SIEMENS

Installation Instructions
Model SIM-16

Supervised Input Module

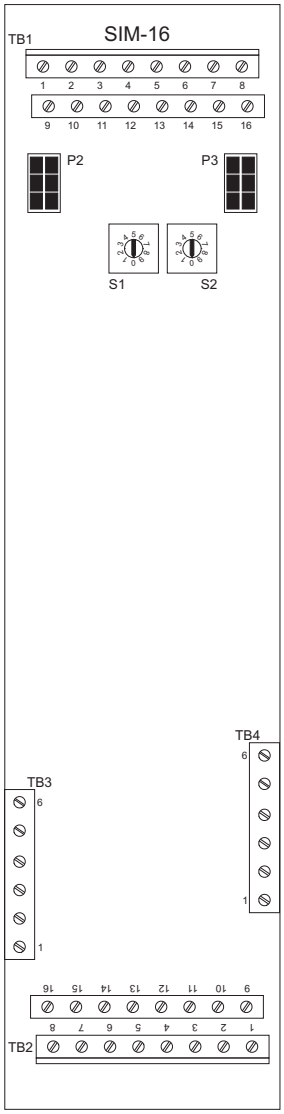

Figure 1
SIM-16 Supervised Input Module

INTRODUCTION

The Model SIM-16 Supervised Input Module from Siemens Industry, Inc., is a remotely located, general purpose input module. It provides sixteen input circuits for remote system monitoring. Each input can be individually programmed as supervised (dry contacts only) or unsupervised (general-purpose input). The SIM-16 has two Form C relays. The relays and the inputs are programmable using the Zeus Programming Tool.

OPERATION

The SIM-16 is mounted in an enclosure that is remotely located from the Main Panel. Communication between the SIM-16 and the NIC-C (Network Interface Card) is through the Control Area Network (CAN) bus. Up to 99 SIM-16s can be used with a single NIC-C.

Each SIM-16 has two 10-position rotary switches that are used to set the board address on the CAN which is a sub-address of the NIC-C.

Every time a change of state of the input is detected, a unique CAN message is sent to the NIC-C. A CAN message from the NIC-C directed to the SIM-16 controls the Form C relays.

PRE-INSTALLATION

Rotary Address Switches - Set the board address for each SIM-16 using both of the ten-position rotary switches located on the board (See Figure 1). Each of these addresses must be a sub-address of the NIC-C and must be the same as the addresses assigned in the Zeus Programming Tool.

INSTALLATION

A SIM-16 may be installed in a REMBOX. When using REMBOX 2 or 4, mount the SIM-16 in one module space on a REMBOX2-MP, P/N 500-634211 or REMBOX4-MP, P/N 500-634212 using the four screws provided. (Refer to REMBOX2-MP/REMBOX4-MP Installation Instructions, P/N 315-034211.) Up to 4 SIM-16s will fit in a REMBOX2; up to 8 SIM-16s will fit in a REMBOX4.

P/N 315-034060-6

Siemens Industry, Inc.
Building Technologies Division

WIRING

WARNING

Refer to Figures 2-6.

Remove all system power before installation, first battery then AC. (To power up, connect the AC first, then the battery.)

- Each SIM-16 module is a node in the CAN bus.
- The SIM-16 can be installed with or without an RNI. Connect the CAN bus and 24V as shown in Figures 2 and 3.
- Up to 99 CAN modules, in any combination, can be connected to the CAN bus of each NIC-C.
- Each SIM-16 module is shipped with one CCS cable.
- Cable connections for SIM-16 modules are shown in the following table:

SIM-16 CABLE CONNECTIONS

Cable	Description	Part Number	Connection
CCL	CAN-CABLE-Long 30 in., 6-conductor	599-634214	Connects P4 on RNI to first SIM-16. Also connects from SIM-16 to FCM/ LCM/SCM/CSB modules (on door).
CCS	CAN-CABLE-Short 5½ in., 6-conductor	555-133539	Connects SIM-16 modules to SIM-16 or OCM-16 modules in a single row

NOTE

The CAN bus requires a 120Ω termination at each end of the loop. Refer to the NIC-C Installation Instructions, P/N 315-033240 for details about CAN termination.

