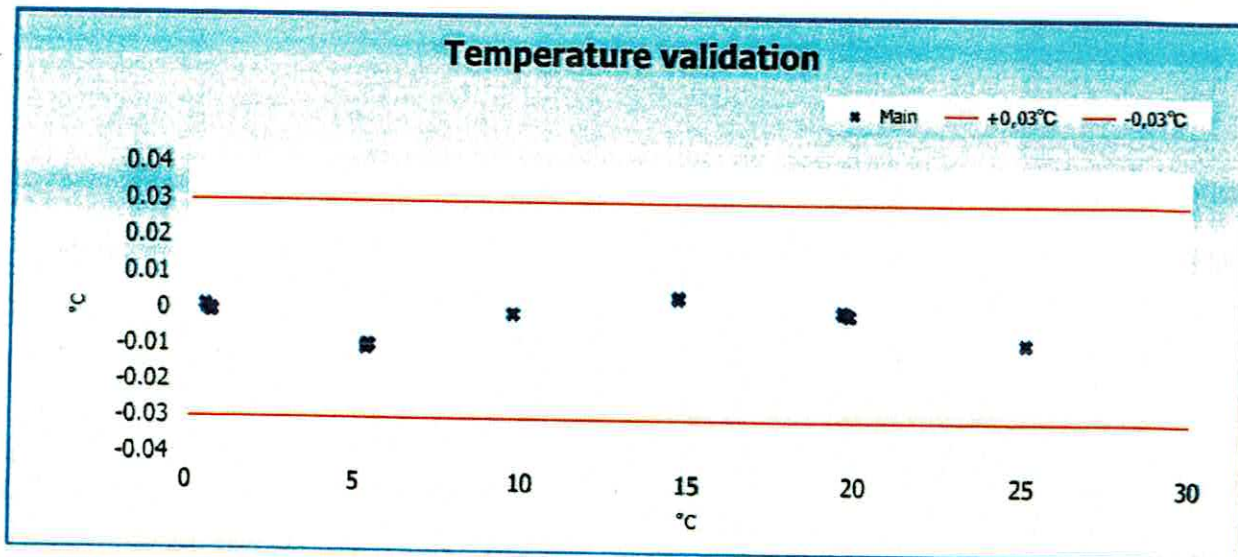
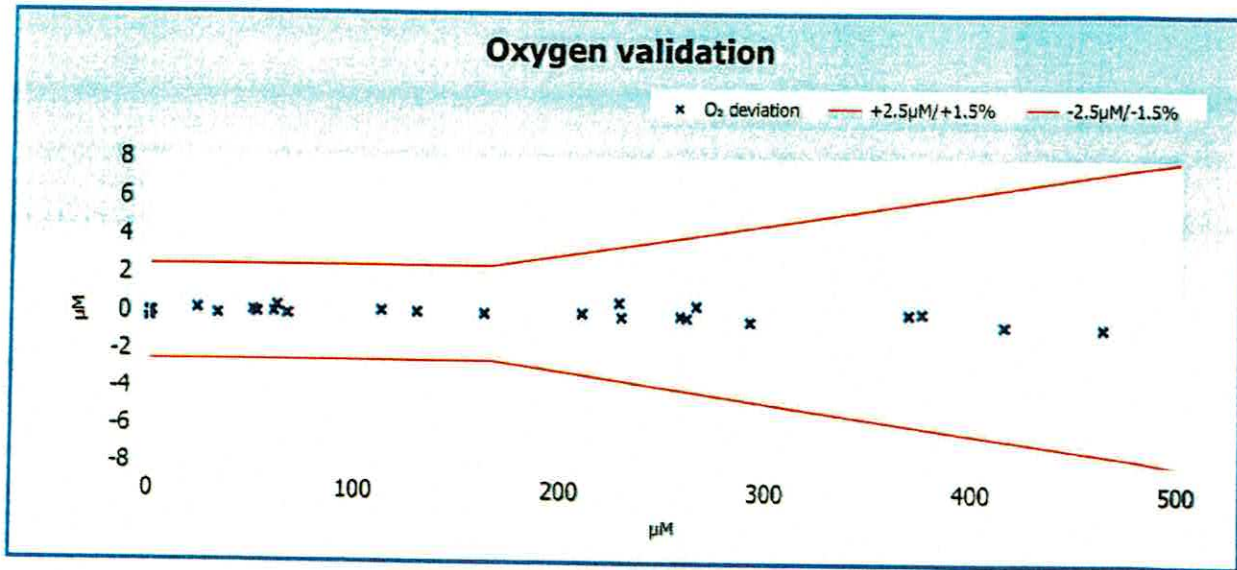
Index	Temperature reference(°C)	[O2] Reference(µM)	Temperature raw data(mV)	Phase reading(°)
0	30.064	0.32	-116.000	61.11
1	19.784	0.04	211.075	62.19
2	9.691	0.20	534.105	63.00
3	0.522	1.15	807.035	63.66
4	0.547	19.06	806.365	61.25
5	0.576	41.49	805.545	58.52
6	0.590	61.31	805.160	56.36
7	0.602	101.47	804.820	52.58
8	0.609	142.49	804.610	49.33
9	0.615	211.25	804.470	44.96
10	0.620	305.88	804.310	40.43
11	0.624	416.56	804.205	36.56
12	0.625	510.59	804.190	34.04
13	10.056	13.16	522.690	60.42
14	9.982	31.51	524.980	57.25
15	9.925	47.74	526.785	54.79
16	9.881	80.04	528.160	50.65
17	9.852	109.03	529.090	47.58
18	9.835	166.61	529.605	42.77
19	9.824	244.83	529.945	38.06
20	9.812	328.49	530.325	34.46
21	9.802	406.98	530.660	31.93
22	19.847	10.22	209.035	59.25
23	19.780	25.04	211.210	55.72
24	19.727	38.52	212.915	52.97
25	19.691	63.67	214.100	48.69
26	19.669	88.43	214.805	45.29
27	19.653	131.11	215.295	40.75
28	19.643	195.16	215.615	35.94
29	19.637	260.08	215.805	32.54
30	19.633	329.95	215.935	29.87
31	30.022	7.79	-114.695	58.11
32	30.034	19.10	-115.065	54.50
33	30.045	29.39	-115.400	51.67
34	30.056	50.04	-115.705	47.03
35	30.057	70.76	-115.795	43.38
36	30.060	105.48	-115.900	38.76
37	30.079	156.96	-116.465	34.04
38	30.085	209.54	-116.680	30.74
39	30.092	265.85	-116.880	28.21

Certificate no: 4831_665_00124186
Foil batch no: 1517M

Product: 4831
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Index	0	1	2	3	4	5	6
SVUFoilCoef	2.76818E-03	1.17339E-04	2.35515E-06	2.29224E02	-4.11357E-01	-5.83277E01	4.55145E00
TempCoef	2.63512E01	-3.15785E-02	3.16054E-06	-4.56846E-09	0.00000E00	0.00000E00	



Date: 20.11.2016

Tor-Ove Kvalvaag
Tor-Ove Kvalvaag, Calibration Engineer