

Publication

SIGA-IM Isolator Module Installation Sheet
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Instructions

This page is the *print specification* for the publication. It is not part of the artwork for the publication and must be removed before production. Do not print this page.

Work with the factory manufacturing engineer to determine the best materials and methods to produce, bind, and package the publication. The manufacturing engineer will indicate when single-language editions of a publication should be combined into one print package.

General requirements

The printed publication must meet the following requirements unless otherwise stated in the “Specific requirements” section.

Design and production

Artwork is provided as a single-language PDF file of ordered pages at 100% scale. You can photoreduce or imposition artwork page images as needed.

When designing the print package, observe the following requirements:

- Imposition must preserve the intended reading sequence of the pages given in the artwork file.
- Multiple-language packages must present English first, and the remaining languages in ascending part number order.
- After folding, the publication part number should be clearly visible without unfolding.
- No cropping of the artwork is allowed. Information in the headers and footers must be retained.
- Binding gutters established in the artwork (such as for three-ring binding) must be observed.

Color

Unless otherwise specified, all printing is in CMYK black. Spot colors and RGB colors found in the artwork should be converted to CMYK black by the print vendor.

Legibility

To ensure legibility and usability, we specify the following limits for the final print product:

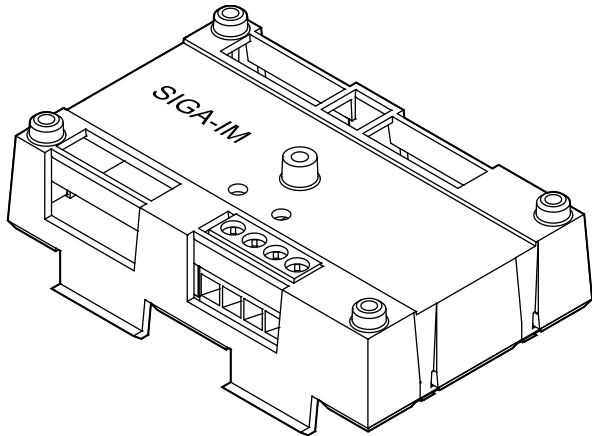
- Photoreduction of the artwork must result in a minimum effective font size of 6 pt. for body text.
- The paper stock and ink used must result in a minimum effective opacity of 85%.
- Photoreduction and printing methods must result in a minimum resolution of 300 dpi, and all illustration and callout lines must be visible and unbroken.

Specific requirements

None



SIGA-IM Isolator Module Installation Sheet



Description

The SIGA-IM Isolator Module is an addressable device that protects a signaling line circuit (SLC) from a to wire-to-wire short. The SIGA-IM module monitors line voltages and opens the data line when a short is detected, isolating the short between the two modules located electrically closest to the short.

The SIGA-IM module requires one detector address on the signaling line circuit (SLC). Addresses are assigned electronically. There are no address switches.

LED provides visible indication of the status of the module:

- Normal: Green LED flashes

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 your local fire protection specialist.

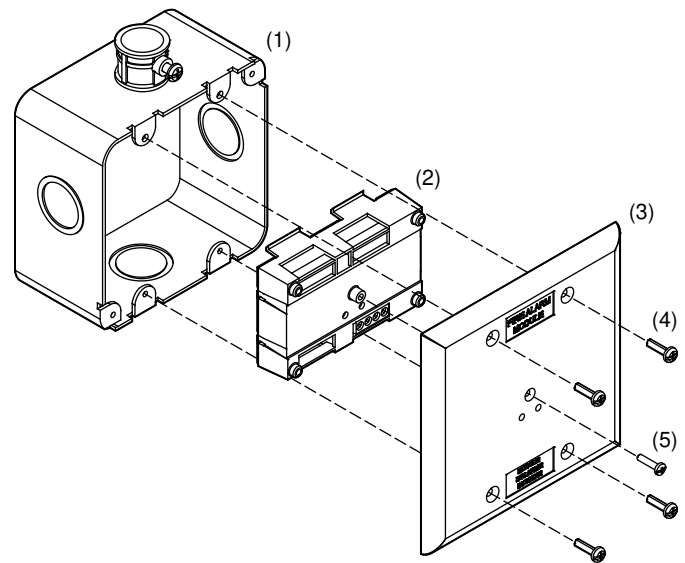
To install the module:

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 the module as shown in Figure 2 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 provided, attach the wall plate and module to the electrical box.

Figure 1: Installation diagram



- | | |
|-------------------------------|-------------------------------------|
| (1) Compatible electrical box | (4) #6-32 x 5/8 machine screws (4X) |
| (2) SIGA-IM module | (5) #4 x 1/2 self-tapping screw |
| (3) Wall plate | |

Wiring

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

Notes

- Refer to the Signature loop controller installation sheet for SLC wiring specifications for additional details.
- All wiring is power-limited and supervised.

