

Form No. 712 V3, May 2020

Program Version: V5.3.1 Product: Oxygen Optode 4831

Serial No: 950

| Visual | and Mechanical Checks: | | | | | - |
|----------------------------------------|---------------------------------------------------------------------|----------|--------|--------|--------|----|
| 1.1 | Soldering quality | | | | | |
| 1.2 | Visual surface | | | | | |
| 1.3 | Galvanic isolation between housing and electronics | | | | | |
| Curren | t Drain and Voltages: | | | | | |
| 2.1 | Average current drain at 0.5 Hz sampling (Max.: 33 mA) | | | 23.6 | mΑ | |
| 2.2 | CANBus Current drain at 0.5 Hz sampling (Max.: 33 mA) | | | | mΑ | |
| 2.3 | Current drain in sleep (Max.: 270 μA) | | | 261 | μΑ | |
| 2.4 | CANBus Current drain in sleep (Max.: 180 μA) | | | | μΑ | |
| 2.5 | DSP IO voltage, J4.18 (3.3 ±0.15V) | | | 3.30 | V | |
| 2.6 | DSP Core voltage, J4.17(1.8 ±0.05 V) | | | 1.81 | V | |
| 2.7 | Excitation driver voltage, C4 Analog Board (4.3 \pm 0.1 V) | | | 4.33 | V | |
| Performance test: Chan | | Channel: | Blue | | R | ed |
| 3.1 | Average of Receiver readings (0±150mV) | | -0.4 | mV | 0.0 | mV |
| 3.2 | Standard Deviation of Receiver readings (Max.: 45mV/10mV) 1.11 mV | | mV | 0.53 | mV | |
| 3.3 | Amplitude measurement with non-fluorescence foil (<60mV/650-1200mV) | | 9.7 | mV | 953.4 | mV |
| 3.4 | CANBus Output test | | | | | |
| Function test from 0 to 40°C: Channel: | | Channel: | Blue | | Red | |
| 4.1 | Minimum amplitude measurement (Blue: >550 mV, Red >550 |) mV) | 811.7 | mV | 797 | mV |
| 4.2 | Maximum amplitude measurement (Blue: <1600 mV, Red <1400 mV) | | 1247.5 | mV | 1251.6 | mV |
| 4.3 | Minimum phase measurement (Blue: >32°, Red: >3°) | | 33.86 | 0 | 6.46 | 0 |
| 4.4 | Maximum phase measurement (Blue: <45°, Red: <10°) | | 39.81 | 0 | 7.8 | 0 |
| 4.5 | Maximum standard deviation of Phase measurement: (< 0.07°) 0.05 ° | | | 0.04 | 0 | |
| 4.6 | Minimum temperature raw data measurement: (<-200 mV) | | | -438.9 | mV | |
| 4.7 | Maximum temperature raw data measurement: (>450 mV) | | | | 722.2 | mV |

Date: 10 May 2021 Sign:
Louda A. Skalnes

Laila Skålnes, Production Engineer



Product: Oxygen Optode 4831

Serial No: 950 **Date:** 10.05.2021

Certificate No: 184363260950

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: 10 May 2021 Sign:

Laila Skålnes, Production Engineer