AANDERAA a xylem brand

TEST & SPECIFICATIONS

Form No. 712 V2,March 2014

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 µA)	208	µA
2.4	CANBus Current drain in sleep (Max.: 180 µA)		µA
2.5	DSP IO voltage, J4.18 (3.3 ±0.15V)		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±150mV)	-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

Date: 07 Mar 2016

Sign:

Vidar Selsvik, Production Engineer

AANDERAA a xylem brand

PRESSURE CERTIFICATE

Form No. 667, Sept 2009

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

AANDERAA a xylem brand

TEST & SPECIFICATIONS

Form No. 712 V2,March 2014

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 μA)	211	μA
2.4	CANBus Current drain in sleep (Max.: 180 μA)		μA
2.5	DSP IO voltage, J4.18 (3.3 ±0.15V)		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±150mV)	-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

Date: 07 Mar 2016

Sign:

Vidar Selsvik, Production Engineer

AANDERAA a xylem brand

PRESSURE CERTIFICATE

Form No. 667, Sept 2009

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