# Mircom MIX-4045-M Multi-Relay Module Instruction Manual

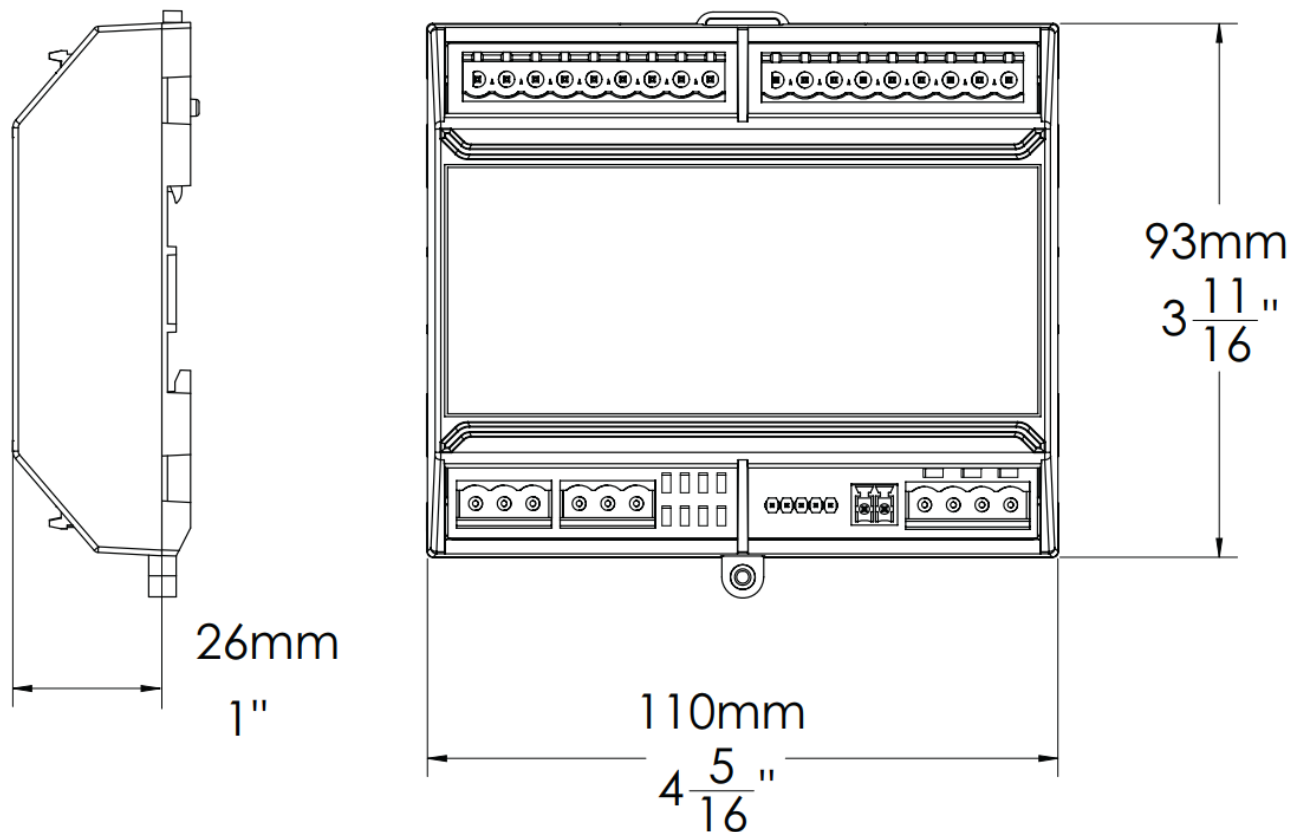**Mircom MIX-4045-M Multi-Relay Module**

**Contents**

## ABOUT THIS MANUAL

This manual is included as a quick reference for installation. For further information on the use of this device with a FACP, please refer to the panel's manual.

**Note:** This manual should be left with the owner or operator of this equipment.

# DESCRIPTION

## FIGURE 1: MODEL FRONT AND SIDE VIEW



The MIX-4045-M multi-relay module provides 8 form C (SPDT) contacts rated at 2A @ 30VDC or 0.5A at 125VAC resistive loads from power limited sources. The relays are programmable and a compatible panel can switch individual contacts as required. The module also supports group activation capability for fast reaction time.

