Semi-Fixed
Wireless Gas Monitor

geotech

RAE Systems MeshGuard

MeshGuard is a rugged, battery-powered toxic gas detector integrated with a wireless mesh radio modem. Key features include extremely fast installation, self-configuration of the network, and worldwide approved wireless frequency coverage. Designed for use in harsh environments and easy to service in the field, MeshGuard is a truly unique wireless solution for remote chemical detection in hazardous areas.

FEATURES

- **Fast deployment and decommissioning time**
- **Simple to install and operate**
- **Rugged and reliable**
- **Versatile to accommodate many applications**
- **Self-forming wireless network; units come online automatically**
- **Compact and lightweight**
- **IP-65 rated weather resistant, and splash guard equipped for sensor protection**
- **Multiple controller options for real-time wireless data collection and viewing**
- **Self-healing network automatically routes data back to controller through best wireless path available**
- **Battery powered operation for up to 6 months**
- **SolarPak provides continuous run time**
- **Intrinsically Safe**
- **Magnetic mounting option for quick and easy MeshGuard installation**

APPLICATIONS

- **Oil and gas drilling operations**
- **Oil and gas production**
- **Plant maintenance turnarounds**
- **Industrial safety**
- **Tank farms**
- **Shipyards and maritime**

MeshGuard inside protective stainless-steel housing

MeshGuard LEL

MeshGuard Kit

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.
2650 East 40th Avenue • Denver, Colorado 80205
(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
email: sales@geotechenv.com   website: www.geotechenv.com

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SPECIFICATIONS

Sensor Specifications

Sensor	Range	Resolution	Response Time
H_2S	0 to 100 ppm	0.1 ppm	T90 < 30 sec T10 < 30 sec
LEL/LEL IR	0 to 100% LEL	1% LEL	T90 < 30 sec T10 < 30 sec
CO	0 to 2000 ppm	1 ppm	T90 < 30 sec T10 < 30 sec
CO_2	0 to 5% Vol 0 to 100% Vol	0.01% Vol 0.1% Vol	T90 < 30 sec T10 < 30 sec
O_2	0 to 25%	0.1%	T90 < 15 sec T10 < 15 sec
NH_3	0 to 100 ppm	1 ppm	T90 < 90 sec T10 <90 sec
Cl_2	0 to 50 ppm	0.1 ppm	T90 < 30 sec T10 < 30 sec
SO_2	0 to 20 ppm 0 to 100 ppm	0.1 ppm 1ppm	T90 < 60 sec T10 < 60 sec

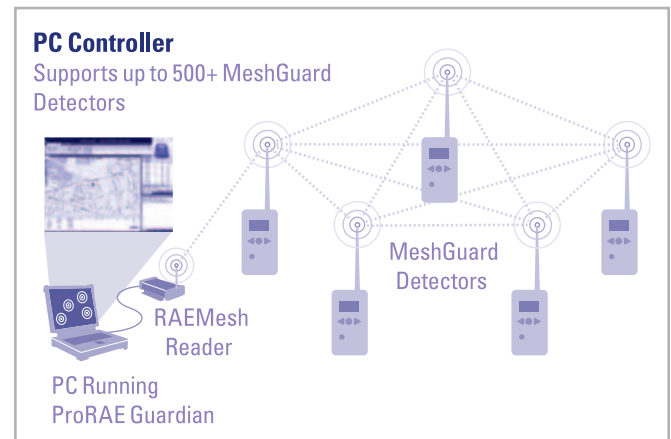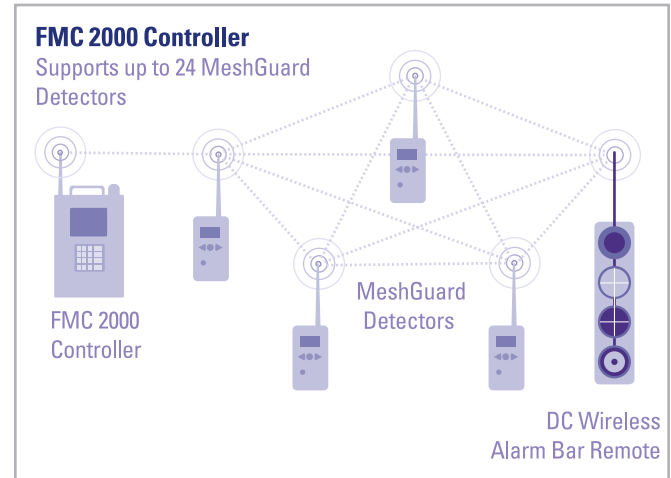### Detector Specifications

Size	10.5" L x 3.7" W x 2.1" H (26.5cm x 9.5cm x 5.5cm)
Weight	1.3 lbs. (0.6kg)
Visual Alarm	2 super-bright red LEDs
Audible Alarm	90dB @ 30cm
Calibration	Two-point field calibration
Operating Range	985 feet/300 meters (line of sight)
Keypad	Three operation and programming keys
Display	Customized LCD (1" x 1.5"/72mm x 108mm) with backlight
Power Supply	Disposable Lithium Battery, +3.6V (optional rechargeable external battery for extended run time)
Operating Time	Toxic Gas Sensors: Up to 6 months on internal battery (up to 1 year on external) LEL Gas Sensor: Up to 21 days on external PowerPak battery LEL IR Gas Sensor: Up to 2 months on internal battery[1] (up to 1 year on external) CO_2 Gas Sensor: Up to 3 months on external PowerPak battery
Operating Temperature	-40° to 122°F (-40° to +50°C) for LEL, LEL IR, CO and H_2S sensors Other sensors -4° to 122°F (-20° to +50°C)
Humidity	5% to 95% relative humidity, non-condensing
IP Rating	IP-65
Safety Certifications	US and Canada: CID1, Groups A, B, C, D, T4 Europe: ATEX IM1/II 1G Ex ia I/IIC T4 IECEx Ex ia I/IIC T4 Contact Geotech for country-specific certification
Wireless Frequency	ISM license free band. IEEE 802.15.4 2.4 GHz
Wireless Approvals	FCC Part 15, CE R&TTE, Others[2]
Radio Module	Supports RM2400 and RM2400A

[1] MeshGuard LEL IR units operating in temperatures below -4°F (-20°C) may require a PowerPak external battery for extended runtimes.
[2] Contact Geotech for country specific wireless approvals and certificates.
Specifications are subject to change.

MESHGUARD SYSTEM CONFIGURATION OPTIONS

FMC 2000 Controller
Supports up to 24 MeshGuard Detectors

FMC 2000 Controller

MeshGuard Detectors

DC Wireless Alarm Bar Remote

PC Controller
Supports up to 500+ MeshGuard Detectors

RAEMesh Reader

PC Running ProRAE Guardian

MeshGuard Detectors

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