FIRE·LITE® ALARMS

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MMF-300 Series/MDF-300
Addressable Monitor Modules

Section: Addressable Devices

GENERAL

Four different monitor modules are available for Fire•Lite Alarm's MS-9200 and MS-9600 intelligent fire alarm control panels to suit a variety of applications. Monitor modules are used to supervise a circuit of dry-contact input devices, such as conventional heat detectors and pull stations, or monitor and power a circuit of two-wire smoke detectors (MMF-302).

MMF-300 (Replaces M300) — The MMF-300 Monitor Module is a standard-sized module (typically mounts to a 4" [101.6 mm] square box) that supervises either a Class A (Style D) or Class B (Style B) circuit of dry-contact input devices.

MMF-301 (Replaces M301) — The MMF-301 is a Miniature Monitor Module (a mere 1.3" (33.02 mm) H x 2.75" (69.85 mm) W x 0.5" (12.70 mm) D) used to supervise a Class B (Style B) circuit. Its compact design allows the MMF-301 to be mounted in a single-gang box behind the device it is monitoring.

MMF-302 (Replaces M302) — The MMF-302 Interface Module is a standard-sized module used to monitor and supervise compatible two-wire, 24 volt, smoke detectors on a Class A (Style D) or Class B (Style B) circuit.

MDF-300 (New) — The MDF-300 Dual Monitor Module is a standard-sized module (typically mounts to a 4" [101.6 mm] square box) that supervises two Class B (Style B) circuits of dry-contact input devices.

MMF-300 MONITOR MODULE

- Built-in type identification automatically identifies this device as a monitor module to the control panel.
- Powered directly by two-wire SLC loop. No additional power required.
- High noise (EMF/RFI) immunity.
- SEMS screws with clamping plates for ease of wiring.
- Direct Decade 01 – 99 (MS-9200) and 01-159 (MS-9600) entry of address.
- LED flashes green during normal operation and latches on steady red to indicate alarm.

The **MMF-300 Monitor Module** is intended for use in intelligent, two-wire systems, where the individual address of each module is selected using the built-in rotary switches. It provides either a two-wire or four-wire Class A or Class B fault-tolerant Initiating Device Circuit (IDC) for normally-open-contact fire alarm and supervisory devices. The module has a panel-controlled LED indicator. The MMF-300 can be used to replace M300 modules in existing systems.

MMF-300 Applications — Use to monitor a zone of four-wire smoke detectors, manual fire alarm pull stations, waterflow devices, or other normally-open dry-contact alarm activation devices. May also be used to monitor normally-open supervisory devices with special supervisory indication at the control panel. Monitored circuit may be wired as an NFPA Style B (Class B) or Style D (Class D) Initiating Device Circuit. A 47K ohm End-of-Line Resistor (provided)

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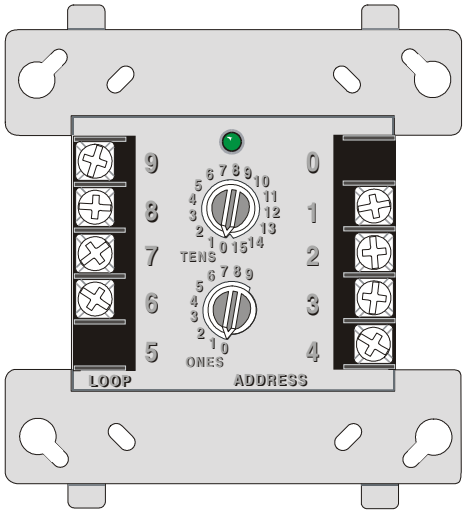


MMF-300, MMF-302 and MDF-300

terminates the Style B circuit. No resistor is required for supervision of the Style D circuit. Maximum IDC resistance is 1,500 ohms.

MMF-300 Operation — Each MMF-300 uses one of 99 (MS-9200) or 159 (MS-9600) available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC). A flashing LED indicates that the module is in communication with the control panel. The LED latches steady on alarm (subject to current limitations on the loop).

MMF-300 Specifications

Nominal operating voltage: 15 to 32 VDC.

Maximum current draw: 5.1 mA (LED on).

Average operating current: 400 µA (LED flashing).

