

# FIK-M500S

## Supervised Control Module

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**SPECIFICATIONS**

Normal Operating Voltage: 15 to 32 VDC  
 Maximum Current Draw: 6.5 mA (LED on)  
 Average Operating Current: 375µA (LED flashing - in group poll mode)  
 350µA (LED flashing - in direct poll mode)  
 485µA Max. (LED flashing, NAC shorted)

Maximum NAC Line Loss: 4 VDC  
 Reg. Ext. Supply Voltage: (between Terminals T10 and T11)  
 Maximum (NAC): Regulated 24VDC  
 Drain on External Supply: 1.7 mA Maximum (using 24 VDC supply)  
 Max. NAC Current Ratings: For class B wiring system, 3A; For class A wiring system, 2A  
 Temperature Range: 32°F to 120°F (0°C to 49°C)  
 Humidity: 10% to 93% Non-condensing  
 Dimensions: 4.675" H x 4.275" W x 1.4" D (Mounts to a 4" square by 2½" deep box.)  
 Accessories: SMB500-WH Electrical Box

For system/product documentation including installation, operation, and maintenance, scan QR code or enter URL provided.



<http://www.fike.com/06-912>

**RELAY CONTACT RATINGS**

CURRENT RATING	MAXIMUM VOLTAGE	LOAD DESCRIPTION	APPLICATION
2 A	25 VAC	PF = 0.35	Non-coded
3 A	30 VDC	Resistive	Non-coded
2 A	30 VDC	Resistive	Coded
0.46 A	30 VDC	(L/R = 20ms)	Non-coded
0.7 A	70.7 VAC	PF = 0.35	Non-coded
0.9 A	125 VDC	Resistive	Non-coded
0.5 A	125 VAC	PF = 0.75	Non-coded
0.3 A	125 VAC	PF = 0.35	Non-coded

**BEFORE INSTALLING**

This information is included as a quick reference installation guide. Refer to the control panel installation manual for detailed system information. If the modules will be installed in an existing operational system, inform the operator and local authority that the system will be temporarily out of service. Disconnect power to the control panel before installing the modules.

NOTICE: This manual should be left with the owner/user of this equipment.

**GENERAL DESCRIPTION**

FIK-M500S Supervised Control Modules are intended for use in intelligent, two-wire systems, where the individual address of each module is selected using the built-in rotary switches. This module is used to switch an external power supply to notification appliances. It also supervises the wiring to the connected loads and reports their status to the panel as NORMAL, OPEN, or SHORT CIRCUIT. The FIK-M500S has two pairs of output termination points available for fault-tolerant wiring and a panel-controlled LED indicator.

**COMPATIBILITY REQUIREMENTS**

To ensure proper operation, this module shall be connected to a compatible Fike system control panels only (list available from Fike).

**MOUNTING**

The FIK-M500S mounts directly to 4-inch square electrical boxes. (See Figure 2A.) The box must have a minimum depth of 2½ inches. Surface mounted electrical boxes (SMB500-WH) are available from Fike. The module can also mount to the DNR(W) housing.

**WIRING**

NOTE: All wiring must conform to applicable local codes, ordinances, and regulations. When using control modules in nonpower limited applications, UL requirements for the separation of power-limited and nonpower-limited terminals and wiring must be met. The barrier must be inserted into a 4" x 4" x 2½" junction box, and the control module must be placed into the barrier and

attached to the junction box. (See Figure 2A.) The power-limited wiring must be placed into the isolated quadrant of the module barrier. (See Figure 2B.)

1. Install module wiring in accordance with the job drawings and appropriate wiring diagrams.
2. Set the address on the module per job drawings.
3. Secure module to electrical box (supplied by installer), as shown in Figure 2A.

Wire should be stripped to the appropriate length (recommended strip length is ¼" to ¾"). Exposed conductor should be secured under the clamping plate and should not protrude beyond the terminal block area. CAUTION: Do not loop wire under terminals. Break wire run to provide supervision of connections.

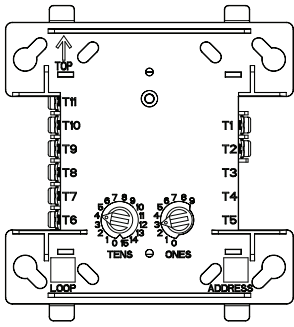
IMPORTANT: When using the FIK-M500S for audio applications, remove Jumper (J1) and discard. The Jumper is located on the back as shown in Figure 1B. J1 must be removed whenever power supply monitoring feature is not required.

NOTE: All references to power limited represent "Power Limited (Class 2)". All references to Class A also include Class X.



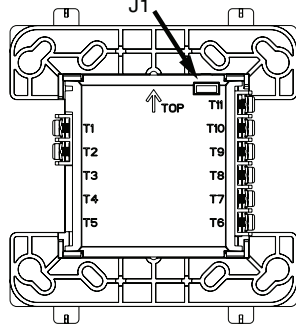
All relay switch contacts are shipped in the standby state (open) state, but may have transferred to the activated (closed) state during shipping. To ensure that the switch contacts are in their correct state, modules must be made to communicate with the panel before connecting circuits controlled by the module.

