

Infrared gas sensors: **Gascard Range**

GASBOX NG

For CO₂



KEY FEATURES

- Modern electronics platform with the increased power and versatility of fast microprocessors
- Wide operating voltage range (7 V - 30 V)
- True RS232 communications for control and data
- On-board Barometric Pressure Correction in the range 800 mbar - 1150 mbar
- Field Replaceable IR Source
- Extensive Temperature compensation

A NEW GENERATION OF GAS SENSORS

The Gasbox NG is the latest development in the NG range of products from Edinburgh Sensors. It provides users with access to the Gascard NG range of CO₂ detection products in a convenient and robust desktop unit.

Requiring only a suitable power supply and sample gas, the Gasbox NG provides fast and reliable CO₂ concentration data over a wide range of barometric pressures and environmental temperatures. It brings the accuracy and reliability of the Gascard NG gas sensors to the convenience of a desktop instrument. The Gasbox NG is suitable for CO₂ monitoring in a diverse range of applications from anaerobic digestion monitoring to plant physiology, where the carbon dioxide concentration in air-like atmospheres needs to be measured from ppm to tens of percent concentration.

The bit-switch controlled 4-20mA or 0-20mA output is ideally suited for interfacing with most data loggers. Alternatively, the optional RS232 interface and NG Logger software may be used to log the concentration information onto a PC (with a serial to USB converter) or suitable tablet computer.

The new aluminium enclosure provides an elegant and robust solution to housing the Gascard NG. This also provides a versatile point sensor that may be used in many applications where a sensor is needed to remotely monitor carbon dioxide concentrations.

The heart of the Gasbox NG is the Gascard which uses a pseudo dual beam NDIR measurement system for increased stability and the reduction of long term drift with minimum optical complexity and no moving parts.

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TECHNICAL SPECIFICATIONS

GAS MEASUREMENT RANGE

MODEL	CO ₂
Gascard NG	-
Gascard NG	-
Gascard NG	0-2000 ppm
Gascard NG	0-3000 ppm
Gascard NG	0-5000 ppm
Gascard NG	0-1%
Gascard NG	0-3%
Gascard NG	0-5%
Gascard NG	0-10%
Gascard NG	0-30%
Gascard NG	0-100%
Biogas (Special Calibration)	100%
Accuracy	±2% of range ±<0.015% of range per mbar*
Zero Stability	±2% of range (over 12 months)
Response Time	T90 = 10 seconds or programmable RC
Operating Temperature	0-40°C
Operating Pressure	800-1150mbar
Power Requirements	24 V DC (7V-30V)
Warm-Up Time	1 minute (initial) 30 minutes (full specification)
Humidity	Measurements are unaffected by 0-95% relative humidity, non condensing
Output	Linear 4-20 mA, 0-20 mA (bit switch selectable) maximum load dependent on supply voltage

The Gasbox NG can also be supplied with an RS232 option and external 24 V pump.

*Not including gas calibration tolerance

PRODUCT APPLICATIONS

- PERSONAL SAFETY
- AGRICULTURE
- LEAK DETECTION
- PROCESS CONTROL
- PLANT PHYSIOLOGY
- MANY MORE...

All specifications are believed to be correct at the time of publication, Edinburgh Sensors does not accept liability for any errors or omissions. Due to our continuous product development all specifications are subject to change without prior notice.

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