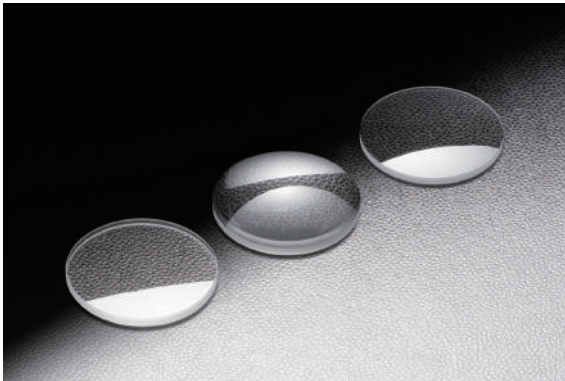


Plano Convex Lenses | SLB-P/SLSQ-P/SLSQK-P

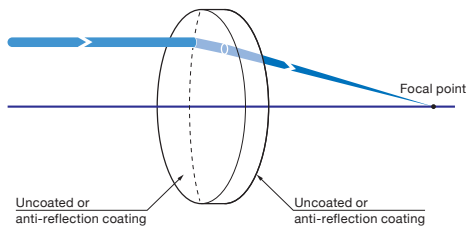
RoHS

Simple shape lenses for laser experiment with a little reduced spherical aberration. These are available for imaging experiment using a monochromatic light source or using as focusing a laser beam on the detector.

- There are three types available; BK7 for from visible range to infrared wavelength range, high-strength synthetic fused silica which has high laser damage threshold used in less than 350nm ultraviolet light, and synthetic fused silica lens for excimer laser corresponding to the excimer laser such as Kr*F (248nm) and Ar*F (193nm).
- BK7 lenses are also available with three types of anti-reflection coating, visible wavelength range, in the near-infrared range and in the infrared range.
- From among the wide variations of products that have been subdivided in outside diameter and focal length, possible to select according to required specifications.

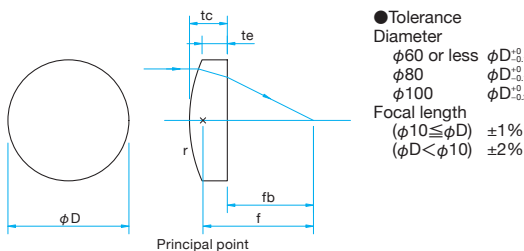


Schematic



Outline Drawing

(in mm)



How to specify the anti-reflection coating

In case of specifying an anti-reflection coating 633nm – 1064nm to near infrared lens of SLB-100-500P.
 \Rightarrow SLB-100-500PIR1

Type of AR Coat	Part Number	Wavelength Range [nm]	Transmittance [%]
Visible range	SLB-100-500PM	400 – 700	> Average 99
Near-infrared	SLB-100-500PIR1	633 – 1064	> Average 98.5
Infrared	SLB-100-500PIR2	750 – 1550	> Average 98.5

! Part of the above is an example of if you want to coat anti-reflective coating on the lens of the SLB-100-500P.

! Anti-reflection coating can be available to the lens of all of SLB.

Specifications

Material	SLB: BK7 SLSQ: Synthetic fused silica SLSQK: Synthetic fused silica for Excimer Laser
Design wavelength	546.1nm
Refractive index	BK7: $n_D=1.519$ Synthetic fused silica: $n_D=1.460$
Coating	Uncoated: the end of the part number 'P' Anti-reflection coating: the end of the part number 'PM', 'PIR1', 'PIR2'
Laser Damage Threshold	Anti-reflection coating: $4\text{J}/\text{cm}^2$ Laser pulse with 10ns, repetition frequency 20Hz
Clear aperture	90% of actual aperture: Uncoated 85% of actual aperture: with coating, $\phi 10 \leq D$ 83% of actual aperture: with coating, $D < \phi 10$
Surface Quality (Scratch-Dig)	20-10 $\phi 10 \leq D$ 40-20 $D < \phi 10$

Guide

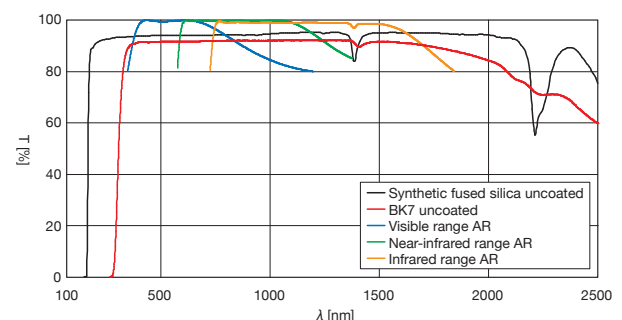
- ▶ It is available other than the products which listed in the catalog such as focal length and outer diameter size.
- ▶ Production is also available with a specific wavelength of anti-reflective coating on the lens of no coated.
- ▶ It is also available the Achromatic lenses (DLB) which are chromatic aberration correction. [Reference](#) B172

Attention

- ▶ The plano convex lens has a chromatic aberration, and the focal length will vary depending on the wavelength. Please check the "wavelength characteristic of the focal length data" on the Web for the focal lengths of each wavelength. [WEB Reference](#) [Catalog Code](#) W3041
- ▶ There is a direction to put light on the plano convex lens. Please let the parallel light incident from the convex side always. May increase the spherical aberration in reverse, the focused spot may enlarge, image will appear out of focus.
- ▶ Losses due to reflection of the front and rear surfaces of the lens, the transmittance of no coated lens is about 90%.

Typical Transmittance Data

T: Transmission





BK7 $\phi 5 - \phi 12.7$

Part Number	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
	Uncoated	Visibe 400 - 700nm	Near-infrared 633 - 1064nm							
SLB-05-08P	M	IR1	IR2	$\phi 5$	8	1.4	2.3	6.5	4.15	<3
SLB-05-10P	M	IR1	IR2	$\phi 5$	10	1.3	2.0	8.7	5.19	<3
SLB-05-12P	M	IR1	IR2	$\phi 5$	12	1.2	1.8	10.8	6.23	<3
SLB-05-15P	M	IR1	IR2	$\phi 5$	15	1.2	1.6	13.9	7.79	<3
SLB-05-20P	M	IR1	IR2	$\phi 5$	20	1.1	1.4	19.1	10.38	<3
SLB-05-25P	M	IR1	IR2	$\phi 5$	25	1.1	1.4	24.1	12.98	<3
SLB-05-30P	M	IR1	IR2	$\phi 5$	30	1.1	1.3	29.1	15.57	<3
SLB-06-08P	M	IR1	IR2	$\phi 6$	8	1.0	2.3	6.5	4.15	<3
SLB-06-09P	M	IR1	IR2	$\phi 6$	9	1.0	2.1	7.6	4.67	<3
SLB-06-10P	M	IR1	IR2	$\phi 6$	10	1.0	2.0	8.7	5.19	<3
SLB-06-12P	M	IR1	IR2	$\phi 6$	12	1.0	1.8	10.8	6.23	<3
SLB-06-15P	M	IR1	IR2	$\phi 6$	15	1.0	1.6	13.9	7.79	<3
SLB-06-20P	M	IR1	IR2	$\phi 6$	20	1.0	1.4	19.1	10.38	<3
SLB-06-25P	M	IR1	IR2	$\phi 6$	25	1.0	1.4	24.1	12.98	<3
SLB-06-30P	M	IR1	IR2	$\phi 6$	30	1.0	1.3	29.1	15.57	<3
SLB-07-10P	M	IR1	IR2	$\phi 7$	10	2.0	3.4	7.8	5.19	<3
SLB-07-12P	M	IR1	IR2	$\phi 7$	12	1.9	3.0	10.1	6.23	<3
SLB-07-15P	M	IR1	IR2	$\phi 7$	15	1.8	2.6	13.3	7.79	<3
SLB-07-20P	M	IR1	IR2	$\phi 7$	20	1.7	2.3	18.5	10.38	<3
SLB-07-25P	M	IR1	IR2	$\phi 7$	25	1.7	2.1	23.6	12.98	<3
SLB-07-30P	M	IR1	IR2	$\phi 7$	30	1.6	2.0	28.7	15.57	<3
SLB-07-40P	M	IR1	IR2	$\phi 7$	40	1.6	1.9	38.8	20.76	<3
SLB-07-50P	M	IR1	IR2	$\phi 7$	50	1.6	1.8	48.8	25.95	<3
SLB-08-10P	M	IR1	IR2	$\phi 8$	10	1.5	3.4	7.8	5.19	<3
SLB-08-12P	M	IR1	IR2	$\phi 8$	12	1.5	3.0	10.1	6.23	<3
SLB-08-15P	M	IR1	IR2	$\phi 8$	15	1.5	2.6	13.3	7.79	<3
SLB-08-20P	M	IR1	IR2	$\phi 8$	20	1.5	2.3	18.5	10.38	<3
SLB-08-25P	M	IR1	IR2	$\phi 8$	25	1.5	2.1	23.6	12.98	<3
SLB-08-30P	M	IR1	IR2	$\phi 8$	30	1.5	2.0	28.7	15.57	<3
SLB-08-40P	M	IR1	IR2	$\phi 8$	40	1.5	1.9	38.8	20.76	<3
SLB-08-50P	M	IR1	IR2	$\phi 8$	50	1.5	1.8	48.8	25.95	<3
SLB-10-15P	M	IR1	IR2	$\phi 10$	15	2.0	3.8	12.5	7.79	<1
SLB-10-20P	M	IR1	IR2	$\phi 10$	20	2.0	3.3	17.8	10.38	<1
SLB-10-25P	M	IR1	IR2	$\phi 10$	25	2.0	3.0	23.0	12.98	<1
SLB-10-30P	M	IR1	IR2	$\phi 10$	30	2.0	2.8	28.1	15.57	<1
SLB-10-40P	M	IR1	IR2	$\phi 10$	40	2.0	2.6	38.3	20.76	<1
SLB-10-50P	M	IR1	IR2	$\phi 10$	50	2.0	2.5	48.4	25.95	<1
SLB-10-60P	M	IR1	IR2	$\phi 10$	60	2.0	2.4	58.4	31.14	<1
SLB-10-70P	M	IR1	IR2	$\phi 10$	70	2.0	2.3	68.5	36.33	<1
SLB-10-80P	M	IR1	IR2	$\phi 10$	80	2.0	2.3	78.5	41.52	<1
SLB-10-100P	M	IR1	IR2	$\phi 10$	100	2.0	2.2	98.5	51.90	<1
SLB-12.7-20P	M	IR1	IR2	$\phi 12.7$	20	2.0	4.2	17.2	10.38	<1
SLB-12.7-25P	M	IR1	IR2	$\phi 12.7$	25	2.0	3.7	22.6	12.98	<1
SLB-12.7-30P	M	IR1	IR2	$\phi 12.7$	30	2.0	3.4	27.8	15.57	<1
SLB-12.7-40P	M	IR1	IR2	$\phi 12.7$	40	2.0	3.0	38.0	20.76	<1
SLB-12.7-50P	M	IR1	IR2	$\phi 12.7$	50	2.0	2.8	48.4	25.95	<1
SLB-12.7-60P	M	IR1	IR2	$\phi 12.7$	60	2.0	2.7	58.4	31.14	<1
SLB-12.7-70P	M	IR1	IR2	$\phi 12.7$	70	2.0	2.6	68.5	36.33	<1
SLB-12.7-80P	M	IR1	IR2	$\phi 12.7$	80	2.0	2.5	78.5	41.52	<1
SLB-12.7-100P	M	IR1	IR2	$\phi 12.7$	100	2.0	2.4	98.6	51.90	<1

Compatible Optic Mounts

LHF-10S / MLH-10, -15

- Application Systems
- Optics & Optical Coatings
- Holders
- Bases
- Manual Stages
- Actuators
- MotORIZED Stages
- Light Sources
- Index
- Guide
- Mirrors
- Beamsplitters
- Polarizers
- Lenses**
- Multi-Element Optics
- Filters
- Prisms
- Substrates/Windows
- Optical Data
- Maintenance
- Selection Guide
- Plano Convex Lenses
- Plano Concave Lenses
- Biconvex Lenses
- Biconcave Lenses
- Kit
- Reasonable Lens
- Cylindrical
- Others

BK7 $\phi 15 - \phi 25.4$											
Application Systems	Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
	Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm							
Optics & Optical Coatings	SLB-15-20P	M	IR1	IR2	$\phi 15$	20	2.0	5.2	16.6	10.38	<1
	SLB-15-25P	M	IR1	IR2	$\phi 15$	25	2.0	4.4	22.1	12.98	<1
	SLB-15-30P	M	IR1	IR2	$\phi 15$	30	2.0	3.9	27.4	15.57	<1
	SLB-15-40P	M	IR1	IR2	$\phi 15$	40	2.0	3.4	37.8	20.76	<1
	SLB-15-50P	M	IR1	IR2	$\phi 15$	50	2.0	3.1	48.0	25.95	<1
	SLB-15-60P	M	IR1	IR2	$\phi 15$	60	2.0	2.9	58.1	31.14	<1
	SLB-15-70P	M	IR1	IR2	$\phi 15$	70	2.0	2.8	68.2	36.33	<1
	SLB-15-80P	M	IR1	IR2	$\phi 15$	80	2.0	2.7	78.2	41.52	<1
	SLB-15-90P	M	IR1	IR2	$\phi 15$	90	2.0	2.6	88.3	46.71	<1
	SLB-15-100P	M	IR1	IR2	$\phi 15$	100	2.0	2.5	98.3	51.90	<1
Holders	SLB-15-120P	M	IR1	IR2	$\phi 15$	120	2.0	2.5	118.4	62.28	<1
	SLB-15-150P	M	IR1	IR2	$\phi 15$	150	2.0	2.4	148.4	77.85	<1
	SLB-20-25P	M	IR1	IR2	$\phi 20$	25	2.0	6.7	20.6	12.98	<1
	SLB-20-30P	M	IR1	IR2	$\phi 20$	30	2.0	5.6	26.3	15.57	<1
	SLB-20-40P	M	IR1	IR2	$\phi 20$	40	2.0	4.6	37.0	20.76	<1
	SLB-20-50P	M	IR1	IR2	$\phi 20$	50	2.0	4.0	47.4	25.95	<1
	SLB-20-60P	M	IR1	IR2	$\phi 20$	60	2.0	3.6	57.6	31.14	<1
	SLB-20-70P	M	IR1	IR2	$\phi 20$	70	2.0	3.4	67.8	36.33	<1
	SLB-20-80P	M	IR1	IR2	$\phi 20$	80	2.0	3.2	77.9	41.52	<1
	SLB-20-90P	M	IR1	IR2	$\phi 20$	90	2.0	3.1	88.0	46.71	<1
Bases	SLB-20-100P	M	IR1	IR2	$\phi 20$	100	2.0	3.0	98.0	51.90	<1
	SLB-20-120P	M	IR1	IR2	$\phi 20$	120	2.0	2.8	118.2	62.28	<1
	SLB-20-150P	M	IR1	IR2	$\phi 20$	150	2.0	2.6	148.3	77.85	<1
	SLB-20-170P	M	IR1	IR2	$\phi 20$	170	2.0	2.6	168.2	88.23	<1
	SLB-20-200P	M	IR1	IR2	$\phi 20$	200	2.0	2.5	198.4	103.8	<1
	SLB-25-30P	M	IR1	IR2	$\phi 25$	30	2.0	8.3	24.5	15.57	<1
	SLB-25-35P	M	IR1	IR2	$\phi 25$	35	2.0	7.0	30.4	18.17	<1
	SLB-25-40P	M	IR1	IR2	$\phi 25$	40	2.0	6.2	36.0	20.76	<1
	SLB-25-50P	M	IR1	IR2	$\phi 25$	50	2.0	5.2	46.6	25.95	<1
	SLB-25-60P	M	IR1	IR2	$\phi 25$	60	2.0	4.6	57.0	31.14	<1
Manual Stages	SLB-25-70P	M	IR1	IR2	$\phi 25$	70	2.0	4.2	67.2	36.33	<1
	SLB-25-80P	M	IR1	IR2	$\phi 25$	80	2.0	3.9	77.4	41.52	<1
	SLB-25-90P	M	IR1	IR2	$\phi 25$	90	2.0	3.7	87.6	46.71	<1
	SLB-25-100P	M	IR1	IR2	$\phi 25$	100	2.0	3.5	97.7	51.9	<1
	SLB-25-120P	M	IR1	IR2	$\phi 25$	120	2.0	3.3	117.8	62.28	<1
	SLB-25-150P	M	IR1	IR2	$\phi 25$	150	2.0	3.0	148.0	77.85	<1
	SLB-25-170P	M	IR1	IR2	$\phi 25$	170	2.0	2.9	168.1	88.23	<1
	SLB-25-200P	M	IR1	IR2	$\phi 25$	200	2.0	2.8	198.2	103.8	<1
	SLB-25-220P	M	IR1	IR2	$\phi 25$	220	2.0	2.7	218.2	114.18	<1
	SLB-25-250P	M	IR1	IR2	$\phi 25$	250	2.0	2.6	248.3	129.75	<1
Actuators	SLB-25.4-30P	M	IR1	IR2	$\phi 25.4$	30	1.7	8.3	24.5	15.57	<1
	SLB-25.4-35P	M	IR1	IR2	$\phi 25.4$	35	1.8	7.0	30.4	18.17	<1
	SLB-25.4-40P	M	IR1	IR2	$\phi 25.4$	40	1.9	6.2	36.0	20.76	<1
	SLB-25.4-50P	M	IR1	IR2	$\phi 25.4$	50	1.9	5.2	46.6	25.95	<1
	SLB-25.4-60P	M	IR1	IR2	$\phi 25.4$	60	1.9	4.6	57.0	31.14	<1
	SLB-25.4-70P	M	IR1	IR2	$\phi 25.4$	70	1.9	4.2	67.2	36.33	<1
	SLB-25.4-80P	M	IR1	IR2	$\phi 25.4$	80	1.9	3.9	77.4	41.52	<1
	SLB-25.4-90P	M	IR1	IR2	$\phi 25.4$	90	1.9	3.7	87.6	46.71	<1
	SLB-25.4-100P	M	IR1	IR2	$\phi 25.4$	100	1.9	3.5	97.7	51.90	<1
	SLB-25.4-120P	M	IR1	IR2	$\phi 25.4$	120	2.0	3.3	117.8	62.28	<1
Motoeized Stages	SLB-25.4-150P	M	IR1	IR2	$\phi 25.4$	150	2.0	3.0	148.0	77.85	<1
	SLB-25.4-170P	M	IR1	IR2	$\phi 25.4$	170	2.0	2.9	168.1	88.23	<1
	SLB-25.4-200P	M	IR1	IR2	$\phi 25.4$	200	2.0	2.8	198.2	103.80	<1
	SLB-25.4-250P	M	IR1	IR2	$\phi 25.4$	250	2.0	2.6	248.3	129.75	<1
	SLB-25.4-300P	M	IR1	IR2	$\phi 25.4$	300	2.0	2.5	298.4	155.70	<3
	SLB-25.4-500P	M	IR1	IR2	$\phi 25.4$	500	2.0	2.3	498.4	259.50	<3
	SLB-25.4-700P	M	IR1	IR2	$\phi 25.4$	700	2.0	2.2	698.5	363.30	<3
	SLB-25.4-1000P	M	IR1	IR2	$\phi 25.4$	1000	2.0	2.2	998.5	519.00	<3

Compatible Optic Mounts

LHF-15S, -20S, -25.4S



BK7 $\phi 30 - \phi 40$										
Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm							
SLB-30-35P	M	IR1	IR2	$\phi 30$	35	2.0	9.9	28.5	18.17	<1
SLB-30-40P	M	IR1	IR2	$\phi 30$	40	2.0	8.4	34.5	20.76	<1
SLB-30-50P	M	IR1	IR2	$\phi 30$	50	2.0	6.8	45.5	25.95	<1
SLB-30-60P	M	IR1	IR2	$\phi 30$	60	2.0	5.9	56.1	31.14	<1
SLB-30-70P	M	IR1	IR2	$\phi 30$	70	2.0	5.2	66.5	36.33	<1
SLB-30-80P	M	IR1	IR2	$\phi 30$	80	2.0	4.8	76.8	41.52	<1
SLB-30-90P	M	IR1	IR2	$\phi 30$	90	2.0	4.5	87.1	46.71	<1
SLB-30-100P	M	IR1	IR2	$\phi 30$	100	2.0	4.2	97.2	51.90	<1
SLB-30-120P	M	IR1	IR2	$\phi 30$	120	2.0	3.8	117.5	62.28	<1
SLB-30-150P	M	IR1	IR2	$\phi 30$	150	2.0	3.5	147.7	77.85	<1
SLB-30-170P	M	IR1	IR2	$\phi 30$	170	2.0	3.3	167.8	88.23	<1
SLB-30-200P	M	IR1	IR2	$\phi 30$	200	2.0	3.1	198.0	103.80	<1
SLB-30-220P	M	IR1	IR2	$\phi 30$	220	2.0	3.0	218.0	114.18	<1
SLB-30-250P	M	IR1	IR2	$\phi 30$	250	2.0	2.9	248.1	129.75	<1
SLB-30-300P	M	IR1	IR2	$\phi 30$	300	2.0	2.7	298.2	155.70	<1
SLB-30-350P	M	IR1	IR2	$\phi 30$	350	2.0	2.6	348.3	181.65	<3
SLB-30-400P	M	IR1	IR2	$\phi 30$	400	2.0	2.5	398.2	207.60	<3
SLB-30-450P	M	IR1	IR2	$\phi 30$	450	2.0	2.5	448.4	233.55	<3
SLB-30-500P	M	IR1	IR2	$\phi 30$	500	2.0	2.4	498.4	259.50	<3
SLB-30-600P	M	IR1	IR2	$\phi 30$	600	2.0	2.4	598.4	311.40	<3
SLB-30-700P	M	IR1	IR2	$\phi 30$	700	2.0	2.3	698.5	363.30	<3
SLB-30-800P	M	IR1	IR2	$\phi 30$	800	2.0	2.3	798.5	415.20	<3
SLB-30-900P	M	IR1	IR2	$\phi 30$	900	2.0	2.2	898.5	467.10	<3
SLB-30-1000P	M	IR1	IR2	$\phi 30$	1000	2.0	2.2	998.5	519.00	<3
SLB-30-1200P	M	IR1	IR2	$\phi 30$	1200	2.0	2.2	1198.6	622.80	<3
SLB-30-1500P	M	IR1	IR2	$\phi 30$	1500	2.0	2.1	1498.6	778.50	<3
SLB-30-2000P	M	IR1	IR2	$\phi 30$	2000	2.0	2.1	1998.6	1038.00	<3
SLB-30-2500P	M	IR1	IR2	$\phi 30$	2500	2.0	2.1	2498.6	1297.50	<3
SLB-30-3000P	M	IR1	IR2	$\phi 30$	3000	2.0	2.1	2998.6	1557	<3
SLB-30-4000P	M	IR1	IR2	$\phi 30$	4000	2.0	2.1	3998.6	2076	<3
SLB-30-5000P	M	IR1	IR2	$\phi 30$	5000	2.0	2.1	4998.6	2595	<3
SLB-40-50P	M	IR1	IR2	$\phi 40$	50	2.0	11.4	42.5	25.95	<1
SLB-40-60P	M	IR1	IR2	$\phi 40$	60	2.0	9.3	53.9	31.14	<1
SLB-40-70P	M	IR1	IR2	$\phi 40$	70	2.0	8.0	64.7	36.33	<1
SLB-40-80P	M	IR1	IR2	$\phi 40$	80	2.0	7.1	75.3	41.52	<1
SLB-40-90P	M	IR1	IR2	$\phi 40$	90	2.0	6.5	85.7	46.71	<1
SLB-40-100P	M	IR1	IR2	$\phi 40$	100	2.0	6.0	96.0	51.90	<1
SLB-40-120P	M	IR1	IR2	$\phi 40$	120	2.0	5.3	116.5	62.28	<1
SLB-40-150P	M	IR1	IR2	$\phi 40$	150	2.0	4.6	147.0	77.85	<1
SLB-40-170P	M	IR1	IR2	$\phi 40$	170	2.0	4.3	167.2	88.23	<1
SLB-40-200P	M	IR1	IR2	$\phi 40$	200	2.0	3.9	197.4	103.80	<1
SLB-40-250P	M	IR1	IR2	$\phi 40$	250	2.0	3.6	247.7	129.75	<1
SLB-40-300P	M	IR1	IR2	$\phi 40$	300	2.0	3.3	297.7	155.70	<1
SLB-40-350P	M	IR1	IR2	$\phi 40$	350	2.0	3.1	348.0	181.65	<1
SLB-40-400P	M	IR1	IR2	$\phi 40$	400	2.0	3.0	398.0	207.60	<1
SLB-40-450P	M	IR1	IR2	$\phi 40$	450	2.0	2.9	448.1	233.55	<3
SLB-40-500P	M	IR1	IR2	$\phi 40$	500	2.0	2.8	498.2	259.50	<3
SLB-40-1000P	M	IR1	IR2	$\phi 40$	1000	2.0	2.4	998.4	519.00	<3

