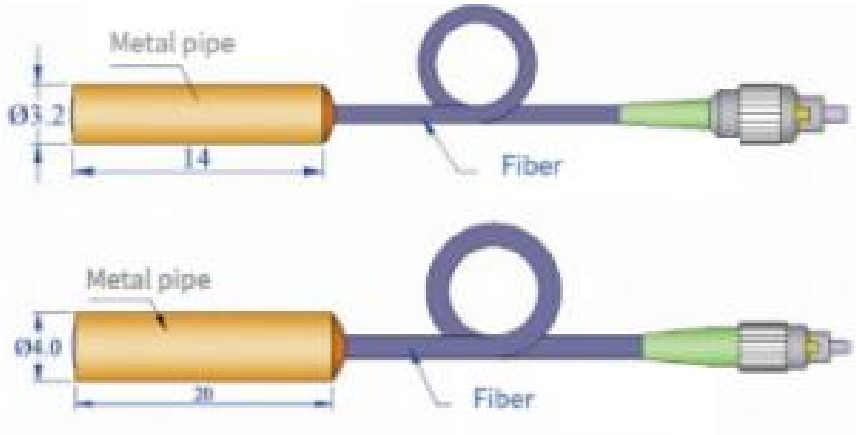
Single Mode Fiber Collimator 405nm



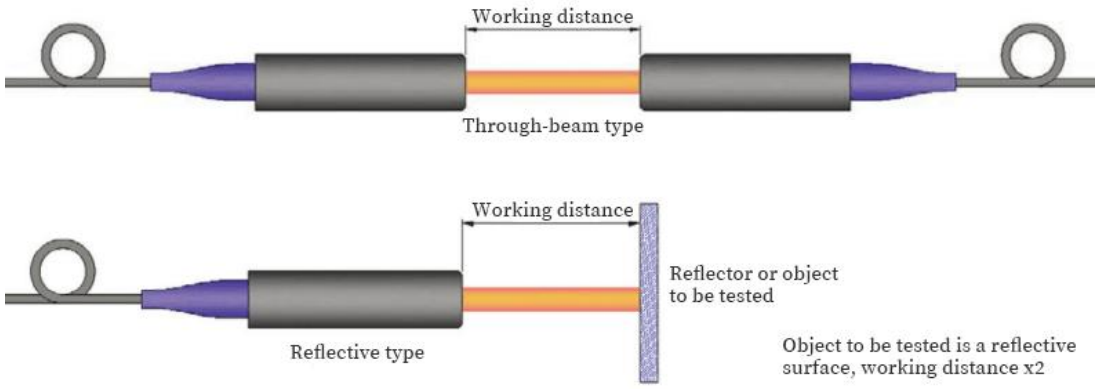
● Product Description

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.

● Part Number

NIR-CLM-405-0.27-0.12-SA

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 (fixed focus) collimator	Adjustable working distance (long depth of field) collimator
Working distance	A fixed position within 1M	Universal within 1M working distance range
Beam characteristics	Collimation/convergence/fixed divergence angle	Collimation
Light spot	Get a precise size light spot at a fixed position, minimum	Move forward and backward within the adjustable distance range, the light spot size changes very little
Pairing loss	Can reach 20um, the light spot changes greatly when moving forward and backward	Pairing loss changes insensitively with distance
	Pairing loss changes significantly with distance	
Output loss	No difference	
Return loss	No difference	

