

# Zero Two Series

*Modular components for combustible gas monitoring, toxic gas monitoring, flame detection and oxygen deficiency monitoring.*



*The Zero Two Series is ideal for a wide range of safety monitoring applications such as oil/gas production and petrochemical processing.*



**GENERAL MONITORS**

*Protection for life.*

# Zero Two Series

More than forty years of experience has gone into the development of this fully integrated fire and gas detection system. Depending on how it is configured, a Zero Two Series system can monitor any combination of the following:

- Combustible gases
- H<sub>2</sub>S
- Flame
- Toxic gases
- O<sub>2</sub> deficiency

In addition, its open architecture allows the system to accommodate other sensing devices for tasks such as smoke

detection, heat detection and manual call points. Each Zero Two Series control module is connected to a remote sensor or detector and continuously displays the status of that location. Because the system is modular, it can easily be reconfigured or expanded as sensing requirements change. An existing module can be replaced by one of another type. A new module can be plugged into an open slot, or the system can be expanded by adding an additional 4, 8, or 16-channel chassis.

A facilities module can also be included in each of the chassis. Its features include a master reset switch, an accept/acknowledge switch, an LED test feature and common alarm and fault outputs.

Zero Two Series systems are extremely easy to install. The only field connections required are inputs from the sensors to the card modules and the outputs from the control/shutdown system, DCS, PLC, beacons, horns etc. General Monitors warrants all Zero Two Series components for two years.

## The capabilities of a custom monitoring system plus modular flexibility.



*A 16 -channel chassis with assorted monitors, facilitating module and optional 24 VDC power supply.\**



**Model TA102A**

A single-channel trip amplifier which monitors the 0 to 22mA output from General Monitors' combustible gas detectors/transmitters.

Features include:

- Digital display scaled 0-99% LEL
- LED status indicators
- Discrete A1, A2 fault relays and open collector outputs
- Power-on, card and LED test modes
- User setup and setup check modes



**Intelligent Addressable Transmitters**  
 Application - Combustible Gas  
 Type - Catalytic bead  
 Locations - Certified for use in hazardous areas



**IR2100 Addressable Transmitter**  
 Application - Combustible Gas  
 Type - Infrared Point  
 Locations - Certified for use in hazardous areas



**Catalytic Bead Sensor**  
 Application - Combustible Gas  
 Type - Catalytic bead  
 Locations - Certified for use in hazardous areas



**Model 4802A**

A single-channel control module which processes the output signal from a General Monitors' cost-effective catalytic bead sensor.

Features include:

- Digital display scaled 0-99% LEL
- LED status indicators
- Discrete A1, A2 fault relays and open collector outputs
- Power-on, card and LED test modes
- Adjustable calibration level
- Adjustment-free calibration



**Model TA202A**

A single-channel trip amplifier which monitors the 0 to 22mA output from General Monitors' H<sub>2</sub>S gas detectors/transmitters.

Features include:

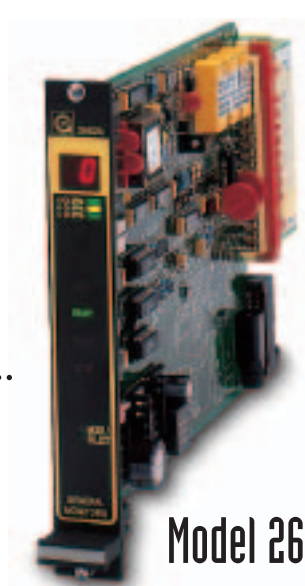
- Digital display scaled 0-20, 0-50 or 0-99ppm
- LED status indicators
- Discrete A1, A2 and fault relays and open collector outputs
- Power-on, card and LED test modes



**Intelligent Addressable Transmitters**  
 Application - H<sub>2</sub>S  
 Type - Metal Oxide Semiconductor (MOS)  
 Locations - Certified for use in hazardous areas



**MOS Sensor**  
 Application - H<sub>2</sub>S  
 Type - Metal Oxide Semiconductor (MOS)  
 Locations - Certified for use in hazardous areas



**Model 2602A**


A single-channel control module which processes the input from a General Monitors' cost-effective solid-state MOS (metal oxide semiconductor) type H<sub>2</sub>S sensor.