Compatible Optic Mounts

LHF-30S, -40S

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BK7 $\phi 50 - \phi 60$

Application Systems	Uncoated		How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
	Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm								
Optics & Optical Coatings	SLB-50-70P	M	IR1	IR2	$\phi 50$	70	3.0	13.0	61.5	36.33	<1	
	SLB-50-80P	M	IR1	IR2	$\phi 50$	80	3.0	11.4	72.5	41.52	<1	
	SLB-50-90P	M	IR1	IR2	$\phi 50$	90	3.0	10.3	83.2	46.71	<1	
Holders	SLB-50-100P	M	IR1	IR2	$\phi 50$	100	3.0	9.4	93.8	51.90	<1	
	SLB-50-120P	M	IR1	IR2	$\phi 50$	120	3.0	8.2	114.6	62.28	<1	
	SLB-50-150P	M	IR1	IR2	$\phi 50$	150	3.0	7.1	145.3	77.85	<1	
Bases	SLB-50-170P	M	IR1	IR2	$\phi 50$	170	3.0	6.6	165.6	88.23	<1	
	SLB-50-200P	M	IR1	IR2	$\phi 50$	200	3.0	6.1	196.0	103.80	<1	
Manual Stages	SLB-50-220P	M	IR1	IR2	$\phi 50$	220	3.0	5.8	216.2	114.18	<1	
	SLB-50-250P	M	IR1	IR2	$\phi 50$	250	3.0	5.4	246.4	129.75	<1	
Actuators	SLB-50-300P	M	IR1	IR2	$\phi 50$	300	3.0	5.0	296.7	155.70	<1	
	SLB-50-350P	M	IR1	IR2	$\phi 50$	350	3.0	4.7	346.9	181.65	<1	
Motorized Stages	SLB-50-400P	M	IR1	IR2	$\phi 50$	400	3.0	4.5	397.0	207.60	<1	
	SLB-50-450P	M	IR1	IR2	$\phi 50$	450	3.0	4.3	447.1	233.55	<1	
	SLB-50-500P	M	IR1	IR2	$\phi 50$	500	3.0	4.2	497.2	259.50	<1	
Light Sources	SLB-50-600P	M	IR1	IR2	$\phi 50$	600	3.0	4.0	597.4	311.40	<3	
	SLB-50-700P	M	IR1	IR2	$\phi 50$	700	3.0	3.9	697.5	363.30	<3	
	SLB-50-800P	M	IR1	IR2	$\phi 50$	800	3.0	3.8	797.4	415.20	<3	
Index	SLB-50-900P	M	IR1	IR2	$\phi 50$	900	3.0	3.7	897.6	467.10	<3	
	SLB-50-1000P	M	IR1	IR2	$\phi 50$	1000	3.0	3.6	997.6	519.00	<3	
	SLB-50-1200P	M	IR1	IR2	$\phi 50$	1200	3.0	3.5	1197.7	622.80	<3	
Guide	SLB-50-1500P	M	IR1	IR2	$\phi 50$	1500	3.0	3.4	1497.8	778.50	<3	
	SLB-50-2000P	M	IR1	IR2	$\phi 50$	2000	3.0	3.3	1997.8	1038.00	<3	
	SLB-50-2500P	M	IR1	IR2	$\phi 50$	2500	3.0	3.2	2497.9	1297.5	<3	
Mirrors	SLB-50-3000P	M	IR1	IR2	$\phi 50$	3000	3.0	3.2	2997.9	1557.00	<3	
	SLB-50-4000P	M	IR1	IR2	$\phi 50$	4000	3.0	3.2	3997.9	2076.00	<3	
Beamsplitters	SLB-50-5000P	M	IR1	IR2	$\phi 50$	5000	3.0	3.1	4997.9	2595.00	<3	
	SLB-50-8-70P	M	IR1	IR2	$\phi 50.8$	70	3.0	13.4	61.2	36.33	<1	
Lenses	SLB-50-8-80P	M	IR1	IR2	$\phi 50.8$	80	3.0	11.7	72.3	41.52	<1	
	SLB-50-8-90P	M	IR1	IR2	$\phi 50.8$	90	3.0	10.3	83.2	46.71	<1	
	SLB-50-8-100P	M	IR1	IR2	$\phi 50.8$	100	3.0	9.6	93.7	51.90	<1	
Multi-Element Optics	SLB-50-8-120P	M	IR1	IR2	$\phi 50.8$	120	2.8	8.2	114.6	62.28	<1	
	SLB-50-8-150P	M	IR1	IR2	$\phi 50.8$	150	2.8	7.1	145.3	77.85	<1	
Filters	SLB-50-8-170P	M	IR1	IR2	$\phi 50.8$	170	3.0	6.6	165.7	88.23	<1	
	SLB-50-8-200P	M	IR1	IR2	$\phi 50.8$	200	2.9	6.1	196.0	103.8	<1	
Prisms	SLB-50-8-250P	M	IR1	IR2	$\phi 50.8$	250	2.9	5.4	246.4	129.75	<1	
	SLB-50-8-300P	M	IR1	IR2	$\phi 50.8$	300	2.9	5.0	296.7	155.70	<1	
Substrates/Windows	SLB-50-8-400P	M	IR1	IR2	$\phi 50.8$	400	3.0	4.5	397.0	207.60	<1	
	SLB-50-8-500P	M	IR1	IR2	$\phi 50.8$	500	3.0	4.2	497.2	259.50	<1	
Optical Data	SLB-50-8-700P	M	IR1	IR2	$\phi 50.8$	700	3.0	3.9	697.4	363.30	<3	
	SLB-50-8-1000P	M	IR1	IR2	$\phi 50.8$	1000	3.0	3.6	997.6	519.00	<3	
Maintenance	SLB-60-70P	M	IR1	IR2	$\phi 60$	70	3.0	18.8	57.6	36.33	<1	
	SLB-60-80P	M	IR1	IR2	$\phi 60$	80	3.0	15.8	69.6	41.52	<1	
Selection Guide	SLB-60-90P	M	IR1	IR2	$\phi 60$	90	3.0	13.9	80.8	46.71	<1	
	SLB-60-100P	M	IR1	IR2	$\phi 60$	100	3.0	12.5	91.7	51.90	<1	
Plano Convex Lenses	SLB-60-120P	M	IR1	IR2	$\phi 60$	120	3.0	10.7	113.0	62.28	<1	
	SLB-60-150P	M	IR1	IR2	$\phi 60$	150	3.0	9.0	144.1	77.85	<1	
Plano Concave Lenses	SLB-60-170P	M	IR1	IR2	$\phi 60$	170	3.0	8.3	164.6	88.23	<1	
	SLB-60-200P	M	IR1	IR2	$\phi 60$	200	3.0	7.4	195.1	103.80	<1	
Biconvex Lenses	SLB-60-250P	M	IR1	IR2	$\phi 60$	250	3	6.5	245.7	129.75	<1	
	SLB-60-300P	M	IR1	IR2	$\phi 60$	300	3.0	5.9	296.1	155.70	<1	
Biconcave Lenses	SLB-60-400P	M	IR1	IR2	$\phi 60$	400	3.0	5.2	396.6	207.60	<1	
	SLB-60-500P	M	IR1	IR2	$\phi 60$	500	3.0	4.7	496.9	259.50	<1	
Kit	SLB-60-600P	M	IR1	IR2	$\phi 60$	600	3.0	4.4	597.1	311.40	<1	
	SLB-60-1000P	M	IR1	IR2	$\phi 60$	1000	3.0	3.9	997.5	519.00	<3	
Reasonable Lens												
Cylindrical												
Others												

Compatible Optic Mounts

LHF-50S, -50.8S, -60S



BK7 $\phi 80 - \phi 100$										
Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm							
SLB-80-100P	M	IR1	IR2	$\phi 80$	100	3.0	21.8	85.6	51.90	<1
SLB-80-150P	M	IR1	IR2	$\phi 80$	150	3.0	14.1	140.8	77.85	<1
SLB-80-200P	M	IR1	IR2	$\phi 80$	200	3.0	11.0	192.7	103.80	<1
SLB-80-250P	M	IR1	IR2	$\phi 80$	250	3.0	9.3	243.9	129.75	<1
SLB-80-300P	M	IR1	IR2	$\phi 80$	300	3.0	8.2	294.6	155.70	<1
SLB-80-350P	M	IR1	IR2	$\phi 80$	350	3.0	7.5	345.1	181.65	<1
SLB-80-400P	M	IR1	IR2	$\phi 80$	400	3.0	6.9	395.5	207.60	<1
SLB-80-500P	M	IR1	IR2	$\phi 80$	500	3.0	6.1	496.0	259.50	<1
SLB-80-700P	M	IR1	IR2	$\phi 80$	700	3.0	5.2	696.6	363.30	<1
SLB-80-800P	M	IR1	IR2	$\phi 80$	800	3.0	4.9	796.8	415.20	<1
SLB-80-1000P	M	IR1	IR2	$\phi 80$	1000	3.0	4.5	997.0	519.00	<3
SLB-100-150P	M	IR1	IR2	$\phi 100$	150	3.0	21.2	136.1	77.85	<1
SLB-100-200P	M	IR1	IR2	$\phi 100$	200	3.0	15.8	189.6	103.80	<1
SLB-100-250P	M	IR1	IR2	$\phi 100$	250	3.0	13.0	241.4	129.75	<1
SLB-100-300P	M	IR1	IR2	$\phi 100$	300	3.0	11.2	292.6	155.70	<1
SLB-100-350P	M	IR1	IR2	$\phi 100$	350	3.0	10.0	343.4	181.65	<1
SLB-100-400P	M	IR1	IR2	$\phi 100$	400	3.0	9.1	394.4	207.60	<1
SLB-100-500P	M	IR1	IR2	$\phi 100$	500	3.0	7.9	494.8	259.50	<1
SLB-100-600P	M	IR1	IR2	$\phi 100$	600	3.0	7.0	595.4	311.40	<1
SLB-100-700P	M	IR1	IR2	$\phi 100$	700	3.0	6.5	695.7	363.30	<1
SLB-100-800P	M	IR1	IR2	$\phi 100$	800	3.0	6.0	796.0	415.20	<1
SLB-100-1000P	M	IR1	IR2	$\phi 100$	1000	3.0	5.4	996.4	519.00	<1

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Compatible Optic Mounts

LHF-80, -100

Synthetic fused silica $\phi 5 - \phi 20$

Application Systems	Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
Optics & Optical Coatings	SLSQ-05-08P	$\phi 5$	8	1.6	2.5	6.3	3.68	<3
	SLSQ-05-09P	$\phi 5$	9	1.4	2.3	7.6	4.14	<3
	SLSQ-05-10P	$\phi 5$	10	1.4	2.1	8.6	4.60	<3
HOLDERS	SLSQ-05-12P	$\phi 5$	12	1.3	1.9	10.7	5.52	<3
	SLSQ-05-15P	$\phi 5$	15	1.2	1.7	13.8	6.90	<3
	SLSQ-05-20P	$\phi 5$	20	1.2	1.5	19.0	9.20	<3
	SLSQ-05-30P	$\phi 5$	30	1.1	1.3	29.1	13.80	<3
Bases	SLSQ-06-08P	$\phi 6$	8	1.0	2.5	6.3	3.68	<3
	SLSQ-06-10P	$\phi 6$	10	1.0	2.1	8.6	4.60	<3
	SLSQ-06-12P	$\phi 6$	12	1.0	1.9	10.7	5.52	<3
Manual Stages	SLSQ-06-15P	$\phi 6$	15	1.0	1.7	13.8	6.90	<3
	SLSQ-06-20P	$\phi 6$	20	1.0	1.5	19.0	9.20	<3
	SLSQ-06-25P	$\phi 6$	25	1.0	1.4	24.0	11.50	<3
	SLSQ-06-30P	$\phi 6$	30	1.0	1.3	29.1	13.80	<3
Actuators	SLSQ-07-10P	$\phi 7$	10	2.2	3.8	7.4	4.60	<3
	SLSQ-07-12P	$\phi 7$	12	2.0	3.2	9.8	5.52	<3
Motoeized Stages	SLSQ-07-15P	$\phi 7$	15	1.8	2.8	13.1	6.90	<3
	SLSQ-07-20P	$\phi 7$	20	1.7	2.4	18.3	9.20	<3
	SLSQ-07-30P	$\phi 7$	30	1.6	2.1	28.6	13.80	<3
Light Sources	SLSQ-07-40P	$\phi 7$	40	1.6	1.9	38.7	18.40	<3
	SLSQ-07-50P	$\phi 7$	50	1.6	1.9	48.7	23.00	<3
Index	SLSQ-08-10P	$\phi 8$	10	1.5	3.8	7.4	4.60	<3
	SLSQ-08-12P	$\phi 8$	12	1.5	3.2	9.8	5.52	<3
	SLSQ-08-15P	$\phi 8$	15	1.5	2.8	13.1	6.90	<3
	SLSQ-08-20P	$\phi 8$	20	1.5	2.4	18.3	9.20	<3
	SLSQ-08-25P	$\phi 8$	25	1.5	2.2	23.5	11.50	<3
	SLSQ-08-30P	$\phi 8$	30	1.5	2.1	28.6	13.80	<3
Guide	SLSQ-10-15P	$\phi 10$	15	2.0	4.1	12.2	6.90	<1
Mirrors	SLSQ-10-20P	$\phi 10$	20	2.0	3.5	17.6	9.20	<1
	SLSQ-10-25P	$\phi 10$	25	2.0	3.1	22.8	11.50	<1
Beamsplitters	SLSQ-10-30P	$\phi 10$	30	2.0	2.9	28.0	13.80	<1
	SLSQ-10-40P	$\phi 10$	40	2.0	2.7	38.2	18.40	<1
Polarizers	SLSQ-10-50P	$\phi 10$	50	2.0	2.6	48.3	23.00	<1
Lenses	SLSQ-10-60P	$\phi 10$	60	2.0	2.5	58.3	27.60	<1
	SLSQ-10-70P	$\phi 10$	70	2.0	2.4	68.4	32.20	<1
Multi-Element Optics	SLSQ-10-80P	$\phi 10$	80	2.0	2.3	78.4	36.80	<1
	SLSQ-10-100P	$\phi 10$	100	2.0	2.3	98.4	46.00	<1
Filters	SLSQ-12.7-15P	$\phi 12.7$	15	2.0	6.2	10.8	6.90	<1
	SLSQ-12.7-20P	$\phi 12.7$	20	2.0	4.5	16.9	9.20	<1
Prisms	SLSQ-12.7-25P	$\phi 12.7$	25	2.0	3.9	22.3	11.50	<1
Substrates/Windows	SLSQ-12.7-40P	$\phi 12.7$	40	2.0	3.1	37.9	18.40	<1
	SLSQ-12.7-50P	$\phi 12.7$	50	2.0	2.9	48.0	23.00	<1
Optical Data	SLSQ-15-20P	$\phi 15$	20	2.0	5.9	16.0	9.20	<1
	SLSQ-15-25P	$\phi 15$	25	2.0	4.8	21.7	11.50	<1
Maintenance	SLSQ-15-30P	$\phi 15$	30	2.0	4.2	27.1	13.80	<1
	SLSQ-15-40P	$\phi 15$	40	2.0	3.6	37.5	18.40	<1
	SLSQ-15-50P	$\phi 15$	50	2.0	3.3	47.8	23.00	<1
Selection Guide	SLSQ-15-60P	$\phi 15$	60	2.0	3.0	57.9	27.60	<1
	SLSQ-15-70P	$\phi 15$	70	2.0	2.9	68.0	32.20	<1
Plano Convex Lenses	SLSQ-15-80P	$\phi 15$	80	2.0	2.8	78.1	36.80	<1
Plano Concave Lenses	SLSQ-15-90P	$\phi 15$	90	2.0	2.7	88.2	41.40	<1
	SLSQ-15-100P	$\phi 15$	100	2.0	2.6	98.3	46.00	<1
Biconvex Lenses	SLSQ-20-25P	$\phi 20$	25	2.0	7.8	19.6	11.50	<1
Biconcave Lenses	SLSQ-20-30P	$\phi 20$	30	2.0	6.3	25.7	13.80	<1
	SLSQ-20-40P	$\phi 20$	40	2.0	5.0	36.6	18.40	<1
Kit	SLSQ-20-50P	$\phi 20$	50	2.0	4.3	47.1	23.00	<1
Reasonable Lens	SLSQ-20-60P	$\phi 20$	60	2.0	3.9	57.3	27.60	<1
Cylindrical	SLSQ-20-70P	$\phi 20$	70	2.0	3.6	67.5	32.20	<1
	SLSQ-20-80P	$\phi 20$	80	2.0	3.4	77.7	36.80	<1
Others	SLSQ-20-90P	$\phi 20$	90	2.0	3.2	87.8	41.40	<1
	SLSQ-20-100P	$\phi 20$	100	2.0	3.1	97.9	46.00	<1
	SLSQ-20-120P	$\phi 20$	120	2.0	2.9	118.0	55.20	<1
	SLSQ-20-150P	$\phi 20$	150	2.0	2.7	148.1	69.00	<1
	SLSQ-20-170P	$\phi 20$	170	2.0	2.6	168.2	78.20	<1
	SLSQ-20-200P	$\phi 20$	200	2.0	2.5	198.3	92.00	<1

Compatible Optic Mounts

LHF-10S, -15S, -20S / MLH-10, -15 / LHF-12.7



Synthetic fused silica $\phi 25 - \phi 30$

Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQ-25-30P	$\phi 25$	30	2.0	10.0	23.2	13.80	<1
SLSQ-25-35P	$\phi 25$	35	2.0	8.0	29.6	16.10	<1
SLSQ-25-40P	$\phi 25$	40	2.0	6.9	35.3	18.40	<1
SLSQ-25-50P	$\phi 25$	50	2.0	5.7	46.1	23.00	<1
SLSQ-25-60P	$\phi 25$	60	2.0	5.0	56.6	27.60	<1
SLSQ-25-70P	$\phi 25$	70	2.0	4.5	66.9	32.20	<1
SLSQ-25-80P	$\phi 25$	80	2.0	4.2	77.1	36.80	<1
SLSQ-25-90P	$\phi 25$	90	2.0	3.9	87.3	41.40	<1
SLSQ-25-100P	$\phi 25$	100	2.0	3.7	97.4	46.00	<1
SLSQ-25-120P	$\phi 25$	120	2.0	3.4	117.6	55.20	<1
SLSQ-25-150P	$\phi 25$	150	2.0	3.1	147.8	69.00	<1
SLSQ-25-170P	$\phi 25$	170	2.0	3.0	167.9	78.20	<1
SLSQ-25-200P	$\phi 25$	200	2.0	2.9	198.0	92.00	<1
SLSQ-25-220P	$\phi 25$	220	2.0	2.8	218.1	101.20	<1
SLSQ-25-250P	$\phi 25$	250	2.0	2.7	248.2	115.00	<1
SLSQ-25.4-30P	$\phi 25.4$	30	1.6	10.0	23.2	13.80	<1
SLSQ-25.4-35P	$\phi 25.4$	35	1.8	8.0	29.5	16.10	<1
SLSQ-25.4-40P	$\phi 25.4$	40	1.8	6.9	35.3	18.40	<1
SLSQ-25.4-50P	$\phi 25.4$	50	1.9	5.7	46.1	23.00	<1
SLSQ-25.4-60P	$\phi 25.4$	60	1.9	5.0	56.6	27.60	<1
SLSQ-25.4-70P	$\phi 25.4$	70	1.9	4.5	66.9	32.20	<1
SLSQ-25.4-80P	$\phi 25.4$	80	1.9	4.2	77.1	36.80	<1
SLSQ-25.4-90P	$\phi 25.4$	90	1.9	3.9	87.3	41.40	<1
SLSQ-25.4-100P	$\phi 25.4$	100	1.9	3.7	97.5	46.00	<1
SLSQ-25.4-150P	$\phi 25.4$	150	1.9	3.1	147.9	69.00	<1
SLSQ-25.4-200P	$\phi 25.4$	200	1.9	2.9	198.0	92.00	<1
SLSQ-25.4-250P	$\phi 25.4$	250	1.9	2.7	248.2	115.00	<1
SLSQ-25.4-300P	$\phi 25.4$	300	1.9	2.5	298.3	138.00	<3
SLSQ-25.4-400P	$\phi 25.4$	400	1.9	2.3	398.4	184.00	<3
SLSQ-25.4-500P	$\phi 25.4$	500	1.9	2.3	498.0	230.00	<3
SLSQ-25.4-1000P	$\phi 25.4$	1000	1.9	2.1	998.6	460.00	<3
SLSQ-30-35P	$\phi 30$	35	2.0	12.3	26.6	16.10	<1
SLSQ-30-40P	$\phi 30$	40	2.0	9.7	33.3	18.40	<1
SLSQ-30-50P	$\phi 30$	50	2.0	7.6	44.8	23.00	<1
SLSQ-30-60P	$\phi 30$	60	2.0	6.4	55.6	27.60	<1
SLSQ-30-70P	$\phi 30$	70	2.0	5.7	66.1	32.20	<1
SLSQ-30-80P	$\phi 30$	80	2.0	5.2	76.4	36.80	<1
SLSQ-30-90P	$\phi 30$	90	2.0	4.8	86.7	41.40	<1
SLSQ-30-100P	$\phi 30$	100	2.0	4.5	96.9	46.00	<1
SLSQ-30-120P	$\phi 30$	120	2.0	4.1	117.2	55.20	<1
SLSQ-30-150P	$\phi 30$	150	2.0	3.7	147.5	69.00	<1
SLSQ-30-170P	$\phi 30$	170	2.0	3.5	167.6	78.20	<1
SLSQ-30-200P	$\phi 30$	200	2.0	3.2	197.8	92.00	<1
SLSQ-30-220P	$\phi 30$	220	2.0	3.1	217.9	101.20	<1
SLSQ-30-250P	$\phi 30$	250	2.0	3.0	248.0	115.00	<1
SLSQ-30-300P	$\phi 30$	300	2.0	2.8	298.1	138.00	<1
SLSQ-30-350P	$\phi 30$	350	2.0	2.7	348.2	161.00	<3
SLSQ-30-400P	$\phi 30$	400	2.0	2.6	398.2	184.00	<3
SLSQ-30-450P	$\phi 30$	450	2.0	2.5	448.3	207.00	<3
SLSQ-30-500P	$\phi 30$	500	2.0	2.5	498.3	230.00	<3
SLSQ-30-600P	$\phi 30$	600	2.0	2.4	598.4	276.00	<3
SLSQ-30-700P	$\phi 30$	700	2.0	2.4	698.4	322.00	<3
SLSQ-30-800P	$\phi 30$	800	2.0	2.3	798.4	368.00	<3
SLSQ-30-900P	$\phi 30$	900	2.0	2.3	898.4	414.00	<3
SLSQ-30-1000P	$\phi 30$	1000	2.0	2.2	998.5	460.00	<3
SLSQ-30-1200P	$\phi 30$	1200	2.0	2.2	1198.5	552.00	<3
SLSQ-30-1500P	$\phi 30$	1500	2.0	2.2	1498.5	690.00	<3
SLSQ-30-2000P	$\phi 30$	2000	2.0	2.1	1998.5	920.00	<3
SLSQ-30-2500P	$\phi 30$	2500	2.0	2.1	2498.6	1150.00	<3
SLSQ-30-3000P	$\phi 30$	3000	2.0	2.1	2998.6	1380.00	<3
SLSQ-30-4000P	$\phi 30$	4000	2.0	2.1	3998.6	1840.00	<3
SLSQ-30-5000P	$\phi 30$	5000	2.0	2.1	4998.6	2300.00	<3

