

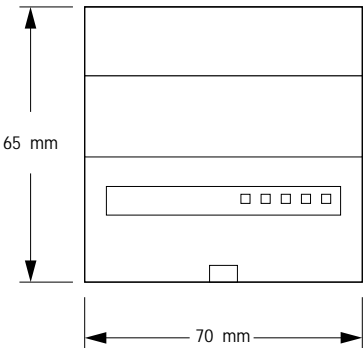
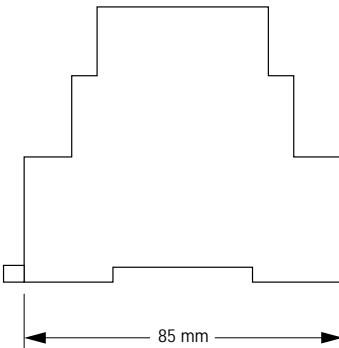
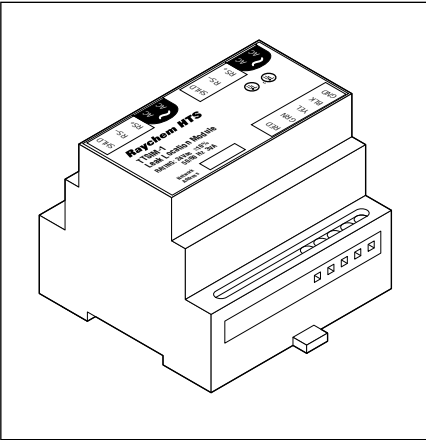
Easy setup and simple operation

The TTSIM-1 Sensor Interface Module monitors up to 5000 feet (1500 m) of TraceTek sensing cable. When liquid is detected, the TTSIM-1 unit communicates either with a TTDM-PLUS Master Module or directly to a PLC or other host system using the standard modbus protocol. Although massive sensor cable systems are possible with networked TTSIM-1's, their low cost makes it economical to build very robust systems with many small independent sensing cable segments. No field calibration is required other than a map to show where the sensor cable has been installed.

Design Features:

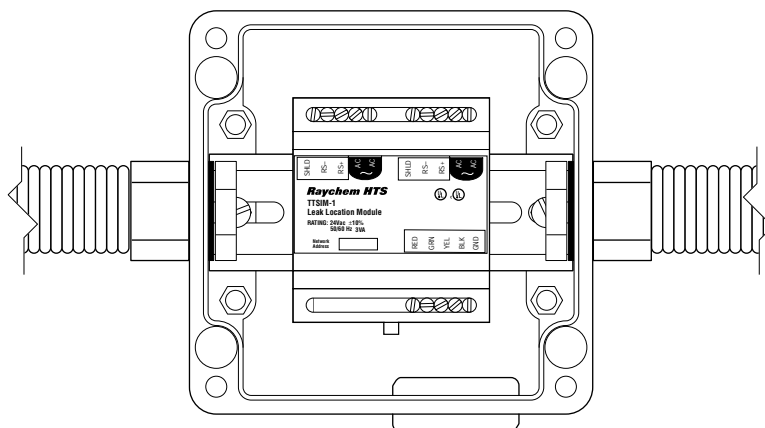
- Responsive to two different communication protocols: proprietary when networked to a TTDM-PLUS Master Module or generic modbus when networked to a PLC, building management system or similar factory automation system. Protocol selection is automatic with no user intervention required.

- LED's to indicate power, status, and communication progress.
- Simple twisted pair serial RS-485 communications out to 4000 feet without amplification. Industry standard amplifying bridges and optical links available for greater distances.
- Operates on 24 Vac 50/60 Hz either from a local supply or provided in the same cable that is used for data transfer.
- Each SIM unit has a unique address assigned with software - no dip switches.
- Up to 31 SIM units when networked to a TTDM-PLUS Master Module.
- Up to 123 SIM units when connected via twisted pair to an RS-485 communication port.
- DIN rail mounted for easy installation.
- NEMA-4X enclosure available for harsh or outdoor locations.

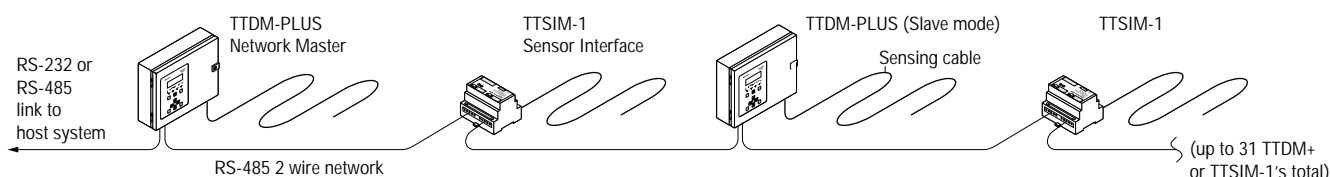


General features	Sensing cable compatibility	All TT1000, TT3000, and TT5000 series sensing cables
	Maximum length of sensing cables	5000 ft (1500 m) per TTSIM-1
	Precision	±0.1% of connected sensing cable length
	Units	Feet or meters (selectable)
Temperature	Storage	0°F to 140°F (–18°C to 60°C)
	Operating	32°F to 122°F (0°C to 50°C)
Humidity		5% to 95% noncondensing
Power consumption	3 VA (3W)	
Ordering information	Catalog number	Description
	Supply voltage	24 Vac ±10%

TTDM-SIM Sensor Interface Module



TraceTek network arrangement

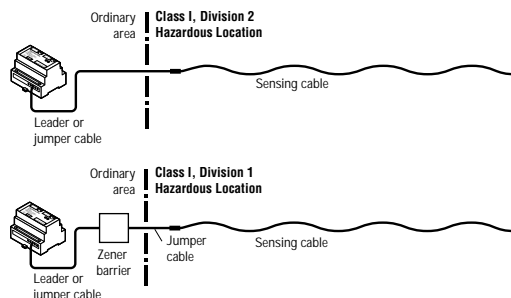


Interfaces

TraceTek Network Port RS-485 (2-wire connection)

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 sensing cables located in hazardous locations, as shown below. TYPE NM.



TraceTek sensing cable 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 sensing cable in Class I, Division 1, Groups A, B, C, D Hazardous Locations (Zone 0 or Zone 1 in Europe). Contact Raychem to select proper zener barrier.

The TTSIM-1 standard enclosure is NEMA-1, IP20. An optional NEMA-4X, IP54 enclosure is available.

Electromagnetic compatibility



Compliant with standards for immunity	EN50082-1 (light industrial)
Compliant with standards for emissions	EN50081-1 (residential/commercial) EN55022 and FCC Part 15, Class B



The TraceTek products group is a part of Raychem HTS which is ISO 9001 certified worldwide.

Raychem HTS

300 Constitution Drive
Menlo Park, California 94025-1164
Tel (800) 545-6258
Fax (800) 611-2323
Fax-on-Demand (800) 329-4494
info@raychemhs.com
www.tracetek.com

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