SIEMENS CRC-6 Controllable Relay Module Instruction Manual

SIEMENS

Installation Instructions
Model CRC-6
Controllable Relay Module

Contents

INTRODUCTION

The Model CRC-6 Relay Module from Siemens Industry, Inc., provides auxiliary control of building functions such as door holder release, elevator capture, lock release, etc.

OPERATION

Each CRC-6 module provides six fully programmable relays. Each relay contains one set of SPDT contacts rated at 4A, 30 VDC/120 VAC resistive and 3.5A, 120 VAC (0.6 PF) inductive. All relay coils are supervised to ensure proper operation.
Individual relays can be automatically activated or deactivated through control by event and time based logic contained in the FireFinder-XLS/Desigo Fire Safety Modular/ Cerberus PRO Modular system. Each relay may

also be either manually controlled or may be disarmed through the PMI/PMI-2/PMI-3 (XLS), FCM2041-U2 (Desigo Fire Safety Modular), FCM2041-U3 (Cerberus PRO Modular). When any relay is disarmed, the LED on the CRC-6 indicates the affected relay, and the PARTIAL SYSTEM DISABLE and TROUBLE indicators on the PMI/PMI-2/PMI-3 (XLS), FCM2041-U2 (Desigo Fire Safety Modular), FCM2041-U3 (Cerberus PRO Modular) light until the relay is returned to an armed condition.

Controls and Indicators

The front panel of the CRC-6 contains one reset switch, ten LEDs, and three HNET address switches as shown in Figure 1.

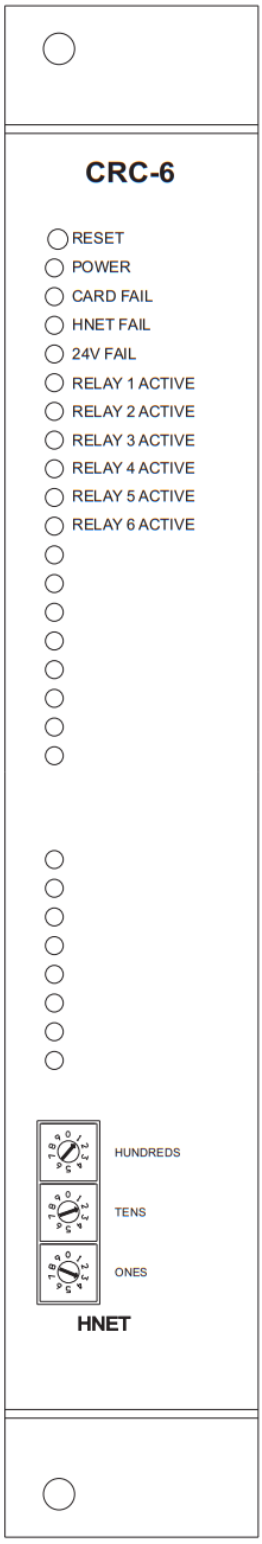
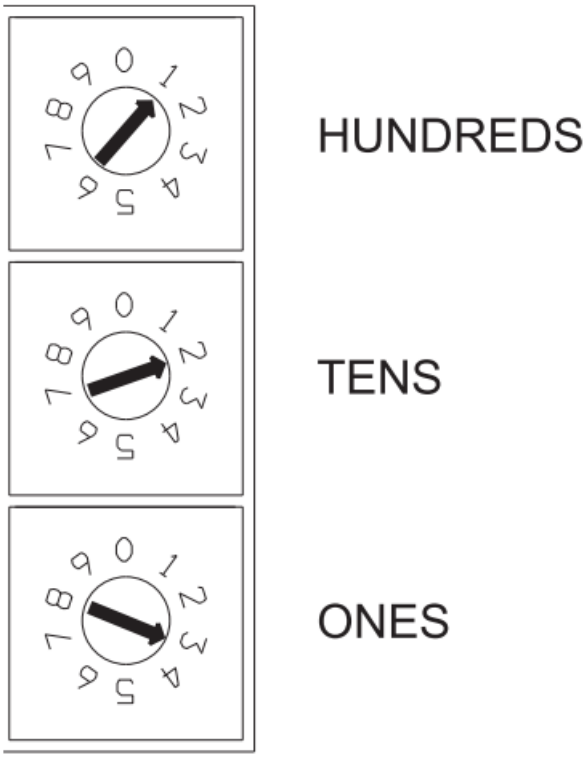


Figure 1
CRC-6 Controllable Relay Module

A reset switch is located on the top of the front panel.
Pushing the reset switch re-initializes the CRC-6 operation.
The LEDs follow the reset switch and their functions are defined as follows:

