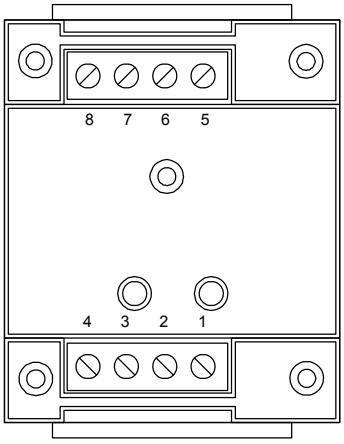
SIGA-WTM Signature Series Waterflow/Tamper Module (WTM)

Product description



The Signature Series Waterflow/Tamper Module (model SIGA-WTM) is an analog addressable device used to connect Class B normally open waterflow alarm and supervisory initiating device circuits (IDCs) to a Signature loop controller. Two device addresses are required.

Input channel 1 of the SIGA-WTM is used for waterflow alarm applications. Input channel 2 is used for supervisory applications. This is determined by a personality code that is downloaded to the module by the loop controller during system configuration.

The loop controller assigns two addresses to the SIGA-WTM automatically. Custom addresses can also be assigned to the module via laptop computer. No addressing switches are used.

Diagnostic LEDs provide visible indication of the status of the module when the cover plate is removed:

- Normal: green LED flashes
- Alarm/active: red LED flashes

Mounting

The SIGA-WTM can be mounted in a North American 2-1/2 in (64 mm) deep 1-gang box or a standard 4 in square box 1-1/2 in (38 mm) deep with 1-gang cover. The terminal blocks accept 12, 14, 16, or 18 AWG wire (2.5, 1.5, 1.0, or 0.75 sq mm). Sizes 16 and 18 are preferred.

System controller compatibility

The SIGA-WTM requires the Signature loop controller. The loop controller downloads the personality code which determines how the module operates. The following personality codes can be downloaded to the SIGA-WTM.

Personality code 2: N.O. alarm delayed latching (Class B): Personality code 2 operates the same as personality code 1 except that contact closure must be maintained for approximately 16 seconds before an alarm signal is communicated. Personality code 2 is only for use with non-retarded waterflow alarm switches.

Personality code 4: N.O. active latching (Class B): A contact closure causes an active instead of an alarm event, which is latched at the module. Personality code 4 is typically used for monitoring supervisory and tamper switches.

Warnings

1. 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.
2. This module does *not* support conventional smoke detectors.

Specifications

Compatible electrical boxes
- North American 2-1/2 in (64 mm) deep 1-gang
- Standard 4 in square box 1-1/2 in (38 mm) deep with 1-gang cover

Operating voltage range: 15.2 to 19.95 Vdc
Standby current: 450 μA
Activated current: 700 μA
Ground fault impedance: 10 kΩ
Initiating device circuit (IDC)
- EOL resistor value: 47 KΩ, UL listed
- Max. circuit resistance (per channel): 50 Ω (25 Ω per wire)
- Max. circuit capacitiance (per channel): 0.1 μF

Operating environment
- Temperature: 32 to 120 °F (0 to 49 °C)
- Humidity: 0 to 93% RH, noncondensing at 90 °F (32 °C)

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

Installation instructions

Note: The SIGA-WTM is shipped from the factory as an assembled unit; it contains no user-serviceable parts and should *not* be disassembled.

To install the module:

1. Verify that all field wiring is free of opens, shorts, and ground faults.
2. Make all wiring connections as shown in the wiring diagram.
3. Write the address assigned to the module on the label provided and apply the label to the module. Peel off the removable serial number label from the module and apply it to the appropriate location in the serial number logbook.
4. Using the 4-24 x 1/2 in (13 mm) self-tapping screw provided, mount the wall plate to the module.
5. Using the two 6-32 x 1/2 in (13 mm) machine screws provided, mount the module to the electrical box.

Notes

1. If a 2 in (51 mm) 1-gang box is used, conduit can enter the electrical box through *only one* knock-out hole.
2. If a 2-1/2 in (64 mm) 1-gang box is used, conduit can enter the electrical box through *one* or *both* knock-out holes.

