

Overview

The MIR2 Fire Alarm System is modular in design allowing systems to be easily configured to match installation requirements. With one Signature Data Circuit (SDC) MIR2 is capable of supporting 96 detectors and 94 modules and has two built in Notification Appliance Circuits (NAC). The system supports the full line of Signature series detectors and modules. MIR2's modular design means the system easily expands to two SDCs and four NACs by adding a single MIR2-LCX module increasing system capacity to 380 points/zones with four built in Notification Appliance Circuits.

The MIR2 provides an RS-232 port to facilitate computer, coder and printer interfacing and an RS-485 communication port for supporting remote annunciation. Annunciation of system events are displayed on a back lit LCD with enhanced diagnostic LEDs on the front panel. There is space to add up to 48 additional points/zones of software controlled LED annunciation and switch control on the front panel. Both alpha-numeric LCD and annunciation LEDs are available for remote annunciation and control with the GE Security 2-LSRA-MIR and SAN series of annunciators.

MIR2 features Auto Programming through the front panel and Custom Programming via PC laptop interface. The Auto Program mode will identify all devices on the SDC and automatically assign addresses to each device. Then the auto programming feature automatically links the proper response to the proper input, providing real time savings during installation.

Standard Features

- Supports all GE Security Signature devices
- Autoprogramming of Signature data circuits
- Class B or A Signature data circuit(s), 96 detectors and 94 modules per circuit
- Two integral Class A or B notification appliance circuits
- Alarm, trouble, and supervisory contacts
- Prioritized status queues for alarm, supervisory, trouble and monitor inputs
- 576 event history log
- Enhanced sensitivity reports
- Optional expander Signature data circuit
- Designed and manufactured to ISO 9001 standards

MIR2

Analog Control Panel



Application

Using the advanced Signature family of detectors and modules provides a wide range of installation and operation benefits. Signature Series detectors and modules use Electronic Addressing — no dip switches or dials to set, speeding installation and programming. Multi-function and dual circuit modules reduce wiring costs. Multi-sensor technology eliminates detector application guess-work. Identification of dirty or defective detectors is automatic with MIR2. Maintenance scheduling is easy and effective, ensuring that life safety protection is always maintained. In addition to Signatures inherent reduction of false alarms, MIR2 allows the adjustment of detector sensitivity at different times of the day. Make detectors more sensitive at times when transient smoke is not likely to occur (night time) and less sensitive at times when transient smoke is likely to occur.

MIR2 provides “Device Mapping”. This allows a laptop computer to show how the Signature Data Circuits are wired. As-built drawings become very easy.

The MIR2 design provides application flexibility with installation options that give site specific customization and programming options that help satisfy local as well as national requirements. MIR2 provides a choice of power supplies with 4.5 amp and 6.4 amp supplies available. Installation flexibility is provided with a choice of surface or semi-flush mounting wallboxes.

MIR2 provides optional modules that ensure system customization and flexibility. In applications calling for coded signals, the optional CDR-3 module provides a choice of march time generator or Positive Successive Non-Interfering (PSNI) outputs. CDR-3 outputs are selectable as a coded dry contact or supervised coded 1000Hz audio tone. The march time output provides a continuous march-time beat at 20 or 120 beats per minute. The PSNI output provides up to four rounds of a unique output code for each of up to fifty input conditions. The unique output codes signal emergency response personnel to the location of an alarm.

For connection to a Central Monitoring Station the MIR2 uses an optional built-in dual line dialer (DACT). The dialer mounts right on the MIR2 main board reducing installation and maintenance costs. Multiple communication formats ensure compatibility with most Central Monitoring stations.

MIR2 provides individual status queues annunciating Alarm, Supervisory, Trouble and Monitor operations. When a device operates the appropriate queue's status LED lights. Operator recognition of the active device type(s) is instantaneous. At the same time a programmed point or zone description displays on the back lit LCD giving specific text information on the active device(s). Review messages simply by selecting local silence, the queue from the front panel and scrolling. The last 576 events can be reviewed at any time via the enhanced History log. The new enhanced history log contains the complete event message with LIFO protocol (last in first out) insuring the most current events are always logged.

