SIEMENS

Installation Instructions
Model PIM-1
Peripheral Interface Module

INTRODUCTION

The Model PIM-1 module from Siemens Industry, Inc., is an interface for an MXL/MXLV/MXL-IQ System to remote peripheral devices such as printers, VDTs, and CRTs. It connects an RS-232C device or CRT to an MXL/MXLV/MXL-IQ System without the peripheral devices protective ground causing a ground fault. The interface operates at up to 9600 baud without losing any characters.

Mounting the PIM-1 in the MME-3 in the upper right-hand corner provides an isolated RS-232C port for an RS-232C printer when used with an MXL/MXLV System. The PIM-1 bidirectional interface supports a supervised or nonsupervised printer, a CRT, or a VDT. **Do not use a non-supervised printer for an NFPA 72 Proprietary or UL 1076 system.** For NFPA 72 Local, any EDP UL listed equipment may be used.

The PIM-1 has one factory installed jumper. See Figure 1 for the location of this jumper. Set it according to the instructions below before install-ing the PIM-1 on the MME-3.

JUMPER G1

This jumper disconnects the output of the remote printer from PIM-1.
   For supervised printers: Leave jumper G1 in place.
   For non-supervised printers: Cut G1 to stop any input to the PIM-1.

TB1, TERMINAL 1
(Refer to the table on Figure 1)

If the printer output is not regulated by using a *printer busy* signal, the PIM-1 may overwrite the printer buffer. If the busy signal is not used, the printer data is transmitted without any delay. However, if the printer cannot keep up with the data being sent, material may be lost.
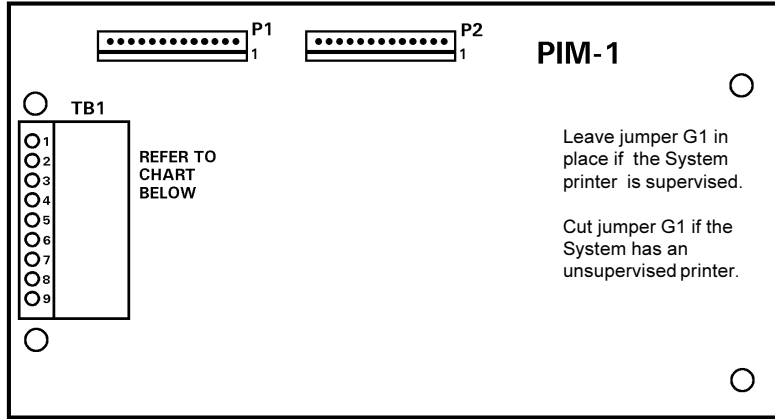
To use the busy signal, select the appropriate PIM-1 printer busy signal from the terminals described in the table in Figure 1.

INSTALLATION

1. Install the PIM-1 in the upper right-hand corner of the MME-3 backbox. Position the PIM-1 so that TB1 is on the left side of the board.
2. Mount the PIM-1 module with the hardware provided.
3. Make the necessary cable connections for the PIM-1 according to the System configurations described below.

For an MXL System without the Voice option: (See Figure 2)
   a. ***With an MKB-2:*** Use the cable (P/N 555-192242) supplied with the PIM-1 to connect P2 on the PIM-1 to P8 on the MMB-1/-2.
   b. Use the cable supplied with the MKB-2 to connect P1 of the PIM-1 to P1 of the ANN-1.
   c. ***With an MKB-1:*** Use the cable (P/N 555-191323) supplied with the PIM-1 to connect the PIM-1 to the MMB-1/-2 on the MKB-1.

P1 **P2**
1 1

PIM-1

TB1

1
2
3
4
5
6
7
8
9

**REFER TO
CHART
BELOW**

Leave jumper G1 in
place if the System
printer is supervised.

Cut jumper G1 if the
System has an
unsupervised printer.

TB1 CONNECTIONS

CAUTION: This table refers to whether or not the **wiring connections** are supervised. The table does not refer to the type of printer used in the System.

DATA
DIRECTION

1	NOT SUPERVISED	SHIELD:	CONNECT TO CABLE SHIELD	
2	NOT SUPERVISED	COMMON:	CONNECT TO PRINTER, PIN 7 (DB-25 CONNECTOR)	
3	SUPERVISED	BUSY:	CONNECT TO PRINTER, PIN 11 OR 20 (DB-25) SEE NOTE 2	
4	SUPERVISED	RECEIVE:	CONNECT TO PRINTER, PIN 2 (DB-25 CONNECTOR)	
5	SUPERVISED	TRANSMIT:	CONNECT TO PRINTER, PIN 3 (DB-25 CONNECTOR)	POWER LIMITED
6	DO NOT USE	RESERVED FOR FUTURE USE		
7	NOT SUPERVISED	CONNECT TO PRINTER, PINS 4 AND 5 (DB-25 CONNECTOR)		
8	NOT SUPERVISED	CONNECT TO PRINTER, PINS 6 AND 8 (DB-25 CONNECTOR), SEE NOTE 1		
9	NOT SUPERVISED	CONNECT TO PRINTER, PIN 20 (DB-25 CONNECTOR), SEE NOTE 1		

NOTES:
1. Terminals TB1-8 and 9 are connected together on the PIM-1.
2. The busy signal from the printer prevents the loss of characters if the printer falls behind. Refer to the printer manual for the proper pin [usually 11 (TB1-3) or 20 (TB1-9)].

