Q





## Product Description

IDEAL The Power of Light PHOTONICS

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.

## • Part Number

NIR-CLM-1550-0.45-4.4-FA



Q



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 Parameters**

PM780 Polarization-Maintaining Fiber Collimator (Fixed Working Distance)											
Waveleng th	Bandwidt h	Workin g Distanc e	Beam Waist Spot	Beam Divergenc e	Package Diamet er	Connect or	Excess Loss (no connector)	Retur n Loss	Mode Field Diameter		
780nm	$\pm$ 20nm	100mm	0.45m m	2.2mrad	3.2mm	FC/APC	≪0.5dB	≥ 55dB	5.9±		
780nm	$\pm$ 20nm	300mm	0.75m m	1.3mrad	3.2mm	FC/APC	≪0.5dB	≥ 55dB	0.3um		
PM980 Polarization-Maintaining Fiber Collimator (Fixed Working Distance)											
Waveleng th	Bandwidt h	Workin g Distanc e	Beam Waist Spot	Beam Divergenc e	Package Diamet er	Connect or	Excess Loss (no connector)	Retur n Loss	Mode Field Diameter		
980nm	$\pm$ 20nm	100mm	0.50m m	2.5mrad	3.2mm	FC/APC	≪0.5dB	≥ 55dB			
980nm	$\pm$ 20nm	300mm	0.96m m	1.3mrad	3.2mm	FC/APC	≪0.5dB	≥ 55dB	6.6± 0.5um		
1064nm	$\pm$ 20nm	100mm	0.51m m	2.7mrad	3.2mm	FC/APC	≪0.5dB	≥ 55dB			

🦲 (852)30786684



www.idealphotonics.com

Q

	1064nm	$\pm$ 20nm	300mm	0.90m m	1.5mrad	3.2mm	FC/APC	≪0.5	dB	≥ 55dB	
	1064nm	$\pm$ 20nm	500mm	1.43m m	0.95mrad	4.0mm	FC/APC	≪0.5dB		≥ 55dB	
PM1310 Polarization-Maintaining Fiber Collimator (Fixed/Adjustable Working Distance)											
	Waveleng th	Bandwidt h	Workin g Distanc e	Beam Waist Spot	Beam Divergenc e	Package Diamet er	Connect or	Exces s Loss	Pairin g Loss	Retur n Loss	Mode Field Diameter
	1310nm	$\pm$ 20nm	100mm	0.4mm	4.2mrad	3.2mm	FC/APC	≪ 0.5dB	≤ 0.7dB	≥ 55dB	
	1310nm	$\pm$ 20nm	300mm	0.8mm	2.1mrad	3.2mm	FC/APC	≪ 0.5dB	≪ 0.9dB	≥ 55dB	9.2± 0.4um
	1310nm	$\pm$ 20nm	500mm	1.2mm	1.4mrad	4.0mm	FC/APC	≪ 0.5dB	≤ 1.1dB	≥ 55dB	
PM1550 Polarization-Maintaining Fiber Collimator (Fixed/Adjustable Working Distance)											
	Waveleng th	Bandwidt h	Workin g Distanc e	Beam Waist Spot	Beam Divergenc e	Package Diamet er	Connect or	Exces s Loss	Pairin g Loss	Retur n Loss	Mode
	1550nm	$\pm$ 20nm	100mm	0.45m m	4.4mrad	3.2mm	FC/APC	≪ 0.5dB	≪ 0.7dB	≥ 55dB	Field Diameter
	1550nm	$\pm$ 20nm	300mm	0.86m m	2.3mrad	3.2mm	FC/APC	≪ 0.5dB	≪ 0.9dB	≥ 55dB	0.4um
	1550nm	$\pm$ 20nm	500mm	1.3mm	1.5mrad	4.0mm	FC/APC	<mark>≪</mark> 0.5dB	≤ 1.1dB	≥ 55dB	

Beam Waist Spot Diameter: The value is taken at the 1/e<sup>2</sup> 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.

