

## Scope of This Guide

This guide will help you select leak detection products for the TraceTek zone system. The TraceTek zone system is a specific type of locating system that indicates leak location by zone number, rather than distance along the sensing cable. This guide covers specifics for the zone system only, and is meant to complement other TraceTek design literature.

Other TraceTek literature may be obtained from our Fax-on-Demand service. Simply call 1-800-329-4494 and a voice prompt will lead you through the process.

## Modular Design

TraceTek leak detection is a versatile modular system. TraceTek cables and components come with factory-installed connectors which plug together with no special tools. This makes the system easy to install, and to modify in the future.

The zone system is designed for use with the TTDM alarm and locating module. However, the range of TraceTek alarm modules and modular components allows a monitoring approach and layout to be tailored to the application. If the zone system does not fit your needs, refer to the Selection Guide for Environmental Applications (H55869) for other options.

## Contents of This Guide

This page of the guide describes the basic elements of a TraceTek leak detection system, the specific configuration required for a zone system, and the restrictions a zone system entails. Page 2 provides a detailed listing of products specific to the zone system.

For a more comprehensive listing of TraceTek products, see the *TraceTek Product Selection Guide for Industrial and Environmental Applications* (H55869).

## Basic Elements of Zone System

A TraceTek zone system has the same basic parts as all TraceTek leak detection systems, but does have some specific requirements.

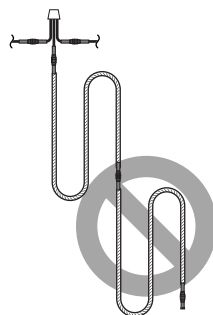
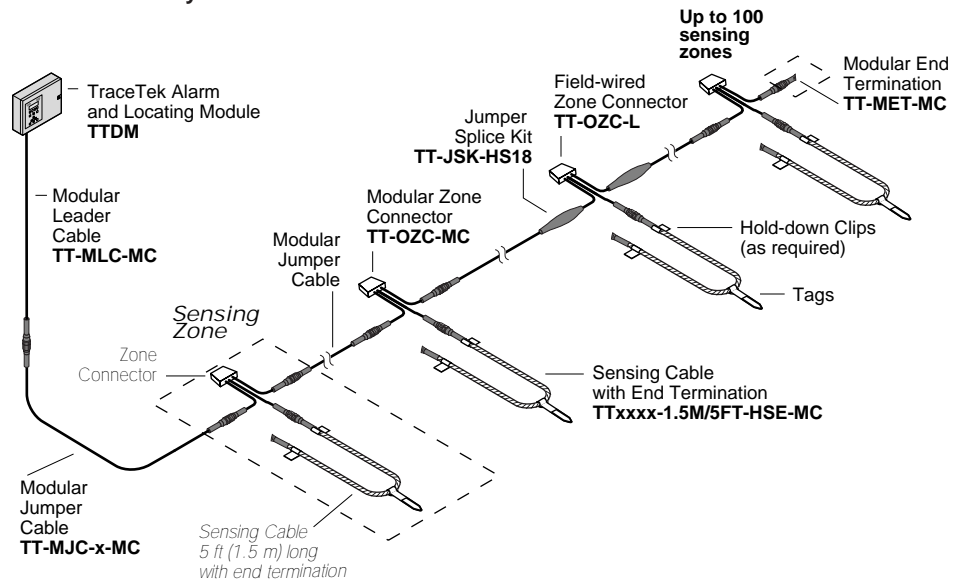
- **Alarm module.** A zone system uses the TTDM alarm and locating module.
- **Leader and/or jumper cables.** There are virtually no constraints on the lengths of nonsensing cable used anywhere in the system.
- **Zone connector.** This circuit component is specific to the zone system; a zone connector is required for each sensing zone, including the last one.
- **Sensing cable.** Each zone must have 5 ft (1.5 m) of sensing cable.
- **End terminations.** To complete the sensing circuit, the last zone connector and each sensing cable must be terminated (see system illustration).
- **Accessories.** Hold-down clips and tags are the typical accessories.

## Restrictions with Zone System

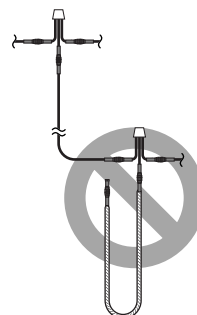
Two important restrictions\* on the layout of a zone system are illustrated at right.