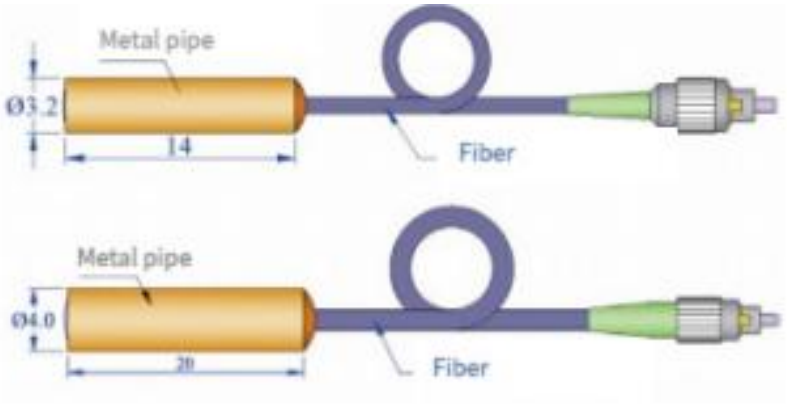
405HP Single-mode fiber collimator (fixed working distance) Fiber applicable wavelength range 400nm-680nm									
Working wavelength	Working bandwidth	Working distance	Beam waist spot	Collimated beam divergence angle	Package diameter	Connector	Exit loss (excluding connector)	Return loss	Mode field diameter
405nm	±20nm	100mm	0.27mm	0.12°	3.2mm	FC/APC	≤0.35dB	≥55dB	3.0±0.5um
405nm	±20nm	300mm	0.70mm	0.045°	3.2mm	FC/APC	≤0.35dB	≥55dB	
450nm	±20nm	100mm	0.26mm	0.13°	3.2mm	FC/APC	0.35dB	≥55dB	3.5±0.5um
450nm	±20nm	300mm	0.68mm	0.05°	3.2mm	FC/APC	≤0.35dB	≥55dB	
525nm	±20nm	100mm	0.31mm	0.13°	3.2mm	FC/APC	≤0.35dB	≥55dB	3.6±0.5um
525nm	±20nm	300mm	0.80mm	0.05°	3.2mm	FC/APC	≤0.35dB	≥55dB	

630HP Single-mode fiber collimator (fixed working distance) Fiber applicable wavelength range 630nm-860nm									
Working wavelength	Working bandwidth	Working distance	Beam waist spot	Collimated beam divergence angle	Package diameter	Connector	Exit loss (excluding connector)	Return loss	Mode field diameter
635nm	±20nm	100mm	0.39mm	0.15°	3.2mm	FC/APC	≤0.35dB	≥55dB	4.2±0.5um
635nm	±20nm	300mm	0.85mm	0.06°	3.2mm	FC/APC	≤0.35dB	≥55dB	4.2±0.5um
635nm	±20nm	1000mm	1.32mm	0.04°	3.2mm	FC/APC	≤0.35dB	≥55dB	4.2±0.5um

780HP Single-mode fiber collimator (fixed working distance) Fiber applicable wavelength range 780nm-970nm									
Working wavelength	Working bandwidth	Working distance	Beam waist spot	Collimated beam divergence angle	Package diameter	Connector	Exit loss (excluding connector)	Return loss	Mode field diameter
780nm	±20nm	100mm	0.39mm	0.15°	3.2mm	FC/APC	≤0.35dB	≥55dB	
780nm	±20nm	300mm	0.99mm	0.06°	3.2mm	FC/APC	≤0.35dB	≥55dB	4.5±0.5um
780nm	±20nm	1000mm	1.55mm	0.04°	4.0mm	FC/APC	≤0.35dB	≥55dB	
850nm	±20nm	100mm	0.37mm	0.17°	3.2mm	FC/APC	≤0.35dB	≥55dB	
850nm	±20nm	300mm	0.97mm	0.065°	3.2mm	FC/APC	≤0.35dB	≥55dB	5.0±0.5um
850nm	±20nm	1000mm	1.51mm	0.043°	4.0mm	FC/APC	≤0.35dB	≥55dB	
HI1060 Single-mode fiber collimator (fixed working distance) Fiber applicable wavelength range 980nm-1600nm									
Working wavelength	Working bandwidth	Working distance	Beam waist spot	Collimated beam divergence angle	Package diameter	Connector	Exit loss (excluding connector)	Return loss	Mode field diameter
980nm	±20nm	100mm	0.36mm	0.20°	3.2mm	FC/APC	≤0.5 dB	≥55dB	
980nm	±20nm	300mm	0.96mm	0.08°	3.2mm	FC/APC	≤0.5 dB	≥55dB	5.9±0.3um
980nm	±20nm	1000mm	1.48mm	0.05°	4.0mm	FC/APC	≤0.5 dB	≥55dB	
1064nm	±20nm	100mm	0.37mm	0.19°	3.2mm	FC/APC	≤0.5 dB	≥55dB	
1064nm	±20nm	300mm	0.99mm	0.08°	3.2mm	FC/APC	≤0.5 dB	≥55dB	6.2±0.3um
1064nm	±20nm	1000mm	1.53mm	0.05°	4.0mm	FC/APC	≤0.5dB	≥55dB	