The SLC is power limited and the module does not supervise circuit connections to the relay contacts. The relays are power limited if wired to a power limited source.

The MIX-4045-M is compatible with FX-400, FX-401 and FleX-NetTM FX4000 fire alarm control panels and is designed to meet UL 864, 10th Edition and ULC S527, 4th Edition requirements for devices.

The SLC and power connections are on opposite corners of the device for easy installation. The address of each module is set using the MIX-4090 programmer tool and up to 240 units may be installed on a single loop. The module has LED indicators for each relay to signal activation (red). A green LED shows SLC communication status and finally, two yellow LEDs indicate if a short circuit has been isolated on either side of the SLC connection.

## Accessories

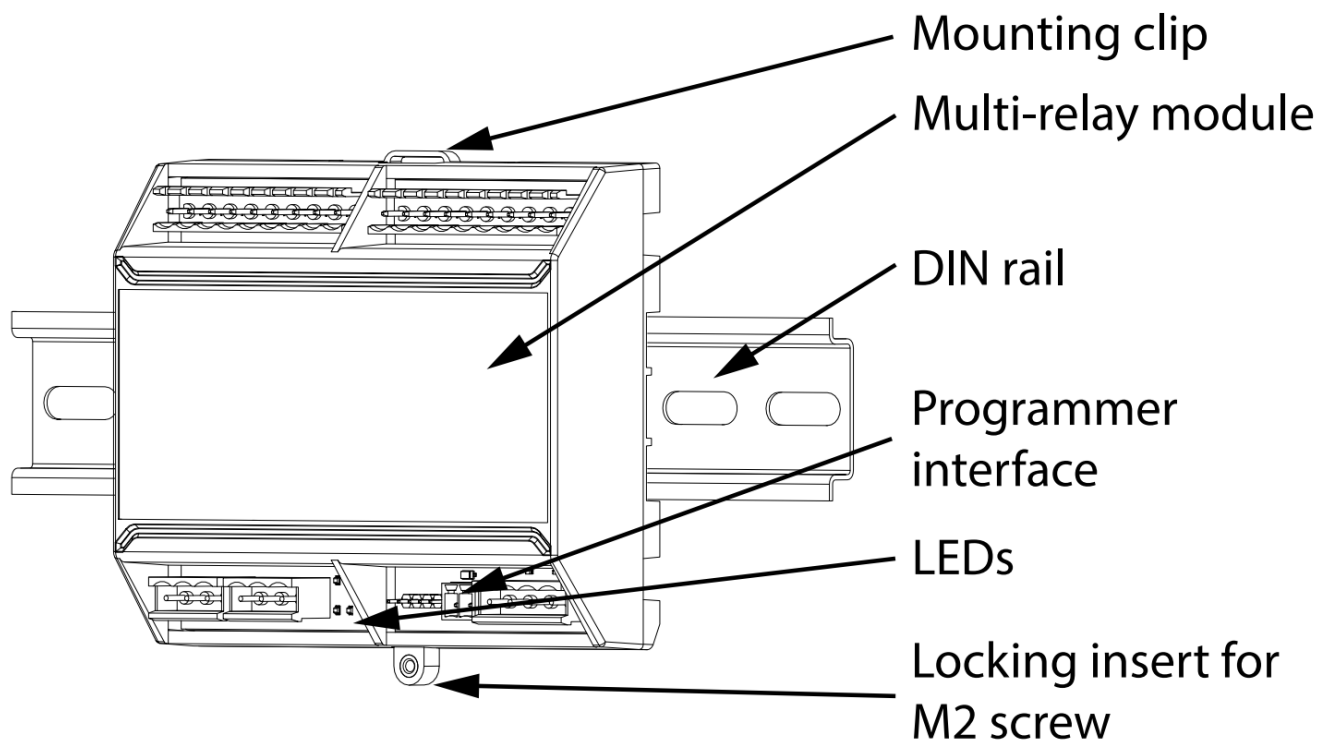| BB-4002R | Back Box and Red Door for 1 or 2 MIX-4000-M Series Modules |
|---|---|
| BB-4006R | Back Box and Red Door for up to 6 MIX-4000-M Series Modules |

