



The GEM™2000 combines the GEM™500 and the GA-90 into one faster, more accurate, intrinsically safe instrument

The GEM™2000 design specifically for use on landfills to monitor landfill gas (LFG) extraction systems, flares, and migration control systems. The GEM™2000 samples and analyzes the methane, carbon dioxide and oxygen content of landfill gas.

Features

- Measures % CH₄, CO₂ and O₂ Volume, static pressure and differential pressure
- Calculates balance gas, flow (SCFM) and calorific value (KW or BTU)
- Displays % LEL of CH₄, and user-defined comments
- Records site and well conditions
- Extended operation (10 - 14 hrs use from one charge)
- Certified intrinsically safe for landfill use
- Two instruments in one (GA and GEM mode)

Benefits

- Designed specifically for use on landfills to monitor landfill gas (LFG) extraction systems, flares, and migration control systems.
- No need to take more than one instrument to site
- Can be used for routine sub-surface migration monitoring of landfill site perimeter probes and for measuring gas composition, pressure and flow in gas extraction systems
- The user is able to set up comments and questions to record information at site and at each sample point
- Ensures consistent collection of data for better analysis
- Allows balancing of gas extraction systems

Applications

- Landfills
- Gas Extraction Wells
- Flare Monitoring
- Subsurface Migration Probes



Technical Specification

Gases Measured

CH₄, CO₂, by dual wavelength infrared cell with reference channel. O₂ by internal electrochemical cell

CH ₄	0-100% Reading		
CO ₂	0-100% Reading	O ₂	0-25%

Gas Accuracy	CH ₄	CO ₂	O ₂
0-5%	±0.3%	±0.3%	±1.0%
5-15%	±1.0%	±1.0%	±1.0%
15% - Full Scale	±3.0%	±3.0%	±1.0%

Other Parameters	Unit	Resolution	Comments
Energy	BTU/hr	1000 BTU/hr	Calculated from specific parameters.
Static Pressure	in.H ₂ O	0.1 in.H ₂ O	Direct Measurement
Differential Pressure	in.H ₂ O	0.001 in.H ₂ O	Direct Measurement

Flow	Typically 300 cc/min
Flow with 5.9 in.Hg vacuum	Approximately 250 cc/min
Operating Temperature Range	32°F - 104°F
Operating Pressure	-100 in. H ₂ O, +100 in. H ₂ O
Relative Humidity	0-95% non condensing
Barometric Pressure	±5.9 in.Hg from calibration pressure
Barometric Pressure Accuracy	±1% typically
Battery Life	Typical use 10 hours from fully charged
Charge Time	Approximately 2 hours from complete discharge.
Certifications	UL- Certified to Class 1, Zone 1, AEx ib d Ila T1



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