

Spherical Lenses

Cylindrical Lenses

Lens Kits

Achromatic Doublets

Multi-Element

Micro Optics

Mirrors

Prisms

Substrates & Windows

Beamsplitters

Polarizers

Filter & Apertures

Microlenses

- Microlenses for a variety of demanding miniaturization applications
- Diameters down to 0.06 inches, focal lengths to less than 2mm
- Plano convex, plano concave, biconvex and biconcave lens shapes available as standard
- Precision polished to $\lambda/2$ surface figures
- Ideal for coupling fibers and laser diodes to each other or to systems
- Mounting of microlenses in aluminum housings available



These very small lenses are made from high index optical glass. They are precision polished to very high tolerances so that they can be mounted into complex imaging systems. These lenses are supplied uncoated.

Specifications & Tolerances

Focal length: $\pm 5\%$ Surface accuracy: $\lambda/2$ @633nm

Surface quality: 20-10

Bevel: 0.2mm typical

Diameter: +0, -0.1mm

Thickness: ± 0.2 mmCentration: ± 0.04 mm

Material: LaSFN9 or SK2 or BK7

Plano Convex Microlenses

Focal Length (mm)	Diameter, D (mm)	Thickness		Back Focal Length (mm)	Radius (mm)	Material	Price	PART NUMBER
		Center,tc (mm)	Edge,te (mm)					
1.0	1.50	0.80	0.35	0.56	0.85	LaSFN9		011-0020
1.5	1.50	1.90	1.65	0.44	1.25	LaSFN9		011-0025
1.5	2.00	1.90	1.40	0.44	1.25	LaSFN9		011-0040
2.0	2.00	1.50	1.18	1.19	1.71	LaSFN9		011-0050
2.5	2.00	1.60	1.35	1.64	2.14	LaSFN9		011-0060
3.0	2.00	1.30	1.10	2.30	2.57	LaSFN9		011-0070
2.5	3.00	2.10	1.49	1.37	2.14	LaSFN9		011-0080
3.0	3.00	2.00	1.52	1.92	2.57	LaSFN9		011-0090
4.0	3.00	1.30	0.95	3.29	3.42	LaSFN9		011-0110
6.0	3.00	1.40	1.08	5.13	3.66	SK2		011-0120
4.0	4.00	2.50	1.46	2.45	2.44	SK2		011-0150
6.0	4.00	1.30	0.71	5.19	3.66	SK2		011-0160
8.0	4.00	1.50	1.07	7.07	4.88	SK2		011-0170
10.0	4.00	1.50	1.16	9.07	6.10	SK2		011-0180

Biconvex Microlenses

Focal Length (mm)	Diameter, D (mm)	Thickness		Back Focal Length (mm)	Radius	Material	Price	PART NUMBER
		Center,tc (mm)	Edge,te (mm)					
3.0	3.0	1.80	1.07	2.35	3.25	SK2		013-0010
4.0	3.0	1.80	1.18	3.35	3.81	BK7		013-0020
6.0	3.0	1.50	1.12	5.48	5.95	BK7		013-0030
4.0	4.0	2.20	1.24	3.23	4.40	SK2		013-0060
6.0	4.0	1.90	1.20	5.38	5.91	BK7		013-0070
8.0	4.0	1.70	1.19	7.42	8.00	BK7		013-0080

ORDERING
&
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Plano Concave Microlenses

Focal Length (mm)	Diameter, D (mm)	Thickness Center,tc (mm)	Thickness Edge,te (mm)	Back Focal Length (mm)	Radius	Material	Price	PART NUMBER
-4.0	2.0	0.80	0.95	-4.40	-3.40	LaSFN9		015-0020
-6.0	3.0	0.80	1.03	-6.39	-5.10	LaSFN9		015-0022
-8.0	4.0	0.80	1.10	-8.37	-6.80	LaSFN9		015-0024

Biconcave Microlenses

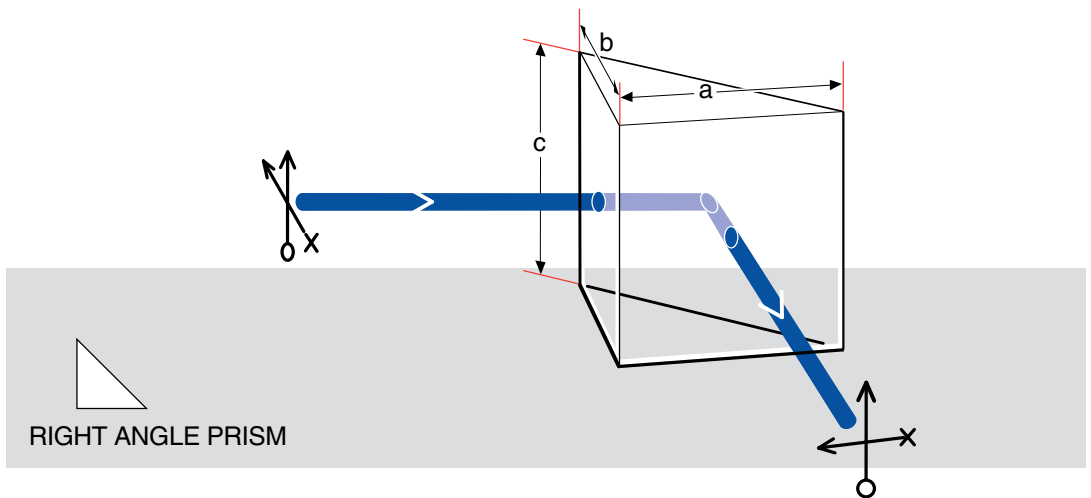
Focal Length (mm)	Diameter, D (mm)	Thickness Center,tc (mm)	Thickness Edge,te (mm)	Back Focal Length (mm)	Radius	Material	Price	PART NUMBER
-2.0	2.0	0.70	0.99	-2.13	-3.50	LaSFN9		017-0022
-3.0	3.0	0.80	1.24	-3.16	-5.23	LaSFN9		017-0023
-4.0	4.0	0.80	1.39	-4.16	-6.94	LaSFN9		017-0024

Micro Prisms

Specifications & Tolerances

Dimensions: ± 0.1 mm
 Surface flatness: $\lambda/8$
 Surface quality: 20-10
 Angles: ± 3 arcmin

Clear aperture: 85%
 Bevel: unbeveled
 Material: BK7, grade A



Micro Prisms

Sides a = b = c (inch)	Sides a = b = c (mm)	Material	Price	PART NUMBER
0.039	1.0	BK7		055-0010
0.059	1.5	BK7		055-0015
0.079	2.0	BK7		055-0020
0.118	3.0	BK7		055-0030
0.157	4.0	BK7		055-0040
0.200	5.0	BK7		055-0110

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