SIEMENS

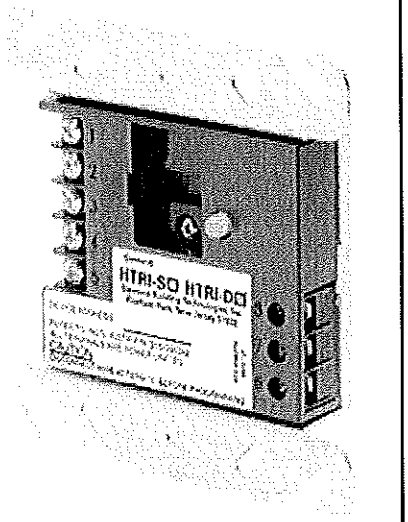
Catalog Sheet
Fire Safety & Security Products

FireFinder XLS and FS-250 Panels

HTRI Series Interface Modules
Models HTRI-D, HTRI-R and HTRI-S

ARCHITECT AND ENGINEER SPECIFICATIONS

- Interfacing and supervising normally open (NO) or normally closed (NC) contacts
- Integral SPDT relay on Model HTRI-R (up to 4 amps)
- Dual input on Model HTRI-D, using a single address
- Polarity insensitive with *SureWire*™ technology
- Multi-color light-emitting diode (LED) indicates status [green / amber / red]
- Easy front access to programming port and wiring terminals
- Mounts 4-inch square, 2-¼"-deep box (or double-gang box)
- Dynamic supervision
- Comes with 5-x-5" faceplate
- Two-wire operation
- Model DPU programs and verifies address of the device and tests for proper functionality
- Electronic address programming is easy and dependable
- ®UL Listed & ®ULC Listed; FM, CSFM and NYMEA Approved



Product Overview

The Siemens Industry, Inc. — Fire Safety HTRI Series Intelligent interface modules are designed to provide the means of interfacing direct shorting devices to the FireFinder XLS and FS-250 Fire Alarm Control Panel loop circuit.

The HTRI Series modules provide the most advanced method of address programming and supervision on the market — combined with sophisticated control panel communication. Each HTRI Series interface module incorporates a microcomputer chip. The HTRI Series microcomputer chip technology and its sophisticated bi-directional communication capabilities with the control panel, achieve the state of an 'intelligent device.'

Specifications

The HTRI Series intelligent interface modules are available in three (3) models. Models HTRI-S and HTRI-R are designed to monitor a (NO) or (NC) dry contact.

The interface module reports the status of the (NO) or (NC) contact to the control panel. Model HTRI-S can only monitor and report the status of the contact, while Model HTRI-R incorporates an addressable Form C relay.

The Model HTRI-R relay and contact device input are controlled at the same address. For the control panel system, the relay and input contact can be controlled as a separate function. The relay is typically used where control or shunting of external equipment is required.

The Model HTRI-D is a dual-input module that is designed to supervise and monitor two (2) sets of dry contacts. Model HTRI-D only requires one (1) address, but responds independently to each input. Model HTRI-D is ideal for monitoring a water-flow switch and its respective valve tamper switch.

Model HTRI has a multi-color LED that flashes 'green' when operating in *normal*; 'amber' if unit is in *trouble* condition, and 'red' to indicate a change of state.

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Specifications (continued)

Model HTRI-D flashes twice — once for each address, and Model HTRI-R LED indicates a change of state in the relay. The device's microcomputer chip has the capacity of storing, in memory, identification information; as well as important operating-status information.

Siemens Industry, Inc., — Fire Safety innovative technology allows all HTRI Series intelligent interface modules to be programmed by using the Device Programming / Test Unit. Model DPU is a compact, portable and menu-driven accessory that makes programming and testing an interface device faster, easier and more dependable than previous methods.

Model DPU eliminates the need for mechanical addressing mechanisms, such as: program jumpers, DIP switches or rotary dials, since Model DPU electronically sets the HTRI Series interface address into the interface microcomputer-chip non-volatile memory. Vibration, corrosion and other conditions that deteriorate mechanical addressing mechanisms are no longer a cause for concern.

The HTRI Series is fitted with screw terminals for connection to an addressable circuit. The HTRI Series is fully compatible on the same FireFinder XLS and FS-250 circuits with all intelligent H-Series detectors, HMS Series addressable manual stations, or any other addressable intelligent modules, such as Model HZM or Model HCP.

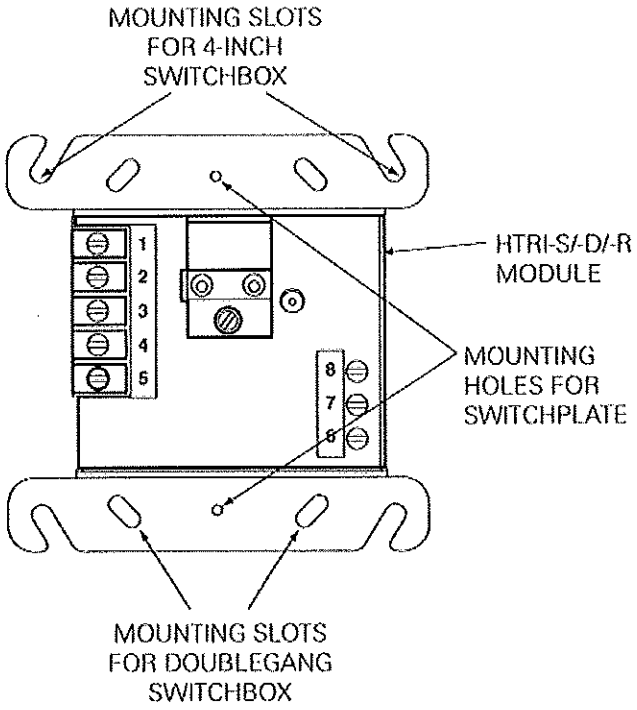
All HTRI Series intelligent interface modules are ®UL listed. Environmental operating conditions for all HTRI Series modules are 32°F (°C) to 120°F (49°C) with a relative humidity of no greater than 93%, non-condensing.

Electrical Ratings

Current Draw	
(Active or Standby)	1mA
Model HTRI-R Relay Ratings	
Resistive:	4 Amps, 125 VAC 4 Amps, 30 VDC
Inductive:	3.5A, 120 VAC (0.6P.F.) 3.0A, 30 VDC (0.6P.F.) 2.0A, 120 VAC (0.4P.F.) 2.0A, 120 VAC (0.35P.F.) 2.0A, 30 VDC (0.35P.F.)

Mounting Diagram

Models HTRI-S, HTRI-D and HTRI-R mount directly into a 4-inch square, 2 ¼-deep box or a double-gang box (user supplied). A 5-inch square, off-white faceplate is included with each HTRI Series module.



Details for Ordering

Model Number	Part Number	Description	Shipping Wgt. Lb.	Kg.
HTRI-S	500-033370	Single Input	7 oz.	2
HTRI-R	500-033300	Single Input w/Relay	7 oz.	2
HTRI-D	500-033360	Dual Input	7 oz.	2

Notice: This marketing catalog sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.

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Installation Instructions
Model HTRI-M

Addressable Interface Module

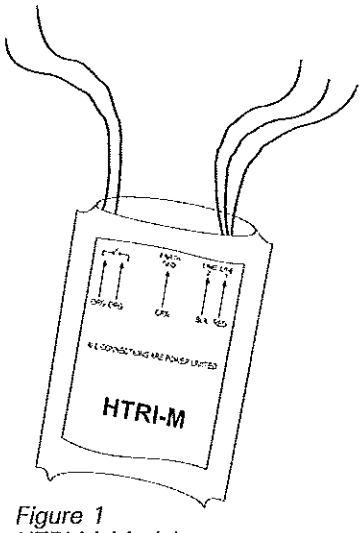


Figure 1
HTRI-M Module

The **SIEMENS** Model HTRI-M Series Addressable interface module interfaces direct shorting devices to the DLC loop of the FireFInder-XLS System or the FS-DLC loop of the FS-250 System. It is also approved for 1076, Proprietary Burglary.

The HTRI-M can monitor a normally open or closed dry contact and it can report the status of the contact.

PROGRAMMING

Refer to Figure 1 to locate the red and black DLC/FS-DLC loop circuit wires of the HTRI-M.

Connect the Addressable Loop Driver circuit wires of the HTRI-M to the **SIEMENS** Model DPU Programmer/Tester. Use the cable provided with the Programmer/Tester and the 2 alligator clip to banana plug adapters provided.

CAUTION

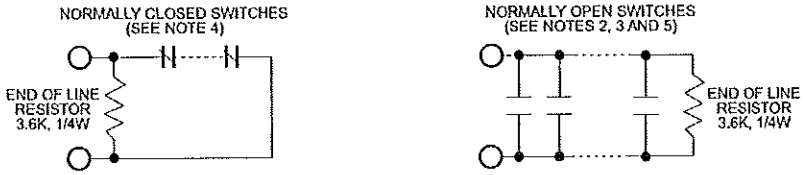
To Prevent Damage To The DPU:
DO NOT connect a HTRI-M to the DPU until all field wiring is removed from the red and black DLC/FS-DLC loop circuit wires of the HTRI-M.

NOTE

Connection from the DPU to the HTRI-M is not polarity sensitive. Refer to Figure 3 for the proper connections to the control panel.

(Refer to Figure 2.) Follow the instructions in the **DPU Programmer/Tester Manual** (P/N 315-033260) to program the desired address into HTRI-M.

Record the device address on the label located on the HTRI-M. The HTRI-M can now be installed and wired to the system.



NOTES:
1. There can be any number of normally closed or normally open switches.
2. The end of line resistor must be located at the last switch.
3. Do not wire a normally closed switch across the end of line resistor.
4. Only for use with security and status applications.
5. Do not use N.O. switches for security applications.

Figure 2
Wiring Switches

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WIRING

(Refer to Figure 3.) Refer to the wiring diagram and wire the addressable interface module accordingly.

NOTE

Recommended wire size: 18 AWG minimum
14 AWG maximum

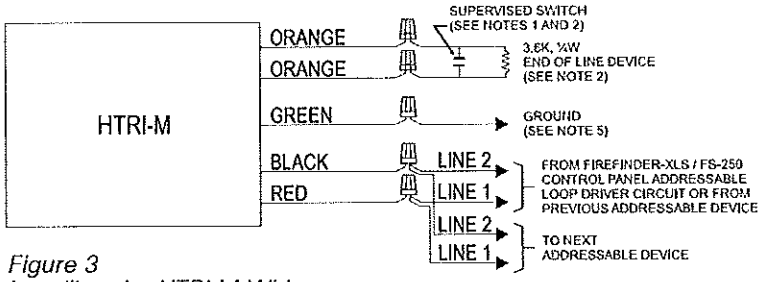

Figure 3
Installing the HTRI-M Wiring

NOTES:

1. **All supervised switches must be held closed and/or open for at least a quarter of a second to guarantee detection.**
2. End of line device: 3.6K, 1/4W resistor, P/N 140-820185. For Canadian applications, use Model EL-33 with 3.6K, 1/4W resistor.
3. HTRI-M is polarity insensitive. Line 1 and Line 2 can be either line of the loop.
4. The supervised switches have the following ratings:
   Voltage maximum: 27 VDC
   Current maximum: 3.5mA during polling
   Contact resistance maximum: 10 ohms
   Maximum cable length: 200 feet (18 AWG) $C_{Line\ to\ line}$: 0.02uF Max line size: 14 AWG $C_{Line\ to\ shield}$: 0.04uF Min line size: 18 AWG

CAUTION

Ground shield ONLY at the specified location on the Control Panel.

5. The green wire must be connected to earth ground.
   a. Use wire nuts to pass the shield wire through the electrical box with **NO** connection to the device green wire.
   b. Use shielded wire to connect the switch wiring.
   c. Tie the switch wiring shield to earth ground.
6. For proprietary burglary application:
   a. Use aTSW-1/2 tamper switch to monitor the main enclosure.
   b. Monitor each HTRI-M related to this application continuously by using a listed motion detector (to prevent tampering).
7. In supervisory: HTRI-M draws 1.5mA
8. All circuits are power limited.

MOUNTING

The SIEMENS Model HTRI-M mounts directly into a single gang switchbox (user supplied)

Connect the appropriate wires using wire nuts.Tuck the HTRI-M module inside the electrical box and dress the wiring as required. (See Figure 4.)

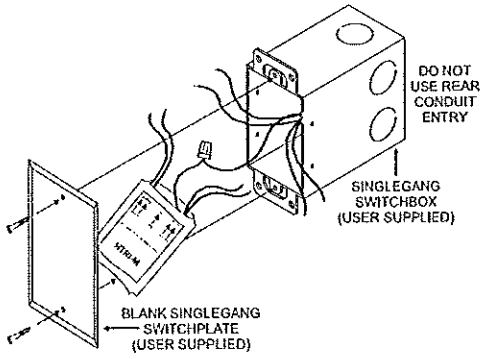

Figure 4
Mounting the HTRI-M

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