



**GENERAL MONITORS**  
Protection for life.

# MODEL TA102A

## Single-Channel Combustible Gas Trip Amplifier Module



### Features

- RS-485 Serial Communications
- Digital Display
- LED Status Indication
- Relay, Open Collector Alarm & Fault Outputs
- User Setup, Setup Check Modes
- Live Insertable into Rack
- Password Option

### Benefits

- Remote set-up and interrogation via General Monitors' Model CC02A Communications module
- Provides visual indication of alarm status and setup cues
- Provides visual indication of fault and status
- Multiple outputs for multi-function use
- Configuration easy to set up or change
- Ease of maintenance
- Tamper-proof operation

### Description

The General Monitors Model TA102A is a single-channel Combustible Gas Trip Amplifier Module designed to monitor combustible gases and vapors within the lower explosive limit (LEL) and provide status indication and alarm outputs.

Microprocessor-based electronics allow all options to be user selectable through front panel interface (mode/select switch and digital display). A digital display on the TA102A indicates fault codes and set up options. Other features of the TA102A are LED indications of status, as well as both open collector and relay outputs for fault, low alarm and high alarm.

Each module has RS-485 serial communications providing an interface with a General Monitors Model CC02A MODBUS communications module. Fault and alarm status, as well as setup options, can be configured via the CC02A module.

The TA102A is part of the Zero Two Series Gas and Fire Detection System which is a flexible solution for various combustible, toxic gas and fire detection applications. All of the Zero Two Series system cards are compatible and can be intermixed within the same rack if required. The Zero Two Series Rack includes options of 4, 8 or 16 channels and provides a bus of common terminals to each channel.

### Applications

- Refineries
- Drilling Platforms and Rigs
- Gas Collection and Distribution Facilities
- Gas and Oil Production Platforms
- LPG/LNG Processing and Storage
- Solvent Vapors
- Chemical Plants
- Wastewater Treatment Facilities



# MODEL TA102A

## System Specifications

<b>Detector Type:</b>	General Monitors Intelligent Sensor using catalytic oxidation or infrared detector technology
<b>Measuring Ranges:</b>	0-100% LEL
<b>Front Panel Indicators:</b>	A1 - Warning A2 - Alarm CAL - Calibration/Check READY - Normal Operation FAULT - Malfunction SETUP - User Options/Check DISPLAY - 2x7 Segment
<b>Test Features:</b>	Power on - Electronic Integrity Card - Functionality & Alarm Ramp LED - Integrity of LED's & Display
<b>Modes:</b>	Setup, Setup Check & Inhibit outputs
<b>Password:</b>	Prevents unauthorized alteration of setup parameters (can be disabled)
<b>Classification:</b>	General purpose, non-hazardous areas
<b>Warranty:</b>	Two years
<b>Approvals:</b>	CSA, CE Marking, GOST SIL 2 suitable

## Environmental Specifications

<b>Operating Temperature Range:</b>	0°F to +150°F (-18°C to +66°C)
<b>Storage Temperature Range:</b>	-40°F to +150°F (-40°C to +66°C)
<b>Humidity:</b>	5% to 100% RH, non-condensing
<b>EMC Susceptibility:</b>	10V/m max.

## Mechanical Specifications

<b>Length:</b>	9.9 inches (251mm)
<b>Height:</b>	6.8 inches (173mm)
<b>Width:</b>	1.0 inch (25mm)
<b>Weight:</b>	11.2 ounces (318 grams)

## Electrical Specifications

<b>Power:</b>	20-36 VDC @ 475mA max., including Intelligent Sensor
<b>Input Impedance:</b>	30 Ohms
<b>Relay Ratings:</b>	4A @ 250 VAC / 30V RMS/42.4 peak, 3A @ 30 VDC, resistive max. A1, A2 - DPDT Fault - SPDT
<b>Analog Signal:</b>	0 - 20mA (300 Ohms max. load) Malfunction - 0mA Calib/Setup/Check - 1.5mA Beam Block - 2.0mA 0-100% LEL - 4-20mA Over-range - 20-22mA
<b>Open Collector Ratings:</b>	100mA @ 35 VDC max. A1, A2, Fault, LA1, LA2, CAL, FUA, UA
<b>Cable Requirements:</b>	3 wire shielded cable. Max. allowable distance between Smart Sensor & TA102A @ 24 VDC nominal:  14AWG - 4500 ft. (1372m)  Max. allowable distance for analog output (300 Ohms loop resistance max. between AO+ and AO-):  14AWG - 9000 ft. (2740m)
<b>Standard Configuration:</b>	TA102A-2-1-1-1-1 Latch alarm, non-latch warn de-energized, 3 sec. ramp time, relays inhibited

*Specifications subject to change without notice.*

*Represented by:*

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