



# 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 within one meter.

### 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

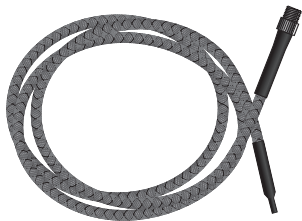
TT5000 sensing cable can be purchased in bulk form, cut to length in the field and joined using connector kits, or it can be obtained in standard lengths with connectors attached in the factory. These modular sensing cables may be connected in series to provide distributed monitoring for trenches, subfloors, and double-containment piping, or used individually for double-containment tanks, sumps, and small areas. TT5000 zone sensing cable—which comes with a factory-installed, heat-shrink end termination—is also available for small area coverage.

### Advanced technology

TraceTek uses radiation-crosslinking and conductive-polymer technology 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 fluoropolymer braid. This rugged construction allows the cable to perform reliably in the most demanding environments.

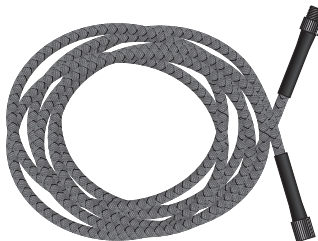
### Ordering information

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



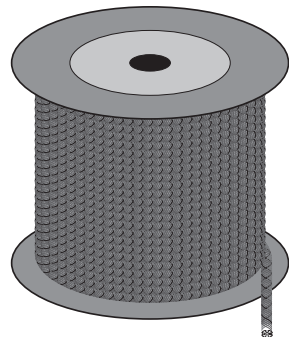
Catalog Number	Part Number	Description
TT5000-1.5M/5FT-HSE-MC	763379-000	1.5 m (5 ft) sensing cable with preinstalled heat-shrink end termination, prepared for zone system

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



Catalog Number	Part Number	Description
TT5000-0.3M/1FT-MC	343347-000	0.3 m (1 ft) sensing cable
TT5000-1.5M/5FT-MC	743599-000	1.5 m (5 ft) sensing cable
TT5000-3M/10FT-MC	690609-000	3 m (10 ft) sensing cable
TT5000-4.5M/15FT-MC	251851-000	4.5 m (15 ft) sensing cable
TT5000-7.5M/25FT-MC	753845-000	7.5 m (25 ft) sensing cable
TT5000-15M/50FT-MC	770285-000	15 m (50 ft) sensing cable
TT5000-30M/100FT-MC	260635-000	30 m (100 ft) sensing cable

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



Catalog Number	Part Number	Description
TT5000-SC	869309-000	Bulk sensing cable on reel Minimum length: 30 m (100 ft) Maximum length: 240 m (800 ft)

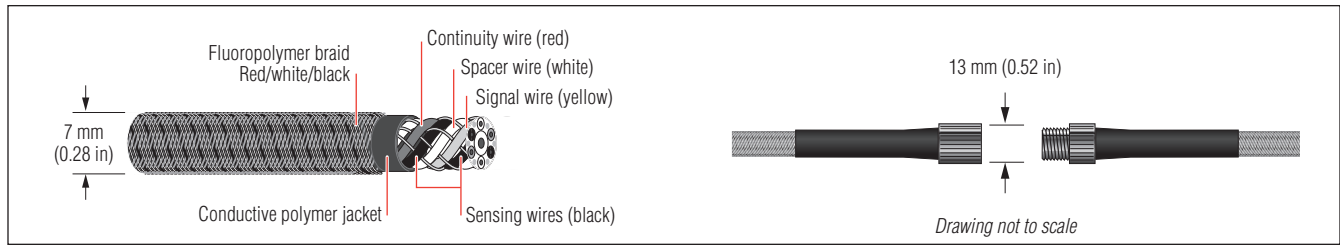
#### Connector kits (not shown)

Catalog Number	Part Number	Description
TT5000-CK-MC-M/F (includes test tools)	122499-000	Components for five mated pairs of connectors
TT5000-CK-MC-M	961207-000	One pin-type connector
TT5000-CK-MC-F	880841-000	One socket-type connector

#### Notes:

- Refer to the *Product Selection Guide* (H55869) for other components of the TraceTek system.

## TT5000 Fuel Sensing Cable



Product characteristics		
Cable diameter	7 mm (0.28 in) nominal	
Cable diameter with connector	13 mm (0.52 in) nominal	
Cable weight	7.3 kg/100 m nominal (4.81 lb/100 ft nominal)	
Fluoropolymer braid	Color—red, white and black	
Operating temperature range	–20°C to 60°C (–4°F to 140°F)	
Pull force limit	Not to exceed 22.7 kg (50 lb)	
Bend radius	50 mm (2 in) minimum	
Pressure	Loads greater than 9 kg (20 lb) 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%)	

Water resistance		
Sensing cable	Less than 10 µA leakage when immersed in salt water for 90 days	
Connector system	Less than 10 µA leakage when immersed in water at 10 psig for 24 hours	

Response time	Represented 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 and Certifications** TraceTek TT5000 sensing cables are approved for installation in ordinary and hazardous areas when used in conjunction with approved TraceTek monitoring equipment and zener safety barriers when appropriate.

All TraceTek sensing cables are designated as “simple apparatus” and included in the approval certification for TraceTek monitoring instruments.

Consult the specific data sheets and approval certificates for the TraceTek TTSIM-128, TTSIM-1, TTSIM-1A, TTSIM-2, TTC-1 and TT-FLASHER-BE for application limitations and specific area approvals and certifications.



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