

Installation Instructions

MODEL LIM-1

Loop Isolator Module

OPERATION

The **SIEMENS** Model LIM-1 Loop Isolator module isolates short circuits on MXL analog loops. By placing devices between LIM-1s during installation, a short in the wiring within that group is disconnected from the rest of the loop. The remainder of the devices continue to operate. The LIM-1 operates in both Class A and Class B circuits.

A yellow LED flashes when a device detects a short circuit. The LIM-1 then isolates that part of the loop. When the short is removed, the LIM-1 automatically restores the loop to normal operation. The LIM-1 does not have a loop address and therefore does not require address programming nor does it reduce the loop capacity below 60 devices.

INSTALLATION

Remove all system power before installation, first the battery and then the AC.

Refer to Figure 1 for the location and number of the screw terminals on the LIM-1. The LIM-1 has two input terminals and two output terminals as listed below:

<u>Terminal Number</u>	<u>Description</u>
1	Loop + IN
2	Loop - IN
3	Loop + OUT
4	Loop - OUT

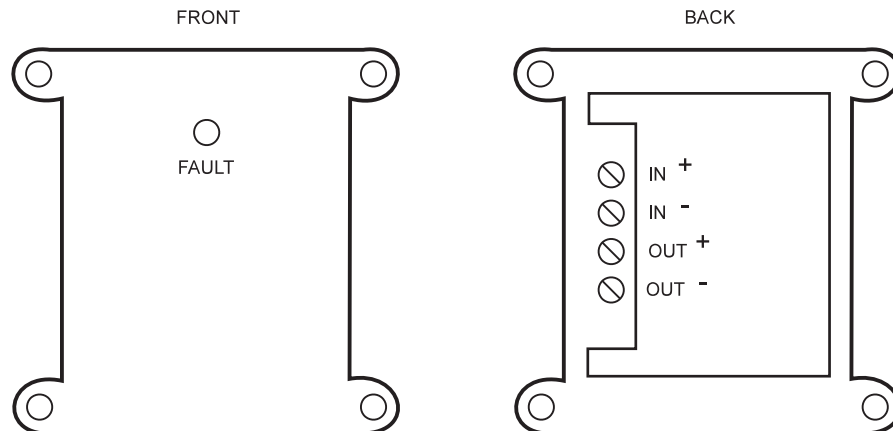


Figure 1
Model LIM-1

The LIM-1 may be used in two circuit configurations.

Class B (See Figure 2)

In Class B wiring each LIM-1 isolates a branch on the circuit. Note that a short on the main branch causes the entire loop to fail. To prevent this, mount the LIM-1s at the MXL enclosure and run each branch independently.

NOTES for Figure 2:

1. All wiring must comply with national and local codes.
2. In order to provide adequate protection, it is recommended that you do not install more than 20 devices on a single LIM-1.
3. Minimum wire gauge is 18 AWG.
4. The total wire resistance (both wires) between LIM-1s cannot exceed 20 ohms.
5. Do not install more than 12 LIM-1s per ALD loop.
6. All circuits are supervised.
7. Refer to the **MXL/MXLV Manual**, P/N 315-092036, for the list of compatible devices.
8. All terminals are power limited.

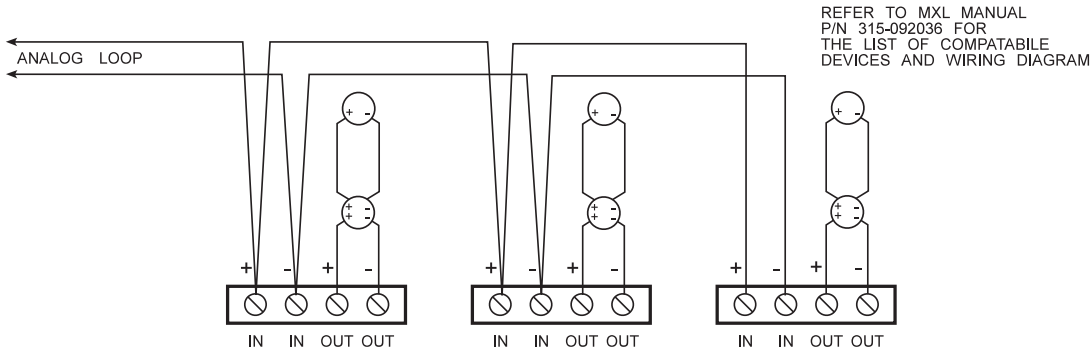


Figure 2
LIM-1 Wiring Diagram
Class B Installation

Class A Single Loop (See Figure 3)

In Class A wiring the LIM-1s are wired in series with the loop wiring. This results in a single continuous loop. If any group in the loop has a short, that group is lost and a Class A circuit failure results. The MXL displays communication errors for the devices and a Class A failure for the loop itself.