MIR2 has optional LED/Switch modules that mount right beside the LCD and common control front panel. Annunciation flexibility is further enhanced with a wide variety of remote annunciation including remote LCD annunciators, remote LED annunciators and/or graphic annunciators.

Front panel diagnostic LEDs provide easily understood system status information. Standard software includes the following important features:

TIMERS:

Programmable timers give flexibility to Signal Silence Inhibit, Reset Inhibit and Power fail trouble contact delay operation. In addition the Notification Appliance Circuits rate is selectable from steady, to Temporal, 120/20 or Temporal/20.

DISABLE POINTS:

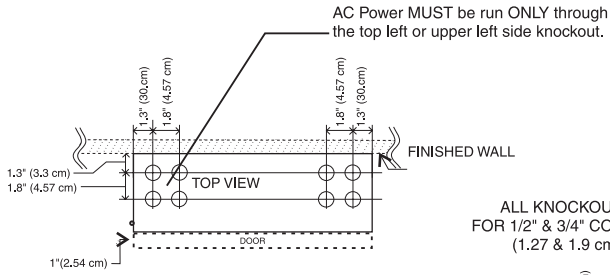
Specific devices on the SDC may be disable through simple front panel controls providing protection from unwanted alarms in areas with high concentrations of contaminants typically found when construction or renovation work is taking place.

SENSITIVITY REPORTS:

The sensitivity report provides detailed information on individual devices such as threshold level in % of obscuration, amount of environmental compensation remaining, device address and personality type.

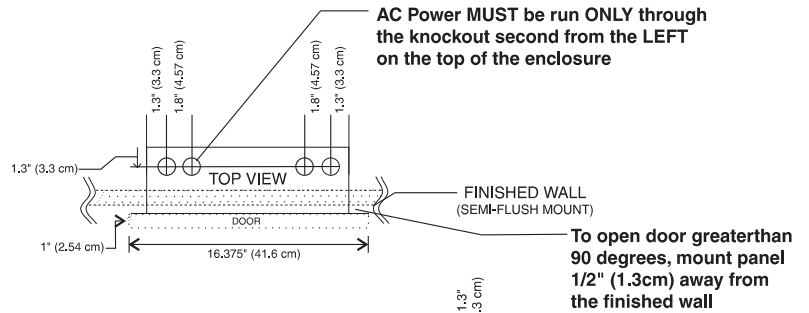
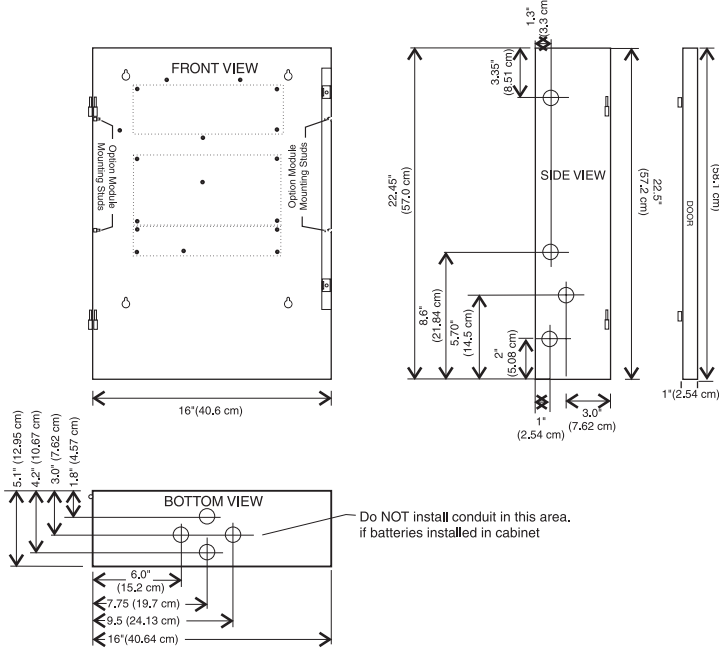
NO EVENT ACKNOWLEDGE REQUIRED! The operator may review events at any time from any of the event queues after “Local Silence”. When the operator has finished reviewing events, and activates the Alarm Queue the first alarm will return to the LCD.

