instrumentation cable series

TT3000

Acid, Base and Corrosive Chemical Leak Detection Cable

4-wire conductive-fluoropolymer acid, base & corrosive chemical leak sensing cable

Acids, Bases & Etchants | **All-Fluoropolymer Wetted** | **SEMI S2 Sub-Fab Standard**



Application

TT3000 Acid, Base and Corrosive Chemical Leak Detection Sensing Cable engineered with an all-fluoropolymer core, two chemical-resistant conductive-fluoropolymer sensing electrodes (~20 Ω/m), two fluoropolymer reference wires.

Typical uses: Semiconductor Wafer Fab Sub-Fabs & Wet Benches, Lithium-Ion Gigafactory Electrolyte & Acid Piping, Double-Containment Chemical Transfer Lines, Water Treatment Dosing Skids (NaOCl, H_2SO_4, NaOH), Pharmaceutical & Specialty Chemical Laboratories

Construction





Cross-section, not to scale

1. 2 × fluoropolymer-insulated copper reference wires
2. Fluted green fluoropolymer central support core

Technical data

Typical values

Sensing wire linear R	≈ 20.0 Ω/m (±2 % linearity for ±0.5 % distance accuracy)	**Dry insulation resistance**	≥ 100 MΩ per 30 m sensing loop
Alarm response time	< 5 s (10 % HCl / NaOH) · < 15 s (98 % concentrated H_2SO_4)	**Controller compatibility**	All 4-wire 20 Ω/m locating modules (TTSIM, TTDM-128, PLC)
Continuous operating temp.	-20 °C to +85 °C	**Short-term washdown peak**	+100 °C
Plenum fire rating	NFPA 262 / UL 910 low-smoke plenum qualified	**Nominal outer diameter**	7.0 mm (0.28 in)
Min. bend radius	30 mm (4.5 × OD)	**Pulling tension (pipe)**	Up to 130 N (30 lbf) for pulling through interstitial containment pipes
Acid resistance	98 % H_2SO_4, 37 % HCl, 49 % HF, 70 % HNO_3, 85 % H_3PO_4, Aqua Regia	**Alkali & oxidizer resist.**	50 % NaOH, 45 % KOH, 29 % NH_4OH, 30 % H_2O_2, 15 % NaOCl bleach
Reusability after spill	Flush with DI water and dry to restore full baseline IR	**Standards**	SEMI S2 & SEMI S6 liquid chemical leak containment

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 & connectors	Outer Ø mm	Weight ≈ kg/km	Sense R Ω/m	H_2SO_4 Resp. sec
4-Wire All-Fluoropolymer Acid & Chemical Leak Sensing Cables 3 sizes					
☐ **TT3000 (Bulk)**	**Bulk Reel (50 m / 100 m / 250 m) for Pipe Pull-In**	**7.0**	**44.0**	**20.0**	**12**
☐ **TT3000-PC**	**Modular Plastic-Connector Lengths (1.5 m to 30 m)**	**7.0**	**44.0**	**20.0**	**12**
☐ **TT3000-MC**	**Modular Metal-Collar Lengths for Mild Indoor Zones**	**7.0**	**44.0**	**20.0**	**12**

– For outdoor sunlit pipe racks carrying 98 % H_2SO_4 or fuming HNO_3/HF, see UV-stabilized TT7000-HUV.

Standards and approvals

- SEMI S2 Sub-Fab Compliant
- NFPA 262 / UL 910 Plenum
- Ex ia Intrinsically Safe Simple Apparatus

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-tt3000-acid-base-and-corrosive-chemical-leak-detection-sensing-cable

Typical values for this cable type, based on SEMI S2 / NFPA 262 / UL 910. Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.