

# MeshGuard

## Battery-Operated Wireless Gas Detector

  
**Wireless**



**Cost-effective installation with no wiring**

**Easy operation with self-forming and self-healing wireless network**

**Designed for use in harsh and hazardous environments**

**Battery powered operation for up to 6 months**

**Intrinsically Safe**

MeshGuard is a rugged, battery-powered gas detector integrated with a wireless mesh radio modem. MeshGuards equipped with toxic or flammable gas sensors can quickly be installed in hazardous locations, and remote readings are displayed on the FMC-2000 wireless controller. Setup of the system is fast and easy as the network configures itself. Each detector can automatically relay the data to other detectors, ensuring delivery of critical information in industrial applications.

### Key Features

- Built-in mesh radio modem with up to 300m operating distance between nodes
- IP-65 rated weather resistant, and splash guard equipped for sensor protection
- Replaceable battery and sensor
- Loud audio and bright visual alarms
- Large, easy-to-read continuous display of gas concentration in ppm
- Highly resistant to RFI and EMI
- Small and lightweight
- Magnetic mounting option for very quick and easy MeshGuard installation



*MeshGuard can be used on drilling rigs*

### 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*



ATEX



IECEX



# MeshGuard

## Specifications

### Sensor Specifications\*

Gas	Range	Resolution	Response Time
Carbon Monoxide (CO)	1 to 500 ppm	1 ppm	30 sec
Hydrogen Sulfide (H <sub>2</sub> S)	0.1 to 100 ppm	0.1 ppm	20 sec
Sulfur Dioxide (SO <sub>2</sub> )	0.1 to 20 ppm	0.1 ppm	30 sec
Flammables (LEL)	0 to 100% LEL	1% LEL	15 sec

\*Other sensors: contact manufacturer

### 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	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	<b>Toxic Gas Sensors:</b> Up to 6 months on internal battery (up to 2 years on external) <b>Flammable Gas Sensor:</b> Up to 5 days on internal battery (up to 22 on external)
Operating Temperature	-40° to 122° F (-40° to +50° C) for LEL, CO and H <sub>2</sub> S sensors. Other sensors -4° to 122° F (-20° to +50° C)
Humidity	10% to 90% 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 manufacturer for country-specific certification
RF Certifications	FCC Part 15, CE, SRRC

### RAE PowerPak Specifications\*

Size	12.2" L x 10.2" W x 5.5" H (31cm x 26cm x 14cm)
Weight	27.8 lbs (12.6 kg)
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 manufacturer for country-specific certification
Operating Temperature	-40° to 131° F (-40° to +55° C)

\*Specifications are subject to change

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DS-1017-02

## 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
- Steel bracket or magnet mount
- Maintenance tool

### MeshGuard System Configuration Options:

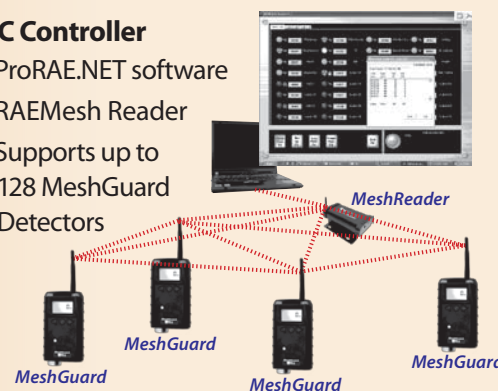
#### FMC 2000 Controller

Supports up to 24  
MeshGuard Detectors



#### PC Controller

• ProRAE.NET software  
• RAEMesh Reader  
• Supports up to  
128 MeshGuard  
Detectors



## Ordering Information

### Part Numbers

MeshGuard H <sub>2</sub> S (0.1 to 100 ppm)	D01-A001-011
MeshGuard CO (1 to 500 ppm)	D01-A003-011
MeshGuard SO <sub>2</sub> (0.1 to 20 ppm)	D01-A005-011
MeshGuard LEL (0 to 100% LEL)	D01-A00G-011

**Toll-Free: 877-723-2878**