Installation and Mounting

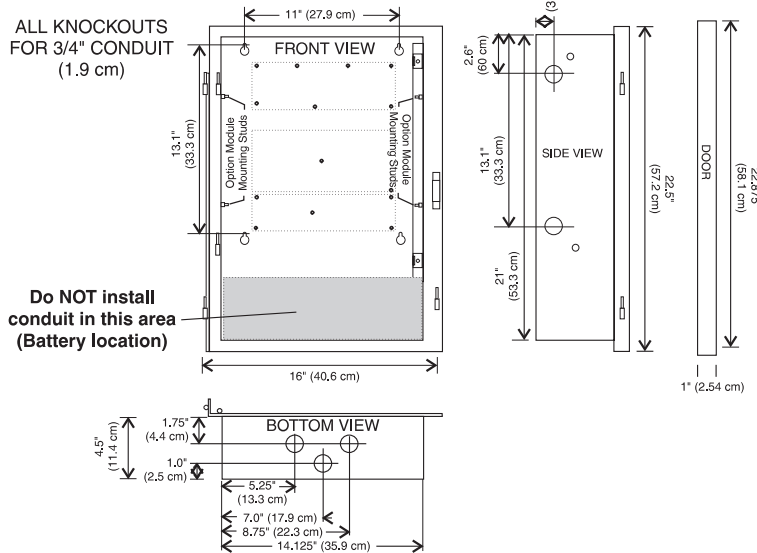


ALL KNOCKOUTS FOR 1/2" & 3/4" CONDUIT (1.27 & 1.9 cm)

