

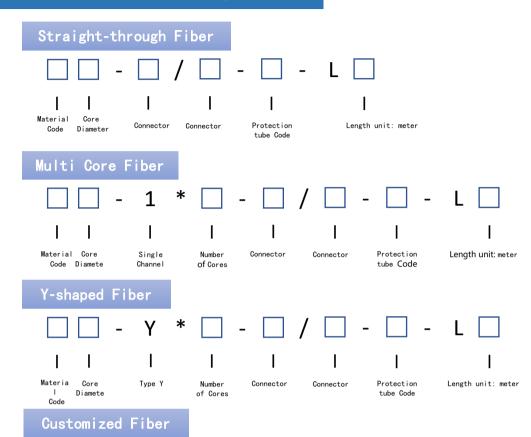
Fiber Optic Product Catalog

We focuses on the design, research and development, and manufacturing of special optical fiber products. Our optical fibers are used in the fields of spectral detection, energy transmission, medical, and high-temperature resistant optical transmission. We have accumulated rich experience in customizing optical fiber devices and are an excellent partner for industrial batch users and complex customized devices.

Product

Application Classification	Material Classification	Code	Core diameter/characteristics/applications	Wavelength Range	N. A.
	Uv-VIS-NIR Fiber	٧	50/100/105/200/300/400/600/800/1000 μ m	200-1100nm	0.22±0.02
Spectral Fiber	UV resistant Fiber	DV	100/200/400/600 μ m	190-1100nm	0.22±0.02
	PIR-Fiber	-1	$50/105/135/200/300/400/500/600/800/1000~\mu$ m	360-2500nm	0.22±0.02
Energy transmission Fiber	Square core energy homogenization Fiber	/	400um, Suitable for high-power laser transmission, flat top homogenized laser spot	380-2200nm	0. 22±0. 02
High	Polyimide Fiber	/	-190°C~385°C, High temperature resistance, sensing, smoke, aviation	UV/IR	0.22±0.02
temperature resistant optical Fiber	Metal coated Fiber	/	Al400 °C /Cu600 °C /Au700 °C , extreme temperature, deep ultraviolet, oil and gas, strong corrosion, high vacuum special environment	DUV	0. 22±0. 02
Medical Fiber	Holmium Laser Fiber	/	Laser Medicine, Photodynamic Therapy	360-2500nm	0.22±0.02
Ultra-High Numerical Aperture Fibers	Hard plastic coated Fiber	Н	200/300/400/600um	360-2500nm	0.37±0.02
Infrared sulfur fiber	Sulfur fiber	MIRF INFG ZFG LIRF MLF	Single-mode, Multimode, Mid-wave Infrared, Long-wave Infrared	0.3-11 μm	Customized
	Customized fiber optic components	/	Multi core/single core;Materials:Quartz/Glass/Plastic;End face: circular/curved/linear/hexagonal, etc	Customizable	Customizable
	Fused silica fiber bundle	/	Circular, multi-core	UV/IR	0. 22
Customized Fiber	Fiber optic probe	/	Reflection, transmission, industrial probes; Materials: stainless steel, Hastelloy, hard plastic, etc	UV/IR	Customizable
	Online liquid circulation pool	/	Real time liquid monitoring in industries such as steel metallurgy, petrochemicals, and pharmaceutical production; Materials: stainless steel, Hastelloy, hard plastic, etc; Lens material: sapphire, fused silica	UV/IR	Customizable

Product model naming method



The model is subject to the manufacturer's quotation

Material Code

V: Ordinary UV , 200-1100nm

DV: DUV. 190-1100nm

I: IR, 360-2500nm

H: Hard plastic coated

optical Fiber HP, 360-2500nm

Connector

S: Flat head SMA connector, stainless

steel insert

TA(): TA (customer length) connector

TB(): TB (customer length) connector

FC: FC/PC connector, Flat ceramic plug

FCA: FC/APC connector

SC: SC/PC connector

SCA: SC/APC connector

Note: When two connectors are the same,

the second one is omitted

Protection tube Code

1803001: 6.0-4.0Double buckle tube

1801016: 3.0-2.00range PVC pipe

1802003: 6.0-4.0Single buckle pipe-304

1806001: 3.0-1.4-1.1Blue PVC armored

pipe

1806003: 5.5-3.8-3.0Blue PVC armored

pipe

1806009: 5.5-3.8-3.0 Blue silicone

armored tube

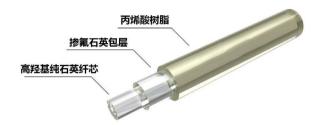
Example: V400-1*3-S-1806003-L1

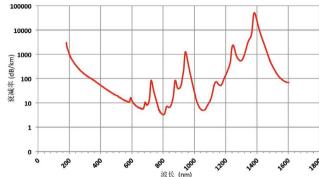
400um core diameter straight through 3-core ultraviolet fiber, working band 200-1100nm, end SMA905, length 1 meter, 5.5mm blue PVC armor.

UV Fiber

Product Description

UV fiber is an optimized fiber with low loss in the wavelength range of 200nm to 670nm. It has excellent performance in fiber loss and resistance to laser damage, ensuring excellent UV light transmission performance.





Features

- Operating Temperature: -40°C to
- Wavelength Range: 200nm-1100nm
- NA: 0.22 ± 0.02
- Fiber core material: High hydroxyl pure quartz fiber core
- Cladded material: Fluorine doped quartz coating
- Coating material: Acrylic resin

- Step index profile
- High damage threshold
- Filter tension 100kpsi
- Bending radius: short-term>100d; Long term>200d

(d is the diameter of the cladding of the optical fiber)

- Meets biocompatibility requirements
- Core package ratio/coating/buffer layer can be customized

Application

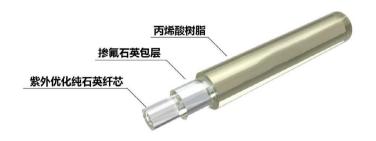
- Biochemical analysis
- Optical sensing
- Spectral analysis
- Photodynamics therapy
- Laser Medical
- UV curing
- Aerospace
- Lighting

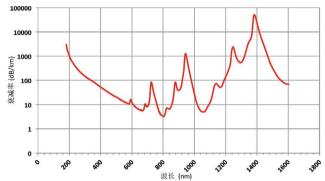
Fiber specification (acrylic)	Fiber core(μm)	Cladding(μm)	Coating(μm)
UV50125245	50	125	245
UV100110130	100	110	130
UV105125245	105	125	245
UV200220320	200	220	320
UV300330520	300	330	520
UV400440700	400	440	700
UV600660900	600	660	900
UV8008801100	800	880	1100
UV100010501600	1000	1050	1600
UV100011001600	1000	1100	1600

UV resistant

Product Description

The quartz core of the anti ultraviolet irradiation fiber has been optimized to improve the attenuation characteristics and stability of pure quartz materials in long-term deep ultraviolet environments. It is suitable for spectral analysis, lithography systems, and excimer laser transmission systems under strong ultraviolet irradiation environments.





Features

- Operating Temperature : -40°C to +85°C
- Wavelength Range: 190nm-1100nm
- N. A. : 0.22 ± 0.02
- Fiber core material : UV optimized pure quartz fiber core
- Cladded material: Fluorine doped quartz cladding
- Coating material : Acrylic Resin
- Step index profile
- High damage threshold
- Filter tension 100kpsi
- Bending radius : Short term>100d; Long term>200d (d is the cladding diameter of the optical fiber)
- Meets biocompatibility requirements
- Core package ratio/coating/buffer layer can be customized

Application

- Deep ultraviolet spectroscopy analysis
- Optical sensing
- Spectral analysis
- Photodynamics therapy
- UV curing
- Aerospace

