High Power Transmission Fibre Patchcord

YOFC high power transmission fibre patchcord is manufactured with special cladding and large-core power delivery fibre. By optimizing the diameter of fibre core and cladding, combining with the connection process of connector and energy transmission cable, as well as precision polishing process of optical fibre end face, the characteristics of high-efficiency coupling and high power transmission are achieved.

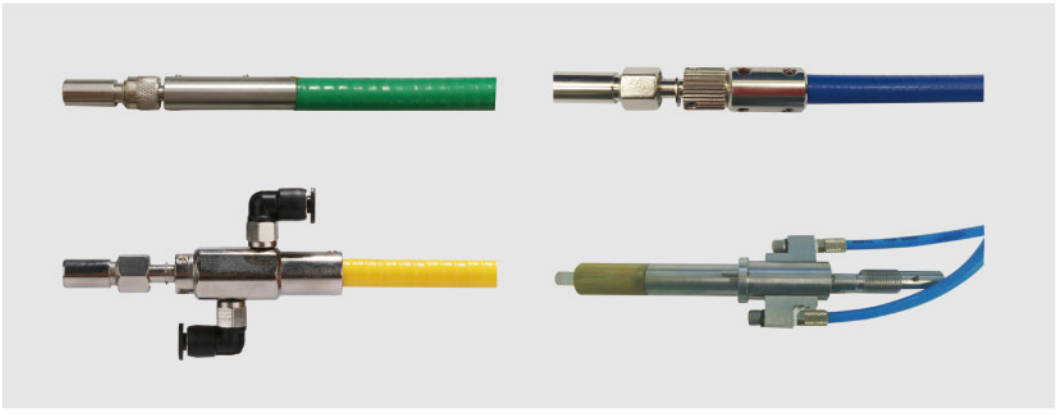
Based on standard applications of various industry, YOFC can provide high power components which have high concentricity, high-quality stainless steel hose protective layer and excellent characteristics of YLD80/SMA905 connector. And the product can support different power levels and has stable transmission efficiency.To satisfy customer demand to the most extent, a series of fibres can be customized with different fibre designs.

Characteristics

- Clamping in the center of fibre, good concentricity
- Excellent soft stainless steel tube for protection
- High core NA 0.22
- High laser damage threshold
- Stable and higher than 90% transmission efficiency @ 1064 nm
- Excellent large core power delivery fibre SI200/SI400/SI600 for selection
- Adhesive-free product available for option
- D80/SMA905 connector for option
- Water-cooling for option

Applications

- High power transmission
- Laser precision machining
- Atmospheric spectral measurement
- Laser lithotripsy

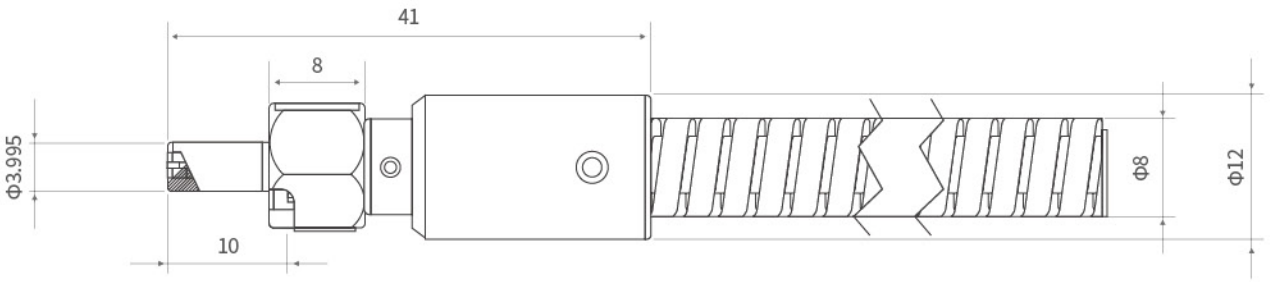


Specifications

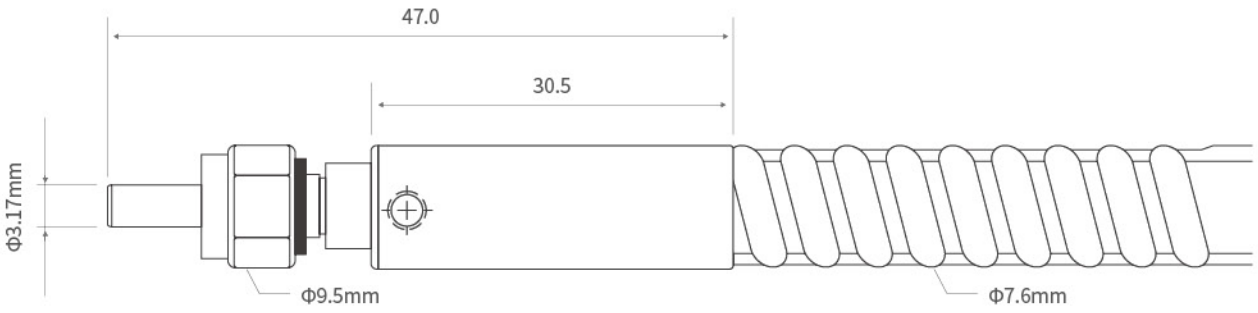
Product Type	D80-D80-SI200/500-22/1400E(DC)-1×A80-5m	D80-D80-SI600/750-22/1700E(DC)-1×A80-5m	SMA905-SMA905-SI400/440-22/730-1×A30-5m
Optical Parameters			
Operating Wavelength (nm)	400 - 2400		
NA	0.22 ± 0.02		
Fibre Type	Step Index		
Geometric Parameters			
Core Diameter (μm)	200.0 ± 5.0	600.0 ± 10.0	400.0 ± 8.0
Cladding Diameter (μm)	500.0 ± 5.0	750.0 ± 10.0	440.0 ± 8.0
Jacket Diameter (μm)	1400.0 ± 50.0	1700.0 ± 50.0	730.0 ± 30.0
Material			
Core Material	Low OH fused silica		
Jacket Material	ETFE		Acrylate or ETFE
Patch Cord Performances			
Transmission Efficiency (%)	>90@1.06μm, length 5m		>90@0.98μm, length 5m
Laser Resistance (CW) (W)	150@1.06μm	600@1.06μm	150@0.98μm

*Fibre geometric ,numerical aperture and fibre length can be customized, SMA905 high power hanging / flat head is optional, and water-cooled connector is also optional

Dimension Drawing for Connector Structure



D80 Connector



SMA 905 Connector