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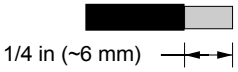
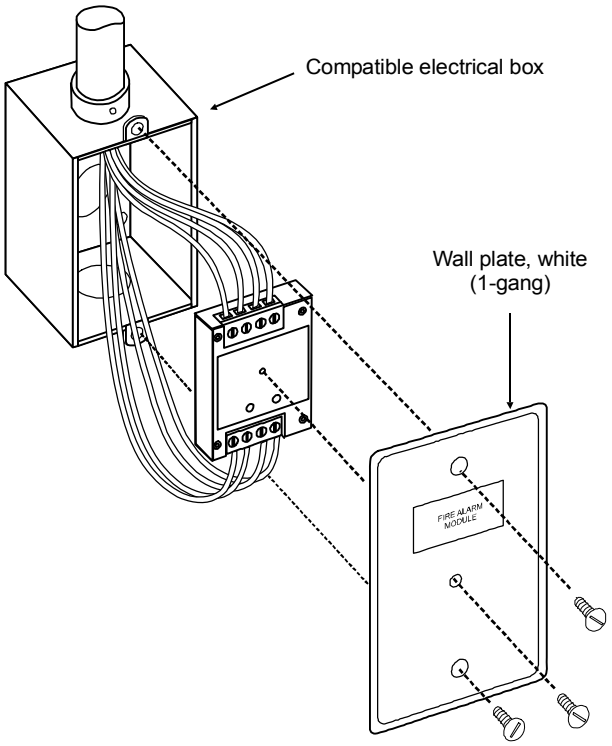
3. Wire in accordance with NFPA 70, *National Electrical Code.*

Wire stripping guide

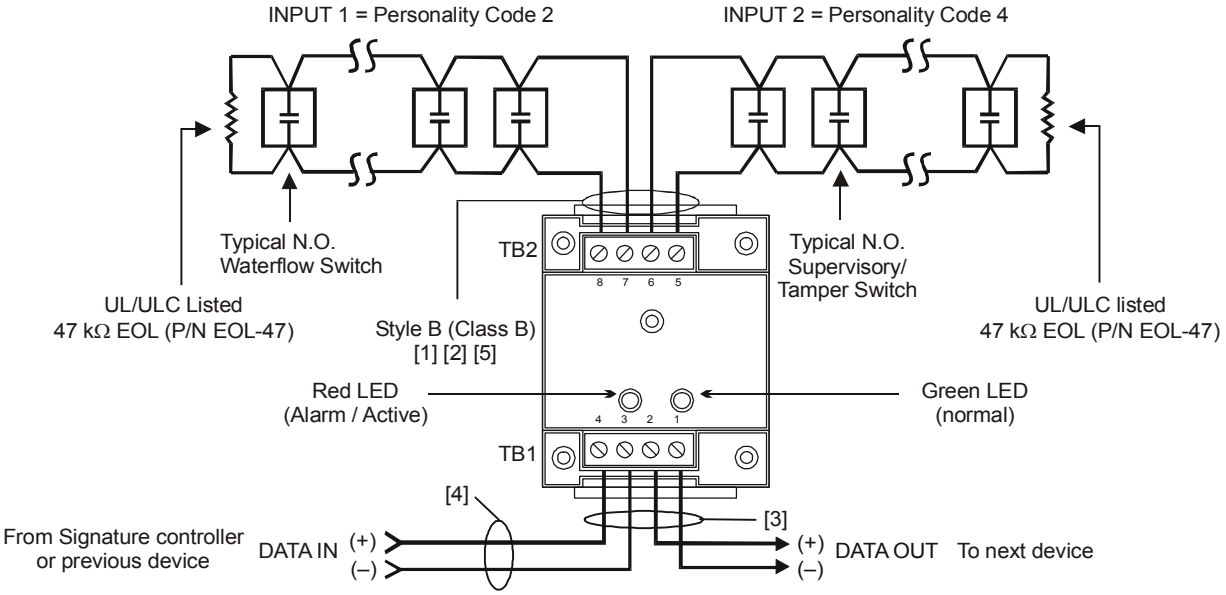


Strip 1/4 in (about 6 mm) from the ends of *all* wires that connect to the terminal block of the module.

Caution: Exposing more wire may cause a ground fault. Exposing less wire may result in a faulty connection.



Wiring diagram



Notes

[1] Maximum 25 Ω resistance per wire

[2] Maximum 12 AWG (2.5 sq mm) wire; minimum 18 AWG (0.75 sq mm) wire

[3] Data circuits are Style 4 (Class B) or Style 6 (Class A)

[4] Refer to the Signature loop controller installation sheet for wiring specifications

[5] Maximum 10 Vdc @ 350 μA

6. All wiring is power-limited and supervised

7. This module will *not* support 2-wire smoke detectors