MeshGuard

Battery-Operated Wireless Gas Detector

Wireless

The MeshGuard gas detection monitor is a key building block of the MeshGuard intelligent network of connected sensors for gas detection in industrial safety applications. The MeshGuard system is designed for quick deployment in areas where traditional fixed gas detection monitors might have been used in the past, but a lower cost solution with faster deployment is needed. 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
- Intrinsically Safe
- Magnetic mounting option for very quick and easy MeshGuard installation

MeshGuard can be used on drilling rigs

RAE PowerPak External Battery

MeshGuard inside protective stainless-steel housing

Applications

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

ISO 9001 CERTIFIED   ATEX   c CSP us   IECEx   CE   FCC

RAE SYSTEMS

Specifications

Sensor Specifications*

Gas	Range	Resolution	Response Time
Carbon Monoxide (CO)	1 to 500 ppm	1 ppm	30 sec
Hydrogen Sulfide (H_2S)	0.1 to 100 ppm	0.1 ppm	20 sec
Sulfur Dioxide (SO_2)	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	**Toxic Gas Sensors:** Up to 6 months on internal battery (up to 2 years on external) **Flammable Gas Sensor:** 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_2S 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
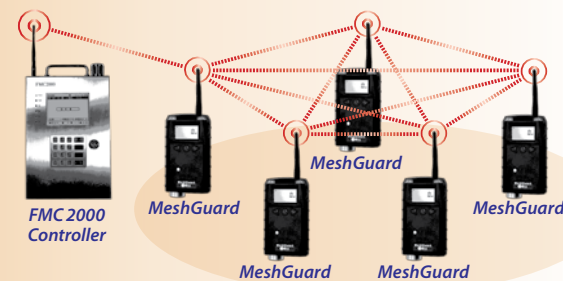
www.raesystems.com

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
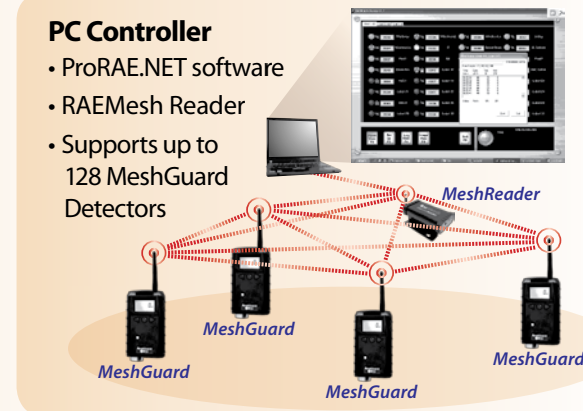- Steel bracket or magnet mount
- Maintenance tool

MeshGuard System Configuration Options:

FMC 2000 Controller Supports up to 24 MeshGuard Detectors

FMC 2000 Controller

MeshGuard

PC Controller
- ProRAE.NET software
- RAEMesh Reader
- Supports up to 128 MeshGuard Detectors

MeshReader

MeshGuard

Ordering Information
Part Numbers

MeshGuard H_2S (0.1 to 100 ppm)	D01-A001-011
MeshGuard CO (1 to 500 ppm)	D01-A003-011
MeshGuard SO_2 (0.1 to 20 ppm)	D01-A005-011
MeshGuard LEL (0 to 100% LEL)	D01-A00G-011

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