Compatible Optic Mounts

LHF-25S, -25.4S, -30S

Application Systems

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Biconcave Lenses

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Others

Synthetic fused silica $\phi 40 - \phi 50.8$

Application Systems	Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
Optics & Optical Coatings	SLSQ-40-50P	$\phi 40$	50	2.0	13.6	40.7	23.00	<1
	SLSQ-40-60P	$\phi 40$	60	2.0	10.6	52.8	27.60	<1
	SLSQ-40-70P	$\phi 40$	70	2.0	9.0	63.9	32.20	<1
Holders	SLSQ-40-80P	$\phi 40$	80	2.0	7.9	74.6	36.80	<1
	SLSQ-40-90P	$\phi 40$	90	2.0	7.2	85.1	41.40	<1
	SLSQ-40-100P	$\phi 40$	100	2.0	6.6	95.5	46.00	<1
Bases	SLSQ-40-120P	$\phi 40$	120	2.0	5.8	116.1	55.20	<1
	SLSQ-40-150P	$\phi 40$	150	2.0	5.0	146.6	69.00	<1
	SLSQ-40-170P	$\phi 40$	170	2.0	4.6	166.8	78.20	<1
Manual Stages	SLSQ-40-200P	$\phi 40$	200	2.0	4.2	197.1	92.00	<1
	SLSQ-40-220P	$\phi 40$	220	2.0	4.0	217.3	101.20	<1
	SLSQ-40-250P	$\phi 40$	250	2.0	3.8	247.4	115.00	<1
Actuators	SLSQ-40-300P	$\phi 40$	300	2.0	3.5	297.6	138.00	<1
	SLSQ-40-350P	$\phi 40$	350	2.0	3.2	347.8	161.00	<1
	SLSQ-40-400P	$\phi 40$	400	2.0	3.1	397.9	184.00	<1
Motorized Stages	SLSQ-40-450P	$\phi 40$	450	2.0	3.0	448.0	207.00	<3
	SLSQ-40-500P	$\phi 40$	500	2.0	2.9	498.0	230.00	<3
	SLSQ-50-70P	$\phi 50$	70	3.0	14.9	59.8	32.20	<1
Light Sources	SLSQ-50-80P	$\phi 50$	80	3.0	12.8	71.2	36.80	<1
	SLSQ-50-90P	$\phi 50$	90	3.0	11.4	82.2	41.40	<1
	SLSQ-50-100P	$\phi 50$	100	3.0	10.4	92.9	46.00	<1
Index	SLSQ-50-120P	$\phi 50$	120	3.0	9.0	113.8	55.20	<1
	SLSQ-50-150P	$\phi 50$	150	3.0	7.7	144.7	69.00	<1
	SLSQ-50-170P	$\phi 50$	170	3.0	7.1	165.1	78.20	<1
Guide	SLSQ-50-200P	$\phi 50$	200	3.0	6.5	195.6	92.00	<1
	SLSQ-50-220P	$\phi 50$	220	3.0	6.1	215.8	101.20	<1
	SLSQ-50-250P	$\phi 50$	250	3.0	5.8	246.1	115.00	<1
Mirrors	SLSQ-50-300P	$\phi 50$	300	3.0	5.3	296.4	138.00	<1
	SLSQ-50-350P	$\phi 50$	350	3.0	5.0	346.6	161.00	<1
	SLSQ-50-400P	$\phi 50$	400	3.0	4.7	396.8	184.00	<1
Beamsplitters	SLSQ-50-450P	$\phi 50$	450	3.0	4.5	446.9	207.00	<1
	SLSQ-50-500P	$\phi 50$	500	3.0	4.4	497.0	230.00	<1
	SLSQ-50-600P	$\phi 50$	600	3.0	4.1	597.2	276.00	<3
Polarizers	SLSQ-50-700P	$\phi 50$	700	3.0	4.0	697.3	322.00	<3
	SLSQ-50-800P	$\phi 50$	800	3.0	3.9	797.4	368.00	<3
	SLSQ-50-900P	$\phi 50$	900	3.0	3.8	897.4	414.00	<3
Substrates/Windows	SLSQ-50-1000P	$\phi 50$	1000	3.0	3.7	997.5	460.00	<3
	SLSQ-50-1200P	$\phi 50$	1200	3.0	3.6	1197.6	552.00	<3
	SLSQ-50-1500P	$\phi 50$	1500	3.0	3.5	1497.6	690.00	<3
Optical Data	SLSQ-50-2000P	$\phi 50$	2000	3.0	3.3	1997.7	920.00	<3
	SLSQ-50-2500P	$\phi 50$	2500	3.0	3.3	2497.8	1150.00	<3
	SLSQ-50-3000P	$\phi 50$	3000	3.0	3.2	2997.8	1380.00	<3
Maintenance	SLSQ-50-4000P	$\phi 50$	4000	3.0	3.2	3997.8	1840.00	<3
	SLSQ-50-5000P	$\phi 50$	5000	3.0	3.1	4997.9	2300.00	<3
	SLSQ-50.8-70P	$\phi 50.8$	70	2.5	14.9	59.8	32.20	<1
Selection Guide	SLSQ-50.8-80P	$\phi 50.8$	80	2.6	12.8	71.2	36.80	<1
	SLSQ-50.8-90P	$\phi 50.8$	90	2.7	11.4	82.2	41.40	<1
	SLSQ-50.8-100P	$\phi 50.8$	100	2.8	10.4	92.9	46.00	<1
Plano Convex Lenses	SLSQ-50.8-120P	$\phi 50.8$	120	2.8	9.0	113.8	55.20	<1
	SLSQ-50.8-150P	$\phi 50.8$	150	2.9	7.7	144.7	69.00	<1
	SLSQ-50.8-170P	$\phi 50.8$	170	2.9	7.1	165.1	78.20	<1
Plano Concave Lenses	SLSQ-50.8-200P	$\phi 50.8$	200	2.9	6.5	195.6	92.00	<1
	SLSQ-50.8-250P	$\phi 50.8$	250	2.9	5.7	246.1	115.00	<1
	SLSQ-50.8-300P	$\phi 50.8$	300	2.9	5.3	296.4	138.00	<1
Biconvex Lenses	SLSQ-50.8-400P	$\phi 50.8$	400	2.9	4.7	396.8	184.00	<1
	SLSQ-50.8-500P	$\phi 50.8$	500	3.0	4.4	497.0	230.00	<1
	SLSQ-50.8-1000P	$\phi 50.8$	1000	3.0	3.7	997.5	460.00	<3

Compatible Optic Mounts

LHF-40S, -50S, -50.8S



Synthetic fused silica $\phi 60 - \phi 100$

Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQ-60-80P	$\phi 60$	80	3.0	18.5	67.3	36.80	<1
SLSQ-60-90P	$\phi 60$	90	3.0	15.9	79.1	41.40	<1
SLSQ-60-100P	$\phi 60$	100	3.0	14.1	90.3	46.00	<1
SLSQ-60-120P	$\phi 60$	120	3.0	11.9	111.9	55.20	<1
SLSQ-60-150P	$\phi 60$	150	3.0	9.9	143.2	69.00	<1
SLSQ-60-170P	$\phi 60$	170	3.0	9.0	163.8	78.20	<1
SLSQ-60-200P	$\phi 60$	200	3.0	8.0	194.5	92.00	<1
SLSQ-60-220P	$\phi 60$	220	3.0	7.5	214.8	101.20	<1
SLSQ-60-250P	$\phi 60$	250	3.0	7.0	245.2	115.00	<1
SLSQ-60-300P	$\phi 60$	300	3.0	6.3	295.7	138.00	<1
SLSQ-60-350P	$\phi 60$	350	3.0	5.8	346.0	161.00	<1
SLSQ-60-400P	$\phi 60$	400	3.0	5.5	396.3	184.00	<1
SLSQ-60-450P	$\phi 60$	450	3.0	5.2	446.5	207.00	<1
SLSQ-60-500P	$\phi 60$	500	3.0	5.0	496.6	230.00	<1
SLSQ-100-200P	$\phi 100$	200	3.0	17.8	187.8	92.00	<1
SLSQ-100-250P	$\phi 100$	250	3.0	14.4	240.1	115.00	<1
SLSQ-100-300P	$\phi 100$	300	3.0	12.4	291.5	138.00	<1
SLSQ-100-350P	$\phi 100$	350	3.0	11.0	342.5	161.00	<1
SLSQ-100-400P	$\phi 100$	400	3.0	9.9	393.2	184.00	<1
SLSQ-100-500P	$\phi 100$	500	3.0	8.5	494.2	230.00	<1
SLSQ-100-600P	$\phi 100$	600	3.0	7.6	594.8	276.00	<1
SLSQ-100-700P	$\phi 100$	700	3.0	6.9	695.3	322.00	<1
SLSQ-100-800P	$\phi 100$	800	3.0	6.4	795.6	368.00	<1
SLSQ-100-1000P	$\phi 100$	1000	3.0	5.7	995.1	460.00	<1

Synthetic fused silica for Excimer Laser $\phi 30, \phi 50$

Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQK-30-40P	$\phi 30$	40	2.0	9.7	33.3	18.40	<1
SLSQK-30-50P	$\phi 30$	50	2.0	7.6	44.8	23.00	<1
SLSQK-30-60P	$\phi 30$	60	2.0	6.4	55.6	27.60	<1
SLSQK-30-80P	$\phi 30$	80	2.0	5.2	76.4	36.80	<1
SLSQK-30-100P	$\phi 30$	100	2.0	4.5	96.9	46.00	<1
SLSQK-30-150P	$\phi 30$	150	2.0	3.7	147.5	69.00	<1
SLSQK-30-200P	$\phi 30$	200	2.0	3.2	197.8	92.00	<1
SLSQK-30-300P	$\phi 30$	300	2.0	2.8	298.1	138.00	<1
SLSQK-50-70P	$\phi 50$	70	3.0	14.9	59.8	32.20	<1
SLSQK-50-100P	$\phi 50$	100	3.0	10.4	92.9	46.00	<1
SLSQK-50-150P	$\phi 50$	150	3.0	7.7	144.7	69.00	<1
SLSQK-50-200P	$\phi 50$	200	3.0	6.5	195.6	92.00	<1
SLSQK-50-300P	$\phi 50$	300	3.0	5.3	296.4	138.00	<1
SLSQK-50-400P	$\phi 50$	400	3.0	4.7	396.8	184.00	<1
SLSQK-50-500P	$\phi 50$	500	3.0	4.4	497.0	230.00	<1

Compatible Optic Mounts

LHF-60S, -100 / LHF-30S, -50S

- Application Systems
- Optics & Optical Coatings**
- Holders
- Bases
- Manual Stages
- Actuators
- MotORIZED Stages
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- Mirrors
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- Lenses**
- Multi-Element Optics
- Filters
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- Plano Convex Lenses**
- Plano Concave Lenses
- Biconvex Lenses
- Biconcave Lenses
- Kit
- Reasonable Lens
- Cylindrical
- Others

Plano Concave Lenses | SLB-N/SLSQ-N/SLSQK-N

RoHS

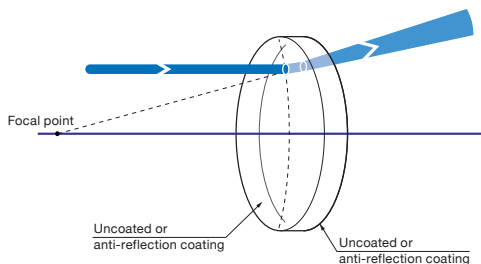
Simple shape lenses for spreading the collimated laser beam.

These are available for expanding the beam diameter or in combination with convex, expanding the irradiation area of illumination light.

- There are three types available; BK7 for from visible range to infrared wavelength range, high-strength synthetic fused silica which has high laser damage threshold used in less than 350nm ultraviolet light, and synthetic fused silica lens for excimer laser corresponding to the excimer laser such as Kr*F (248nm) and Ar*F (193nm).
- BK7 lenses are also available with three types of anti-reflection coating, visible wavelength range, in the near-infrared range and in the infrared range.
- From among the wide variations of products that have been subdivided in outside diameter and focal length, you can make selection according to your specifications.

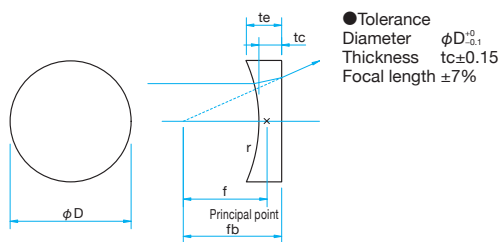


Schematic



Outline Drawing

(in mm)



How to specify the anti-reflection coating

In case of specifying an anti-reflection coating 633nm – 1064nm to near infrared lens of SLB-50.8-200N.
⇒ SLB-50.8-200NIR1

Type of AR Coat	Part Number	Wavelength Range [nm]	Transmittance [%]
Visible range	SLB-50.8-200NM	400 – 700	> Average 99
Near-infrared	SLB-50.8-200NIR1	633 – 1064	> Average 98.5
Infrared	SLB-50.8-200NIR2	750 – 1550	> Average 98.5

! Part of the above is an example of if you want to coat anti-reflective coating on the lens of the SLB-50.8-200N.

! Anti-reflection coating can be available to the lens of all of SLB.

Specifications

Material	SLB: BK7 SLSQ: Synthetic fused silica SLSQK: Synthetic fused silica for Excimer Laser
Design wavelength	546.1nm
Refractive index	BK7: $n_D = 1.519$ Synthetic fused silica: $n_D = 1.460$
Coating	Uncoated: the end of the part number 'N' Anti-reflection coating: the end of the part number 'NM', 'NIR1', 'NIR2'
Laser Damage Threshold	Anti-reflection coating: $4\text{J}/\text{cm}^2$ Laser pulse with 10ns, repetition frequency 20Hz
Clear aperture	90% of actual aperture (Uncoated) 85% of actual aperture (BMAR)
Surface Quality (Scratch-Dig)	20-10

Guide

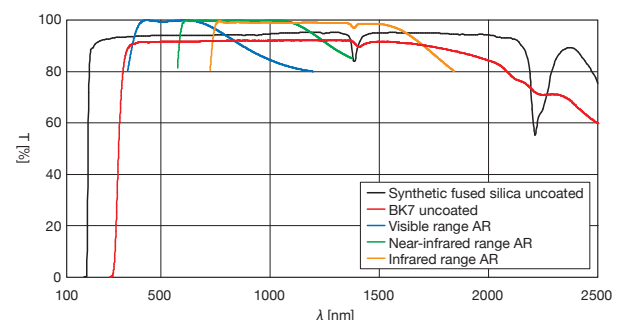
- ▶ It is available other than the products which listed in the catalog such as focal length and outer diameter size.
- ▶ Production is also available with a specific wavelength of anti-reflective coating on the lens of no coated.

Attention

- ▶ In the single concave lens will not be able to converge the light and can not be projected image. Make sure to use it in combination with a convex lens.
- ▶ The plano-concave lens has a chromatic aberration, the focal length will vary depending on the wavelength. Please check the "data wavelength characteristic of the focal length" on the WEB of the focal length of each wavelength. [WEB Reference](#) [Catalog Code](#) W3050
- ▶ There is a direction to put light in a plano-concave lens. Please let the incident parallel light from the concave side. There is a possibility that the spherical aberration increases when in reverse, the optical performance of the system will not be appropriate.
- ▶ When using a high power pulsed laser, the spark may occur at the focal point on the optical path connecting the light reflected by the concave surface. Only if used in the pulsed laser, please make sure to use the incident laser beam from the side of the plane.
- ▶ Losses due to reflection of the front and rear surfaces of the lens, the transmittance of no coated is about 90%.
- ▶ The outer periphery of the ridge concave is chamfered. It may be smaller than the edge thickness for the design. Please use the back of the plane surface as the reference plane.

Typical Transmittance Data

T: Transmission





BK7 $\phi 10 - \phi 25$										
Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm							
SLB-10-15N	M	IR1	IR2	$\phi 10$	-15	3.8	2.0	-16.3	7.79	<1
SLB-10-20N	M	IR1	IR2	$\phi 10$	-20	3.3	2.0	-21.3	10.38	<1
SLB-10-25N	M	IR1	IR2	$\phi 10$	-25	3.0	2.0	-26.3	12.98	<1
SLB-10-30N	M	IR1	IR2	$\phi 10$	-30	2.8	2.0	-31.3	15.57	<1
SLB-10-40N	M	IR1	IR2	$\phi 10$	-40	2.6	2.0	-41.3	20.76	<1
SLB-10-50N	M	IR1	IR2	$\phi 10$	-50	2.5	2.0	-51.3	25.95	<1
SLB-10-60N	M	IR1	IR2	$\phi 10$	-60	2.4	2.0	-61.3	31.14	<1
SLB-10-70N	M	IR1	IR2	$\phi 10$	-70	2.3	2.0	-71.3	36.33	<1
SLB-10-80N	M	IR1	IR2	$\phi 10$	-80	2.3	2.0	-81.3	41.52	<1
SLB-10-90N	M	IR1	IR2	$\phi 10$	-90	2.3	2.0	-91.3	46.71	<1
SLB-10-100N	M	IR1	IR2	$\phi 10$	-100	2.2	2.0	-101.3	51.90	<1
SLB-12.7-15N	M	IR1	IR2	$\phi 12.7$	-15	5.3	2.0	-16.3	7.79	<1
SLB-12.7-20N	M	IR1	IR2	$\phi 12.7$	-20	4.2	2.0	-21.3	10.38	<1
SLB-12.7-25N	M	IR1	IR2	$\phi 12.7$	-25	3.7	2.0	-26.3	12.98	<1
SLB-12.7-30N	M	IR1	IR2	$\phi 12.7$	-30	3.4	2.0	-31.3	15.57	<1
SLB-15-20N	M	IR1	IR2	$\phi 15$	-20	5.2	2.0	-21.3	10.38	<1
SLB-15-25N	M	IR1	IR2	$\phi 15$	-25	4.4	2.0	-26.3	12.98	<1
SLB-15-30N	M	IR1	IR2	$\phi 15$	-30	3.9	2.0	-31.3	15.57	<1
SLB-15-40N	M	IR1	IR2	$\phi 15$	-40	3.4	2.0	-41.3	20.76	<1
SLB-15-50N	M	IR1	IR2	$\phi 15$	-50	3.1	2.0	-51.3	25.95	<1
SLB-15-60N	M	IR1	IR2	$\phi 15$	-60	2.9	2.0	-61.3	31.14	<1
SLB-15-70N	M	IR1	IR2	$\phi 15$	-70	2.8	2.0	-71.3	36.33	<1
SLB-15-80N	M	IR1	IR2	$\phi 15$	-80	2.7	2.0	-81.3	41.52	<1
SLB-15-100N	M	IR1	IR2	$\phi 15$	-100	2.5	2.0	-101.3	51.90	<1
SLB-20-25N	M	IR1	IR2	$\phi 20$	-25	6.7	2.0	-26.3	12.98	<1
SLB-20-30N	M	IR1	IR2	$\phi 20$	-30	5.6	2.0	-31.3	15.57	<1
SLB-20-40N	M	IR1	IR2	$\phi 20$	-40	4.6	2.0	-41.3	20.76	<1
SLB-20-50N	M	IR1	IR2	$\phi 20$	-50	4.0	2.0	-51.3	25.95	<1
SLB-20-60N	M	IR1	IR2	$\phi 20$	-60	3.6	2.0	-61.3	31.14	<1
SLB-20-70N	M	IR1	IR2	$\phi 20$	-70	3.4	2.0	-71.3	36.33	<1
SLB-20-80N	M	IR1	IR2	$\phi 20$	-80	3.2	2.0	-81.3	41.52	<1
SLB-20-90N	M	IR1	IR2	$\phi 20$	-90	3.1	2.0	-91.3	46.71	<1
SLB-20-100N	M	IR1	IR2	$\phi 20$	-100	3.0	2.0	-101.3	51.90	<1
SLB-20-120N	M	IR1	IR2	$\phi 20$	-120	2.8	2.0	-121.3	62.28	<1
SLB-20-150N	M	IR1	IR2	$\phi 20$	-150	2.6	2.0	-151.3	77.85	<1
SLB-25-30N	M	IR1	IR2	$\phi 25$	-30	8.3	2.0	-31.3	15.57	<1
SLB-25-35N	M	IR1	IR2	$\phi 25$	-35	7.0	2.0	-36.3	18.17	<1
SLB-25-40N	M	IR1	IR2	$\phi 25$	-40	6.2	2.0	-41.3	20.76	<1
SLB-25-50N	M	IR1	IR2	$\phi 25$	-50	5.2	2.0	-51.3	25.95	<1
SLB-25-60N	M	IR1	IR2	$\phi 25$	-60	4.6	2.0	-61.3	31.14	<1
SLB-25-70N	M	IR1	IR2	$\phi 25$	-70	4.2	2.0	-71.3	36.33	<1
SLB-25-80N	M	IR1	IR2	$\phi 25$	-80	3.9	2.0	-81.3	41.52	<1
SLB-25-90N	M	IR1	IR2	$\phi 25$	-90	3.7	2.0	-91.3	46.71	<1
SLB-25-100N	M	IR1	IR2	$\phi 25$	-100	3.5	2.0	-101.3	51.90	<1
SLB-25-120N	M	IR1	IR2	$\phi 25$	-120	3.3	2.0	-121.3	62.28	<1
SLB-25-150N	M	IR1	IR2	$\phi 25$	-150	3.0	2.0	-151.3	77.85	<1
SLB-25-170N	M	IR1	IR2	$\phi 25$	-170	3.0	2.0	-171.3	88.23	<1
SLB-25-200N	M	IR1	IR2	$\phi 25$	-200	2.8	2.0	-201.3	103.80	<1

