

CARBONOXY

CO₂ and O₂ gas sensor module

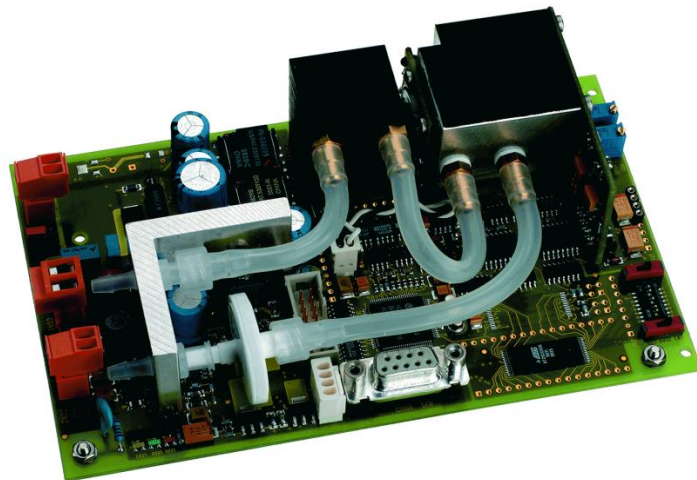
The Pewatron **CARBONOXY** module is a complete carbon dioxide (CO₂) NDIR sensor and a zirconia oxygen (O₂) sensor integrated on a euro-size PCB board for easy integration and installation. For the accurate and selective measurement of CO₂ concentrations in the Vol% range the single beam, dual wavelength infrared technology (NDIR) is being used. DIP-switches on the PCB board enable the response time to be set to either 1 second or 30 seconds and span/zero point adjustment can be made. For the accurate and selective measurement of O₂ concentrations in the Vol% range, a long-life zirconia sensor is used. The microcontroller is constantly monitoring the status of the sensor and signal the current state via LED's. With more severe errors the output signal is immediately blocked. The power consumption of the sensor module is maximum 6W, and the sensor module is therefore suitable also for portable gas measurement devices. The electronics meet the latest EMC-regulations.

Features

- Gas specific
- No reference gases are needed
- Low drift
- Long expected operational lifetime
- Compact
- Low power consumption

Typical applications

- Fruit & vegetable storage
- Food Packaging
- Medical
- Greenhouse farming
- Mushroom farming
- Brewing
- Animal breeding



Specifications

	CO ₂	O ₂	
Messprinzip	NDIR	Zirconia	Principle of operation
Messbereiche	0...10, 0...30%	0...25, 0,1...95%	Measuring ranges
Genauigkeit	<±2%FS	<±0,5%FS	Accuracy
Stabilität	<±2%FS/year	<±0,5%FS/year	Stability
Wiederholgenauigkeit	Nullpunkt	<±0,5%FS	Zero
	Endwert	<±2%FS	Full Scale
Ansprechzeit T ₉₀	CO ₂ : 30 s standard (1 s full response by software), O ₂ < 8 s		Response time T ₉₀
Betriebstemperatur	-10...+45 °C		Operating temp.
Aufwärmzeit	2 min		Warm-up time
Feuchte	0...98% r.h. (non-condensing)		Humidity
Speisespannung	11,5...30VDC		Supply
Leistungsaufnahme	6W		Power consumption
Ausgangssignale	2 x 0/4...20mA, 0/2...10VDC, RS232/19'200Baud		Outputs
Lebensdauer	>3 years		Life span
Durchflussrate	0,5...1l/min		Flow rate
Abmessungen	160 x 100 x 40mm		Dimensions
Gewicht	380gr		Weight

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