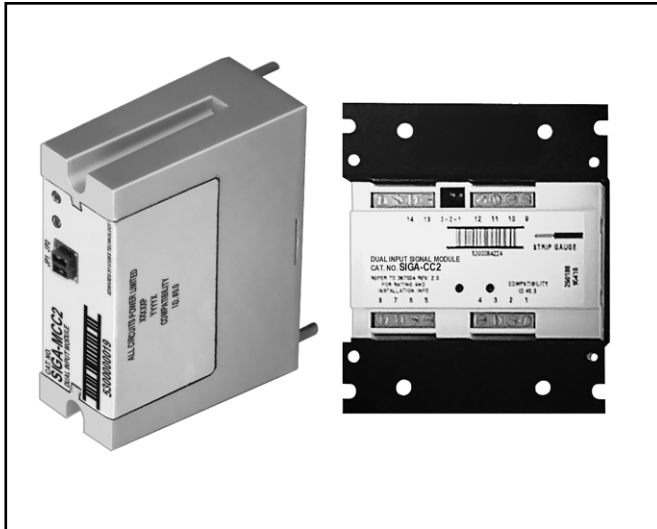


Excel *Life Safety*
S Y S T E M

SIGA-CC1/CC2 Signal Modules SIGA-MCC1/MCC2 Signal Modules

SPECIFICATION DATA



FEATURES

- Single and Dual Signal Switching.
- Ring-Tone Generator.
- Non-volatile Memory.
- Integral Microprocessor.
- High Ambient Temperature Operation (up to 120°F [49°C]).
- Electronic Addressing and Device Mapping.
- One Red and One Green Status LED.
- Design and Manufacture per ISO 9001 Standards.
- Models for electrical box or I/O motherboard mounting.

GENERAL

The SIGA-CC1/MCC1 Single Input Signal Module and SIGA-CC2/MCC2 Dual Input Signal Module are intelligent addressable devices used for connecting a supervised Class B signal or audio speaker to their respective power inputs on command from the loop controller. In addition, the SIGA-CC1/MCC1 can connect telephone circuits to power inputs on command from the loop controller. The power inputs may be polarized 24V dc to operate audible and visible signal appliances, or 25 or 70 VRMS to operate audio evacuation speakers. The SIGA-CC1/MCC1 can also operate firefighter's telephones. When configured for telephone circuits, the SIGA-CC1/MCC1 generates its own ring-tone signal eliminating the need for a separate ring-tone circuit.

The actual operation of the SIGA-CC1/MCC1 and SIGA-CC2/MCC2 is determined by the selected "personality code" and downloaded to the module from the Signature loop controller during system configuration.

Continuously running self-diagnostics update device statistics and store them in a history log in non-volatile memory. The history log contains information such as hours of operation, last maintenance date, number of alarms and troubles, and time and date of last alarm.

The electronically coded serial number and address enable controllers on the same circuit to automatically map the location of the module. This information is valuable for use in "as-built" drawings.



DESCRIPTION

The SIGA-CC1/CC2 and SIGA MCC1/MCC2 Signal Modules connect, upon command from the loop controller, a supervised Class B signal or audio signal to their respective power inputs. The SIGA-CC1/MCC1 can also connect telephone circuits. The power inputs may be polarized 24V dc to operate audible and visible signal appliances or 25 and 70 VRMS to operate audio evacuation speakers. The SIGA-CC1/MCC1 can also operate firefighter's telephones. When configured for telephone circuits, the SIGA-CC1/MCC1 generates its own ring-tone signal eliminating the need for a separate ring-tone circuit.

Each module constantly runs self-diagnostics to provide important maintenance information. The module stores the results of the self-diagnostic in its permanent non-volatile memory. Some or all of this information can be printed for review from the control panel on the XLS1000 Loop Controller, a Personal Computer (PC) laptop interface, or the SIGA-Pro Signature Program/Service Tool. History log information includes:

- Module serial number, address, and module type.
- Date of manufacture, hours of operation, and last maintenance date.
- Number of recorded alarms and troubles.
- Time and date of last alarm.
- Up to 24 possible trouble codes that the module can use to specify faults.

On-board intelligence also means less information needs to be sent between the module and the loop controller. Other than regular supervisory polling response, the module only needs to communicate with the loop controller when it has something new to report. This feature provides very fast response time and allows use of a lower baud rate for communication on the loop. The lower baud rate offers several advantages including:

- Less sensitivity to loop wire characteristics.
- Less sensitivity to noise glitches on the cable.
- Less emitted noise from the wiring.