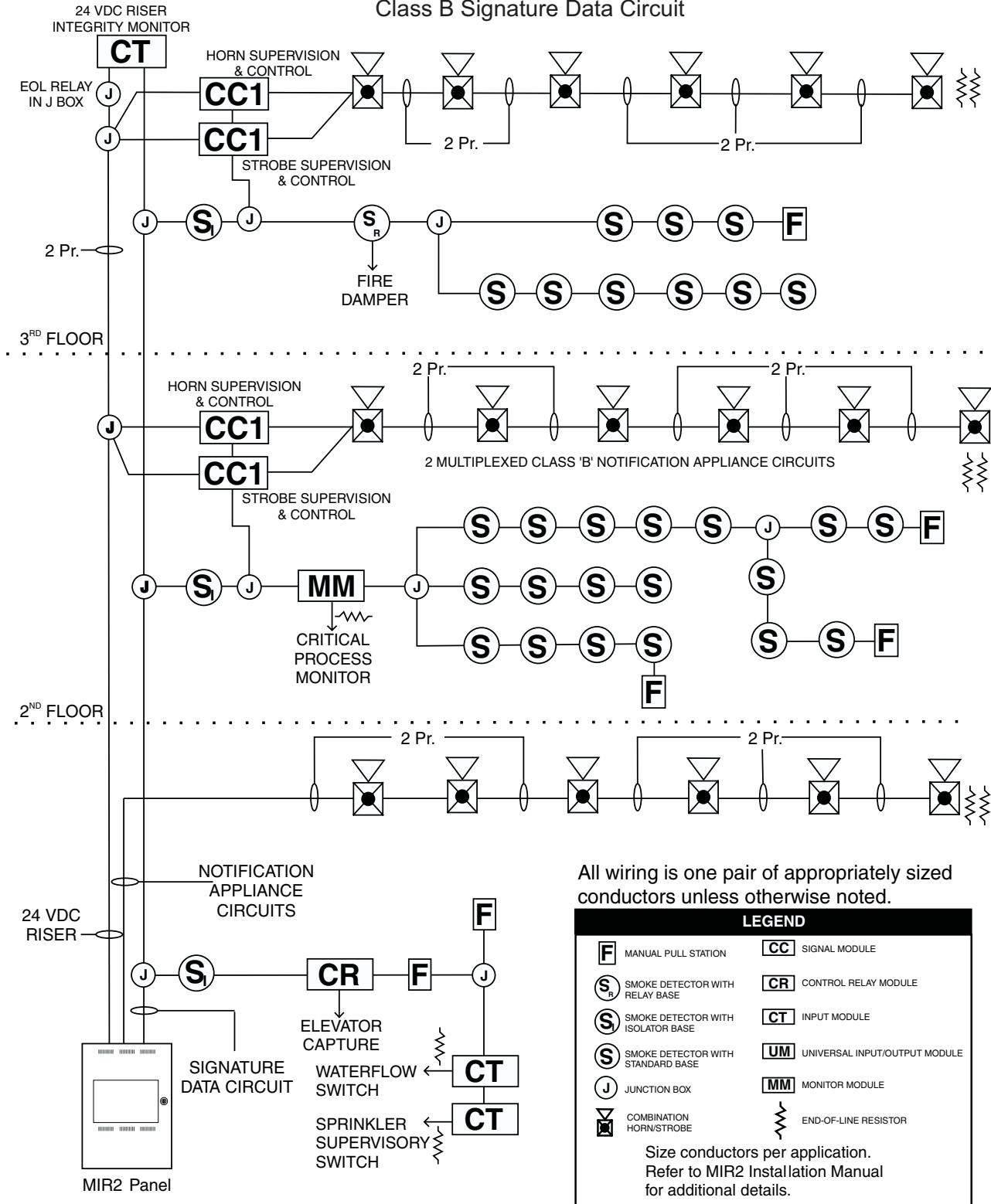
Surface Mounting



Semi-Flush Mounting



Typical MIR2 Panel Wiring Class B Signature Data Circuit



Specifications

| Catalog Number | 2-PPS | 2-PPS/6A | 2-PPS-220 | 2-PPS/6A-220 |
|------------------------------|---|-------------------------------------|------------------------------------|-------------------------------------|
| Agency Listings | UL, ULC, FM, CSFM | | | |
| Line Power | 120VAC 300 Watts Max., 50/60Hz | | 220-240VAC 300 Watts Max., 50/60Hz | |
| Auxiliary Output Power | 500mA Max. | N/A | 500mA Max. | N/A |
| Notification Appliance Power | 3.5Amps @ 24Vdc nominal | Two 3.2 Amp taps @ 24Vdc nominal | 3.5Amps @ 24Vdc nominal | Two 3.2 Amp taps @ 24Vdc nominal |
| Maximum Battery Size | 2 of 12V10A - 10 Amp Hours (See Note 1) | | | |
| Signature Data Circuit | One circuit supports 96 Detectors, 94 Modules Maximum - 96 Isolator or Relay Bases (Expandable to two Circuits with MIR2-LCX) | | | |
| Terminal Wire Gauge | Notification Circuits 18-12 AWG (0.75 - 2.5 mm ²) All other circuits 18-14 AWG (0.75 - 1.5mm ²) | | | |
| Relative Humidity | 10-93% non condensing | | | |
| Temperature Rating | 0°-49°C (32° - 120°F) | | | |
| Wiring Styles | Class A or Class B | | | |
| Communication Ports | One RS-232, One RS-485 | | | |
| Standard Auxiliary Relays | One Alarm Contact - 24Vdc 1 Amp One Trouble Contact - 24Vdc 1 Amp One Supervisory Contact - 24Vdc 1 Amp | | | |

Note 1: Surface mount MIR2 Wall Boxes support up to two 12V17A batteries. For larger batteries use BC-1 or BC-2 battery cabinets.

Related Equipment

| Catalog Number | Description |
|-----------------|-------------------------------------|
| GSA-IS | Ionization Smoke Detector |
| GSA-PS | Photoelectric Smoke Detector |
| GSA-PHS | 3D Multisensor Detector |
| GSA-HFS | Fixed Temperature Heat Detector |
| GSA-HRS | ROR/Fixed Temperature Heat Detector |
| GSA-SD | Superduct |
| GSA-DMP | Duct Detector Mounting Plate |
| GSA-DH | Duct Smoke Detector Housing |
| GSA-LED | Remote Alarm LED |
| GSA-CT1 | Single Input Module |
| GSA-CT2 | Dual Input Module |
| GSA-CC1 | Single Input Signal Module |
| GSA-CC2 | Dual Input signal Module |
| GSA-CR | Control Relay Module |
| GSA-MM1 | Monitor Module |
| GSA-WTM | Waterflow/Supervisory Module |
| GSA-M278 | Double Action Fire Alarm Station |
| GSA-M270 series | Single and Two Stage Stations |
| GSA-UM | Universal Module |
| 2-SMK | Smoke Power Converter Module |
| 2-CTM | City Tie Module |

