instrumentation cable series

TT5000

Hydrocarbon Fuel and Solvent Leak Detection Sensing Cable

Water-immune swelling-polymer hydrocarbon fuel, diesel & jet-fuel leak sensing cable



Detects Fuel · Ignores Water | **Gasoline, Jet A-1 & Diesel** | **4-Wire ±1 m Pinpoint**

Application

TT5000 Hydrocarbon Fuel and Solvent Leak Detection Sensing Cable engineered with a hydrocarbon-absorbent swelling silicone-elastomer actuator layer that physically presses two internal conductive-polymer sensing wires (~20.

Typical uses: Data-Centre Standby Diesel Generator Rooms, Airport Jet A-1 Hydrant Pipelines & Valve Pits, Underground Storage Tank (UST) Double-Containment, Refinery, Tank Farm & Pipeline Trench Monitoring, Marine Bunker & Turbine Lube-Oil Skids

Construction





Cross-section, not to scale

1. 2 × insulated copper reference & continuity wires
2. Inner conductive-polymer sensing electrode + spacer
3. Hydrocarbon-absorbent swelling elastomer actuator
4. Protective high-tenacity polymer outer braid

Technical data

Typical values

Sensing wire linear R	≈ 20.0 Ω/m (±2 % linearity — uses standard TTDM/TTSIM modules)	**Dry / water-immersed IR**	≥ 100 MΩ in dry air or clean tap/rainwater
Location accuracy	± 0.5 % of total sensing circuit length	**Intrinsic safety rating**	Ex ia IIC T4 Ga (Simple Apparatus per IEC 60079-11 Cl. 5.7)
Continuous operating temp.	-20 °C to +60 °C	**Storage temperature**	-30 °C to +70 °C
Response time @ 20 °C	≈ 3–8 min (Gasoline / Jet A-1) · ≈ 15–45 min (#2 Diesel)	**Nominal outer diameter**	9.5 mm (cable body) · 14–19 mm (at modular connector)
Min. bend radius	50 mm (5 × OD)	**Max. pulling tension**	220 N (50 lbf)
Detected hydrocarbons	Gasoline, Jet A / JP-8, #1/#2 Diesel, Kerosene, Toluene, Xylene	**Water & methane immunity**	Does not alarm in liquid water or gaseous methane/natural gas
Volatile fuel recovery	Can reset after light gasoline/solvent evaporation (replace after heavy diesel saturation)	**Standards**	US EPA 40 CFR Part 280 & NWGLDE Third-Party Listed

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Supply format & duty	Body Ø mm	Weight ≈ kg/km	Jet/Petrol min	#2 Diesel min
4-Wire Swelling-Polymer Hydrocarbon Fuel Sensing Cables 3 sizes					
☐ **TT5000 (Bulk)**	**Bulk Reel for Slotted Conduit & Pipe Pull-In**	**9.5**	**88**	**5**	**30**
☐ **TT5000-PC**	**Modular Plastic Connectors (1.5 m to 15 m) · Wet Sumps**	**9.5**	**88**	**5**	**30**
☐ **TT5000-MC**	**Modular Metal Connectors · Indoor Generator Rooms**	**9.5**	**88**	**5**	**30**

– For ultra-fast response (< 1–3 min) to light organic solvents (MEK, acetone, benzene, toluene), see TT5001 / TT5001-HUV.

Standards and approvals

- EPA 40 CFR 280 / NWGLDE
- Ex ia IIC Simple Apparatus
- CE, RoHS 2 & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/tracetek-tt5000-hydrocarbon-fuel-and-solvent-leak-detection-sensing-cable

Typical values for this cable type, based on UL 913 / IEC 60079-11 / EPA 40 CFR 280. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.