SMF-28e Single-mode fiber collimator (fixed working distance) Fiber applicable wavelength range 1260nm-1650nm									
Working wavelength	Working bandwidth	Working distance	Beam waist spot	Collimated beam divergence angle	Package diameter	Connector	Exit loss (excluding connector)	Return loss	Mode field diameter
1310nm	±20nm	100mm	0.38mm	0.25°	3.2mm	FC/APC	≤0.5 dB	≥55dB	
1310nm	±20nm	350mm	0.73mm	0.13°	3.2mm	FC/APC	≤0.5 dB	≥55dB	9.6±0.4um
1310nm	±20nm	1000mm	0.91mm	0.11°	4.0mm	FC/APC	≤0.5 dB	≥55dB	
1550nm	±20nm	100mm	0.46mm	0.26°	3.2mm	FC/APC	≤0.5 dB	≥55dB	
1550nm	±20nm	350mm	0.85mm	0.14°	3.2mm	FC/APC	≤0.5 dB	≥55dB	
1550nm	±20nm	1000mm	1.15mm	0.10°	4.0mm	FC/APC	≤0.5 dB	≥55dB	
1654nm	±5nm	100mm	0.47mm	0.26°	3.2mm	FC/APC	≤0.5 dB	≥55dB	10.4±0.5um
1654nm	±5nm	350mm	0.89mm	0.14°	3.2mm	FC/APC	≤0.5 dB	≥55dB	
1654nm	±5nm	1000mm	1.22mm	0.10°	4.0mm	FC/APC	≤0.5 dB	≥55dB	

HI1060 Single-mode fiber collimator (adjustable working distance)									
Operating wavelength	Bandwidth	Working distance	Outlet beam spot	Beam divergence angle	Package diameter	Connector	Mating loss	Return loss	Mode field diameter
980nm	±20nm.	0-350mm	0.99mm	0.07°	3.2mm	FC/APC	≤0.8dB	≥55dB	5.9±0.3um
980nm	±20nm	50-1000mm	1.54mm	0.06°	4.0mm	ICAPC	≤1.0dB	≥55dB	
1064nm	±20nm	0-350mm	1.0mm	0.075°	3.2mm	FC/APC	≤0.8dB	≥55dB	6.2±0.3um
1064nm	±20nm	50-1000mm	1.6mm	0.06°	4.0mm	FC/APC	≤1.0dB	≥55dB	
SMF-28e Single-mode fiber collimator (adjustable working distance)									
Central wavelength	Bandwidth	Working distance	Outlet beam spot	Beam divergence angle	Package diameter	Connector	Mating loss	Return loss	Mode field diameter
1310nm	±20nm	0-350mm	0.81mm	0.12°	3.2mm	FC/APC	≤0.7dB	≥55dB	9.2±0.4um
1310nm	±20nm	50-1000mm	1.27mm	0.09°	4.0mm	FC/APC	≤0.9dB	≥55dB	
1550nm	±20nm	0-350mm	0.92mm	0.13°	3.2mm	FCAPC	≤0.7dB	≥55dB	10.4±0.5um
1550nm	±20nm	50-1000mm	1.45mm	0.09°	4.0mm	FC/APC	≤0.9dB	≥55dB	
1654nm	±20nm	0-350mm	0.96mm	0.13°	3.2mm	FC/APC	≤0.7dB	≥55dB	
1654nm	±20nm	50-1000mm	1.50mm	0.09°	4.0mm	FC/APC	≤0.9dB	≥55dB	


Metal pipe
Ø3.2
14
Fiber
Metal pipe
Ø4.0
20
Fiber