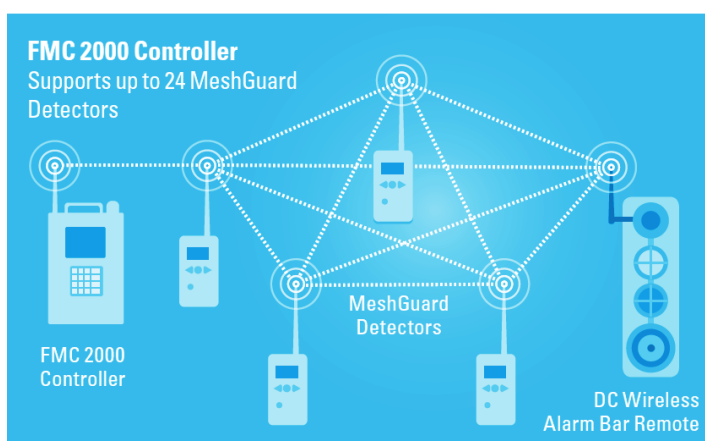


MeshGuard

Semi-Fixed, Wireless Gas Monitor

The MeshGuard is a battery operated, semi-fixed, wireless monitor system for several gasses (LEL, H₂S, CO, O₂, SO₂, NH₃, CL₂). 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 connects up to 24 units to a controller and/or wireless alarm bar.



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 farm
- ✓ Shipyards and maritime

Technical specifications

Detector	
Size	10.5"Lx3.7"Wx2.1"H (26.5cm x 9.5cm x 5.5cm)
Weight	1.3 lbs (0.6kg)
Visual Alarm	2 super bright red LEDs
Audible Alarm	90 dB @ 30 cm
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)
Operation 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.

Sensor			
H ₂ S	0-100 ppm	0.1 ppm	T90 < 30 sec T10 < 30 sec
LEL /LEL IR	0 - 100% LEL	1 % LEL	T90 < 30 sec T10 < 30 sec
CO	0-2,000 ppm	1 ppm	T90 < 30 sec T10 < 30 sec
O ₂	0-25%	0,1%	T90 < 15 sec T10 < 15 sec
NH ₃	0 - 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	-20 ppm 0 to 100 ppm	0.1 ppm 1 ppm	T90 < 60 sec T10 < 60 sec

The Bruusgaard System



TBS is a unique turnkey portable gas detection solution, giving you increased safety and substantial cost savings through standardised instruments, routines, training and procurement.

Logistic Support

At any given time we know the status of all vessels and sites covered by The Bruusgaard System. We consolidate all shipments and make sure you have everything you need on board until next scheduled delivery. This results in fewer shipments and substantial savings!

- Year round follow up of instruments, spares and consumables
- Handling of all shipments & logistics
- Annual reports per vessel including budgeting



Safety

QA – strict routines and logging

- Crew are able to use instruments and follow routines correctly
- Instruments are in proper working condition at all times
- Instruments are calibrated at correct intervals
- Sensors and other items are replaced at correct intervals
- Usage of instruments is logged, including abnormal observations
- Traceability – instrument history and usage
- Routines and procedures can merge into the overall QA-system

Effective and proven training is an integrated part of The Bruusgaard System.

Instruments

All the equipment used for gas detection and calibration is placed in a custom-made wall cabinet. Including Log & Instruction Manual, which are crucial to maintaining the safety integrity.

- Standardised vessel specific gas detector solutions
- Total solutions including all equipment and routines necessary for efficient and safe use, storage and maintenance

Cost Savings

Some of our customers have been able to go from 8 to 10 suppliers down to 1 – translating into cost savings of up to 40-50%. For one vessel, this could be thousands of dollars annually, and for a whole fleet, the cost savings can be dramatic. This is achieved through:

- One contact for worldwide supply of spares & gases
- All service and calibration can be done on site.
- Reductions of instrument types from 10-12 to 2-3

Reduced maintenance costs through:

- On board calibration
- Fewer instruments on board
- No need for spares on board
- One PO per year
- Increased safety
- Less use of administrative time