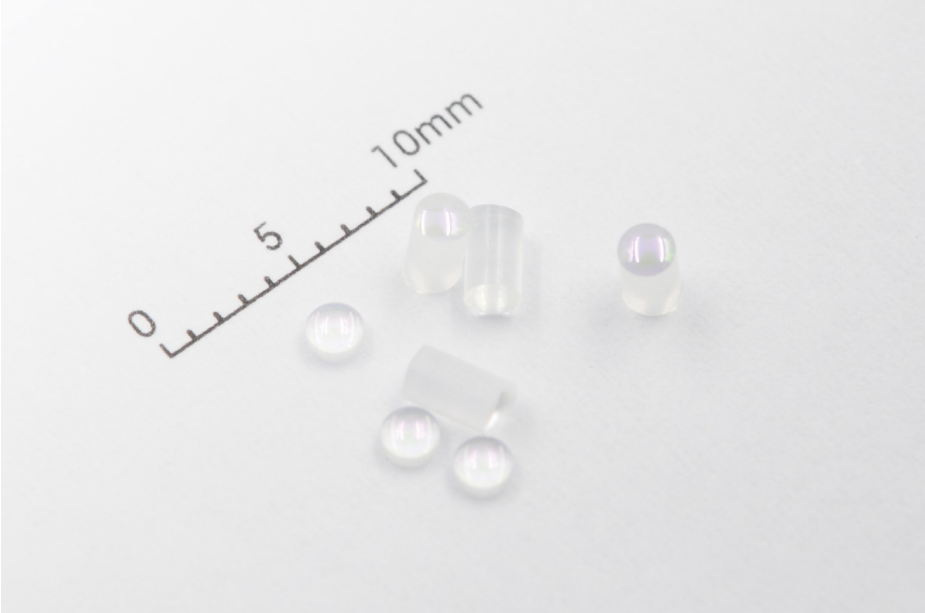
Optics

C-LENS

Among the many microlenses produced by Coherent are the C-lens and D-lens types, which are widely used for collimating or coupling beams after the fiber. Our C- and D-lenses are specifically designed for fiber optics applications such as collimators, isolators, switches, collimator arrays, and laser assemblies. Compared with other gradient-index lenses, C-lenses have several advantages, including low cost, low insertion loss in long working distances, and a wide working distance range. With more than 10 years of experience in the lean production of microlenses, Coherent can provide high-volume C- and D-lenses in diameters ranging from 1 mm to 3 mm.



FEATURES

- Collimators
- Switches
- Collimator arrays
- Isolators
- MEMS
- Laser assemblies

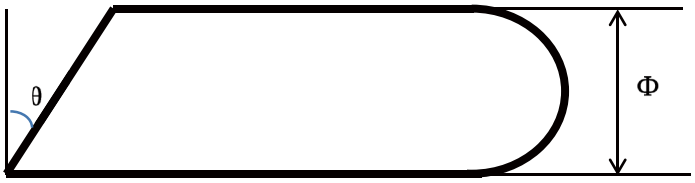
COHERENT

Common Specification

Lens Material	BK7, N-SF11, SF11, Silicon, and more
Typical Diameter	1.000+0.005/-0.001 mm or 1.800+0.005/-0.001mm
Length Tolerance	<+/- 0.04 mm
Typical Wedge Angle	0°, 6°, 8°, 9°
Surface Figure	< λ/4
Surface Quality (scratch/dig)	better than 20-10
AR Coating	R<0.15% @λc+/-40 nm, λc = 1310, 1550 nm

Other sizes, wedged angles, diameters and coatings are also available upon request.

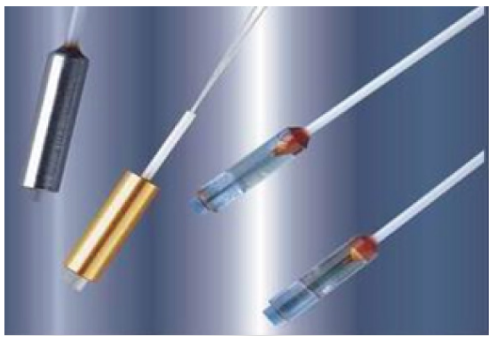
Dimensions

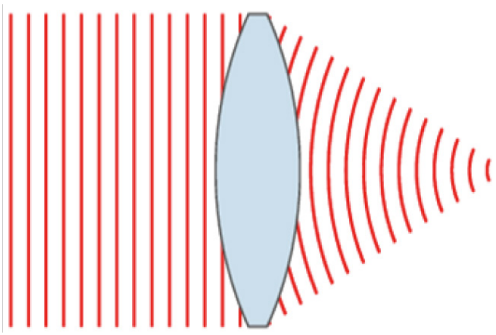


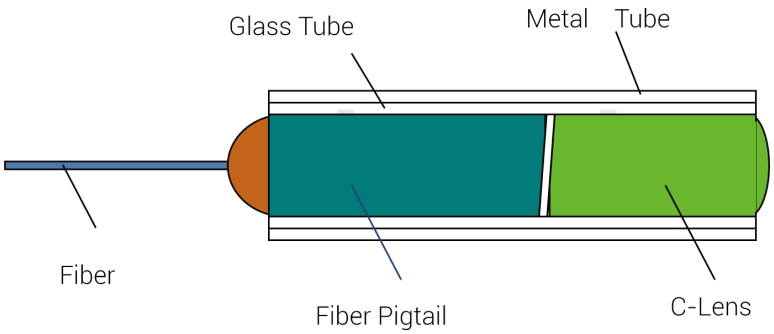
θ is the angle and equals 0/8 degree;
Φ is the aperture and equals 1.0/1.8 mm.

Typical Application

A collimator is a device that narrows a beam of particles or waves. To "narrow" can mean either to cause the directions of motion to become more aligned in a specific direction (i.e., to make collimated light or parallel rays), or to cause the spatial cross section of the beam to decrease (beam limiting device).







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