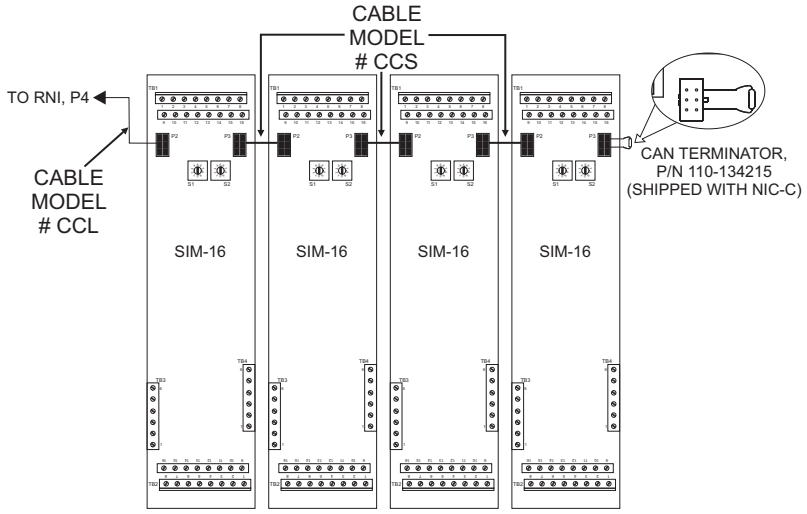

Figure 2
SIM-16 CAN Bus Connections With An RNI

NOTES
1. All wiring supervised.
2. All wiring power limited to NFPA 70 per NEC 760.
3. Wiring for TB1 and TB2 is 18 AWG min., 12 AWG max.
4. Wiring for TB3 and TB4 is 18AWG min., 16 AWG max.
5. CAN network max. line resistance 15Ω.
6. Refer to the NIC-C Installation Instructions, P/N 315-033240 for CAN network termination instructions.

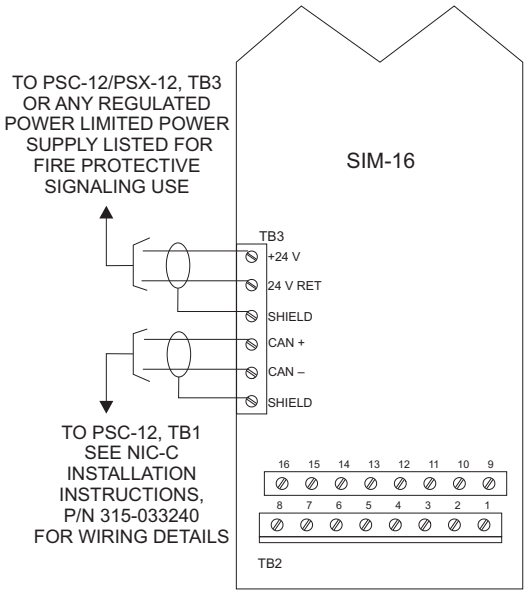

Figure 3
SIM-16 Wiring Without An RNI

NOTES
1. Contacts are unsupervised.
2. 1A max @ 24VDC resistive.
3. All wiring must remain inside the enclosure or within 20 feet in rigid conduit.
4. Wiring for TB1 and TB2 is 18 AWG min., 12 AWG max.
5. Wiring for TB3 and TB4 is 18AWG min., 16 AWG max.

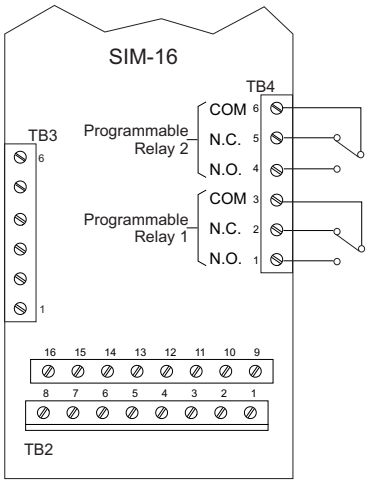

Figure 4
SIM-16 Relay Connections

ELECTRICAL RATINGS

24V Back Plane Current	0
Screw Terminal 24V Current	20mA +1.2mA / supervised input +20mA / active relay
6.2V Back Plane Current	0
24V Standby Current	20mA +1.2mA / supervised input +20mA / active relay
Output Power	
CAN Network Pair	8V peak to peak max.
	75mA max. (during msg transmission)

NOTES
1. All inputs supervised.
2. All inputs power limited to NFPA 70 per NEC 760.
3. Wiring for TB1 and TB2 is 18 AWG min., 12 AWG max.
4. Maximum distance 500 feet from SIM-16 to supervised input.
5. In the Zeus Programming Tool, select supervised for each supervised input.
6. Supervised and unsupervised inputs may be mixed on a single SIM-16.
7. Inputs #1 - 16 are programmable.

