

High Power Transmission Fibre Patchcord

YOFC high power transmission fibre patchcord is manufactured with special cladding and large-core diameter energy 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 (up to 600W) and has stable transmission efficiency (over 90%). To satisfy customer demand to the most extent, a series of fibres can be customized with different fibre designs.

Products

- SI600D: SI-600/750-0.22 YLD80
- SI600S: SI-600/750-0.22 SMA905
- SI400D: SI-400/500-0.22 YLD80
- SI400S: SI-400/500-0.22 SMA905
- SI200D: SI-200/500-0.22 YLD80
- SI200S: SI-200/500-0.22 SMA905
- SI600DW: SI-600/750-0.22 YLD80W
- SI600SW: SI-600/750-0.22 SMA905W
- SI400DW: SI-400/500-0.22 YLD80W
- SI400SW: SI-400/500-0.22 SMA905W
- SI200DW: SI-200/500-0.22 YLD80W
- SI200SW: SI-200/500-0.22 SMA905W



Characteristics

- Clamping in the center of fibre, good concentricity
- Excellent soft stainless steel tube for protection
- Excellent large core diameter fibre SI200/SI400/SI600 for selection
- High core NA 0.22
- High laser damage threshold
- Stable and larger than 90% transmission efficiency @ 1064 nm
- Adhesive-free product available for option
- YLD80/SMA905 connector for option
- Water-cooling for option

Applications

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

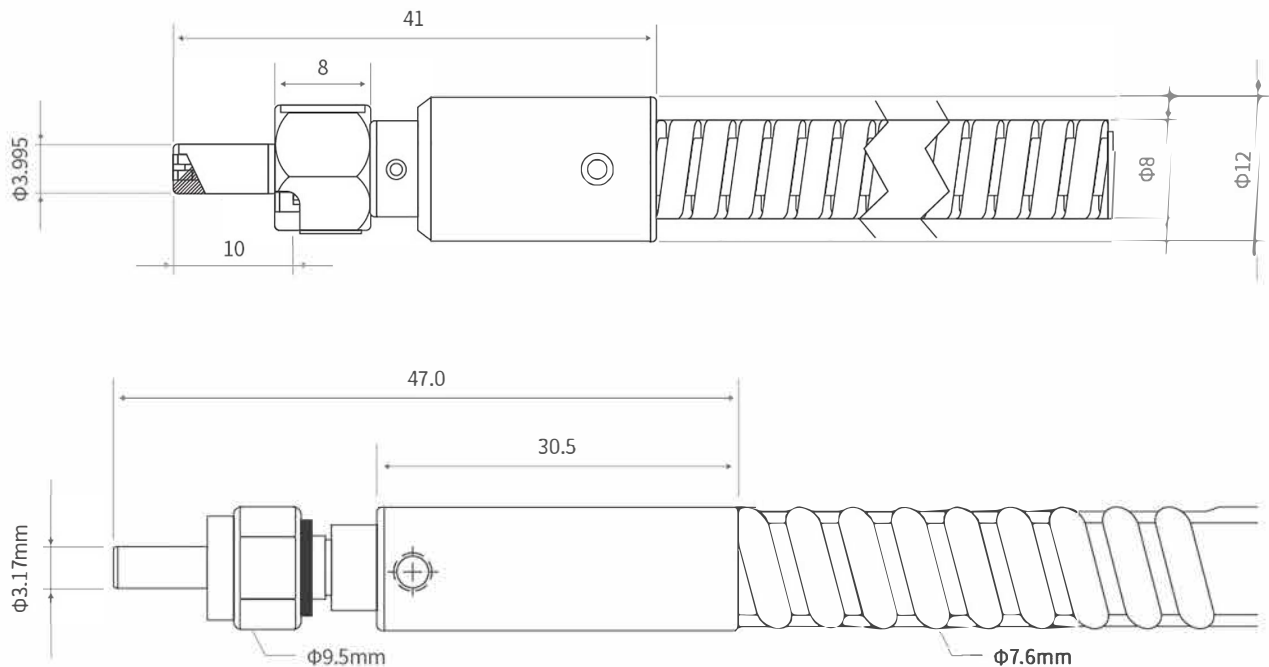
Fibre Parameters

Fibre Type	Core Diameter (μm)	Cladding Diameter (μm)	Fibre Diameter (μm)	Minimum Bending Radius in the Long Term (mm)	Minimum Bending Radius in the Short Term (mm)	Strength Screening (kpsi)
SI600	600	750	960	150	75	≥50
SI400	400	500	780	100	50	≥50
SI200	200	500	780	100	50	≥50

Specifications

Connector Type	YLD80(YLD80W)	SMA905(SMA905W)
Parameters		
Inner Diameter (mm)	3.990 ~ 3.999	3.166 ~ 3.172
Outer Diameter (mm)	10	9.5
Metal Protection Tube Diameter (mm)	Armoured/Plastic coated armoured tube; Φ4, Φ5, Φ6, Φ8, Φ10	
Fibre Patch Cable Length (m)	2 ± 0.1, 3 ± 0.1, 5 ± 0.1 (customized)	
Numerical Aperture (NA)	0.22 ± 0.02	
Core Diameter (μm)	SI200, SI400, SI600	
Concentricity (μm)	<6	
Operating Power (W)	SI200: 100W(D80) Supportable	
	SI400: 400W(D80) Supportable	
	SI600: 600W(D80) Supportable	

Dimension Drawing for Connector Structure



* Please be careful about beam quality, beam diameter, bend radius and end cleanliness when the patch cord is used. See instruction manual <Instructions for medium and high power large core diameter transmission fibre patch cord> for more detail.