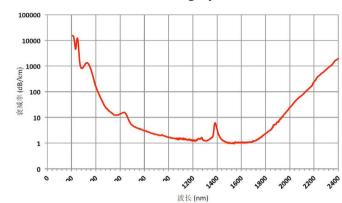
Fiber specification	Fiber core(μm)	Cladding(μm)	Coating(μm)
DUV100110130	100	110	130
DUV200220245	200	220	245
DUV400440700	400	440	700
DUV600660900	600	660	900

IR-Fiber

Product Description

Infrared fiber has excellent transmission characteristics in the near-infrared band, which can achieve flexible transmission of single fiber lasers. It can be applied in energy transmission and sensing fields such as semiconductor laser systems and industrial laser cutting systems.





Features

- Operating Temperature : -40°C to +85°C
- Wavelength Range : 360nm-2500nm
- N. A.: 0.22 ± 0.02
- Fiber core material : Low hydroxyl pure quartz fiber core
- Cladded material: Fluorine doped quartz cladding
- Coating material : Acrylic Resin
- Step index profile
- High damage threshold
- Filter tension 100kpsi
- Bending radius : Short term>100d; Long term>200d (d is the cladding diameter of the optical fiber)
- Meets biocompatibility requirements
- Core package ratio/coating/buffer layer can be customized

Application

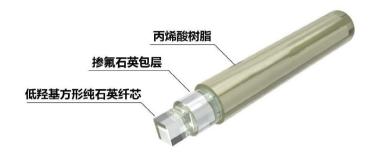
- Energy transmission
- Laser cutting and welding
- Laser tail fiber
- Temperature measurement
- Photodynamics therapy
- Laser Medical
- Environmental monitoring
- Data transmission

Fiber specification	Fiber core(μm)	Cladding(μm)	Coating(μm)
IR50125245	50	125	245
IR105125245	105	125	245
IR135155320	135	155	320
IR200220320	200	220	320
IR300330520	300	330	520
IR400440700	400	440	700
IR500550900	500	550	900
IR600660900	600	660	900
IR8008801100	800	880	1100
IR100011001600	1000	1100	1600

Square core energy homogenization

Product Description

The energy homogenized fiber has a square pure quartz core made of low hydroxyl quartz, which can meet the requirements of high-power laser transmission and produce excellent flat top homogenized laser spots, meeting the needs of high-quality laser cutting.



Features

- Operating Temperature : -40°C to +85°C
- Wavelength Range : 380-2200nm
- N. A.: 0.22 ± 0.02
- Fiber core material : Square core low hydroxyl pure quartz fiber core
- Cladded material: Fluorine doped quartz cladding
- Coating material : Double layer UV cured acrylic resin
- High damage threshold
- Filter tension 100kpsi
- Bending radius : Short term >70mm; Long term >140mm (@ Fiber core

diameter 400x400um)

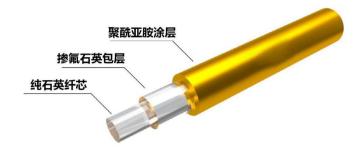
- Concentricity Tolerance : ≤30um@ Fiber core diameter 400x400um
- Non circularity of core : <2%@ Fiber core diameter 400x400um
- Cladding non-circularity: <2%@ Fiber core diameter 400x400um
- Meets biocompatibility requirements
- Core package ratio/coating/buffer layer can be customized

Application

- Energy transmission
- Laser cutting and welding
- Laser tail fiber
- photodynamics therapy
- Laser Medical

Fiber specification	Fiber core(μm)	Cladding(μm)	Coating(μm)
IR400x400670960R	50	670	960

Polyimide



Product Description

Polyimide high-temperature resistant optical fiber is designed to improve the temperature resistance of optical fibers, mainly used in high-temperature environments such as optical fiber sensing.

