TraceTek® TT7000-HUV sensor cable detects leaks and spills of sulfuric and nitric acid at any point along the cable length. When used in conjunction with TraceTek monitoring instruments, the cable senses the presence of acid, triggers an alarm and pinpoints the location of the acid contact to within +/- 1 meter accuracy.

Insensitive to water and dirt and sunlight

TT7000-HUV is designed for demanding indoor or outdoor environments. TT7000-HUV is a small diameter, flexible cable consisting of four wires wrapped around a central core. Two of the wires are acid sensitive electrodes that are jacketed with a protective coating material that provides a water-resistant barrier. An outer layer rope-braid of synthetic fibre provides further protection from UV radiation. TT7000-HUV cable can be exposed to sunlight, rain, snow, fog, condensation, dust, blowing dirt and other contaminants without causing a false alarm. When acid contacts the TT7000-HUV cable, the acid is absorbed by the outer rope layer, then dissolves the protective coating on the acid sensitive cable electrodes— resulting in the leak detection signal.

Distributed Sensing

TT7000-HUV sensor cable provides distributed leak detection and location along the entire run of cable. Cable can be installed around localized sources of acid leakage (e.g. valves, pumps and tanks) as well as along pipelines carrying acid.

Design Flexibility

Individual circuit lengths up to 1000 m can be monitored from a single sensor interface module (SIM). Multiple SIMs can be easily networked to provide extended coverage in chemical complexes or along pipelines. Alarm and control panels with capacity for up to 127 SIMs are standard. TraceTek Supervisor (for Windows PC) is available for standalone installations, or the SIM units can be directly connected to the facility alarm and control systems.

Use TT7000-HUV sensor cable only with TTC-1, TTSIM-1 or internal sensor interface card in TTDM-128.

Diamond Controls Ltd.
Unit 5, Baines Way, Bowthorpe,
Norwich NR5 9JR
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VAT reg no: 797 771 750
Registered no: 4113848

Ordering Information

TT7000-HUV modular sensing cable with factory installed connectors

Catalogue number	Part Number	Description
TT7000-HUV-1M-MC	P000000820	1 m (3 ft) acid sensing cable
TT7000-HUV-3M-MC	**P000000819**	**3 m (10 ft) acid sensing cable**
TT7000-HUV-7.5M-MC	P000000818	7.5 m (25 ft) acid sensing cable
TT7000-HUV-15M-MC	**P000000817**	**15 m (50 ft) acid sensing cable**
TT7000-HUV-30M-MC	P000000816	30 m (100 ft) acid sensing cable
TT7000-HUV-50M-MC	**P000000815**	**50 m (167 ft) acid sensing cable**
TT7000-HUV-100M-MC	P000000814	100 m (333 ft) acid sensing cable

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

Catalogue number	Part Number	Description
TT7000-HUV-SC	P000000813	Bulk sensing cable on reel Minimum length 75 m (250 ft) Maximum length 300 m (1000 ft)

Connector kits (not shown)

Catalogue number	Part Number	Description
TT7000-HUV-CK-MC-M/F	P000001187	Components for five mated pairs of connectors. Use only with TT7000-HUV-SC

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Product Characteristics

Cable core diameter	**5 mm (0.20 in) nominal**
Cable diameter with rope braid	9 mm (0.36 in) nominal
Braided fibre jacket	**Colour – all black**
Connector diameter	13 mm (0.52 in) nominal
Signal wires	**2 x 26 AWG with fluoropolymer insulation**
Cable weight (50-ft length)	2.3 lb
Sensor wires	**2 x 28 AWG wire with acid selective coating**
Core	Flame retarded polyolefin
Cable weight	**5.3 kg/100 m nominal (3.5 lb/100 ft nominal)**

Technical Information

Breaking strength	**>100 kg (220 lb)**
Cut-through force	>100 kg (220 lb) with 1.3 mm (0.05 in) radius blade
Maximum/Minimum exposure temperature	**100˚C/-40˚C (212˚F/-40˚F)**
Leak location accuracy	+/- 1 m (3.3 ft)
Non resettable	**Must be replaced after exposure to acid**
Water Resistance	Sensing cable has been designed to be permanently resistant to water in normal use. No sensing cable degradation observed after 48 hours of immersion in water at 95˚C (203˚F). No sensing cable degradation observed after 30 days in water at 21˚C (70˚F), or 10 days in 3% salt water at 21˚C (70˚F).

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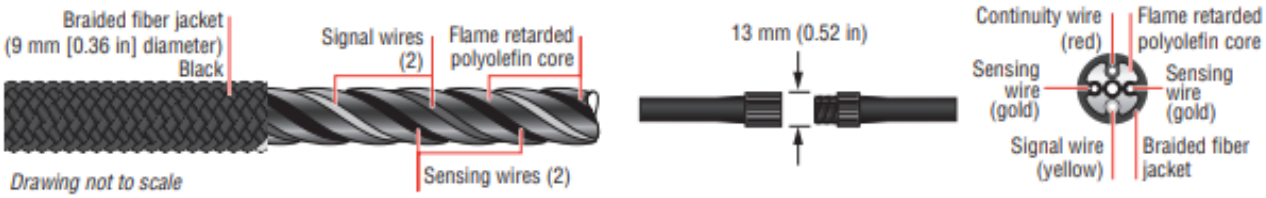
Acid Response Time

	Typical response time at 20˚C (68˚F)	Typical response time at -5˚C (23˚F)
96% sulfuric acid	Less than 90 seconds	Less than 7 minutes
90% sulfuric acid	**Less than 3 minutes**	
75% sulfuric acid	Less than 5 minutes	
69% nitric acid	**Less than 90 seconds**	**Less than 15 minutes**
37% nitric acid	Less than 5 minutes	
Note: Contact factory for other acids and dilutions.		



Approvals and Certifications

TraceTek TT7000 sensing cables are approved for installation in ordinary and hazardous locations 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.

Important

All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application.

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