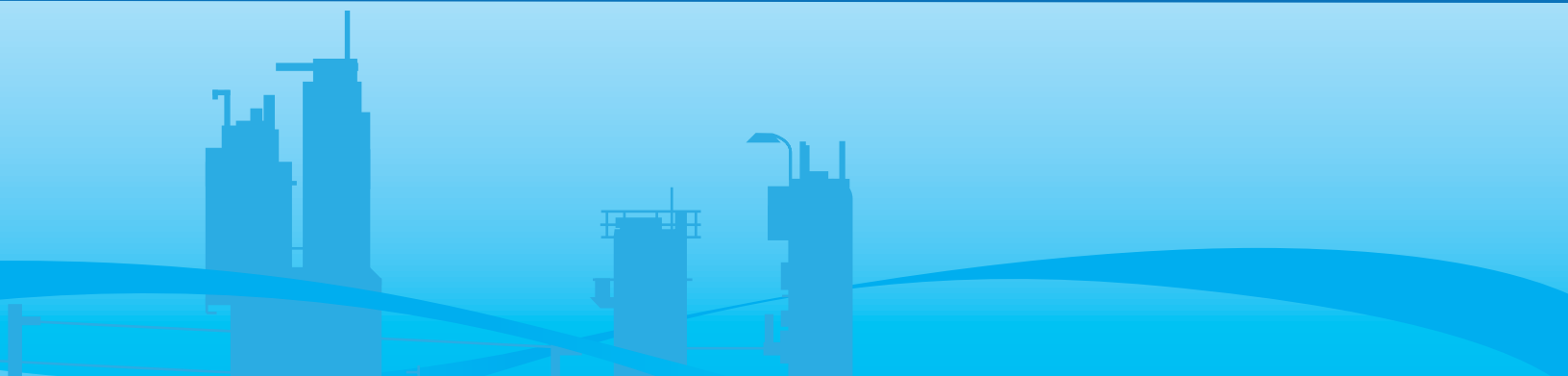




sierra monitor corporation

Fire and Gas Detection Systems



www.sierramonitor.com

Sierra Monitor Corporation

Inspired by technology, driven by safety, designed with passion
Information Technology protecting life and property



Sierra Monitor Corporation, a public corporation, has over 30 years of experience designing, manufacturing and supplying intelligent hazardous fire and gas detection systems worldwide. From inception, Sierra Monitor has combined information and instrumentation technologies to provide comprehensive solutions required by instrument and safety engineers to protect life and property. This focus on data and technology also led to the development of the FieldServer protocol gateway that enables machine to machine interoperability in industrial and building automation applications.

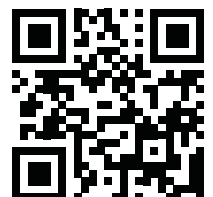
- **Sierra Monitor Fire and Gas Detection Systems** – used in a wide variety of industries, including chemical/petrochemical, wastewater treatment, transportation and oil/gas industries.
www.sierramonitor.com
- **FieldServer Technologies Protocol Gateways** – trusted interoperability solution capable of interfacing devices and networks even if using different communication protocols.
www.fieldserver.com

Fire and Gas Safety Solutions

Sierra Monitor combines intelligent fire and gas detectors with controllers that provide timely status enabling safety professionals to react quickly to changing conditions. From the first Sentry controller released in 1986 to today's powerful Sentry IT System, Sierra Monitor has been a leader in intelligent hazardous gas detection systems, smart single-point fixed gas detectors and a broad range of flame detectors.

Sierra Monitor detectors meet your needs for intelligent monitoring of:

- **Fire/Flame** – resulting in explosive conditions and caused by variety of sources
- **Combustible gases** – posing a risk to personnel and facilities through fire or explosion
- **Toxic gases** – creating both immediate and long term risk to personnel
- **Oxygen displacing gases** – depleting workers' oxygen supply in confined spaces



Information Technology for Flame Detection

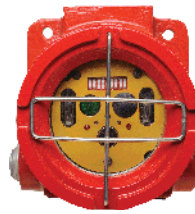
Flame detection with Information Technology at the device level – accurately and quickly detect flames from a wide variety of sources in difficult industrial applications without false alarms. This urgent safety information is provided to operators and networks quickly via a selection of desired communication technologies.

