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55-042 Supervised Control Module

SPECIFICATIONS

Normal Operating Voltage:	15 to 30 VDC
Standby Current:	630 µA maximum average (continuous broadcasts)
Alarm Current:	2 mA (red LED on)
Maximum NAC Circuit Line Loss:	4 VDC
Power Supply Monitor	
Maximum (Speakers):	70.7 Vrms, 50W
Maximum (NAC):	Regulated 24 VDC
Trouble Range:	0 to 2 VDC
Maximum NAC Current Ratings:	For Class B Wiring Systems, 3A; For Class A Wiring Systems, 2A
Temperature Range:	32°F to 120°F (0°C to 49°C)
Humidity:	10% to 93% RH Non-condensing
Dimensions:	4.675″ H x 4.275″ W x 1.4″ D
Accessories:	39 kΩ End of Line Resistor Part # A2263-00 (included); Wall cover plate (included); SMB500 Surface Mount Electrical Box; A2143-60 Bypass capacitor; EA-CB Control Module Barrier

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 appropriate 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.

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

GENERAL DESCRIPTION

Control Module, Model 55-042, is used to switch an external power supply or audio amplifier to notification appliances. In addition to switching the external power, the device will monitor the wiring (while external power is not switched to the auxiliary devices) to the auxiliary device for open and short circuits via an end of line resistor. This module is capable of Class A or Class B operation.

The control module will also have the capability to monitor the external power input for loss of power (DC voltage supplies only). This feature can be disabled through device configuration programming. If the external power is switched to the auxiliary devices and there is a loss of the DC supply, the control module has the capability of running an algorithm in which the device will switch back to monitor mode and check the line for short circuits. If no short exists, the device will reapply the external power. This algorithm can be enabled when using a DC external supply that is guaranteed to be above 9 volts.

COMPATIBILITY REQUIREMENTS

To ensure proper operation, this module shall be connected to a listed compatible control panel.

MOUNTING

The module mounts directly to 4-inch square electrical boxes. The box must have a minimum depth of $2^{1}/_{8}$ inches. Modules must be mounted with the arrow facing upward for proper operation of the IR programming tool. Surface mounted electrical boxes (SMB500) are available from Fike.

WIRING

NOTE: All wiring must conform to applicable local codes, ordinances, and regulations.

1. Install module wiring in accordance with the job drawings and appropriate wiring diagrams. Optional EA-CB may be required to separate power limited and non power limited wiring in the electrical box.
2. For new installations use the enclosed 39 kΩ EOL resistor. For retrofit applications where the existing 47 kΩ cannot be easily replaced, it may be left in place without loss of performance.
3. Set the address on the module per job drawings using the handheld IR programmer.
4. Secure module to electrical box (supplied by installer).

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

TESTING

The following resistance values can be used to test the module after installation:

Short Circuit: < 50Ω

Open Circuit: > 1MΩ

Ground Fault: < 50Ω

⚠WARNING

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.

TERMINAL DEFINITIONS

T1	(+) SLC in/out	**T9**	(–) External Power Line in/out
T2	(–) SLC in/out	**T10**	(+) External Power Line in/out
T3	(+) SLC in/out	**T11**	(+) NAC A/B
T4	(–) SLC in/out	**T12**	(–) NAC A/B
T7	(–) External Power Line in/out	**T13**	(–) Class A
T8	(+) External Power Line in/out	**T14**	(+) Class A

FIGURE 1. SUPERVISED CONTROL MODULE:

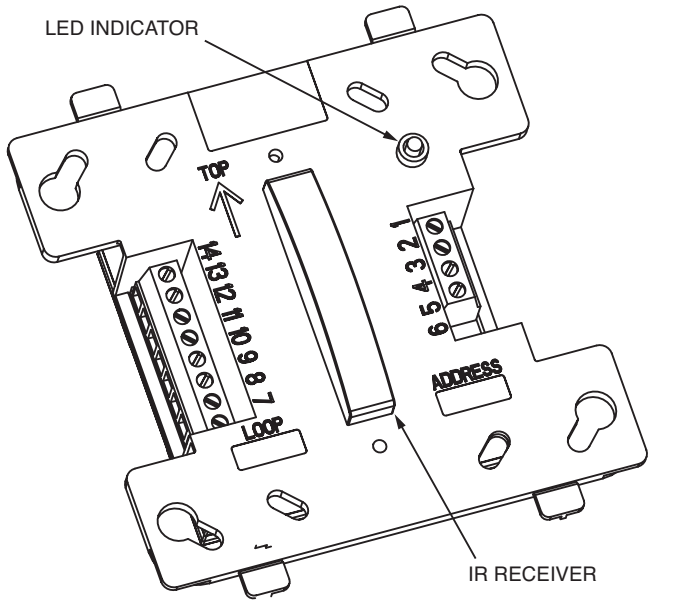

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FIGURE 2. TYPICAL CLASS B, STYLE Y NAC CONFIGURATION:

