TT3000



CONNECT AND PROTECT

Sensing cable for conductive liquids

PRODUCT OVERVIEW



nVent RAYCHEM TraceTek TT3000 sensing cable detects the presence of conductive liquids at any point along its length. Most acids and bases and even deionized water can be sensed and located. Installed with Tracetek alarm and locating module, the cable senses the presence of fluid, triggers an alarm, and pinpoints the location.

Distributed sensing

TT3000 sensing cable provides distributed leak detection and location over a wide range of areas. The cable is available in a variety of lengths to provide as much coverage as needed.

Design flexibility

TT3000 sensing cable is available with factory-installed metal connectors that plug together. The measurement circuit is not dependent upon the conductivity of the leaking fluid. Therefore, the same cable will detect a wide range of fluids without special design considerations or calibration.

The cable is designed for a variety of applications, including floor surfaces, subfloors, equipment locations, pipes, storage tanks, and trenches. The cable is small, lightweight, and flexible, allowing easy installation. The smooth design allows quick drying.

Advanced technology

nVent RAYCHEM conductive-polymer technology and fluoropolymer construction makes TT3000 sensing cables mechanically strong and chemically resistant. The cable is constructed of two sensing wires, an alarm signal wire, and a continuity wire embedded in a fluoropolymer carrier rod. This rugged construction exposes no metal, and enables the cable to be reused even in corrosive environments.



Drawing not to scale







TT3000 zone sensing cable with factory-installed connector and end termination

Catalog number	Part number	Description
TT3000-1.5M/5FT-HSE-MC	238539-000	5 ft (1.5 m) sensing cable with preinstalled heat-shrink end termination, prepared for zone system

TT3000 modular sensing cable with factory-installed connectors

Catalog number	Part number	Description	
TT3000-0.3M/1FT-MC	148983-000	1 ft (0.3 m) sensing cable	
TT3000-1.5M/5FT-MC	262789-000	5 ft (1.5 m) sensing cable	
TT3000-3M/10FT-MC	842667-000	10 ft (3 m) sensing cable	
TT3000-4.5M/15FT-MC	792293-000	15 ft (4.5 m) sensing cable	
TT3000-7.5M/25FT-MC	103619-000	25 ft (7.5 m) sensing cable	
TT3000-15M/50FT-MC	048179-000	50 ft (15 m) sensing cable	
TT3000-30M/100FT-MC	301795-000	100 ft (30 m) sensing cable	

TT3000 bulk sensing cable for installation in double-containment piping (connector kits required)

Catalog number	Part number	Description
TT3000-SC	155707-000	Bulk sensing cable on reel Minimum length: 250 ft (75 m) Maximum length: 1000 ft (300 m)

Connector kits (not shown)

Catalog number	Part number	Description
TT3000-CK-MC-M/F (includes test tools)	999313-000	Components for five mated pairs of connectors
TT3000-CK-MC-M	415441-000	One pin-type connector
TT3000-CK-MC-F	494333-000	One socket-type connector

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

PRODUCT CHARACTERISTICS

Cable diameter	0.24 in (6.0 mm) nominal
Cable diameter with connector	0.52 in (13 mm) nominal
Continuity and signal wires	2 x 26 AWG with fluoropolymer insulation
Sensing wires	2 x 30 AWG with conductive fluoropolymer jacket
Core	Fluoropolymer
Cable weight (50 ft/15 m length)	2.3 lb (1 kg)
TECHNICAL INFORMATION	

Breaking strength	160 lb (72 kg)
Cut-through force	>50 lb with 0.005 (>22 kg with 0.13 mm) in blade; crosshead speed 0.2 in/min
Abrasion resistance	>65 cycles per UL 719
Maximum continuous operating temperature	Sensing cable: 194°F (90°C) Cable connectors: 185°F (85°C)

CHEMICAL RESISTANCE

Cable functions normally after exposure	Trichloroethylene	(100%)
in accordance with ASTM D 543 at 77°F	Sulfuric acid	(98%)
(23 C) for seven days.	Hydrochloric acid	(37%)
Note: Prolonged exposure to concentrated ketones may cause temporary reduction of sensitivity; consult factory.	Hexane	(100%)
	Methanol	(100%)
	Sodium hydroxide	(10%)
	Xylene (100%)	(100%)
	Aqua regia	

RADIATION RESISTANCE

Cumulative radiation exposure of 10 megarad gamma radiation over design life of 30 years.

APPROVALS AND CERTIFICATIONS

TT3000 sensing cables are approved for installation in ordinary and hazardous areas when used in conjunction with approved nVent RAYCHEM TraceTek monitoring equipment and zener safety barriers when appropriate.

All nVent RAYCHEM TraceTek sensing cables are designated as "simple apparatus" and included in the approval certification for nVent RAYCHEM TraceTek monitoring instruments.

Consult the specific data sheets and approval certificates for the nVent RAYCHEM TraceTek TT-TS12, TTDM-128, TTSIM-1, TTSIM-1A, TTSIM-2, TTC-1 and TT-FLASHER-BE for application limitations and specific area approvals and certifications.











General Signaling Equipment 76LJ



The TT3000 sensing cables are FM approved in the TraceTek Leak Detection System when installed with a TraceTek Alarm and Locator Module to detect and locate water.

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