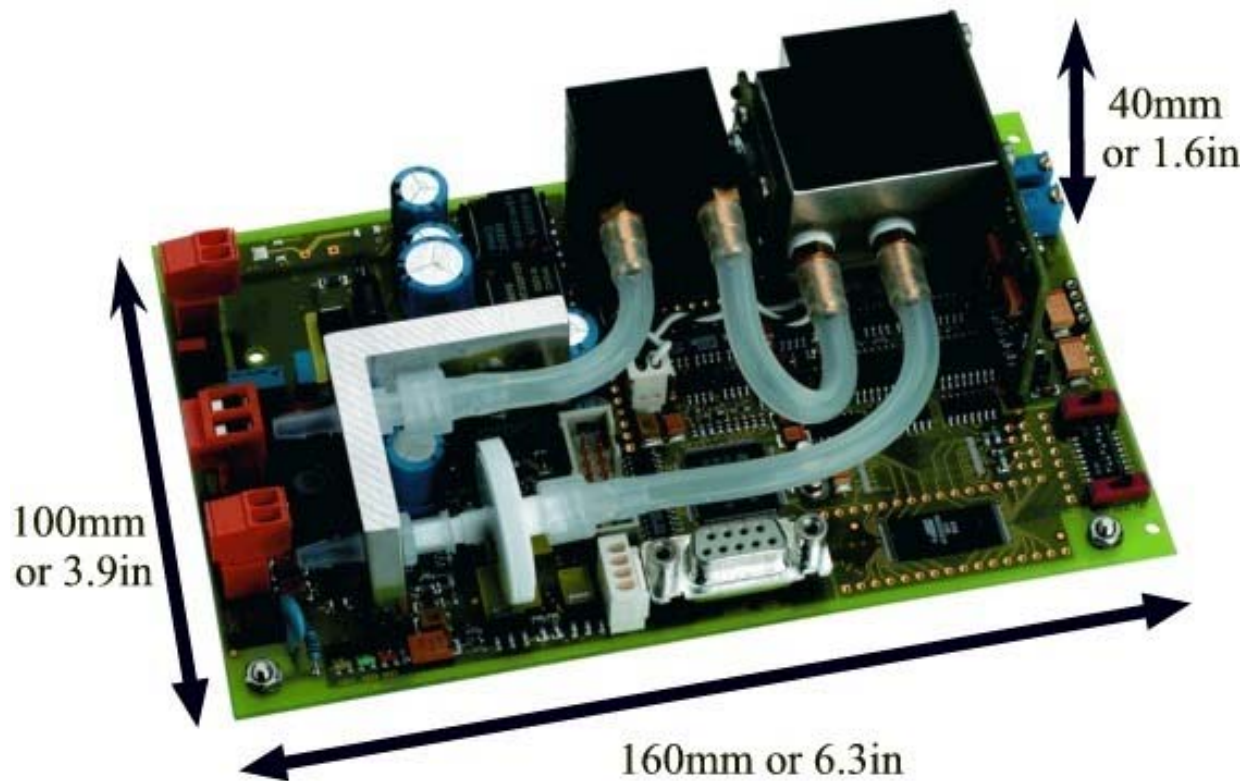


Compact Measurement of Carbon Dioxide & Oxygen

EcoChem CARBONOXY



The CarbonOxy is a unique device for measuring CO₂ and O₂ on a Euro Printed Circuit Board (PCB). Carbon Dioxide is measured using the dual wavelength technique (NDIR - Non-Dispersive Infra Red) while Oxygen is measured using Zirconium Oxide. This combination ensures a quick response time along with elimination of interference from other gases.

With various DIP switches on the circuit board, the response time for the analyzer can be adjusted between 1 to 10 seconds. It is possible to do automatic temperature correction or zero point adjustment can be made. The entire circuit board is constantly monitored by a microcontroller and LEDs in various colors can indicate alarm states and out of range values.

The power consumption of the combination is a maximum of 6 watts and hence is suitable for a portable, compact measuring device. All electronics meet the latest European EMV regulations.

Features

- Specific to CO₂ and O₂ -- no interference from other gases
- No reference gases are needed
- Self-calibrating
- Long lifespan
- Stable operations
- Low power consumption
- Compact device

Applications

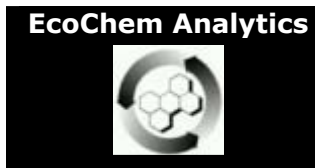
- Horticulture green houses
- Fruit storage
- Mushroom farming
- Food packaging
- Breweries
- Incubators
- Livestock Husbandry
- Landfill gas monitoring

Technical Specifications

	CO ₂	O ₂	CO ₂ /O ₂
Principle of Operation	NDIR	Zirconia Oxide	NDIR / Zirconia Oxide
Accuracy	+/- 2% Full-scale	+/- 0.5% Full-scale	+/- 2% CO ₂ and +/- 0.5% O ₂ of Full-scale
Repeatability	+/- 1% Full-scale	+/- 1% Full-scale	+/- 1% Full-scale for both
Response time T90	1..10 sec (adjustable)	1..10 sec (adjustable)	1..10 sec (adjustable)
Operating Temperature	-10 to +50degC	-10 to +50degC	-10 to +50degC
Zero Drift	0	0	0
Warm-up Time	2 min	2 min	2 min
Humidity	98% non-condensing	98% non-condensing	98% non-condensing
Power Supply	12 to 30 VDC	12 to 30 VDC	12 to 30 VDC
Power Consumption	3W	3W	6W
Outputs	0/4...20mA 0/2...10VDC RS232	0/4...20mA 0/2...10VDC RS232	0/4...20mA 0/2...10VDC RS232
Life span	> 3 years	> 3 years	> 3 years
Flow rate	0.5 l/min	0.5 l/min	0.5 l/min
Dimensions	160 x 100 x 40 mm 6.3 x 3.9 x 1.6 in	160 x 100 x 40 mm 6.3 x 3.9 x 1.6 in	160 x 100 x 40 mm 6.3 x 3.9 x 1.6 in
Weight	300 gm (0.66 lb)	280 gm (0.62lb)	380 gm (0.84lb)

Measurement Ranges	O ₂	CO ₂
0 to 5%	na	x
0 to 10%	na	x
0 to 25%	x	x
0 to 50%	x	x
0 to 95%	x	na
0 to 100%	na	x

x -- available na-- not available



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Version 3.5 - Specifications subject to change without notice