

Technical Datasheet



Ref. No.: SST 130012-NO2 3

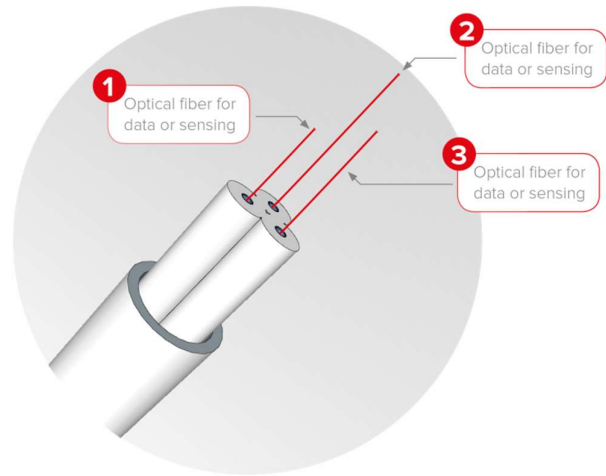
Description

Trisens is a thin and flexible mini sensing product, developed and launched by NBG which offers great performances in accurate Temperature, Strain, Acoustic and many more measurement features. Various fiber types can be combined to fulfill additional jobs like data transmission or fiber loops. The Standard version comes with three Singlemode fibers which covers a lot of application in just a 1.3 mm outer diameter metal tube. With the maximum accuracy in manufacturing, this sensor element is able to handle even the tiniest deviations and changes for various measurement techniques. Trisens is manufactured according to the highest quality standards in this industry.

Available options

Trisens Core 1.3mm OD sensing core with 3 tight buffered fibers (G.657 A1), ready of acoustic, strain or temperature sensing.

Trisens Cable Trisens core with additional polymer layer protection for easy integration into bigger cable assemblies or direct deployment. Polymer material and thickness freely choose able by customer.

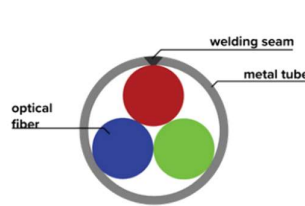


Data

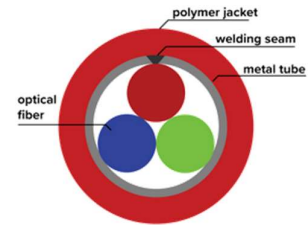
- //// Data Transmission
- ∞ Loop Fiber

Sensing

- 🔊 Acoustic (DAS)
- ↗ Strain
- 🔥 Temperature



Trisens Core



Trisens Cable

General Characteristics (without polymer cladding)

Total cable weight	4.68 kg/km	3.145 lbs/kft
Outer diameter	1.30 mm	0.051"
Number of fibers	3	
Type of fiber	G.657 A1	
Storage temp. range	-20°C ... +70°C	-4°F...+158°F
Operational temp. range	-30°C ... +75°C	-22°F...+167°F

Geometrical Characteristics

Outer diameter	1.30 mm	0.051"
Inner diameter	1.05 mm	0.041"
Material	High corrosive resistant steel	

Electrical Characteristics

Ohmic resistance	3.03 Ohm/m	0.924 Ohm/ft
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Mechanical Characteristics

Ultimate tensile strength*	> 448 N	> 100 lbs
Max. operational tensile force* (ends fixed)	149 N	33.5 lbs
Min. bending radius	> 50mm	> 1.97"

Optical Characteristics

Max. loss at 1310nm	< 0.37db/km
Max. loss at 1550nm	< 0.30 db/km

Brillouin Characteristics (at 1550nm)

Strain sensitivity dB/dε	497 MHz/%
Temperature sensitivity dB/dT	1.68 MHz/°C

*) at 20°C