CMF-300(A)  
Control Module

General

The CMF-300(A) Addressable Control Module provides Fire-Lite intelligent control panels a circuit for Notification Appliances (horns, strobes, etc.). Addressability allows the CMF-300(A) to be activated through panel programming, on a select (zone or area of coverage) basis.

LiteSpeed™ is a communication protocol developed by Fire-Lite Engineering that greatly enhances the speed of communication between analog intelligent devices. Intelligent devices communicate in a grouped fashion. If one of the devices within the group has new information, the panel CPU stops the group poll and concentrates on single points. The net effect is response speed greater than five times that of other designs.

Features

• Built-in type identification automatically identifies these devices to the control panel.
• Internal circuitry powered directly by two-wire SLC loop. The CMF-300(A) module requires power (for horns, strobes, etc.).
• Integral LED “blinks” green each time a communication is received from the control panel and turns on steady red when activated.
• High noise immunity (EMF/RFI).
• The CMF-300(A) may be used to switch 24-volt NAC power.
• Wide viewing angle of LED.
• SEMS screws with clamping plates for wiring ease.
• Direct-dial entry of address: 01 – 159 for MS-9600 series panels, 01 – 99 on MS-9200UDLS and MS-9050UD.

Applications

The CMF-300(A) is used to switch 24 VDC audible/visual power.

Construction

• The face plate is made of off-white heat-resistant plastic.
• Controls include two rotary switches for direct-dial entry of address setting.
• The CMF-300(A) is configured for a single Class B (Style Y) or Class A (Style Z) Notification Appliance Circuit.

Operation

Each CMF-300(A) uses one of the module addresses on a SLC loop. It responds to regular polls from the control panel and reports its type and status, including the open/normal/short status of its Notification Appliance Circuit (NAC). The LED blinks with each poll received. On command, it activates its internal relay. The CMF-300(A) supervises Class B (Style Y) or Class A (Style Z) notification or control circuits.

Upon code command from the panel, the CMF-300(A) will disconnect the supervision and connect the external power supply in the proper polarity across the load device. The disconnection of the supervision provides a positive indication to the panel that the control relay actually turned ON. The external power supply is always relay-isolated from the communication loop so that a trouble condition on the external power supply will never interfere with the rest of the system.

Rotary switches set a unique address for each module. The address may be set before or after mounting. The built-in TYPE CODE (not settable) will identify the module to the control panel, so as to differentiate between a module and a sensor address.

Specifications

Normal operating voltage: 15 to 32 VDC.
Maximum SLC current draw: 6.5 mA (LED on).
Average operating current: 350 μA direct poll (CLIP mode), 375 μA group poll (LiteSpeed mode) with LED flashing.
External supply voltage: maximum 80 volts (RMS or DC).
Drain on external supply: 2 mA maximum (using internal EOL relay).
EOL resistance: 47K ohms.
Temperature range: 32°F to 120°F (0°C to 49°C).
Humidity range: 10% to 93% non-condensing.
Dimensions: 4.5” (11.43 cm) high x 4” (10.16 cm) wide x 1.25” (3.175 cm) deep. Mounts to a 4” (10.16 cm) square x 2.125” (5.398 cm) deep box.

Agency Listings and Approvals

In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.
• ULC: S2424

Product Line Information

CMF-300: Intelligent addressable control module.
CMF-300A: Canadian intelligent addressable control module.

SMB500: Optional surface-mount backbox.

CB500: Optional control module barrier, required by UL for separating power-limited and non-power-limited wiring in the same junction box as CMF-300(A).

NOTE: For installation instructions, see document I56-1189-009 and refer to the SLC Wiring Manual, document 51309. The CRF-300(A) relay module, previously on this data sheet, is now on DF-60379.