



TraceTek *Leak Detection* Product Selection Guide for Water Sensing Systems

Scope of this Guide

This guide will help you select TraceTek products for water detection in commercial buildings. Detailed product information in this guide complements the *TraceTek Application Guide for Commercial Building Protection* (H53147).

Additional TraceTek products are available for other liquids—fuels and oils, organic solvents—and for other types of applications. See the *TraceTek Selection Guide for Industrial and Environmental Applications* (H55869) for further detail.

Modular Design Approach

TraceTek leak detection is a versatile modular system, with interchangeable components that can be configured in many different ways. Standard lengths of TraceTek cable plug together with no special tools, making it easy to modify or add to the system in the future. The range of TraceTek alarm modules and modular components allows you to tailor the monitoring approach and layout to the application.

Contents of this Guide

The first two pages of this guide show typical configurations for TraceTek leak detection systems. Many other configurations are possible as well. The last two pages present product listings—detailed technical and ordering information for the products available.

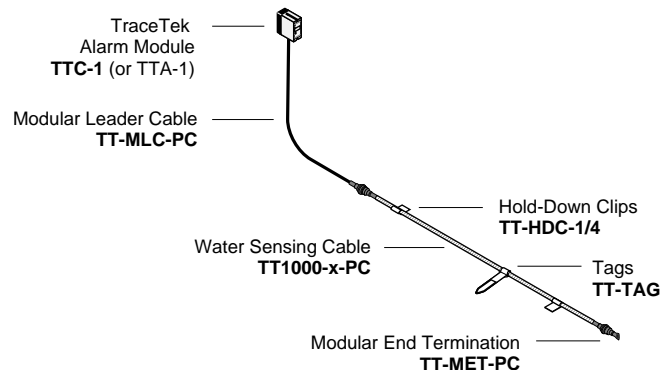
Other Raychem literature can be obtained from our Fax-on-Demand service at (800) 329-4494. A voice prompt leads you through the process.

Elements of a TraceTek System

A Basic System

Every TraceTek leak detection system has these basic parts:

- An alarm module
- Leader and/or jumper cables (nonsensing cables between the module and the areas monitored)
- Sensing cable
- End termination
- Accessories such as hold-down clips and tags.



A Locating System

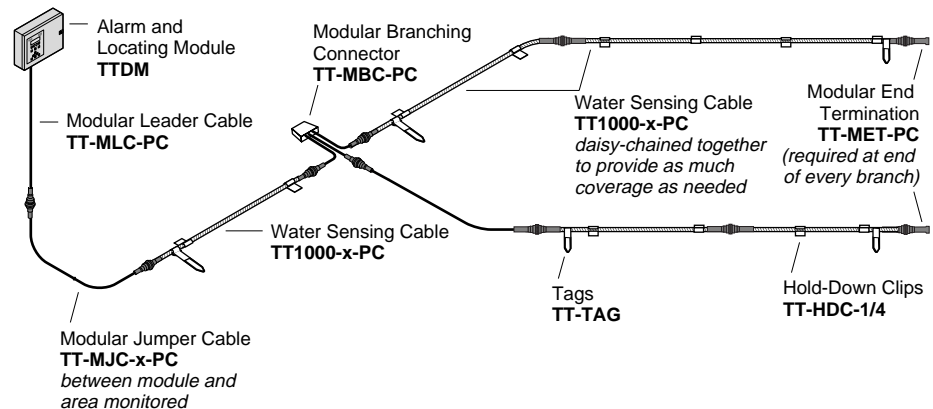
A TraceTek locating system often includes these additional circuit components:

- Branching connectors
- Weighted lengths

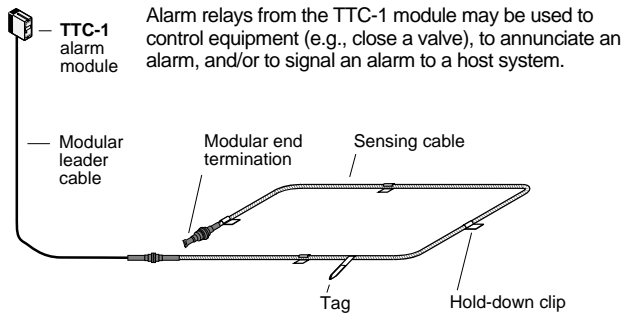
These components make it possible for a locating system to monitor one or more large areas or lengths.