Features

- Operating Temperature : 190°C to +385°C
- N. A.: 0.22 ± 0.02
- Fiber core material: Pure quartz fiber core
- Cladded material: Fluorine doped quartz cladding
- Coating material : Double layer UV cured acrylic resin
- Step index profile
- High damage threshold
- Filter tension 70kpsi
- Bending radius : Short term>100d; Long term>200d (d is the cladding diameter of the optical fiber)
- Meets biocompatibility requirements
- Core package ratio/coating/buffer layer can be customized

Application

- Fiber Bragg Grating Temperature

 Measurement System
- High temperature and high pressure environment
- Smoke measurement system
- Military chemical industry
- High and low temperature
- measurement
- Aerospace

Fiber specification	Fiber core(μm)	Cladding(μm)	Coating(μm)
UV100110PI	100	110	120
UV200220PI	200	220	235
UV300330PI	300	330	345
UV400440PI	400	440	460
UV600660PI	600	660	680
IR62.5/125PI	62.5	125	145
IR105125PI	105	125	145
IR100140PI	100	140	160
IR200220PI	200	220	240
IR200280PI	200	280	300
IR300330PI	300	330	365
IR400440PI	400	440	470
IR600660PI	600	660	690
IR10001100PI	1000	1100	1150

Holmium laser



Features

Operating Temperature : -65°C to +150°C

■ Wavelength Range: 360nm-2500nm

■ N. A.: 0.22 ± 0.02

Fiber core material : Low hydroxyl pure quartz fiber core

Cladded material: Fluorine doped quartz cladding

Coating material : Double layer UV cured acrylic resin

Buffer laver: Teflon buffer laver

Step index profile

High damage threshold

Filter tension 100kpsi

Meets biocompatibility requirements

Core package ratio/coating/buffer layer can be customized

Product Description

Holmium laser fiber is mainly used in laser medical fields such as laser lithotripsy. It can transmit high-power 2100nm laser, meet biocompatibility requirements, and can be used in conjunction with endoscopy for minimally invasive surgical treatment. It has the advantages of minimal damage, fast recovery, and good hemostatic effect.

Application

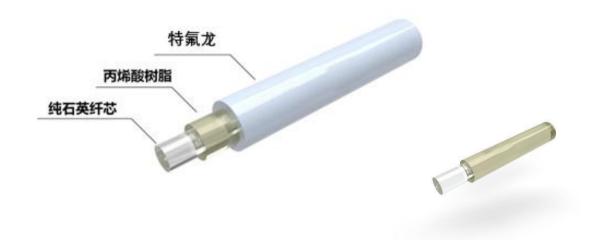
- Laser Medical
- Photodynamics therapy

Fiber specification	Fiber core(μm)	Cladding(μm)	Coating(μm)	Buffer layer(μm)
IR100110130RE250	100	110	130	250
IR150165200RE350	150	165	200	350
IR200220245RE380	200	220	245	380
IR272299330RE420	272	299	330	420
IR365400430RE550	365	400	430	550
IR550600630RE750	550	600	630	750
IR600660690RE890	600	660	690	890
IR800880960RE1100	800	880	960	1100
IR91010001100RE1400	910	1000	1100	1400

Hard plastic coated optical

Product Description

The PTFE coated fiber with hard plastic cladding can provide high tensile strength and can be used in communication systems and industrial automation fields with a working wavelength of 850nm. It can also be made into fiber bundles for various near-infrared spectroscopy detection systems.



Features

- Operating Temperature : -65°C to +150°C
- Wavelength Range : 360nm-2500nm
- N. A.: 0.37 ± 0.02
- Cladded material: Low hydroxyl pure quartz fiber core
- Material of cladding/buffer layer: low folding acrylic resin
- Step index profile
- High damage threshold
- Filter tension 100kpsi
- Bending radius : Short term>100d; Long term>200d (d is the cladding

diameter of the optical fiber)

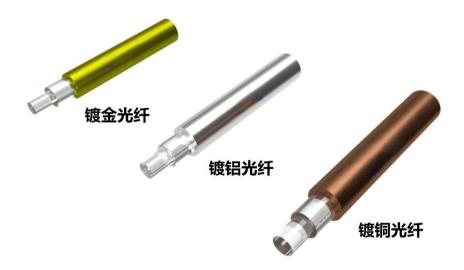
Meets biocompatibility requirements

Application

- Spectral analysis
- Automated control
- Short distance communication
- Laser transmission
- Photodynamics therapy
- Plasma detection
- Environmental monitoring
- Medical sensors

