

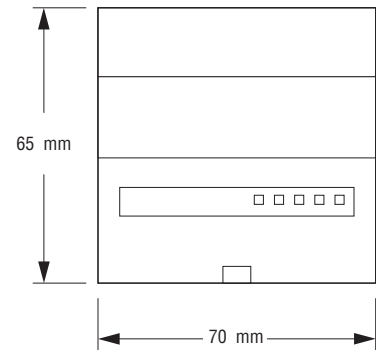
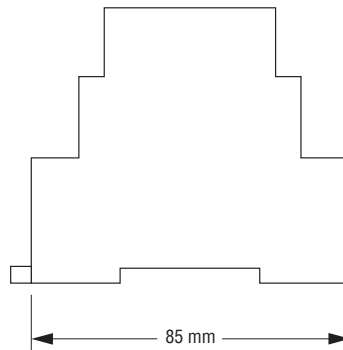
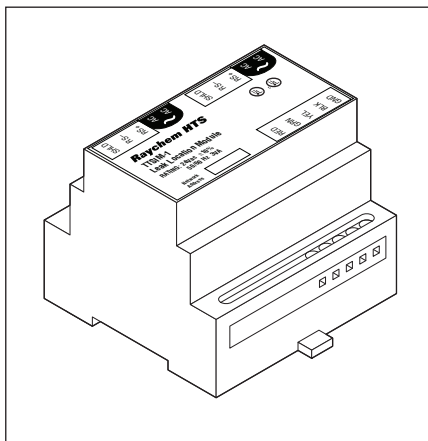
**Easy setup and simple operation**

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:**

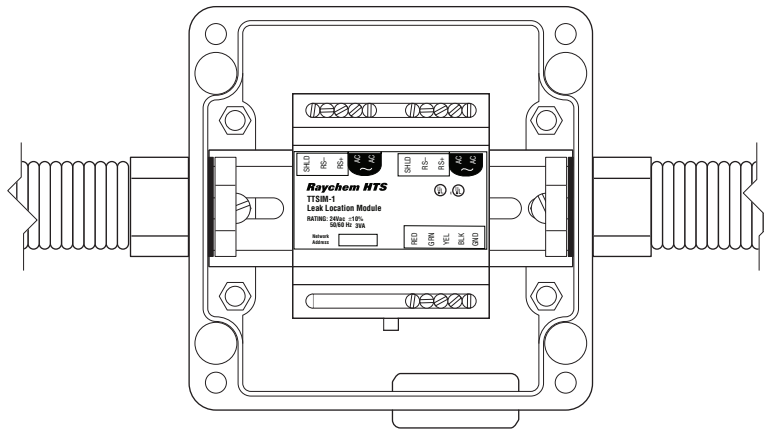
- Responsive to two different communication protocols: proprietary when networked to a TTDM-PLUS Master Module or generic modbus when networked to a PLC, building management system or similar factory automation system. Protocol selection is automatic with no user intervention required.

- 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.

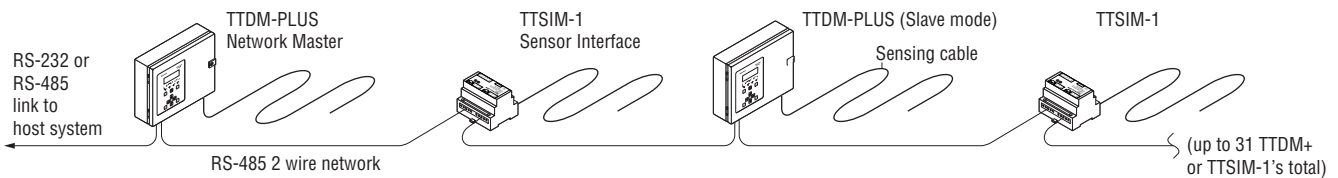


<b>General features</b>	Sensing cable compatibility	All TT1000, TT3000, and TT5000 series sensing cables
	Maximum length of sensing cables	5000 ft (1500 m) per TTSIM-1
	Precision	±0.1% of connected sensing cable length
	Units	Feet or meters (selectable)
<b>Temperature</b>	Storage	0°F to 140°F (-18°C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

# TTDM-SIM Sensor Interface Module



## TraceTek network arrangement



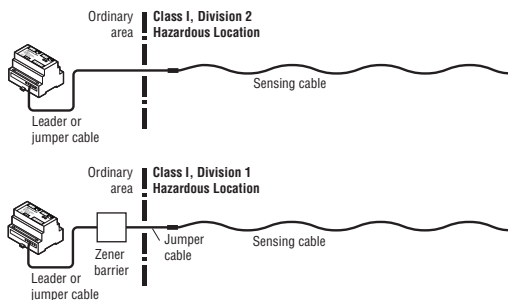
## Interfaces

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.



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.

**Important:** All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their particular application. Tyco Thermal Controls makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. Tyco Thermal Controls' only obligations are those in the Tyco Thermal Controls Standard Terms and Conditions of Sale for this product, and in no case will Tyco Thermal Controls or its distributors be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of the product. Specifications are subject to change without notice. In addition, Tyco Thermal Controls reserves the right to make changes—without notification to Buyer—to processing or materials that do not affect compliance with any applicable specification.



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