



**GENERAL MONITORS**  
Protection for life.

# MODEL 4802A

## Single-Channel Combustible Gas Control 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
- Automatic, no adjustments calibration

### 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 setup or change
- Ease of maintenance
- Tamper-proof operation
- Eliminates calibration errors

### Description

The General Monitors Model 4802A is a single-channel Combustible Gas Control Module that has been designed for use with General Monitors' Catalytic Bead Sensors. It is 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 4802A indicates gas concentration, fault codes, calibration cues and set-up options. Other features of the 4802A 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 4802A 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 4802A

## System Specifications

**Sensor Type:** Continuous diffusion, low temperature catalytic bead

**Sensor Life:** 3 to 5 years typical

**Accuracy:** ±3% LEL up to 50% LEL  
±5% LEL > 51% LEL

**Zero Drift:** Less than 5% of full scale per year

**Response Time:** T50 < 10 Sec. T90 < 30 sec. with 100% LEL methane applied (screen)

**Measuring Ranges:** 0-100% LEL

**Front Panel Indicators:** A1 - Warning  
A2 - Alarm  
CAL - Calibration/Check  
READY - Normal Operation  
FAULT - Malfunction  
SETUP - User Options/Check  
DISPLAY - 2x7 Segment

**Test Features:** Power on - Electronic Integrity Card - Functionality & Alarm Ramp  
LED - Integrity of LED's & Display

**Modes:** Setup, Setup Check & Inhibit outputs

**Password:** Prevents unauthorized alteration of setup parameters (can be disabled)

**Classification:**  
4802A: General purpose, non-hazardous areas  
Sensor: Explosion-proof

**Warranty:** Two years

**Approvals:** CSA, CE Marking, GOST

## Environmental Specifications

**Operating Temperature Range:** 0°F to 150°F (-18°C to 66°C)

**Catalytic Bead Sensors:**  
CSA  
Std. Sensor: -65°F to 158°F (-55°C to 70°C)  
Hi Temp Sensor: to 400°F (200°C)

ATEX  
Std. Sensor: -40°F to 248°F (-40°C to 120°C)  
Hi Temp Sensor: to 356°F (180°C)

**Storage Temperature Range:** -40°F to +150°F (-40°C to +66°C)

**Humidity:** 10% to 95% RH, non-condensing

**EMC Susceptibility:** 10V/m max.

## Mechanical Specifications

**Length:** 9.9 inches (251 mm)

**Height:** 6.8 inches (173 mm)

**Width:** 1.0 inch (25 mm)

**Weight:** 11.2 ounces (318 grams)

## Electrical Specifications

**Power:** 20-35 VDC @ 300 mA max., including Smart Sensor

**Relay Ratings:** 4A @ 250 VAC / 30V RMS/42.4 peak, 3A @ 30 VDC, resistive max.  
A1, A2 - DPDT  
Fault - SPDT

**Analog Signal:** 0-20mA (500 ohms max. load)  
(Optional) Malfunction - 0 mA  
Calib/Setup/Check - .5 mA  
Zero Reading - 4 mA±0.2 mA  
0-100% LEL - 4-20 mA  
Over-range - 20-22 mA

**Open Collector Ratings:** 100 mA @ 35 VDC max.  
A1, A2, Fault, LA1, LA2, CAL, FUA, UA

**Cable Requirements:** 3 wire shielded cable. Max. allowable distance between sensor & 4802A with one-way resistance of 20 ohms @ 24 VDC nominal:  
  
14 AWG - 7600 ft. (2320 m)  
  
Max. allowable distance for analog output (500 ohms loop resistance between AO+ and AO-):  
  
14 AWG - 9000 ft. (2740 m)

**Standard Configuration:** 4802A-4-1-00-1-1-0-1  
Relays, 4-20 mA, latch alarm, non-latch warn, de-energized, 3 sec. ramp time, relays inhibited

Specifications subject to change without notice.

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