## RELATED DOCUMENTS

- LT-6736 BB-4002R and BB-4006R Installation Instructions
- LT-6749 MGC-4000-BR DIN Rail Kit Installation Instructions

## SPECIFICATIONS

| Normal Operating Voltage: | UL tested 15 to 30VDC<br>UL rated 17.64 to 27.3 VDC |
|---|---|
| Alarm Current: | 8.3 mA |
| Standby Current: | 1.9 mA |
| Temperature Range: | 0°C to 49°C (32°F to 120°F) |
| Humidity Range: | 10% to 93% non-condensing |
| Dimensions: | 110 mm x 93mm (4 5/16 x 3 11/16 in) |
| Terminal wire gauge | 12-22 AWG |

## KEY COMPONENTS

**FIGURE 2: MULTI-RELAY MODULE ASSEMBLY COMPONENTS**



The MIX-4045-M multi-relay module as shown in figure 2 is designed to fit on a DIN rail. The M2 screw can be used to lock its position.

**Note:** This device must be installed as per applicable requirements of the authorities having jurisdiction.
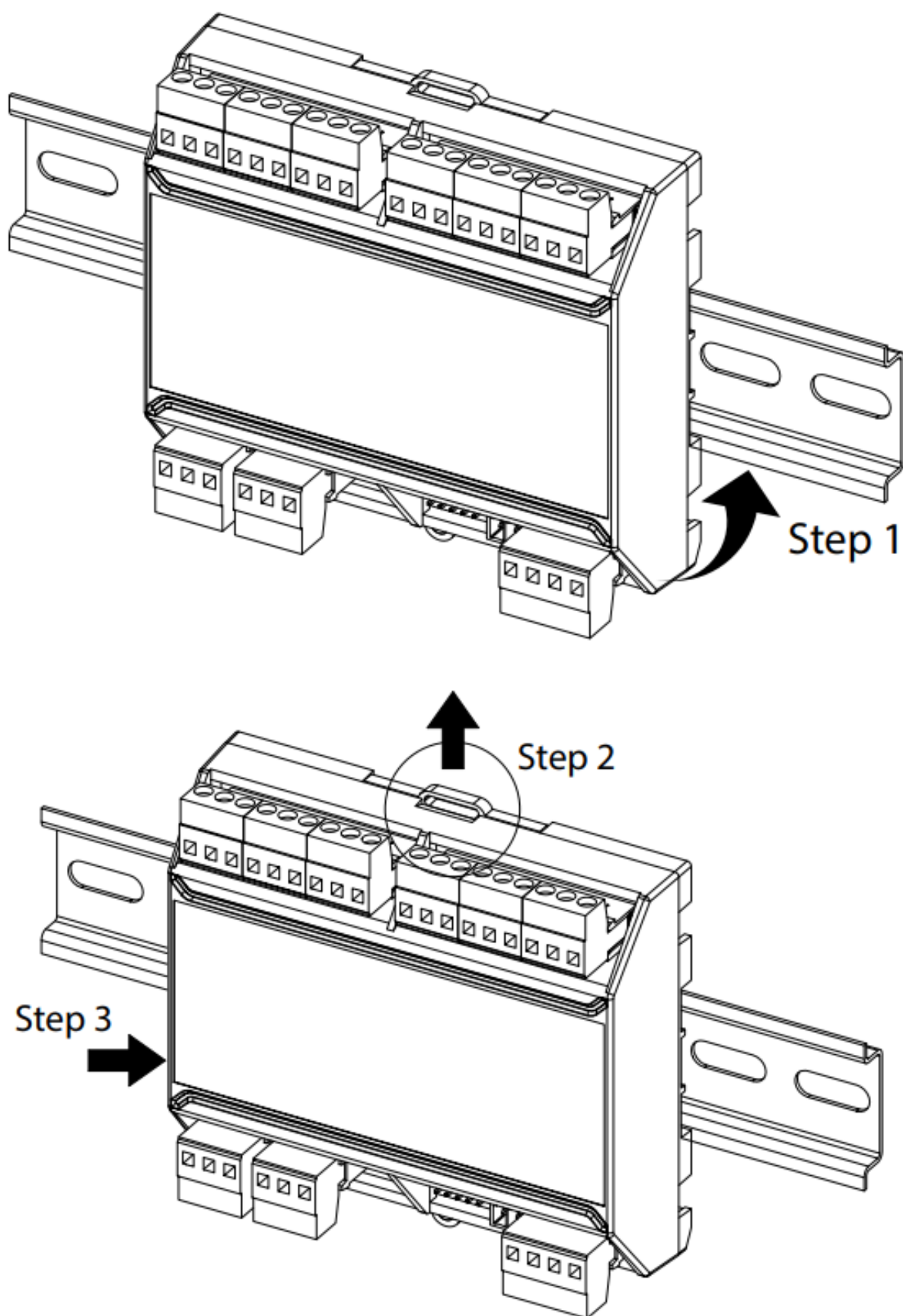
## MOUNTING

