Neural Networks Provide Unparalleled Flame Detection

Text in Gas Detector Receives IECEx Approval

The TSi4000 Intelligent Toxic Gas Detector from SRM Instruments Inc. has been approved, informing General Monitors’ customers that TSi4000 has been independently evaluated and found to be in conformance with the applicable international standards for explosion environments. The TSi4000’s high level of protection against a range of hazardous industrial gases is able to safeguard against oxygen deficiency.

The International Electrotechnical Commission (IEC) established the IECEx mark to facilitate international trade in equipment for use in explosive atmospheres and hazardous locations. Benefits to IECEx include reduced barriers to market and certification costs to the manufacturer, reduced testing costs to the manufacturer, and a standardised product class and performance confidence in the product assessment process. This streamlines the testing process and facilitates the testing and increased international confidence in IECEx certifications. Manufacturers of gas detectors (General Monitors’ customers) can be assured that their equipment has been vetted and will continue to be industry-accepted because their product meets rigorous international standards.

With its advanced design, the TSi4000 Toxic Gas Detector offers many unique features including event logging, a clearly audible and visible alarm, an indicator for measuring sensor life. The TSi4000 is compatible with the HART two-wire protocol allowing smooth changeover and consistent communication with existing control systems. This means that the TSi4000’s 4-20mA analog signal, and is available in a Modbus configuration with two wires for relay. All of the electronics are contained within a sealed package allowing for a proven performance for sensor information can be processed on the sensor.

Additionally, the interface module is field-remotely-added, intrinsically-safe design allowing the TSi4000 to withstand special task of high work pressure. Temperature feedback allows the device to make a determination about whether or not it has seen that novel pattern in the past.

Greater Range and Field of View Means Fewer Detectors and Cost Savings

Combining FLIR and SRM’s FLIR Flame Detector combines a complete sensor array with high-intelligent neural network processors to provide new pattern recognition algorithms. It allows for more efficient and cost-effective deployment of flame sensors and normal and event-based neural network technology allows areas up to six times the current size of what previous flame detectors could detect. As a result, when integrated with neural flame detectors, SRM technology performs under adverse environmental conditions and offers faster response times and increased detection distances.

Multi-Spectral IR flame detector offers the longest detection protection and nearest pattern detection ever seen.

Use of a four sensor array enables the FLIR400-MSIR to detect flame and non-flame events. The four sensor samples unique IR spectral wavelengths and thereby removes the detection influences of natural and time-lapse frequencies. Four IR sensors provide more data, increased detection distances, real-time analysis, and better pattern recognition. The hardware is rugged and reliable providing increased performance under various environmental conditions. The data acquired by the four sensors are automatically conveyed to the neural network where the real work of the detector is to be trained.

A longer range and wider field of view means fewer locations can cover a larger area such as large area monitors and supervisory areas. This flame detector can detect both large- and small-scale, the greater distance than any other detector of its kind. Because of its high sensitivity, the FLIR400-MSIR is presented at the same time in a number of different ideas to detect a number of different threats, including gas, smoke, chemicals, and carbon monoxide. This type of detection can be used in larger industrial areas like oil refineries, factories, and chemical plants.

The FLIR400-MSIR Flame Detector’s inherent efficiencies lie in a unique marriage of a state-of-the-art artificial neural network and sophisticated sensor array. A “flame detector” can decipher the heat signatures, and is a greater distance than any other detector of its kind. Because of its high sensitivity, the FLIR400-MSIR is presented at the same time in a number of different ideas to detect a number of different threats, including gas, smoke, chemicals, and carbon monoxide. This type of detection can be used in larger industrial areas like oil refineries, factories, and chemical plants.

With the latest addition of a new metal cover, our outdoor gas detectors are made for outdoor use with gas detector systems. The redesigned design of these detectors ensures that a constant output of gas is maintained, and that the detector is not affected by the environment. The FLIR400-MSIR Flame Detector’s inherent efficiencies lie in a unique marriage of a state-of-the-art artificial neural network and sophisticated sensor array. A “flame detector” can decipher the heat signatures, and is a greater distance than any other detector of its kind. Because of its high sensitivity, the FLIR400-MSIR is presented at the same time in a number of different ideas to detect a number of different threats, including gas, smoke, chemicals, and carbon monoxide. This type of detection can be used in larger industrial areas like oil refineries, factories, and chemical plants.

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