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Compatible Optic Mounts

LHF-10S, -15S, -20S, -25S, -25.4S / MLH-10, -15

BK7 $\phi 25.4 - \phi 50.8$

Application Systems	Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
	Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm							
Optics & Optical Coatings	SLB-25.4-30N	M	IR1	IR2	$\phi 25.4$	-30	8.6	2.0	-31.3	15.57	<1
	SLB-25.4-40N	M	IR1	IR2	$\phi 25.4$	-40	6.3	2.0	-41.3	20.76	<1
	SLB-25.4-50N	M	IR1	IR2	$\phi 25.4$	-50	5.3	2.0	-51.3	25.95	<1
Holders	SLB-25.4-60N	M	IR1	IR2	$\phi 25.4$	-60	4.7	2.0	-61.3	31.14	<1
	SLB-25.4-70N	M	IR1	IR2	$\phi 25.4$	-70	4.3	2.0	-71.3	36.33	<1
	SLB-25.4-80N	M	IR1	IR2	$\phi 25.4$	-80	4.0	2.0	-81.3	41.52	<1
Bases	SLB-25.4-90N	M	IR1	IR2	$\phi 25.4$	-90	3.8	2.0	-91.3	46.71	<1
	SLB-25.4-100N	M	IR1	IR2	$\phi 25.4$	-100	3.6	2.0	-101.3	51.90	<1
Manual Stages	SLB-25.4-150N	M	IR1	IR2	$\phi 25.4$	-150	3.0	2.0	-151.3	77.85	<1
	SLB-25.4-200N	M	IR1	IR2	$\phi 25.4$	-200	2.8	2.0	-201.3	103.80	<1
Actuators	SLB-30-35N	M	IR1	IR2	$\phi 30$	-35	9.9	2.0	-36.3	18.17	<1
	SLB-30-40N	M	IR1	IR2	$\phi 30$	-40	8.4	2.0	-41.3	20.76	<1
	SLB-30-50N	M	IR1	IR2	$\phi 30$	-50	6.8	2.0	-51.3	25.95	<1
Motorized Stages	SLB-30-60N	M	IR1	IR2	$\phi 30$	-60	5.9	2.0	-61.3	31.14	<1
	SLB-30-70N	M	IR1	IR2	$\phi 30$	-70	5.2	2.0	-71.3	36.33	<1
	SLB-30-80N	M	IR1	IR2	$\phi 30$	-80	4.8	2.0	-81.3	41.52	<1
Light Sources	SLB-30-90N	M	IR1	IR2	$\phi 30$	-90	4.5	2.0	-91.3	46.71	<1
	SLB-30-100N	M	IR1	IR2	$\phi 30$	-100	4.2	2.0	-101.3	51.90	<1
	SLB-30-120N	M	IR1	IR2	$\phi 30$	-120	3.8	2.0	-121.3	62.28	<1
Index	SLB-30-150N	M	IR1	IR2	$\phi 30$	-150	3.5	2.0	-151.3	77.85	<1
	SLB-30-170N	M	IR1	IR2	$\phi 30$	-170	3.3	2.0	-171.3	88.23	<1
	SLB-30-200N	M	IR1	IR2	$\phi 30$	-200	3.1	2.0	-201.3	103.80	<1
Guide	SLB-30-220N	M	IR1	IR2	$\phi 30$	-220	3.0	2.0	-221.3	114.18	<1
	SLB-30-250N	M	IR1	IR2	$\phi 30$	-250	2.9	2.0	-251.3	129.75	<1
	SLB-40-50N	M	IR1	IR2	$\phi 40$	-50	11.4	2.0	-51.3	25.95	<1
Mirrors	SLB-40-60N	M	IR1	IR2	$\phi 40$	-60	9.3	2.0	-61.3	31.14	<1
	SLB-40-70N	M	IR1	IR2	$\phi 40$	-70	8.0	2.0	-71.3	36.33	<1
Beamsplitters	SLB-40-80N	M	IR1	IR2	$\phi 40$	-80	7.1	2.0	-81.3	41.52	<1
	SLB-40-100N	M	IR1	IR2	$\phi 40$	-100	6.0	2.0	-101.3	51.90	<1
Polarizers	SLB-50-70N	M	IR1	IR2	$\phi 50$	-70	13.0	3.0	-72.0	36.33	<1
	SLB-50-80N	M	IR1	IR2	$\phi 50$	-80	11.4	3.0	-82.0	41.52	<1
Lenses	SLB-50-90N	M	IR1	IR2	$\phi 50$	-90	10.3	3.0	-92.0	46.71	<1
	SLB-50-100N	M	IR1	IR2	$\phi 50$	-100	9.4	3.0	-102.0	51.90	<1
Multi-Element Optics	SLB-50-120N	M	IR1	IR2	$\phi 50$	-120	8.2	3.0	-122.0	62.28	<1
	SLB-50-150N	M	IR1	IR2	$\phi 50$	-150	7.1	3.0	-152.0	77.85	<1
Filters	SLB-50-170N	M	IR1	IR2	$\phi 50$	-170	6.6	3.0	-172.0	88.23	<1
	SLB-50-200N	M	IR1	IR2	$\phi 50$	-200	6.1	3.0	-202.0	103.80	<1
Prisms	SLB-50-220N	M	IR1	IR2	$\phi 50$	-220	5.8	3.0	-222.0	114.18	<1
	SLB-50-250N	M	IR1	IR2	$\phi 50$	-250	5.4	3.0	-252.0	129.75	<1
Substrates/Windows	SLB-50-300N	M	IR1	IR2	$\phi 50$	-300	5.0	3.0	-302.0	155.70	<1
	SLB-50.8-70N	M	IR1	IR2	$\phi 50.8$	-70	13.4	3.0	-72.0	36.33	<1
Optical Data	SLB-50.8-80N	M	IR1	IR2	$\phi 50.8$	-80	11.7	3.0	-82.0	41.52	<1
	SLB-50.8-90N	M	IR1	IR2	$\phi 50.8$	-90	10.5	3.0	-92.0	46.71	<1
Maintenance	SLB-50.8-100N	M	IR1	IR2	$\phi 50.8$	-100	9.6	3.0	-102.0	51.90	<1
	SLB-50.8-150N	M	IR1	IR2	$\phi 50.8$	-150	7.3	3.0	-152.0	77.85	<1
Selection Guide	SLB-50.8-200N	M	IR1	IR2	$\phi 50.8$	-200	6.2	3.0	-202.0	103.80	<1
	SLB-50.8-250N	M	IR1	IR2	$\phi 50.8$	-250	5.5	3.0	-252.0	129.75	<1
Plano Convex Lenses	SLB-50.8-300N	M	IR1	IR2	$\phi 50.8$	-300	5.1	3.0	-302.0	155.70	<1
Plano Concave Lenses											
Biconvex Lenses											
Biconcave Lenses											
Kit											
Reasonable Lens											
Cylindrical											
Others											

Compatible Optic Mounts

LHF-30S, -40S, -50S, -50.8S



Synthetic fused silica $\phi 10 - \phi 25.4$

Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQ-10-15N	$\phi 10$	-15	4.1	2.0	-16.4	6.90	<1
SLSQ-10-20N	$\phi 10$	-20	3.5	2.0	-21.4	9.20	<1
SLSQ-10-25N	$\phi 10$	-25	3.1	2.0	-26.4	11.50	<1
SLSQ-10-30N	$\phi 10$	-30	2.9	2.0	-31.4	13.80	<1
SLSQ-10-40N	$\phi 10$	-40	2.7	2.0	-41.4	18.40	<1
SLSQ-10-50N	$\phi 10$	-50	2.6	2.0	-51.4	23.00	<1
SLSQ-10-60N	$\phi 10$	-60	2.5	2.0	-61.4	27.60	<1
SLSQ-10-70N	$\phi 10$	-70	2.4	2.0	-71.4	32.20	<1
SLSQ-10-80N	$\phi 10$	-80	2.3	2.0	-81.4	36.80	<1
SLSQ-10-90N	$\phi 10$	-90	2.3	2.0	-91.4	41.40	<1
SLSQ-10-100N	$\phi 10$	-100	2.3	2.0	-101.4	46.00	<1
SLSQ-12.7-20N	$\phi 12.7$	-20	4.5	2.0	-21.4	9.20	<1
SLSQ-12.7-25N	$\phi 12.7$	-25	3.9	2.0	-26.4	11.50	<1
SLSQ-12.7-30N	$\phi 12.7$	-30	3.5	2.0	-31.4	13.80	<1
SLSQ-12.7-40N	$\phi 12.7$	-40	3.1	2.0	-41.4	18.40	<1
SLSQ-15-20N	$\phi 15$	-20	5.9	2.0	-21.4	9.20	<1
SLSQ-15-25N	$\phi 15$	-25	4.8	2.0	-26.4	11.50	<1
SLSQ-15-30N	$\phi 15$	-30	4.2	2.0	-31.4	13.80	<1
SLSQ-15-40N	$\phi 15$	-40	3.6	2.0	-41.4	18.40	<1
SLSQ-15-50N	$\phi 15$	-50	3.3	2.0	-51.4	23.00	<1
SLSQ-15-60N	$\phi 15$	-60	3.0	2.0	-61.4	27.60	<1
SLSQ-15-70N	$\phi 15$	-70	2.9	2.0	-71.4	32.20	<1
SLSQ-15-80N	$\phi 15$	-80	2.8	2.0	-81.4	36.80	<1
SLSQ-15-90N	$\phi 15$	-90	2.7	2.0	-91.4	41.40	<1
SLSQ-15-100N	$\phi 15$	-100	2.6	2.0	-101.4	46.00	<1
SLSQ-20-25N	$\phi 20$	-25	7.8	2.0	-26.4	11.50	<1
SLSQ-20-30N	$\phi 20$	-30	6.3	2.0	-31.4	13.80	<1
SLSQ-20-40N	$\phi 20$	-40	5.0	2.0	-41.4	18.40	<1
SLSQ-20-50N	$\phi 20$	-50	4.3	2.0	-51.4	23.00	<1
SLSQ-20-60N	$\phi 20$	-60	3.9	2.0	-61.4	27.60	<1
SLSQ-20-70N	$\phi 20$	-70	3.6	2.0	-71.4	32.20	<1
SLSQ-20-80N	$\phi 20$	-80	3.4	2.0	-81.4	36.80	<1
SLSQ-20-90N	$\phi 20$	-90	3.2	2.0	-91.4	41.40	<1
SLSQ-20-100N	$\phi 20$	-100	3.1	2.0	-101.4	46.00	<1
SLSQ-20-120N	$\phi 20$	-120	2.9	2.0	-121.4	55.20	<1
SLSQ-20-150N	$\phi 20$	-150	2.7	2.0	-151.4	69.00	<1
SLSQ-25-30N	$\phi 25$	-30	10.0	2.0	-31.4	13.80	<1
SLSQ-25-35N	$\phi 25$	-35	8.0	2.0	-36.4	16.10	<1
SLSQ-25-40N	$\phi 25$	-40	6.9	2.0	-41.4	18.40	<1
SLSQ-25-50N	$\phi 25$	-50	5.7	2.0	-51.4	23.00	<1
SLSQ-25-60N	$\phi 25$	-60	5.0	2.0	-61.4	27.60	<1
SLSQ-25-70N	$\phi 25$	-70	4.5	2.0	-71.4	32.20	<1
SLSQ-25-80N	$\phi 25$	-80	4.2	2.0	-81.4	36.80	<1
SLSQ-25-90N	$\phi 25$	-90	3.9	2.0	-91.4	41.40	<1
SLSQ-25-100N	$\phi 25$	-100	3.7	2.0	-101.4	46.00	<1
SLSQ-25-120N	$\phi 25$	-120	3.4	2.0	-121.4	55.20	<1
SLSQ-25-150N	$\phi 25$	-150	3.1	2.0	-151.4	69.00	<1
SLSQ-25-170N	$\phi 25$	-170	3.0	2.0	-171.4	78.20	<1
SLSQ-25-200N	$\phi 25$	-200	2.9	2.0	-201.4	92.00	<1
SLSQ-25.4-30N	$\phi 25.4$	-30	10.4	2.0	-31.4	13.80	<1
SLSQ-25.4-35N	$\phi 25.4$	-35	8.2	2.0	-36.4	16.1	<1
SLSQ-25.4-40N	$\phi 25.4$	-40	7.1	2.0	-41.4	18.40	<1
SLSQ-25.4-50N	$\phi 25.4$	-50	5.8	2.0	-51.4	23.00	<1
SLSQ-25.4-60N	$\phi 25.4$	-60	5.1	2.0	-61.4	27.60	<1
SLSQ-25.4-70N	$\phi 25.4$	-70	4.6	2.0	-71.4	32.20	<1
SLSQ-25.4-80N	$\phi 25.4$	-80	4.3	2.0	-81.4	36.80	<1
SLSQ-25.4-90N	$\phi 25.4$	-90	4.0	2.0	-91.4	41.40	<1
SLSQ-25.4-100N	$\phi 25.4$	-100	3.8	2.0	-101.4	46.00	<1
SLSQ-25.4-150N	$\phi 25.4$	-150	3.2	2.0	-151.4	69.00	<1
SLSQ-25.4-200N	$\phi 25.4$	-200	2.9	2.0	-201.4	92.00	<1

Compatible Optic Mounts

LHF-10S, -15S, -20S, -25S, -25.4S, -30S / MLH-10, -15

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SLB-N/SLSQ-N/SLSQK-N

Catalog Code W3053

Synthetic fused silica $\phi 30 - \phi 50.8$

Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQ-30-35N	$\phi 30$	-35	12.3	2.0	-36.4	16.10	<1
SLSQ-30-40N	$\phi 30$	-40	9.7	2.0	-41.4	18.40	<1
SLSQ-30-50N	$\phi 30$	-50	7.6	2.0	-51.4	23.00	<1
SLSQ-30-60N	$\phi 30$	-60	6.4	2.0	-61.4	27.60	<1
SLSQ-30-70N	$\phi 30$	-70	5.7	2.0	-71.4	32.20	<1
SLSQ-30-80N	$\phi 30$	-80	5.2	2.0	-81.4	36.80	<1
SLSQ-30-90N	$\phi 30$	-90	4.8	2.0	-91.4	41.40	<1
SLSQ-30-100N	$\phi 30$	-100	4.5	2.0	-101.4	46.00	<1
SLSQ-30-120N	$\phi 30$	-120	4.1	2.0	-121.4	55.20	<1
SLSQ-30-150N	$\phi 30$	-150	3.7	2.0	-151.4	69.00	<1
SLSQ-30-170N	$\phi 30$	-170	3.5	2.0	-171.4	78.20	<1
SLSQ-30-200N	$\phi 30$	-200	3.2	2.0	-201.4	92.00	<1
SLSQ-30-220N	$\phi 30$	-220	3.1	2.0	-221.4	101.20	<1
SLSQ-30-250N	$\phi 30$	-250	3.0	2.0	-251.4	115.00	<1
SLSQ-40-50N	$\phi 40$	-50	13.6	2.0	-51.4	23.00	<1
SLSQ-40-60N	$\phi 40$	-60	10.6	2.0	-61.4	27.60	<1
SLSQ-40-70N	$\phi 40$	-70	9.0	2.0	-71.4	32.20	<1
SLSQ-40-100N	$\phi 40$	-100	6.6	2.0	-101.4	46.00	<1
SLSQ-40-120N	$\phi 40$	-120	5.8	2.0	-121.4	55.20	<1
SLSQ-40-150N	$\phi 40$	-150	5.0	2.0	-151.4	69.00	<1
SLSQ-40-200N	$\phi 40$	-200	4.2	2.0	-201.4	92.00	<1
SLSQ-40-250N	$\phi 40$	-250	3.8	2.0	-251.4	115.00	<1
SLSQ-50-70N	$\phi 50$	-70	14.9	3.0	-72.1	32.20	<1
SLSQ-50-80N	$\phi 50$	-80	12.8	3.0	-82.1	36.80	<1
SLSQ-50-90N	$\phi 50$	-90	11.4	3.0	-92.1	41.40	<1
SLSQ-50-100N	$\phi 50$	-100	10.4	3.0	-102.1	46.00	<1
SLSQ-50-120N	$\phi 50$	-120	9.0	3.0	-122.1	55.20	<1
SLSQ-50-150N	$\phi 50$	-150	7.7	3.0	-152.1	69.00	<1
SLSQ-50-170N	$\phi 50$	-170	7.1	3.0	-172.1	78.20	<1
SLSQ-50-200N	$\phi 50$	-200	6.5	3.0	-202.1	92.00	<1
SLSQ-50-220N	$\phi 50$	-220	6.1	3.0	-222.1	101.20	<1
SLSQ-50-250N	$\phi 50$	-250	5.8	3.0	-252.1	115.00	<1
SLSQ-50-300N	$\phi 50$	-300	5.3	3.0	-302.1	138.00	<1
SLSQ-50.8-70N	$\phi 50.8$	-70	15.4	3.0	-72.1	32.20	<1
SLSQ-50.8-80N	$\phi 50.8$	-80	13.2	3.0	-82.1	36.80	<1
SLSQ-50.8-90N	$\phi 50.8$	-90	11.7	3.0	-92.1	41.40	<1
SLSQ-50.8-100N	$\phi 50.8$	-100	10.6	3.0	-102.1	46.00	<1
SLSQ-50.8-150N	$\phi 50.8$	-150	7.8	3.0	-152.1	69.00	<1
SLSQ-50.8-200N	$\phi 50.8$	-200	6.6	3.0	-202.1	92.00	<1
SLSQ-50.8-250N	$\phi 50.8$	-250	5.8	3.0	-252.1	115.00	<1
SLSQ-50.8-300N	$\phi 50.8$	-300	5.4	3.0	-302.1	138.00	<1

Application Systems

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Plano Convex Lenses

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Kit

Reasonable Lens

Cylindrical

Others

Catalog Code W3054

Synthetic fused silica for Excimer Laser $\phi 30, \phi 50$

Part Number	Diameter D [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQK-30-50N	$\phi 30$	-50	7.6	2.0	-51.4	23.00	<1
SLSQK-30-60N	$\phi 30$	-60	6.4	2.0	-61.4	27.60	<1
SLSQK-30-70N	$\phi 30$	-70	5.7	2.0	-71.4	32.20	<1
SLSQK-30-100N	$\phi 30$	-100	4.5	2.0	-101.4	46.00	<1
SLSQK-30-150N	$\phi 30$	-150	3.7	2.0	-151.4	69.00	<1
SLSQK-50-70N	$\phi 50$	-70	14.9	3.0	-72.1	32.20	<1
SLSQK-50-80N	$\phi 50$	-80	12.8	3.0	-82.1	36.80	<1
SLSQK-50-100N	$\phi 50$	-100	10.4	3.0	-102.1	46.00	<1
SLSQK-50-150N	$\phi 50$	-150	7.7	3.0	-152.1	69.00	<1
SLSQK-50-200N	$\phi 50$	-200	6.5	3.0	-202.1	92.00	<1

Compatible Optic Mounts

LHF-30S, -40S, -50S, -50.8S

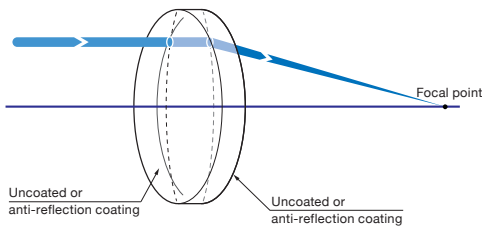
With its both convex surfaces the biconvex lens refracts light efficiently in a small space, more light is focused.

The particular feature of biconvex Lens is that it enables to focus light at a short distance and also enable it to focus dispersed. Light at an optimal condition with low loss light.

- There are two types available; BK7 for from visible range to infrared wavelength range, high-strength synthetic fused silica which has high laser damage threshold used in less than 350nm ultraviolet light.
- Made of BK7 lenses are also available with three types of anti-reflection coating in the infrared wavelength, near-infrared wavelength and visible wavelength.
- From among the wide variations that have been subdivided in outside diameter and focal length, you can make selection according to your specifications.

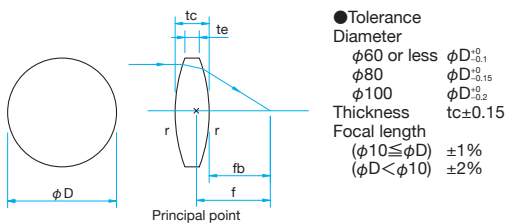


Schematic



Outline Drawing

(in mm)



Specifications

Material	SLB: BK7 SLSQ: Synthetic fused silica
Design wavelength	546.1nm
Refractive index	BK7: $n_e=1.519$ Synthetic fused silica: $n_e=1.460$
Coating	Uncoated: the end of the part number 'P' Anti-reflection coating: the end of the part number 'PM', 'PIR1', 'PIR2'
Laser Damage Threshold	Anti-reflection coating: $4J/cm^2$ Laser pulse with 10ns, repetition frequency 20Hz
Clear aperture	90% of actual aperture: Uncoated 85% of actual aperture: with coating, $\phi 10 \leq D$ 83% of actual aperture: with coating, $D < \phi 10$
Surface Quality (Scratch-Dig)	20-10 $\phi 10 \leq D$ 40-20 $D < \phi 10$

Guide

- ▶ It is available other than the products which listed in the catalog such as focal length and outer diameter size.
- ▶ Production is also available with a specific wavelength of anti-reflective coating on the lens of no coated.
- ▶ It is also available the Achromatic lenses (DLB) which are chromatic aberration correction. [Reference](#) ▶ B172

Attention

- ▶ The biconvex spherical lens has a chromatic aberration, and the focal length will vary depending on the wavelength. Please check the "wavelength characteristic of the focal length data" on the Web for the focal lengths of each wavelength. [WEB Reference](#) [Catalog Code](#) W3055
- ▶ Biconvex spherical aberration is larger than that of the plano-convex lens, so focal spot may not gather at one point.
- ▶ Losses due to reflection of the front and rear surfaces of the lens, the transmittance of no coated is about 90%.

How to specify the anti-reflection coating

In case of specifying a anti-reflection coating 633nm – 1064nm to near infrared lens of SLB-100B-500P.
 ⇒ SLB-100B-500PIR1

Type of AR Coat	Part Number	Wavelength Range [nm]	Transmittance [%]
Visible range	SLB-100B-500PM	400 – 700	> Average 99
Near-infrared	SLB-100B-500PIR1	633 – 1064	> Average 98.5
Infrared	SLB-100B-500PIR2	750 – 1550	> Average 98.5

! Part of the above is an example of if you want to coat anti-reflective coating on the lens of the SLB-100B-500P.

! Anti-reflection coating can be available to the lens of all of SLB.

