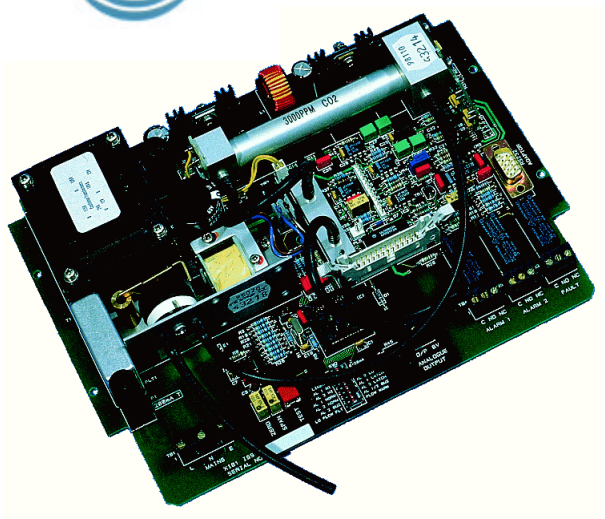
EDINBURGH SENSORS

Guardcard™

OEM CO_2 sensor



The **Guardcard™** is a high performance mains powered infra red gas sensor designed for integration into a wide range of systems requiring accurate and reliable measurement of CO_2 concentrations. Complete with integral pump and relay outputs.

HIGH PERFORMANCE

For many years, Edinburgh Sensors has pioneered novel non-dispersive infra red dual wavelength sensors. This dual wavelength design ensures long term stability without the need for frequent calibration and is highly gas specific which is insensitive to water vapour. The instrument has a single optical path and temperature correction to ensure extreme accuracy eliminating any measurement from non-gas effects.

VERSATILE

The **Guardcard™** includes an internal pump so it can be used for continuous monitoring and control either for a single area or integrated to a computer control for sequential monitoring of multiple areas. The versatility is further enhanced with a range of user-selectable bitswitches to set the linear analogue outputs and audible alarm conditions which can be latched if desired.

RELIABILITY

The **Guardcard™** uses a robust infra red source, proven in the **Gascard II™** sensor, to ensure long lifetime and reduced susceptibility to shock. The reliability is further enhanced by the elimination of all moving parts from the sensor head. Therefore the **Guardcard™** is easily maintained requiring only a few minutes per year to replace the hydrophobic particle filter in the inlet housing and a simple calibration procedure to check the accuracy when required.

QUALITY

Each **Guardcard™** is supplied fully tested and calibrated with a 1 year warranty against defective parts and

ISO 9002 SGS

Infra red Inside

Guardcard™

Technical Data

CO_2 Measuring Range (by volume)	0 - 3000 ppm, 0 - 1 %, 0 - 3 %, 0 - 5 %, 0 -10 %, 0 - 30 %, 0 - 100 % Other gases and ranges are available on request
Accuracy	± 2 % of range
Stability	± 2 % of range over 12 months
Repeatability	
at zero	± 0.3 % of range
at span	± 1.5 % of range
Response Time	T_{90} = 30 s from sample inlet
Operating Temperature	0 - 40 °C
Warm-up Time	
Operational	3 mins
Full Specification	40 mins
Humidity	Unaffected by 100% RH, (non-condensing)
Controls	Zero and span adjust potentiometers setpoint 1 and setpoint 2 adjust view setpoint 1 button and view setpoint 2 button lamp test button
Bitswitch Parameters	Analogue output: 4 - 20 mA or 0 - 20 mA linear or non-linear alarm settings: alarm 1 high/low; alarm 2 high/low alarm 1 norm/latch; alarm 2 norm/latch
Relay Contacts	Volt free changeover contacts 8 A at 24 V DC (resistive load) 8 A at 250 V AC (resistive load)
Pump	1 litre / min typical flow rate 30 m maximum sample distance
Power	88 V - 138 V AC or 172 V - 276 V AC switch selectable 46 Hz - 66 Hz
Power Consumption	13.0 W typical
Options	Display & alarm PCB which includes: 4 digit LCD display alarm 1 LED and alarm 2 LED fault flow indicator
Dimensions	220 x 180 x 65 mm

Edinburgh Instruments Ltd
Sensors Division
2 Bain Square, Kirkton Campus
Livingston, UK, EH54 7DQ
Tel: + 44 (0) 1506 425300
Fax: + 44 (0) 1506 425320
Email: sales@edinst.com web: www.edinst.com

Distributor: