PM Fiber Collimator 1550nm

(Working Distance 100mm)

Product Description

The polarization maintaining fiber collimator is precisely positioned and packaged with a polarization maintaining fiber pigtail and a focusing lens. It can convert the light output from the fiber into a parallel beam (Gaussian beam), or focus and couple external parallel light into the fiber. It can be used individually to achieve a specified spot size at the required position, or in pairs with optical elements such as filters and isolators placed between

the pair of probes to meet the customer's application requirements. In interferometric fiber sensors based on optical coherence detection, the use of polarization maintaining fibers ensures that the linear polarization direction remains unchanged, improving the coherence signal-to-noise ratio, thereby enabling 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-1550-100-4.4-FA

Application area

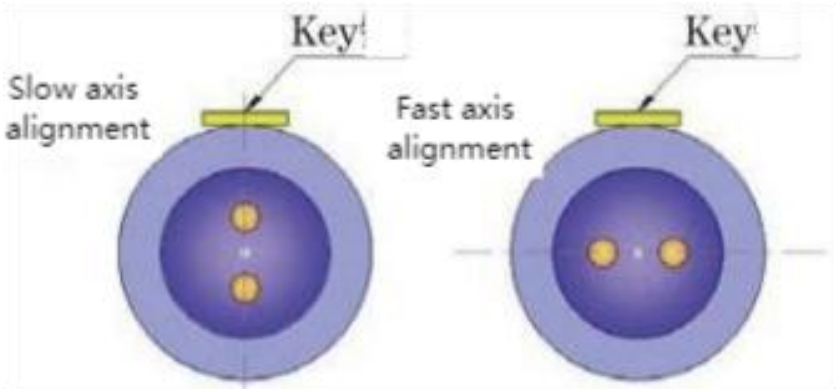
Fiber Optic Communication | Data Sensing | Industrial Inspection | Medical Equipment | Instrument Integration

Core parameters

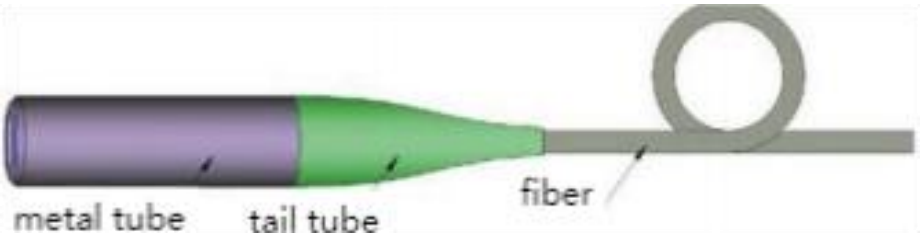
Working Wavelength	Bandwidth	Working Distance
1550nm	±20nm	100mm

General Parameters

When making polarization maintaining device connectors, the direction of the cat's eye connection axis is perpendicular to the key slot direction, also known as slow axis alignment, and the opposite is fast axis alignment. As shown in the figure:



Diagram



General Parameter

PM780 Polarization-Maintaining Fiber Collimator (Fixed Working Distance)									
Wavelength	Bandwidth	Working Distance	Beam Waist Spot	Beam Divergence	Package Diameter	Connector	Excess Loss (no connector)	Return Loss	Mode Field Diameter
780nm	± 20nm	100mm	0.45mm	2.2mrad	3.2mm	FC/APC	⩽0.5dB	⩾ 55dB	5.9± 0.3um
780nm	± 20nm	300mm	0.75mm	1.3mrad	3.2mm	FC/APC	⩽0.5dB	⩾ 55dB	
PM980 Polarization-Maintaining Fiber Collimator (Fixed Working Distance)									
Wavelength	Bandwidth	Working Distance	Beam Waist Spot	Beam Divergence	Package Diameter	Connector	Excess Loss (no connector)	Return Loss	Mode Field Diameter
980nm	± 20nm	100mm	0.50mm	2.5mrad	3.2mm	FC/APC	⩽0.5dB	⩾ 55dB	6.6± 0.5um
980nm	± 20nm	300mm	0.96mm	1.3mrad	3.2mm	FC/APC	⩽0.5dB	⩾ 55dB	

1064nm	± 20nm	100mm	0.51mm	2.7mrad	3.2mm	FC/APC	⩽0.5dB	⩾ 55dB	
1064nm	± 20nm	300mm	0.90mm	1.5mrad	3.2mm	FC/APC	⩽0.5dB	⩾ 55dB	
1064nm	± 20nm	500mm	1.43 mm	0.95mrad	4.0mm	FC/APC	⩽0.5dB	⩾ 55dB	

PM1310 Polarization-Maintaining Fiber Collimator (Fixed/Adjustable Working Distance)

Wavelength	Bandwidth	Working Distance	Beam Waist Spot	Beam Divergence	Package Diameter	Connector	Excess Loss	Pairing Loss	Return Loss	Mode Field Diameter
1310nm	± 20nm	100mm	0.4mm	4.2mrad	3.2mm	FC/APC	⩽ 0.5dB	⩽ 0.7dB	⩾ 55dB	
1310nm	± 20nm	300mm	0.8mm	2.1mrad	3.2mm	FC/APC	⩽ 0.5dB	⩽ 0.9dB	⩾ 55dB	9.2± 0.4um
1310nm	± 20nm	500mm	1.2mm	1.4mrad	4.0mm	FC/APC	⩽ 0.5dB	⩽ 1.1dB	⩾ 55dB	

PM1550 Polarization-Maintaining Fiber Collimator (Fixed/Adjustable Working Distance)										
Wavelength	Bandwidth	Working Distance	Beam Waist Spot	Beam Divergence	Package Diameter	Connector	Excess Loss	Pairing Loss	Return Loss	Mode Field Diameter
1550nm	± 20nm	100mm	0.45mm	4.4mrad	3.2mm	FC/APC	⩽ 0.5dB	⩽ 0.7dB	⩾ 55dB	10± 0.4um
1550nm	± 20nm	300mm	0.86mm	2.3mrad	3.2mm	FC/APC	⩽ 0.5dB	⩽ 0.9dB	⩾ 55dB	
1550nm	± 20nm	500mm	1.3mm	1.5mrad	4.0mm	FC/APC	⩽ 0.5dB	⩽ 1.1dB	⩾ 55dB	

Beam Waist Spot Diameter: The value is taken at the $1/e^2$ point of the Gaussian beam, with the theoretical value calculated using single-mode fiber for each wavelength.

Pairing Loss: Refers to the coupling loss between the two fiber collimators in free space.

Packaging Material, Package Size, and Other Fiber Connector Types: Customizable.