EOL resistance: 47K ohms.

Temperature range: 32°F to 120°F (0°C to 49°C).

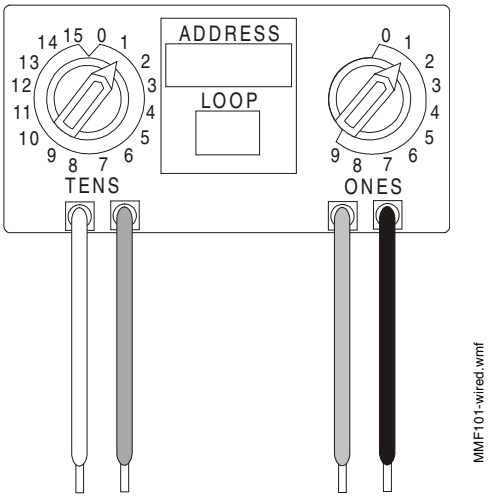
Humidity range: 10% to 93% noncondensing.

Dimensions: 4.5" (114.3 mm) high x 4" (101.6 mm) wide x 1.25" (31.75 mm) deep. Mounts to a 4" (101.6 mm) square x 2.125" (53.975 mm) deep box.

MMF-301 MINI MONITOR MODULE

- Built-in type identification automatically identifies this device as a monitor module to the MS-9200.
- Powered directly by two-wire SLC Loop. No additional power required.
- High noise (EMF/RFI) immunity.
- Tinned, stripped leads for ease of wiring.
- Direct-dial entry of address (01-99).

The **MMF-301 Mini Monitor Module** can be installed in a single-gang junction directly behind the monitored unit. Its small size and light weight allow it to be installed without rigid mounting. The MMF-301 is intended for use in intelligent, two-wire systems where the individual address of each module is selected using rotary switches. It provides a two-wire initiating device circuit for normally-open-contact fire alarm and security devices. The MMF-301 can be used to replace M301 module in existing systems.



MMF-301 Applications — Use to monitor a single device or a zone of four-wire smoke detectors, manual fire alarm pull stations, waterflow devices, or other normally-open dry-contact devices. May also be used to monitor normally-open supervisory devices with special supervisory indication at the control panel. Monitored circuit/device is wired as an NFPA Style B (Class B) Initiating Device Circuit. A 47K ohm End-of-Line Resistor (provided) terminates the circuit.

MMF-301 Operation — Each MMF-301 uses one of 159 (MS-9600 only) available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC).

MMF-301 Specifications

Nominal operating voltage: 15 to 32 VDC.

Average operating current: 375 µA maximum.

EOL resistance: 47K ohms.

Temperature range: 32°F to 120°F (0°C to 49°C).

Humidity range: 10% to 93% noncondensing.

Dimensions: 1.3" (33.02 mm) high x 2.75" (69.85 mm) wide x 0.5" (12.70 mm) deep.

Wire length: 6" (152.4 mm) minimum.

MMF-302 INTERFACE MODULE

- Supports compatible two-wire smoke detectors.
- Supervises IDC wiring and connection of external power source (resettable).
- High noise (EMF/RFI) immunity.
- SEMS screws with clamping plates for ease of wiring.
- Direct-dial entry of address (01-99).
- LED flashes during normal operation (this is a programmable option).
- LED latches steady to indicate alarm on command from control panel.

The **MMF-302 Interface Module** is intended for use in intelligent, addressable systems, where the individual address of each module is selected using built-in rotary switches. This module allows intelligent panels to interface and monitor two-wire conventional smoke detectors. It transmits the status (normal, open, or alarm) of one full zone of conventional detectors back to the control panel. All two-wire detectors being monitored must be UL compatible with the module.

MMF-302 Applications — Use the MMF-302 to monitor a zone of two-wire smoke detectors. The monitored circuit may be wired as an NFPA Style B (Class B) or Style D (Class A) Initiating Device Circuit. A 3.9 K ohm End-of-Line Resistor (provided) terminates the end of the Style B or D (class B or A) circuit (maximum IDC loop resistance is 25 ohms). Install ELR across terminals 8 and 9 for Style D application.

