



MeshGuard

Semi-Fixed, Wireless Gas Monitor



The MeshGuard is a battery operated, semi-fixed, wireless monitor for gas and gamma radiation.* An internal mesh radio allows it to form an intelligent network for enhanced safety without costly wiring. MeshGuard systems can easily be configured for a broad range of applications. The MeshGuard easily connects to a controller and/or wireless alarm bar.

- Fastest deployment and decommissioning time
- Simple to install and operate
- Rugged and reliable
- Versatile to accommodate many applications

KEY FEATURES

- 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 24/7 uptime
- 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



RAE PowerPak
External Battery

MeshGuard
inside protective
stainless-steel
housing



MeshGuard wireless gas detectors are designed for use in the harshest outdoor environments such as drilling rigs and in other industrial applications

*Please refer to the MeshGuard Gamma datasheet for radiation specific information.



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SPECIFICATIONS

Sensor Specifications*

Sensor	Range	Resolution	Response Time
H ₂ S	0 to 100 ppm	0.1 ppm	T90 < 30 sec T10 < 30 sec
LEL /LEL IR	0 to 100%	1%	T90 < 30 sec T10 < 30 sec
CO	0 to 2000 ppm	1 ppm	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 < 200 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 1 ppm	T90 < 60 sec T10 < 60 sec

*Other sensors: contact RAE Systems

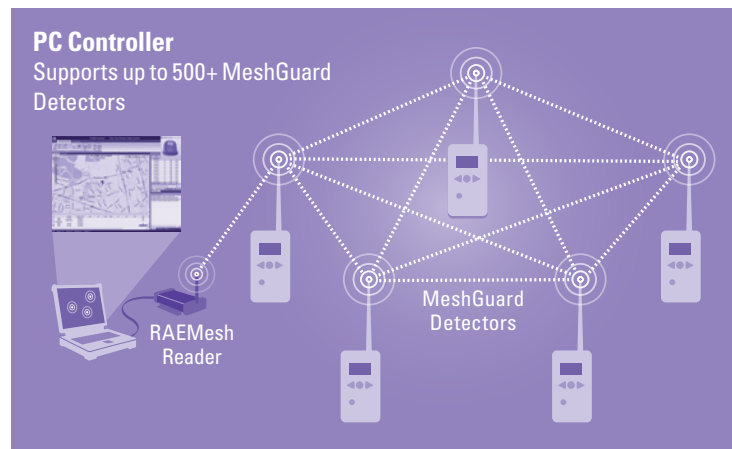
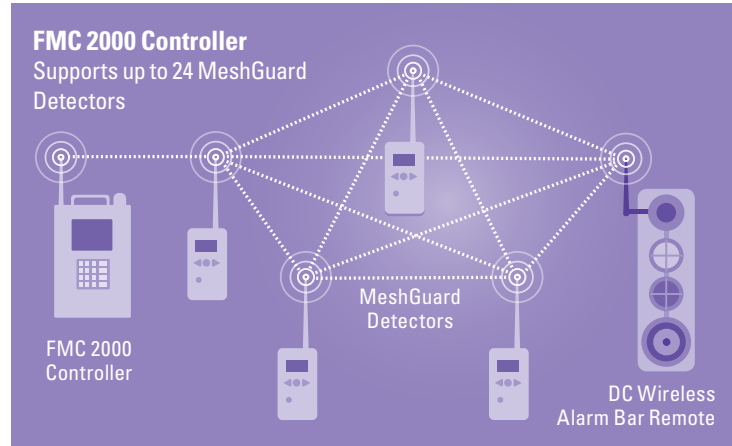
Detector Specifications

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** (up to 1 year on external)
Operating Temperature	-40° to 122° F (-40° to +50° C) for LEL, LEL IR, CO and H ₂ S 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 RAE Systems 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 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 RAE Systems for country specific wireless approvals and certificates.
Specifications are subject to change.

MESHGUARD SYSTEM CONFIGURATION OPTIONS



CORPORATE HEADQUARTERS

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