

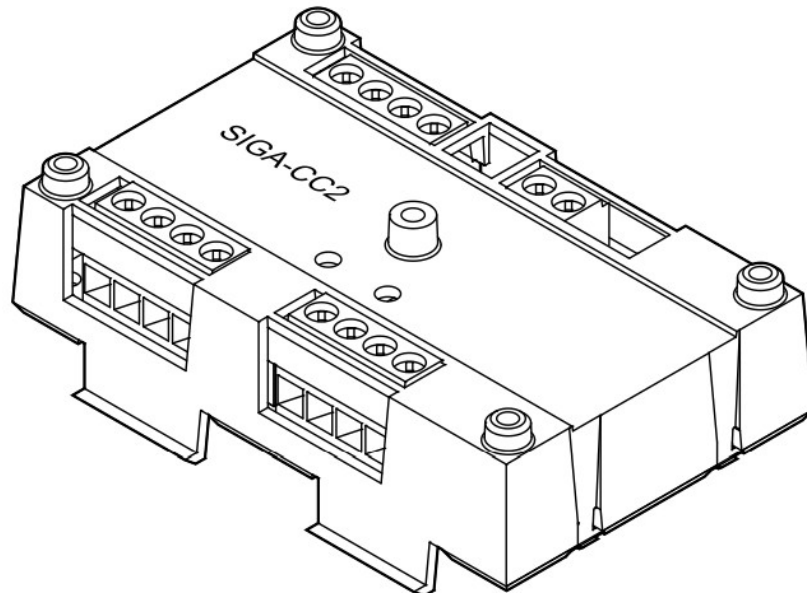


# EDWARDS SIGA-CC2 Dual Input Signal Module Installation Guide

[Home](#) » [EDWARDS](#) » EDWARDS SIGA-CC2 Dual Input Signal Module Installation Guide 



## SIGA-CC2 Dual Input Signal Module Installation Guide



### Contents

- [1 Description](#)
- [2 Personality codes](#)
- [3 Installation](#)
- [4 Specifications](#)
- [5 Documents / Resources](#)
  - [5.1 References](#)

## Description

The SIGA-CC2 Dual Input Signal Module is an addressable device that connects one of two risers to a Class B supervised output circuit.

When activated, the module connects the output circuit to the Riser 1 or Riser 2 input. The input can be either 24 VDC (to operate polarized audible and visible signal notification appliances), or 25 or 70 VRMS (to operate audio evacuation speakers). Typically, the Riser 1 input connects to the ALERT channel and the Riser 2 input connects to the EVAC channel. The module does not provide signal synchronization. To meet UL 864 requirements for horn and strobe signal synchronization, you must install a Genesis Signal Master module. This module does not provide supervision of the riser; the fire alarm panel provides this function. The SIGA-CC2 module requires two addresses 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 codes

Use the personality codes described below to configure the SIGA-CC2 module. See Table 1 for listing information.

**Table 1: Personality codes**

Code	Description	UL 864 C	CAN/ULCS527	EN 54-18
7	Riser selector – supervised output (Class B)	✓	✓	✓

**Personality code 7:** Riser selector – supervised output (Class B). Configures the SIGA-CC2 module as a one – or two – input, signal power (24 VDC) or audio evacuation (25 or 70 VRMS) riser selector. The output circuit is monitored for open or shorted wiring. If a short exists, the control panel inhibits the activation of the signal circuit, so the riser is not connected to the wiring fault.