The SIGA-CC1 and SIGA-CC2 mount to standard North American 2-gang electrical boxes, making them ideal for locations where only one module is required. Separate I/O and data loop connections are made to each module.

The SIGA-MCC1 and SIGA-MCC2 are part of the UIO family of plug-in Signature Series modules. They function identically to the SIGA-CC1 and SIGA-CC2, but take advantage of the modular flexibility and easy installation that characterize all UIO modules. Two- and six-module UIO motherboards are available. These can accommodate individual risers for each on-board module, or risers that are shared by any combination of its UIO modules. All wiring connections are made to terminal blocks on the motherboard. UIO assemblies may be mounted in Honeywell enclosures.

APPLICATION

The operation of the SIGA-CC1/MCC1 and SIGA-CC2/MCC2 is determined by their sub-type code or "Personality Code". The code is selected with the System Definition Utility

(SDU) Database Development Tool and then downloaded into the module from the loop controller. Codes 5 and 6 apply to the SIGA-CC1/MCC1 only. Code 7 is assigned to the SIGA-CC2/MCC2 only and automatically applies to both circuits (A and B).

Personality Code 0: NOT CONFIGURED (Factory Default)

Valid for all devices. Applies to one or both circuits (A and B) simultaneously.

SIGNAL POWER or AUDIO EVACUATION (SINGLE RISER) - (Personality Code 5)

Valid for the SIGA-CC1/MCC1 only. Configures the module for use as a Class B Audible/Visible Signal power (24 Vdc polarized) or Audio Evacuation (25 or 70 VRMS) power selector. The ring-tone generator is disabled. The output circuit is monitored for open or shorted wiring. If a short exists, the control panel inhibits the activation of the audible/visible signal circuit to prevent connection to the power circuit.

TELEPHONE WIRING-TONE (SINGLE RISER) - (Personality Code 6)

Valid for the SIGA-CC1/MCC1 only. Configures the module for use as a Telephone power selector. When a telephone handset is plugged into its jack or lifted from its hook, the module generates its own Ring-Tone signal. A separate ring-tone circuit is not needed. The module sends this signal to the control panel to indicate that an off-hook condition is present. When the system operator responds to the call, the ring-tone signal is disabled.

SIGNAL POWER or AUDIO EVACUATION (DUAL RISER) - (Personality Code 7)

Valid for the SIGA-CC2/MCC2 only. Configures the module for use as a two circuit Class B Audible/Visible Signal power (24 Vdc polarized) or **Audio Evacuation** (25 or 70 VRMS) power selector. The single output circuit is monitored for open or shorted wiring. If a short exists, the control panel inhibits the activation of the audible/visible signal circuit to prevent connection to the power circuit.

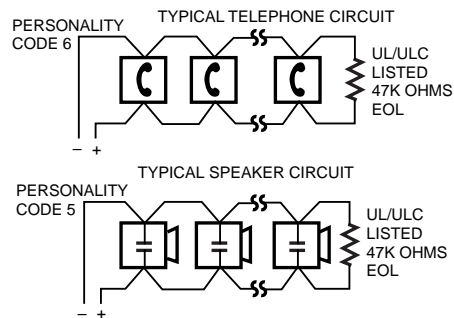
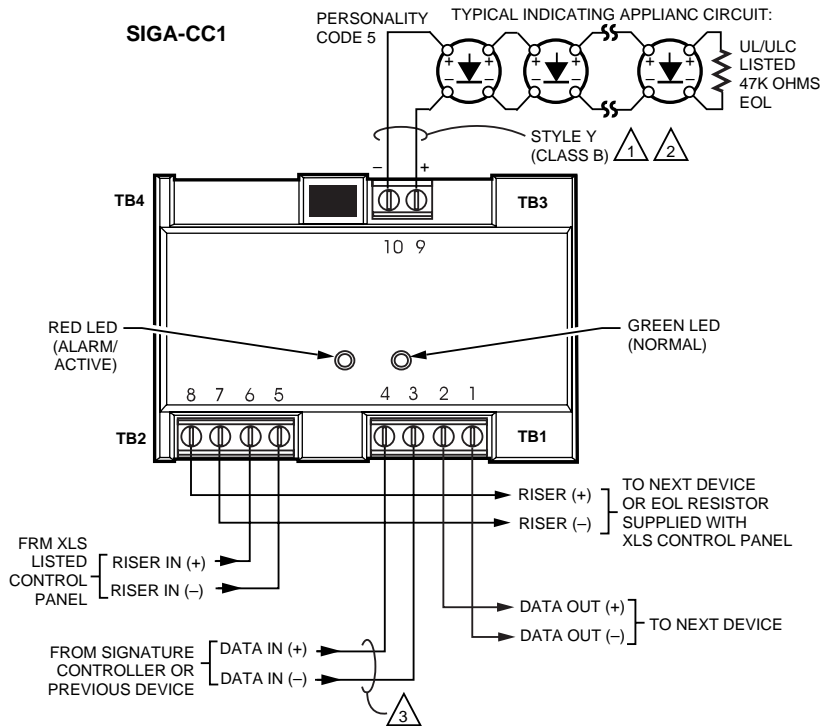
TYPICAL WIRING

