MSA Wireless Communications for Fixed Gas & Flame Detectors

Combustible and toxic gases can leak virtually anywhere. Flanges, pump seals, valves and storage tanks are all potential spots where a dangerous gas or liquid can make its way into a safe area. Unfortunately, these places are often not located near the main part of the plant or other areas where detection instruments are installed. Additionally, gas detection may be desired at the boundary of a facility where no infrastructure currently exists, making it prohibitively expensive to run conduit and cabling to these locations. Inconvenience and expense, however, do not mitigate the risk of a life-threatening or catastrophic leak.

Application

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Solution

MSA’s Wireless Communication System includes a 900 MHz radio that communicates to a gateway, providing reliable real-time detection data at distances of up to 1 mile with a clear line of sight. Accepting both analog and ModBus inputs, the system’s wireless communication is easily established to the gateway that is located near the PLC or DCS. The radios can also act as repeaters, enabling installations to be located at virtually any distance from the gateway as long as an unobstructed path to the next radio is present. If power is not available, a solar panel, controller, battery and charger can be provided to ensure up to 2 weeks of operation even with little to no sunlight.

Alternatively, if the end user has a wireless HART network already in place, then a wireless HART adapter can be added to any MSA HART-enabled field device.
Features & Benefits

Wireless Radio
- Powerful 900 MHz communications
- No FCC license required
- Simple addressing and network linking
- Analog or Modbus input
- Battery back up with Solar Panel for complete autonomy
- Easy installation

Wireless HART
- Industry-standard HART protocol
- Safe and secure communications
- Mesh network
- Extremely low power consumption
- Self-configuring

SOLUTION

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<tr>
<th>SPECIFICATIONS</th>
<th>MSA Wireless System</th>
<th>Wireless HART</th>
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<tbody>
<tr>
<td>FREQUENCY</td>
<td>900 MHz</td>
<td>2.4 GHz</td>
</tr>
<tr>
<td>INPUTS/OUTPUTS</td>
<td>Analog, ModBus or Discrete</td>
<td>HART</td>
</tr>
<tr>
<td>SOLAR PANEL</td>
<td>20W</td>
<td>20W</td>
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<tr>
<td>BATTERY BACK-UP</td>
<td>35 Ah or 50 Ah</td>
<td>35 Ah or 56 Ah</td>
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<tr>
<td>DISTANCE</td>
<td>Up to 1 mile line of sight</td>
<td>500 ft</td>
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<tr>
<td>VOLTAGE</td>
<td>10-30 VDC</td>
<td>10-30 VDC</td>
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<tr>
<td>COMPATIBILITY</td>
<td>Ultima X or Prima X Gas Detectors</td>
<td>Any detector with HART Output</td>
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Note: This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.

For more information, visit www.MSAgasdetection.com