

Improving biomethane  
emissions monitoring

ORION<sup>®</sup> CH<sub>4</sub>+CO<sub>2</sub>  
Open Path Dual  
Gas Analyser

For landfills and anaerobic digestors

# Why MIRICO

At MIRICO, we have put together a world-class team of scientists who are focused on delivering the most reliable monitoring technology for gas emissions across multiple industries. In doing so, the impact of emissions can be reduced through monitoring and evaluation, whether you are seeking net zero targets or looking for optimal operational effectiveness.

## Introducing the unique Laser Dispersion Spectroscopy (LDS)

At the heart of all MIRICO products is a revolutionary new technology - Laser Dispersion Spectroscopy (LDS) developed by the dedicated scientists at MIRICO.

The technology provides real-time monitoring of emissions, operating specifically in the mid infra-red spectral region and enables the collection and interpretation of emissions data in almost all weather conditions.

From this data users are able to gain insights based on accurate continuous reporting, even in fog, rain, snow and particulate affected environments.

This new level of intelligence enables biomethane producing sites to be managed more effectively than ever before.



## What sets MIRICO's LDS system apart?

The patented LDS technology delivers large scale monitoring using a bespoke set-up of a strategically positioned ORION<sup>®</sup> and corresponding retroreflectors. With its sweeping laser, which can scan through 360°, the full multi beam analysis provides real-time data on gas emissions in almost all weather conditions - which is key to the delivery of reliable information.

### Advantages of Laser Dispersion Spectroscopy

- High resolution covering a wide dynamic range
- Uniquely works in almost all weather conditions, so no data gaps
- Continuous monitoring to maximise returns and future-proof compliance

### Advantages of ORION<sup>®</sup> range

- Dedicated gas sensitivity providing real-time data
- Easily installed with fully configurable set-up and autonomous operation
- Easy remote monitoring and management



MID  
INFRA  
RED  
INSTRUMENTATION  
COMPANY

# Improved insight from continuous monitoring

The MIRICO ORION<sup>®</sup> is fully configurable to meet the needs of biomethane producers, for example operators of landfill sites or anaerobic digestors. The system delivers insights on both total site emission rates and potential leaks from infrastructure.

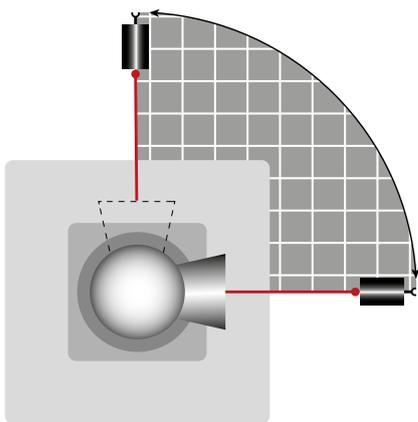
## Continuous monitoring of landfill sites

The ORION<sup>®</sup> can monitor emissions of both CH<sub>4</sub> and CO<sub>2</sub> across large areas. Sweeping through 360° strategically placed retroreflectors provide continuous data which can be analysed using proprietary mapping tools.

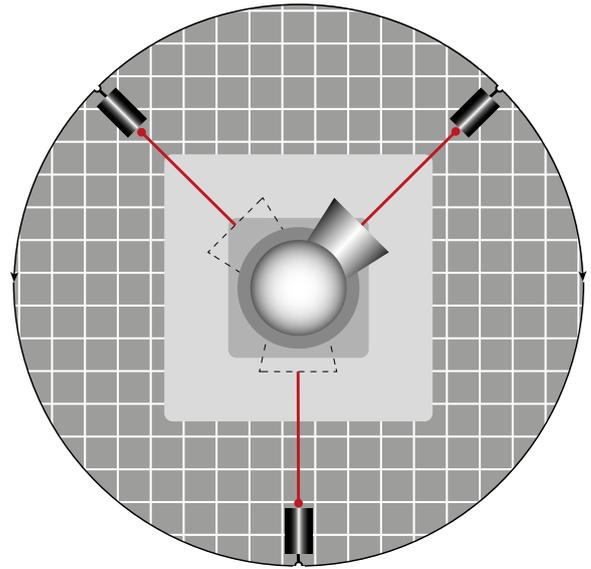
The system can detect, localise and quantify fugitive emissions to maximise the amount of methane for use in renewable energy, whilst minimising environmental impact.

This continuous and autonomous real-time monitoring can also provide the total site emission rate to monitor compliance with environmental permits and provide information to regulators.

- Provide insight to reduce fugitive emissions
- Increase revenue from renewable natural gas
- Help operators get a head start on potential new legislation



## Continuous monitoring of anaerobic digestors



The ORION<sup>®</sup> system is also ideally suited for the continuous monitoring of anaerobic digestors. The real-time data can be used to detect, localise and quantify emissions. The system can baseline emissions from an anaerobic digester, providing the detailed information required to maximise production and minimise environmental impact. The insight from this instrument allows operators to cost effectively meet net zero targets.

- Quantification of site emissions for health and safety
- Pinpoint leaks and quantify them for legislative compliance
- Baselines emissions to help achieve net zero targets

Transformational Gas Measurement

If you are looking to improve your understanding of emissions from landfill sites or anaerobic digestors, **MIRICO** is offering free consultations to help you design the optimal set-up.



Transformational Gas Measurement

## Contact Us

Call +44 (0)1235 612 400 or book a session with one of our specialists at [www.mirico.com](http://www.mirico.com)



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