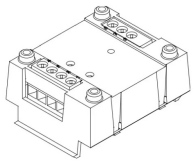

Kidde GSA-CR Control Relay Module Installation Guide

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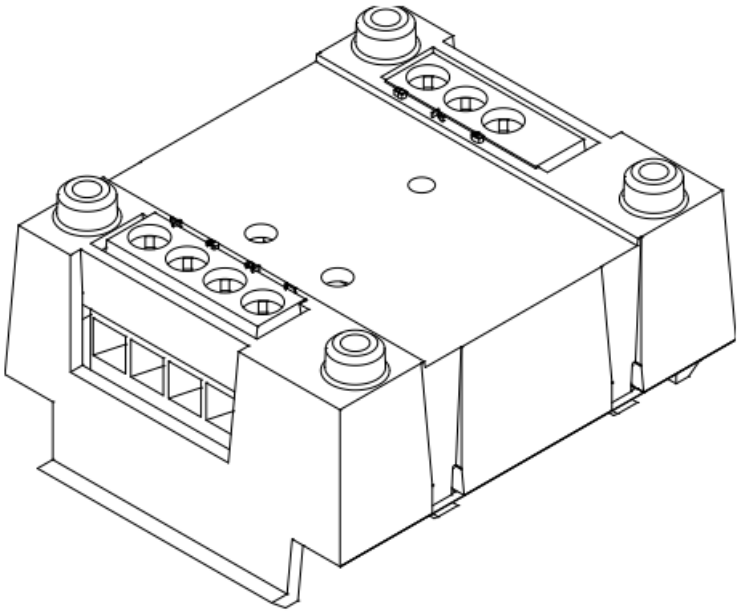
Kidde GSA-CR Control Relay Module



The GSA-CR Control Relay Module is an addressable device that provides one Form C dry contact output relay. The relay contacts transfer when the module is activated. It requires one address on the signaling line circuit (SLC), which is assigned electronically. The module features diagnostic LEDs that provide visible indication of its state through the cover plate.

Personality Code

The module requires the loop controller to download the personality code that determines how the module operates. There is one personality code available:

- Personality code 8: Signal – dry contact output. Configures the module as a dry relay contact to control external appliances (door closers, fans, dampers) or equipment shutdown.

Installation

WARNING: Connecting a device that exceeds this module's pilot duty contact ratings may cause activation failure. This module does not support capacitive loads. See Specifications on page 3 for contact ratings.

To install the module:

1. Wire in accordance with Wiring on page 2. Write the address assigned to the module on the label provided and apply it to the module. Remove the serial number label from the detector and attach it to the project documentation.
2. Mount the wall plate on the module using the provided screw. Refer to Figure 1 for mounting details.
3. Mount the wall plate (with the module attached) on one of the compatible electrical boxes listed in Specifications on page 3.

Wiring

Wire in accordance with applicable requirements of the latest editions of the local codes and standards and the local authority having jurisdiction. When stripping wire ends, exposing more wire may cause a ground fault or circuit malfunction on unsupervised wiring; exposing less wire may result in a faulty connection.

To wire the module:

1. Verify that all field wiring is free of opens, shorts, and ground faults.
2. Make all wiring connections as shown in Figure 2.

Here is the wiring diagram:

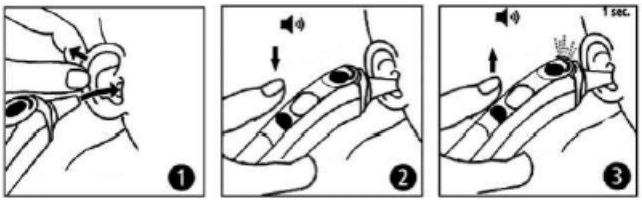


Figure 2

Description

- The GSA-CR Control Relay Module is an addressable device that provides one Form C dry contact output relay. The relay contacts transfer when the module is activated.
- The module requires one address on the signaling line circuit (SLC). Addresses are assigned electronically. There are no address switches.
- Diagnostic LEDs provide visible indication of the state of the module through the cover plate:
  - Normal: Green LED flashes
  - Alarm/active: Red LED flashes

Personality code

The module requires the loop controller to download the personality code that determines how the module operates. Personality codes determine the operation of the circuit. Use the personality codes described below to configure the GSA-CR.
Personality code 8: Signal – dry contact output. Configures the module as a dry relay contact to control external appliances (door closers, fans, dampers) or equipment shutdown.