## Installation

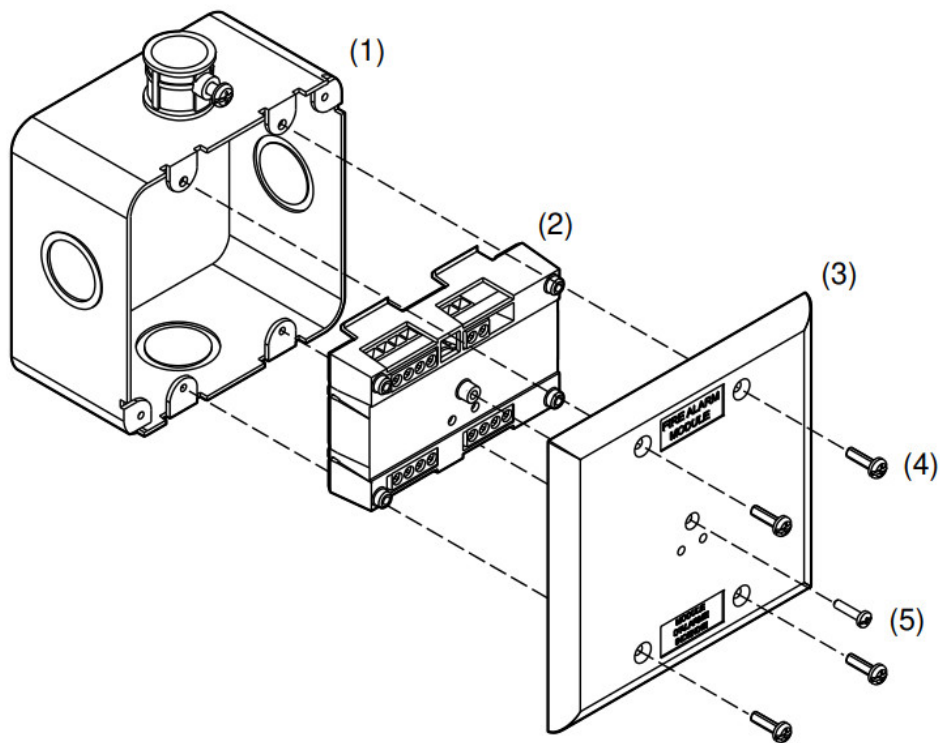
Install this device in accordance with applicable national and local codes, ordinances, and regulations.

### 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.

### To install the module:

1. 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 module, and then attach it to the project documentation.
2. Wire in accordance with “Wiring” on page 2.
3. Using the self-tapping screw provided, attach the wall plate to the module. See Figure 1.
4. Using the four machine screws, attach the wall plate and module to the electrical box.



1. Compatible electrical box
2. SIGA-CC2 module
3. Wall plate
4. #6-32 × 5/8 machine screw (4X)
5. #4 × 1/2 self-tapping screw

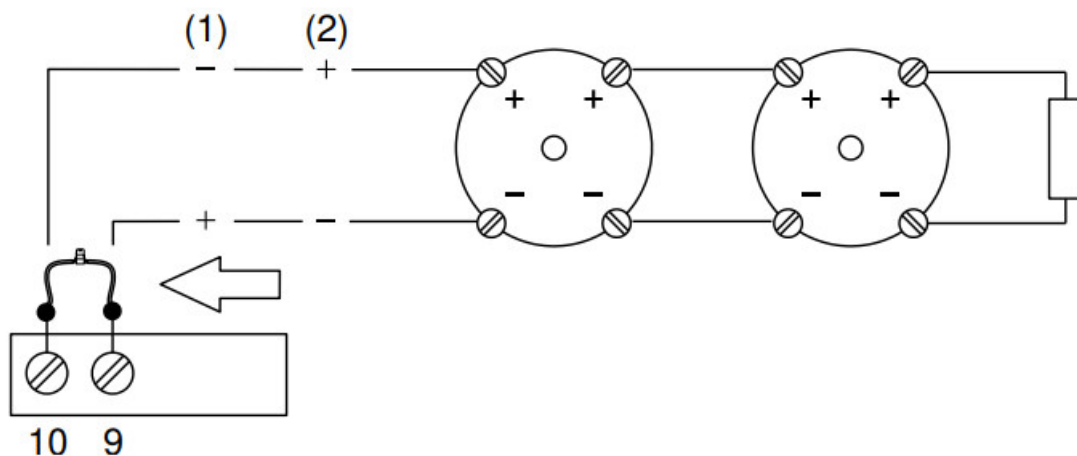
### Protection from transient spikes

For installations in which the output circuit connects to electromechanical bells or horns, install a bipolar transient protector (P/N 235196P) to protect the module from transient spikes caused by switching inductive loads. Locate bells and horns at least 6 ft. (1.8 m) from the module.

