



MeshGuard

Battery-Powered Wireless Gas Detector



The RAE Systems MeshGuard gas detection monitor is a key building block of the MeshGuard intelligent network of connected sensors for gas detection in industrial safety and oil and gas applications. The MeshGuard system is designed for quick deployment in areas where low cost/high ROI solutions are required. MeshGuard is available with field-replaceable precision sensors specifically designed to sense toxic and flammable gases.

- 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



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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	0 to 100%	1%	T90 < 30 sec T10 < 30 sec
CO	0 to 2000 ppm	1 ppm (0 to 500 ppm) 10 ppm (500 to 2000 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 10 ppm	0.1 ppm	T90 < 30 sec T10 < 30 sec
SO ₂	0 to 20 ppm	0.1 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
RF Frequency	2.4GHz ISM Band, IEEE 802.15.4 standard compliant
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 2 years on external) Flammable Gas Sensor: Up to 21 days on external PowerPak battery
Operating Temperature	-40° to 122° F (-40° to +50° C) for LEL, 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
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
RF Certifications	FCC Part 15, CE, SRRC

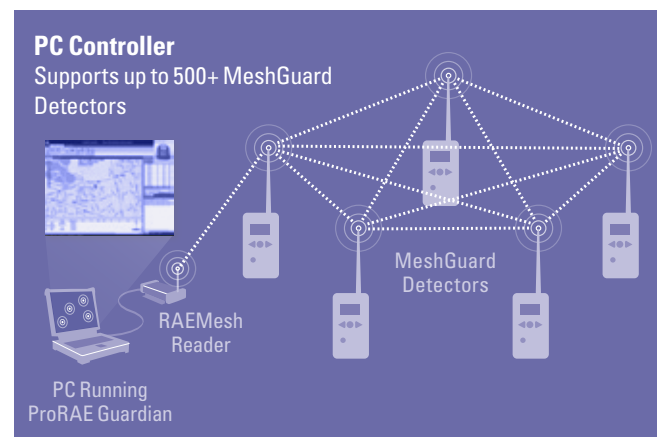
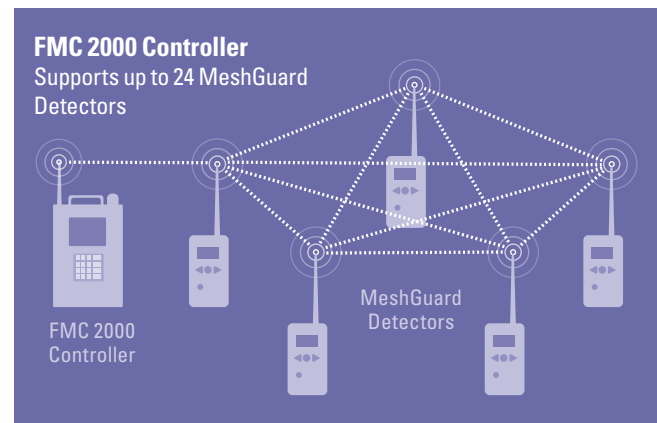
*Specifications are subject to change

MESHGUARD ORDERING INFORMATION

MeshGuard Detector Includes:

- MeshGuard detector with sensor as specified
- Operation and maintenance manual
- Calibration gas test adapter
- High-capacity Lithium battery installed
- Maintenance tool

MESHGUARD SYSTEM CONFIGURATION OPTIONS



CORPORATE HEADQUARTERS

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Sicherheit von Kopf bis Fuss