



**GENERAL MONITORS**  
Protection for life.

# MODEL MD002

## Monitored Driver Output Module



### Features

- Four Monitored Driver Outputs
- Manual Abort and Release Input
- Microprocessor-based Electronics
- Setup, Setup Check & Inhibit Modes
- Power-on, Card & LED Test Modes

### Benefits

- Flexible user configuration
- Simplifies system wiring
- Low component count, higher reliability
- Configuration easy to setup or change
- Functionality indicator, test(s) allows user to see all indicators

## Description

The General Monitors MD002 is a monitored driver output module designed for four independent outputs requiring monitoring in their non-active state, such as extinguishing solenoids, beacons, horns, etc. Each driver output is independent and has circuitry to monitor short and open circuits in the field wiring.

The MD002 contains microprocessor-based electronics for advanced fault checking and operation. Selecting options is accomplished through software selections by using the Mode / Select button. The user selectable options are:

- Each driver in use or not in use
- Each driver's activation time delay (0-60 seconds)
- Each driver's manual abort enabled or disabled
- Active or passive Alarm outputs during Card Test
- Active or passive Fault outputs during Inhibit Mode
- Alarm inputs active Low or High
- Enabled or disabled password

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 MD002 is part of the Zero Two Series Gas and Flame 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 completely 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

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



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## System Specifications

<b>Application:</b>	Monitoring & activating devices such as extinguishing solenoids, beacons, horns, bells and HVAC damper controls
<b>Regulations:</b>	Canadian Standards Association C22.2 No. 142-M1987, Factory Mutual Research Corporation and Underwriter Laboratories guidelines including National Fire Protection Assoc. NFPA 72A-72E
<b>Front Panel Indicators:</b>	ALARM - Alarm (each driver) READY - Normal Operation FAULT - Malfunction (each driver) SETUP - Set or check user options Digital Display - SETUP & FAULT codes
<b>Test Features:</b>	Power on - Electronic integrity Card - Functionality & Alarm Ramp LED - Integrity of LED's & Display
<b>Modes:</b>	Normal & Inhibit Outputs Manual Abort Manual Release
<b>Electrical Classification:</b>	General purpose, non-hazardous areas
<b>Warranty:</b>	Two Years
<b>Approvals:</b>	CSA, CE Marking, GOST

## 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>Operating Humidity Range:</b>	5 to 100% RH, non-condensing
<b>EMC Susceptibility:</b>	Conforms to EN50081-1, EN50082-1 10V/m max.

## Electrical Specifications

<b>Input Power:</b>	20 to 35 VDC
<b>Driver Inputs:</b>	2.0mA max. @ +35 VDC, sinking
<b>Output Drivers:</b>	4 outputs at 1.2 amps @ +24 VDC each
<b>Monitoring Resistance:</b>	20 to 200 ohms
<b>Open Collector Rating:</b>	100 mA @ 30 VDC maximum Fault, Fault-Unaccept, Inhibit
<b>RFI Susceptibility:</b>	Complies with BS 6667 Part 3/IEC 801-3. Severity level 3

## Mechanical Specifications

<b>Length:</b>	9.9" (251mm)
<b>Height:</b>	6.8" (173mm)
<b>Width:</b>	1.0" (25mm)
<b>Weight:</b>	11.2 oz. (318 grams)
<b>Standard Configuration:</b>	MD002-310-000-111

Specifications subject to change without notice.

Represented by:

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