

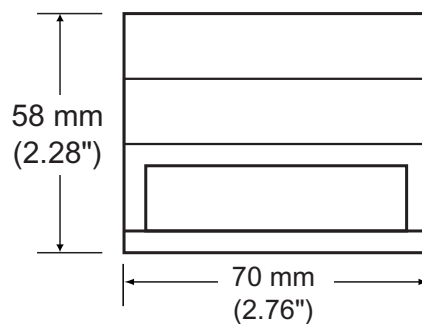
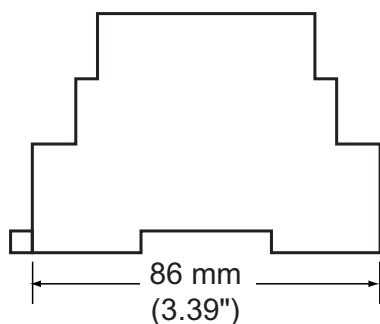
### Easy setup and simple operation

The TTSIM-1A Sensor Interface Module monitors up to 150 meters (500 feet) of TraceTek sensing cable. When liquid is detected, the TTSIM-1A unit indicates the leak with an LED, and switches a relay to provide local voltage-free contact closure. The TTSIM-1A can also communicate to a host monitoring system such as a TraceTek TTDM-128 or directly to a PLC or other host system using standard protocols. The low cost of the TTSIM-1A makes it economical to build very robust systems with many small independent sensing cable segments. No field calibration is required.

The TTSIM-1A can be used as a stand-alone leak detection alarm unit, or in networks with other TraceTek TTSIM, TT-NRM or TTDM-128 modules. The TTSIM-1A can be configured using a Palm™ OS or Pocket PC™ handheld PDA, a Microsoft Windows™ based PC, or a TraceTek TTDM-128 network master module.

### Design Features

- Voltage-free contacts for alarm signaling.
- LED's to indicate power, leak, cable trouble, and communication status.
- Responsive to a variety of communication protocols. Protocol selection is automatic.
- Simple twisted pair serial RS-485 communications up to 1200 meters (4000 feet) without amplification.
- Available for 24, 120 or 230 Vac 50/60 Hz or 12 or 24 Vdc power supply.
- Each TTSIM-1A unit has a unique address assigned with software – no switches.
- Relay software selectable for normally energized or normally de-energized operation
- DIN rail mounted for easy installation.
- Enclosures available for stand-alone indoor or harsh outdoor installations.



General features		
Sensor compatibility	All TraceTek sensor cables and point sensors or contact closure devices	
Maximum length of sensing cable	150 m (500 ft)	
Precision	0.5% of sensor length ± 0.6 m (2 ft)	
Environmental ratings		
Storage temperature	-18°C to 60°C (0°F to 140°F)	
Operating temperature	0°C to 50°C (32°F to 122°F)	
Humidity	5% to 95% non-condensing	
Power requirements		
TTSIM-1A	22 to 26 Vac, 50/60 Hz, 3 W (SELV level for Europe)	
TTSIM-1A-120	92 to 132 Vac, 50/60 Hz, 3 W	
TTSIM-1A-230	216 to 253 Vac, 50/60 Hz, 3 W	
TTSIM-1A-12VDC	12 Vdc +/- 10%, 2 W	
TTSIM-1A-24VDC	24 Vdc +/- 10%, 2 W	
Ordering information		
Catalog Number	Description	
TTSIM-1A	24 Vac TTSIM-1A	
TTSIM-1A-120	120 Vac TTSIM-1A	
TTSIM-1A-230	230 Vac TTSIM-1A	
TTSIM-1A-12VDC	12 Vdc TTSIM-1A	
TTSIM-1A-24VDC	24 Vdc TTSIM-1A	

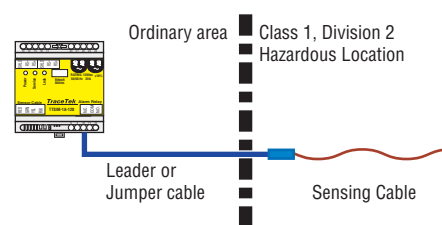
# TTSIM-1A Sensor Interface Module

<b>Serial interface</b>	Network configuration	RS-485 two wire network, 9600 baud, addressable from 1 to 127
	Communication protocol	MODBUS™, OptoMux™ or Johnson Controls Metasys™
<b>Relay contacts</b>	Type	Form C (SPDT)
	Action	Software selectable; normally energized or normally de-energized; alarm on leak; leak or fault; or leak, fault or service
	Rating	2 Amps maximum, 250 Vac or 30 Vdc (30 V SELV level max for Europe)

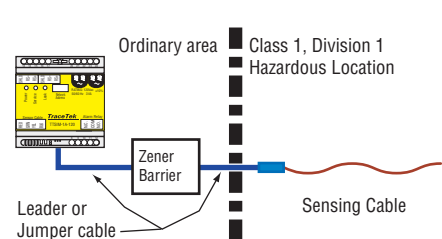
## Approvals



The TTSIM-1A unit is approved for use in ordinary areas. The module must be located in an ordinary area, but may monitor intrinsically safe TraceTek sensors located in hazardous locations, as shown below.



TraceTek sensors in Class I, Division 2, Groups A, B, C, D Hazardous Locations (Zone 2 in Europe).



If protected by an agency approved zener barrier, TraceTek sensors in Class I, Division 1, Groups A, B, C, D Hazardous Locations (Zones 0 and 1 in Europe). Contact Tyco Thermal Controls to select proper zener barrier.

**Only 24 Vac version is UL listed and VDE Certified.**  
**For DC models use a Listed Class 2 Power Supply.**

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MODBUS is a trademark of Gould, Inc. OptoMux is a trademark of Opto-22. Metasys is a trademark of Johnson Controls. Windows is a trademark of Microsoft Corporation.

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