



AANDERAA DATA INSTRUMENTS

TEST & SPECIFICATIONS

Form No. 784, July 2008

Layout No: 1372A, 1374A, 1376

Circuit Diagram No: : V-3979A, V3977A, V-3980

Program Version: V1.23.2

Product: Oxygen Optode 4330F

Serial No: 254

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)	24.6	mA
2.2	CANBus Current drain at 0.5 Hz sampling (Max.: 33 mA)	22.2	mA
2.3	Current drain in sleep (Max.: 180 μ A)	112	μ A
2.4	CANBus Current drain in sleep (Max.: 180 μ A)	106	μ A
2.5	DSP IO voltage, J4.18 (3.3 $\pm$ 0.15V)	3.28	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)	4.58	V

Performance test:

	Channel:	BLUE	RED
3.1	Average of Receiver readings (0 $\pm$ 150mV)	26.5 mv	6.7 mv
3.2	Standard Deviation of Receiver readings (Max.: 45mV/10mV)	81.71 mv	6.35 mv
3.3	Amplitude measurement with non- fluorescence foil(<110mV/1200-1200mV)	68.1 mv	2042.7 mv
3.4	Amplitude measurement with fluorescence foil (700-1200mV)	851.6 mv	804.7 mv
3.5	CANBus Output test		

Function test at 0°C Temperature (in air with reference foil):

	Channel:	BLUE	RED
4.1	Amplitude measurement (Blue: 300 – 900mV,Red 300-900mV)	647.1 mv	663.6 mv
4.2	Phase measurement (Blue: 4 $\pm$ 2°,Red: 4 $\pm$ 2°)	6.3 °	5.1 °
4.3	Standard deviation of Phase measurement: (Max: 0.02°)	0.012 °	0.005 °
4.4	Raw data temperature measurement: (600 $\pm$ 200mV)		828.7 mv

Function test at 20°C Temperature (in air with reference foil):

	Channel:	BLUE	RED
5.1	Amplitude measurement (Blue: 300 – 900mV,Red 300-900mV)	519.2 mv	446.6 mv
5.2	Phase measurement (Blue: 5 $\pm$ 2°,Red: 5 $\pm$ 2°)	5.5 °	5.8 °
5.3	Standard deviation of Phase measurement: (Max: 0.02°)	0.010 °	0.005 °
5.4	Raw data Temperature measurement: (0 $\pm$ 200mV)		-30.6 mv

Function test at 40°C Temperature (in air with reference foil):

	Channel:	BLUE	RED
6.1	Amplitude measurement (Blue: 300 – 900mV,Red 300-900mV)	501.9 mv	371.5 mv
6.2	Phase measurement (Blue: 5 $\pm$ 2°,Red: 5 $\pm$ 2°)	5.6 °	5.8 °
6.3	Standard deviation of Phase measurement: (Max: 0.02°)	0.007 °	0.003 °
6.4	Raw data Temperature measurement: (-400 $\pm$ 200mV)		-457 mv

Pressure test :

7.1	Pressure (IW version: 20MPa, DW version 60MPa)	60MPa
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Date: 15 April 2010

Sign:

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