NOTES for Figure 3:

1. All wiring must comply with national and local codes.
2. In order to provide adequate protection, it is recommended that you do not install more than 20 devices on a single LIM-1.
3. Minimum wire gauge is 18 AWG.
4. The total wire resistance (both wires) between LIM-1s cannot exceed 20 ohms.
5. Do not install more than 12 LIM-1s per ALD loop.
6. All circuits are supervised.
7. Refer to the **MXL/MXLV Manual**, P/N 315-092036, for the list of compatible devices.
8. All terminals are power limited.

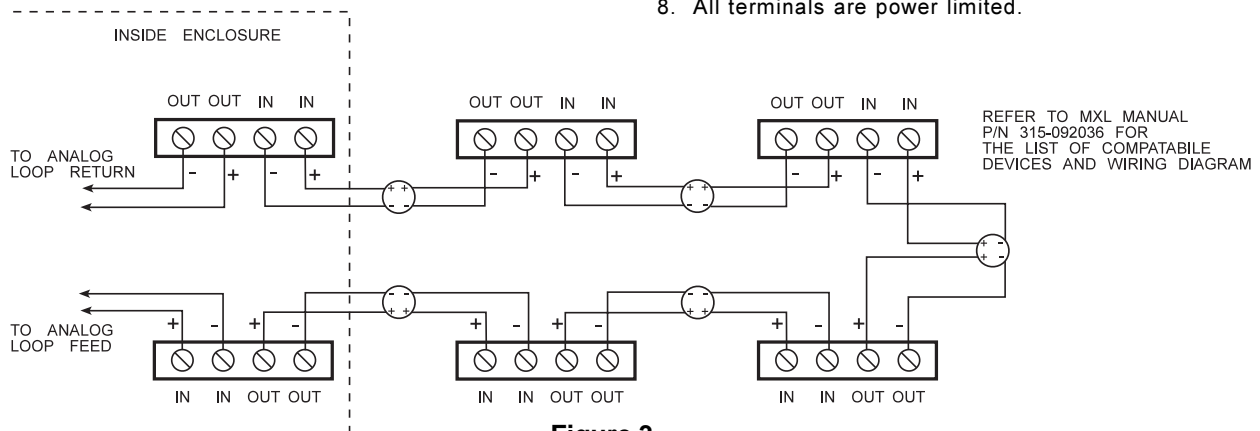


Figure 3
LIM-1 Wiring Diagram
Class A Installation (Single Loop)

MECHANICAL INSTALLATION (See Figure 4)

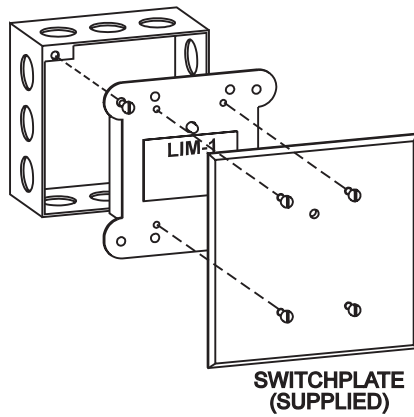
1. Use a standard 3 1/2-inch deep, double gang electrical switchbox or a 4-inch square electrical box that is 2 1/8 inches deep.
2. Connect the field wiring. Press the LIM-1 into the box and fasten the module plate to the box.
3. Cover the module front plate with the plate supplied and fasten with screws supplied.

Electrical Ratings

Input power:

24 VDC, 500uA max

4-INCH SQUARE BOX
2 1/8-INCHES DEEP



DOUBLE GANG BOX
3 1/2-INCHES DEEP

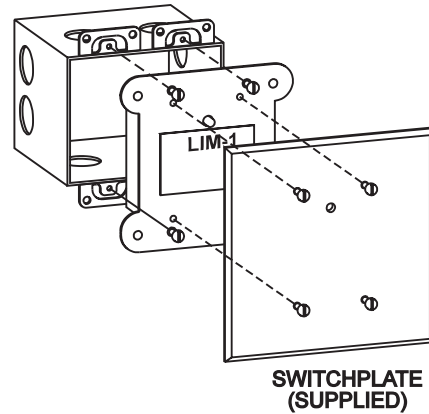


Figure 4
Mounting

Siemens Building Technologies, Inc.
8 Fernwood Road
Florham Park, New Jersey 07932

Siemens Building Technologies, Ltd.
2 Kenview Boulevard
Brampton, Ontario L6T 5E4 CN

P/N 315-092135-7