Units in the multi module series can be mounted on a top-hat style 35mm wide DIN rail included in the MGC listed

enclosures:

- BB-4002R for 1 or 2 modules (see document LT-6736) or equivalent Listed enclosure of the same size or larger (see document LT-6749)
- BB-4006R for up to 6 modules (see document LT-6736) or equivalent Listed enclosure of the same size or larger (see document LT-6749)

1. Hook the multi module device onto the bottom of the DIN rail with three teeth.
2. Push the mounting clip upward with a flat screwdriver.
3. Push the multi module device onto the DIN rail and release the clip.

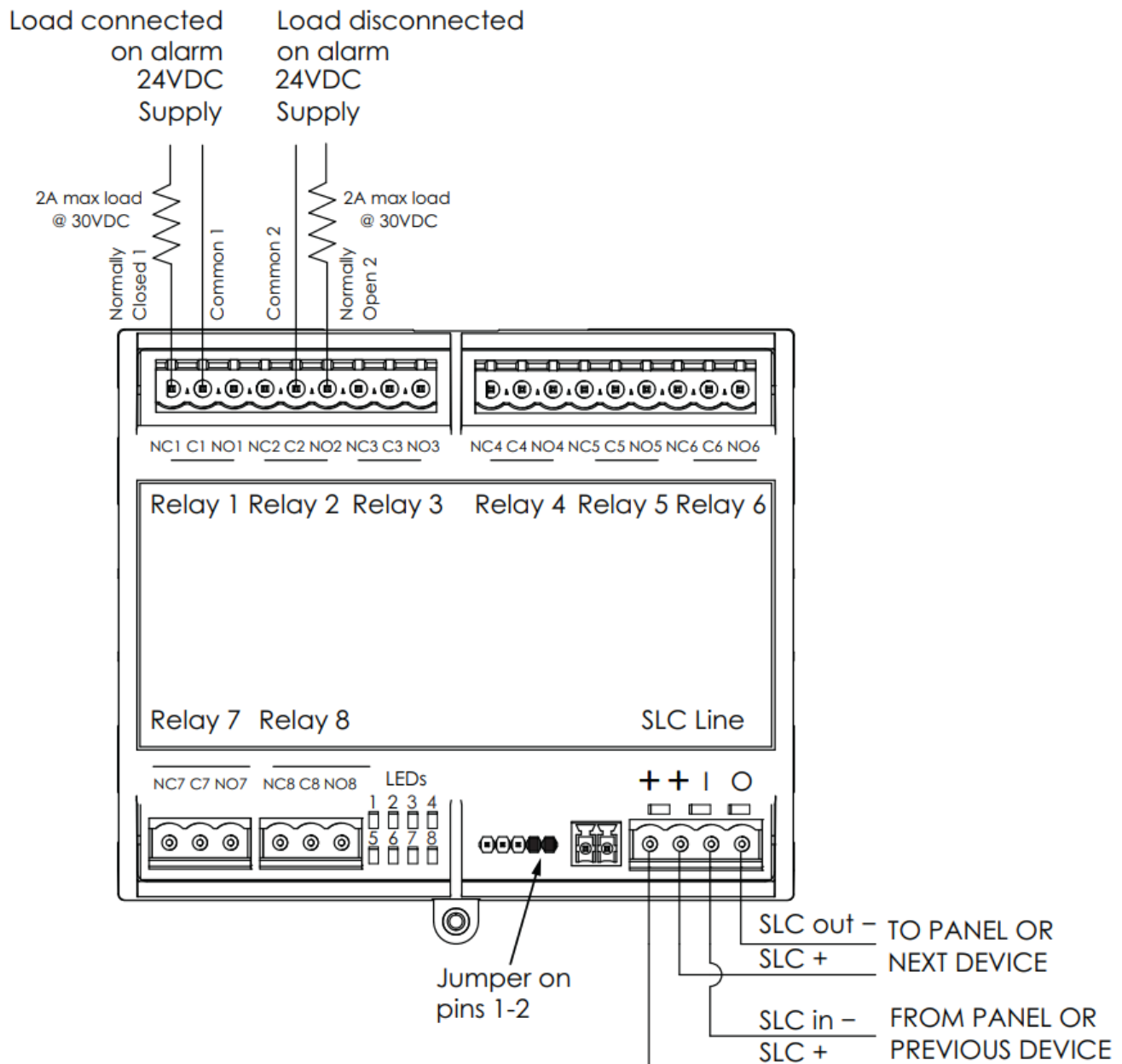# FIGURE 3: MOUNTING DIAGRAM



Step 1

Step 2

Step 3

**WIRING**

Before installing this device, seek guidance from the compatible control panel instructions for the device's operation modes and the configuration requirements. It is recommended to disconnect the SLC line before

performing installation or service.