\*The layout restrictions do not apply to a TraceTek locating system which indicates leak location by distance along the sensing circuit. The TTDM alarm and locating module's software allows you to select the type of locating system (zones, ft, or m) from a password-protected menu.

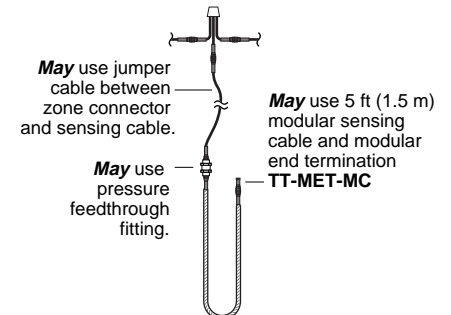
## TraceTek zone system



May **NOT** have sensing cable of length other than 5 ft (1.5 m) in any zone.

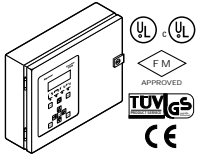




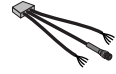





May **NOT** branch in a zone system.



May use pressure feedthrough fitting.

## Product Selection Guide for TraceTek Zone Systems

Product	Catalog No.	Selection	Description
<b>Alarm Modules</b>			
TTDM Alarm and Locating Module	TTDM-1 TTDM-2 TTDM-24	115 Vac Supply 230 Vac Supply 24 V Supply	Alarm and locating module; indicates liquid location with digital display. Monitors up to 100 sensing zones, or 5000 ft or 1500 m of sensing cable (selected in software). Metal enclosure, NEMA 12. Data logging. Outputs: Audible alarm, 4 LEDs, backlit LCD 3 DPDT Form C relays (leak, service, and fault) 4–20 mA analog output Serial port configurable for RS-232 or RS-485
		For details on approvals see data sheet	
<b>Sensing Cables</b>			
For Conductive Liquids	TT3000-1.5M/5FT-HSE-MC	Terminated Sensing Cable	TT3000 sensing cable for conductive liquids. Pin-type metal connector at one end; includes connector oversleeve. Factory-installed heat-shrink end termination. Cable length is 5 ft (1.5 m) as required for zone system.
			
For Fuels and Oils	TT5000-1.5M/5FT-HSE-MC	Terminated Sensing Cable	TT5000 hydrocarbon sensing cable for liquid fuels and oils. Pin-type metal connector at one end; includes connector oversleeve. Factory-installed heat-shrink end termination. Cable length is 5 ft (1.5 m) as required for zone system.
			
For Organic Solvents	TT5001-1.5M/5FT-HSE-MC	Terminated Sensing Cable	TT5001 sensing cable for organic solvents. Pin-type metal connector at one end; includes connector oversleeve. Factory-installed heat-shrink end termination. Cable length is 5 ft (1.5 m) as required for zone system.
			
<b>Zone Components</b>			
Modular Zone Connector	TT-OZC-MC	Orange Zone Connector (with metal connectors)	Creates a separate zone in the sensing circuit. One pin-type connector to connect to cable from alarm module; two socket-type connectors (one for the zone, one for continuation of circuit). Adds 200 ohm resistance to make clear division between zones.
			
Field-Wired Zone Connector	TT-OZC-L	Orange Zone Connector (field wired)	Creates a separate zone in the sensing circuit. One socket-type connector for the sensing zone. Adds 200 ohm resistance to make clear division between zones.
			
End Termination	TT-MET-MC	Modular End Termination (with metal connector)	Terminates zone sensing circuit; has pin-type metal connector. Required on last zone connector to complete sensing circuit.
			
Zone Bar Termination	TT-ZBT-MC	Zone Bar Termination (with metal connector)	Can be connected in place of sensing cable during clean up operations. Completes sensing circuit and simulates 5 ft (1.5 m) length. Has pin-type metal connector.
			
Pressure Feedthrough	TT-PFT-3/4-MC TT-PFT-3/4-SS/MC	Brass fittings Stainless steel fittings	Provides pressure-tight entry to containment; 3/4-inch NPT. Has pin and socket connectors to connect TraceTek cables. Rated for 150 psi (10 bar) at room temperature.
			

### Other Components

Note: For selection of jumper cables, accessories, and tools, see the *TraceTek Product Selection Guide for Industrial and Environmental Applications* (H55869).



The TraceTek products group is a part of the Raychem Chemelex Division. The Chemelex Division is ISO 9001 certified.

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