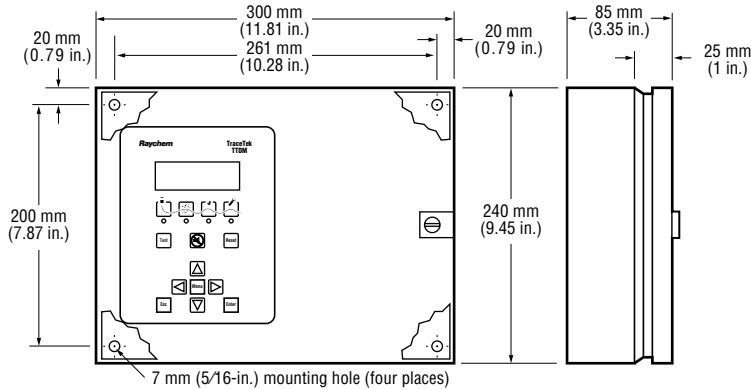
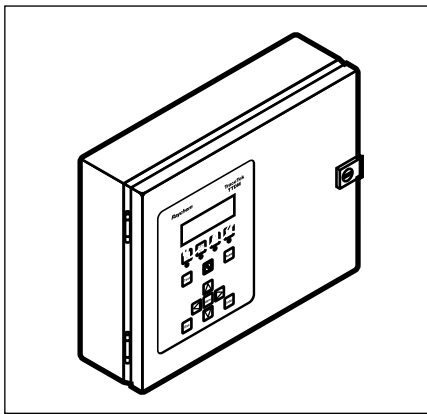


#### Easy setup and simple operation

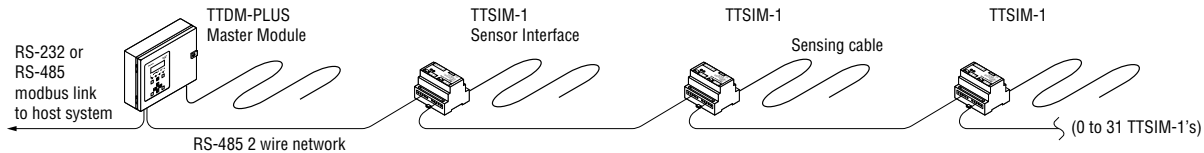
The TTDM-PLUS unit monitors up to 5000 feet (1500 m) and/or up to 31 external TTSIM-1 units. Each TTSIM-1 unit can monitor an additional 5000 foot (1500 m) length of sensor cable, providing total system capacity in excess of 150,000 feet or more than 48 km. When liquid is detected on any segment of sensor cable, the TTDM-PLUS sounds and alarm, closes relay contacts, turns on an LED and displays the channel number and location of the leak on an LCD display. The leak detection event is logged to an event history file and all status and event information is made available via RS232/RS485 modbus to any host PLC or plant or building automation system. A simple map showing where the sensor cable has been installed is the only field calibration requirement. Each segment of sensor cable detects, locates and tracks leaks entirely independent from one another. There is no loss of sensitivity and no re-mapping required after an initial leak is detected.

#### Design Features:

- Multiple event tracking capability for up to 32 independent sensor cable segments.
- Summary relay contacts, LED status lights, LCD event information display at the TTDM-PLUS panel.
- Standard external interface modes include: dry contacts, 4-20 mA analog, RS232/RS485 modbus.
- Event history accessible from the front panel or via the serial port to identify, type of event, time, location, etc. for all sensor events or user adjustments and interventions.
- Layered password protection for setup changes.
- Adjustable sensitivity, selectable units: feet, meters.
- Universal power supply for 120/240 Vac 50/60 Hz. (24 volt factory option).
- Non-volatile memory for event history, set-up and network configuration.
- Complete remote operation and monitoring through any generic GUI with modbus, or optional Win 95/98/NT application.