The module accepts 18 AWG (0.75 sq mm), 16 (1.0 sq mm), and 14 AWG (1.5 sq mm) wire sizes. UIO versions will also accept #12 AWG (2.5 mm²).

NOTE: Sizes 16 AWG (1.0 sq mm) and 18 AWG (0.75 sq mm) are preferred for ease of installation.

See diagram on the following page.

| Signal (Slave) Circuit Wire Specifications | |
|---|--|
| Maximum Allowable Wire Resistance (valid maximum limit with no load on the circuit) | 50 ohms (25 ohms per wire) per circuit |
| Maximum Allowable Wire Capacitance | 0.1 μF per circuit |



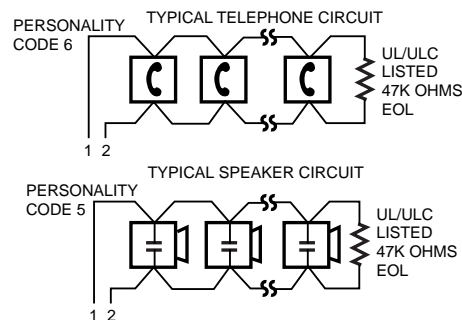
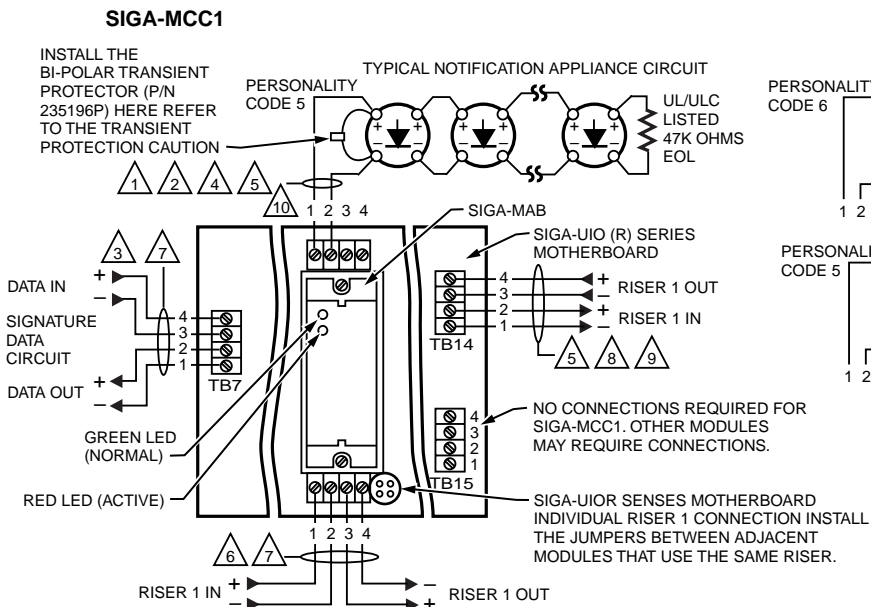
| MAXIMUM OUTPUT LOAD | | |
|---------------------|-----------|-----------|
| 24Vdc SIGNALS | 24V AUDIO | 70V AUDIO |
| 2A | 50W | 35W |

WIRE STRIPPING GUIDE

STRIP 1/4 IN. FROM THE ENDS OF ALL WIRES THAT CONNECT TO THE TERMINAL BLOCKS OF THE MODULE.