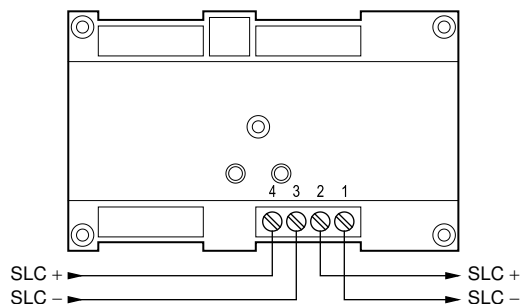
To wire the module:

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. Make all wiring connections as shown in Figure 2.

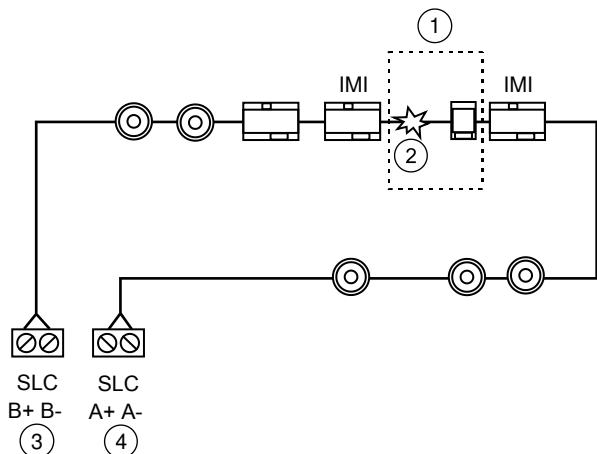
Figure 2: Wiring diagram



Application

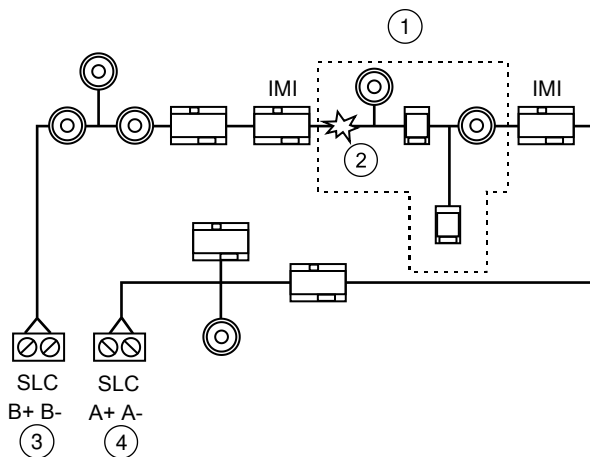
In a Class A circuit, the short is isolated between the two SIGA-IM modules located electrically closest to the short as shown in the two configurations below.

Figure 3: Class A configuration



- (1) Part effectively removed from the circuit
- (2) Short circuit
- (3) SLC out
- (4) SLC return

Figure 4: Class A configuration with T-taps



- (1) Part effectively removed from the circuit
- (2) Short circuit
- (3) SLC out
- (4) SLC return

Specifications


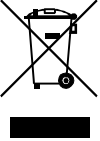
Operating voltage	15.20 to 19.95 VDC
Current	
Standby	170 μ A
Alarm	170 μ A
Circuit resistance between isolators	6 Ω max.
Ground fault impedance	10 k Ω
Circuit designation	
Signaling line circuit	Class A, Style 6 or Class B, Style 4
Wire size	12 to 18 AWG (1.0 to 4.0 mm ²)
LPCB/CPR electrical box Requirements	Plastic box with cover plate, no gaps or unused holes
Minimum W x H x D	3.5 x 3.5 x 1.5 in. (85 x 85 x 38 mm)
Compatible electrical boxes	2-1/2 in. (64 mm) deep double-gang box; 4 in. square box, 1-1/2 in. (38 mm) deep with double-gang cover
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)

Table 1: EN 54-17 ratings

Maximum line voltage (Vmax)	19.95 V
Nominal line voltage (Vnom)	19.0 V
Minimum line voltage (Vmin)	15.2 V
Maximum switch open (isolate) voltage (Vso max)	17.64 V
Minimum switch open (isolate) voltage (Vso min)	17.57 V
Maximum switch close (connect) voltage (Vsc max)	17.70 V
Minimum switch close (connect) voltage (Vsc min)	17.59 V

Maximum rated continuous current (connected) (IC max)	0.147 A to 0.149 A
Maximum rated switching current (IS max)	0.1 mA
Maximum leakage current (isolated) (IL max)	0.75 A
Maximum series impedance (connected) (ZC max)	400 mΩ

Regulatory information

Manufacturer	<p>Edwards, A Division of UTC Fire & Security Americas Corporation, Inc. 8985 Town Center Parkway, Bradenton, FL 34202, USA</p> <p>Authorized EU manufacturing representative: UTC Fire & Security B.V. Kelvinstraat 7, 6003 DH Weert, Netherlands</p>
Year of manufacture	The first two digits of the product serial number (located on the product identification label) are the year of manufacture.
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.
EN 54	EN54-17:2005 Short-circuit isolators
EU compliance	
CPR certificates	0832-CPR-F0848
	<p>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.</p>

Contact information

For contact information, see www.est-fire.com.