

# MSA Gas Detection System:

## 0-100% v/v Methane in Landfill Recovery Gas and Waste Gas Streams



### Application

Monitoring of methane in landfill recovery gas and flare streams, wastewater anaerobic and pulp mill digester gas, mining off-gas, and other industrial processes is a significant component in determining heating value or BTU content. Methane concentration measurement along with that of gas stream mass flow is used to calculate actual pounds per hour carbon emitted. This measurement has grown in value along with rising energy costs. In addition, the Green trend may offer economic incentives for greenhouse gas emission reduction as carbon trading credits help to meet global and corporate initiatives.

Carbon credits are bought and sold between companies in a manner similar to that of commodity trading.

### Solution

MSA's Ultima® XIR Gas Monitor with associated flow panel is ideally suited to measure methane (CH<sub>4</sub>) volume concentration in landfill recovery gas and other recovery gas streams. This system provides a cost-effective solution that features an accurate and reliable alternative to traditional gas chromatograph-based systems. The Ultima XIR Gas Monitor's

minimal required maintenance is especially beneficial for remote site applications with limited on-site operational and maintenance personnel.

### Additional landfill applications:

Contact MSA for additional gas detection solutions for landfill gas monitoring including:

- Oxygen, carbon dioxide (CO<sub>2</sub>), and hydrogen sulfide (H<sub>2</sub>S) monitoring in recovery gas streams at compressor discharge and odor-control scrubber points.
- H<sub>2</sub>S and methane (LEL) area monitoring.

## Product Specification

- Ultima XIR Gas Monitor with 0-100% methane range using infrared technology
- Extractive sample draw and associated flow components mounted on a 20" W x 25" H metal panel
- Reference: ES 104 & DSK 3054-654 (typical)
- All stainless steel flow component and tubing
- Coalescing filter and automatic drain valve
- Cooling coil
- Field-adjustable flow meter
- 3 LEL-level contact alarm closures
- Low-flow switch with remote indication via contact closure
- Accepts process sample pressure at -1 to 5 psig
- Manual 3-way valve and pushbutton for easy zero and span calibration
- 4-20 mA output
- Meets NEC Class, Div. 1, Groups B, C & D explosion-proof requirements
- 120 VAC power supply (internal to Ultima XIR Gas Monitor)
- Operating temperature: 140° F maximum
- Includes engineered system drawings

*For additional information on the Ultima XIR Gas Monitor, please see bulletin #07-2054-MC.*



**Note:** This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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**Corporate Headquarters**  
P.O. Box 426, Pittsburgh, PA 15230 USA  
Phone 412-967-3000

**www.MSAnet.com**

**U.S. Customer Service Center**  
Phone 1-800-MSA-INST  
Fax 1-724-776-3280

**MSA Canada**  
Phone 1-800-672-2222  
Fax 1-800-967-0398

**MSA Mexico**  
Phone 01 800 672 7222  
Fax 52 - 44 2227 3943

**MSA International**  
Phone 412-967-3354  
FAX 412-967-3451

**MSA**  
The Safety Company