Fiber specification	Fiber core(μm)	Cladding(μm)	Coating(μm)
HP200230E500	200	230	500
HP300330E650	300	330	650
HP400430E730	400	430	730
HP600630E1040	600	630	1040

Metal Coated Fiber



Product Description

Metal coated optical fibers have extremely high tensile strength and flexibility. There is a molecular bond between the metal coating and quartz cladding, which provides excellent airtightness. They can be used in extremely harsh temperature environments and are characterized by weldability and corrosion resistance. They are an inevitable choice for sensing optical fibers in high-temperature and high-pressure environments such as oil and gas downhole applications, aerospace jet engines, and gas turbine detection.

Features

- Operating Temperature : +400°C AI/+600°C Cu/+700°C Ag
- Excellent mechanical strength and flexibility
- N. A. : 0. 22 ± 0. 02
- Step refractive index distribution
- Weldable
- Good heat dissipation
- Suitable for various sterilization environments
- Filter tension 100kpsi

Application

- Extreme high and low temperature environment
- Deep ultraviolet applications
- Deep ultraviolet applications
- Rocket and jet engine testing
- 0il and gas downhole environment
- Strong corrosive environment
- High vacuum environment

Infrared Sulfur Fiber Optical Products Classification

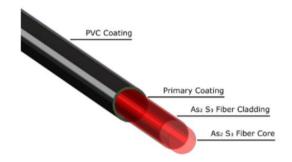
Classification	Material Code	Core Diameter/Cladding Diameter/Coating Diameter	Wavelength Range	Numerical Aperture NA	Loss
	MIRF-12-112-0.19	12/112/120μm	1-6.5µm	0.19	0.4 dB/m@ 4.6μm
	MIRF-20-186-0.19	20/186/200μm	1-6.5µm	0.19	0.3 dB/m@ 4.6µm
Single-mode Mid-	MIRF-6-140-0.21	6/140/160μm	1-6.5µm	0.21	<0.8 dB/m@ 2.1µm
Infrared Sulfur- containing Fiber	MIRF-10-230-0.21	10/230/264μm	1-6.5µm	0.21@4.6µ m	<0.4 dB/m@ 2.1µm
	MIRF-5-115-0.38	5/115/132μm	1-6.5µm	0.38	<0.8 dB/m@ 2.1µm
	MIRF-8-184-0.38	8/184/212μm	1-6.5µm	0.38	<0.8 dB/m@ 2.1µm
	MIRF-95-118-0.15	95/118/130µm	1-6.5µm	0.15	<0.5 dB/m@ 2.1μm
	MIRF-100-125-0.15	100/125/140μm	1-6.5µm	0.15	<0.5 dB/m@ 2.1μm
	MIRF-66-125-0.21	66/125/138µm	1-6.5µm	0.21	0.25~0.3 dB/m@ 2.1μm&4.6μm
Multimode Mid-Wave	MIRF-100-125-0.21	100/125/140μm	1-6.5µm	0.21	0.3~0.4 dB/m@ 4.6µm
Infrared Sulfur Fiber	MIRF-100-190-0.21	100/190/210μm	1-6.5µm	0.21	0.25~0.3 dB/m@ 2.1μm&4.6μm
	MIRF-150-285-0.21	150/285/315μm	1-6.5µm	0.21	0.25~0.3 dB/m@ 2.1μm&4.6μm
	MIRF-200-250-0.21	200/250/280μm	1-6.5µm	0.21	0.3~0.4 dB/m@ 4.6μm
	MIRF-320-400-0.21	320/400/420μm	1.5-6.5μm	0.21	
	MIRF-100-125-140-0.38	100/125/140μm	1-6.5µm	0.38	0.5~0.6 dB/m@ 2.1μm
	MIRF-200-250-0.38	200/250/270μm	1-6.5µm	0.38	0.2 dB/m@ 4.6µm
	MIRF-200-250-270-0.38	200/250/270μm	1-6.5µm	0.38	0.5~0.6 dB/m@ 2.1µm
Multimode Mid-Wave	MIRF-300-375-410-0.38	300/375/410µm	1-6.5µm	0.38	0.2 dB/m@ 4.6µm
Infrared Sulfur Fiber	MIRF-300-375-0.38	300μm/375/420μm	1.5-6.5μm	0.38	
	MIRF-400-500-550-0.38	400/500/550μm	1-6.5µm	0.38	0.2 dB/m@ 4.6μm
	INFG-110-200-0.2	110/200/240μm	0.4-5.5μm	0.2	<0.1db/m@2.1µm
	ZFG-110-200-0.2	110/200/240μm	0.3-4.5μm	0.2	<0.1db/m@2.1µm

