

Guardian™ *plus*

Guardian™ *plus* CO₂ or CH₄ Monitor



The improved Guardian™ single point fixed instrument offers continuous monitoring and control of Carbon Dioxide or Methane gas concentration levels. The heart of the instrument is a proprietary dual wavelength infra-red sensor which provides reliable accuracy and long term stability with low maintenance requirements.

The sensor is housed in a tough plastic enclosure, which is rated at IP54 against the ingress of water or dust.

Applications

- Horticulture
- Landfill ➔
- Combustion Processes
- Brewing
- Food Processing
- Personnel Protection
- Heating & Ventilation Control



HIGH PERFORMANCE

For many years, Edinburgh Sensors has pioneered novel non-dispersive infra-red dual wavelength sensors with a single optical path and without moving parts. This ensures long term stability, without the need for frequent re-calibration and makes the sensor highly gas specific and insensitive to other gases or water vapour.

RELIABLE

The Guardian™ 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.

QUALITY

Each Guardian™ is supplied fully tested and calibrated to ISO9002 standards.

EASY MAINTENANCE

The Guardian™ 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, typically once a year.

VERSATILE

The Guardian™ includes an internal pump, liquid crystal display and temperature correction. It also offers a range of user-selectable bit-switches to control the latching alarms and analogue output options. The input power to the unit is user selectable to cover world-wide voltage and frequency standards.



certificate No. 96/7913

Specification

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Measuring Range:	
CO ₂	0-3000ppm, 0-1%, 0-3%, 0-5%, 0-10%, 0-30%, 0-100%
CH ₄	0-10%, 0-30%, 0-100%
Accuracy:	± 2% of range
Stability:	± 2% of range over 12 months
Repeatability:	
at zero	± 0.3%
at span	± 1.5%
Response Time:	T ₉₀ = 30s from sample inlet
Operating Temperature:	0 - 40°C
Warm-up Time:	operational 3 min, full specification 40 mins
Humidity:	unaffected by 0-100% 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: 4-20mA or 0-20mA linear or non-linear alarm settings: alarm 1 high/low; alarm 2 high/low alarm 1 norm/latch; alarm 2 norm/latch buzzer sounds on both alarms or alarm 2 low flow gives warning or fault indication
Display:	4 digit liquid crystal display alarm 1 LED and alarm 2 LED fault LED and flow fail LED
Relay Contacts:	volt free changeover contacts 8A at 24VDC (resistive load) 8A at 250VAC (resistive load)
Pump:	1 litre/min typical flow rate 30m maximum sample distance
Power:	88V-138VAC or 172V-276VAC switch selectable 46Hz -66Hz
Power Consumption:	13W Typical
Weight:	2.5Kg
Dimensions:	267 x 258 x 148 mm
Enclosure Rating:	IP54
Options:	OEM version available
CE	

Edinburgh Sensors reserves the right to modify the design or specification without notice.

EDINBURGH SENSORS LTD
2 Bain Square
Kirkton Campus
Livingston
EH54 7DQ
Tel: int 44 (0) 1506 425300
Fax: int 44 (0) 1506 425320
Email: sales@edinst.com
<http://www.edinst.com>