**Figure 1
PIM-1 PC Board Connections**

For an MXLV System with the Voice option: (See Figure 3)

a. Use the cable (P/N 555-192242) supplied with the PIM to connect P2 on the PIM with P8 on the MMB-1/-2.
b. Use the cable supplied with the MKB-2 to connect P1 on the PIM-1 to P5 on the ACM-1. (P4 on the ACM-1 then connects to P1 on the ANN-1 in this configuration.)

For an MXL-IQ System: (See Figure 4)

a. Install the PIM-1 on the back of the MKB-4 panel as shown in Figure 4. Position the PIM-1 so that TB1 is on the left side of the board.
b. Mount the PIM-1 module on the raised studs with the hardware provided.
c. Using the cable supplied with the PIM-1, connect PIM-1, P1 to ANN-1, P1.
d. Using the cable supplied with the MKB-4, connect PIM-1, P2 to SMB-1/-2, P8.

Installing the PIM-1 in other Enclosures:
The PIM-1 can also be installed in the RCC-1/-1F box or the MSE-2 enclosure. For information on those configurations, refer to the *RCC-1/-1F Installation Instructions* (P/N 315-095364) or to the *MSE-2 Installation Instructions* (P/N 315-092403), as appropriate.

COMMUNICATION PARAMETERS

Set the communication parameters for the connected devices so that they agree with those specified by CSG-M. See the *CSG-M Manual* (P/N 315-090381) for information on setting the parameters. UL requires that the printer be in the same room as the MXL/MXLV Control Panel.

TI82OKSR (RC119/RC319) Supervised Printer Setup
The TI82OKSR (RC119/RC319) must have the following codes selected:

  14
  25-28   Baud rate to agree with CSG-M
  38
  81

ELECTRICAL RATINGS

Active 5VDC Module Current	50mA
Active 24VDC Module Current	0mA
Standby 24VDC Module Current	15mA

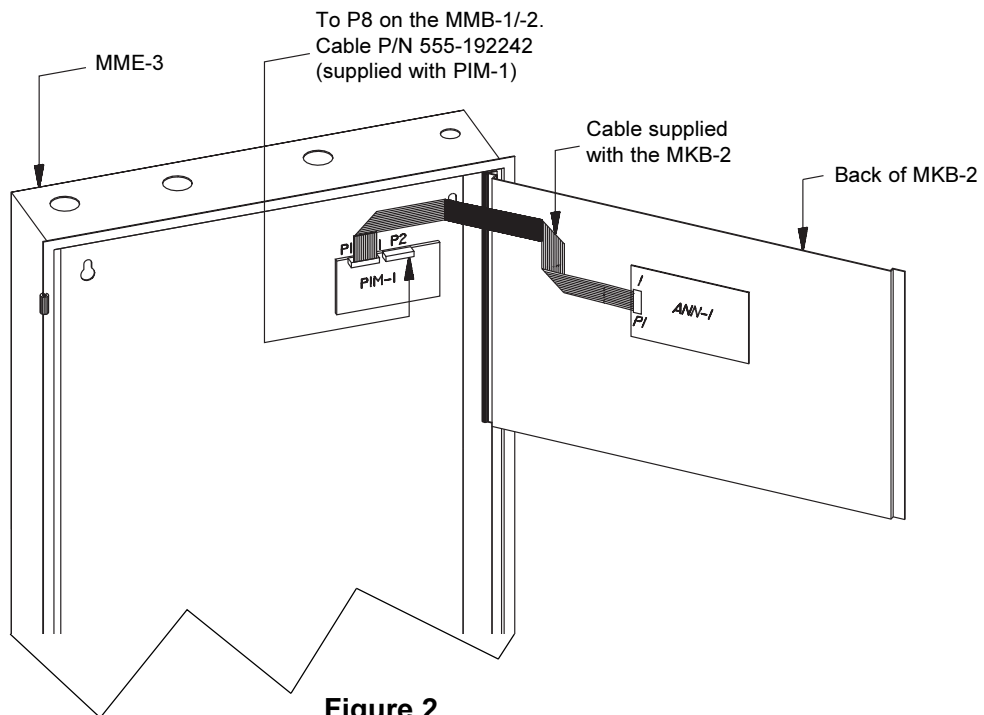**Electrical Ratings for the RS-232C Interface**
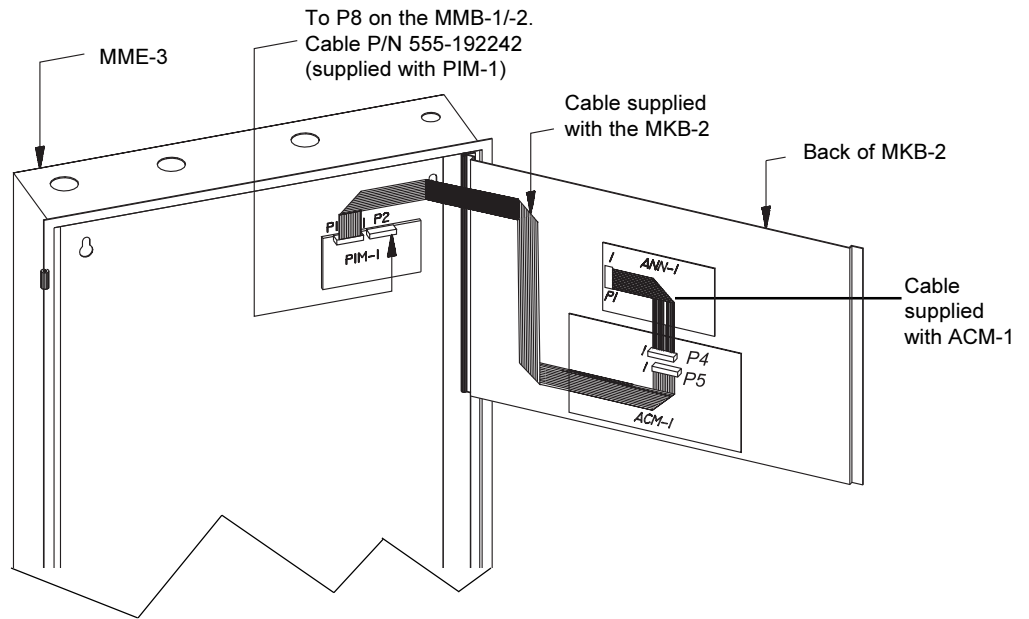 V_{MAX}: ±12 VDC I_{MAX}: ±5mA

