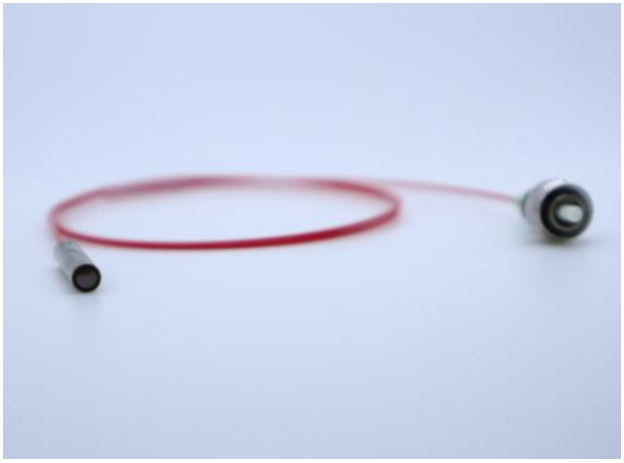
Polarization-Maintaining Fiber Collimator

780nm (Working Distance 100mm)



Product Description

It is composed of polarization-maintaining fiber pigtail and focusing lens with precise positioning and packaging, which can transform the outgoing light of fiber transmission into parallel beam (Gaussian beam), or focus and couple the parallel light from the outside into the fiber. It can be used alone to achieve the specified size spot at the required position; it can also be used in pairs, adding filters, isolators and other optical components

between a pair of probes to achieve the purpose of customer use. In the interferometric fiber sensor based on optical coherence detection, the use of polarization-maintaining fiber can ensure that the linear polarization direction remains unchanged, improve the coherent signal-to-noise ratio, and achieve high-precision measurement of physical quantities.

Product features

Ensure partial compatibility; Low insertion loss; High precision straight; Compact type; Anti reflective film

Part Number

MP-CLM-780-100-2.4-FA

Application area

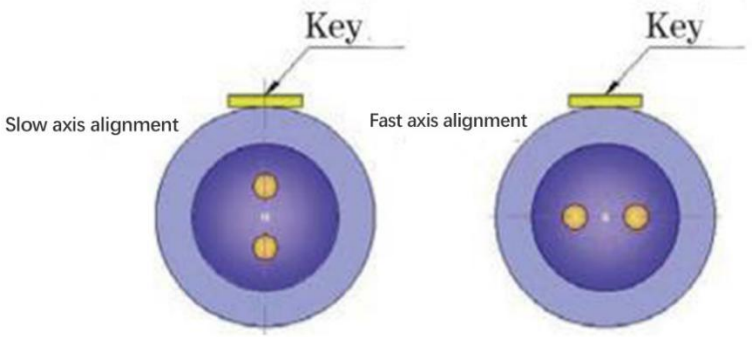
Fiber Optic Communication | Data Sensing | Industrial Inspection | Medical Equipment | Instrument Integration

Core parameters

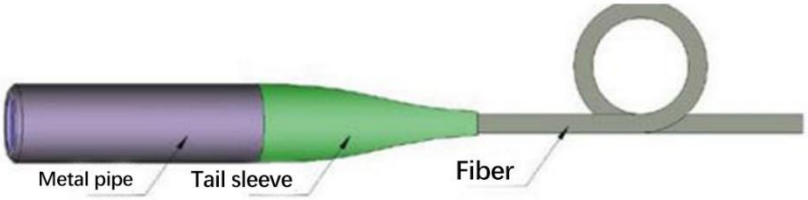
Working Wavelength	Bandwidth	Working Distance
780nm	±20nm	100mm

General Parameters

When making a polarization-maintaining device connector, the cat's eye connection axis direction is perpendicular to the keyway direction, also known as slow axis alignment, and vice versa is fast axis alignment. As shown in the figure:



