1064nm Long-Distance Collimating Lens

Product Description

The 1064nm Long-Distance Collimating Lens is designed to collimate and shape the output from optical fibers, providing diffraction-limited performance for lasers emitted through various fiber connections at the designed wavelength. The collimation distance can reach up to 200 meters. This series of collimating lenses has a compact structure that is not affected by misalignment. The design incorporates aberration correction and uses an air-spaced double-lens configuration, ensuring excellent collimation results. The effective focal length of the double-lens is wavelength-dependent, so it is recommended to use this series of collimating lenses at the designed wavelength for optimal performance.

Part Number

NIR-CLM-1064-15.2-0.005-95

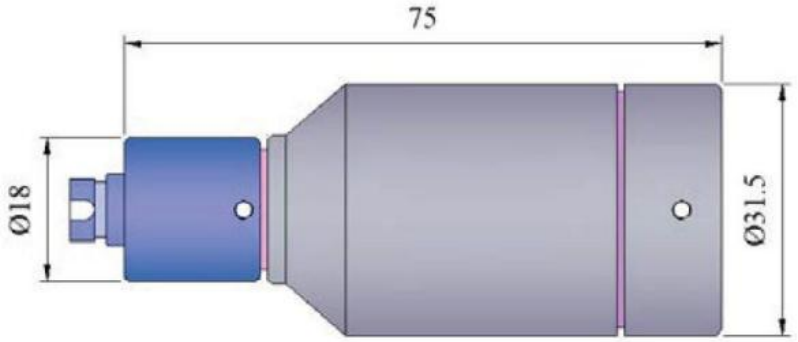
Product features

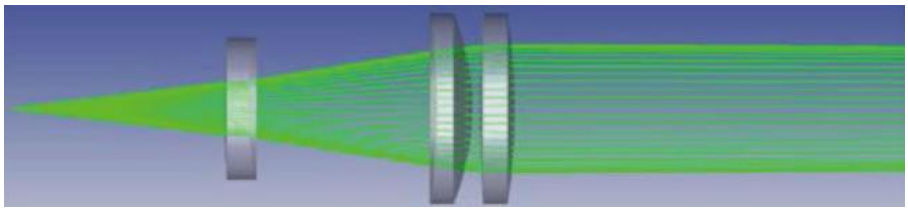
Fiber Collimator with FC/APC, FC/PC, or SMA905 Connectors、 Can be used

for wavelengths from 405 nm to 1.55 μm.、 Simplified coupling of free-space laser to optical fiber、 Double-lens design, aberration correction performance、 Non-magnetic stainless steel housing

Parameters

Dimensional Drawing





Beam waist spot diameter: Taken at the 1/e² point of the Gaussian beam, calculated using the theoretical value for single-mode fiber at each wavelength.
Far-field divergence angle of the beam: The input uses single-mode fiber for each wavelength, with the divergence angle calculated according to the theoretical value of a Gaussian beam at the 1/e² point.
Tolerance: + 0.01° / 0.0°

Technical Parameters

Central Wavelength	Bandwidth	Beam Waist Diameter (at 1/e²)	Beam Divergence Angle (Far Field)	Effective Focal Length	Numerical Aperture (Lens)	Fiber Type	Transmittance
405nm	±30nm	10.2mm	0.09mrad	66.5mm	0.19	405HP	>92%
450nm	±30nm	13.7mm	0.07mrad	68.4mm	0.18	405HP	>92%

520nm	±30nm	14.2mm	0.06mrad	70.3mm	0.18	460HP	>92%
635nm	±30nm	14.5mm	0.07mrad	72.1mm	0.17	630HP	>92%
780nm	±30nm	14.2mm	0.07mrad	73.3mm	0.17	780HP	>92%
850nm	±30nm	14.9mm	0.07mrad	73.7mm	0.17	780HP	>92%
905nm	±30nm	14.9mm	0.07mrad	73.9mm	0.17	980HP	>92%
980nm	±30nm	15.0mm	0.09mrad	74.2mm	0.17	980HP	>92%
1064nm	±30nm	15.2mm	0.09mrad	74.5mm	0.17	980HP	>92%
1310nm	±30nm	12.9mm	0.12mrad	75.1mm	0.17	SMF-28e	>92%
1550nm	±30nm	14.2mm	0.14mrad	75.6mm	0.17	SMF-28e	>92%
1650nm	±30nm	14.5mm	0.14mrad	76.0mm	0.17	SMF-28e	>92%