RAE Systems by Honeywell
Battery-Powered Wireless Gas Detector
The RAE Systems by Honeywell 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.
MeshGuard
Battery-Powered Wireless Gas Detector

Specifications

Sensor Specifications*

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Range</th>
<th>Resolution</th>
<th>Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₂S</td>
<td>0 to 100 ppm</td>
<td>0.1 ppm</td>
<td>T90 &lt; 30 sec</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>T10 &lt; 30 sec</td>
</tr>
<tr>
<td>LEL</td>
<td>0 to 100%</td>
<td>1%</td>
<td>T90 &lt; 30 sec</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>T10 &lt; 30 sec</td>
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<tr>
<td>CO</td>
<td>0 to 2000 ppm</td>
<td>1 ppm (0 to 500 ppm)</td>
<td>T90 &lt; 30 sec</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 ppm (500 to 2000 ppm)</td>
<td>T10 &lt; 30 sec</td>
</tr>
<tr>
<td>O₂</td>
<td>0 to 25%</td>
<td>0.1%</td>
<td>T90 &lt; 15 sec</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>T10 &lt; 15 sec</td>
</tr>
<tr>
<td>NH₃</td>
<td>0 to 100 ppm</td>
<td>1 ppm</td>
<td>T90 &lt; 90 sec</td>
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<td></td>
<td></td>
<td></td>
<td>T10 &lt; 200 sec</td>
</tr>
<tr>
<td>Cl₂</td>
<td>0 to 10 ppm</td>
<td>0.1 ppm</td>
<td>T90 &lt; 30 sec</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>T10 &lt; 30 sec</td>
</tr>
<tr>
<td>SO₂</td>
<td>0 to 20 ppm</td>
<td>0.1 ppm</td>
<td>T90 &lt; 60 sec</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>T10 &lt; 60 sec</td>
</tr>
</tbody>
</table>

*Other sensors: contact RAE Systems

Detector Specifications

Basic parameters

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
IP Rating IP-65

Environmental parameters

Operating Temperature -40° to 122° F (-40° to +50° C) for LEL, CO and H₂S sensors.
Other sensors -4° to 122° F (-20° to +50° C)
Humidity 5% to 95% relative humidity, non-condensing

Physical parameters

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)

Certifications

Certifications US and Canada: CID1, Groups A, B, C, D, T4
Europe: ATEX IM1/II 1G Ex ia I/IIC T4
IECEx Ex ia IIC T4
Inmetro Contact Honeywell for country-specific certification
RF Certifications FCC Part 15, CE, SRRC

*Specifications are subject to change

MeshGuard Gamma 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

Mesh Guard System Configuration Options

FMC 2000 Controller
Supports up to 24 MeshGuard Gamma Detectors

PC Controller
Supports up to 500+ MeshGuard Gamma Detectors

MeshGuard inside protective stainless-steel housing
Honeywell Analytics Lines of Business

**Commercial**
Gas detection from standalone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance
» Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

**Industrial**
Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies
» Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial

**Portables**
Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments
» Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets

**High Tech/Government**
A complete portfolio of gas and chemical detection instrumentation including infrared spectroscopy (MST) with no cross interference, to Chemcassette paper-based solutions (MDA Scientific) offering detection down to parts per billion
» Applications: semiconductor manufacturing and nanotechnology, aerospace propulsion and safety, specialty chemicals industry, research laboratories, emergency response

**Technical Services**
24/7 global network includes post-sales service and Systems Integration teams
» Emergency call out, service contracts, on/off-site repair, training and commissioning
» Complete range of spares, consumables and accessories

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**Find out more**
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