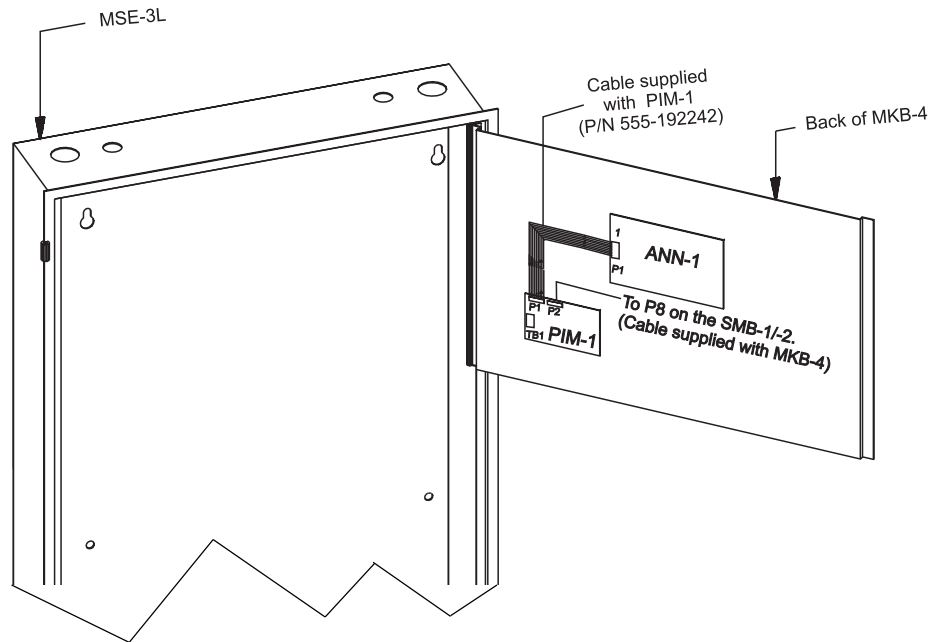**Maximum Cable Length:** 25 feet (2 ohms max per circuit)

Refer to Figure 1 to complete the necessary wiring.

Figure 2
MXL System Without Voice

3

MME-3

To P8 on the MMB-1/-2.
Cable P/N 555-192242
(supplied with PIM-1)

Cable supplied
with the MKB-2

Back of MKB-2

P1 P2

PIM-1

ANN-1

P1

Cable
supplied
with ACM-1

P4
P5

ACM-1

Figure 3
MXLV System With Voice Option

MSE-3L

Cable supplied
with PIM-1
(P/N 555-192242)

Back of MKB-4

1

ANN-1

P1

P1 P2

To P8 on the SMB-1/-2.
(Cable supplied with MKB-4)

TB1 PIM-1

Figure 4
MXL-IQ System