POWER	(Green)	Normally ON. When illuminated, indicates that power for the CRC-6 is applied to t he card.
CARD FAIL	(Yellow)	Normally OFF. When illuminated, indicates that the card microprocessor has failed .
HNET FAIL	(Yellow)	Normally OFF. When illuminated, indicates that the HNET communication with the CRC-6 has terminated and the cardgoes into degrade mode (applicable only whe n card resides in the HNET network).
24V FAIL	(Yellow)	Normally OFF. When illuminated, indicates that the 24V supply has dropped below 18V.
RELAY 1 ACTI VE	(Green)	Normally OFF. When illuminated, indicates that Relay 1 is active. In the event of a relay coil failure, the LED will blink.
RELAY 2 ACTI VE	(Green)	Normally OFF. When illuminated, indicates that Relay 2 is active. In the event of a relay coil failure, the LED will blink.
RELAY 3 ACTI VE	(Green)	Normally OFF. When illuminated, indicates that Relay 3 is active. In the event of a relay coil failure, the LED will blink.
RELAY 4 ACTI VE	(Green)	Normally OFF. When illuminated, indicates that Relay 4 is active. In the event of a relay coil failure, the LED will blink.
RELAY 5 ACTI VE	(Green)	Normally OFF. When illuminated, indicates that Relay 5 is active. In the event of a relay coil failure, the LED will blink.
RELAY 6 ACTI VE	(Green)	Normally OFF. When illuminated, indicates that Relay 6 is active. In the event of a relay coil failure, the LED will blink.

PRE-INSTALLATION



Set the three-digit HNET network address for the CRC-6 using the three rotary dial address switches located near the bottom of the front panel. (Refer to Figure 1 for the location of the switches.) The address for the CRC-6 must be the same as the address selected for it in the Zeus Programming Tool. To set the address, turn the pointers on each of the three dials to the numbers for the selected address. For example, if the address is 123, set the pointer for the HUNDREDS dial to “1”, set the pointer for the TENS dial to “2”, and set the pointer for the ONES dial to “3”. The range of allowable addresses is from 001 to 251 (leading zeros must be used).

WIRING

Remove all system power before installation, first battery then AC. (To power up, connect the AC first, then the battery.)
All field wiring to the CRC-6 is connected to the terminal blocks of the CC5 card cage slot in which it is installed (refer to Figure 2).
The top terminals (1 through 8 and 9 through 16) are connected to relays 1 – 4.
The bottom terminals (17 through 24) are connected to relays 5 – 6.
The screw terminals can accommodate one 12-18 AWG or two 16-18 AWG.

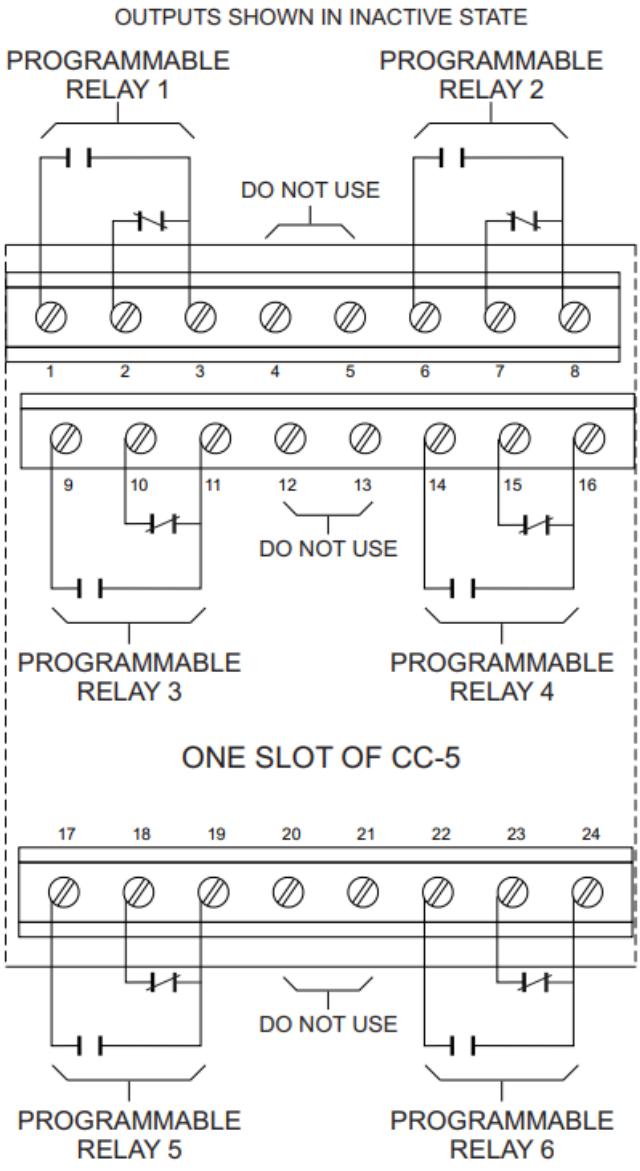


Figure 2
CRC-6 Wiring Diagram

INSTALLATION

The CRC-6 plugs perpendicularly into one slot in the CC-5 card-cage via two 96-pin DIN connectors and can occupy any slot in the card cage.
Insert the CRC-6 card into the card guides rightside up (lettering on the front panel is legible).

