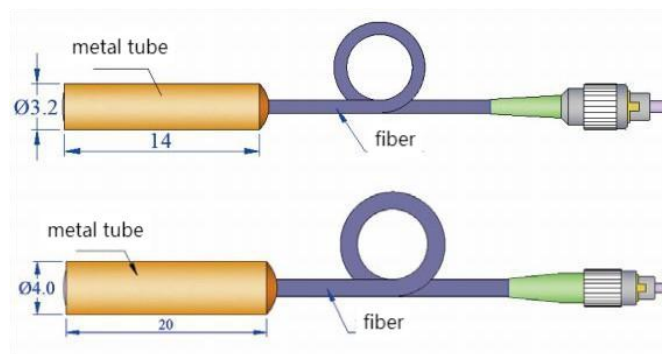


Single Mode Fiber Collimator 405nm Beam

Waist Spot 0.70mm



- **Product Description**

It is composed of a fiber pigtail and a focusing lens that are precisely positioned and packaged. It can convert the outgoing light from the fiber into a parallel beam (Gaussian beam), or focus and couple the external parallel light into the fiber. It can also be used alone to achieve a light spot of the required size at a specific position according to the established divergence angle.

- **Product features**

Precise wavelength & low loss; high-quality output beam; compact and

reliable mechanical design; flexible application options

● Part Number

MP-NIR-CLM-405-0.7-0.045-SA

● Application area

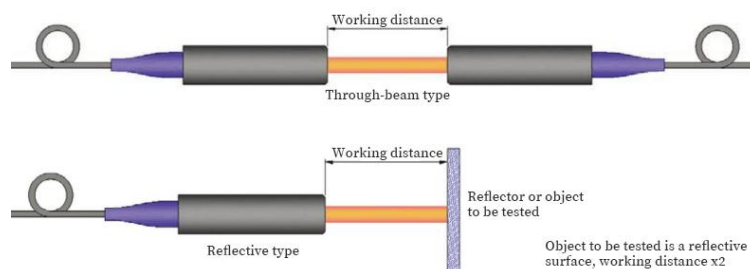
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● Core parameters

Wavelength	Beam Waist	Connector
405m	0.27mm	FC/APC

● General Parameters



According to the working distance, it can be divided into fixed working distance

(fixed focus) collimator and working distance range (long depth of field)

collimator. Spherical lens or gradient refractive index lens is selected according to different working distances.

We recommend that the collimator be installed in the optical precision adjustment frame for alignment and debugging to ensure the best coupling efficiency when coupling spatial beams.

Difference	Fixed Working Distance Collimator	Variable Collimator for Working Distance Range
Working Distance	1m	0-1m any position
Beam Characteristics	Collimation/Focus	Collimation
Beam Size	At a fixed position, a precise sized beam spot can be obtained, with a minimum size of 20um. The beam size rapid changes when moved forwards or backwards.	Move forward and backward within an adjustable range, and the spot size changes very little.
Insert Loss For A Pair	Changes significantly with distance.	Insensitive to changes with distance.
Output Loss	No difference	
Return Loss	No difference	

Fix Working Distance

Wave length	Band width	Working distance	Beam waist	Divergence angle	Package	Insert loss	Return loss	Mode field diameter	Fiber type	Connector
405nm	±20nm	100mm	0.27mm	2.1mrad	Φ 3.4mm	≤2.0dB	≥55dB	3.0±	405	FC/PC
405nm	±20nm	300mm	0.70mm	0.78mrad	Φ 3.4mm	≤2.0dB	≥55dB	0.5um	HP	
450nm	±20nm	100mm	0.26mm	2.3mrad	Φ 3.4mm	≤2.0dB	≥55dB	3.5±	460 HP	FC/A
450nm	±20nm	300mm	0.68mm	0.87mrad	Φ 3.4mm	≤2.0dB	≥55dB	0.5um		PC
520nm	±20nm	100mm	0.31mm	2.3mrad	Φ 3.4mm	≤1.5dB	≥55dB	3.6±		LC/PC
520nm	±20nm	300mm	0.80mm	0.87mrad	Φ 3.4mm	≤1.5dB	≥55dB	0.5um		C or
635nm	±20nm	100mm	0.39mm	2.6mrad	Φ 3.4mm	≤0.7dB	≥55dB	4.2±		Customer specified
635nm	±20nm	100mm	0.39mm	2.6mrad	Φ 3.4mm	≤0.7dB	≥55dB	0.5um	630H	

