









**PORTABLE GAS ANALYZER** INSTRUMENTATION

## The GEM<sup>TM</sup>2000 combines the GEM<sup>TM</sup>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 % CH<sub>4</sub>, CO<sub>2</sub> and O<sub>3</sub> Volume, static pressure and differential pressure
- Calculates balance gas, flow (SCFM) and calorific value (KW or BTU)
- Displays % LEL of CH<sub>4</sub>, 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 guestions 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



vailable for Rental at: Air-Met Scientific Pty Ltd

P: 1800 000 744 F: 1800 000 774

P: 1300 137 067 E: hire@airmet.com.au



# -Technical Specification -

## Gases Measured

CH<sub>4</sub>, CO<sub>2</sub>, by dual wavelength infrared cell with reference channel. O<sub>2</sub> by internal electrochemical cell

CH <sub>4</sub>	0-100% Reading		
CO <sub>2</sub>	0-100% Reading	O <sub>2</sub>	0-25%

Gas Accuracy	CH <sub>4</sub>	$CO_2$	$O_2$
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 <sub>2</sub> O	0.1 in.H <sub>2</sub> O	Direct Measurement
Differential Pressure	in.H <sub>2</sub> O	0.001 in.H <sub>2</sub> 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 <sub>2</sub> O, +100 in. H <sub>2</sub> 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 lla T1	





LANDTEC North America Western Sales Office (800) 821-0496 • Fax (909) 825-0591

Eastern Sales Office (800) 390-7745 • Fax (301) 391-6546

LANDTEC South America +55(11) 5181-6591 • Fax +55(11) 5181-6585 www.LANDTEC.com.br