#### To install a bipolar transient protector:

1. Install the transient protector across the output circuit inside the electrical box with the module.

See Figure 2. Figure 2: Bell circuit showing bipolar transient protector placement



1. Normal state
2. Active state

## **Wiring**

Wire this device in accordance with applicable national and local codes, ordinances, and regulations.

### **General wiring notes**

- Refer to the Signature loop controller installation sheet for SLC wiring specifications.
- Each terminal on the module is limited to a single conductor.
- Test resistors are supplied with the SIGA-CC2 to prevent trouble signals on unused circuits during installation. When connecting field wires, remove the test resistors and install a UL/ULC Listed 47 k $\Omega$ EOLR at the end of the circuit.
- The module does not support conventional smoke detectors.

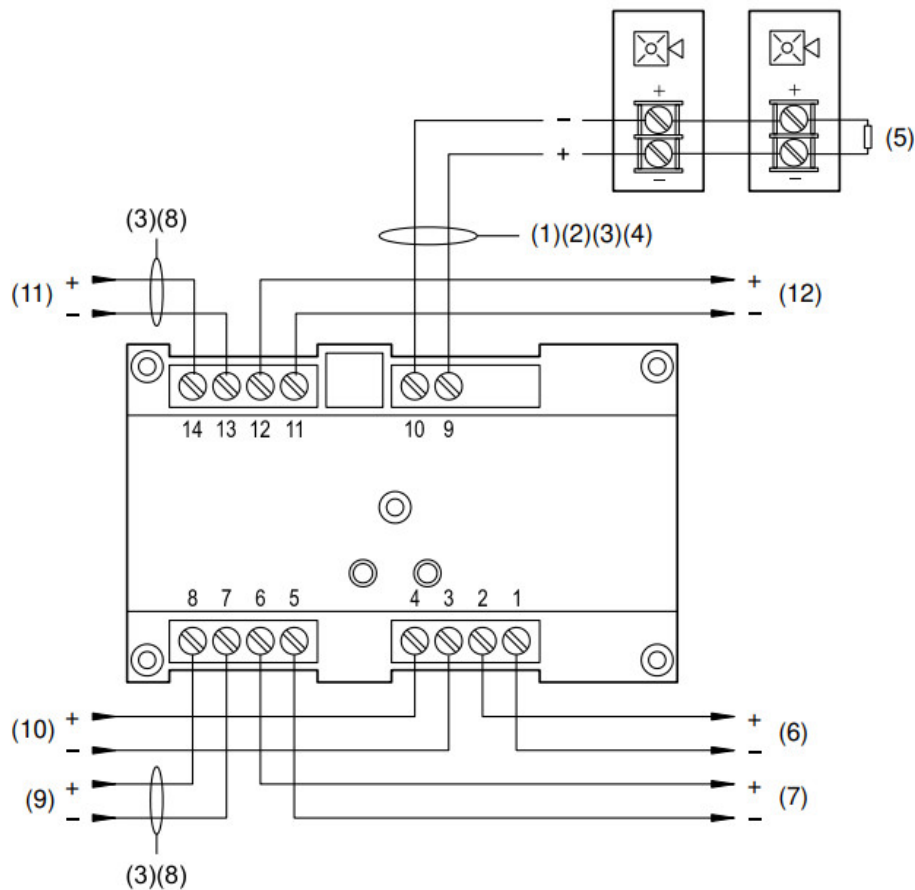
### **Riser wiring notes**

- For maximum line impedance, refer to the installation manual for the fire alarm panel. Maximum circuit capacitance is 0.1  $\mu$ F.
- If the riser is used for more than one notification zone, install in accordance with the survivability from attack by fire requirements in NFPA 72 National Fire Alarm and Signaling Code.
- The SIGA-CC2 module does not supervise the riser; the fire alarm control panel provides this function.