Installation

WARNING: Connecting a device that exceeds this module's pilot duty contact ratings may cause activation failure. This module does not support capacitive loads. See "Specifications" on page 3 for contact ratings.

Notes

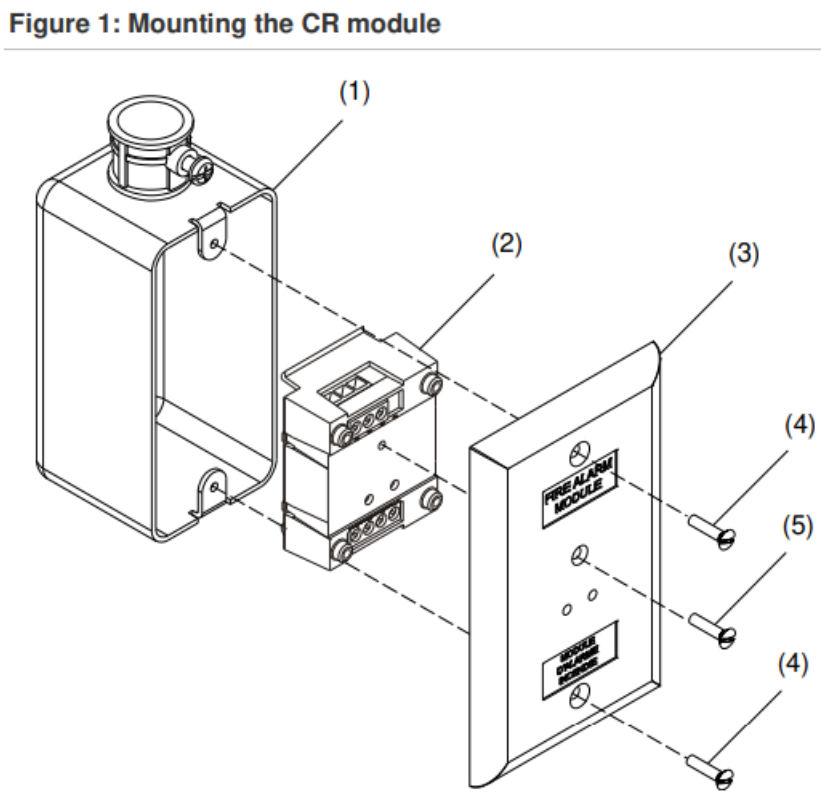
- The module is shipped from the factory as an assembled unit; it contains no user-serviceable parts and should not be disassembled.
- This module does not operate without electrical power. As fires frequently cause power interruption, discuss further safeguards with the local fire protection specialist.
- Install the module within the same room as the device it is controlling.

Install in accordance with all applicable local codes and standards and the local authority having jurisdiction.

To install the module:

1. Wire in accordance with “Wiring” on page 2.
2. Write the address assigned to the module on the label provided, and then apply the label to the module. Remove the serial number label from the detector, and then attach it to the project documentation.
3. Using the screw provided, mount the wall plate on the module. See Figure 1 for mounting details.
4. Using the screws provided, mount the wall plate (with the module attached) on one of the compatible electrical boxes listed in “Specifications” on page 3

Figure 1: Mounting the CR module



1. Compatible electrical box
2. Module
3. Wall plate, white (single-gang)
4. #6-32 × 5/8 machine screw
5. #4 × 1/2 self-tapping screw

Wiring

Wire in accordance with applicable requirements of the latest editions of the local codes and standards and the local authority having jurisdiction.

