

Infrared gas sensors: **Guardian Range**

SPECIAL GUARDIAN NG

For CO₂, CO, CH₄, R125 & N₂O

BERNT
MESSTECHNIK



FAST
ACCURATE
RELIABLE

KEY FEATURES

- Concentration readings over a wide range of pressures (pressure compensated)
- Graphic display provides more information
- Easy 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 over a user-defined period
- Easier transfer of data via on board RS232 Interface
- Optional Ethernet Interface
- Relay outputs for control of external devices

A NEW GENERATION OF GAS SENSORS

The Guardian NG 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 factory customised according to your needs. High accuracy detection and measurement of CO, CO₂, CH₄, N₂O & R125 are available with detection levels ranging between 0-500ppm and 0-3% (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 meters away using their 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 and housed in a robust plastic IP54 rated enclosure to prevent the ingress of particulates and water.

TECHNICAL SPECIFICATIONS
GAS MEASUREMENT RANGE

MODEL	CO ₂	CH ₄	CO	N ₂ O	R125
Guardian NG	0 - 500pm	0-1%	0 - 3%	-	-
Guardian NG	0 - 1000ppm	-	-	0 -3000ppm	0 - 3000 ppm
Accuracy	±5% of range ±10% range (range dependent)*				
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	Bit switch selectable T ₉₀ = variable (determined by bit switch and firmware)				
Operating temperature	0 - 45°C				
Zero drift due to ambient temperature	<±3% range per C				
Warm-up time	1 minute (operational) 30 minute (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				
Outputs	Linear 4-20mA, 0-20mA (bit-switch selectable) up to 500W 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				

The Guardian NG can also be supplied with an Ethernet option.
*Not including gas calibration tolerance

PRODUCT APPLICATIONS

- PERSONAL SAFETY
- DELIVERY ROOM
- LEAK DETECTION
- PROCESS CONTROL
- DENTISTRY
- MANY MORE...