BK7 φ5

Part Number	How to specify the anti-reflection coating			Diameter φD [mm]	Focal length f [mm]	Thickness of the edge te [mm]	Thickness of the center tc [mm]	Back focal length fb [mm]	Radius of curvature r [mm]	Centration [']	
	Uncoated	Visible 400 – 700nm	Near-infrared 633 – 1064nm								Infrared 750 – 1550nm
SLB-05B-06P		M	IR1	IR2	φ5	6.4	1.5	2.5	5.6	6.23	<3
SLB-05B-08P		M	IR1	IR2	φ5	8.4	1.4	2.1	7.6	8.30	<3
SLB-05B-10P		M	IR1	IR2	φ5	10.3	1.3	1.9	9.7	10.38	<3
SLB-05B-12P		M	IR1	IR2	φ5	12.3	1.2	1.7	11.7	12.46	<3
SLB-05B-15P		M	IR1	IR2	φ5	15.3	1.2	1.6	14.7	15.57	<3
SLB-05B-20P		M	IR1	IR2	φ5	20.2	1.1	1.4	19.8	20.76	<3
SLB-05B-25P		M	IR1	IR2	φ5	25.2	1.1	1.3	24.8	25.95	<3

Compatible Optic Mounts

MLH-10, -15

BK7 $\phi 6 - \phi 20$

Application Systems	Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
	Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm							
Optics & Optical Coatings	SLB-06B-06P	M	IR1	IR2	$\phi 6$	6.4	1.0	2.5	5.6	6.23	<3
	SLB-06B-08P	M	IR1	IR2	$\phi 6$	8.4	1.0	2.1	7.6	8.30	<3
	SLB-06B-10P	M	IR1	IR2	$\phi 6$	10.3	1.0	1.9	9.7	10.38	<3
Holders	SLB-06B-12P	M	IR1	IR2	$\phi 6$	12.3	1.0	1.7	11.7	12.46	<3
	SLB-06B-15P	M	IR1	IR2	$\phi 6$	15.3	1.0	1.6	14.7	15.57	<3
	SLB-06B-20P	M	IR1	IR2	$\phi 6$	20.2	1.0	1.4	19.8	20.76	<3
Bases	SLB-07B-08P	M	IR1	IR2	$\phi 7$	8.6	2.0	3.6	7.4	8.30	<3
	SLB-07B-10P	M	IR1	IR2	$\phi 7$	10.5	1.9	3.1	9.5	10.38	<3
	SLB-07B-12P	M	IR1	IR2	$\phi 7$	12.5	1.8	2.8	11.5	12.46	<3
Manual Stages	SLB-07B-15P	M	IR1	IR2	$\phi 7$	15.4	1.7	2.5	14.6	15.57	<3
	SLB-07B-20P	M	IR1	IR2	$\phi 7$	20.4	1.7	2.3	19.6	20.76	<3
	SLB-08B-08P	M	IR1	IR2	$\phi 8$	8.6	1.5	3.6	7.4	8.30	<3
Actuators	SLB-08B-10P	M	IR1	IR2	$\phi 8$	10.5	1.5	3.1	9.5	10.38	<3
	SLB-08B-12P	M	IR1	IR2	$\phi 8$	12.5	1.5	2.8	11.5	12.46	<3
	SLB-08B-15P	M	IR1	IR2	$\phi 8$	15.4	1.5	2.5	14.6	15.57	<3
Motorized Stages	SLB-08B-20P	M	IR1	IR2	$\phi 8$	20.4	1.5	2.3	19.6	20.76	<3
	SLB-08B-25P	M	IR1	IR2	$\phi 8$	25.4	1.5	2.1	24.6	25.95	<3
	SLB-10B-10P	M	IR1	IR2	$\phi 10$	10.8	2.0	4.6	9.2	10.38	<1
Light Sources	SLB-10B-15P	M	IR1	IR2	$\phi 10$	15.6	2.0	3.6	14.4	15.57	<1
	SLB-10B-20P	M	IR1	IR2	$\phi 10$	20.5	2.0	3.2	19.5	20.76	<1
	SLB-10B-25P	M	IR1	IR2	$\phi 10$	25.5	2.0	3.0	24.5	25.95	<1
Index	SLB-10B-30P	M	IR1	IR2	$\phi 10$	30.5	2.0	2.8	29.5	31.14	<1
	SLB-10B-40P	M	IR1	IR2	$\phi 10$	40.4	2.0	2.6	39.6	41.52	<1
	SLB-10B-50P	M	IR1	IR2	$\phi 10$	50.4	2.0	2.5	49.6	51.90	<1
Guide	SLB-10B-60P	M	IR1	IR2	$\phi 10$	60.4	2.0	2.4	59.6	62.28	<1
	SLB-10B-70P	M	IR1	IR2	$\phi 10$	70.4	2.0	2.3	69.6	72.66	<1
	SLB-10B-80P	M	IR1	IR2	$\phi 10$	80.4	2.0	2.3	79.6	83.04	<1
Mirrors	SLB-10B-90P	M	IR1	IR2	$\phi 10$	90.4	2.0	2.3	89.6	93.42	<1
	SLB-10B-100P	M	IR1	IR2	$\phi 10$	100.4	2.0	2.2	99.6	103.80	<1
	SLB-12.7B-12P	M	IR1	IR2	$\phi 12.7$	12.7	2.0	3.7	11.4	12.46	<1
Polarizers	SLB-12.7B-20P	M	IR1	IR2	$\phi 12.7$	20.5	2.0	3.0	19.5	20.76	<1
	SLB-12.7B-25P	M	IR1	IR2	$\phi 12.7$	25.5	2.0	2.8	24.6	25.95	<1
	SLB-12.7B-30P	M	IR1	IR2	$\phi 12.7$	30.5	2.0	2.7	29.6	31.14	<1
Multi-Element Optics	SLB-12.7B-40P	M	IR1	IR2	$\phi 12.7$	40.4	2.0	2.5	39.6	41.52	<1
	SLB-12.7B-50P	M	IR1	IR2	$\phi 12.7$	50.4	2.0	2.4	49.6	51.90	<1
	SLB-12.7B-60P	M	IR1	IR2	$\phi 12.7$	60.4	2.0	2.3	59.7	62.28	<1
Filters	SLB-12.7B-70P	M	IR1	IR2	$\phi 12.7$	70.4	2.0	2.3	69.7	72.66	<1
	SLB-15B-15P	M	IR1	IR2	$\phi 15$	16.0	2.0	5.9	14.0	15.57	<1
	SLB-15B-20P	M	IR1	IR2	$\phi 15$	20.8	2.0	4.8	19.2	20.76	<1
Prisms	SLB-15B-25P	M	IR1	IR2	$\phi 15$	25.7	2.0	4.2	24.3	25.95	<1
	SLB-15B-30P	M	IR1	IR2	$\phi 15$	30.6	2.0	3.8	29.4	31.14	<1
	SLB-15B-40P	M	IR1	IR2	$\phi 15$	40.6	2.0	3.4	39.4	41.52	<1
Substrates/Windows	SLB-15B-50P	M	IR1	IR2	$\phi 15$	50.5	2.0	3.1	49.5	51.90	<1
	SLB-15B-60P	M	IR1	IR2	$\phi 15$	60.5	2.0	2.9	59.5	62.28	<1
	SLB-15B-70P	M	IR1	IR2	$\phi 15$	70.5	2.0	2.8	69.5	72.66	<1
Optical Data	SLB-15B-80P	M	IR1	IR2	$\phi 15$	80.4	2.0	2.7	79.6	83.04	<1
	SLB-15B-90P	M	IR1	IR2	$\phi 15$	90.4	2.0	2.6	89.6	93.42	<1
	SLB-15B-100P	M	IR1	IR2	$\phi 15$	100.4	2.0	2.5	99.6	103.80	<1
Maintenance	SLB-20B-20P	M	IR1	IR2	$\phi 20$	21.2	2.0	7.1	18.8	20.76	<1
	SLB-20B-25P	M	IR1	IR2	$\phi 20$	26.0	2.0	6.0	24.0	25.95	<1
	SLB-20B-30P	M	IR1	IR2	$\phi 20$	31.0	2.0	5.3	29.1	31.14	<1
Selection Guide	SLB-20B-40P	M	IR1	IR2	$\phi 20$	40.7	2.0	4.4	39.3	41.52	<1
	SLB-20B-50P	M	IR1	IR2	$\phi 20$	50.7	2.0	3.9	49.3	51.90	<1
	SLB-20B-60P	M	IR1	IR2	$\phi 20$	60.6	2.0	3.6	59.4	62.28	<1
Biconvex Lenses	SLB-20B-70P	M	IR1	IR2	$\phi 20$	70.6	2.0	3.4	69.4	72.66	<1
	SLB-20B-80P	M	IR1	IR2	$\phi 20$	80.5	2.0	3.2	79.5	83.04	<1
	SLB-20B-90P	M	IR1	IR2	$\phi 20$	90.5	2.0	3.1	89.5	93.42	<1
Biconcave Lenses	SLB-20B-100P	M	IR1	IR2	$\phi 20$	100.5	2.0	3.0	99.5	103.80	<1
	SLB-20B-120P	M	IR1	IR2	$\phi 20$	120.5	2.0	2.8	119.5	124.56	<1
	SLB-20B-150P	M	IR1	IR2	$\phi 20$	150.4	2.0	2.6	149.6	155.70	<1

Compatible Optic Mounts

LHF-10S, -15S, -20S / MLH-10, -15



BK7 $\phi 25 - \phi 50$											
Part Number	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']	Application Systems
	Uncoated	Visibe 400 - 700nm	Near-infrared 633 - 1064nm								
SLB-25B-25P	M	IR1	IR2	$\phi 25$	26.5	2.0	8.4	23.5	25.95	<1	Optics & Optical Coatings
SLB-25B-30P	M	IR1	IR2	$\phi 25$	31.2	2.0	7.2	28.8	31.14	<1	Holders
SLB-25B-35P	M	IR1	IR2	$\phi 25$	36.1	2.0	6.4	33.9	36.33	<1	Bases
SLB-25B-40P	M	IR1	IR2	$\phi 25$	41.0	2.0	5.9	39.0	41.52	<1	Manual Stages
SLB-25B-50P	M	IR1	IR2	$\phi 25$	50.8	2.0	5.1	49.2	51.90	<1	Actuators
SLB-25B-60P	M	IR1	IR2	$\phi 25$	60.8	2.0	4.5	59.2	62.28	<1	Motoeized Stages
SLB-25B-70P	M	IR1	IR2	$\phi 25$	70.7	2.0	4.2	69.3	72.66	<1	Light Sources
SLB-25B-80P	M	IR1	IR2	$\phi 25$	80.6	2.0	3.9	79.4	83.04	<1	Index
SLB-25B-90P	M	IR1	IR2	$\phi 25$	90.6	2.0	3.7	89.4	93.42	<1	Guide
SLB-25B-100P	M	IR1	IR2	$\phi 25$	100.6	2.0	3.5	99.4	103.80	<1	Mirrors
SLB-25B-150P	M	IR1	IR2	$\phi 25$	150.5	2.0	3.0	149.5	155.70	<1	Beamsplitters
SLB-25B-170P	M	IR1	IR2	$\phi 25$	170.5	2.0	2.9	169.5	176.46	<1	Polarizers
SLB-25B-200P	M	IR1	IR2	$\phi 25$	200.5	2.0	2.8	199.5	207.60	<1	Lenses
SLB-25.4B-25P	M	IR1	IR2	$\phi 25.4$	26.5	1.8	8.4	23.6	25.95	<1	Multi-Element Optics
SLB-25.4B-30P	M	IR1	IR2	$\phi 25.4$	31.2	1.8	7.2	28.7	31.14	<1	Filters
SLB-25.4B-35P	M	IR1	IR2	$\phi 25.4$	36.1	1.8	6.4	33.9	36.33	<1	Prisms
SLB-25.4B-40P	M	IR1	IR2	$\phi 25.4$	41.0	1.9	5.9	39.0	41.52	<1	Substrates/Windows
SLB-25.4B-50P	M	IR1	IR2	$\phi 25.4$	50.8	1.9	5.1	49.2	51.90	<1	Optical Data
SLB-25.4B-60P	M	IR1	IR2	$\phi 25.4$	60.8	1.9	4.5	59.2	62.28	<1	Maintenance
SLB-25.4B-70P	M	IR1	IR2	$\phi 25.4$	70.7	1.9	4.1	69.3	72.66	<1	Selection Guide
SLB-25.4B-80P	M	IR1	IR2	$\phi 25.4$	80.6	1.9	3.9	79.3	83.04	<1	Plano Convex Lenses
SLB-25.4B-100P	M	IR1	IR2	$\phi 25.4$	100.6	1.9	3.5	99.4	103.80	<1	Plano Concave Lenses
SLB-25.4B-150P	M	IR1	IR2	$\phi 25.4$	150.5	2.0	3.0	149.5	155.70	<1	Biconvex Lenses
SLB-25.4B-200P	M	IR1	IR2	$\phi 25.4$	200.5	2.0	2.8	199.6	207.60	<1	Biconcave Lenses
SLB-30B-30P	M	IR1	IR2	$\phi 30$	31.7	2.0	9.7	28.3	31.14	<1	Kit
SLB-30B-35P	M	IR1	IR2	$\phi 30$	36.5	2.0	8.5	33.5	36.33	<1	Reasonable Lens
SLB-30B-40P	M	IR1	IR2	$\phi 30$	41.3	2.0	7.6	38.7	41.52	<1	Cylindrical
SLB-30B-50P	M	IR1	IR2	$\phi 30$	51.1	2.0	6.4	48.9	51.90	<1	Others
SLB-30B-60P	M	IR1	IR2	$\phi 30$	60.9	2.0	5.7	59.1	62.28	<1	
SLB-30B-70P	M	IR1	IR2	$\phi 30$	70.9	2.0	5.1	69.1	72.66	<1	
SLB-30B-80P	M	IR1	IR2	$\phi 30$	80.8	2.0	4.7	79.2	83.04	<1	
SLB-30B-100P	M	IR1	IR2	$\phi 30$	100.7	2.0	4.2	99.3	103.80	<1	
SLB-30B-120P	M	IR1	IR2	$\phi 30$	120.6	2.0	3.8	119.4	124.56	<1	
SLB-30B-150P	M	IR1	IR2	$\phi 30$	150.6	2.0	3.4	149.4	155.70	<1	
SLB-30B-170P	M	IR1	IR2	$\phi 30$	170.5	2.0	3.3	169.5	176.46	<1	
SLB-30B-200P	M	IR1	IR2	$\phi 30$	200.5	2.0	3.1	199.5	207.60	<1	
SLB-30B-250P	M	IR1	IR2	$\phi 30$	250.5	2.0	2.9	249.5	259.50	<1	
SLB-40B-40P	M	IR1	IR2	$\phi 40$	42.1	2.0	12.3	37.9	41.52	<1	
SLB-40B-50P	M	IR1	IR2	$\phi 40$	51.7	2.0	10.0	48.3	51.90	<1	
SLB-40B-60P	M	IR1	IR2	$\phi 40$	61.4	2.0	8.6	58.6	62.28	<1	
SLB-40B-70P	M	IR1	IR2	$\phi 40$	71.3	2.0	7.6	68.7	72.66	<1	
SLB-40B-80P	M	IR1	IR2	$\phi 40$	81.2	2.0	6.9	78.8	83.04	<1	
SLB-40B-90P	M	IR1	IR2	$\phi 40$	91.1	2.0	6.3	88.9	93.42	<1	
SLB-40B-100P	M	IR1	IR2	$\phi 40$	101.0	2.0	5.9	99.0	103.80	<1	
SLB-40B-120P	M	IR1	IR2	$\phi 40$	120.9	2.0	5.2	119.1	124.56	<1	
SLB-40B-150P	M	IR1	IR2	$\phi 40$	150.8	2.0	4.6	149.2	155.70	<1	
SLB-40B-170P	M	IR1	IR2	$\phi 40$	170.7	2.0	4.3	169.3	176.46	<1	
SLB-40B-200P	M	IR1	IR2	$\phi 40$	200.6	2.0	3.9	199.4	207.60	<1	
SLB-40B-250P	M	IR1	IR2	$\phi 40$	250.6	2.0	3.5	249.4	259.50	<1	
SLB-50B-50P	M	IR1	IR2	$\phi 50$	52.7	3.0	15.8	47.3	51.90	<1	
SLB-50B-60P	M	IR1	IR2	$\phi 50$	62.3	3.0	13.5	57.7	62.28	<1	
SLB-50B-70P	M	IR1	IR2	$\phi 50$	72.0	3.0	11.9	68.0	72.66	<1	
SLB-50B-80P	M	IR1	IR2	$\phi 50$	81.8	3.0	10.7	78.2	83.04	<1	
SLB-50B-90P	M	IR1	IR2	$\phi 50$	91.6	3.0	9.8	88.4	93.42	<1	
SLB-50B-100P	M	IR1	IR2	$\phi 50$	101.5	3.0	9.1	98.5	103.80	<1	
SLB-50B-120P	M	IR1	IR2	$\phi 50$	121.3	3.0	8.0	118.7	124.56	<1	
SLB-50B-150P	M	IR1	IR2	$\phi 50$	151.2	3.0	7.0	148.8	155.70	<1	
SLB-50B-170P	M	IR1	IR2	$\phi 50$	171.1	3.0	6.6	168.9	176.46	<1	
SLB-50B-200P	M	IR1	IR2	$\phi 50$	201.0	3.0	6.0	199.0	207.60	<1	
SLB-50B-220P	M	IR1	IR2	$\phi 50$	220.9	3.0	5.7	219.1	228.36	<1	
SLB-50B-250P	M	IR1	IR2	$\phi 50$	251.0	3.0	5.4	249.1	259.50	<1	
SLB-50B-300P	M	IR1	IR2	$\phi 50$	300.8	3.0	5.0	299.2	311.40	<1	

Compatible Optic Mounts

LHF-25S, -25.4S, -30S, -40S, -50S

Biconvex Lenses | SLB-B-P/SLSQ-B-P

Catalog Code **W3057**

BK7 $\phi 50.8 - \phi 100$											
Application Systems	Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
	Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm							
Optics & Optical Coatings	SLB-50.8B-50P	M	IR1	IR2	$\phi 50.8$	52.7	3.0	16.3	47.1	51.90	<1
	SLB-50.8B-60P	M	IR1	IR2	$\phi 50.8$	62.3	3.0	13.8	57.7	62.28	<1
	SLB-50.8B-70P	M	IR1	IR2	$\phi 50.8$	72.0	3.0	12.2	68.0	72.66	<1
Holders	SLB-50.8B-80P	M	IR1	IR2	$\phi 50.8$	81.8	3.0	11.0	78.2	83.04	<1
	SLB-50.8B-90P	M	IR1	IR2	$\phi 50.8$	91.6	2.8	9.8	88.3	93.42	<1
	SLB-50.8B-100P	M	IR1	IR2	$\phi 50.8$	101.5	3.0	9.3	98.5	103.80	<1
Bases	SLB-50.8B-120P	M	IR1	IR2	$\phi 50.8$	121.3	2.8	8.0	118.6	124.56	<1
	SLB-50.8B-150P	M	IR1	IR2	$\phi 50.8$	151.2	2.8	7.0	148.9	155.70	<1
	SLB-50.8B-170P	M	IR1	IR2	$\phi 50.8$	171.1	2.4	6.1	169.0	176.46	<1
Manual Stages	SLB-50.8B-200P	M	IR1	IR2	$\phi 50.8$	201.0	2.9	6.0	199.0	207.60	<1
	SLB-50.8B-250P	M	IR1	IR2	$\phi 50.8$	251.0	2.9	5.4	249.1	259.50	<1
	SLB-50.8B-300P	M	IR1	IR2	$\phi 50.8$	300.8	2.9	5.0	299.1	311.40	<1
Actuators	SLB-60B-60P	M	IR1	IR2	$\phi 60$	63.2	3.0	18.4	56.8	62.28	<1
	SLB-60B-70P	M	IR1	IR2	$\phi 60$	72.7	3.0	16.0	67.3	72.66	<1
	SLB-60B-80P	M	IR1	IR2	$\phi 60$	82.4	3.0	14.2	77.6	83.04	<1
Motorized Stages	SLB-60B-90P	M	IR1	IR2	$\phi 60$	92.2	3.0	13.0	87.8	93.42	<1
	SLB-60B-100P	M	IR1	IR2	$\phi 60$	102.0	3.0	11.9	98.0	103.80	<1
	SLB-60B-120P	M	IR1	IR2	$\phi 60$	121.7	3.0	10.3	118.3	124.56	<1
Light Sources	SLB-60B-150P	M	IR1	IR2	$\phi 60$	151.5	3.0	8.8	148.5	155.70	<1
	SLB-60B-170P	M	IR1	IR2	$\phi 60$	171.4	3.0	8.1	168.7	176.46	<1
	SLB-60B-200P	M	IR1	IR2	$\phi 60$	201.2	3.0	7.4	198.8	207.60	<1
Index	SLB-60B-250P	M	IR1	IR2	$\phi 60$	251.1	3.0	6.5	248.9	259.50	<1
	SLB-60B-300P	M	IR1	IR2	$\phi 60$	301.0	3.0	5.9	299.0	311.40	<1
	SLB-80B-100P	M	IR1	IR2	$\phi 80$	103.2	3.0	19.0	96.8	103.80	<1
Guide	SLB-80B-150P	M	IR1	IR2	$\phi 80$	152.2	3.0	13.5	147.8	155.70	<1
	SLB-80B-200P	M	IR1	IR2	$\phi 80$	201.8	3.0	10.8	198.2	207.60	<1
	SLB-80B-250P	M	IR1	IR2	$\phi 80$	251.5	3.0	9.2	248.5	259.50	<1
Mirrors	SLB-80B-300P	M	IR1	IR2	$\phi 80$	301.3	3.0	8.2	298.7	311.40	<1
	SLB-80B-400P	M	IR1	IR2	$\phi 80$	401.1	3.0	6.9	398.9	415.20	<1
	SLB-80B-500P	M	IR1	IR2	$\phi 80$	501.0	3.0	6.1	499.0	519.00	<1
Beamsplitters	SLB-80B-700P	M	IR1	IR2	$\phi 80$	700.9	3.0	5.2	699.1	726.60	<1
	SLB-80B-1000P	M	IR1	IR2	$\phi 80$	1000.7	3.0	4.5	999.3	1038.00	<1
	SLB-100B-150P	M	IR1	IR2	$\phi 100$	153.3	3.0	19.5	146.7	155.70	<1
Lenses	SLB-100B-200P	M	IR1	IR2	$\phi 100$	202.5	3.0	15.2	197.5	207.60	<1
	SLB-100B-250P	M	IR1	IR2	$\phi 100$	252.1	3.0	12.7	247.9	259.50	<1
	SLB-100B-300P	M	IR1	IR2	$\phi 100$	301.8	3.0	11.1	298.2	311.40	<1
Multi-Element Optics	SLB-100B-400P	M	IR1	IR2	$\phi 100$	401.5	3.0	9.0	398.5	415.20	<1
	SLB-100B-500P	M	IR1	IR2	$\phi 100$	501.3	3.0	7.8	498.7	519.00	<1
	SLB-100B-700P	M	IR1	IR2	$\phi 100$	701.1	3.0	6.4	698.9	726.60	<1
Filters	SLB-100B-1000P	M	IR1	IR2	$\phi 100$	1001.0	3.0	5.4	999.1	1038.00	<1
	SLB-100B-150P	M	IR1	IR2	$\phi 100$	153.3	3.0	19.5	146.7	155.70	<1
	SLB-100B-200P	M	IR1	IR2	$\phi 100$	202.5	3.0	15.2	197.5	207.60	<1
Prisms	SLB-100B-250P	M	IR1	IR2	$\phi 100$	252.1	3.0	12.7	247.9	259.50	<1
	SLB-100B-300P	M	IR1	IR2	$\phi 100$	301.8	3.0	11.1	298.2	311.40	<1
	SLB-100B-400P	M	IR1	IR2	$\phi 100$	401.5	3.0	9.0	398.5	415.20	<1
Substrates/Windows	SLB-100B-500P	M	IR1	IR2	$\phi 100$	501.3	3.0	7.8	498.7	519.00	<1
	SLB-100B-700P	M	IR1	IR2	$\phi 100$	701.1	3.0	6.4	698.9	726.60	<1
	SLB-100B-1000P	M	IR1	IR2	$\phi 100$	1001.0	3.0	5.4	999.1	1038.00	<1

