

Oxygen Electrochemical Sensor

This oxygen sensor is designed to provide students or scientists with proven electrochemical technology. OEMs will appreciate the low power, dependable technology for use in high volume applications.

FEATURES

- Low power
- Low cost
- Serial interface
- Replaceable electrochemical cell

AVAILABLE MODELS

CM-32911 Development Kit – Our easiest to use version, it is ready to plug into your PC via USB. Use our free GasLab[®] software to read and data log oxygen, barometric pressure, temperature, and % relative humidity.

CM-32910 – This PCB offers the same functionality as the development kit, but is designed to be integrated into your product.

AP-0001 – Raw sensor only



ELECTRICAL SPECIFICATIONS	
Supply Voltage	3.3 to 5.5 VDC
Peak Supply Current	10ma
Average Power	< 3mW (1 second streaming 1 min logging)
UART Tx	3V 9600 Baud N 8 1
UART Rx Voltage	3V – 5V
Operating Temp	-30C – 60C
Humidity	0 – 99% RH (non-condensing)
Barometric Pressure	50 – 115 kpa

CONNECTOR PINOUT*	
GND	SELECT
3.3 – 5.5 Volt DC	GND
Rx	GND
Tx	RS485 B
Analog Out	RS485 A

MECHANICAL SPECIFICATIONS	
Dimensions	25mm x 40mm x 29mm
Dimensions (w/sensor)	25mm x 40mm x 13mm
Weight	16g sensor, 5.8g board
Connector	10 pin Header

ABSOLUTE MAXIMUM RATINGS (EC3 Controller Only)	
Supply Voltage	6 Volts DC
Rx Input	5.5 V
Operating Temp	-30°C – 60°C
Humidity	0 – 99% RH (non-condensing)
Pressure	500 kpa

COMMON PERFORMANCE SPECIFICATIONS	
Temperature Accuracy at 20-40°C	±0.3°C
Temperature Accuracy 0 – 50°C	±2%
Relative Humidity Accuracy 20% – 80%	±2% RH
Sensor Voltage Resolution	16 bits

SIGNAL DEFINITIONS	
GND	Power Supply and RS485 return.
+SUPPLY	+3.2 – 5.5 Volts DC
Rx	CMOS Level Input to Controller
Tx	CMOS Level (0-3V) Output from controller.
AOUT	Analog Output from controller (when enabled). Voltage is proportional to gas concentration.
SELECT	Open selects the CMOS Tx/Rx Interface. Connect to GND to select the RS485 Interface.
RS485 B	RS485 B Signal. High in Marking State
RS485 A	RS485 A Signal. Low in Marking State.