



FOR LANDFILL GAS SYSTEM OPERATIONS

The **Envision™ Gas Meter**, from Elkins Earthworks, is an affordable, rugged gas meter built for taking accurate gas measurements in the extremes of the landfill environment. The **Envision™** utilizes Infrared technology to measure CH₄ and CO₂ and measures O₂ by an internal electrochemical cell. The **Envision™** also houses five pressure sensors so that the user can accurately measure standard and extremely low pressures anywhere on the system.



- **CH₄ Methane**
- **CO₂ Carbon Dioxide**
- **O₂ Oxygen**
- **Low Range Pressures**
- **High Range Pressures**
- **Gas Temperature**
- **GPS location**
- **Wireless Communication**
- **Touch Screen Simplicity**
- **Universal .csv File Format**



Power in Flexibility

The **Envision™** gas meter is driven by any one of several Trimble® handheld computers via Bluetooth® connection. This allows the user to connect the **Envision™** to a sampling point and continue to read the gas measurements wirelessly up to 60 feet* and in some cases further away. Utilizing software

built around the field technician's normal workflow; data collected by the **Envision™** can be locked, reviewed and unlocked if necessary to ensure accurate data is stored on the first visit. Once stored, all data is immediately available in the convenient .csv file format.

* Actual distance may vary based on local factors.

FOR MORE INFORMATION
CONTACT ELKINS EARTHWORKS

▶▶ Phone: (330) 725-7766
Email: sales@elkinsearthworks.com
Web: www.elkinsearthworks.com

Technical Specifications



Operation Range

Unit	Minimum	Maximum	Comments
Envision	-4° F	140° F	Heater unit option for low temperatures

Gas Sensors

Gas Sensors	Range	Comments
CH4	0 - 100%	Infra-red cell
CO2	0 - 100%	Infra-red cell
O2	0 - 35%	Electrochemical

Gas Sensor Accuracy

Range	CH4	CO2	O2
0-5%	±0.3%	±0.3%	±0.25%
5-30%	±1.0%	±1.0%	±<1% (Max O2 = 35%)
30 - 100%	±<2.0%	±<2.0%	±<1% (Max O2 = 35%)
Resolution	0.01%	0.01%	0.01%
T90	<30s	<30s	<13s

Pressure Sensors

	Range		
Static	(-)5 H2O to 5" H2O	(-)130" H2O to 130" H2O	Comments
Accuracy	0.1375	+/- 2% of reading	According to sensor manufacture specs.
Resolution	0.001	0.01	
T90	<1 ms	<10 ms	
Differential			
Accuracy	0.1375	+/- 2% of reading	According to sensor manufacture specs.
Resolution	0.001	0.01	
T90	<1 ms	<10 ms	
Available			
Accuracy	NA	+/- 2% of reading	
Resolution	NA	0.01	
T90	NA	<10 ms	

Elkins Earthworks, LLC
865 W. Liberty Street, Suite 220
Medina, Ohio 44256

www.elkinsearthworks.com



North America Sales
Phone (330) 725-7766
Fax (330) 725-7799

[www.sales@elkinsearthworks.com](mailto:sales@elkinsearthworks.com)

Note: All statements about sensor accuracy and product tolerances are subject to change in the final released unit. This technical specification sheet will be updated when final product is quoted.

Technical Specifications



Pump Specifications

" H2O	Flow (cc/min)
-138	260

Battery Specifications

Battery Life	up to 500 full charge cycles
Battery Construction	NiMH (no memory)
Charge Time	4 hours from complete discharge

Battery Life (NiMH)

Temperature (°F)	Life (hours)
77	13.8
50	13.1
32	10.5
14	6.6
-4	2.6

WARRANTY EXCLUSIONS AND DISCLAIMER. Elkins Earthworks, LLC. does not guaranty or warrant the results obtained through use of the Products. Accuracy and precision may be affected by:

- 1) improper or inadequate maintenance by customer;
- 2) Customer or third party supplied products, software, interfacing or supplies;
- 3) unauthorized modification;
- 4) improper use or operation outside of the specifications for the product;
- 5) misuse, abuse, negligence, accident;
- 6) or damage caused by accident, lightning or other electrical discharge, fresh or salt water immersion or spray, or exposure to environmental conditions for which the Product is not intended;
- 7) unauthorized maintenance or repair; normal wear and tear on consumable parts (e.g., batteries).

Elkins Earthworks, LLC
865 W. Liberty Street, Suite 220
Medina, Ohio 44256
www.elkinsearthworks.com



North America Sales
Phone (330) 725-7766
Fax (330) 725-7799
www.sales@elkinsearthworks.com

Note: All statements about sensor accuracy and product tolerances are subject to change in the final released unit. This technical specification sheet will be updated when final product is quoted.

2/20/2012