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

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

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
MeshGuard

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Sensor Specification*

<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>
</tr>
<tr>
<td></td>
<td>10 ppm (0 to 200 ppm)</td>
<td>T10 &lt;30 sec</td>
<td></td>
</tr>
<tr>
<td>LEL</td>
<td>0 to 100%</td>
<td>1%</td>
<td>T90 &lt;30 sec</td>
</tr>
<tr>
<td></td>
<td>10 ppm (0 to 200 ppm)</td>
<td>T10 &lt;30 sec</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>0 to 2,000 ppm</td>
<td>1 ppm (0 to 500 ppm)</td>
<td>T90 &lt;30 sec</td>
</tr>
<tr>
<td></td>
<td>10 ppm (500 to 2,000 ppm)</td>
<td>T10 &lt;30 sec</td>
<td></td>
</tr>
<tr>
<td>O2</td>
<td>0 to 25%</td>
<td>0.1%</td>
<td>T90 &lt;15 sec</td>
</tr>
<tr>
<td></td>
<td>10 ppm (0 to 200 ppm)</td>
<td>T10 &lt;15 sec</td>
<td></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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<tr>
<td></td>
<td>10 ppm (0 to 200 ppm)</td>
<td>T10 &lt;200 sec</td>
<td></td>
</tr>
<tr>
<td>CL2</td>
<td>0 to 10 ppm</td>
<td>0.1 ppm</td>
<td>T90 &lt;30 sec</td>
</tr>
<tr>
<td></td>
<td>10 ppm (0 to 200 ppm)</td>
<td>T10 &lt;30 sec</td>
<td></td>
</tr>
<tr>
<td>SO2</td>
<td>0 to 20 ppm</td>
<td>0.1 ppm</td>
<td>T90 &lt;60 sec</td>
</tr>
<tr>
<td></td>
<td>10 ppm (0 to 200 ppm)</td>
<td>T10 &lt;60 sec</td>
<td></td>
</tr>
</tbody>
</table>

*Other sensors: contact GasTech Australia

Detector Specification*

- 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 H2S 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 IIC T4 IEEEx Ex ia IIC T4
- RF Certifications: FCC Part 15, CE, SRRC

* Specifications are subject to change