Infrared Sulfur Fiber Optical Products Classification

Classification	Material Code	Core Diameter/Cladding Diameter/Coating Diameter	Wavelength Range	Numerical Aperture NA	Loss
	LIRF-130-164-0.12	130/164µm/180µm	3-11μm	0.12	<0.8 dB/m@ 8.4µm
Multimode Long-Wave	LIRF-150-190-0.24	150/190/210μm	3-11μm	0.24	0.5-0.6 dB/m@8.34µm
Infrared Sulfur Fiber	LIRF-200-250-0.15	200/250/270μm	3-11μm	0.15	<0.8 dB/m@ 9.3µm
	LIRF-200-250-0.24	200/250/280μm	3-11μm	0.24	0.5-0.6 dB/m@8.34µm
Single-mode Mid-wave Infrared Sulfur Fiber	MIRF-30-280-0.19	30/280/300μm	1-6.5µm	0.19	0.3 dB/m@ 4.6μm
Mid-long wave infrared bare fiber	MLF-190	190µm	1.5-9µm		0.7 dB/m@2.1μm

Infrared Sulfur Fiber

Chalcogenide Infrared Fibers

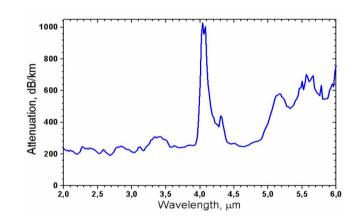


Product Features

- Operating Temperature:–273 °C ~ +90 °C
- Wavelength range: 1.5-6.5 μm (sulfides), 2-9 μm (selenides), 3-11.5 μm (tellurides)
- Transmission loss: <0.2 dB/m @ low loss band
- Numerical aperture: 0.12-0.56 customizable
- Fiber diameter uniformity: ≤0.5%
- Minimum bending radius: Fiber diameter × 100
- Fiber tensile strength: >100 MPa
- Customizable special structure optical fibers with rectangular core, convex core, suspended core, hollow multicore, etc.
- Customizable large-mode-field (diameter ≥ 100 μm) photonic crystal fibers
- Customizable Fiber Coupler

Product Description

Sulfur-containing optical fibers are infrared glass optical fibers made by drawing sulfur-containing glass near the softening temperature, with sulfur 族 elements (Sulfur S, Selenium Se, Tellurium Te) as the main matrix. Their transmission band range is relatively wide, with the transmission band of fibers with S as the matrix ranging from 1 to 6 µm, with Se as the matrix from 1.5 to 9 µm, and with Te as the matrix from 2 to 12 µm. Sulfur-containing optical fibers can be used in infrared signal and laser transmission, gas/biological/chemical molecular sensing, and the generation of supercontinuum spectrum in the fields of infrared optics and nonlinear optics. Advanced drawing technology and polymer double-coating technology provide sulfur-containing optical fibers with superior mechanical strength and flexibility. Due to lower optical loss and smaller absorption peaks in the 1.1 - 6.5 µm spectral range, sulfurcontaining optical fibers are widely used.

