

Fiber Optic Cables

Applied Analytics Data Sheet No. DS-206A



The veins of an Applied Analytics spectrophotometer.

In analysis, the quality of the signal is ultimately the most important parameter. Applied Analytics manufactures all of our fiber optic cables in-house to ensure spectroscopic-grade quality—sufficient throughput and longevity for demanding analysis applications. In the applications we serve, our fibers must have the tolerances to handle wide temperature fluctuations and years of wear and tear. Each fiber is assembled and tested by an expert technician at our facilities.

Features

- » Highly consistent performance from low UV range to NIR range
- » Average lifetime: long lasting in typical usage
- » Protected from wear and tear by stainless steel and Teflon tubing
- » Proven solarization-resistant

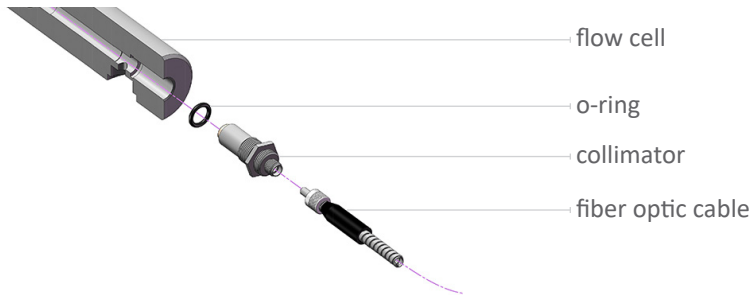
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Suitability for Extreme Conditions

Corrosion

The fiber optics are not a wetted part, meaning that they are never exposed to the potentially corrosive process sample. This is ensured by the o-ring inseted between the sample flow cell and the collimator (into which the fiber optic cable is inserted):



The stainless steel and Teflon tubing protects the fibers from mishandling as well as corrosion.

Technical Data

Physical Specifications

	(@ 600 μm core)	(@ 200 μm core)
Standard Length	1.8 m	1.8 m
Custom Length Range	Contact Applied Analytics	Contact Applied Analytics
Core Diameter	400 $\mu\text{m} \pm 2\%$	200 $\mu\text{m} \pm 2\%$
Clad Diameter	440 $\mu\text{m} \pm 2\%$	220 $\mu\text{m} \pm 2\%$
Buffer Diameter	480 $\mu\text{m} \pm 2\%$	240 $\mu\text{m} \pm 2\%$
Connection Type	SMA-905	

Materials

Standard Connection	Pure silica core
Cladding	Fluorine silica cladding
2nd Cladding (Buffer)	Hard polymer
Coating	Tefzel
Tubing	Stainless steel and Teflon tubing

Operating Conditions

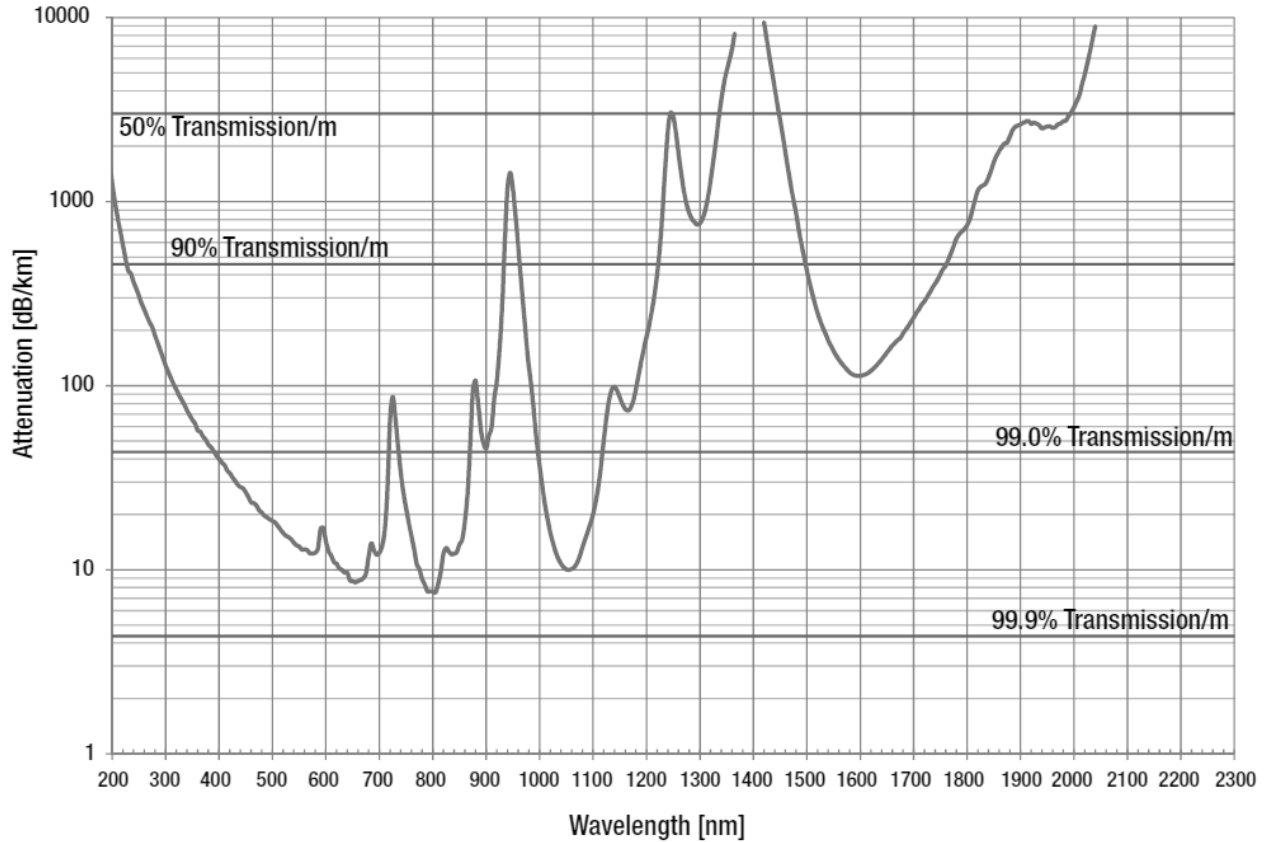
Operating Temp.	-40 to 70 °C
Numerical Aperture	0.22
Proof Test Level	100 KPSI
Smallest Bend Radius	5" minimum bend radius

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Fiber Optic Performance Plot



How to Order Spares

To order spare fibers, please send an email to sales@aai.solutions specifying requested lengths and quantities.



www.aai.solutions

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