1/4 IN. (6.4 MM)

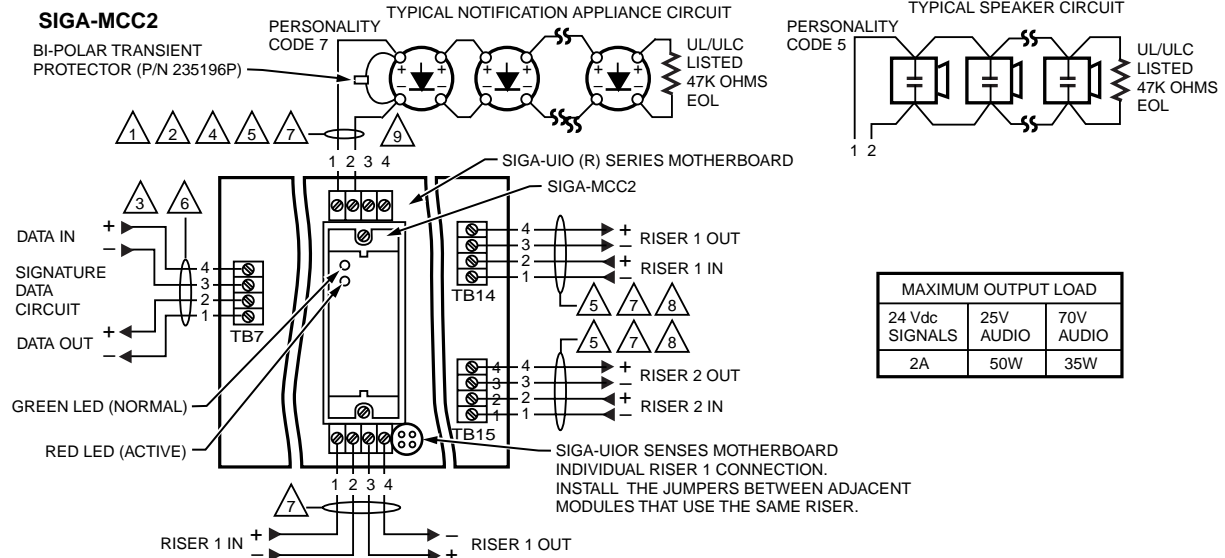
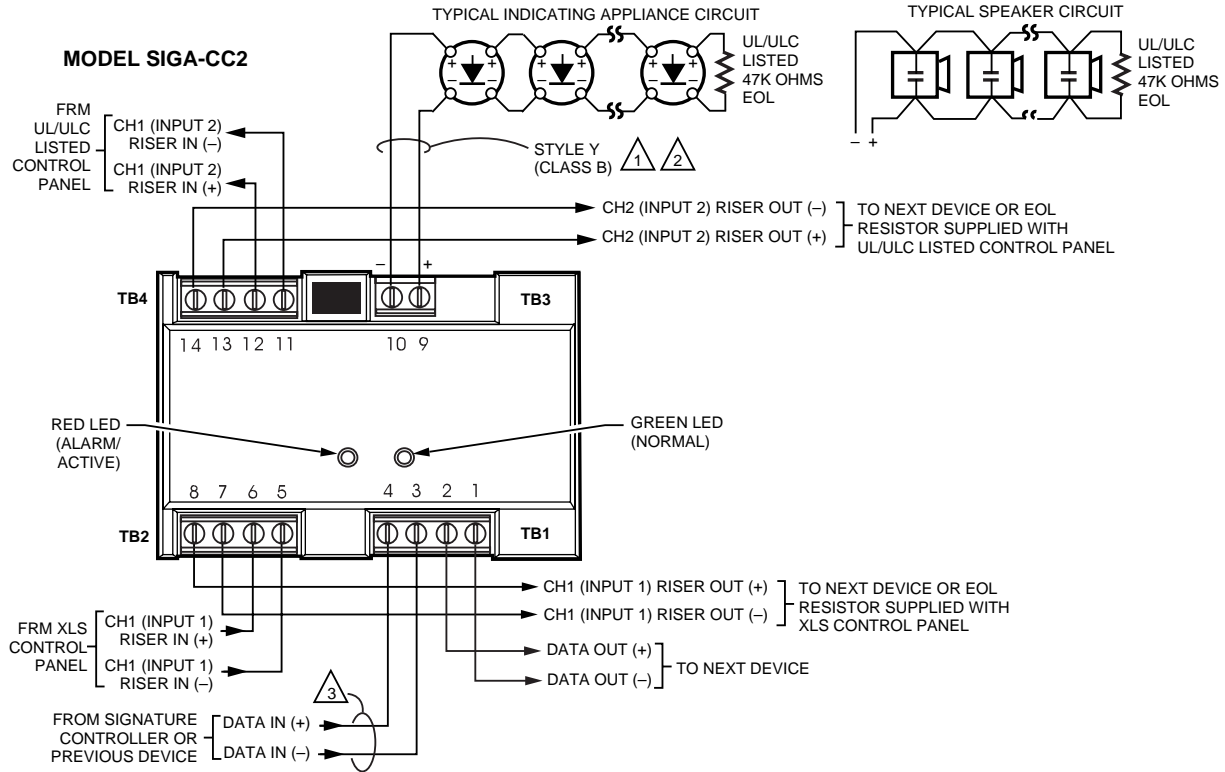
CAUTION: DO NOT EXPOSE MORE THAN 1/4 IN. OF WIRE.