Note: When stripping wire ends, exposing more wire may cause a ground fault or circuit malfunction on unsupervised wiring; exposing less wire may result in a faulty connection.

Strip 1/4 in. (about 6 mm) from the ends of all wires that connect to the terminal block of the module.

Notes

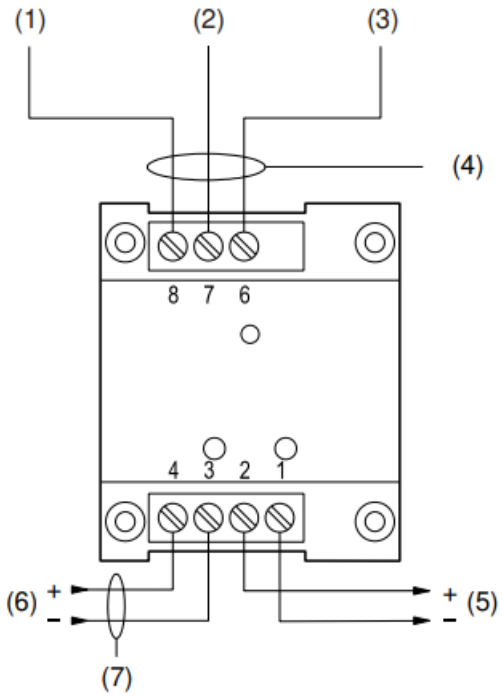
- Refer to the Signature loop controller installation sheet for SLC wiring specifications.
- Each terminal on the module is limited to a single conductor.

To wire the module:

1. Verify that all field wiring is free of opens, shorts, and ground faults.
2. Make all wiring connections as shown in Figure 2.

Figure 2: Wiring diagram

Figure 2: Wiring diagram



1. Normally open contact (NO)
2. Common contact (C)
3. Normally closed contact (NC)
4. Not supervised. Power-limited unless connected to a nonpower-limited source. If the source is nonpower-limited, eliminate the power-limited mark and maintain a minimum of 0.25 in. (6.4 mm) space from power-limited wiring. For other mounting methods, see enclosure and bracket installation sheets to maintain separation of power-limited and nonpower-limited wiring. The wire size must be capable of handling fault current from a nonpower-limited source.
   — or — Use type FPL, FPLR, FPLP, or permitted substitute cables, provided these power-limited cable conductors extending beyond the jacket are separated by a minimum of 0.25 in. (6.4 mm) space or by a nonconductive sleeve or nonconductive barrier from all other conductors. Refer to the NFPA 70 National Electric Code for more details.
5. Signaling line circuit (SLC) to next device
6. Signaling line circuit (SLC) from previous device
7. Power-limited and supervised

Specifications

Operating voltage	15.20 to 19.95 VDC
Current	
Standby	85 µA
Activated	85 µA
Ground fault impedance	10 kΩ
Contact ratings (pilot duty)	24 VDC at 2 A 120 VAC at 0.5 A
Relay type	Form C, programmable, Class E
Circuit designation	
Signaling line circuits	Class A, Style 6 or Class B, Style 4
Wire size	12 to 18 AWG (0.75 to 2.5 mm²)
Compatible electrical boxes	2-1/2 in. (64 mm) deep single-gang box; Standard 4 in. square,1-1/2 in. (38 mm) deep box
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93%, noncondensing
Storage temperature range	−4 to 140°F (−20 to 60°C)

Regulatory information

North American standards
CAN/ULC-S527, UL 864

FCC compliance This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including
interference that may cause undesired operation.

Contact information

For contact information, see **www.kiddelifesafety.com**.

Documents / Resources

	**Kidde GSA-CR Control Relay Module** [pdf] Installation Guide GSA-CR, GSA-CR Control Relay Module, Control Relay Module, Relay Module, Module

References

- **Kidde Engineered Systems: Commmercial Fire Alarm Systems, Life Safety Communication Systems, Fire detection and alarms**

Manuals+,