

# TT5000

## TraceTek Fuel Sensing Cable

TraceTek TT5000 sensing cable detects the presence of liquid hydrocarbon fuels at any point along its length, yet does not react to the presence of water. Installed with a TraceTek alarm and locating module, the cable senses the liquid, triggers an alarm, and pinpoints the location of the leak.

### Distributed sensing

TT5000 sensing cable provides distributed leak detection and location for a wide range of applications. The cable is available in a variety of lengths to provide as much coverage as needed.

### Design flexibility

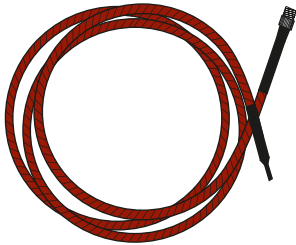
TT5000 sensing cable is available in bulk reels, with connector kits or with factory-

installed connectors that plug together. The cable is designed for a variety of double-containment applications, including tanks, trenches, and piping. (See the "TraceTek Double-Containment Design Guide" for specific design alternatives

### Advanced technology

TraceTek's radiation crosslinking and conductive-polymer technologies are used to make TT5000 sensing cable mechanically strong and chemically resistant. The core of the cable is constructed of two sensing wires, an alarm signal wire, and a continuity wire. The core is encased in a conductive-polymer jacket and surrounded with a fluropolymer braid. This rugged construction allows the cable to perform reliably in the most demanding environments.

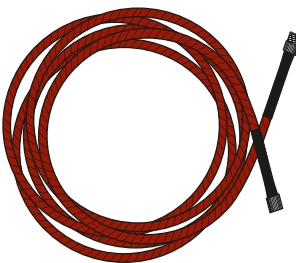
## Ordering information



### TT5000 zone sensing cable with factory-installed connector and end termination

**Catalog number**  
TT5000-Zone-MC

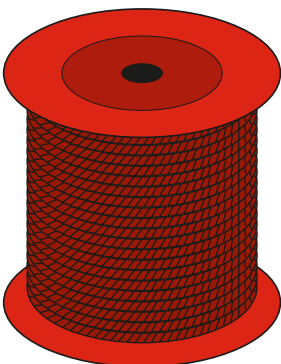
**Description**  
5-ft (1.5 m) sensing cable with heat-shrink end termination.



### TT5000 modular sensing cables with factory-installed connectors

**Catalog number**  
TT5000-0.3M/1FT-MC  
TT5000-1.5M/5FT-MC  
TT5000-3M/10FT-MC  
TT5000-4.5M/15FT-MC  
TT5000-7.5M/25FT-MC  
TT5000-15M/50FT-MC  
TT5000-30M/100FT-MC

**Description**  
1-ft (0.3 m) sensing cable  
5-ft (1.5 m) sensing cable  
10-ft (3 m) sensing cable  
15-ft (4.5 m) sensing cable  
25-ft (7.5 m) sensing cable  
50-ft (15 m) sensing cable  
100-ft (30 m) sensing cable



### TT5000 bulk sensing cable (connector kits required) *for installation in double-containment piping*

**Catalog number**  
TT5000-SC

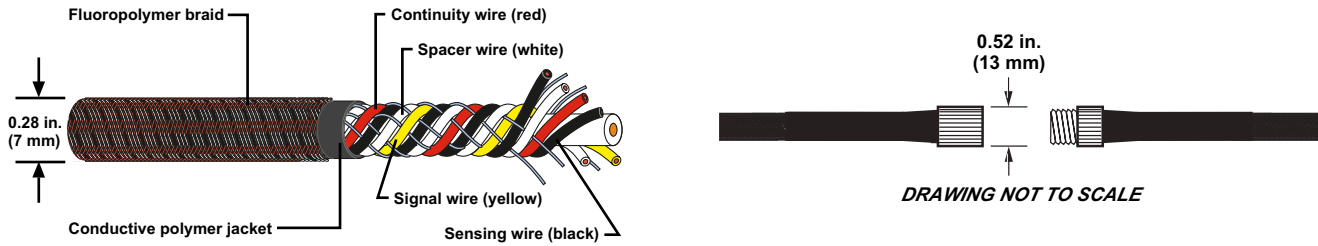
**Description**  
Bulk sensing cable on reel  
Minimum length: 100 ft (30 m)  
Maximum length: 800 ft (240 m)

*Connector kits (not shown):*  
TT5000-CK-MC-M/F

TT5000-CK-MC-M  
TT5000-CK-MC-F

Components for five mated pairs of connectors (includes test tools)  
One pin-type connector  
One socket-type connector

# TT5000 Fuel-Sensing Cable



## Product characteristics

Cable diameter	0.28 in. (7 mm) nominal
Cable diameter with connector	0.52 in. (13 mm) nominal
Cable weight (50-ft length)	2.4 lb
Operating temperature range	-20° C to 60° C (-4° F to 140° F)
Pull force limit	Not to exceed 50 lb
Bend radius	2 in. (50 mm) minimum
Pressure	Loads greater than 20 lb (9 kg) per linear inch at 20° C (68° F) may immediately trigger an alarm.
Nonresettable	Must be replaced after exposure to hydrocarbon liquids.

## Chemical resistance

Cable functions normally after exposure in accordance with ASTM D 543 at 23° C (73° F) for seven days	Sulfuric acid (10%) Hydrochloric acid (10%) Nitric acid (10%) Sodium hydroxide (10%)
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## Water resistance

Sensing cable	Less than 10- $\mu$ A leakage when immersed in salt water for 90 days.
Connector system	Less than 10- $\mu$ A leakage when immersed in water at 10 psig for 24 hours.

## Response time

Representative materials detected:	Typical response time at 20° C (68° F):
Gasoline	12 minutes
#1 diesel fuel	60 minutes
#2 diesel fuel	120 minutes
JP5 jet fuel	70 minutes
JP8 jet fuel	50 minutes
Jet-A jet fuel	50 minutes
Xylene	20 minutes

### Notes:

- Response Time Test Method: "Test Procedures for Third Party Evaluation of Leak Detection Methods; Cable Sensor Liquid Contact Leak Detection Systems."
- Response times are affected by operating temperature. Consult factory for specific response times at other temperatures and in other liquids.

## Approvals



Sensing cable may be used in Class I, Division 2, Groups A, B, C, D Hazardous Locations. If wiring from module meets requirements for intrinsic safety, sensing cable may be used in Class I, Division 1, Groups A, B, C, D Hazardous Locations (Zone 0 or Zone 1 in Europe).

**ISO 9001**  
The TraceTek products group is a part of Tyco Thermal Products. Chemelex Division is ISO 9001 certified.

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