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The Monitor



GENERAL MONITORS

Your total solution provider for gas and flame detection

Gassonic Observer-H Now Available With HART



General Monitors has launched a new ultrasonic gas leak detector available with HART, the Gassonic Observer-H. General Monitors has launched a new ultrasonic gas leak detector available with HART, the Gassonic Observer-H. Based on the Gassonic Observer platform, the new product is equipped with Modbus and offers an event logging function to monitor warning, alarm, diagnostic, and maintenance

events. The HART-enabled configuration of the Gassonic Observer-H supports Emerson's AMS Intelligent Device Manager. The AMS Suite can be used to track the Observer-H's key performance parameters.

The Gassonic Observer-H responds to ultrasound emitted by pressurized gas leaks over the ultrasonic background noise. The instrument offers 360-degree coverage over a radius that varies according to the level of ambient ultrasound. Assuming the minimum hazard to be detected is a methane gas leak of 0.1 kg/s, detection coverage ranges from 13 - 20 m radius in very low noise areas (< 58 dB), 9 - 12 m radius in low noise areas (< 68 dB), to 5 - 8 m radius in high noise areas (< 78 dB).

Although it is natural to try to infer the amplitude of ultrasonic noise from what one can hear, one should keep in mind audible and ultrasonic noise are uncorrelated. A room with noisy equipment may have low ultrasonic background noise and vice versa. Sound emissions vary across sources and obstructions may reduce (or amplify) sound at some frequencies more than at others.

To reduce the potential of false alarms, the Gassonic Observer-H features a sophisticated high pass filter that removes sound frequencies below 25 kHz, effectively eliminating interference from audible sound. At the same time, setting the alarm trigger level above the ultrasonic background noise ensures the detector accurately detects gas leaks.

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Interactive Ultrasonic Tools

Enhance your knowledge about ultrasonic (acoustic) gas leak detectors with Gassonic's new interactive tools. One player demonstrates Frequency and Amplitude - two of the fundamental parameters in acoustic gas leak detection. The second player enables you to adjust the ambient background noise and change the trigger level set-points to experience how Ultrasonic Background Noise and Detection Coverage are interrelated.

► **More about our interactive tools**

New PA4000 Video Now Available

A new video illustrates the PA4000's advanced photoacoustic gas monitoring technology. The latest episode of GM TV explains the features and benefits of our precise, high-performance PA4000 Photoacoustic Gas Monitor, a reliable, low maintenance, cost-saving solution for gas monitoring situations where contaminants or interference preclude the use of other measurement techniques.

The PA4000 Photoacoustic Gas Monitor detects hydrocarbons, solvents, alcohols, CO₂, and CO. The monitor is stable and highly selective to the gas of interest, making it ideal for complex applications in agriculture, chemical, construction, electric utility, hazardous materials, indoor air quality, gas storage monitoring in healthcare

At the heart of the instrument is the sensor itself, an advanced stainless steel microphone proven in over 10 years in the field. Combined with the Senssonic™ integrated acoustic self-test, which verifies the integrity of the instrument's electric circuit and microphone every 15 minutes, it provides reliable, failsafe operation. If the sensor is accidentally damaged or becomes obstructed, the instrument produces a fault.

Housed in a 316 stainless steel explosion-proof enclosure, the Gassonic Observer-H is designed for longevity in all types of environmental conditions. It operates at temperatures of -40°F to 140°F (-40°C to 60°C) and at a humidity range of 10 to 95% RH. It has ATEX, IECEx, FM, and CSA approvals for worldwide application and is IEC 61508 certified by FM as suitable for SIL 3 environments.

► **Gassonic Observer-H Ultrasonic Gas Leak Detector**

facilities, mining, oil and gas, pulp and paper, spray painting, water and wastewater, and welding.

► **Watch the PA4000 Video**

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