Catalog Code **W3058**

Synthetic fused silica $\phi 5 - \phi 6$							
Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQ-05B-06P	$\phi 5$	6.5	1.6	2.8	5.5	5.52	<3
SLSQ-05B-08P	$\phi 5$	8.4	1.4	2.3	7.6	7.36	<3
SLSQ-05B-10P	$\phi 5$	10.4	1.3	2.0	9.6	9.20	<3
SLSQ-05B-12P	$\phi 5$	12.3	1.3	1.8	11.7	11.04	<3
SLSQ-05B-15P	$\phi 5$	15.3	1.2	1.7	14.7	13.80	<3
SLSQ-05B-20P	$\phi 5$	20.3	1.2	1.5	19.7	18.40	<3
SLSQ-05B-25P	$\phi 5$	25.2	1.1	1.4	24.8	23.00	<3
SLSQ-05B-30P	$\phi 5$	30.2	1.1	1.3	29.8	27.60	<3
SLSQ-06B-06P	$\phi 6$	6.5	1.0	2.8	5.5	5.52	<3
SLSQ-06B-08P	$\phi 6$	8.4	1.0	2.3	7.6	7.36	<3
SLSQ-06B-10P	$\phi 6$	10.4	1.0	2.0	9.6	9.20	<3
SLSQ-06B-12P	$\phi 6$	12.3	1.0	1.8	11.7	11.04	<3
SLSQ-06B-15P	$\phi 6$	15.3	1.0	1.7	14.7	13.80	<3
SLSQ-06B-20P	$\phi 6$	20.3	1.0	1.5	19.7	18.40	<3
SLSQ-06B-25P	$\phi 6$	25.2	1.0	1.4	24.8	23.00	<3
SLSQ-06B-30P	$\phi 6$	30.2	1.0	1.3	29.8	27.60	<3

Compatible Optic Mounts

LHF-50.8S, -60S, -80, -100 / MLH-10, -15



Synthetic fused silica $\phi 7 - \phi 25$

Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQ-07B-08P	$\phi 7$	8.7	2.1	3.9	7.3	7.36	<3
SLSQ-07B-10P	$\phi 7$	10.6	1.9	3.3	9.4	9.20	<3
SLSQ-07B-12P	$\phi 7$	12.5	1.9	3.0	11.5	11.04	<3
SLSQ-07B-15P	$\phi 7$	15.5	1.8	2.7	14.5	13.80	<3
SLSQ-07B-20P	$\phi 7$	20.4	1.7	2.4	19.6	18.40	<3
SLSQ-07B-25P	$\phi 7$	25.4	1.7	2.2	24.6	23.00	<3
SLSQ-07B-30P	$\phi 7$	30.4	1.6	2.1	29.6	27.60	<3
SLSQ-07B-40P	$\phi 7$	40.3	1.6	1.9	39.7	36.80	<3
SLSQ-07B-50P	$\phi 7$	50.3	1.6	1.8	49.7	46.00	<3
SLSQ-08B-08P	$\phi 8$	8.7	1.5	3.9	7.3	7.36	<3
SLSQ-08B-10P	$\phi 8$	10.6	1.5	3.3	9.4	9.20	<3
SLSQ-08B-12P	$\phi 8$	12.5	1.5	3.0	11.5	11.04	<3
SLSQ-08B-15P	$\phi 8$	15.5	1.5	2.7	14.5	13.80	<3
SLSQ-08B-20P	$\phi 8$	20.4	1.5	2.4	19.6	18.40	<3
SLSQ-08B-25P	$\phi 8$	25.4	1.5	2.2	24.6	23.00	<3
SLSQ-08B-30P	$\phi 8$	30.4	1.5	2.1	29.6	27.60	<3
SLSQ-08B-40P	$\phi 8$	40.3	1.5	1.9	39.7	36.80	<3
SLSQ-08B-50P	$\phi 8$	50.3	1.5	1.8	49.7	46.00	<3
SLSQ-10B-10P	$\phi 10$	10.9	2.0	5.0	9.1	9.20	<1
SLSQ-10B-15P	$\phi 10$	15.7	2.0	3.9	14.3	13.80	<1
SLSQ-10B-20P	$\phi 10$	20.6	2.0	3.4	19.4	18.40	<1
SLSQ-10B-25P	$\phi 10$	25.5	2.0	3.1	24.5	23.00	<1
SLSQ-10B-30P	$\phi 10$	30.5	2.0	2.9	29.5	27.60	<1
SLSQ-10B-40P	$\phi 10$	40.5	2.0	2.7	39.5	36.80	<1
SLSQ-10B-50P	$\phi 10$	50.4	2.0	2.5	49.6	46.00	<1
SLSQ-10B-60P	$\phi 10$	60.4	2.0	2.5	59.6	55.20	<1
SLSQ-10B-70P	$\phi 10$	70.4	2.0	2.4	69.6	64.40	<1
SLSQ-10B-80P	$\phi 10$	80.4	2.0	2.3	79.6	73.60	<1
SLSQ-10B-90P	$\phi 10$	90.4	2.0	2.3	89.6	82.80	<1
SLSQ-10B-100P	$\phi 10$	100.4	2.0	2.3	99.6	92.00	<1
SLSQ-15B-15P	$\phi 15$	16.2	2.0	6.4	13.8	13.80	<1
SLSQ-15B-20P	$\phi 15$	20.9	2.0	5.2	19.1	18.40	<1
SLSQ-15B-25P	$\phi 15$	25.8	2.0	4.5	24.2	23.00	<1
SLSQ-15B-30P	$\phi 15$	30.7	2.0	4.1	29.3	27.60	<1
SLSQ-15B-40P	$\phi 15$	40.6	2.0	3.5	39.4	36.80	<1
SLSQ-15B-50P	$\phi 15$	50.6	2.0	3.2	49.4	46.00	<1
SLSQ-15B-60P	$\phi 15$	60.5	2.0	3.0	59.5	55.20	<1
SLSQ-15B-70P	$\phi 15$	70.5	2.0	2.9	69.5	64.40	<1
SLSQ-15B-80P	$\phi 15$	80.5	2.0	2.8	79.5	73.60	<1
SLSQ-15B-90P	$\phi 15$	90.5	2.0	2.7	89.5	82.80	<1
SLSQ-15B-100P	$\phi 15$	100.5	2.0	2.6	99.6	92.00	<1
SLSQ-20B-20P	$\phi 20$	21.5	2.0	7.9	18.5	18.40	<1
SLSQ-20B-25P	$\phi 20$	26.2	2.0	6.6	23.8	23.00	<1
SLSQ-20B-30P	$\phi 20$	31.0	2.0	5.8	29.0	27.60	<1
SLSQ-20B-40P	$\phi 20$	40.8	2.0	4.8	39.2	36.80	<1
SLSQ-20B-50P	$\phi 20$	50.7	2.0	4.2	49.3	46.00	<1
SLSQ-20B-60P	$\phi 20$	60.7	2.0	3.8	59.3	55.20	<1
SLSQ-20B-70P	$\phi 20$	70.6	2.0	3.6	69.4	64.40	<1
SLSQ-20B-80P	$\phi 20$	80.6	2.0	3.4	79.4	73.60	<1
SLSQ-20B-90P	$\phi 20$	90.6	2.0	3.2	89.4	82.80	<1
SLSQ-20B-100P	$\phi 20$	100.5	2.0	3.1	99.5	92.00	<1
SLSQ-20B-120P	$\phi 20$	120.5	2.0	2.9	119.5	110.40	<1
SLSQ-20B-150P	$\phi 20$	150.5	2.0	2.7	149.5	138.00	<1
SLSQ-25B-25P	$\phi 25$	26.7	2.0	9.4	23.3	23.00	<1
SLSQ-25B-30P	$\phi 25$	31.4	2.0	8.0	28.6	27.60	<1
SLSQ-25B-35P	$\phi 25$	36.3	2.0	7.1	33.7	32.20	<1
SLSQ-25B-40P	$\phi 25$	41.1	2.0	6.4	38.9	36.80	<1
SLSQ-25B-50P	$\phi 25$	51.0	2.0	5.5	49.0	46.00	<1
SLSQ-25B-60P	$\phi 25$	60.8	2.0	4.9	59.2	55.20	<1
SLSQ-25B-70P	$\phi 25$	70.8	2.0	4.5	69.2	64.40	<1
SLSQ-25B-80P	$\phi 25$	80.7	2.0	4.1	79.3	73.60	<1
SLSQ-25B-90P	$\phi 25$	90.7	2.0	3.9	89.3	82.80	<1
SLSQ-25B-100P	$\phi 25$	100.6	2.0	3.7	99.4	92.00	<1
SLSQ-25B-120P	$\phi 25$	120.6	2.0	3.4	119.4	110.40	<1
SLSQ-25B-150P	$\phi 25$	150.5	2.0	3.1	149.5	138.00	<1
SLSQ-25B-170P	$\phi 25$	170.5	2.0	3.0	169.5	156.40	<1
SLSQ-25B-200P	$\phi 25$	200.5	2.0	2.9	199.5	184.00	<1

Compatible Optic Mounts

LHF-10S, -15S, -20S, -25S / MLH-10, -15

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Biconvex Lenses | SLB-B-P/SLSQ-B-P

Catalog Code W3059

Synthetic fused silica $\phi 25.4 - \phi 50.8$

Application Systems	Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
Optics & Optical Coatings	SLSQ-25.4B-25P	$\phi 25.4$	26.7	1.8	9.4	23.3	23.00	<1
	SLSQ-25.4B-30P	$\phi 25.4$	31.4	1.8	8.0	28.5	27.60	<1
	SLSQ-25.4B-35P	$\phi 25.4$	36.3	1.9	7.1	33.8	32.20	<1
Holders	SLSQ-25.4B-40P	$\phi 25.4$	41.1	1.9	6.4	38.8	36.80	<1
	SLSQ-25.4B-50P	$\phi 25.4$	51.0	1.9	5.5	49.1	46.00	<1
	SLSQ-25.4B-60P	$\phi 25.4$	60.9	1.9	4.9	59.0	55.20	<1
	SLSQ-25.4B-70P	$\phi 25.4$	70.8	1.9	4.4	69.1	64.40	<1
Bases	SLSQ-25.4B-80P	$\phi 25.4$	80.7	1.9	4.1	79.1	73.60	<1
	SLSQ-25.4B-90P	$\phi 25.4$	90.7	1.9	3.9	89.2	82.80	<1
	SLSQ-25.4B-100P	$\phi 25.4$	100.6	1.9	3.7	99.2	92.00	<1
Manual Stages	SLSQ-25.4B-150P	$\phi 25.4$	150.5	1.9	3.1	149.3	138.00	<1
	SLSQ-25.4B-200P	$\phi 25.4$	200.5	2.0	2.9	199.4	184.00	<1
	SLSQ-30B-30P	$\phi 30$	32.0	2.0	10.9	28.0	27.60	<1
Actuators	SLSQ-30B-35P	$\phi 30$	36.7	2.0	9.4	33.3	32.20	<1
	SLSQ-30B-40P	$\phi 30$	41.5	2.0	8.4	38.5	36.80	<1
	SLSQ-30B-50P	$\phi 30$	51.2	2.0	7.0	48.8	46.00	<1
Motorized Stages	SLSQ-30B-60P	$\phi 30$	61.1	2.0	6.2	58.9	55.20	<1
	SLSQ-30B-70P	$\phi 30$	71.0	2.0	5.5	69.0	64.40	<1
	SLSQ-30B-80P	$\phi 30$	80.9	2.0	5.1	79.1	73.60	<1
Light Sources	SLSQ-30B-90P	$\phi 30$	90.8	2.0	4.7	89.2	82.80	<1
	SLSQ-30B-100P	$\phi 30$	100.8	2.0	4.5	99.2	92.00	<1
	SLSQ-30B-120P	$\phi 30$	120.7	2.0	4.0	119.3	110.40	<1
Index	SLSQ-30B-150P	$\phi 30$	150.6	2.0	3.6	149.4	138.00	<1
	SLSQ-30B-170P	$\phi 30$	170.6	2.0	3.4	169.4	156.40	<1
	SLSQ-30B-200P	$\phi 30$	200.6	2.0	3.2	199.4	184.00	<1
Guide	SLSQ-30B-220P	$\phi 30$	220.5	2.0	3.1	219.5	202.40	<1
	SLSQ-30B-250P	$\phi 30$	250.5	2.0	3.0	249.5	230.00	<1
	SLSQ-40B-40P	$\phi 40$	42.5	2.0	13.8	37.5	36.80	<1
Mirrors	SLSQ-40B-50P	$\phi 40$	52.0	2.0	11.2	48.0	46.00	<1
	SLSQ-40B-60P	$\phi 40$	61.7	2.0	9.5	58.3	55.20	<1
Beamsplitters	SLSQ-40B-70P	$\phi 40$	71.5	2.0	8.4	68.5	64.40	<1
	SLSQ-40B-80P	$\phi 40$	81.3	2.0	7.5	78.7	73.60	<1
Polarizers	SLSQ-40B-90P	$\phi 40$	91.2	2.0	6.9	88.8	82.80	<1
	SLSQ-40B-100P	$\phi 40$	101.1	2.0	6.4	98.9	92.00	<1
Lenses	SLSQ-40B-120P	$\phi 40$	121.0	2.0	5.7	119.0	110.40	<1
	SLSQ-40B-150P	$\phi 40$	150.8	2.0	4.9	149.2	138.00	<1
	SLSQ-40B-170P	$\phi 40$	170.8	2.0	4.6	169.2	156.40	<1
Multi-Element Optics	SLSQ-40B-200P	$\phi 40$	200.7	2.0	4.2	199.3	184.00	<1
	SLSQ-40B-220P	$\phi 40$	220.7	2.0	4.0	219.3	202.40	<1
	SLSQ-40B-250P	$\phi 40$	250.6	2.0	3.7	249.4	230.00	<1
Filters	SLSQ-50B-50P	$\phi 50$	53.2	3.0	17.8	46.8	46.00	<1
	SLSQ-50B-60P	$\phi 50$	62.7	3.0	15.0	57.3	55.20	<1
	SLSQ-50B-70P	$\phi 50$	72.3	3.0	13.1	67.7	64.40	<1
Prisms	SLSQ-50B-80P	$\phi 50$	82.1	3.0	11.8	77.9	73.60	<1
	SLSQ-50B-90P	$\phi 50$	91.9	3.0	10.7	88.1	82.80	<1
	SLSQ-50B-100P	$\phi 50$	101.7	3.0	9.9	98.3	92.00	<1
Substrates/Windows	SLSQ-50B-120P	$\phi 50$	121.5	3.0	8.7	118.5	110.40	<1
	SLSQ-50B-150P	$\phi 50$	151.3	3.0	7.6	148.7	138.00	<1
	SLSQ-50B-170P	$\phi 50$	171.2	3.0	7.0	168.8	156.40	<1
Optical Data	SLSQ-50B-200P	$\phi 50$	201.1	3.0	6.4	198.9	184.00	<1
	SLSQ-50B-220P	$\phi 50$	221.0	3.0	6.1	219.0	202.40	<1
	SLSQ-50B-250P	$\phi 50$	251.0	3.0	5.7	249.0	230.00	<1
Maintenance	SLSQ-50B-300P	$\phi 50$	300.9	3.0	5.3	299.1	276.00	<1
	SLSQ-50.8B-50P	$\phi 50.8$	53.2	2.5	17.8	46.7	46.00	<1
	SLSQ-50.8B-60P	$\phi 50.8$	62.7	2.6	15.0	57.3	55.20	<1
Selection Guide	SLSQ-50.8B-70P	$\phi 50.8$	72.3	2.7	13.1	67.7	64.40	<1
	SLSQ-50.8B-80P	$\phi 50.8$	82.1	2.8	11.8	78.0	73.60	<1
	SLSQ-50.8B-90P	$\phi 50.8$	91.9	2.7	10.7	87.7	82.80	<1
Plano Convex Lenses	SLSQ-50.8B-100P	$\phi 50.8$	101.7	2.7	9.9	98.3	92.00	<1
	SLSQ-50.8B-120P	$\phi 50.8$	121.5	2.8	8.7	118.5	110.40	<1
	SLSQ-50.8B-150P	$\phi 50.8$	151.3	2.9	7.6	148.7	138.00	<1
Plano Concave Lenses	SLSQ-50.8B-200P	$\phi 50.8$	201.1	2.9	6.4	198.9	184.00	<1
	SLSQ-50.8B-250P	$\phi 50.8$	251.0	3.0	5.8	249.0	230.00	<1
	SLSQ-50.8B-300P	$\phi 50.8$	300.9	3.0	5.3	298.8	276.00	<1
Biconvex Lenses	SLSQ-50.8B-50P	$\phi 50.8$	53.2	2.5	17.8	46.7	46.00	<1
	SLSQ-50.8B-60P	$\phi 50.8$	62.7	2.6	15.0	57.3	55.20	<1
	SLSQ-50.8B-70P	$\phi 50.8$	72.3	2.7	13.1	67.7	64.40	<1
Biconcave Lenses	SLSQ-50.8B-80P	$\phi 50.8$	82.1	2.8	11.8	78.0	73.60	<1
	SLSQ-50.8B-90P	$\phi 50.8$	91.9	2.7	10.7	87.7	82.80	<1
	SLSQ-50.8B-100P	$\phi 50.8$	101.7	2.7	9.9	98.3	92.00	<1
Kit	SLSQ-50.8B-120P	$\phi 50.8$	121.5	2.8	8.7	118.5	110.40	<1
	SLSQ-50.8B-150P	$\phi 50.8$	151.3	2.9	7.6	148.7	138.00	<1
	SLSQ-50.8B-200P	$\phi 50.8$	201.1	2.9	6.4	198.9	184.00	<1
Reasonable Lens	SLSQ-50.8B-250P	$\phi 50.8$	251.0	3.0	5.8	249.0	230.00	<1
	SLSQ-50.8B-300P	$\phi 50.8$	300.9	3.0	5.3	298.8	276.00	<1
	SLSQ-50.8B-400P	$\phi 50.8$	400.8	3.0	5.0	400.0	400.00	<1
Cylindrical	SLSQ-50.8B-50P	$\phi 50.8$	53.2	2.5	17.8	46.7	46.00	<1
	SLSQ-50.8B-60P	$\phi 50.8$	62.7	2.6	15.0	57.3	55.20	<1
	SLSQ-50.8B-70P	$\phi 50.8$	72.3	2.7	13.1	67.7	64.40	<1
Others	SLSQ-50.8B-80P	$\phi 50.8$	82.1	2.8	11.8	78.0	73.60	<1
	SLSQ-50.8B-90P	$\phi 50.8$	91.9	2.7	10.7	87.7	82.80	<1
	SLSQ-50.8B-100P	$\phi 50.8$	101.7	2.7	9.9	98.3	92.00	<1

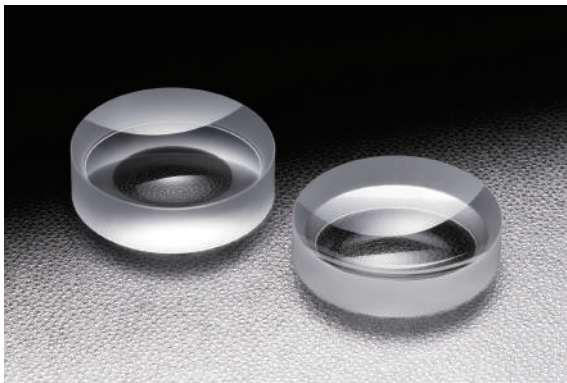
Compatible Optic Mounts

LHF-25.4S, -30S, -40S, -50S, -50.8S

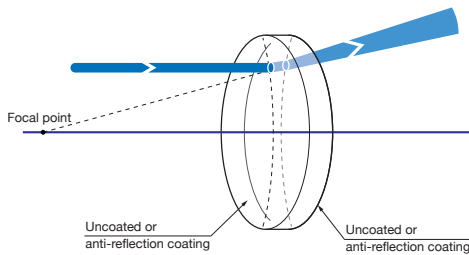
With its two concaves surface, the biconcave lens refracts light efficiently in a small space and spread widely the light.

Possible to use it for enlarging the illumination area.

- There are two types available; BK7 for from visible range to infrared wavelength range, high-strength synthetic fused silica which has high laser damage threshold used in less than 350nm ultraviolet light.
- Made of BK7 lenses are also available with three types of anti-reflection coating in the infrared wavelength, near-infrared wavelength and visible wavelength.
- From among the wide variations that have been subdivided in outside diameter and focal length, you can make selection according to your specifications.

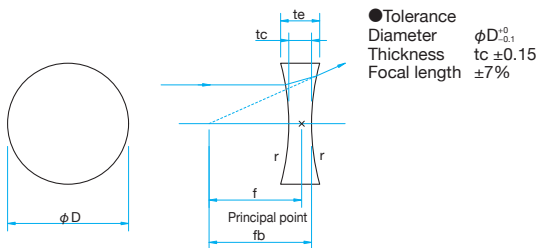


Schematic



Outline Drawing

(in mm)



Specifications

Material	SLB: BK7 SLSQ: Synthetic fused silica
Design wavelength	546.1nm
Refractive index	BK7: $n_d=1.519$ Synthetic fused silica: $n_d=1.460$
Coating	Uncoated: the end of the part number 'N' Anti-reflection coating: the end of the part number 'NM', 'NIR1', 'NIR2'
Laser Damage Threshold	Anti-reflection coating: $4\text{J}/\text{cm}^2$ Laser pulse with 10ns, repetition frequency 20Hz
Clear aperture	90% of actual aperture: Uncoated 85% of actual aperture: with coating
Surface Quality (Scratch-Dig)	20-10

Guide

- ▶ It is available other than the products which listed in the catalog such as focal length and outer diameter size.
- ▶ Production is also available with a specific wavelength of anti-reflective coating on the lens of no coated.

Attention

- ▶ In the single concave lens will not be able to converge the light and can not be projected image. Make sure to use it in combination with a convex lens.
- ▶ The biconvex spherical lens has a chromatic aberration, and the focal length will vary depending on the wavelength. Please check the "wavelength characteristic of the focal length data" on the Web for the focal lengths of each wavelength. [▶ WEB Reference Catalog Code W3060](#)
- ▶ When using a high power pulsed laser, the spark may occur at the focal point on the optical path connecting the light reflected by the concave surface. Please use the plano-concave lens when used with a pulsed laser.
- ▶ Losses due to reflection of the front and rear surfaces of the lens, the transmittance of no coated is about 90%.
- ▶ The outer periphery of the ridge, concave side is chamfered. There is a possibility that it is smaller than the edge thickness for this design.