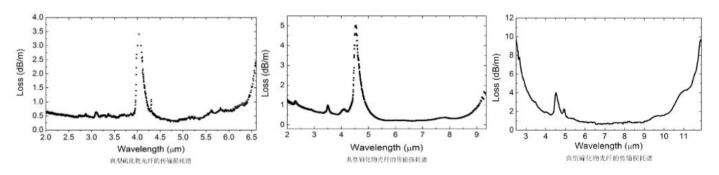


Product Applications

- Mid-Infrared Spectroscopy
- QCL Laser Energy Transfer
- Flexible Infrared Imaging System
- Flexible Radiation Line Measurement
- Remote Non-contact Infrared Temperature Measurement,

200 - 600k Range

Fiber Loss Spectrum



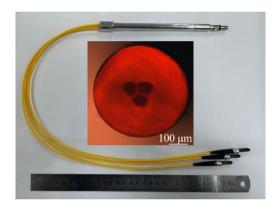
Infrared Sulfur Fiber



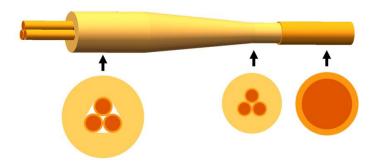


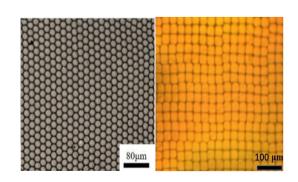
Sulfur Fiber Bundle

- Face-to-face, line-to-face conversion infrared optical fiber image bundle
- Maximum single fiber quantity ≥ 1 million, minimum single fiber diameter ≤ 15 μm, maximum filling factor ≥ 70%
- Resolution ≥ 20 lp/mm, broken fiber rate ≤ 0.5%
- Customizable single fiber cross-sectional shape (circular, square, etc.)









Customized Fiber



Product Description

We can design, customize, and produce various non-standard fiber optic products according to different customer needs. Designers can provide great flexibility by incorporating various options into the design. Not only can different joint specifications and protective tube types be customized, but different fibers can also be selected to ensure optimal optical performance. In addition to pure quartz core fibers, we can also provide products such as borate glass fibers and ESKA plastic fibers to meet customer budget requirements. We have a full range of precision machining and engraving equipment, which can fully meet the flexible needs of customized components such as fine processing, short-term sampling, and batch processing.

Product parameter

Customized wavelength range

- VIS Glass Fiber , wavelength range : 380-800nm
- UV quartz fiber , wavelength range : 200-1100nm
- UV resistant quartz fiber , wavelength range : 190-1100nm
- NIR- quartz fiber , wavelength range : 360-2500nm

Customized protective tube type

- PVC: Soft material, used for ordinary spectral measurement
- Stainless steel: used in outdoor, corrosive environments
- Composite: multi-layer armor, metal mesh, and plastic multi-layer protection, used for environments requiring bending resistance

Customized fiber components

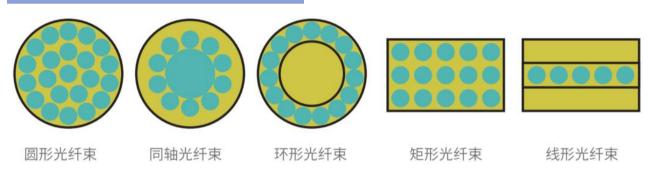
Customized fiber structure

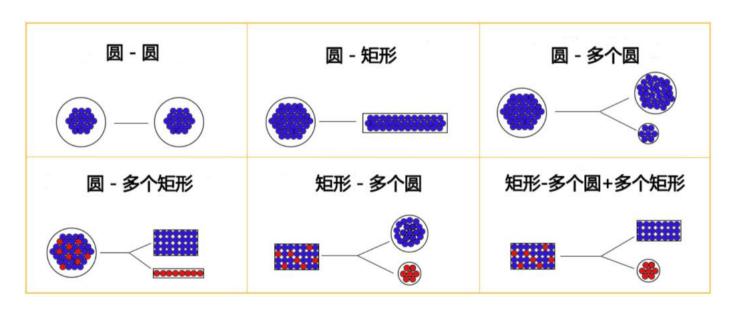
- Single core fiber: used for spectral transmission
- Y-shaped fiber: used for reflectance spectroscopy measurement
- Forked fiber: used for multi-channel spectral measurement
- Z-shaped fiber: used for reflectance spectroscopy measurement that requires a reference optical path
- Customization: Customers can customize complex fibers according to their specific needs