A locating system has one more essential element:

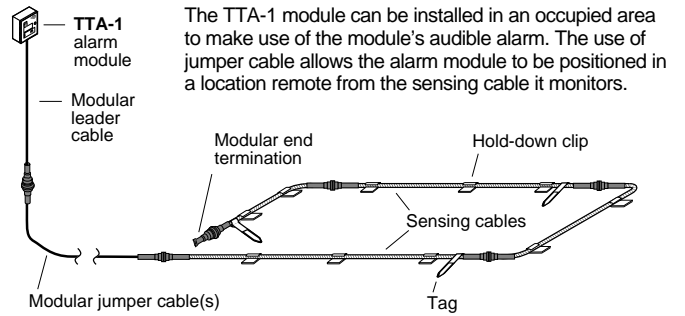
- A graphic map (see an example on the next page)



Small Area Coverage: Basic TraceTek Alarm System



Sensing cable can be positioned to provide complete leak detection coverage of pumps, boilers, and other equipment.



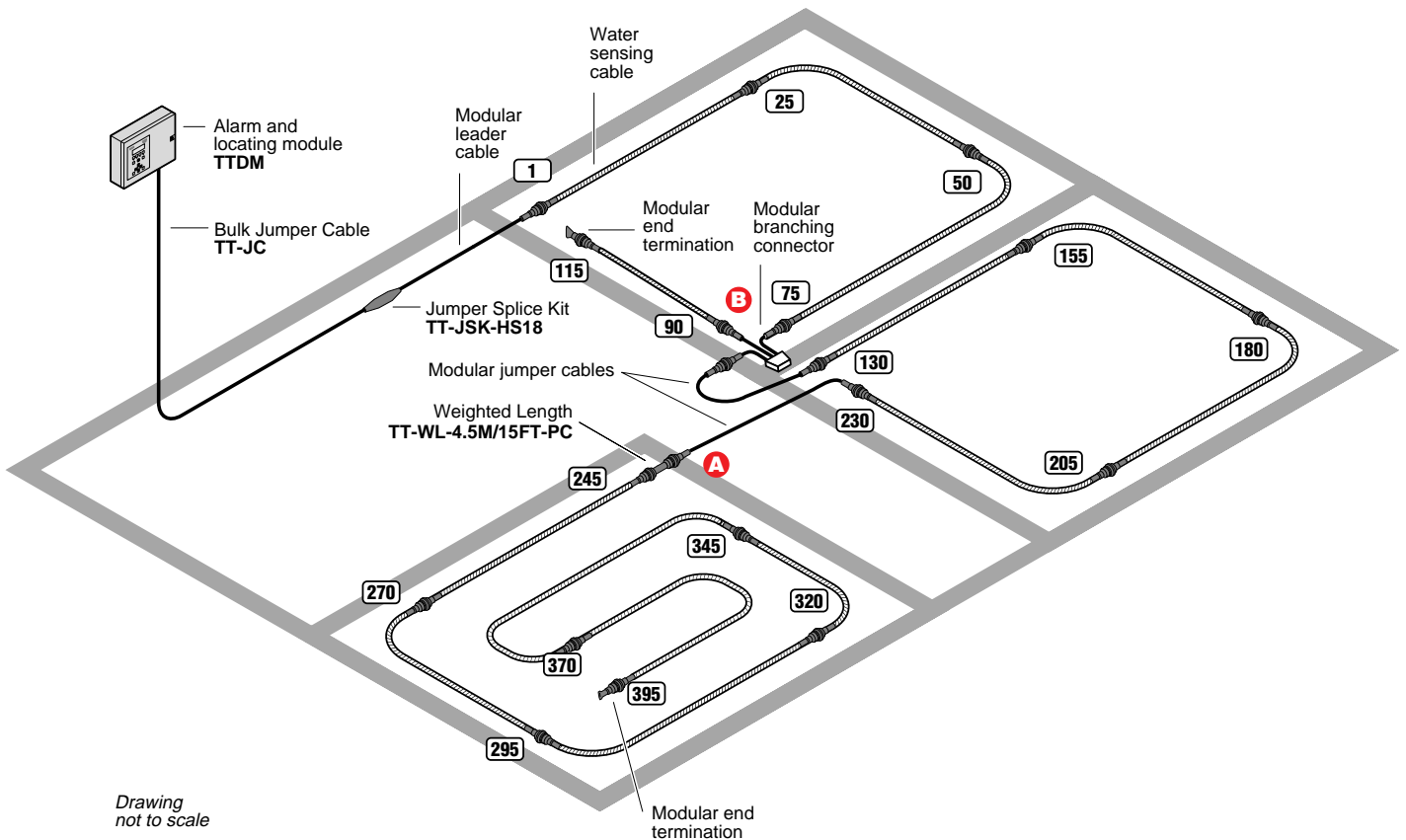
Note: A TraceTek alarm system can include several lengths of sensing cable. However, for large and/or separate areas, consider a TraceTek locating system.

