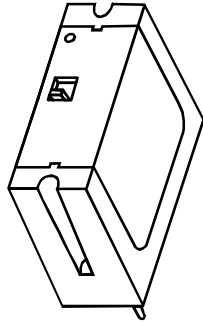


Signature Series Riser Monitor Module (MRM1)

Product description



The Signature Series Riser Monitor Module (model MRM1) is an intelligent analog-addressable device that monitors the integrity of:

- 12 and 24 Vdc circuits
- 25 Vac circuits
- 70 Vac circuits
- Telephone riser signals

One module device is required. Upon the loss of a signal, the fire alarm control panel indicates an alert status. See Table 1 for a list of model numbers.

Personality codes downloaded to the MRM1 during system configuration determine its function. The Signature loop controller automatically assigns an address to the MRM1, but it will accept custom address assignments from a laptop computer.

Table 1: Models

Description	Number
Riser monitor module	GSA-MRM1 SIGA-MRM1 SIGA-MRM1-LG

Specifications

Operating voltage range: 15.2 to 19.95 Vdc

Maximum input voltages

- Riser monitor: 12 Vdc + 15%, 24 Vdc + 10%,
25 Vac + 15%, 70 Vac + 15%
- Telephone: 3.75 to 28 Vdc

Current

- Standby: 175 μ A
- Activated: 175 μ A

Input currents

- 12 Vdc: 10 mA DC
- 24 Vdc: 10 mA DC
- 25 Vac: 10 mA RMS
- 70 Vac: 10 mA RMS
- Telephone 24 Vdc: 20 mA DC

Riser loading

- 70 Vac: Impedance > 11 k Ω
- 25 Vac: Impedance > 1 k Ω

24 Vdc: Resistance > 2.4 k Ω

12 Vdc: Resistance > 1.2 k Ω

Telephone: Resistance > 1.2 k Ω , Impedance > 1.2 k Ω

Ground fault impedance: 10 k Ω

Operating environment

Temperature: 32 to 120 °F (0 to 49 °C)

Humidity: 0 to 93% RH, noncondensing at 90 °F (32 °C)

Storage temperature: -4 to 140 °F (-20 to 60 °C)

Mounting: UIO2R or UIO6(R) motherboard

Agency listings:

FM Approval only includes monitoring of the 12 and 24 Vdc circuits

Warnings

- Disconnect power to cabinets before installing or removing components. Failure to do so may result in serious injury or loss of life. Dangerous voltages may be present at the terminals even when power is shut off.
- This module will not operate without electrical power. As fires frequently cause power interruption, we suggest you discuss further safeguards with your local fire protection specialist.
- This module does not support conventional smoke detectors.

Personality codes

System controller compatibility

Signature Series modules require personality codes, downloaded from the Signature loop controller, to determine their operational features. The MRM1 is compatible with personality codes 23 and 24, which are described below.

Personality code 23: Riser monitor (factory default)

Personality code 23 configures the MRM1 to monitor 70 Vac audio, 25 Vac audio, or 12 Vdc and 24 Vdc risers. A trouble condition is reported back to the panel wherever the voltage on the riser drops below the trouble threshold.

Note: The hardware jumper on the MRM1 must be configured for either 70 Vac or 25 Vac / 24 Vdc / 12 Vdc.

Personality code 24: Telephone riser monitor

Personality code 24 configures the MRM1 to monitor telephone risers. A trouble condition is reported back to the panel whenever voltage on the riser drops below the trouble threshold.

The delay time from when the device falls below the trouble threshold to when it sends a trouble signal to the panel is user definable in the appropriate data entry program. A delay of 5 to 75 seconds can be assigned to the device; the default delay period is 15 seconds.

Installation instructions

Caution: Observe static-sensitive material handling practices.

Note: The factory ships the MRM1 as an assembled unit; it contains no user-serviceable parts and should not be disassembled.