Customized connector types

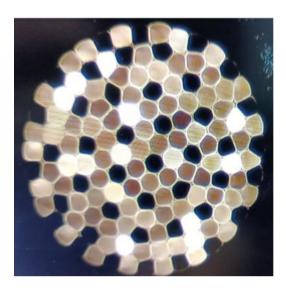
- SMA905 connector: used for spectral measurement instruments and equipment
- TA connector: diameter 6.35mm stainless steel
- TB connector: 10.0mm diameter stainless steel
- FC connector: used for communication equipment
- Customized connectors according to customer requirements

Customized fiber bundle structure





Fused silica fiber bundle



Product Description

The quartz fiber bundle produced by hot melt technology is a type of fiber optic device that uses high temperature heating to tightly bond multiple fibers together. It involves peeling off the coating layer of a bundle of fibers and arranging them together in a certain way, heating them at high temperature to melt them, and forming a whole fiber bundle. Compared to fiber bundles produced by traditional bonding processes, the melting process can increase the duty cycle by 10% -15%.

In high-power laser transmission, fiber bundles need to withstand high optical energy density, so there are high requirements for their materials and processes. Quartz fiber bundles made by hot melt technology have high melting points and chemical stability, and can withstand high temperature and high energy density transmission under high-power excitation. Meanwhile, the refractive index of quartz fiber bundles is relatively low, which can reduce the loss and scattering of optical signals, ensuring the quality and stability of signal transmission.

Features

■ Fiber optic category: UV fiber, infrared fiber

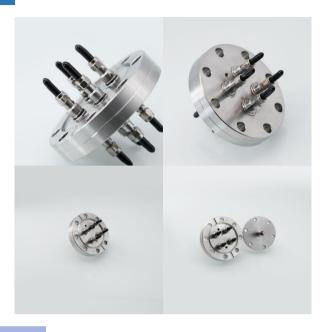
Number of optical fibers: customized

Output type: CircularNumerical aperture: 0.22

■ Fiber optic structure: SMA905、 customized

Structure type: Customized

Fiber Optical



Product Description

According to different customer needs, We designs, customizes, and produces various types of fiber optic probes, including reflective probes, transmissive probes, industrial probes, etc. Materials include stainless steel, Hastelloy, hard plastic, etc.



Features

- Fiber optic category: UV fiber, infrared fiber
- Number of optical fibers: single core, 7-core, customized
- Output types: transmissive, reflective, diffuse reflective
- Optical path length: 2-40mm
- Fiber optic materials: stainless steel, Hastelloy metal, PVC, PEEK, customized
- Fiber optic connector: SMA905
- Temperature tolerance: ≤ 120°C
- Enduring pressure: ≤ 0.5MPa
- Lens material: sapphire, fused silica
- Coating materials: gold, silver, aluminum, customized
- Probe diameter: customized

Online liquid circulation pool



Product Description

Fiber optic flow pools can be widely used in various industries, such as steel metallurgy, petrochemicals, pharmaceutical production, etc., to monitor real-time changes in liquids and ensure stability and safety in the production process.

Features

- Fiber optic category: UV fiber, infrared fiber
- Number of optical fibers: dual core, customized
- Optical path length: 2-20mm
- Fiber optic materials: stainless steel, Hastelloy,

customized

- Fiber optic connector: SMA905
- Temperature tolerance: ≤ 120°C
- Enduring pressure: ≤ 1MPa
- Lens material: sapphire, fused silica