635nm	±20nm	300mm	0.85mm	1.0mrad	Φ	≤	≥		P	
					3.4mm	0.8dB	55dB			
635nm	±20nm	1000mm	1.32mm	0.7mrad	Φ	≤	≥			
					3.4mm	1.0dB	55dB			
780nm	±20nm	100mm	0.39mm	2.6mrad	Φ	≤	≥			
					3.4mm	0.6dB	55dB			
780nm	±20nm	300mm	0.99mm	1.0mrad	Φ	≤	≥	4.5±		
					3.4mm	0.7dB	55dB	0.5um		
780nm	±20nm	1000mm	1.55mm	0.7mrad	Φ	≤	≥			
					4.0mm	0.9dB	55dB		780H	
850nm	±20nm	100mm	0.37mm	3.0mrad	Φ	≤	≥		P	
					3.4mm	0.6dB	55dB			
850nm	±20nm	300mm	0.97mm	1.1mrad	Φ	≤	≥	5.0±		
					3.4mm	0.7dB	55dB	0.5um		
850nm	±20nm	1000mm	1.51mm	0.75mrad	Φ	≤	≥			
					4.0mm	0.9dB	55dB			
980nm	±20nm	100mm	0.36mm	3.5mrad	Φ	≤	≥	5.9±	Hi106	
					3.4mm	0.5dB	55dB	0.3um	0	

980nm	±20nm	300mm	0.96mm	1.4mrad	Φ	≤	≥			
					3.4mm	0.6dB	55dB			
980nm	±20nm	1000mm	1.48mm	0.87mrad	Φ	≤	≥			
					4.0mm	0.9dB	55dB			
1064nm	±20nm	100mm	0.37mm	3.3mrad	Φ	≤	≥			
					3.4mm	0.5dB	55dB			
1064nm	±20nm	300mm	0.99mm	1.4mrad	Φ	≤	≥	6.2±		
					3.4mm	0.6dB	55dB	0.3um		
1064nm	±20nm	1000mm	1.53mm	0.87mrad	Φ	≤	≥			
					4.0mm	0.9dB	55dB			
1310nm	±20nm	100mm	0.38mm	4.4mrad	Φ	≤	≥			
					3.4mm	0.4dB	55dB			
1310nm	±20nm	300mm	0.73mm	2.3mrad	Φ	≤	≥	9.6±		
					3.4mm	0.5dB	55dB	0.4um		
1310nm	±20nm	1000mm	0.91mm	1.9mrad	Φ	≤	≥		SMF-	
					4.0mm	0.7dB	55dB		28e	
1550nm	±20nm	100mm	0.46mm	4.5mrad	Φ	≤	≥	10.4±	G657	
					3.4mm	0.4dB	55dB	0.5um	A1/	

1550 nm	± 20nm	300mm	0.85m m	2.4mr ad	Φ 3.4mm	≤ 0.5dB	≥ 55dB		G657 A2 ZBL	
1550 nm	± 20nm	1000m m	1.35m m	1.7mr ad	Φ 4.0mm	≤ 0.7dB	≥ 55dB			
1650 nm	± 5nm	100mm	0.47m m	4.5mr ad	Φ 3.4mm	≤ 0.4dB	≥ 55dB	10.9 ±0.5um		
1650 nm	± 5nm	300mm	0.89m m	2.4mr ad	Φ 3.4mm	≤ 0.5dB	≥ 55dB			
1650 nm	± 5nm	1000m m	1.22m m	1.7mr ad	Φ 4.0mm	≤ 0.7dB	≥ 55dB			

Adjustable Working Distance

Wave length h	Band width	Working distanc e	Export beam s ize	Diverg ence angle	Pack age	Inser t loss	Retur n loss	Mode field diameter	Fiber type	Conn ector
780n m	± 20nm	0-350m m	0.9mm	0.95m rad	Φ 3.4m m	≤ 0.8d B	≥ 55dB	4.5± 0.5um	780H P	FC/PC FC/AP

850nm	±20nm	0-350mm	1.0mm	1.05mrad	Φ3.4mm	≤0.8dB	≥55dB	5.0±0.5um		C LC/PC or Custo mer specif ied
980nm	±20nm	0-350mm	0.99mm	1.26mrad	Φ3.4mm	≤0.7dB	≥55dB	5.9±0.3um	Hi1060	
980nm	±20nm	50-1000mm	1.54mm	0.81mrad	Φ4.0mm	≤0.9dB	≥55dB			
1064nm	±20nm	0-350mm	1.0mm	1.35mrad	Φ3.4mm	≤0.7dB	≥55dB	6.2±0.3um		
1064nm	±20nm	500-1000mm	1.6mm	0.85mrad	Φ4.0mm	≤0.9dB	≥55dB			
1310nm	±20nm	0-350mm	0.81mm	2.06mrad	Φ3.4mm	≤0.7dB	≥55dB	9.6±0.4um	SMF-28e/ G657A	

1310 nm	± 20nm	50-1000 mm	1.3mm	1.31m rad	Φ 4.0m m	≤ 0.9d B	≥ 55dB		1/ G657A	
1550 nm	± 20nm	0-350m m	0.9mm	2.15m rad	Φ 3.4m m	≤ 0.7d B	≥ 55dB	10.4±	2/ ZBL	
1550 nm	± 20nm	50-1000 mm	1.45m m	1.36m rad	Φ 4.0m m	≤ 0.9d B	≥ 55dB	0.5um		
1650 nm	± 20nm	0-350m m	0.96m m	2.19m rad	Φ 3.4m m	≤ 0.7d B	≥ 55dB	10.9±		
1650 nm	± 20nm	50-1000 mm	1.50m m	1.40m rad	Φ 4.0m m	≤ 0.9d B	≥ 55dB	0.5um		

