

Infrared Gas Monitors: Guardian Range

Custom Guardian® NG

CO₂, CH₄, N₂O, R125

Fast, accurate and reliable



EDINBURGH
SENSORS

A Division of
Edinburgh Instruments



The Guardian range of infrared gas monitors offer near-analyser quality continuous sampling, measurement and display of target gas concentrations. This version of the Guardian NG can be customised according to your needs. High accuracy detection and measurement of CO, CO₂, CH₄, N₂O is available with detection levels ranging between 0-1000ppm and 0-30% (gas dependent).

With tens of thousands of our monitors supporting critical processes in industries throughout the world we have an enviable reputation for reliability, accuracy, long-term stability plus low maintenance requirements. This can be attributed to our proprietary infrared sensor technology and over thirty years of sensor design and manufacturing experience.

Suitable for a wide variety of applications, these wall-mounted monitors can detect gases from sampling points up to 30 metres away, using the integral sampling system.

Our Guardian instruments are easy to install stand-alone products that require minimum set up. The Guardian is supplied with LCD display and digital alarm set-point controls, housed in a robust plastic IP54 rated enclosure to prevent the ingress of particulates and water.

The new monitor delivers:

- **True volume % readout over a wide range of pressures (pressure compensated)**
- Improved screen display provides more information
- **Easier set up using on-screen menus**
- Digital Alarm set points
- **Password protection to prevent accidental or deliberate change of settings**

- **Graphical display of historic readings possible over a user-defined period**
- **Easier transfer of data via on board RS232 I/F**
- **Optional Ethernet I/F**
- **Relay outputs for control of external devices**

When you purchase one of the Guardian range, you automatically access our one to one customer service and technical support right from enquiry through product purchase to system integration.

Guardian NG Product Applications:

- **Landfill gas measurement –**
Supporting you to capitalise on your waste to energy revenue.
- **Biogas –**
Critical process control for your AD system – delivering you income.
- **Personal safety –**
Key part of your H&S regime.
- **Process control –**
Continuous fixed gas monitoring for cost saving and safety.
- **IAQ –**
Healthy buildings make for productive output
- **Horticulture –**
Enabling vigorous growth
- **Brewing –**
Providing safety and efficiency

Technical Specifications

Model*	Gas measurement range				
	CO ₂	CH ₄	CO	N ₂ O	R125
Guardian NG	0 – 500ppm	0 – 1%	0 – 3%	0 – 3000ppm	0 – 1000ppm
Guardian NG	0 – 1000ppm				0 – 3000ppm
Accuracy	± 5% of range ±10% range (range dependent and excludes calibration gas accuracy)				
Zero stability	± 10% of range (over 12 months)**				
Repeatability	At zero: generally < ± 1% of range At span: generally < ±3% of range depending on gas and range				
Response time	Bitswitch selectable T ₉₀ = variable (determined by bit switch and firmware)				
Operating temperature	0 – 45°C				
Zero Drift due to Ambient Temp.	< ±3% of range per C				
Warm-up time	1 minute (operational) 30 minutes (full specification)				
Humidity	May be sensitive to large changes in humidity depending on gas and range				
Power requirements	90V AC to 230V AC 50 – 60Hz				
Power consumption	13W typical Alarm ranges: zero to full scale				
Outputs	Linear 4 – 20mA, 0 – 20mA (bit switch selectable) up to 500Ω maximum load or voltage output				
Voltage free contacts rating	8A at 250V AC (resistive load) 8A at 24V DC (resistive load)				
Controls	Bit switch selection of various options zero and span adjust buttons				
Enclosure rating	IP54				

* Guardian NG instruments are not certifiable for use where risk of fire or explosion exists.

During operation prolonged exposure to high levels of flammable gases may lead to the creation of an explosive mixture within the Guardian plus enclosure. Additional measures must be taken by the user to prevent this hazard occurring.

** Not including calibration gas tolerance.

Other gas ranges are available, please contact sales.

Accessories available:

Particle Filter

Integral Seal Included

Customer support is available worldwide, from the moment you enquire through to our post sales installation support.

For more information contact us at sales@edinst.com or visit www.edinburghsensors.com

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