- **UV, UV/IR, IR3, IR and Tri-Spectra designs** – provide end user flexibility for selection of the appropriate technology [Tri-Spectra includes UV/IR/Visible]
- **SIL 2 certified** – meets Safety Integrity Level requirements
- **Continuous internal diagnostics** – to assure reliable operation and fault identification
- **Built-In Test (BIT)** – checks for window obscuration
- **Alarm relays** – provide contact outputs for Alarm, Fault and Auxiliary
- **0-20 mA output** – stepped values provide meaningful diagnostic and alarm information
- **HART protocol** – for maintenance and asset management
- **RS-485 Modbus** – serial Modbus RTU output
- **ATEX, IECEx, FM, and CSA** – explosion proof and performance approvals
- **Applications** – flame detectors available for hydrocarbon and non-hydrocarbon based flames

- Tri-Spectra UV/IR/Vis
- Combination UV/IR
- Triple IR Spectra
- Multi IR Spectra
- UV Only
- IR Only
- 0-20 mA Output
- Alarm, Fault and Auxiliary Relays
- Multiple Approvals



UV/IR, Multi IR, IR3
Hydrocarbon fires
High sensitivity, long distance



UV/IR/Vis Metals, and
Hydrocarbon, and
Hydrogen fires
Wide field of view



UV/IR Flame Commercial and
Semiconductor/wet-bench
applications



Information Technology for Gas Detection

Best in Class IT Series gas detectors for intelligent Information Technology at the detector level - smart monitoring of combustible gas, oxygen deficiency and toxic gases. Safety information is provided to operators quickly via desired communication technologies including Modbus, 4-20 mA, relay or HART.

- **Longest calibration intervals in the industry** – 180 days for toxic gas and catalytic bead combustible sensors and even longer for IR Combustibles
- **FM approved for operation performance and hazardous area safety** – third party approval for safety and performance
- **SIL-2 rated** – meets safety integrity level requirements
- **Extensive integration options** – 4-20 mA, Relay, Modbus RTU, RS-485, HART, SentryBus, Digital Display
- **Comprehensive menu based operation** – scrolling LED display and user-friendly messaging
- **Integral alarm relays option** – no external enclosures needed
- **Flexible configuration** – remote sensor, remote alarm acknowledge, easy interface to plant-wide control system

Sierra Monitor Gas Detectors are available for:

- Combustible Gas
- Oxygen Deficiency
- Carbon Monoxide
- Chlorine
- Ammonia
- Hydrogen Sulfide
- Sulfur Dioxide
- Nitric Oxide
- Hydrogen Fluoride
- Hydrogen Cyanide
- Hydrogen Chloride
- Nitric Oxide
- ...and more



IR Combustibles



Catalytic Bead Combustibles



Toxic Gas and Oxygen Deficiency

2-Wire Loop-Powered Toxic Gas Detectors

Powerful low cost gas detectors:

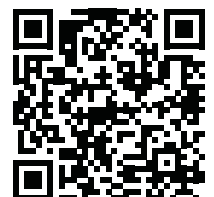
- **Low maintenance costs** – with 180-day calibration interval
- **Low installation costs** – utilizes 4-20 mA, 2-wire, loop-powered design
- **User-friendly operator interface** – with integral scrolling, menu-driven LCD display
- **FM Approved for both performance and hazardous area** – 3rd party approval
- **Fastest response time and highest accuracy** – specifications unmatched in the industry
- **Durability in tough applications** – with a stainless steel transmitter/sensor enclosure
- **Non-intrusive calibration** – enables calibration without declassifying the area



Open Path Gas Detectors

Easy installation and accurate line-of-sight monitoring:

- **Flash-type technology** – proven, reliable technology
- **Cost savings** – one system can replace 5-20 single point gas detectors
- **Fast response** – quick notification of hazardous gas
- **Performs under extreme conditions** – meets local environment conditions



Information Technology at the System Level

From simple alarms to sophisticated systems integrating fire and gas detection, logic controls, graphical interface and remote web server displays, the Sentry IT Controller is “Best of Class”. The Sentry controller heritage continues to emphasize Information Technology as a key ingredient of system design. The capability of simultaneous interface via analog 4-20 mA, RS-485 Modbus, Relay contact and SentryBus insures that both new and legacy sensor modules can be deployed. Sentry Commander Logic insures that complex logic such as zone voting, delay timing, multiple unique alarm levels and other special demands can be met with simple user configuration at the spreadsheet level.



Key features include:

- **Versatile** – multiple input types, multiple communication choices, full function controller
- **Scalable** – deploy additional I/O blocks to expand capacity
- **Intuitive operator interface** – touch panel display with menu-driven prompts to reduce learning curve
- **Cost effective** – high capacity lowers the cost per point
- **Simultaneous communication methods** – Modbus, 4-20 mA (2, 3, 4-wire), SentryBus and Relay inputs and outputs
- **Multiple power options** – AC only, DC only, AC with DC back-up
- **User configurable alarm logic** – menu driven configuration and integral Commander Logic allows the user to develop comprehensive alarm logic schemes incorporating delay times (on and off), relay acknowledgement, zoning, voting groups and more
- **User simplicity** – auto discovery of sensor modules, single person, auto-adjusting non-intrusive calibration
- **Easy interface to plant wide systems** – FieldServer inside means multi-protocol and Web Server interfaces always available for plant wide integration. Multi-Protocol includes Modbus TCP, EtherNet/IP, Profibus, DeviceNet, ControlNet, DNP, OPC, BACnet, LonWorks and many more from the extensive FieldServer protocol library. FieldServer Technologies, a division of Sierra Monitor Corporation, supplies the software platform for the Sentry IT Controller.



Associations and Approvals

Information Technology and Safety Proven by 3rd Party Agencies

Sierra Monitor Intelligent Fire and Gas Detection Solutions meet industry standards worldwide with 3rd party approvals for both hazardous location and performance.

- ISO 9001:2008 registered quality control system
- FM, ATEX, IECEx, UL, CE, SIL, RoHS, CSFM, ABS and Mil- Spec approval on key products
- UL508A approved panel shop

To ensure total satisfaction with the products, Sierra Monitor emphasizes comprehensive customer service and support. This commitment to the highest level of service extends beyond the sales cycle and throughout the product life cycle. Sierra Monitor places a high priority on training the sales team to be responsive to all customers.



Sierra Monitor fire and gas detection products are widely used in various industries including:

- Landfill/Brownfields Reclamation Sites
- Gas Pipeline and Compressor Stations
- Transportation Maintenance Facilities
- Telecommunications Structures
- Chemical and Petrochemical Plants
- Shipboard Gas Monitoring
- Waste Water Treatment Plants
- Semiconductor Manufacturing
- Pipeline Transfer Stations
- Landfill & Waste Gas to Energy
- Government and Military
- Offshore Oil Platforms
- Wellhead Operations
- Engine Test Facilities
- Fuel Loading Facilities
- Hazardous Waste Sites
- Oil and Gas Drilling
- Power Plants
- Laboratories
- Tunnels-Subways
- Parking Garages
- Furnace Rooms

Your Highest Expectation is Ours

The Sierra Monitor sales team worldwide has the industry and application skills to match products to the user's specific needs. After installation, the same team members have product operation skills to assist with operator information and problem solving requirements. The comprehensive Sierra Monitor web site at www.sierramonitor.com provides 24 hour a day, 7 days a week product and technical assistance information.



sierra monitor corporation

1991 Tarob Court
Milpitas, CA 95035 USA

Toll free: 800.727.4377
Phone: 408.262.6611
Fax: 408.262.9042
Email: sales@sierramonitor.com

Represented by: