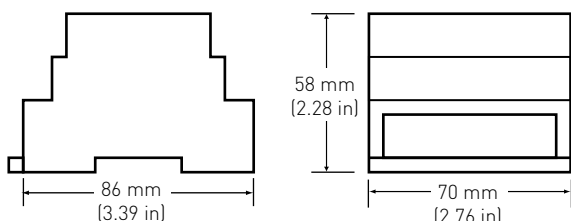
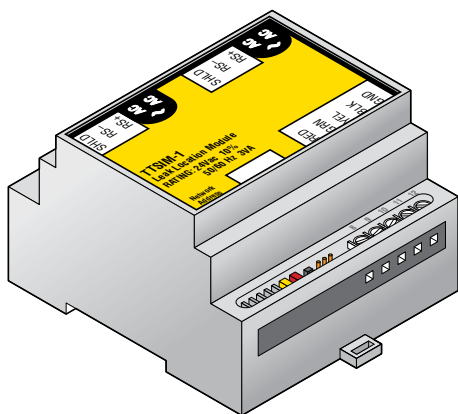


# TRACETEK TTSIM-1

## SENSOR INTERFACE MODULE



### PRODUCT OVERVIEW

#### Easy setup and simple operation

The TTSIM-1 is a Sensor Interface Module capable of monitoring up to 1500 meters (5000 feet) of TraceTek sensing cable. When liquid is detected, the TTSIM-1 locates the leak and communicates the leak details to the host monitoring system. The TTSIM-1 can communicate to a variety of host monitoring systems including a TraceTek TTDM-128, a PLC, DCS or Building Management System using standard protocols. No field calibration is required.

The TTSIM-1 is well suited to applications where large areas are being monitored, or long sensor circuit lengths are required. Since it incorporates multiple sensor monitoring algorithms, the TTSIM-1 is capable of performing several specialized leak detection measurements. These algorithms make TTSIM-1 especially well suited to monitoring long circuits of TraceTek hydrocarbon sensing cables that are installed in demanding applications.

#### Design features

- LEDs to indicate power, status and communication.
- 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.
- Operates on 24 Vac 50/60 Hz or 12 Vdc or 24 Vdc power supply.
- Each TTSIM-1 unit has a unique address assigned with software – no switches.
- Special leak detection algorithms provide enhanced capability for difficult applications.
- DIN rail mounted for easy installation.
- Enclosures available for stand-alone indoor or outdoor installations.

### GENERAL FEATURES

Sensor compatibility	All TraceTek sensor cables and point sensors or contact closure devices
Maximum length of sensing cable	1500 m (5000 ft)
Precision	0.1% of sensor length

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-1	22 to 26 Vac, 50/60 Hz, 3 W (SELV level for Europe)
TTSIM-1-12VDC	12 Vdc +/- 10%, 2 W
TTSIM-1-24VDC	24 Vdc +/- 10%, 2 W
Wire sizes	#22 AWG to #14 AWG (0.5 to 2.5 mm <sup>2</sup> )

ORDERING INFORMATION

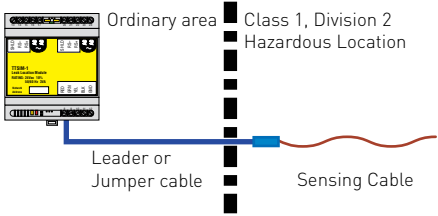
Catalog Number	Part Number	Description
TTSIM-1	518125-000	24 Vac TTSIM-1
TTSIM-1-12VDC	P000000898	12 Vdc TTSIM-1
TTSIM-1-24VDC	P000000905	24 Vdc TTSIM-1

SERIAL INTERFACE

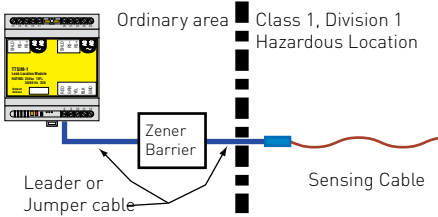
Network configuration	RS-485 two wire network, 9600 baud, addressable from 1 to 127
Communication protocol	Modbus®, OptoMux™ or Johnson Controls Metasys™

APPROVALS AND CERTIFICATIONS

The TTSIM-1 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 Pentair Thermal Building Solutions 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.