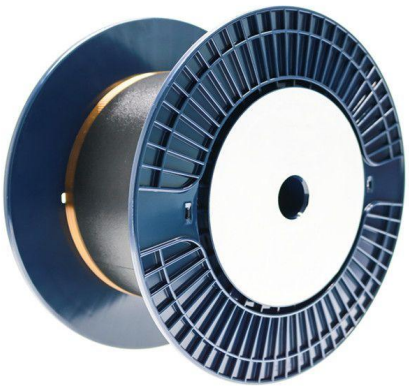
Capillary Optical Fiber Inner Diameter 75±2μm (Polyimide Coating)



Product Description

It can be widely used in the fields of sensing, energy transfer, and lasers, such as: vacuum ultraviolet high-energy pulse compression and shaping in vacuum ultraviolet femtosecond laser generation; vacuum ultraviolet dispersion wave generation; soliton blue shift; preparation of extrinsic fiber interferometers; absorption spectrum gas component detection; liquid phase biochemical detection and connection of optical microfluidic chips, etc. Quartz capillaries are widely used in separation science, including hot fields such as gas chromatography, capillary liquid chromatography, and capillary electrophoresis. Since its introduction in the late 1970s, the product quality has been steadily improving. Light-guiding quartz capillary fiber is a new development in this continuous development.

Part Number

HCCF_PSC75/125/150PI

Parameters

Features

Pure synthetic fused silica

Smooth inner wall with low resistance, strong internal pressure consistency, and better fluid movement performance. High-purity quartz material has high light transmittance, which is conducive to optical analysis, radiation resistance, and low loss. The material is uniform and easy to cut and fuse optical fiber connectors, and the length can be easily customized;

Complete specifications, strict quality control, stable precision

Using multi-level online measurement, even for a few hundred meters of thin-diameter capillary optical fiber, the inner and outer diameters can be kept stable. It meets all technical requirements for optical fiber and industrial equipment connectors.

Polyimide coating

Advanced polyimide coating material with adjustable coating thickness, low dielectric constant, combustion and gasification characteristics, high strength under radiation, water-free self-lubricating properties, good high temperature resistance (long-term 300℃, short-term 400℃), corrosion resistance, and wear resistance, is an ideal protective coating for capillary optical fibers. It has good biocompatibility and can be widely used in human interventional systems in the medical industry.

Customized microstructure capillary

The expert team with many years of fiber manufacturing experience can design composite porous capillary structures according to user needs, form multiple channels in a capillary optical fiber, and ensure that it is as smooth as a mirror. We also accept customized services with various inner and outer diameter ratios and sizes.

Applications

Medicine

Precision drug delivery systems

Flow control systems

Clinical and diagnostic equipment

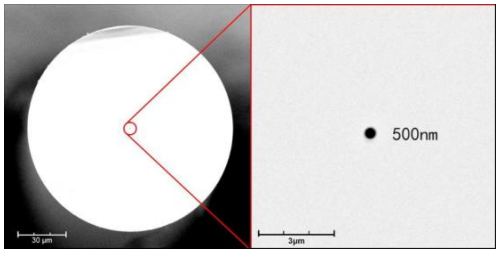
Wearable drug delivery devices

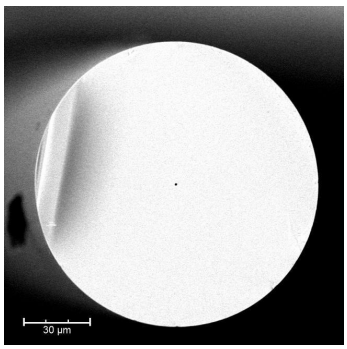
Technology
Chromatography
Micro- and nanofluidics
Mass spectrometry interfaces
Communication system packaging