### **To wire the module:**

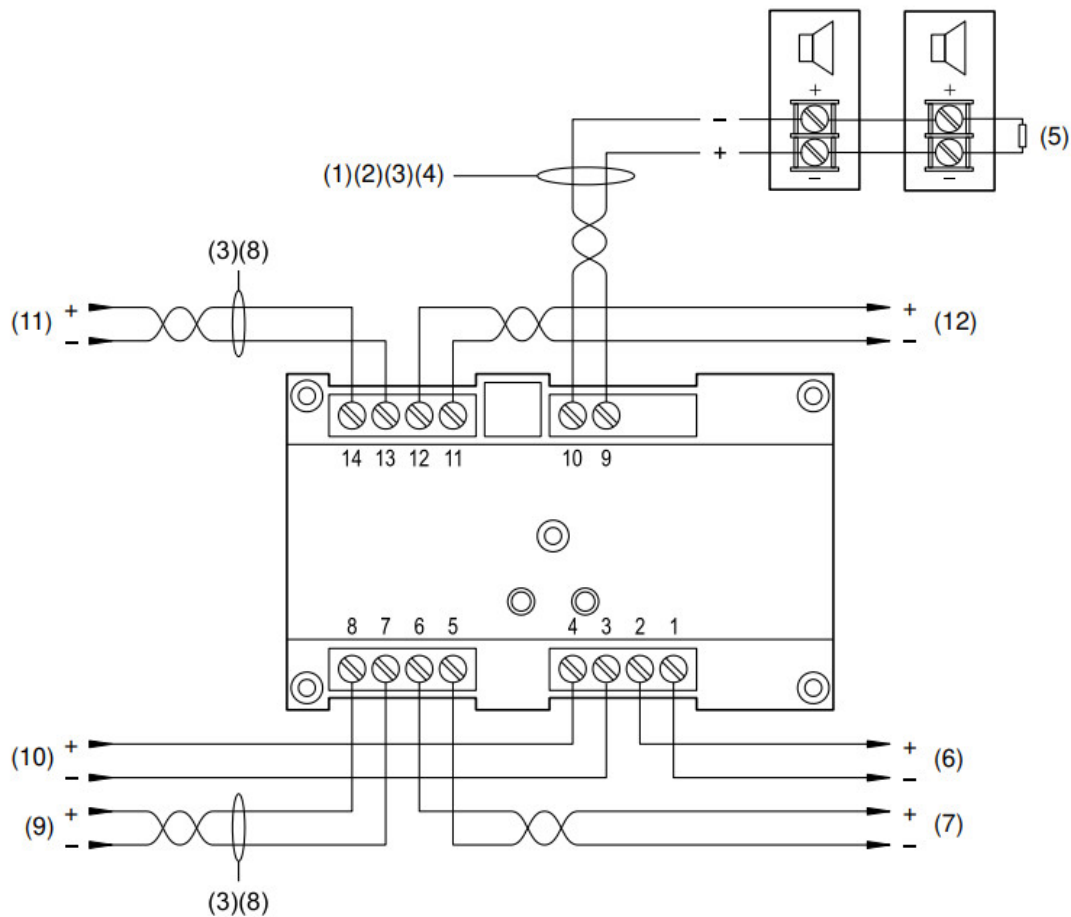
1. Verify that all field wiring is free of opens, shorts, and ground faults.
2. Strip 1/4 in. (about 6 mm) from the ends of all wires that connect to the terminal block of the module. When stripping wire ends, exposing more wire may cause a ground fault; exposing less wire may result in a faulty connection.
3. Connect the field wires. See Figure 3 and Figure 4.