How to specify the anti-reflection coating

In case of specifying a anti-reflection coating 633nm – 1064nm to near infrared lens of SLB-50.8B-200N.

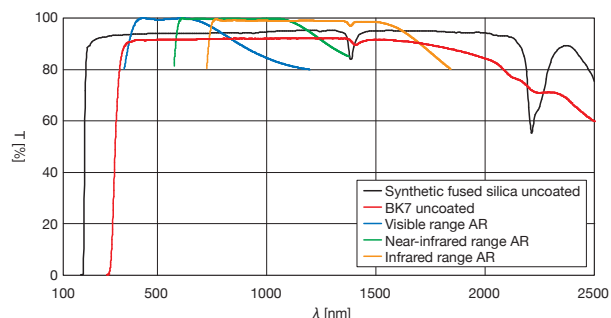
⇒ SLB-50.8B-200NIR1

Type of AR Coat	Part Number	Wavelength Range [nm]	Transmittance [%]
Visible range	SLB-50.8B-200NM	400 – 700	> Average 99
Near-infrared	SLB-50.8B-200NIR1	633 – 1064	> Average 98.5
Infrared	SLB-50.8B-200NIR2	750 – 1550	> Average 98.5

! Part of the above is an example of if you want to coat anti-reflective coating on the lens of the SLB-50.8B-200N.

! Anti-reflection coating can be available to the lens of all of SLB.

Typical Transmittance Data T: Transmission



Biconcave Lenses

SLB-B-N/SLSQ-B-N

Catalog Code **W3060**

BK7 $\phi 10 - \phi 50.8$											
Application Systems	Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
	Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm							
Optics & Optical Coatings	SLB-10B-10N	M	IR1	IR2	$\phi 10$	-9.7	4.6	2.0	-10.3	10.38	<1
	SLB-10B-15N	M	IR1	IR2	$\phi 10$	-14.7	3.6	2.0	-15.3	15.57	<1
	SLB-10B-20N	M	IR1	IR2	$\phi 10$	-19.7	3.2	2.0	-20.3	20.76	<1
Holders	SLB-10B-25N	M	IR1	IR2	$\phi 10$	-24.7	3.0	2.0	-25.3	25.95	<1
	SLB-10B-30N	M	IR1	IR2	$\phi 10$	-29.7	2.8	2.0	-30.3	31.14	<1
	SLB-10B-40N	M	IR1	IR2	$\phi 10$	-39.7	2.6	2.0	-40.3	41.52	<1
	SLB-10B-50N	M	IR1	IR2	$\phi 10$	-49.7	2.5	2.0	-50.3	51.90	<1
Bases	SLB-12.7B-10N	M	IR1	IR2	$\phi 12.7$	-9.7	6.3	2.0	-10.3	10.8	<1
	SLB-12.7B-15N	M	IR1	IR2	$\phi 12.7$	-14.7	4.7	2.0	-15.3	15.57	<1
	SLB-12.7B-20N	M	IR1	IR2	$\phi 12.7$	-19.7	4.0	2.0	-20.3	20.76	<1
Manual Stages	SLB-12.7B-25N	M	IR1	IR2	$\phi 12.7$	-24.7	3.6	2.0	-25.3	25.95	<1
	SLB-15B-15N	M	IR1	IR2	$\phi 15$	-14.7	5.9	2.0	-15.3	15.57	<1
Actuators	SLB-15B-20N	M	IR1	IR2	$\phi 15$	-19.7	4.8	2.0	-20.3	20.76	<1
	SLB-15B-25N	M	IR1	IR2	$\phi 15$	-24.7	4.2	2.0	-25.3	25.95	<1
Motorized Stages	SLB-15B-30N	M	IR1	IR2	$\phi 15$	-29.7	3.8	2.0	-30.3	31.14	<1
	SLB-15B-40N	M	IR1	IR2	$\phi 15$	-39.7	3.4	2.0	-40.3	41.52	<1
	SLB-15B-50N	M	IR1	IR2	$\phi 15$	-49.7	3.1	2.0	-50.3	51.90	<1
Light Sources	SLB-20B-20N	M	IR1	IR2	$\phi 20$	-19.7	7.1	2.0	-20.3	20.76	<1
	SLB-20B-25N	M	IR1	IR2	$\phi 20$	-24.7	6.0	2.0	-25.3	25.95	<1
	SLB-20B-30N	M	IR1	IR2	$\phi 20$	-29.7	5.3	2.0	-30.3	31.14	<1
	SLB-20B-40N	M	IR1	IR2	$\phi 20$	-39.7	4.4	2.0	-40.3	41.52	<1
Index	SLB-20B-50N	M	IR1	IR2	$\phi 20$	-49.7	3.9	2.0	-50.3	51.90	<1
	SLB-25B-25N	M	IR1	IR2	$\phi 25$	-24.7	8.4	2.0	-25.3	25.95	<1
Guide	SLB-25B-30N	M	IR1	IR2	$\phi 25$	-29.7	7.2	2.0	-30.3	31.14	<1
	SLB-25B-35N	M	IR1	IR2	$\phi 25$	-34.7	6.4	2.0	-35.3	36.33	<1
	SLB-25B-40N	M	IR1	IR2	$\phi 25$	-39.7	5.9	2.0	-40.3	41.52	<1
Mirrors	SLB-25B-50N	M	IR1	IR2	$\phi 25$	-49.7	5.1	2.0	-50.3	51.90	<1
	SLB-25B-60N	M	IR1	IR2	$\phi 25$	-59.7	4.5	2.0	-60.3	62.28	<1
Beamsplitters	SLB-25B-70N	M	IR1	IR2	$\phi 25$	-69.7	4.2	2.0	-70.3	72.66	<1
	SLB-25B-80N	M	IR1	IR2	$\phi 25$	-79.7	4.0	2.0	-80.3	83.04	<1
Polarizers	SLB-25B-100N	M	IR1	IR2	$\phi 25$	-99.7	3.5	2.0	-100.3	103.80	<1
	SLB-25.4B-25N	M	IR1	IR2	$\phi 25.4$	-24.7	8.6	2.0	-25.4	25.95	<1
Lenses	SLB-25.4B-30N	M	IR1	IR2	$\phi 25.4$	-29.7	7.4	2.0	-30.4	31.14	<1
	SLB-25.4B-40N	M	IR1	IR2	$\phi 25.4$	-39.7	6.0	2.0	-40.4	41.52	<1
	SLB-25.4B-50N	M	IR1	IR2	$\phi 25.4$	-49.7	5.2	2.0	-50.4	51.90	<1
Multi-Element Optics	SLB-25.4B-60N	M	IR1	IR2	$\phi 25.4$	-59.7	4.6	2.0	-60.4	62.28	<1
	SLB-25.4B-70N	M	IR1	IR2	$\phi 25.4$	-69.7	4.2	2.0	-70.4	72.66	<1
Filters	SLB-25.4B-80N	M	IR1	IR2	$\phi 25.4$	-79.7	4.0	2.0	-80.4	83.04	<1
	SLB-25.4B-100N	M	IR1	IR2	$\phi 25.4$	-99.7	3.6	2.0	-100.4	103.80	<1
Prisms	SLB-25.4B-150N	M	IR1	IR2	$\phi 25.4$	-149.7	3.0	2.0	-150.4	155.70	<1
	SLB-25.4B-200N	M	IR1	IR2	$\phi 25.4$	-199.7	2.8	2.0	-200.4	207.60	<1
Substrates/Windows	SLB-30B-30N	M	IR1	IR2	$\phi 30$	-29.7	9.7	2.0	-30.3	31.14	<1
	SLB-30B-35N	M	IR1	IR2	$\phi 30$	-34.7	8.5	2.0	-35.3	36.33	<1
	SLB-30B-40N	M	IR1	IR2	$\phi 30$	-39.7	7.6	2.0	-40.3	41.52	<1
Optical Data	SLB-30B-50N	M	IR1	IR2	$\phi 30$	-49.7	6.4	2.0	-50.3	51.90	<1
	SLB-30B-100N	M	IR1	IR2	$\phi 30$	-99.7	4.2	2.0	-100.3	103.80	<1
Maintenance	SLB-40B-40N	M	IR1	IR2	$\phi 40$	-39.7	12.3	2.0	-40.3	41.52	<1
	SLB-40B-50N	M	IR1	IR2	$\phi 40$	-49.7	10.0	2.0	-50.3	51.90	<1
	SLB-40B-100N	M	IR1	IR2	$\phi 40$	-99.7	5.9	2.0	-100.3	103.80	<1
Biconvex Lenses	SLB-50B-50N	M	IR1	IR2	$\phi 50$	-49.5	15.8	3.0	-50.5	51.90	<1
	SLB-50B-60N	M	IR1	IR2	$\phi 50$	-59.5	13.5	3.0	-60.5	62.28	<1
Biconcave Lenses	SLB-50B-70N	M	IR1	IR2	$\phi 50$	-69.5	11.9	3.0	-70.5	72.66	<1
	SLB-50B-100N	M	IR1	IR2	$\phi 50$	-99.5	9.1	3.0	-100.5	103.80	<1
	SLB-50.8B-50N	M	IR1	IR2	$\phi 50.8$	-49.5	16.3	3.0	-50.5	51.90	<1
Kit	SLB-50.8B-60N	M	IR1	IR2	$\phi 50.8$	-59.5	13.8	3.0	-60.5	62.28	<1
	SLB-50.8B-100N	M	IR1	IR2	$\phi 50.8$	-99.5	9.3	3.0	-100.5	103.80	<1
Reasonable Lens	SLB-50.8B-150N	M	IR1	IR2	$\phi 50.8$	-149.5	7.2	3.0	-150.5	155.70	<1
	SLB-50.8B-200N	M	IR1	IR2	$\phi 50.8$	-199.5	6.1	3.0	-200.5	207.60	<1
	SLB-50.8B-250N	M	IR1	IR2	$\phi 50.8$	-249.5	5.5	3.0	-250.5	259.50	<1
Cylindrical	SLB-50.8B-300N	M	IR1	IR2	$\phi 50.8$	-299.5	5.1	3.0	-300.5	311.40	<1
	SLB-50.8B-400N	M	IR1	IR2	$\phi 50.8$	-399.5	4.7	3.0	-400.5	415.20	<1
Others	SLB-50.8B-500N	M	IR1	IR2	$\phi 50.8$	-499.5	4.4	3.0	-500.5	519.00	<1
	SLB-50.8B-600N	M	IR1	IR2	$\phi 50.8$	-599.5	4.1	3.0	-600.5	622.80	<1

Compatible Optic Mounts

LHF-10S, -15S, -20S, -25S, -25.4S, -30S, -40S, -50S, -50.8S / MLH-10, -15



Synthetic fused silica $\phi 10 - \phi 50.8$

Part Number	Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]	Centration [']
SLSQ-10B-10N	$\phi 10$	-9.7	5.0	2.0	-10.3	9.20	<1
SLSQ-10B-15N	$\phi 10$	-14.7	3.9	2.0	-15.3	13.80	<1
SLSQ-10B-20N	$\phi 10$	-19.7	3.4	2.0	-20.3	18.40	<1
SLSQ-10B-25N	$\phi 10$	-24.7	3.1	2.0	-25.3	23.00	<1
SLSQ-10B-30N	$\phi 10$	-29.7	2.9	2.0	-30.3	27.60	<1
SLSQ-10B-40N	$\phi 10$	-39.7	2.7	2.0	-40.3	36.80	<1
SLSQ-10B-50N	$\phi 10$	-49.7	2.5	2.0	-50.3	46.00	<1
SLSQ-15B-15N	$\phi 15$	-14.7	6.4	2.0	-15.3	13.80	<1
SLSQ-15B-20N	$\phi 15$	-19.7	5.2	2.0	-20.3	18.40	<1
SLSQ-15B-25N	$\phi 15$	-24.7	4.5	2.0	-25.3	23.00	<1
SLSQ-15B-30N	$\phi 15$	-29.7	4.1	2.0	-30.3	27.60	<1
SLSQ-15B-40N	$\phi 15$	-39.7	3.5	2.0	-40.3	36.80	<1
SLSQ-15B-50N	$\phi 15$	-49.7	3.2	2.0	-50.3	46.00	<1
SLSQ-20B-20N	$\phi 20$	-19.7	7.9	2.0	-20.3	18.40	<1
SLSQ-20B-25N	$\phi 20$	-24.7	6.6	2.0	-25.3	23.00	<1
SLSQ-20B-30N	$\phi 20$	-29.7	5.8	2.0	-30.3	27.60	<1
SLSQ-20B-40N	$\phi 20$	-39.7	4.8	2.0	-40.3	36.80	<1
SLSQ-20B-50N	$\phi 20$	-49.7	4.2	2.0	-50.3	46.00	<1
SLSQ-25B-25N	$\phi 25$	-24.7	9.4	2.0	-25.3	23.00	<1
SLSQ-25B-30N	$\phi 25$	-29.7	8.0	2.0	-30.3	27.60	<1
SLSQ-25B-35N	$\phi 25$	-34.7	7.1	2.0	-35.3	32.20	<1
SLSQ-25B-40N	$\phi 25$	-39.7	6.4	2.0	-40.3	36.80	<1
SLSQ-25B-50N	$\phi 25$	-49.7	5.5	2.0	-50.3	46.00	<1
SLSQ-25B-60N	$\phi 25$	-59.7	4.9	2.0	-60.3	55.20	<1
SLSQ-25B-70N	$\phi 25$	-69.7	4.5	2.0	-70.3	64.40	<1
SLSQ-25B-80N	$\phi 25$	-79.7	4.1	2.0	-80.3	73.60	<1
SLSQ-25B-90N	$\phi 25$	-89.7	3.9	2.0	-90.3	82.80	<1
SLSQ-25B-100N	$\phi 25$	-99.7	3.7	2.0	-100.3	92.00	<1
SLSQ-25.4B-25N	$\phi 25.4$	-24.7	9.6	2.0	-25.4	23.00	<1
SLSQ-25.4B-30N	$\phi 25.4$	-29.7	8.2	2.0	-30.4	27.60	<1
SLSQ-25.4B-40N	$\phi 25.4$	-39.7	6.5	2.0	-40.4	36.80	<1
SLSQ-25.4B-50N	$\phi 25.4$	-49.7	5.6	2.0	-50.4	46.00	<1
SLSQ-25.4B-60N	$\phi 25.4$	-59.7	5.0	2.0	-60.4	55.20	<1
SLSQ-25.4B-70N	$\phi 25.4$	-69.7	4.5	2.0	-70.4	64.40	<1
SLSQ-25.4B-80N	$\phi 25.4$	-79.7	4.2	2.0	-80.4	73.60	<1
SLSQ-25.4B-90N	$\phi 25.4$	-89.7	4.0	2.0	-90.4	82.80	<1
SLSQ-25.4B-100N	$\phi 25.4$	-99.7	3.8	2.0	-100.4	92.00	<1
SLSQ-25.4B-150N	$\phi 25.4$	-149.7	3.2	2.0	-150.4	138.00	<1
SLSQ-25.4B-200N	$\phi 25.4$	-199.7	2.9	2.0	-200.4	184.00	<1
SLSQ-30B-30N	$\phi 30$	-29.7	10.9	2.0	-30.3	27.60	<1
SLSQ-30B-35N	$\phi 30$	-34.7	9.4	2.0	-35.3	32.20	<1
SLSQ-30B-40N	$\phi 30$	-39.7	8.4	2.0	-40.3	36.80	<1
SLSQ-30B-50N	$\phi 30$	-49.7	7.0	2.0	-50.3	46.00	<1
SLSQ-30B-60N	$\phi 30$	-59.7	6.2	2.0	-60.3	55.20	<1
SLSQ-30B-70N	$\phi 30$	-69.7	5.5	2.0	-70.3	64.40	<1
SLSQ-30B-80N	$\phi 30$	-79.7	5.1	2.0	-80.3	73.60	<1
SLSQ-30B-90N	$\phi 30$	-89.7	4.7	2.0	-90.3	82.80	<1
SLSQ-30B-100N	$\phi 30$	-99.7	4.5	2.0	-100.3	92.00	<1
SLSQ-40B-40N	$\phi 40$	-39.7	13.8	2.0	-40.3	36.80	<1
SLSQ-40B-50N	$\phi 40$	-49.7	11.2	2.0	-50.3	46.00	<1
SLSQ-40B-60N	$\phi 40$	-59.7	9.5	2.0	-60.3	55.20	<1
SLSQ-40B-70N	$\phi 40$	-69.7	8.4	2.0	-70.3	64.40	<1
SLSQ-40B-80N	$\phi 40$	-79.7	7.5	2.0	-80.3	73.60	<1
SLSQ-40B-90N	$\phi 40$	-89.7	6.9	2.0	-90.3	82.80	<1
SLSQ-40B-100N	$\phi 40$	-99.7	6.4	2.0	-100.3	92.00	<1
SLSQ-50B-50N	$\phi 50$	-49.5	17.8	3.0	-50.5	46.00	<1
SLSQ-50B-60N	$\phi 50$	-59.5	15.0	3.0	-60.5	55.20	<1
SLSQ-50B-70N	$\phi 50$	-69.5	13.1	3.0	-70.5	64.40	<1
SLSQ-50B-80N	$\phi 50$	-79.5	11.8	3.0	-80.5	73.60	<1
SLSQ-50B-90N	$\phi 50$	-89.5	10.7	3.0	-90.5	82.80	<1
SLSQ-50B-100N	$\phi 50$	-99.5	9.9	3.0	-100.5	92.00	<1
SLSQ-50.8B-50N	$\phi 50.8$	-49.5	18.3	3.0	-50.5	46.00	<1
SLSQ-50.8B-60N	$\phi 50.8$	-59.5	15.4	3.0	-60.5	55.20	<1
SLSQ-50.8B-70N	$\phi 50.8$	-69.5	13.4	3.0	-70.5	64.40	<1
SLSQ-50.8B-80N	$\phi 50.8$	-79.5	12.0	3.0	-80.5	73.60	<1
SLSQ-50.8B-90N	$\phi 50.8$	-89.5	11.0	3.0	-90.5	82.80	<1
SLSQ-50.8B-100N	$\phi 50.8$	-99.5	10.2	3.0	-100.5	92.00	<1
SLSQ-50.8B-150N	$\phi 50.8$	-149.5	7.7	3.0	-150.5	138.00	<1
SLSQ-50.8B-200N	$\phi 50.8$	-199.5	6.5	3.0	-200.5	184.00	<1
SLSQ-50.8B-250N	$\phi 50.8$	-249.5	5.8	3.0	-250.5	230.00	<1
SLSQ-50.8B-300N	$\phi 50.8$	-299.5	5.3	3.0	-300.5	276.00	<1

Compatible Optic Mounts

LHF-10S, -15S, -20S, -25S, -25.4S, -30S, -40S, -50S, -50.8S / MLH-10, -15

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φ25.4 (BK7) Lens Kit | SLB-25.4-SET

RoHS

Catalog Code W3194

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This is a perfect lens kit in all areas from teaching materials to research and development. There is special case for a single lens that is commonly used such as plano convex (9 types), and biconvex, plano concave and biconcave (each 6 types), which are total 27 types. Four kinds of totally 27 lenses commonly used such as plano convex (9 types), and biconvex, plano concave and biconcave (each 6 types), are housed in a special box.

- Outer diameter of the lens has been unified with φ25.4mm.
- Focal length is divided into a wide range of -200 - 1,000 mm.
- Special case is made by wooden box in order for convenient storage.



Specifications

Part Number	SLB-25.4-SET
Material	BK7
Design Wavelength	546.1nm
Refractive Index	$n_e=1.519$
Coating	Uncoated
Clear Aperture	90% of the diameter
Surface Quality (Scratch-Dig)	20-10

Components

Shape of Lenses	Part Number	Diameter φD [mm]	Focal length f [mm]	Thickness of the edge te [mm]	Thickness of the center tc [mm]	Back focal length fb [mm]	Centration [']
Plano Convex Lenses	SLB-25.4-30P	φ25.4	30	1.7	8.3	24.5	<1
	SLB-25.4-50P	φ25.4	50	1.9	5.2	46.6	<1
	SLB-25.4-70P	φ25.4	70	1.9	4.2	67.2	<1
	SLB-25.4-100P	φ25.4	100	1.9	3.5	97.7	<1
	SLB-25.4-150P	φ25.4	150	2.0	3.0	148.0	<1
	SLB-25.4-200P	φ25.4	200	2.0	2.8	198.2	<1
	SLB-25.4-300P	φ25.4	300	2.0	2.5	298.4	<3
	SLB-25.4-500P	φ25.4	500	2.0	2.3	498.4	<3
	SLB-25.4-1000P	φ25.4	1000	2.0	2.2	998.5	<3
Biconvex Lenses	SLB-25.4B-25P	φ25.4	26.5	1.8	8.4	23.6	<1
	SLB-25.4B-50P	φ25.4	50.8	1.9	5.1	49.2	<1
	SLB-25.4B-70P	φ25.4	70.7	1.9	4.1	69.3	<1
	SLB-25.4B-100P	φ25.4	100.6	1.9	3.5	99.4	<1
	SLB-25.4B-150P	φ25.4	150.5	2.0	3.0	149.5	<1
	SLB-25.4B-200P	φ25.4	200.5	2.0	2.8	199.6	<1
Plano Concave Lenses	SLB-25.4-30N	φ25.4	-30	8.6	2.0	-31.3	<1
	SLB-25.4-50N	φ25.4	-50	5.3	2.0	-51.3	<1
	SLB-25.4-70N	φ25.4	-70	4.3	2.0	-71.3	<1
	SLB-25.4-100N	φ25.4	-100	3.6	2.0	-101.3	<1
	SLB-25.4-150N	φ25.4	-150	3.0	2.0	-151.3	<1
	SLB-25.4-200N	φ25.4	-200	2.8	2.0	-201.3	<1
Biconcave Lenses	SLB-25.4B-25N	φ25.4	-24.7	8.6	2.0	-25.4	<1
	SLB-25.4B-50N	φ25.4	-49.7	5.2	2.0	-50.4	<1
	SLB-25.4B-70N	φ25.4	-69.7	4.2	2.0	-70.4	<1
	SLB-25.4B-100N	φ25.4	-99.7	3.6	2.0	-100.4	<1
	SLB-25.4B-150N	φ25.4	-149.7	3.0	2.0	-150.4	<1
	SLB-25.4B-200N	φ25.4	-199.7	2.8	2.0	-200.4	<1

Contact sheet



Contact sheet for Special Order for spherical lens

Estimation Order

Date

To: Sigma Koki Co., Ltd. **FAX +81-3-5638-6550**

Affiliation (Organization Name)						
Department						
TEL		FAX		E-mail		
Country/Address						
Name & Designation		(Tentative name is okay)				
Drawing Number			Estimate	<input type="checkbox"/> Yes: by Date <input type="checkbox"/> No		
Desired Delivery Date			Budget	JP Yen		
Specification of lens	Quantity					
	Selected from standard product	Part Number	If you are using a spherical lens of standard product, please fill in the product number.			
	Custom-made	Shape	<input type="checkbox"/> Plano Convex <input type="checkbox"/> Biconvex <input type="checkbox"/> Plano Concave <input type="checkbox"/> Biconcave <input type="checkbox"/> Meniscus <input type="checkbox"/> Other ()			
		Material	<input type="checkbox"/> BK7 <input type="checkbox"/> Synthetic fused silica <input type="checkbox"/> Synthetic fused silica for Excimer Laser ($\lambda =$)			
		Focal length	f =	mm		●When there is no specification of the design wavelength, 546.1nm and standard products. ●May want to change the center thickness by the case of the production. ●If you do not specify the dimension tolerance, we will apply our standard tolerance instead.
		Diameter	Diameter			
			Center Thickness	tc =		
Design wavelength	$\lambda =$	nm				
Specifications of Coating	Presence or absence of the coating	<input type="checkbox"/> Non <input type="checkbox"/> Single-layer anti-reflection coating <input type="checkbox"/> Broadband multi-layer anti-reflection coating <input type="checkbox"/> Other ()				
	Type of AR (If required)					
Specifications of Light Source Used	Wavelength Range	$\lambda =$	nm		Type	
	Output or Energy	W	J		Beam Size	
		Pulse width	s	Repetition frequency	Hz	
Incident angle	$\theta =$	°				
Other	* Write more detailed specifications here. (Rough illustration is acceptable.)					