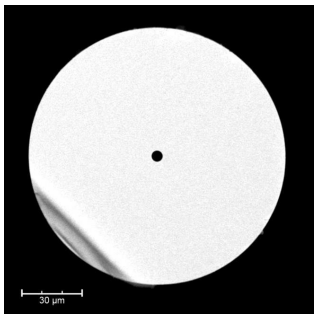
Industry
Packaging leakage
Evaporative cooling system
Petroleum analysis
Catalysis research
Fiber coupled fan-in fan-out

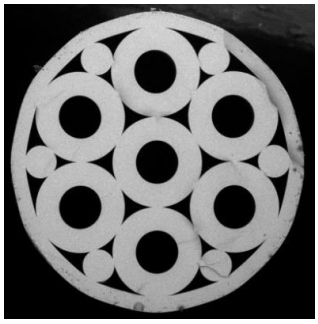
Optics
Fiber optic sensing
Vacuum ultraviolet femtosecond laser
Vacuum ultraviolet dispersion wave generation
Soliton blue shift
Extrinsic fiber interferometer

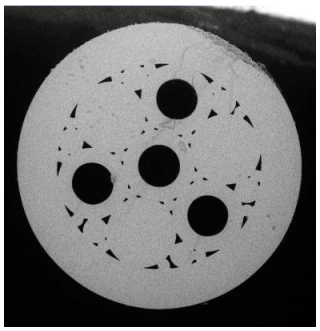
General parameterss











PN#	Fiber	inner diameter（μm）	outer diameter（μm）	Coating outer diameter（μm）
HCCF_PSC0.3/125/150PI	Micro-nano capillary	0.3±0.01	125±1	150±5
HCCF_PSC0.5/125/150PI		0.5±0.01	125±1	150±5
HCCF_PSC2/125/150PI		2±0.5	125±1	150±5
HCCF_PSC5/125/150PI		5±1	125±1	150±5
HCCF_PSC10/125/150PI		10±2	125±1	150±5
HCCF_PSC15/125/150PI		15±2	125±1	150±5
HCCF_PSC20/125/150PI		20±2	125±1	150±5

HCCF_PSC25/125/150PI	Capillary Fiber	25±2	125±1	150±5
HCCF_PSC30/125/150PI		30±2	125±1	150±5
HCCF_PSC40/125/150PI		40±2	125±1	150±5
HCCF_PSC50/125/150PI		50±2	125±1	150±5
HCCF_PSC75/125/150PI		75±2	125±1	150±5
HCCF_PSC100/125/150PI		100±2	125±1	150±5
HCCF_PSC100/220/240PI		100±2	220±2	240±5
HCCF_PSC2/340/360PI		2±1	340±2	360±5
HCCF_PSC5/340/360PI		5±1	340±2	360±5
HCCF_PSC6/340/360PI		6±2	340±2	360±5
HCCF_PSC10/340/360PI		10±2	340±2	360±5
HCCF_PSC15/340/360PI		15±2	340±2	360±5
HCCF_PSC20/340/360PI		20±2	340±2	360±5
HCCF_PSC25/340/360PI		25±2	340±2	360±5
HCCF_PSC30/340/360PI		30±2	340±2	360±5
HCCF_PSC40/340/360PI		40±2	340±2	360±5
HCCF_PSC50/340/360PI		50±2	340±2	360±5
HCCF_PSC60/340/360PI		60±2	340±2	360±5
HCCF_PSC75/340/360PI		75±2	340±2	360±5
HCCF_PSC180/340/360PI		180±2	340±2	360±5
HCCF_PSC320/340/360PI		320	410	440
HCCF_PSC450/640/670PI		450	640	670
HCCF_PSC100/760/790PI		100	760	790
HCCF_PSC300/760/790PI		300	760	790

HCCF_PSC200/1800	Quartz capillary	200	1800	None
HCCF_PSC500/1250		500	1250	None
HCCF_PSC700/1750		700	1750	None
Customizable multi-channel capillary optical fiber and capillary products	Customize	20~1500	60~2000	optional