### **Figure 3: Wiring diagram for NAC**



1. Signal polarity is shown when the circuit is in supervisory state. Polarity reverses when the circuit is active.
2. Supervised.
3. 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 powerlimited 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 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 Electrical Code for more details.
4. If using a G1-P Genesis series horn while connected to a compatible fire alarm control panel, a CDR-3 Bell Coder must be used to comply with NFPA 72 standard alarm evacuation signal.
5. 47 kΩ EOLR (P/N EOL-47).
6. Signaling line circuit (SLC) to next device.
7. Channel 1 (ALERT) AUX riser to next module or riser supervisory device.
8. Power-limited regulated, power supply UL/ULC Listed for fire protective signaling systems.
9. Channel 1 (ALERT) AUX riser from previous device.
10. Signaling line circuit (SLC) from previous device. Supervised and power-limited.
11. Channel 2 (EVAC) AUX riser from previous device.
12. Channel 2 (EVAC) AUX riser to next module or riser supervisory device.

**Figure 4: Wiring diagram for audio**




1. Signal polarity is shown when the circuit is in supervisory state. Polarity reverses when the circuit is active.
2. Supervised.
3. 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 powerlimited wiring. For other mounting methods, see enclosure and bracket installation sheets to maintain separation of powerlimited and nonpower-limited wiring. The wire size must be capable of handling fault current from 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 Electrical Code for more details.
4. Unshielded twisted pair.
5. 47 kΩ EOLR (P/N EOL-47).
6. Signaling line circuit (SLC) to next device.
7. Channel 1 (ALERT) audio riser to next module or supervisory end of line device.
8. Unshielded twisted pair. Use shielded twisted pair when installed in the same conduit as with a telephone riser.
9. Channel 1 (ALERT) audio riser from previous device.
10. Signaling line circuit (SLC) from previous device. Supervised and power-limited.
11. Channel 2 (EVAC) audio riser from previous device.
12. Channel 2 (EVAC) audio riser to next module or supervisory end of line device.

## Specifications

Operating voltage range	15.20 to 19.95 VDC
Current	
Standby	310 $\mu$ A
Activated	135 $\mu$ A
Maximum line impedance	Refer to the control panel installation manual
Ground fault impedance	10 k $\Omega$
Output ratings (special applications)	
24 VDC	2:00 AM
25 VRMS audio	50 W
70 VRMS audio	35 W
EOL resistor value	47 k $\Omega$ , UL/ULC Listed
Circuit resistance	Refer to the control panel installation manual
Circuit capacitance	0.1 $\mu$ F max.

UL/ULC Listed EOLR	47 k $\Omega$ (P/N EOL-47)
Circuit designation	
Signaling line circuits	Class A, Style 6 or Class B, Style 4
Notification line circuits	Class B, Style Y
LPCB/CPR electrical box	
Requirements	Plastic box with cover plate, no gaps or unused holes
Minimum size W $\times$ H $\times$ D	3.5 $\times$ 3.5 $\times$ 1.5 in. (85 $\times$ 85 $\times$ 38 mm)
Compatible electrical boxes	2-1/2 in. (64 mm) deep dual-gang box; 4 in. square box 1-1/2 in. (38 mm) deep box with a dual-gang cover


Wire size	12 to 18 AWG (1.0 to 4.0 mm <sup>2</sup> )
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)
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.
North American standards	CAN/ULC-S527, UL 864
EN 54	EN 54-18: 2005 Input/output devices
EU compliance	
CPR certificates	0832-CPR-F0329



2002/96/EC (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union.  
For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information, see: [www.recyclethis.info](http://www.recyclethis.info).

**Contact information**  
For contact information, see [www.edwardsfiresafety.com](http://www.edwardsfiresafety.com).

**Documents / Resources**

	<a href="#">EDWARDS SIGA-CC2 Dual Input Signal Module</a> [pdf] Installation Guide SIGA-CC2 Dual Input Signal Module, SIGA-CC2, Dual Input Signal Module, Input Signal Module, Signal Module
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**References**

-  [Edwards | Fire Alarm Systems, Life Safety Systems, Industrial Signaling](#)
-  [HOME](#)