**FIGURE 1A. CONTROLS AND INDICATORS**



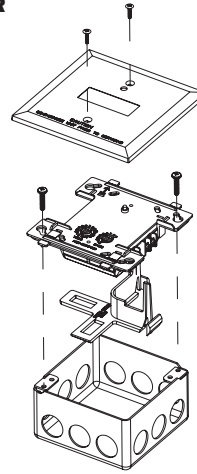
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**FIGURE 1B. JUMPER LOCATION**

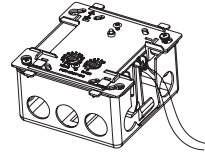


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**FIGURE 2A. MODULE MOUNTING WITH BARRIER**

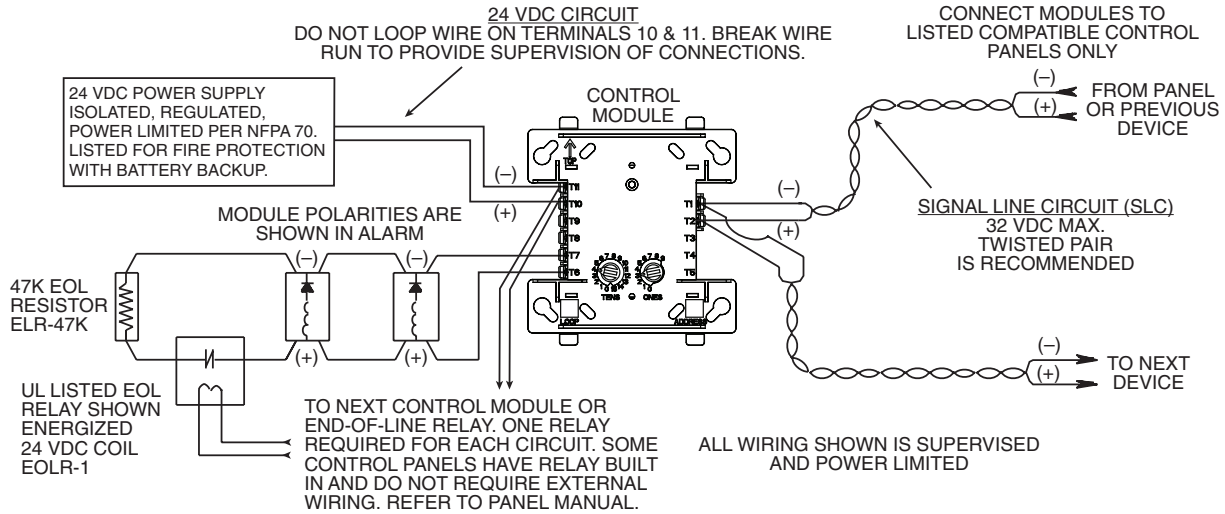


**FIGURE 2B.**



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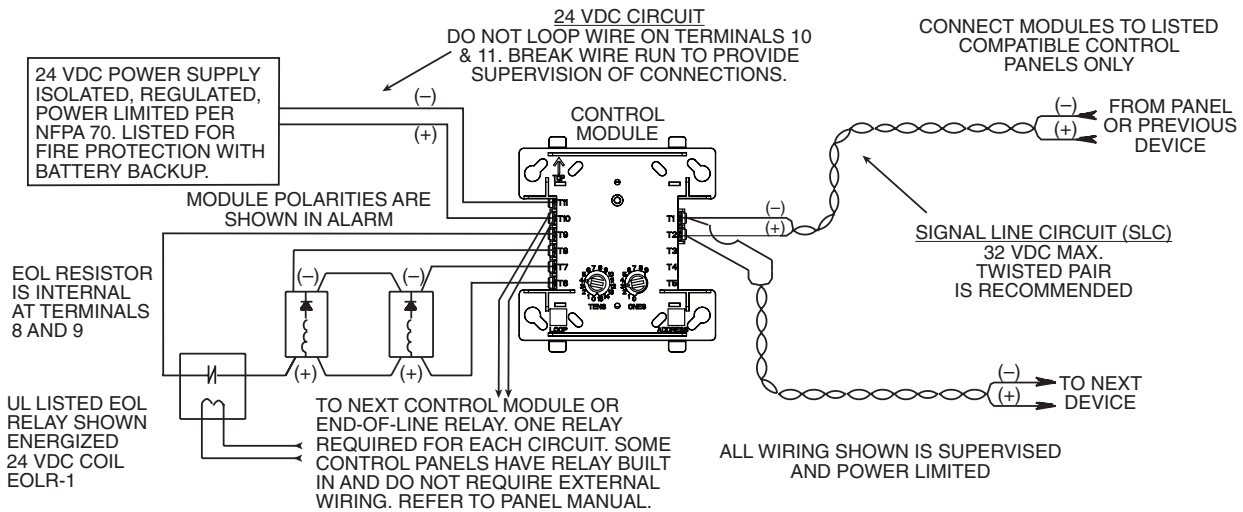
**FIGURE 3. TYPICAL NOTIFICATION APPLIANCE CIRCUIT CONFIGURATION, NFPA CLASS B**



\*NOTE: ANY FAULT IN THE POWER SUPPLY IS LIMITED TO THAT ZONE AND DOES NOT RESULT IN A FAULT IN A SEPARATE ZONE.

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**FIGURE 4. TYPICAL FAULT TOLERANT NOTIFICATION APPLIANCE CIRCUIT CONFIGURATION, NFPA CLASS A**



\*NOTE: ANY FAULT IN THE POWER SUPPLY IS LIMITED TO THAT ZONE AND DOES NOT RESULT IN A FAULT IN A SEPARATE ZONE.

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**DEVICE AND SYSTEM SECURITY**

Before installing this product ensure that the tamper seal on the packaging is present and unbroken and the product has not been tampered with since leaving the factory. Do not install this product if there are any indications of tampering. If there are any signs of tampering the product should be returned to the point of purchase.

It is the responsibility of the system owner to ensure that all system components, i.e. devices, panels, wiring etc., are adequately protected to avoid tampering of the system that could result in information disclosure, spoofing, and integrity violation.

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