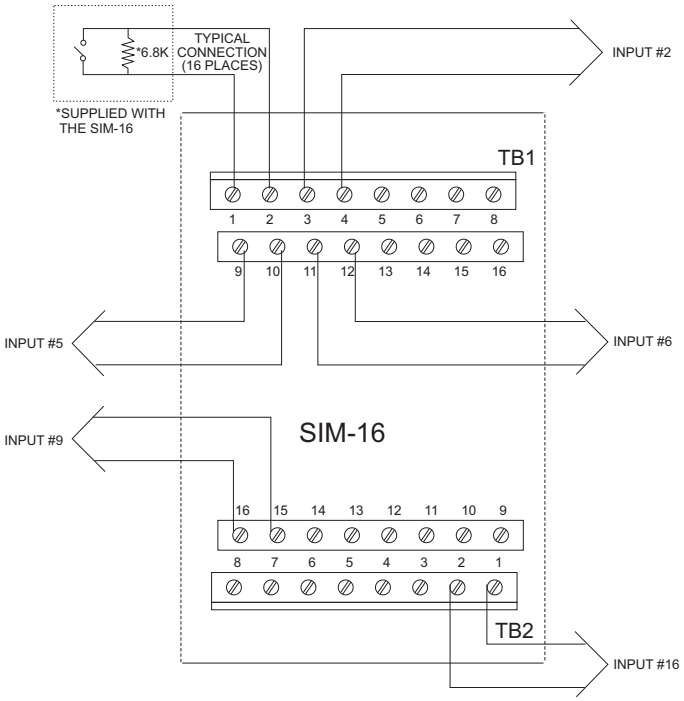

Figure 5
SIM-16 Supervised Input Wiring

NOTES
1. All inputs unsupervised.
2. All inputs power limited to NFPA 70 per NEC 760.
3. Wiring for TB1 and TB2 is 18 AWG min., 12 AWG max.
4. All inputs must remain inside the enclosure or within 20 feet in rigid conduit.
5. In the Zeus Programming Tool, select unsupervised for each unsupervised input.
6. Supervised and unsupervised inputs may be mixed on a single SIM-16.
7. Inputs #1 - 16 are programmable.

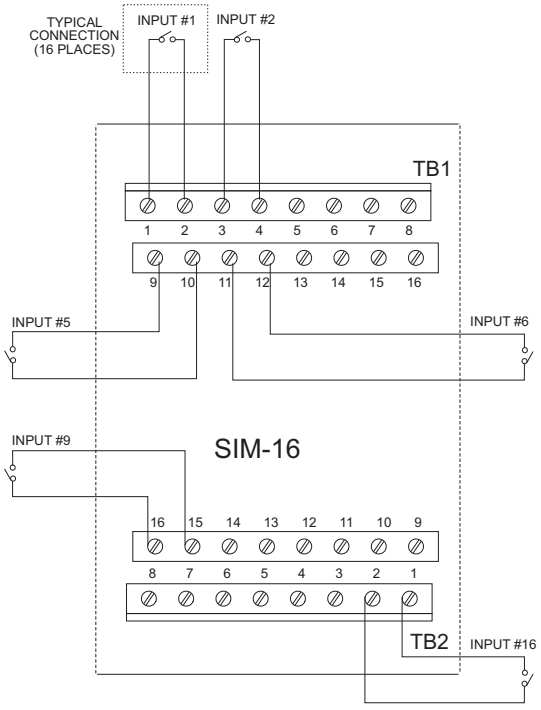

Figure 6
SIM-16 Unsupervised Input Wiring

For CE applications in Cerberus E100 systems refer to
Installation Instruction A24205-A334-B844 (English) or A24205-A334-A844 (German).

Siemens Industry, Inc.
Building Technologies Division
Florham Park, NJ

Siemens Building Technologies, Ltd.
Fire Safety & Security Products
2 Kenview Boulevard
Brampton, Ontario L6T 5E4 Canada

Siemens Gebäudesicherheit
GmbH & Co. oHG
D-80930 München

P/N 315-034060-6