To install the MRM1:

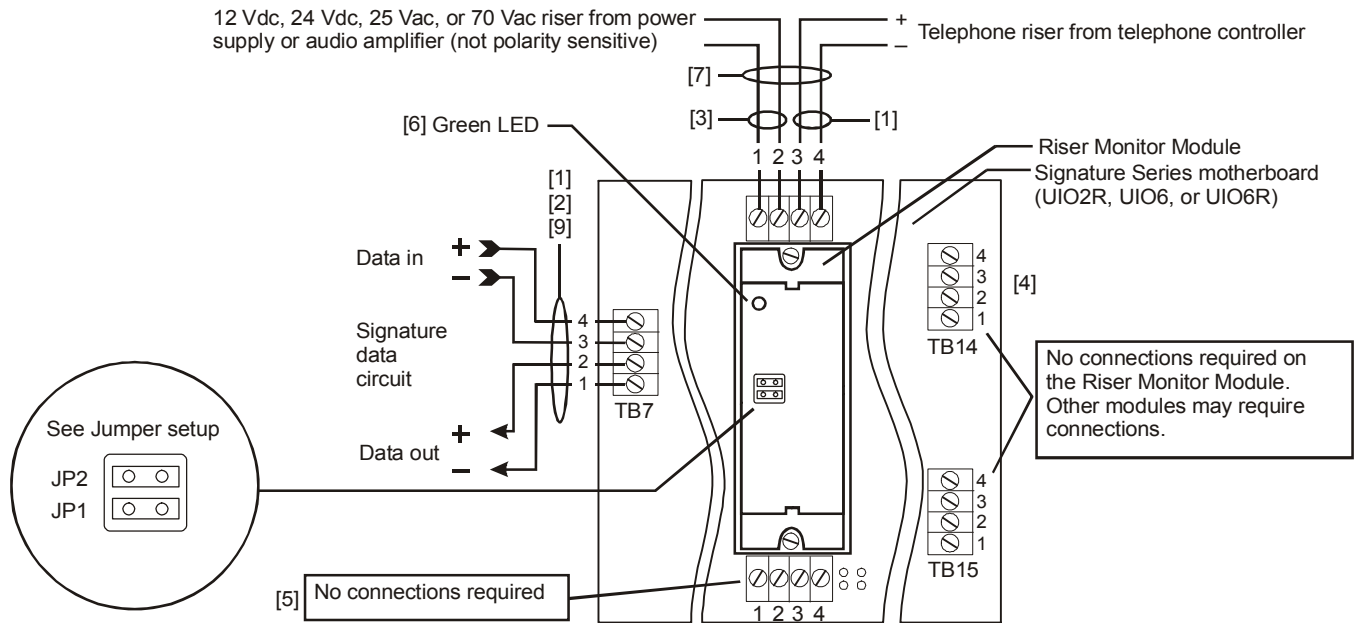
1. Install the Signature motherboard (UIO2R, UIO6, or UIO6R). See the motherboard installation sheet for more information.
2. Plug the MRM1 into any available position on the Signature motherboard.
3. Secure the module to the motherboard with the two captive screws on the module.

4. Wire the module according to the instructions in the wiring diagram.
5. Write the address assigned to the module on the label and apply it to the module.
6. Remove the bar-coded serial number label from the module and apply it to the appropriate location in the serial number log book.

Jumper setup

Jumper	Riser		
	12 Vdc, 24 Vdc, or 25 Vac	70 Vac	Telephone
JP1	Out	In	Out
JP2	In	Out	Out

Wiring diagram



Notes

- [1] Supervised and power-limited.
- [2] See the Signature loop controller installation sheet for wiring specifications.
- [3] Supervised and power-limited unless connected to a nonpower-limited source. If the source is nonpower-limited, eliminate the power-limited mark and:
 - Maintain a 1/4-inch (6.4 mm) space from power-limited wiring.
 - or
 - Use FPL, FPLR, FPLP, or an equivalent cable in accordance with NFPA 70 *National Electric Code*.

Wire size must be capable of handling fault current from nonpower-limited source.
- [4] The UIO6R and the UIO2R do not come with TB14.
- [5] The UIO6 does not come with TB8 through TB13.
- [6] Active when communicating with the Signature loop controller.
- [7] You cannot use the telephone riser while you use the 12 and 24 Vdc, 25 Vac, or 70 Vac riser.
- [8] See the UIO2R or UIO6(R) installation sheet for additional instructions about the separation of power-limited and nonpower-limited wiring.
- [9] Data circuits are Style 4 (Class B) or Style 6 (Class A)