Sigma Koki Co., Ltd.

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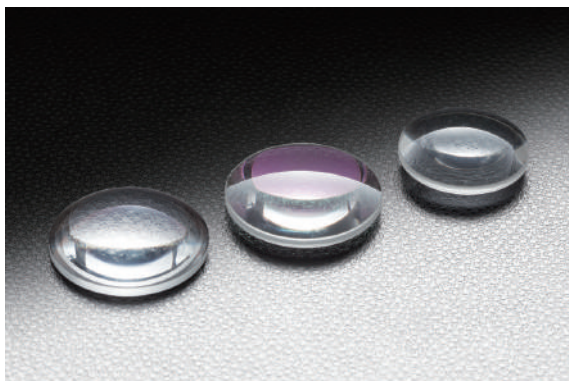
Kit

Reasonable Lenses

Cylindrical

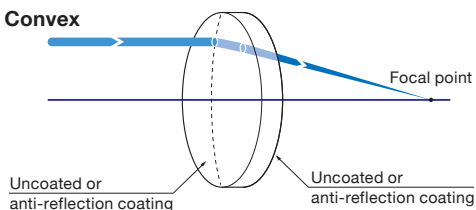
Others

It is the product that was reduced by one rank from the surface quality of Plano Convex Lens (SLB-P). It can be used in an optical system such as observation or lighting applications that high surface quality is not required.

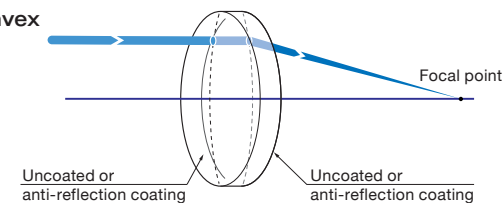


Schematic

Plano Convex



Biconvex



- It has the same specification of Plano Convex Lens (SLB-P) except the surface quality. Unless a laser is used for high-precision experiments, it is recommended.
- There are two types of lens. One is a Plano convex lens with low spherical aberration and the other is a biconvex lens that is possible to shorten the focal length by a large refraction.
- In addition to uncoated products, there are three types of anti-reflection coating for visible, near-infrared, and infrared.

Specifications

Material	BK7
Design Wavelength	546.1nm
Refractive Index	$n_e=1.519$
Centration	<3'
Coating	Uncoated: the end of the part number 'P' Anti-reflection coating: the end of the part number 'PM', 'PIR1', 'PIR2'
Laser Damage Threshold	Anti-reflection coating: 4J/cm ² Laser pulse with 10ns, repetition frequency 20Hz
Clear Aperture	90% of actual aperture: Uncoated 85% of actual aperture: with coating, $\phi 10 \leq D$ 83% of actual aperture: with coating, $D < \phi 10$
Surface Quality (Scratch-Dig)	60-40

Attention

▶ Plano convex lens and biconvex spherical lens have a chromatic aberration, and the focal length will vary depending on the wavelength. Please check the "wavelength characteristic data of the focal length" on the Web for the focal length of each wavelength.

▶ WEB Reference Catalog Code W3041

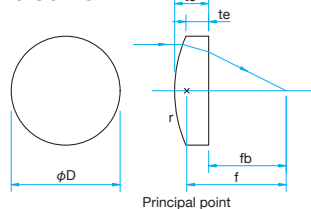
▶ There is a direction to put a light in the Plano convex lens. Please make sure to put the incident parallel light from the convex side. If it is reserved, the spherical aberration increases, the focused spot becomes large and the image looks blurred.

▶ Loss occurs due to the reflection of the front and rear surfaces of the lens, the transmittance of uncoated lens is about 90%.

Outline Drawing

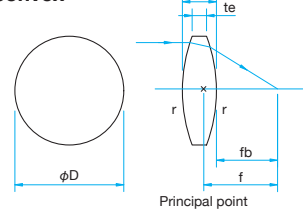
(in mm)

Plano Convex



- Tolerance Diameter
 - φ60 or less $\phi D_{-0.1}^{+0.0}$
 - φ80 $\phi D_{-0.15}^{+0.0}$
 - φ100 $\phi D_{-0.2}^{+0.0}$
- Focal length
 - ($\phi 10 \leq \phi D$) $\pm 1\%$
 - ($\phi D < \phi 10$) $\pm 2\%$
- Thickness
 - tc ± 0.15

Biconvex



- Tolerance Diameter
 - φ60 or less $\phi D_{-0.1}^{+0.0}$
 - φ80 $\phi D_{-0.15}^{+0.0}$
 - φ100 $\phi D_{-0.2}^{+0.0}$
- Focal length
 - ($\phi 10 \leq \phi D$) $\pm 1\%$
 - ($\phi D < \phi 10$) $\pm 2\%$
- Thickness
 - tc ± 0.15

How to specify the anti-reflection coating

In case of specifying an anti-reflection coating 633nm – 1064nm to near infrared lens of S-SLB-100-500P.
⇒ S-SLB-100-500PIR1

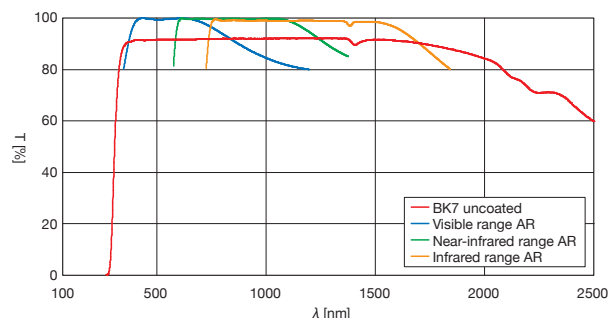
Type of AR Coat	Part Number	Wavelength Range [nm]	Transmittance [%]
Visible range	S-SLB-100-500PM	400 – 700	> Average 99
Near-infrared	S-SLB-100-500PIR1	633 – 1064	> Average 98.5
Infrared	S-SLB-100-500PIR2	750 – 1550	> Average 98.5

! Part of the above is an example of if you want to coat anti-reflection coating on the lens of the S-SLB-100-500P.

! Anti-reflection coating can be available to the lens of all of S-SLB.

Typical Transmittance Data

T: Transmission





Plano Convex Lens $\phi 6 - \phi 25$

Part Number	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]
	Uncoated	Visible 400 - 700nm	Near-infrared 633 - 1064nm						
S-SLB-06-08P	M	IR1	IR2	$\phi 6$	8	1.0	2.3	6.5	4.15
S-SLB-06-10P	M	IR1	IR2	$\phi 6$	10	1.0	2.0	8.7	5.19
S-SLB-07-20P	M	IR1	IR2	$\phi 7$	20	1.7	2.3	18.5	10.38
S-SLB-07-40P	M	IR1	IR2	$\phi 7$	40	1.6	1.9	38.8	20.76
S-SLB-08-10P	M	IR1	IR2	$\phi 8$	10	1.5	3.4	7.8	5.19
S-SLB-08-15P	M	IR1	IR2	$\phi 8$	15	1.5	2.6	13.3	7.79
S-SLB-08-25P	M	IR1	IR2	$\phi 8$	25	1.5	2.1	23.6	12.98
S-SLB-08-40P	M	IR1	IR2	$\phi 8$	40	1.5	1.9	38.8	20.76
S-SLB-10-15P	M	IR1	IR2	$\phi 10$	15	2.0	3.8	12.5	7.79
S-SLB-10-20P	M	IR1	IR2	$\phi 10$	20	2.0	3.3	17.8	10.38
S-SLB-10-25P	M	IR1	IR2	$\phi 10$	25	2.0	3.0	23.0	12.98
S-SLB-10-30P	M	IR1	IR2	$\phi 10$	30	2.0	2.8	28.1	15.57
S-SLB-10-40P	M	IR1	IR2	$\phi 10$	40	2.0	2.6	38.3	20.76
S-SLB-10-50P	M	IR1	IR2	$\phi 10$	50	2.0	2.5	48.4	25.95
S-SLB-10-60P	M	IR1	IR2	$\phi 10$	60	2.0	2.4	58.4	31.14
S-SLB-10-70P	M	IR1	IR2	$\phi 10$	70	2.0	2.3	68.5	36.33
S-SLB-10-100P	M	IR1	IR2	$\phi 10$	100	2.0	2.2	98.5	51.90
S-SLB-15-20P	M	IR1	IR2	$\phi 15$	20	2.0	5.2	16.6	10.38
S-SLB-15-25P	M	IR1	IR2	$\phi 15$	25	2.0	4.4	22.1	12.98
S-SLB-15-30P	M	IR1	IR2	$\phi 15$	30	2.0	3.9	27.4	15.57
S-SLB-15-40P	M	IR1	IR2	$\phi 15$	40	2.0	3.4	37.8	20.76
S-SLB-15-50P	M	IR1	IR2	$\phi 15$	50	2.0	3.1	48.0	25.95
S-SLB-15-60P	M	IR1	IR2	$\phi 15$	60	2.0	2.9	58.1	31.14
S-SLB-15-70P	M	IR1	IR2	$\phi 15$	70	2.0	2.8	68.2	36.33
S-SLB-15-80P	M	IR1	IR2	$\phi 15$	80	2.0	2.7	78.2	41.52
S-SLB-15-90P	M	IR1	IR2	$\phi 15$	90	2.0	2.6	88.3	46.71
S-SLB-15-100P	M	IR1	IR2	$\phi 15$	100	2.0	2.5	98.3	51.90
S-SLB-15-120P	M	IR1	IR2	$\phi 15$	120	2.0	2.5	118.4	62.28
S-SLB-15-150P	M	IR1	IR2	$\phi 15$	150	2.0	2.4	148.4	77.85
S-SLB-20-25P	M	IR1	IR2	$\phi 20$	25	2.0	6.7	20.6	12.98
S-SLB-20-30P	M	IR1	IR2	$\phi 20$	30	2.0	5.6	26.3	15.57
S-SLB-20-40P	M	IR1	IR2	$\phi 20$	40	2.0	4.6	37.0	20.76
S-SLB-20-50P	M	IR1	IR2	$\phi 20$	50	2.0	4.0	47.4	25.95
S-SLB-20-60P	M	IR1	IR2	$\phi 20$	60	2.0	3.6	57.6	31.14
S-SLB-20-70P	M	IR1	IR2	$\phi 20$	70	2.0	3.4	67.8	36.33
S-SLB-20-80P	M	IR1	IR2	$\phi 20$	80	2.0	3.2	77.9	41.52
S-SLB-20-90P	M	IR1	IR2	$\phi 20$	90	2.0	3.1	88.0	46.71
S-SLB-20-100P	M	IR1	IR2	$\phi 20$	100	2.0	3.0	98.0	51.90
S-SLB-20-120P	M	IR1	IR2	$\phi 20$	120	2.0	2.8	118.2	62.28
S-SLB-20-150P	M	IR1	IR2	$\phi 20$	150	2.0	2.6	148.3	77.85
S-SLB-20-170P	M	IR1	IR2	$\phi 20$	170	2.0	2.6	168.2	88.23
S-SLB-20-200P	M	IR1	IR2	$\phi 20$	200	2.0	2.5	198.4	103.80
S-SLB-25-30P	M	IR1	IR2	$\phi 25$	30	2.0	8.3	24.5	15.57
S-SLB-25-35P	M	IR1	IR2	$\phi 25$	35	2.0	7.0	30.4	18.17
S-SLB-25-40P	M	IR1	IR2	$\phi 25$	40	2.0	6.2	36.0	20.76
S-SLB-25-50P	M	IR1	IR2	$\phi 25$	50	2.0	5.2	46.6	25.95
S-SLB-25-70P	M	IR1	IR2	$\phi 25$	70	2.0	4.2	67.2	36.33
S-SLB-25-80P	M	IR1	IR2	$\phi 25$	80	2.0	3.9	77.4	41.52
S-SLB-25-90P	M	IR1	IR2	$\phi 25$	90	2.0	3.7	87.6	46.71
S-SLB-25-100P	M	IR1	IR2	$\phi 25$	100	2.0	3.5	97.7	51.90
S-SLB-25-120P	M	IR1	IR2	$\phi 25$	120	2.0	3.3	117.8	62.28
S-SLB-25-150P	M	IR1	IR2	$\phi 25$	150	2.0	3.0	148.0	77.85
S-SLB-25-200P	M	IR1	IR2	$\phi 25$	200	2.0	2.8	198.2	103.80

Compatible Optic Mounts

LHF-10S, -15S, -20S, -25S / MLH-10, -15

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Reasonable Plano Convex Lens | S-SLB-P/S-SLB-B-P

RoHS

Plano Convex Lens $\phi 30 - \phi 100$

Application Systems	Uncoated	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]
	Part Number	Visible 400 - 700nm	Near-infrared 633 - 1064nm	Infrared 750 - 1550nm						
Optics & Optical Coatings	S-SLB-30-35P	M	IR1	IR2	$\phi 30$	35	2.0	9.9	28.5	18.17
	S-SLB-30-40P	M	IR1	IR2	$\phi 30$	40	2.0	8.4	34.5	20.76
	S-SLB-30-50P	M	IR1	IR2	$\phi 30$	50	2.0	6.8	45.5	25.95
Holders	S-SLB-30-60P	M	IR1	IR2	$\phi 30$	60	2.0	5.9	56.1	31.14
	S-SLB-30-70P	M	IR1	IR2	$\phi 30$	70	2.0	5.2	66.5	36.33
	S-SLB-30-80P	M	IR1	IR2	$\phi 30$	80	2.0	4.8	76.8	41.52
Bases	S-SLB-30-90P	M	IR1	IR2	$\phi 30$	90	2.0	4.5	87.1	46.71
	S-SLB-30-100P	M	IR1	IR2	$\phi 30$	100	2.0	4.2	97.2	51.90
Manual Stages	S-SLB-30-120P	M	IR1	IR2	$\phi 30$	120	2.0	3.8	117.5	62.28
	S-SLB-30-150P	M	IR1	IR2	$\phi 30$	150	2.0	3.5	147.7	77.85
	S-SLB-30-170P	M	IR1	IR2	$\phi 30$	170	2.0	3.3	167.8	88.23
Actuators	S-SLB-30-200P	M	IR1	IR2	$\phi 30$	200	2.0	3.1	198	103.80
	S-SLB-30-250P	M	IR1	IR2	$\phi 30$	250	2.0	2.9	248.1	129.75
	S-SLB-30-300P	M	IR1	IR2	$\phi 30$	300	2.0	2.7	298.2	155.70
Motorized Stages	S-SLB-30-350P	M	IR1	IR2	$\phi 30$	350	2.0	2.6	348.3	181.65
	S-SLB-40-50P	M	IR1	IR2	$\phi 40$	50	2.0	11.4	42.5	25.95
Light Sources	S-SLB-40-60P	M	IR1	IR2	$\phi 40$	60	2.0	9.3	53.9	31.14
	S-SLB-40-70P	M	IR1	IR2	$\phi 40$	70	2.0	8.0	64.7	36.33
	S-SLB-40-80P	M	IR1	IR2	$\phi 40$	80	2.0	7.1	75.3	41.52
Index	S-SLB-40-90P	M	IR1	IR2	$\phi 40$	90	2.0	6.5	85.7	46.71
	S-SLB-40-100P	M	IR1	IR2	$\phi 40$	100	2.0	6.0	96	51.90
	S-SLB-40-120P	M	IR1	IR2	$\phi 40$	120	2.0	5.3	116.5	62.28
Guide	S-SLB-40-150P	M	IR1	IR2	$\phi 40$	150	2.0	4.6	147	77.85
	S-SLB-40-170P	M	IR1	IR2	$\phi 40$	170	2.0	4.3	167.2	88.23
	S-SLB-40-200P	M	IR1	IR2	$\phi 40$	200	2.0	3.9	197.4	103.80
Mirrors	S-SLB-40-250P	M	IR1	IR2	$\phi 40$	250	2.0	3.6	247.7	129.75
	S-SLB-40-1000P	M	IR1	IR2	$\phi 40$	1000	2.0	2.4	998.4	519.00
Beamsplitters	S-SLB-50-70P	M	IR1	IR2	$\phi 50$	70	3.0	13	61.5	36.33
	S-SLB-50-90P	M	IR1	IR2	$\phi 50$	90	3.0	10.3	83.2	46.71
Lenses	S-SLB-50-100P	M	IR1	IR2	$\phi 50$	100	3.0	9.4	93.8	51.90
	S-SLB-50-120P	M	IR1	IR2	$\phi 50$	120	3.0	8.2	114.6	62.28
	S-SLB-50-150P	M	IR1	IR2	$\phi 50$	150	3.0	7.1	145.3	77.85
Filters	S-SLB-50-170P	M	IR1	IR2	$\phi 50$	170	3.0	6.6	165.6	88.23
	S-SLB-50-200P	M	IR1	IR2	$\phi 50$	200	3.0	6.1	196.0	103.80
Prisms	S-SLB-60-70P	M	IR1	IR2	$\phi 60$	70	3.0	18.8	57.6	36.33
	S-SLB-60-100P	M	IR1	IR2	$\phi 60$	100	3.0	12.5	91.7	51.90
	S-SLB-60-120P	M	IR1	IR2	$\phi 60$	120	3.0	10.7	113.0	62.28
Substrates/Windows	S-SLB-60-150P	M	IR1	IR2	$\phi 60$	150	3.0	9.0	144.1	77.85
	S-SLB-80-150P	M	IR1	IR2	$\phi 80$	150	3.0	14.1	140.8	77.85
Optical Data	S-SLB-80-250P	M	IR1	IR2	$\phi 80$	250	3.0	9.3	243.9	129.75
	S-SLB-100-150P	M	IR1	IR2	$\phi 100$	150	3.0	21.2	136.1	77.85
	S-SLB-100-200P	M	IR1	IR2	$\phi 100$	200	3.0	15.8	189.6	103.80
Maintenance	S-SLB-100-250P	M	IR1	IR2	$\phi 100$	250	3.0	13.0	241.4	129.75
	S-SLB-100-300P	M	IR1	IR2	$\phi 100$	300	3.0	11.2	292.6	155.70
Selection Guide	S-SLB-100-500P	M	IR1	IR2	$\phi 100$	500	3.0	7.9	494.8	259.50
	S-SLB-100-1000P	M	IR1	IR2	$\phi 100$	1000	3.0	5.4	996.4	519.00
Plano Convex Lenses										
Plano Concave Lenses										
Biconvex Lenses										
Biconcave Lenses										
Kit										

Compatible Optic Mounts

LHF-30S, -40S, -50S, -60S, -100S



Biconvex Lens									
Part Number	How to specify the anti-reflection coating			Diameter ϕD [mm]	Focal length f [mm]	Thickness of the edge t_e [mm]	Thickness of the center t_c [mm]	Back focal length f_b [mm]	Radius of curvature r [mm]
	Uncoated	Visible 400 – 700nm	Near-infrared 633 – 1064nm						
S-SLB-05B-08P	M	IR1	IR2	$\phi 5$	8.4	1.4	2.1	7.6	8.30
S-SLB-05B-20P	M	IR1	IR2	$\phi 5$	20.2	1.1	1.4	19.8	20.76
S-SLB-06B-06P	M	IR1	IR2	$\phi 6$	6.4	1.0	2.5	5.6	6.23
S-SLB-08B-08P	M	IR1	IR2	$\phi 8$	8.6	1.5	3.6	7.4	8.30
S-SLB-10B-10P	M	IR1	IR2	$\phi 10$	10.8	2.0	4.6	9.2	10.38
S-SLB-10B-15P	M	IR1	IR2	$\phi 10$	15.6	2.0	3.6	14.4	15.57
S-SLB-10B-20P	M	IR1	IR2	$\phi 10$	20.5	2.0	3.2	19.5	20.76
S-SLB-10B-40P	M	IR1	IR2	$\phi 10$	40.4	2.0	2.6	39.6	41.52
S-SLB-15B-15P	M	IR1	IR2	$\phi 15$	16	2.0	5.9	14.0	15.57
S-SLB-15B-20P	M	IR1	IR2	$\phi 15$	20.8	2.0	4.8	19.2	20.76
S-SLB-15B-30P	M	IR1	IR2	$\phi 15$	30.6	2.0	3.8	29.4	31.14
S-SLB-15B-40P	M	IR1	IR2	$\phi 15$	40.6	2.0	3.4	39.4	41.52
S-SLB-20B-30P	M	IR1	IR2	$\phi 20$	31	2.0	5.3	29.1	31.14
S-SLB-20B-40P	M	IR1	IR2	$\phi 20$	40.7	2.0	4.4	39.3	41.52
S-SLB-20B-50P	M	IR1	IR2	$\phi 20$	50.7	2.0	3.9	49.3	51.90
S-SLB-25B-35P	M	IR1	IR2	$\phi 25$	36.1	2.0	6.4	33.9	36.33
S-SLB-25B-50P	M	IR1	IR2	$\phi 25$	50.8	2.0	5.1	49.2	51.90
S-SLB-25B-60P	M	IR1	IR2	$\phi 25$	60.8	2.0	4.5	59.2	62.28
S-SLB-25B-70P	M	IR1	IR2	$\phi 25$	70.7	2.0	4.2	69.3	72.66
S-SLB-30B-30P	M	IR1	IR2	$\phi 30$	31.7	2.0	9.7	28.3	31.14
S-SLB-30B-40P	M	IR1	IR2	$\phi 30$	41.3	2.0	7.6	38.7	41.52
S-SLB-40B-40P	M	IR1	IR2	$\phi 40$	42.1	2.0	12.3	37.9	41.52
S-SLB-40B-50P	M	IR1	IR2	$\phi 40$	51.7	2.0	10.0	48.3	51.90
S-SLB-40B-60P	M	IR1	IR2	$\phi 40$	61.4	2.0	8.6	58.6	62.28
S-SLB-40B-100P	M	IR1	IR2	$\phi 40$	101	2.0	5.9	99.0	103.80
S-SLB-40B-150P	M	IR1	IR2	$\phi 40$	150.8	2.0	4.6	149.2	155.70
S-SLB-50B-150P	M	IR1	IR2	$\phi 50$	151.2	3.0	7.0	148.8	155.70
S-SLB-50B-200P	M	IR1	IR2	$\phi 50$	201	3.0	6.0	199.0	207.60

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