| Catalog Number | Description |
|----------------|---|
| 2-LSRA-MIR | LCD annunciator |
| 2-LSRA-MIR-C | LCD annunciator w/ common controls |
| 2-SLCDA | LCD annunciator SAN mounting |
| 2-SLCDA-C | LCD annunciator SAN mounting w/ common controls |
| LSRA-MIR-232 | Printer/programming port for LSRA-MIR Series |
| 2-SANCOM | Common Controls for SAN annunciator |
| SAN-CPU | CPU for SAN annunciator |
| RSA4-COM/D | Common control module for Envoy Graphics |
| Envoy | Graphic annunciator |
| RANN-PRT | Rack mount 40 column printer |
| MIR-PRT/S | Serial desk mount printer |
| RANN-6 | 19 in rack mount unit accepts 6 SAN modules and 1 SAN-CPU |
| CDR-3 | Coder Module |
| IOP-3 | RS-232 Isolator Module |
| RPM | Reverse Polarity Module |
| MTM-1 | March Time Module |
| BC-1 | Battery Cabinet - Space for two 12V24A batteries, 24 Amp Hour |
| BC-2 | Battery Cabinet - Space for two 12V17A batteries, 17 Amp Hour |

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Ordering Information

| Catalog Number | Description | Ship Wt. lb (kg) |
|--|--|------------------|
| Fire Alarm Control and Power Supplies | | |
| MIR2-MCD | Main Control and Display | 1.5 (.7) |
| MIR2-LCX | Expander Signature Data Circuit with two Notification Appliance Circuits | 1 (.45) |
| DL2 | Two Line Dialer | |
| 2-PPS | 4.5 Amp power supply 120 Vac | |
| 2-PPS/6A | 6.4 Amp power supply 120 Vac | |
| 2-PPS/220 | 4.5 Amp power supply 220 Vac | 2.5 (1.1) |
| 2-PPS/6A-220A | 6.4 Amp power supply 220 Vac | |
| Panel Mounted Annunciator Modules | | |
| 2-16R | 16 Red LEDs | |
| 2-16Y | 16 Yellow LEDs | |
| 2-16G | 16 Green LEDs | |
| 2-8RY | 8 Red and 8 Yellow LEDs | |
| 2-12R4Y | 12 Red LEDs and 4 Yellow LEDs | |
| 2-16G8S | 16 Green LEDs and 8 Two-position Switches | 1 (.45) |
| 2-16R8S | 16 Red LEDs and 8 Two-position Switches | |
| 2-16RYS | 8 Alternating Red over Yellow LED pairs and 8 Two-position switches | |
| 2-16Y8S | 16 Yellow LEDs and 8 Two-position Switches | |
| 2-8GYS | 8 Alternating Green over Yellow LED pairs and 8 Two-position switches | |
| 2-8RYS | 8 Red LEDs, 8 Yellow LEDs and 8 Two-position Switches | |
| Wall Boxes | | |
| 2-WB | Semi-Flush Wall Box - Gray finish | |
| 2-WBR | Semi-Flush Wall Box - Red finish | 8 (3.6) |
| 2-WBS | Surface Wall Box - Gray finish | |
| 2-WBSR | Surface Wall Box - Red finish | |
| 2-RM7 | Mounting Plate | 10 (4.5) |
| 2-RMLCD | Adapter Plate | 0.5 (0.2) |
| 2-RMAUD | Audio Mounting Plate | 2 (0.9) |
| LOB31-B | Backbox for LOB31 cabinet | |
| CB45-B | Backbox for CB45 cabinet | |
| Wall Box Doors | | |
| MIR2-WBD | Inner and outer door for 2-WB wall box | |
| MIR2-WBDR | Inner and outer door for 2-WBR wall box | 8 (3.6) |
| MIR2-WBDS | Inner and outer door for 2-WBS wall box | |
| MIR2-WBDSR | Inner and outer door for 2-WBSR wall box | |
| LOB31(R)-D | Door Assembly for LOB31 cabinet | |
| CB45(R)-D | Door Assembly for CB45 cabinet | |



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