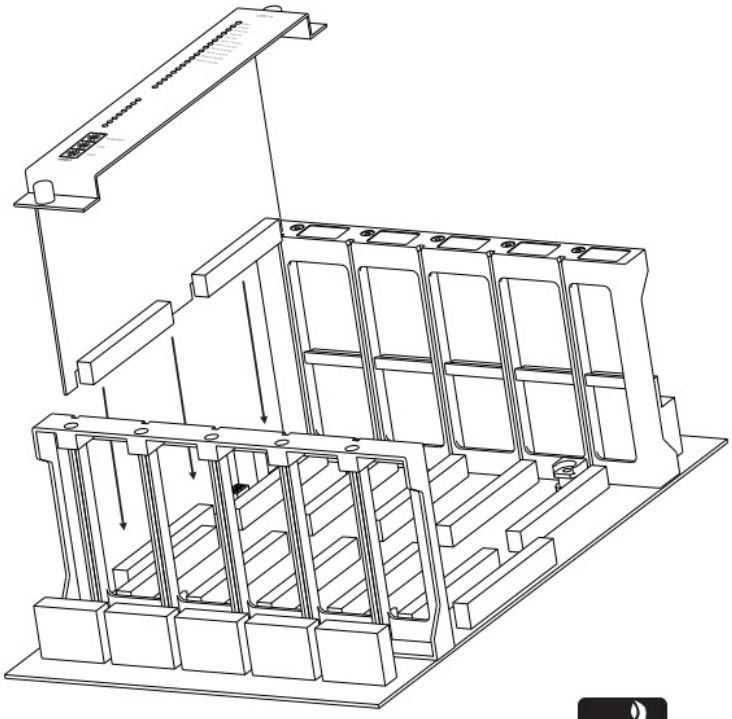


Figure 3
Installing The CRC-6

Slide the card in until the card edge connectors contact the receptacles on the motherboard. Verify that the DIN connectors of the card and the cardcage aligned properly.
The card can only plug in one direction to the card cage, if it does not align, DO NOT FORCE the card.
Place thumbs on the front panel adjacent to the captive screws and gently apply even pressure on the card until the connectors seat in the receptacles on the motherboard.
Secure with the captive screws.
Installing the CRC-6 into a slot that was previously wired for a ZIC-4A may result in a short circuit on the 24V output of the PSC-12 or PSX-12. Ensure that all ZIC-4A wiring is removed prior to installation of the CRC-6.

To Connect External Wiring
Loosen the screw of the terminal by turning it counterclockwise.
Insert the wire into the side of the terminal block
Tighten the screw of the terminal block by turning it clockwise.

ELECTRICAL RATINGS

24V Back Plane Current	10mA + 20.5mA per Active Relay
Screw Terminal 24V Current	0
6.2V Back Plane Current	120mA
24V Standby Current	51mA + 20.5mA per Active Relay
Relays	4A 30VDC.120VAC resistive 3.5A 120VAC (0.6PF)

Cyber security disclaimer

Siemens products and solutions provide security functions to ensure the secure operation of building comfort, fire safety, security management and physical security systems. The security functions on these products and solutions are important components of a comprehensive security concept.
It is, however, necessary to implement and maintain a comprehensive, state-of-the-art security concept that is customized to individual security needs. Such a security concept may result in additional site-specific preventive action to ensure that the building comfort, fire safety, security management or physical security system for your site are operated in a secure manner. These measures may include, but are not limited to, separating networks, physically protecting system components, user awareness programs, defense in depth, etc. For additional information on building technology security and our offerings, contact your Siemens sales or project department. We strongly recommend customers to follow our security advisories, which provide information on the latest security threats, patches and other mitigation measures.
http://www.siemens.com/cert/en/cert-security-advisories.htm

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Documents / Resources

	SIEMENS CRC-6 Controllable Relay Module [pdf] Instruction Manual CRC-6 Controllable Relay Module, CRC-6, Controllable Relay Module, Controllable Module, Controllable Relay, Relay Module, Relay, Module

References

- Fire Alarm Resources | Download fire alarm documents
- CERT Services | Services | Siemens Global