Wide Area Coverage: TraceTek Locating System

A TraceTek locating system can monitor one or more large areas. If water contacts the sensing cable, the alarm and locating module indicates the location with a digital display. A system map created after installation provides reference points (e.g., 25) in the illustration) to facilitate a quick, effective response.

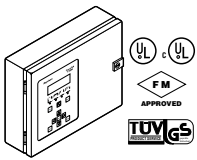

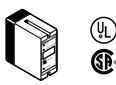


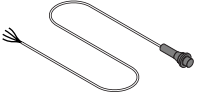
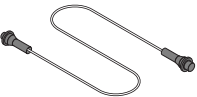
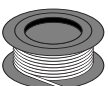


A shows where the sensing circuit jumps to a new room and a weighted length is used. The weighted length simulates 15 ft of sensing cable so the system map will show a clear division between the separate areas.

B shows a branch in the sensing circuit. A TraceTek branching connector is wired so the connected branches appear in series, middle leg first. The branching connector also adds a simulated cable length of 15 ft on each branch to make a clear division between areas. Although not shown, a system may have branches within branches. The number of branches is limited only by the length of the sensing circuit.


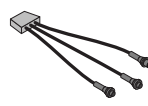



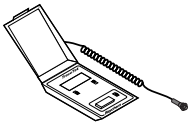
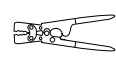
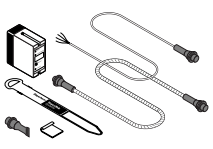