- 1 FOR MAXIMUM WIRE RESISTANCE AND MAXIMUM WIRE DISTANCES, REFER TO INSTALLATION MANUAL.
- 2 UIO: MAXIMUM NO. 12 AWG (2.5 mm²) WIRE. MINIMUM NO. 18 (0.75mm²) STANDARD 2-GANG VERSION: MAXIMUM NO. 14 AWG (1.5 mm²) WIRE. MINIMUM NO. 18 (0.75mm²)
- 3 REFER TO SIGNATURE LOOP CONTROLLER INSTALLATION SHEET FOR WIRING SPECIFICATIONS.
- 4 THESE MODULES WILL NOT SUPPORT 2-WIRE SMOKE DETECTORS.
- 5 ALL WIRING POWER LIMITED AND SUPERVISED. IF THE INPUT SOURCE IS NON-POWER LIMITED, THEN MAINTAIN SPACING OF 1/4" OR USE FPL, FPLP, FPLR OR EQUIVALENT IN ACCORDANCE WITH NEC.
- 6 THE SIGA-UIO6 DOES NOT COME WITH TB8 THROUGH TB13.
- 7 SUPERVISED AND POWER-LIMITED.
- 8 SUPERVISED AND POWER-LIMITED WHEN CONNECTED TO A POWER-LIMITED SOURCE. IF THE SOURCE IS NONPOWER-LIMITED, MAINTAIN A SPACE OF 1/4 INCH FROM POWER-LIMITED WIRING OR USE FPL, FPLP, FPLR, OR AN EQUIVALENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 9 THE INPUT FOR THIS RISER IS COMMON TO ALL MODULES.
- 10 POLARITY AT TERMINALS 9 AND 10 ON INDICATING APPLIANCE, AND SPEAKER CIRCUITS SHOWN IN SUPERVISORY CONDITION. (POLARITY REVERSES ON ALARM.) THE RISER CIRCUIT MUST BE WIRED CORRECTLY FOR THE POLARITY TO REVERSE.

M16290

Model SIGA-CC1/MCC1



- 1 FOR MAXIMUM WIRE RESISTANCE AND MAXIMUM WIRE DISTANCES, REFER TO INSTALLATION MANUAL.
- 2 UIO: MAXIMUM NO. 12 AWG (2.5 mm²) WIRE. MINIMUM NO. 18 (0.75mm²). STANDARD 2-GANG VERSION: MAXIMUM NO. 14 AWG (1.5 mm²) WIRE. MINIMUM NO. 18 (0.75mm²)
- 3 REFER TO SIGNATURE LOOP CONTROLLER INSTALLATION SHEET FOR WIRING SPECIFICATIONS.
- 4 THESE MODULES WILL NOT SUPPORT 2-WIRE SMOKE DETECTORS.
- 5 ALL WIRING POWER LIMITED AND SUPERVISED. IF THE INPUT SOURCE IS NON-POWER LIMITED, THEN MAINTAIN SPACING OF 1/4" OR USE FPL, FPLP, FPLR OR EQUIVALENT IN ACCORDANCE WITH NEC.
- 6 SUPERVISED AND POWER-LIMITED.
- 7 SUPERVISED AND POWER-LIMITED WHEN CONNECTED TO A POWER-LIMITED SOURCE. IF THE SOURCE IS NONPOWER-LIMITED, MAINTAIN A SPACE OF 1/4 INCH FROM POWER-LIMITED WIPING OR USE FPL, FPLP, FPLR, OR AN EQUIVALENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 8 THE INPUT FOR THIS RISER IS COMMON TO ALL MODULES.
- 9 POLARITY AT TERMINALS 9 AND 10 ON INDICATING APPLIANCE, AND SPEAKER CIRCUITS SHOWN IN SUPERVISORY CONDITION. (POLARITY REVERSES ON ALARM.) THE RISER CIRCUIT MUST BE WIRED CORRECTLY FOR THE POLARITY TO REVERSE.

