



# OPGasScan™ Series

## Model OPGS-100

World's first Open Path gas detector  
with our proprietary **MOLES** (Multi-Order Laser  
Emission Spectroscopy) technology to ensure no false alarms



### Special Features:

- **Special I** : patented Multi-Order Laser Emission Spectrometry to eliminate all forms of noise to ensure no false alarms due to dust, rain, fog, snow, and even under harsh environmental changes. (patent pending)
- **Special II** : built-in visible green laser for ease of alignment
- **Special III** : built-in automatic calibration to ensure accuracy and high consistent performance
- **Special IV** : built-in fine tactile adjustment screws provided for fine tuning in alignment.
- range: 0 - 5,000 ppm.m / 0 - 5 LEL.m
- path length: Short range 5 - 50 m ; Medium range 20 - 120 m  
Long range 80 - 200 m
- open path sensor highly resistance to humidity interference
- large numerical and graphical dot-matrix display with backlight sensor
- Magnetic interface for non-intrusive operation
- 3 x dry relay contacts; 2 x for alarm, 1 x for fault



**Ultra perfection.**

Riding on the achievements from legacy of precision  
and inner functionality.

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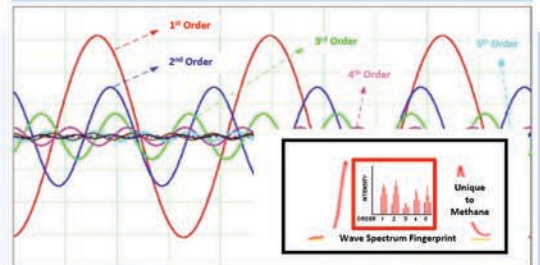


The Open Path GasScan model OPGS-100 is a high-quality, long range open path gas detection system, with advanced technology designed to detect, and quantify various gases present in a given environment over a long distance coverage. This system utilizes our innovative cutting-edge MOLES (Multi-Order Laser Emission Spectrum) finger-print matching technique, to capture, process, and analyze the presence and concentration of gases, enabling diverse applications in industrial, environmental, safety applications. By providing long distance coverage and built-in automatic calibration at site, this technology offers invaluable end user benefits for improvements in operational efficiency, safety measures, and man-power savings over wide market sectors in gas monitoring.

### What is MOLES?

- Spectrum is similar to an ID of a specified gas.
- In gas detection, the spectrum is used in spectroscopic techniques to identify and quantify specific gases.
- The absorption or emission of electromagnetic radiation by a gas is unique to that particular gas and can be used for its identification.
- By utilizing these spectroscopic techniques, gas detection devices can accurately identify and measure specific gases, making them more reliable and efficient than existing traditional methods.
- Our innovative cutting-edge MOLES (Multi-Order Laser Emission Spectrum) finger-print matching technique, is able to capture, process, and analyze accurately, the presence and concentration of gases, without any false alarms or interferences from dust, rain, fog, snow, or even under harsh environmental changes.

### Multi-Order Laser Emission Spectrum (MOLES) technology to yield fingerprint matching waveform



### Specification:

Sensor type	Infrared absorption (methane specific) (pending NH <sub>3</sub> , HF, HCl, H <sub>2</sub> S, CO <sub>2</sub> )
Range	0 - 5,000 ppm.m 0 - 1 LEL.m ; 0 - 5 LEL.m
Path length	Short range 3 - 50 m Medium range 40 - 120 m Long range 100 - 200 m
Response Time	T <sub>90</sub> ≤ 2 sec (typically)
Signal Integrity	≤ +/- 3%
Analogue output	4 - 20 mA
Relay output	3x SPDT (Alarm 1, Alarm 2, Fault)
Digital Interface	RS232 for PC connection
Source life time	More than 5 years
Supply voltage	24 VDC
Operating Cond.	Temperature: -20 degC to +70 degC Humidity: 0 - 98%RH (non-condensing)
Storage Cond.	Temperature: -20 degC to +70 degC Humidity: 0 - 100%RH (non-condensing)
Physical Dim.	Weight: 5.0 kg approx.
Dimension:	Dimension: L 270 x W 225 x H 148 (mm)
Ex Approval	Pending
Accessories	Calibration cells (optional), Mounting assembly with fine and coarse tuning adjustments, Binoculars (optional)

