

Double-Convex Lenses

A transparent optical component consisting of one or more pieces of optical lenses that they serve to converge or diverge the transmitted rays for the designed application.

Double-Convex lenses have two outward, equally curved surfaces, a positive focal length, converge incident light, making them ideal for collecting and focusing light in imaging applications. They are useful for 1:1 imaging and in multi-element systems. In a single lens application you should consider using them in a preference to a single plano-convex lens if the magnification lies in the region $-5.0 \sim -0.2$. They are widely used in a variety of applications involving emitters, detectors, lasers, telescopes, collimators, fiber optics, optical transceivers, projection systems, optical display systems and magnifiers etc..



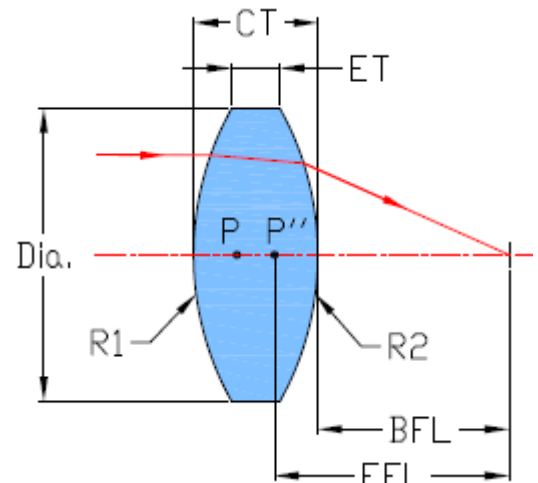
Except the standard specification as the list below, Egismos is willing to provide any kind special specification, optic designed lenses modules, optional coating or material substrate for optimum light transmission or customer's requirement in order to fit different applications.

Key features

- **High Precision Dimension:** Can be ordered as customer's requirement.
- **Optional Substrate Material:** BK7, fused silica, sapphire, CaF₂ and K9 as standard. Other materials lenses are available upon requirement.
- **Optional Coatings:** Can be ordered as an option or special designed coating.
- **High Reliability:** Glass lenses can sustain higher temperature and extreme environment conditions.
- **Special Designed Requirements or ODM:** Can be modified the specification or accuracy. Egismos also can design the new lenses for special requirements as ODM case.
- **Master Standard Test Plates(Lenses):** Egismos also can supply the extremely precision spherical lenses as the master test plates for measuring or high precision applications.

Standard Specifications (Can be specified by customer)

- Diameter Tolerance: $+0.0/-0.1$ mm
- Thickness Tolerance: ± 0.1 mm
- Centration: 3 arc minutes
- Clear Aperture: $>90\%$ central area
- Paraxial Focal Length Tolerance: $\pm 1\%$
- Surface Quality: 60/40 (scratch-dig) for standard
- Surface Figure: $\lambda/4@633$ nm
- Chamfer: <0.25 mm x 45deg
- Standard Material and Coating: BK7 with uncoated
- Optional Material: Fused Silica, B270, CaF₂, F2, K5, K9, MgF₂, Sapphire, SF5, SF11
- Optional Coating: AR, IR, NI-AR, UV-AR, Visible Bandpass



Singlets Lenses Double-Convex Product List I

Part No.	D(mm)	EFL(mm)	BFL(mm)	R1=R2(mm)	CT(mm)	ET(mm)	Material
O1-DX-6-10-G	6.0	10.0	9.16	9.87	2.43	1.50	BK7
O1-DX-6-12-G	6.0	12.0	11.73	11.97	2.76	1.50	BK7
O1-DX-6-15-G	6.0	15.0	14.29	15.09	2.10	1.50	BK7
O1-DX-6-30-G	6.0	30.0	29.40	30.60	1.79	1.50	BK7
O1-DX-9-12-G	9.0	12.0	10.75	11.72	3.60	1.80	BK7
O1-DX-9-20-G	9.0	20.0	19.05	20.11	2.82	1.80	BK7
O1-DX-12.7-15-G	12.7	15.0	13.36	14.61	4.70	1.80	BK7
O1-DX-12.7-20-G	12.7	20.0	18.68	19.92	3.80	1.80	BK7
O1-DX-12.7-25-G	12.7	25.0	23.84	25.16	3.43	1.80	BK7
O1-DX-12.7-30-G	12.7	30.0	28.95	30.36	3.14	1.80	BK7
O1-DX-12.7-40-G	12.7	40.0	39.07	40.72	2.80	1.80	BK7
O1-DX-12.7-50-G	12.7	50.0	49.14	51.06	2.59	1.80	BK7
O1-DX-12.7-100-G	12.7	100.0	99.27	102.64	2.19	1.80	BK7
O1-DX-25.4-25.4-G	25.4	25.4	22.24	24.54	8.98	1.80	BK7
O1-DX-25.4-30-G	25.4	30.0	27.33	29.53	7.74	2.00	BK7
O1-DX-25.4-35-G	25.4	35.0	37.68	34.86	6.79	2.00	BK7
O1-DX-25.4-40-G	25.4	40.0	37.93	40.14	6.12	2.00	BK7
O1-DX-25.4-50-G	25.4	50.0	48.24	50.60	5.24	2.00	BK7
O1-DX-25.4-60-G	25.4	60.0	58.44	61.01	4.67	2.00	BK7
O1-DX-25.4-75-G	25.4	75.0	73.62	76.56	4.12	2.00	BK7
O1-DX-25.4-100-G	25.4	100.0	98.81	102.40	3.58	2.00	BK7
O1-DX-25.4-125-G	25.4	125.0	123.92	128.21	3.26	2.00	BK7
O1-DX-25.4-150-G	25.4	150.0	149.99	154.00	3.05	2.00	BK7
O1-DX-25.4-175-G	25.4	175.0	174.04	179.78	2.90	2.00	BK7
O1-DX-25.4-200-G	25.4	200.0	199.06	205.56	2.79	2.00	BK7
O1-DX-25.4-250-G	25.4	250.0	249.13	257.09	2.63	2.00	BK7
O1-DX-25.4-300-G	25.4	300.0	299.17	308.62	2.52	2.00	BK7
O1-DX-25.4-400-G	25.4	400.0	399.21	411.66	2.39	2.00	BK7
O1-DX-25.4-500-G	25.4	500.0	499.31	514.69	2.31	2.00	BK7
O1-DX-25.4-750-G	25.4	750.0	749.27	772.25	2.21	2.00	BK7
O1-DX-25.4-1000-G	25.4	1000.0	999.29	1029.80	2.14	2.00	BK7