## FIGURE 4: DEVICE CONNECTION – RELAY WIRING

Load connected on alarm 24VDC Supply

Load disconnected on alarm 24VDC Supply

2A max load @ 30VDC

2A max load @ 30VDC

Normally Closed 1
Common 1
Common 2
Normally Open 2

NC1 C1 NO1 NC2 C2 NO2 NC3 C3 NO3    NC4 C4 NO4 NC5 C5 NO5 NC6 C6 NO6

Relay 1 Relay 2 Relay 3    Relay 4 Relay 5 Relay 6

Relay 7 Relay 8    SLC Line

NC7 C7 NO7   NC8 C8 NO8   LEDs
1 2 3 4
5 6 7 8

+ + I O

Jumper on pins 1-2

SLC out –   TO PANEL OR
SLC +       NEXT DEVICE

SLC in –    FROM PANEL OR
SLC +       PREVIOUS DEVICE

**Note:** A factory-installed jumper is required between pins 1 and 2 of the J1 connector (next to the programmer connector).
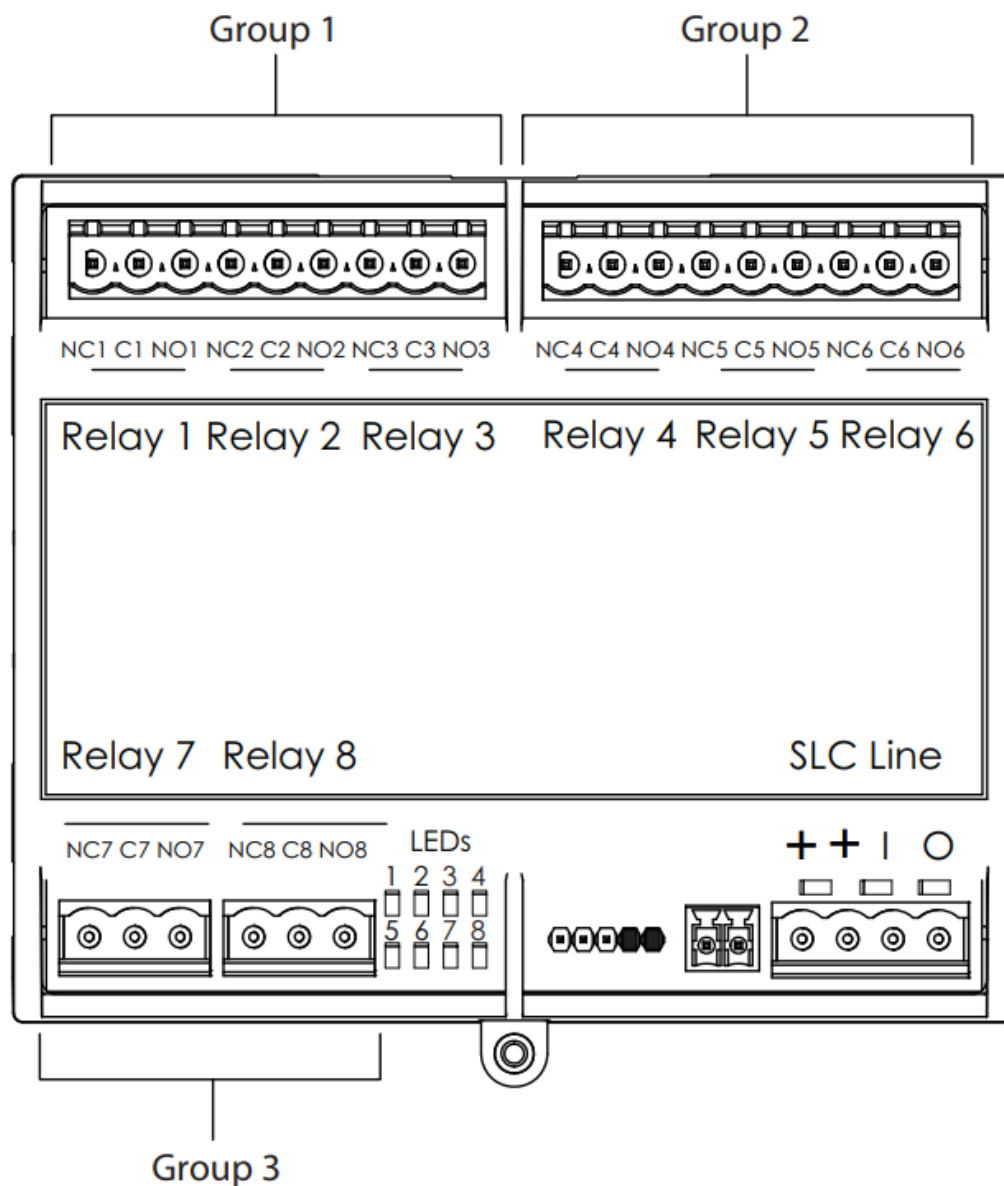All connections to field wiring are done with plug-in terminal blocks.

**Use the information in this document to determine the total current draw of the devices. In all cases, the installer should consider the voltage drop to ensure that the last device on the circuit operates within its rated voltage. Please consult the FACP documentation for more information.**

### POWER LIMITED WIRING

Group all power limited wiring together. Connect either power limited wiring or non-power limited wiring to each of the groups shown in figure 5. Do not mix power limited wiring and non-power limited wiring within the same group.

# FIGURE 5: POWER LIMITED WIRING

Do not mix power limited wiring and non-power limited wiring within the same group.

Group 1        Group 2

NC1 C1 NO1 NC2 C2 NO2 NC3 C3 NO3    NC4 C4 NO4 NC5 C5 NO5 NC6 C6 NO6

Relay 1   Relay 2   Relay 3     Relay 4   Relay 5   Relay 6

Relay 7   Relay 8               SLC Line

NC7 C7 NO7   NC8 C8 NO8   LEDs            + + I O

1 2 3 4
5 6 7 8

Group 3

**MGC**™

**Documents / Resources**

**Mircom MIX-4045-M Multi-Relay Module** [pdf] Instruction Manual
FX-400, FX-401, FleX-NetTM FX4000, MIX-4045-M, MIX-4045-M Multi-Relay Module, Multi-Relay Module, Relay Module, Module

# References

-  **Mircom - Smart Buildings. Smarter Solutions.**