fiber optic cable series

DTS BSSA N

Non-Metallic Stainless-Tube Temperature Sensing Cable



Laser-welded 316L stainless-tube & aramid/PA/LSZH jacketed DTS temperature cable

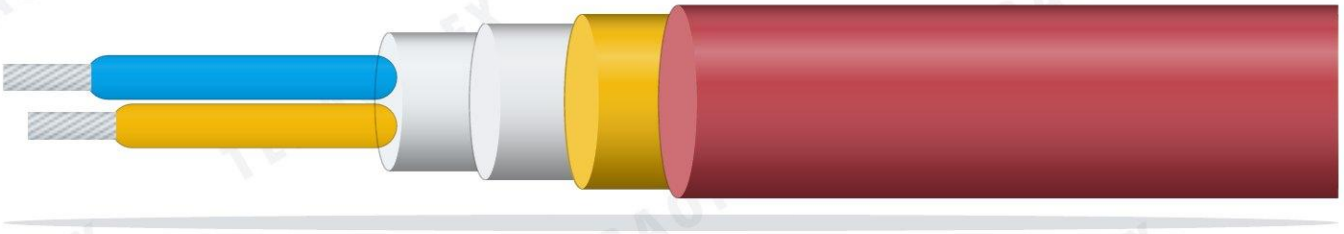
IEC 61757-2-2 DTS | **316L Hermetic FIMT** | **Ø 3.8 mm Fast Response**

Application

DTS BSSA N Non-Metallic Stainless-Tube Temperature Sensing Cable combining a hermetically laser-welded AISI 316L stainless-steel central FIMT with non-metallic aramid yarn reinforcement and a fast-response PA12/HDPE/LSZH.

Typical uses: Road, Rail & Utility Tunnel Fire Detection, HV Export & Land Cable Conduit DTS, LNG, Ammonia & Cryogenic Tank Leak Detection, Conveyor Gallery Linear Heat Detection, Dam Seepage & Hydrological Profiling

Construction





Cross-section, not to scale

1. Strain-free DTS sensing fibres
2. Laser-welded 316L stainless-steel FIMT
3. Non-metallic aramid tensile layer
4. Fast-response outer sheath

Technical data

Typical values

Sensing principle	Raman OTDR (MM) & Brillouin BOTDA/BOTDR (SM)	**Temperature resolution**	±0.1 °C to ±0.5 °C (interrogator-dependent)
Metallic cross-section	≈ 0.9 mm² 316L stainless tube (single-point earthing)	**Operating temperature**	-40 °C to +85 °C (-196 °C LNG cryo dry-tube option)
Thermal response (τ_{63})	≤ 1.8 s in water · ≤ 6.5 s in air	**Short-term fire exposure**	Up to +150 °C (sheath) / +400 °C (316L tube integrity)
Outer diameter	3.8 mm (2–4F) · 4.2 mm (6F)	**Max. tensile load**	1,000 N installation · 500 N permanent
Crush resistance	3,000 N / 100 mm	**Min. bend radius**	15 × OD static · 20 × OD dynamic
Multimode fibres	50/125 µm OM3 (≤ 2.4 / 0.6 dB/km @ 850/1300 nm)	**Single-mode fibres**	ITU-T G.652.D / G.657.A1 (≤ 0.35 / 0.21 dB/km)
Excess fibre length	0.20 % to 0.35 % strain-free inside 316L FIMT	**Hydrostatic pressure**	30 MPa (300 bar) on 316L FIMT
Flame & smoke (LSZH)	IEC 60332-3-24, IEC 60754-2 & IEC 61034-2	**Chemical resistance**	PA12 / HDPE resists hydrocarbons, acids & brine
Standards	IEC 61757-2-2 & EN 54-22		

Sizes

4 standard constructions

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

Order designation	Fibre compliment & jacket	Outer Ø mm	Weight ≈ kg/km	Max. pull N	Crush N/100 mm
BSSA N — 316L FIMT + Aramid + Polymer Sheath 4 sizes					
☐ **DTS BSSA N-02MM**	**2 × 50/125 OM3 · LSZH**	**3.8**	**22**	**1,000**	**3,000**
☐ **DTS BSSA N-04MM**	**4 × 50/125 OM3 · LSZH**	**3.8**	**23**	**1,000**	**3,000**
☐ **DTS BSSA N-02MM02SM**	**2 × OM3 + 2 × G.652.D SM · PA12**	**3.8**	**21**	**1,000**	**3,000**
☐ **DTS BSSA N-04MM02SM**	**4 × OM3 + 2 × G.652.D SM · HDPE**	**4.2**	**26**	**1,200**	**3,000**

– Dry-FIMT version available for -196 °C LNG cryogenic tank leak monitoring where tube gel would freeze.

Standards and approvals

- IEC 61757-2-2 & EN 54-22
- IEC 60332-3-24 LSZH
- RoHS 2 & REACH Compliant

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/brusens-dts-bssa-n-non-metallic-stainless-tube-temperature-sensing-cable

Typical values for this cable type, based on IEC 61757-2-2 / IEC 60794-1-21 / EN 54-22. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.