

Program Version: 4:09:01 AM

Product: Oxygen Optode 4831

Serial No: 602

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)	21.6	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)	208	μ A
2.4	CANBus Current drain in sleep (Max.: 180 μ A)		μ A
2.5	DSP IO voltage, J4.18 (3.3 ± 0.15 V)		V
2.6	DSP Core voltage, J4.17 (1.8 ± 0.05 V)	1.82	V
2.7	Excitation driver voltage, C4 Analog Board (4.5 ± 0.15 V)	4.33	V

Performance test:

	Channel:	Blue	Red
3.1	Average of Receiver readings (0 ± 150 mV)	-8.2 mV	-4.8 mV
3.2	Standard Deviation of Receiver readings (Max.: 45mV/10mV)	2.86 mV	0.31 mV
3.3	Amplitude measm. with non-fluorescence foil (<60mV/650-1200mV)	13.6 mV	875.3 mV
3.4	CANBus Output test		

Function test from 0 to 40°C:

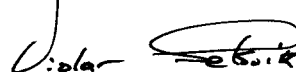
	Channel:	Blue	Red
4.1	Minimum amplitude measurement (Blue: >550 mV, Red >650 mV)	712.2 mV	665.5 mV
4.2	Maximum amplitude measurement (Blue: <1600 mV, Red <1400 mV)	1137.5 mV	1047.6 mV
4.3	Minimum phase measurement (Blue: >24°, Red: >1°)	36.67 °	8.89 °
4.4	Maximum phase measurement (Blue: <34°, Red: <5°)	44.26 °	9.48 °
4.5	Maximum standard deviation of Phase measurement: (< 0.02°)	0.03 °	0.02 °
4.6	Minimum temperature raw data measurement: (<-200 mV)		-466 mV
4.7	Maximum temperature raw data measurement: (>450 mV)		756.3 mV

Pressure test :

5.1	Pressure (IW version: 20MPa, DW version 60MPa)	60MPa
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Date: 07 Mar 2016

Sign:



Vidar Selsvik, Production Engineer

Product: Oxygen Optode 4831
Serial No: 602
Date: 29.03.2016

Certificate No: 116445260602

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:

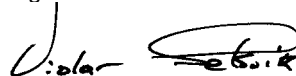
Autoklav 800 bar – sn: 0210005

Pressure readings:

Pressure (Bar)	Pressure time (hour)
600	1

Date: 07 Mar 2016

Sign:



Vidar Selsvik, Production Engineer

Program Version: 4:09:01 AM

Product: Oxygen Optode 4831

Serial No: 603

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)	21.3	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)	211	μ A
2.4 CANBus Current drain in sleep (Max.: 180 μ A)		μ A
2.5 DSP IO voltage, J4.18 (3.3 ± 0.15 V)		V
2.6 DSP Core voltage, J4.17 (1.8 ± 0.05 V)	1.81	V
2.7 Excitation driver voltage, C4 Analog Board (4.5 ± 0.15 V)	4.32	V

Performance test:

	Channel:	Blue	Red
3.1 Average of Receiver readings (0 ± 150 mV)		-16.8 mV	-6.9 mV
3.2 Standard Deviation of Receiver readings (Max.: 45mV/10mV)		4.97 mV	0.74 mV
3.3 Amplitude measm. with non-fluorescence foil (<60mV/650-1200mV)		10.7 mV	924.2 mV
3.4 CANBus Output test			

Function test from 0 to 40°C:

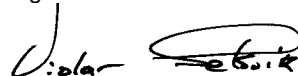
	Channel:	Blue	Red
4.1 Minimum amplitude measurement (Blue: >550 mV, Red >650 mV)		781 mV	698.6 mV
4.2 Maximum amplitude measurement (Blue: <1600 mV, Red <1400 mV)		1259.5 mV	1080 mV
4.3 Minimum phase measurement (Blue: >24°, Red: >1°)		36.78 °	9.06 °
4.4 Maximum phase measurement (Blue: <34°, Red: <5°)		44.11 °	9.59 °
4.5 Maximum standard deviation of Phase measurement: (< 0.02°)		0.03 °	0.01 °
4.6 Minimum temperature raw data measurement: (<-200 mV)			-418.8 mV
4.7 Maximum temperature raw data measurement: (>450 mV)			750 mV

Pressure test :

5.1 Pressure (IW version: 20MPa, DW version 60MPa)	60MPa
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Date: 07 Mar 2016

Sign:



Vidar Selsvik, Production Engineer

Product: Oxygen Optode 4831
Serial No: 603
Date: 29.03.2016

Certificate No: 116446260603

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:

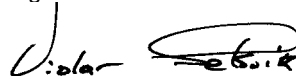
Autoklav 800 bar – sn: 0210005

Pressure readings:

Pressure (Bar)	Pressure time (hour)
600	1

Date: 07 Mar 2016

Sign:



Vidar Selsvik, Production Engineer