THE SIGA-UIO6 DOES NOT COME WITH TB8 THROUGH TB13.

M16291

Model SIGA-CC2/MCC2

 **CAUTION**

This module does not operate without electrical power. As fires frequently cause power interruption, discuss further safeguards with your fire protection specialist.

SPECIFICATIONS

Models:

- SIGA-CC1 Single Input (Riser) Signal Module.
- SIGA-CC2 Dual Input (Riser) Signal Module.
- SIGA-MCC1 Single Input (Riser) Signal Module.
- SIGA-MCC2 Dual Input (Riser) Signal Module.

Type Codes:

Factory Set:
 SIGA-CC1/MCC1: 50 (2 sub-types [personality codes] available).
 SIGA-CC2/MCC2: 51 (1 sub-types [personality code] available).

Operating Environment:

Temperature: 32 to 120°F (0 to 49°C).
 Humidity: 0 to 93% RH.
 Storage Temperature: -4 to +140°F (-20 to 60°C).

Operating Voltage:

15.2 to 19.95 Vdc (19 Vdc nominal).

Operating Current:

Standby: 223 µA.
 Activated: 100 µA.

Output Rating:

24V dc = 2A.
 25V audio = 50W.
 70V audio = 35W.

Shipping Weight:

0.5 lb (0.23 kg) SIGA-CC1/CC2.
 0.18 lb (0.08 kg) SIGA-MCC1/MCC2.

Carton Dimensions in Inches (Millimeters):

5-1/3 (135) wide by 2-1/2 (64) high by 5-1/3 (135) deep.

Construction and Finish:

High-impact white engineering polymer 2-gang front plate. Front plate identifies the module: FIRE ALARM MODULE. A self-adhesive French label for the front plate is included to be applied by the installer if desired.

All electronics utilize surface mount technology (SMT) for smaller size and greater immunity to RF noise. A conformal coating is used for humidity and corrosion resistance.

Mounting:

The SIGA-CC1/CC2 mounts to North American 2-1/2 in. (64 mm) deep 2-gang boxes and 1-1/2 in. (38 mm) deep 4 in. square boxes or European 100 mm square boxes (purchased locally). The terminals are suited for 14 to 18 AWG (1.5 sq mm to 0.75 sq mm) wire sizes. SIGA-MCC1/MCC2 mount in SIGA-UNIO2R/GR/6 motherboards.

Accessories:

Optional Surface Mount Box:
 Red or white, 2-gang 27193-21 and 27193-26.
 Dimensions in inches (mm): 4-3/16 (122) wide by 4-3/4 (121) high by 2-1/2 (64) deep.
 Weight: 2 lb (0.8 kg).

SIGA-MCC1/MCC2:

| | |
|------------|---|
| SIGA-UIO2R | Universal Input-Output Model Board w/Riser Inputs - 2 Module Positions |
| SIGA-UIO6R | Universal input-output Module Board w/Riser Inputs - 6 Module Positions |
| SIGA-UIO6 | Universal Input-Output Module Board - 6 Module Positions |
| 235196P | Bi-polar Transient Protector |

LED Operation:

On-board Green LED flashes when polled.
 On-board Red LED flashes when in alarm.
 Both LEDs glow steady when in alarm (stand-alone).

Compatibility:

XLS100 and XLS1000 Loop Controllers.

Address Requirements:

SIGA-CC1/MCC1: One Module Address.
 SIGA-CC2/MCC2: Two Module Addresses.

Standards:

International ISO 9001 standards.

Approvals:

UL, ULC.

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