TraceTek TT5001 sensing cable detects liquid organic solvents anywhere along its length, but 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**
TraceTek TT5001 sensing cable provides distributed leak detection and location for a wide range of applications. Cable lengths can be arranged to provide as much coverage as necessary.

**Design flexibility**
TT5001 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. TT5001 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 TT5001 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 well, even in demanding environments.

### Ordering information

<p>| TT5001 zone sensing cable with factory-installed connector and end termination |</p>
<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT5001–1.5M/5FT–HSE–MC</td>
<td>142401-000</td>
<td>1.5 m (5 ft) sensing cable with preinstalled heat-shrink end termination, prepared for zone system</td>
</tr>
</tbody>
</table>

<p>| TT5001 modular sensing cable with factory-installed connectors |</p>
<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT5001–0.3M/1FT–MC</td>
<td>453689-000</td>
<td>0.3 m (1 ft) sensing cable</td>
</tr>
<tr>
<td>TT5001–1.5M/5FT–MC</td>
<td>135133-000</td>
<td>1.5 m (5 ft) sensing cable</td>
</tr>
<tr>
<td>TT5001–3M/10FT–MC</td>
<td>405471-000</td>
<td>3 m (10 ft) sensing cable</td>
</tr>
<tr>
<td>TT5001–7.5M/25FT–MC</td>
<td>385457-000</td>
<td>7.5 m (25 ft) sensing cable</td>
</tr>
<tr>
<td>TT5001–15M/50FT–MC</td>
<td>897185-000</td>
<td>15 m (50 ft) sensing cable</td>
</tr>
</tbody>
</table>

<p>| TT5001 bulk sensing cable for installation in double-containment piping (connector kits required) |</p>
<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT5001–SC</td>
<td>227899-000</td>
<td>Bulk sensing cable on reel Minimum length: 75 m (250 ft) Maximum length: 250 m (825 ft)</td>
</tr>
</tbody>
</table>

<p>| Connector kits (not shown) |</p>
<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT5000–CK–MC–M/F (includes test tools)</td>
<td>122499-000</td>
<td>Components for five mated pairs of connectors</td>
</tr>
<tr>
<td>TT5000–CK–MC–M</td>
<td>961207-000</td>
<td>One pin-type connector</td>
</tr>
<tr>
<td>TT5000–CK–MC–F</td>
<td>880841-000</td>
<td>One socket-type connector</td>
</tr>
</tbody>
</table>

**Notes:**
- Refer to the Product Selection Guide (H55869) for other components of the TraceTek system.
TT5001 Solvent Sensing Cable

Product characteristics
- Cable diameter: 6.9 mm (0.27 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—white and black
- Operating temperature range: –20°C to 60°C (–4°F to 140°F)
- Pull force limit: Not to exceed 23 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 most solvents

Chemical resistance
- Cable functions normally after exposure in accordance with ASTM D543 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
  - Toluene: 10 min
  - Dichloromethane: 5 min
  - 1, 1, 1-trichloroethylene (TCE): 8 min
  - Trichloroethane (TCA): 20 min
  - Methyl ethyl ketone (MEK): 10 min
  - Acetone: 10 min
  - n-methyl pyrrolidone (NMP): 60 min
  - Isopropyl alcohol (anhydrous): 90 min

Typical response time at 20°C (68°F)
- Toluene: 10 min
- Dichloromethane: 5 min
- 1, 1, 1-trichloroethylene (TCE): 8 min
- Trichloroethane (TCA): 20 min
- Methyl ethyl ketone (MEK): 10 min
- Acetone: 10 min
- n-methyl pyrrolidone (NMP): 60 min
- Isopropyl alcohol (anhydrous): 90 min

Notes:
- Response times are based on 50 mm (2 in) of cable immersed in liquid.
- Response times are affected by operating temperature. Consult factory for specific response times at other temperatures and in other liquids.
- Prolonged immersion in ketones will inhibit sensing-cable performance.

Approvals and Certifications
- TraceTek TT5001 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, TTSIM-2, TTSIM-1 and TTSIM-2B for application limitations and specific area approvals and certifications.

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