Product model diagram



Parameters

PM630 Polarization-Maintaining Fiber Collimator (Fixed Working Distance)									
Working wavelength	Bandwidth	Working distance	Beam waist spot	Beam divergence angle	Packaging diameter	Connector	Output loss (excluding connector)	Return loss	Mode field core diameter
635nm	± 20nm	100mm	0.39mm	2.6mrad	3.4mm	FC/APC	≤0.5dB	≥ 55dB	4.5± 0.5um
635nm	± 20nm	300mm	0.85mm	1.0mrad	3.4mm	FC/APC	≤0.5dB	≥ 55dB	
635nm	± 20nm	1000mm	1.32mm	0.7mrad	4.0mm	FC/APC	≤0.5dB	≥ 55dB	
PM780 Polarization-Maintaining Fiber Collimator (Fixed Working Distance)									
Working wavelength	Bandwidth	Working distance	Beam waist	Beam divergenc	Packaging dia	Connector	Output loss (excluding connector)	Return loss	Mode field core

			spot	e angle	meter				diameter
780nm	±20nm	100mm	0.45mm	2.4mrad	3.4mm	FC/APC	≤0.5dB	≥55dB	5.2±1.0um
780nm	±20nm	300mm	0.75mm	1.3mrad	3.4mm	FC/APC	≤0.5dB	≥55dB	
780nm	±20nm	1000mm	1.55mm	0.7mrad	4.0mm	FC/APC	≤0.5dB	≥55dB	
PM980 Polarization-Maintaining Fiber Collimator (Fixed Working Distance)									
Working wavelength	Bandwidth	Working distance	Beam waist spot	Beam divergence angle	Packaging diameter	Connector	Output loss (excluding connector)	Return loss	Mode field core diameter
980nm	±20nm	100mm	0.50mm	2.5mrad	3.4mm	FC/APC	≤0.35dB	≥55dB	6.6±0.5u

980nm	±20nm	300mm	0.96mm	1.3mrad	3.4mm	FC/APC	≤0.35dB	≥55dB	m
980nm	±20nm	1000mm	1.48mm	0.87mrad	4.0mm	FC/APC	≤0.35dB	≥55dB	
1064nm	±20nm	100mm	0.51mm	2.7mrad	3.4mm	FC/APC	≤0.35dB	≥55dB	
1064nm	±20nm	300mm	0.90mm	1.5mrad	3.4mm	FC/APC	≤0.35dB	≥55dB	
1064nm	±20nm	500mm	1.43mm	0.95mrad	4.0mm	FC/APC	≤0.35dB	≥55dB	

PM1300nm Polarization-Maintaining Fiber Collimator (Fixed/Adjustable Working Distance)

Working wavelength	Bandwidth	Working distance	Beam waist spot	Beam divergence angle	Packaging diameter	Connector	Output loss	Matching loss	Return loss	Mode field core diameter

1310nm	± 20nm	100mm	0.4mm	4.2mrad	3.4mm	FC/APC	⩽ 0.35dB	⩽ 0.7dB	⩾ 55dB	9.3 ± 0.5um
1310nm	± 20nm	300mm	0.8mm	2.1mrad	3.4mm	FC/APC	⩽ 0.35dB	⩽ 0.9dB	⩾ 55dB	
1310nm	± 20nm	1000mm	1.2mm	1.4mrad	4.0mm	FC/APC	⩽ 0.35dB	⩽ 1.1dB	⩾ 55dB	
PM1550nm Polarization-Maintaining Fiber Collimator (Fixed/Adjustable Working Distance)										
Working wavelength	Bandwidth	Working distance	Beam waist spot	Beam divergence angle	Packaging diameter	Connector	Output loss	Mating loss	Return loss	Mode field core diameter
1550nm	± 20nm	100mm	0.45mm	4.4mrad	3.4mm	FC/APC	⩽ 0.5dB	⩽ 0.7dB	⩾ 55dB	10.1 ±

1550nm	± 20nm	300mm	0.86mm	2.3mrad	3.4mm	FC/APC	⩽ 0.5dB	⩽ 0.9dB	⩾ 55dB	0.5um
1550nm	± 20nm	500mm	1.3mm	1.5mrad	4.0mm	FC/APC	⩽ 0.5B	⩽ 1.1dB	⩾ 55dB	

Beam waist spot diameter: Take the Gaussian beam at $1/e^2$, and select the theoretical calculated value of single-mode optical fiber of each wavelength

Matching loss: - -Fiber collimator couples the free space beam between the two

Packaging material, packaging size and other fiber connector types can be customized