

# **Detection and Control Components**



## **FCM-1 Control Module**

### **Features**

- Built-in type identification automatically identifies these devices to the control unit
- · Internal circuitry and relay powered directly by two-wire
- SLC loop; requires power for notification or releasing appli-
- ances
  - Integral LED blinks green each time a communication is received from the control unit and turns on in steady red when activated
  - · LED blink may be deselected globally (affects all devices)
  - · High noise immunity (EMF/RFI)
- May be used to control a releasing appliance circuit (RAC)
  - Wide viewing angle of LED
  - · SEMS screws with clamping plates for wiring ease
  - Direct-dial entry of address (01-159)\*
- Audible/visual applications may be wired for Class B or A (Style Y or Z)
  - · Face plate is made of off-white Noryl®
  - Configured for a single Class B (Style Y) or Class A (Style Z) Notification Appliance Circuit
- ► FlashScan® communication protocol

### **Applications**

- The FCM-1 Addressable Control Module provides the ► AUTOPULSE IQ-301, IQ-396X, or IQ-636X control unit a circuit for Notification Appliances (horns, strobes, speakers,
- ▶ etc.) or compatible releasing appliances. Addressability allows the FCM-1 to be activated, either manually or through panel programming, on a select (zone or area of coverage) basis.
- ► FlashScan (U.S. Patent 5,539,389) is a new communication protocol 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.

### Description

Each FCM-1 Control Module uses one of 159\* possible module addresses on a SLC loop. It responds to regular polls from the control unit and reports its type and status, including the open/normal/short status of its Notification Appliance

Circuit (NAC) or Releasing Appliance Circuit (RAC). The LED blinks with each poll received. On command, it activates its internal relay. The FCM-1 supervises Class B (Style Y) or Class A (Style Z) notification or control circuits. The FCM-1 can be used to replace the CMX-2 module, Part No. 417479, in existing systems. Upon code command from the unit, the FCM-1 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.

- ▶ The FCM-1 is used to switch 24 VDC audible/visual or
- releasing appliance power.

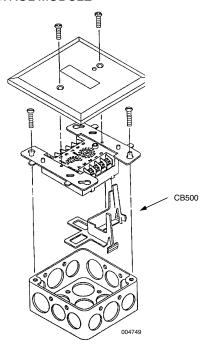
### **Technical Information**

Normal Operating Voltage: 15 to 32 VDC
Maximum Current Draw:5.1 mA (LED on)
Average Operating Current: 390 $\mu$ A (LED flashing)
External Supply Voltage max 80 volts (RMS or DC) between T3 and T4:
Drain on External 2 $\mu$ A max. (using internal EOL relay) Supply:
EOL Resistance: 47 K ohms
Temperature Range: 32 °F to 120 °F ( 0 °C to 49 °C)
Humidity Range: 10% to 93% non-condensing

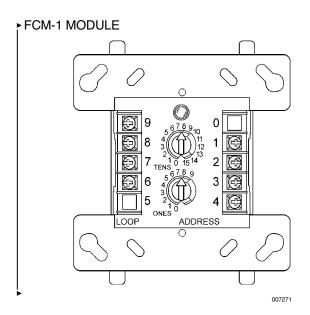
### **NAC RATINGS**

Load		Maximum	Current
Description	Application	Voltage	Rating
Resistive	Non-Coded	30 VDC	3.0 A
Resistive	Coded	30 VDC	2.0 A
Resistive	Non-Coded	110 VDC	0.9 A
Resistive	Non-Coded	125 VAC	0.9 A
Inductive (L/R = 5 ms)	Coded	30 VDC	0.5 A
Inductive (L/R = 2 ms)	Coded	30 VDC	1.0 A
Inductive (PF = 0.35)	Non-Coded	125 VAC	0.5 A

### FCM-1 CONTROL MODULE



NOTE: The CB500 barrier is required by U.L. for separating power-limited and non-power limited wiring in the same junction box.



# Listings and Approvals\*

UL	S3705
ULC	CS669
► Factory Mutual (FM)	Approved
California State Fire Marshal (CSFM)	7300-0028:202
► MEA (NYC)	457-99-E
Maryland State Fire Marshal	Permit # 2020

▶ \* Listings and Approvals are under NOTIFIER.

# **Ordering Information**

		Shippi	Shipping Weight	
Part No.	Description	lb.	(kg)	
428101	FCM-1 Intelligent	1	(0.45)	
	Control Module			

FlashScan is a trademark of Honeywell International.
Noryl is a registered trademark of GE Plastics, a subsidiary of General Electric Company.

# TYPICAL CONNECTION OF A 24 VDC RELEASING DEVICE TO THE FCM-1 MODULE COMPATIBLE UL-LISTED 24 VDC RELEASING DEVICE BROWN RELAYK (USE WITH TYPE CODE REL CKT ULC, OR SEE CIRCUIT REQUIREMENT 3) N.C. SUPERVISION RELAY CONTACT PART OF EOL-R POWER SUPERVISION RELAY (EOLR-1)