MMF-302 Operation — Each MMF-302 uses one of 159 (MS-9600 only) available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC). A flashing LED indicates that the module is in communication with the control panel. The LED latches steady on alarm (subject to current limitations on the loop).

MMF-302 Specifications

Nominal operating voltage: 15 to 32 VDC.

Maximum current draw: 5.1 mA (LED on).

Average operating current: 270 µA (LED flashing).

EOL resistance: 3.9K ohms.

External supply voltage *(between Terminals T3 and T4):* ***DC voltage:*** 18 to 28 volts power limited. ***Ripple voltage:*** 0.1 VRMS maximum. ***Current:*** 90 mA per module maximum.

Temperature range: 32°F to 120°F (0°C to 49°C).

Humidity range: 10% to 93% noncondensing.

Dimensions: 4.5" (114.3 mm) high x 4" (101.6 mm) wide x 1.25" (31.75 mm) deep. Mounts to a 4" (101.6 mm) square x 2.125" (53.975 mm) deep box.

MDF-300 DUAL MONITOR MODULE

- Built-in type identification automatically identifies this device as two monitor modules to the control panel.
- Powered directly by the two-wire SLC loop. No additional power required.
- High noise (EMF/RFI) immunity.
- SEMS screws with clamping plates for ease of wiring.
- Direct-dial entry of address 01 – 159 on the MS-9600.
- LED flashes green during normal operation and latches on steady red to indicate alarm.

The MDF-300 Dual Monitor Module is intended for use in intelligent, two-wire systems, where the individual address of each module is selected using the built-in rotary switches. It provides two independant two-wire fault-tolerant Initiating Device Circuits (IDCs) at two separate, consecutive ad-

dresses. It is capable of monitoring normally open-contact fire alarm and supervisory devices, or either normally open or normally closed security devices. The module has a single panel-controlled red LED indicator.

MDF-300 Applications - Use to monitor a zone of four-wire smoke detectors, manual fire alarm pull stations, waterflow devices, or other normally-open dry-contact alarm activation devices. May also be used to monitor normally-open supervisory devices with special supervisory indication at the control panel. Monitored circuit may be wired as an NFPA Style B (Class B) Initiating Device Circuit. The 47K ohm End-of-Line Resistors (provided) terminate the Style B circuit. Maximum IDC resistance is 1,500 ohms.

MDF-300 Operation - Each MDF-300 uses two of 99 (MS-9200) or 159 (MS-9600) available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC). A flashing LED indicates that the module is in communication with the control panel. The LED latches steady on alarm (subject to current limitations on the loop).

MDF-300 Specifications

Nominal operating voltage: 15 to 32 VDC.

Maximum current draw: 5.1 mA (LED on).

Average operating current: 750 µA (LED flashing).

EOL resistance: 47K ohms.

Maximum IDC wire resistance: 1,500 Ohms.

Temperature range: 32°F to 120°F (0°C to 49°C).

Humidity range: 10% to 93% noncondensing.

Dimensions: 4.5" (114.3 mm) high x 4" (101.6 mm) wide x 1.25" (31.75 mm) deep. Mounts to a 4" (101.6 mm) square x 2.125" (53.975 mm) deep box.

Accessories: SMB500 electrical box.

INSTALLATION

MMF-300, MMF-302 and ***MDF-300*** modules mount directly to a standard 4" (101.6 mm) square, 2.125" (53.975 mm) deep, electrical box. They may also be mounted to the SMB500 surface-mount box. Mounting hardware and installation instructions are provided with each module. All wiring must conform to applicable local codes, ordinances, and regulations. These modules are intended for power-limited wiring only.

The ***MMF-301*** module is intended to be wired and mounted without rigid connections inside a standard electrical box. All wiring must conform to applicable local codes, ordinances, and regulations.

ARCHITECTS'/ENGINEERS' SPECIFICATIONS

Specifications of these and all Fire•Lite Alarms products are available from Fire•Lite Alarms.

PRODUCT LINE INFORMATION

MMF-300	Monitor Module.
MMF-301	Mini Monitor Module.
MMF-302	Two-Wire Detector Monitor Module.
MDF-300	Dual Monitor Module.
SMB500	Optional Surface-Mount Backbox.

MOUNTING DIAGRAMS

for standard-sized modules