Drawing
 not to scale

TraceTek Products for Water Detection in Commercial Buildings

Product	Catalog No.	Selection	Description
Alarm Modules			
TTDM Alarm and Locating Module 	TTDM-1	115 Vac Supply	Alarm and locating module; indicates liquid location with digital display. Monitors up to 5000 ft (1500 m) of sensing cable. 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
	TTDM-2	230 Vac Supply	
TTDM-24	24 V Supply		
		<i>For details on approvals see data sheets.</i>	
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TTA Alarm Module 	TTA-1	115 or 240 Vac Supply	Nonlocating single-channel alarm module. Monitors up to 100 ft (30 m) of sensing cable. Metal enclosure, NEMA 1. Outputs: Audible alarm, 3 LEDs 4PDT Form C relay (leak or fault)
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TTC Alarm Module 	TTC-1	24 V Supply	Nonlocating single-channel alarm module. Monitors up to 100 ft (30 m) of sensing cable. Plastic enclosure, NEMA 1. Outputs: 3 LEDs DPDT Form C relay (leak) SPDT Form C relay (fault)
		TT-DRC	
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External or Remote Alarm 	TTE-XAL	External Audible Alarm	95 dB alarm triggered by relay closure; requires 24 V supply.
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Jumper Cables			
Modular Leader Cable 	TT-MLC-PC	Modular Leader Cable (with plastic connector) Length: 12 ft (3.5 m)	Cable with one end prepared for connection to terminals in module (or for splicing to bulk jumper cable), and with socket-type plastic connector at other end.
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Modular Jumper Cable 	TT-MJC-x*-PC TT-MJC-1M/3FT-PC TT-MJC-3M/10FT-PC TT-MJC-7.5M/25FT-PC TT-MJC-15M/50FT-PC TT-MJC-30M/100FT-PC	Modular Jumper Cable 1 m 3 ft 3 m 10 ft 7.5 m 25 ft 15 m 50 ft 30 m 100 ft	Jumper cable with pin-type plastic connector at one end; socket-type plastic connector at other end. *Cable length
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Bulk Jumper Cable 	TT-JC-76M/250FT	Bulk Jumper Cable (250-ft reel)	Bulk jumper cable with four color-coded 18 AWG conductors. Connectors not included.
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Jumper Splice Kit 	TT-JSK-HS18	Jumper Splice Kit	Splice kit for jumper cable; contains parts for 5 splices. Includes 20 crimps and 5 heat-shrinkable tubes. For use with 18 AWG jumper wire.
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Sensing Cables			
Water Sensing Cable 	TT1000-x*-PC TT1000-1M/3FT-PC TT1000-3M/10FT-PC TT1000-7.5M/25FT-PC TT1000-15M/50FT-PC	Modular Sensing Cable 1 m 3 ft 3 m 10 ft 7.5 m 25 ft 15 m 50 ft	TT1000 water sensing cable with pin-type plastic connector at one end, socket-type plastic connector at other end. *Cable length

TraceTek Products for Water Detection in Commercial Buildings (continued)

Product	Catalog No.	Selection	Description
Circuit Components			
End Termination 	TT-MET-PC	Modular End Termination (with plastic connector)	Terminates sensing circuit; has pin-type plastic connector. Required at end of sensing circuit and all branches.
Branching Connector 	TT-MBC-PC	Modular Branching Connector (with plastic connectors)	Allows a "T" or branch in the sensing circuit. Has one pin-type connector to connect to cable from alarm module, two socket-type connectors to connect two branches. Wires the branches in series and adds a simulated length of 15 ft on each branch to make clear division between areas.
Weighted Length 	TT-WL-4.5M/15FT-PC	Weighted Length (with plastic connectors)	Simulates 15 ft (4.5 m) of sensing cable. Makes a clear division between separate areas in a locating system.
Accessories			
Hold-down Clips 	TT-HDC-1/4/200-N/A TT-HDC-1/4	No adhesive (200/bag) Adhesive-backed (50/bag)	Hold-down clips attach cable to flat surfaces. Pressure-sensitive adhesive bonds to clean, flat surfaces. <i>Use a clip for each 4 ft (1.3 m) of sensing cable.</i>
Tags 	TT-TAG	TraceTek Tags	Tags to identify TraceTek sensing cable and record mapped distance. Tag attaches to sensing cable by closing on itself (like a cable tie). Package contains 50 high-visibility yellow tags and a permanent marker. <i>Use a tag on each length of cable and at mapping points.</i>
Tools			
Portable Test Box 	TT-PTB-1000	Portable Test Box	Battery-operated device to test TraceTek sensing cables. Allows testing of anything from an individual length up to 2000 ft (or 1000 m) of sensing cable. Useful for installation and maintenance.
Crimp Tool 	AD-1522-1	Crimp Tool	Tool sized to properly crimp connectors in TT-JSK-HS18 jumper splice kit
Pre-Packaged Kits			
Complete Kits 	TTC-KIT-1 TTC-KIT-2	25 ft of TT1000 Cable 50 ft of TT1000 Cable	Each kit contains a TTC-1 alarm module, a modular leader cable, a modular sensing cable of length indicated, a modular end termination, 15 hold-down clips, and 5 tags.



The TraceTek Products Group is part of the Raychem Chemelex Division. Chemelex Division is ISO 9001 certified.

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