

## 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.

## ● Product features

Fiber Collimator with FC/APC, FC/PC, or SMA905 Connectors. Can be used for wavelengths from 405 nm to 1.55  $\mu$  m. Simplified coupling of free-space laser to optical fiber. Double-lens design, aberration correction performance. Non-magnetic stainless steel housing

## ● Part Number

MP-CLM-1064-15.2-0.09-S

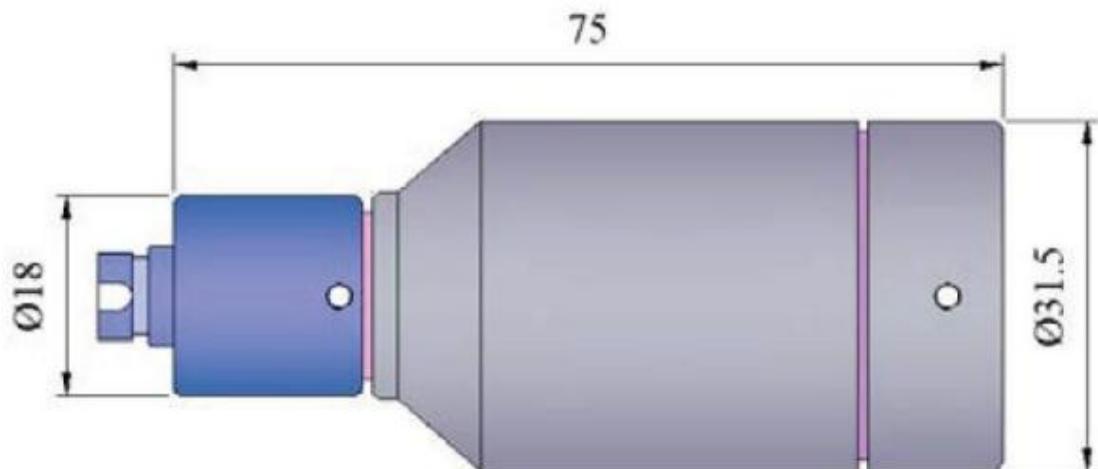
## ● Application area

Free-space optical communication | LiDAR | Natural gas detection | Remote sensing | Aerospace

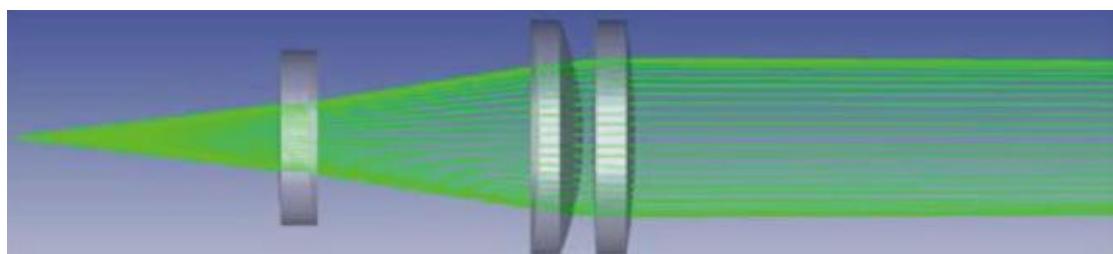
- **Core parameters**

Center Wavelength	Beam Waist Diameter	Effective Focal Length
1064nm	15.2mm	74.5mm

- **Dimension Drawing**



- **General Parameters**



**Beam waist spot diameter:** Taken at the  $1/e^2$  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  $1/e^2$  point.

**Tolerance:** + 0.01° / 0.0°

### Technical Parameters

Central Wavelength $\lambda$	Bandwidth $\Delta\lambda$	Beam Waist Diameter (at $1/e^2$ )	Beam Divergence Angle (Far Field)	Effective Focal Length	Numerical Aperture (Lens)	Fiber Type	Transmittance
405nm	±30nm	10.2mm	0.09mrad	66.5m	0.19	405HP	>92%
450nm	±30nm	13.7mm	0.07mrad	68.4m	0.18	405HP	>92%
520nm	±30nm	14.2mm	0.06mrad	70.3m	0.18	460HP	>92%

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