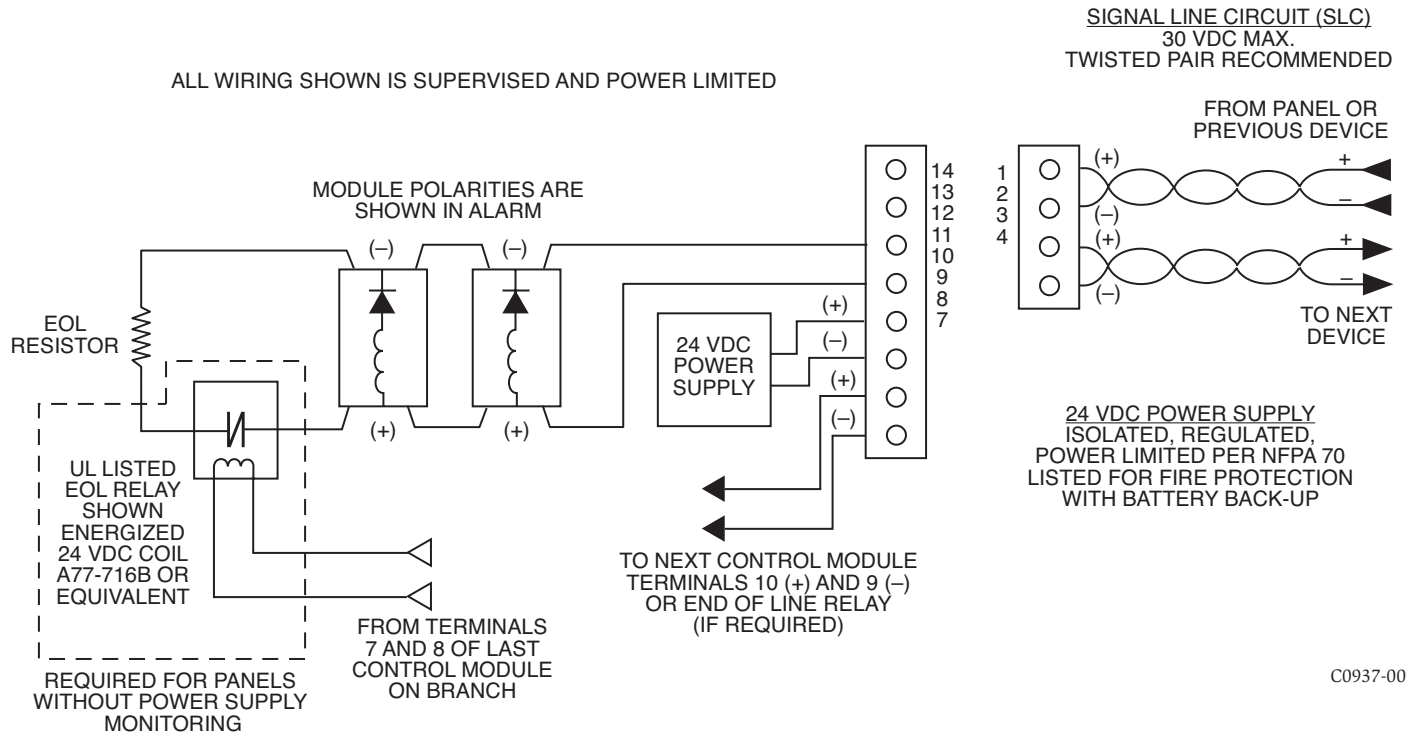

FIGURE 3. TYPICAL CLASS A, STYLE Z NAC CONFIGURATION:

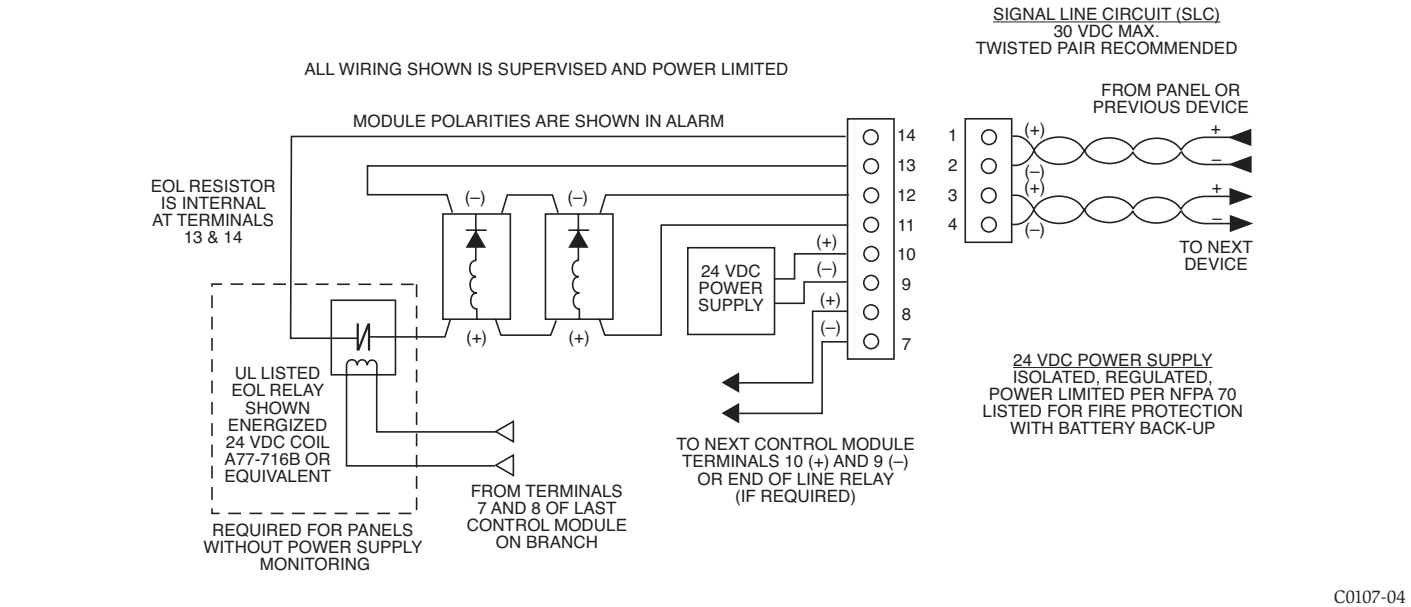

FIGURE 4. TYPICAL CLASS B, STYLE Y AUDIO NAC CONFIGURATION:

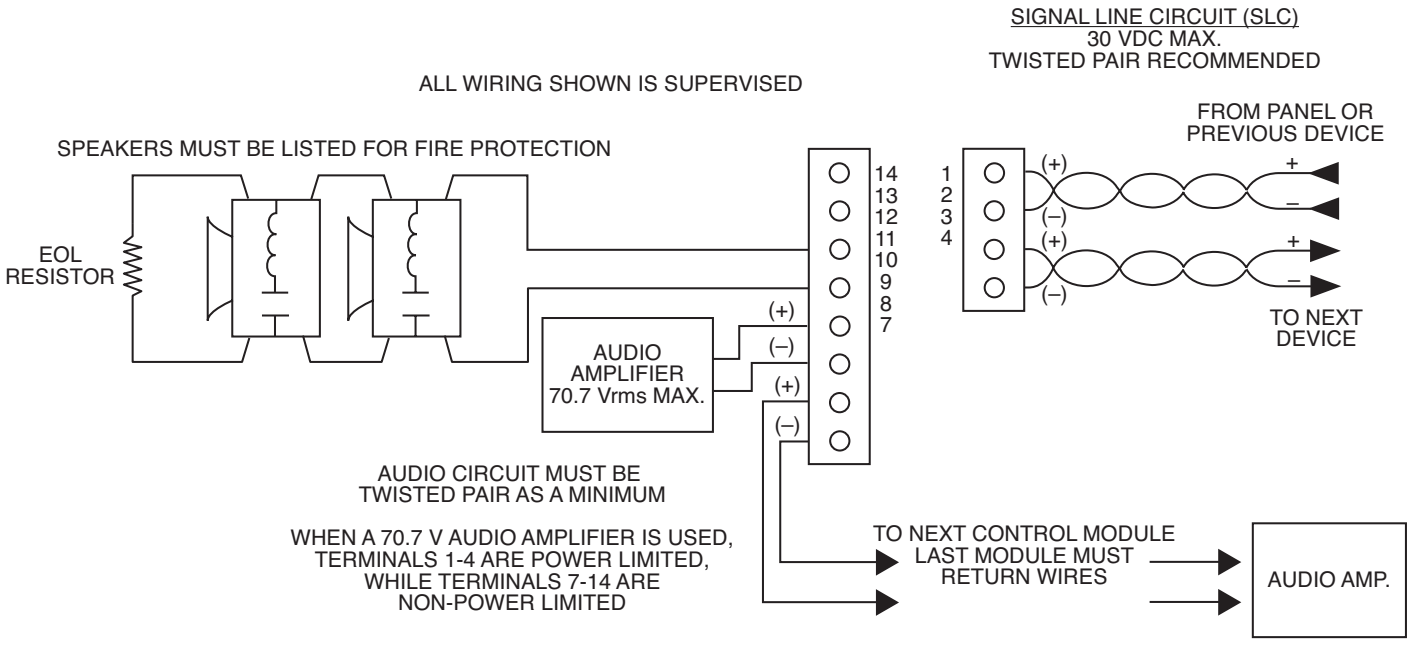

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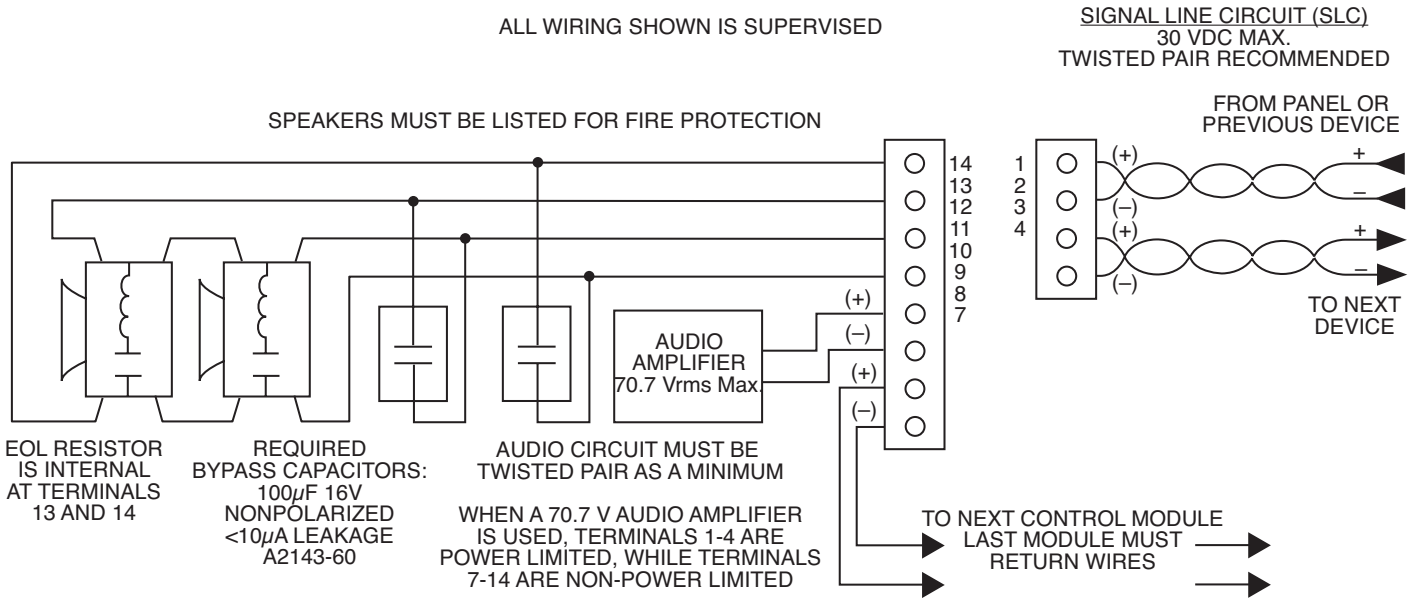
FIGURE 5. TYPICAL CLASS A, STYLE Z AUDIO NAC CONFIGURATION:



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FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.