#### TraceTek network arrangement



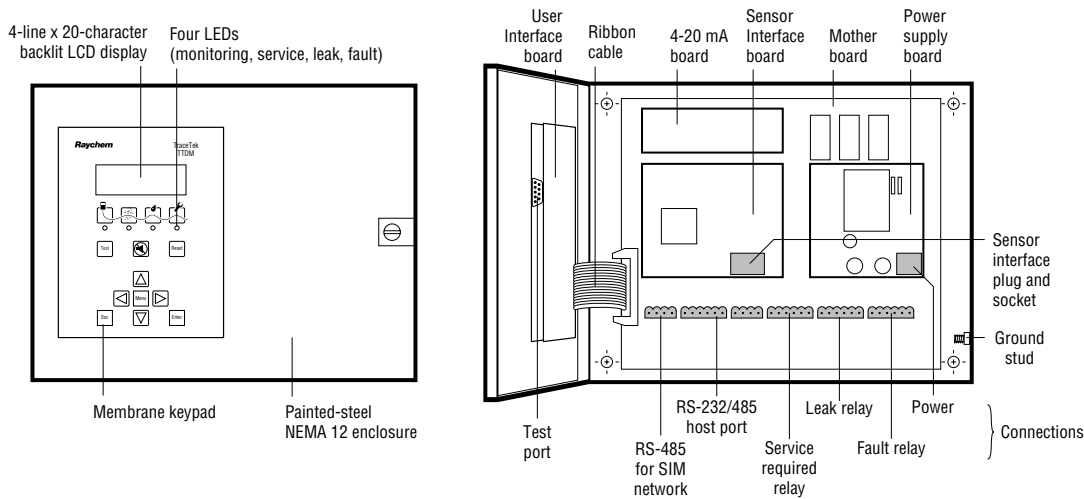
#### General features

|                                  |  |
|----------------------------------|--|
| Sensing cable compatibility      | All TT1000, TT3000, and TT5000 series sensing cables or contact closure device |
| <b>Maximum size of network</b>   |  |
| Number of TTSIM-1s               | 31 plus SI in TTDM-PLUS  |
| Maximum length of sensing cables | 32 X 5000 ft (1500 m); total 160,000 ft (48 km)                                |
| Precision                        | ±0.1% of segment length  |
| Units                            | Feet, meters (selectable)  |
| Display language                 | English, French, German, Spanish, Japanese, Italian.                           |

#### Ordering Information

|                | Catalog Number | Description                            |
|----------------|----------------|--|
| Supply voltage | TTDM-PLUS      | 115 V +15%, -20%; 230 V ±10%; 50/60 Hz |
|                | TTDM-PLUS-24   | 24 Vac +5%, -35%; 24 Vdc ±20%          |
| Spares         | TTDM-PS24      | 24 Vac/dc power supply                 |
|                | TTDM-PS        | 115/240 Vac power supply               |
|                | TTDM-SI        | Sensor interface                       |
|                | TTDM-PS        | 115/240 Vac power supply               |
|                | TTDM-MB        | Motherboard                            |
|                | TTDM-UI        | Network mstr user interface            |
|                | TTDM-EPROM     | Software                               |

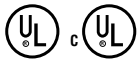
# TTDM-PLUS Leak Detection Master Module



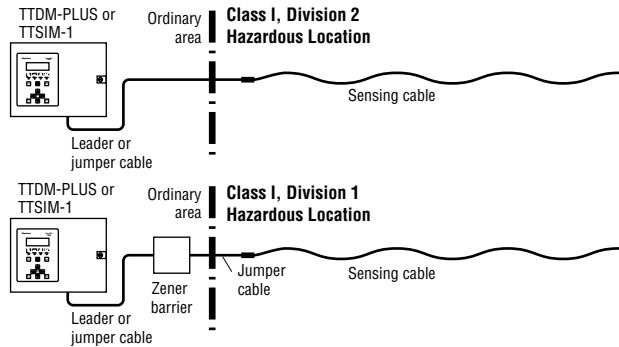
|                          |                                |  |
|--------------------------|--------------------------------|--|
| <b>Temperature</b>       | Storage                        | 0°F to 140°F (–18°C to 60°C)   |
|                          | Operating                      | 32°F to 122°F (0°C to 50°C)  |
| <b>Humidity</b>          |                                | 5% to 95% noncondensing  |
| <b>Audible alarm</b>     |                                | Piezo electric   |
| <b>Power consumption</b> |                                | <6 VA (5 W)  |
| <b>Interfaces</b>        | Relays                         | Number: 3 (service required, leak, fault)<br>Type: DPDT<br>Rating: 5 A at 250 Vac/24 Vdc |
|                          | TraceTek Network Port          | RS-485 (2-wire)  |
|                          | External Serial Port (to Host) | RS-232 (3- or 5-wire connection) or<br>RS-485 (2-wire connection)                        |

## Approvals and certifications

The TTDM-PLUS 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.



LISTED  
76LJ  
SIGNAL SYSTEM UNIT



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 HTS to select proper zener barrier.

The TTDM-PLUS enclosure is NEMA 12, IP54.

## Electromagnetic compatibility



|  |  |
|--|--|
| Compliant with standards for immunity  | EN50082-1 (light industrial)   |
| Compliant with standards for emissions | EN50081-1 (residential/commercial)<br>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@raychemhts.com  
www.tracetek.com

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