Features include:


- Digital display scaled 0-20, 0-50 or 0-99ppm
- LED status indicators
- Discrete A1, A2 and fault relays and open collector outputs
- Power-on, card and LED test modes
- Adjustment-free calibration




**Model TR402A**

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**FL3100 Addressable Transmitter**  
 Application - Flame Detection  
 Type - UV/IR  
 Locations - Certified for use in hazardous areas

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**FL3101 Addressable Transmitter**  
 Application - Flame Detection  
 Type - UV  
 Locations - Certified for use in hazardous areas

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**FL3102 Addressable Transmitter**  
 Application - Flame Detection  
 Type - DFIR  
 Locations - Certified for use in hazardous areas



**Model ZN002A**

A single-channel trip amplifier designed for use with General Monitors' FL3100 Series flame detectors.

Features include:

- Digital display for set-up
- LED status indicators
- Discrete A1, A2 fault relays and open collector outputs
- Power-on, card and LED test modes

A three-zone control module expands the Zero Two system for applications requiring voting and zoning logic by providing three separate, eight input-zones with single and dual voting outputs for each zone.



**Model IN042**



**Third Party Field Devices**  
 Type - Horns, Beacons,  
 Heat Detectors, etc.



**Model MD002**

A four-zone input module for use with two-wire field devices such as smoke or heat detectors, pull switches and manual call-points. It provides alarm, fault and inhibit status indication and open collector outputs for each zone.

Features include:

- Four microprocessor controlled zones
- LED status indicators
- Alarm, fault and inhibit output options available per zone
- Power-on, card and LED test modes
- Reset and inhibit push buttons per zone

A monitored driver output module designed for use on outputs requiring monitoring of devices in their non-active state, such as extinguishant solenoids and electronic beacons and horns. Each driver output is independent and has circuitry to detect short and open circuits in the field wiring.



**Model TA502A**



**TS-Series Sensor Transmitter**

Application - Toxic Gas

Type - Electro-chemical cell

Locations - Certified for use in hazardous areas



**IR5000 Monitoring System**

Application - Open Path Hydrocarbon Gas

Type - Infrared Absorption

Locations - Certified for use in hazardous areas



**Model FM002A**

A single-channel generic trip amplifier designed for use in Zero Two Series gas and flame detection systems. This model is used to process the 0-22mA signal from any field-mounted transmitter and may also be used to provide power to such a device.

A facilities module which provides common alarm and fault outputs for all modules in its chassis. Also included are switches for resetting latched alarms and accepting (acknowledging) alarms.

Features include:

- LED test feature
- Discrete relays for A1, A2, fault, unaccept
- Open collectors for A1, A2, fault, calibration



**Model RL002**

The RL002\* relay module accepts open collector inputs from other modules and provides four additional DPDT relay contacts, as well as a 2 amp solenoid driver for expanded output capabilities.



**Model CC02A**

The CC02A Communications Card allows an external host computer to communicate with General Monitors' Zero Two systems. The Module acts as a bridge between the 02A system bus and the RS-485 based MODBUS RTU host interface, implementing the necessary protocol conversions and error check routines. Front and rear RS-232 based ports allow ease of set-up and maintenance independent of host traffic. The RS-232 port can interface to a local (host) computer for set-up and monitoring purposes, with a future possibility to add a port for data logging. Additional CC02A devices may be used in a system to increase fault tolerance.



4-channel chassis



8-channel chassis



16-channel chassis

\* Not available in Europe.

# Global Service Anytime, Anywhere

No matter where you are, 24-hour technical service and support is available from General Monitors. The company has two manufacturing and six sales and service facilities located strategically worldwide for efficient support.

- Lake Forest, California
- Houston, Texas
- Republic of Ireland
- Singapore
- United Arab Emirates
- United Kingdom

## Quality Commitment

General Monitors brings its reputation for quality and reliability to the gas and flame detection market. General Monitors is ISO 9001:2000 certified, utilizing continuous process improvement (CPI) quality programs.



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*Protection for life.*

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