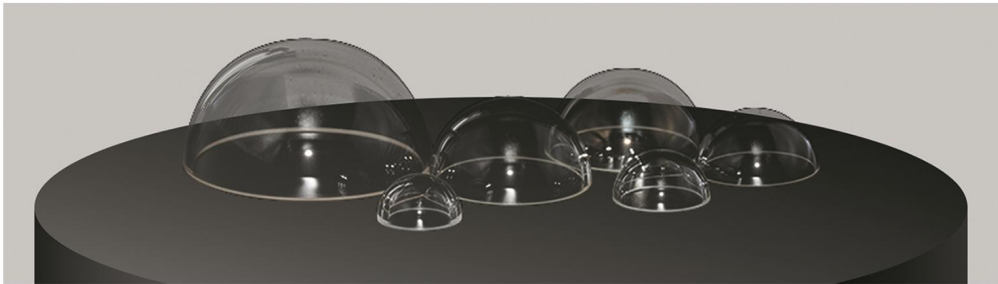


Product Introduction



ECOPTIK dome lens is composed of two parallel optical surfaces,(A convex surface and a concave surface). Normally we can control the parallel tolerance $<\pm 8\mu\text{m}$. A perfect parallel surface, in the imaging, the image does not distort, and in the measurement of light, the light does not distort.

ECOPTIK Dome, the optical properties are unique, which produced by the optical technology of optical grinding and polishing.

ECOPTIK Dome lenses mainly are hemisphere, hyper-hemisphere and customized designing. With flange Whether it is visible dome, UV dome or IR dome, ECOPTIK Dome has been confirmed in the international market. ECOPTIK dome is found in areas such as defense technology, weather monitoring and optical imaging.

Specification

1.Substrate

VIS material: Optical glass (BK7, BK10,H-K9L, etc.).UV material: Fused silica, Borosilicate glass, etc..

IR material: Sapphire, Silica, ZnSe, ZnS, etc..

2. Diameter: 10mm~350mm.

3.Thickness: 1mm~30mm.

4.Surface quality:60/40,40/20,20/10 Scratch/Dig both sides.

5.Surface fringe: 10(5),3(0.5),1(0.2).

6.Coating: Antireflection(AR) coating or upon customers' request.

7. Strengthened via heat treatment (tempering).

Typelist

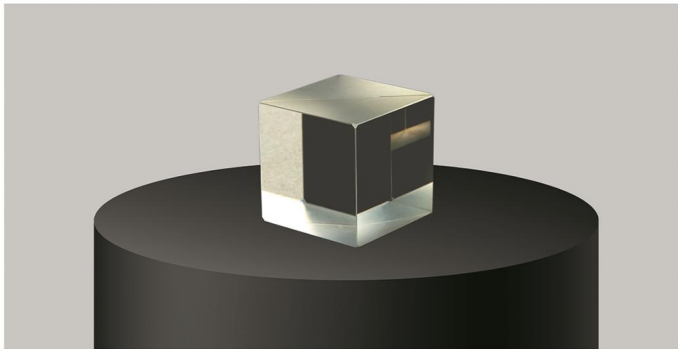
Type No.	Diameter (mm)	Heigzht (mm)	Thickness (mm)
ECO-D-10	10	5	1
ECO-D-15	15	8	1.5
ECO-D-24A	24	12	2
ECO-D-24B	24	13	2
ECO-D-25A	25	12.5	2
ECO-D-25B	25	12.5	4
ECO-D-25C	25	14.5	2
ECO-D-28A	28	14	1.5
ECO-D-28B	28	16	1.5
ECO-D-30A	30	15	2
ECO-D-30B	30	16	2
ECO-D-30C	30	16	4
ECO-D-30D	30	16.5	2
ECO-D-30E	30	17	2
ECO-D-70B	70	35	8
ECO-D-75	75	37.5	3
ECO-D-76	76	38	6
ECO-D-80	80	40	4
ECO-D-100A	100	50	2
ECO-D-140B	140	70	12
ECO-D-170	170	56	6.5
ECO-D-180	180	60	7.5
ECO-D-184	184	61	7
ECO-D-190	190	95	5
ECO-D-203	203	80	4

Type No.	Diameter (mm)	Heigzht (mm)	Thickness (mm)
ECO-D-32A	32	16	2
ECO-D-32B	32	16	4
ECO-D-32C	32	17	2
ECO-D-32D	32	17	4
ECO-D-36	36	18	2
ECO-D-40A	40	20	2
ECO-D-40B	40	21	2
ECO-D-50A	50	25	2
ECO-D-50B	50	25	4
ECO-D-50C	50	26	2
ECO-D-50D	50	26.6	2
ECO-D-50E	50	28	2
ECO-D-60	60	30	5
ECO-D-70A	70	35	5
ECO-D-100B	100	50	4
ECO-D-100C	100	50	5
ECO-D-127	127	50.8	4
ECO-D-136	136	60	4
ECO-D-140A	140	70	4
ECO-D-212	212	106	6
ECO-D-230	229.6	87.4	8
ECO-D250	250	125	10
ECO-D300	300	150	15
ECO-D350	350	177	20

Product Introduction

Polarization beamsplitter cube split randomly polarized beams into two orthogonal, linearly polarized components-S-polarized light is reflected at a 90°. Angle while P-polarized light is transmitted. Each beamsplitter consists of a pair of precision high tolerance right angle prism cemented together with a dielectric coating on the hypotenuse of one of prism.

The coatings have been designed to hold both the S-and P-polarization components to the same ratio of reflection-to-transmission over a specific laser wavelength region. This means that they will not change the state of polarization of the incident beam. The low polarization dependence of the metallic-dielectric coating allows the transmission and reflection for S-and P-polarization states to be within 6% of each other. All entrance and exit surfaces are coated with a high efficiency, narrowband, anti-reflection coating. We offer both broadband and single wavelength.



Standard Coating wavelength:

Narrow Band:488,532,632.8,650,808,850,
980,1064,1310,1550 nm

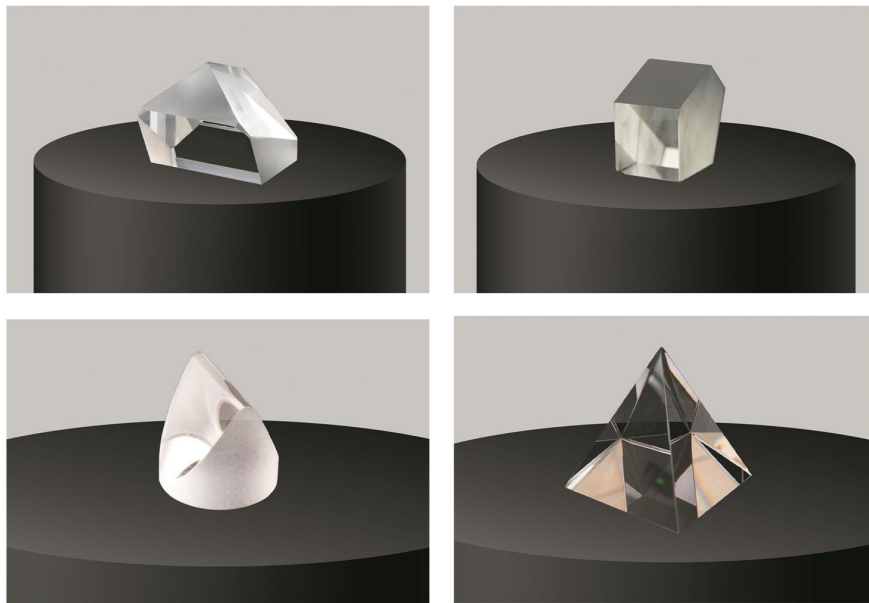
Broadband:450-650,650-850, 900-1200,
1200-1550,1500-1610 nm

Specification

Item	Commercial、High Precision	Clear Aperture	> 85 % of dimension
Material	N-BK7; Fused Silica; etc.	Surface Quality	MIL60-40、MIL20-10
Dimension X x Y	1x1mm-50 x 50mm	Bevel	Protective bevel 0.05mm-0.25mm FW45°
Dimension tolerance	±0.1mm、±0.03mm	Coating	Upon customers' request
Parallelism	<20 seconds、<5 seconds	T/R(for random porlarization)	50/50±5%、50/50±2%
Flatness	$\lambda/4@632.8\text{nm}$ 、 $\lambda/10@632.8\text{nm}$	T=(Ts+Tp)/2 R=(Rs+Rp)/2	

Product Introduction

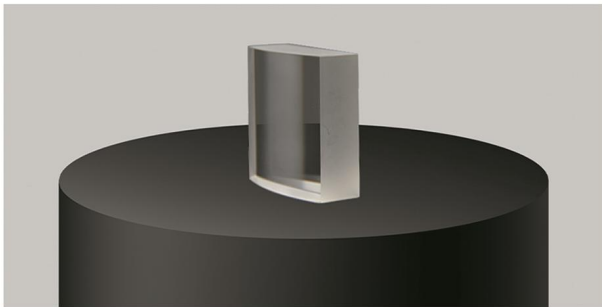
A prism is a transparent optical element with flat, polished surfaces that refract light. At least two of the flat surfaces must have an angle between them. The exact angles between the surfaces depend on the application. ECOPTIK focuses on a variety of custom processing, using visible materials, ultraviolet materials, and infrared materials. Mainly provide customized right angle prism, wedge prism, roof prism, pyramid prism, penta prism, anamorphic prism, rhomboid prism, powell prism, dove prism and kinds of light guide pipes.



Specification

Item	Commercial、High Precision	Surface flatness	$\lambda/4@632.8\text{nm}$ 、 $\lambda/10@632.8\text{nm}$
Material	Optical glasses, fused silica, silica, etc.	Surface Quality	MIL60-40、MIL20-10,10-5
Dimension	1mm-150mm	Angle tolerance	<3 arc min、<30 arc sec
Diameter tolerance	$\pm 0.1\text{mm}$ 、 $\pm 0.03\text{mm}$	Chamfer	0.05~0.2mm x 45°
Clear Aperture	>90% of diameter	Coating	As per the customers' request

Product Introduction



ECOPTIK manufactures the standard commercial and customized precision cylindrical lenses, plano convex cylindrical lens, plano concave cylindrical lens, double convex cylindrical lens, double concave cylindrical lens, meniscus cylindrical lens, achromatic cemented cylindrical lens, etc.

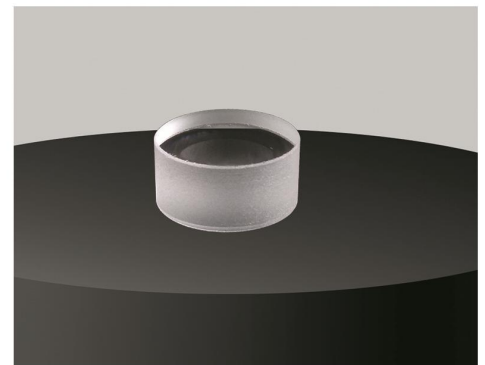
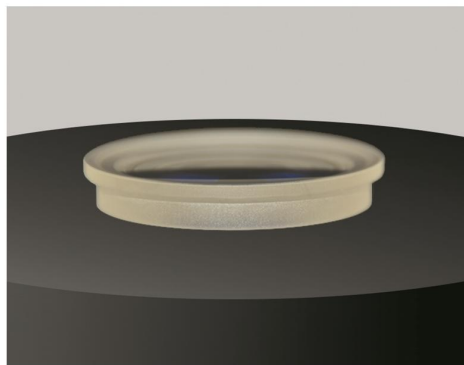
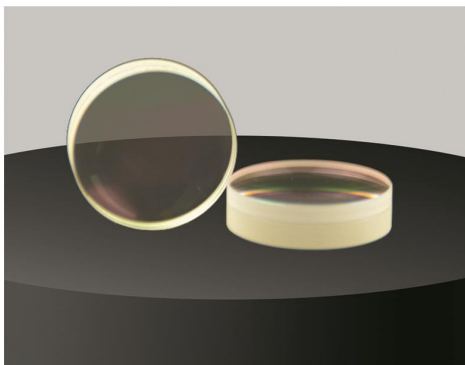
The cylindrical lens is a lens which focuses light into a line instead of a point, as a spherical lens would. The curved face or faces of a cylindrical lens are sections of a cylinder, and focus the image passing through it into a line parallel to the intersection of the surface of the lens and a plane tangent to it. The lens compresses the image in the direction perpendicular to this line, and leaves it unaltered in the direction parallel to it (in the tangent plane). In a light sheet microscope, a cylindrical lens is placed in front of the illumination objective to create the light sheet used for imaging.

Specification

Item	Commercial High - Precision	Surface accuracy	$\lambda/4@632.8\text{nm}$ 、 $\lambda/10@632.8\text{nm}$
Material	Optical glasses, fused silica, silica, etc.	Centration	<3 arc min、<10 arc sec
Diameter	0.5mm~150mm	Clear Aperture	>85% of diameter
Diameter tolerance	$\pm 0.1\text{mm}$ 、 $\pm 0.03\text{mm}$	Surface Quality	MIL60-40、MIL20-10
Coating	As per the customers' request	Chamfer	0.05~0.2mmx 45°
Focal length	-50mm~2000mm	Focal length tolerance	$\pm 2\%$ (<10mm) $\pm 0.5\%$ (<10mm-1000mm) $\pm 1\%$ (>1000mm)

Product Introduction

Spherical Lenses are the most common lenses in optical systems design. It is a device capable of combining or dispersing light rays, and the resulting image has both a real and a virtual image. Widely used in security, imaging system, laser, optical instruments and other fields. ECOPTIK manufactures the commercial and precision customized design from a wide range of VIS, UV, IR materials. ECOPTIK provides many kinds of structures, plano concave lens, plano convex lens, double concave lens, double convex lens, meniscus lens, achromatic cemented lens, ball lens, half ball lens.



Specification

Item	Commercial、High - Precision	Clear Aperture	>90% of diameter
Diameter	0.5mm~550mm	Surface accuracy	$\lambda/4@632.8\text{nm}$ 、 $\lambda/10@632.8\text{nm}$
Diameter tolerance	$\pm 0.1\text{mm}$ 、 $\pm 0.03\text{mm}$	Surface Quality	MIL60-40、MIL20-10
Focal length	-50mm~2000mm	Chamfer	0.05~0.2mmx 45°
Centration	<3 arc min、<10 arc sec	Coating	As per the customers' request
Material	VIS material: BK7,H-K9L,etc. UV material: Fused silica. IR material: Sapphire, ZnSe, ZnS, CaF ₂ ,Si, etc.	Focal length tolerance	$\pm 2\%$ (<10mm) $\pm 0.5\%$ (<10mm-1000mm) $\pm 1\%$ (>1000mm)

Scanning mirror

Product Introduction

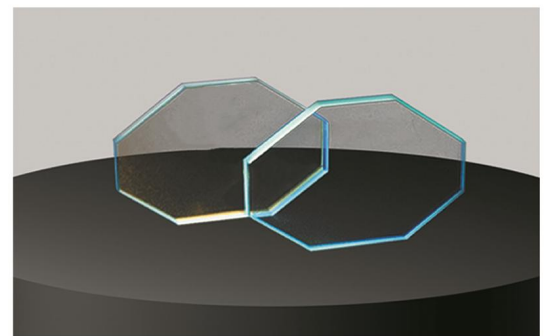
The base material of the vibrating lens is usually H-K9L glass, fused silica, quartz and monocrystalline silicon, which is used in the interior of the vibrating lens system. The other working principle is that the expanded laser beam is incident on the X and Y vibrating lenses, and the reflection angle of the vibrating lenses is controlled by software, so that the two vibrating lenses are offset along the X and Y axis respectively, so as to achieve the deflection of the laser beam.

Advantage

Fastest motor speeds in the industry, delivering low drift and long-term stability
Superior precision and accuracy that ensure high-quality scanning output
Extensive range of aperture sizes and mirror coatings
Compact models with small footprint ensure easy integration for small spaces
Broad range of product offerings from high-performance to cost-effective

Advantage Specification

LXW Tolerance: $\pm 0.05\text{mm}$
Clear Aperture: $>95\%$
Thickness Tolerance: $\pm 0.1\text{mm}$
Surface Quality: 20/10
Surface Figure: $\lambda/10 @ 632.8\text{nm}$
High reflectivity of over 99.5%.



Coating

355nm-244nm	Fused silica	Dielectric film for ultraviolet laser.
10.6um	Si	Gold Reflector Coating for infrared Laser reflection.
1064nm-650nm	Si/BK7/Fs	Dielectric Reflector Coating for laser scanning.

Thin film coating service

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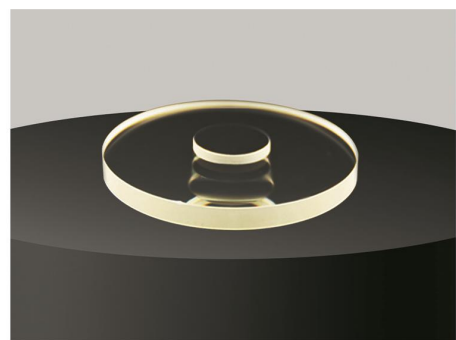
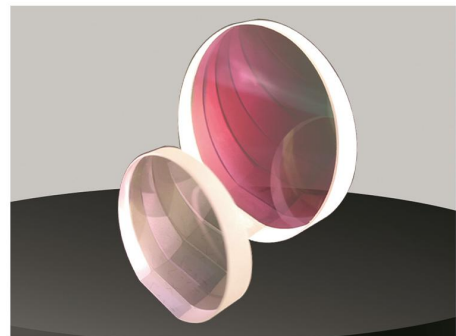
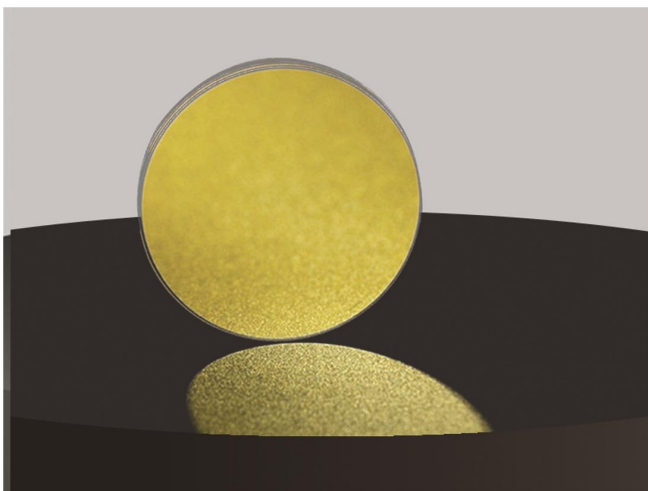
An optical coating is one or more thin layers of material deposited on an optical component such as a lens or a mirror, which alters the way in which the optic reflects and transmits light. One type of optical coating is an antireflection coating, which reduces unwanted reflections from surfaces, and is commonly used on photographic lenses. Another type is the high-reflector coating which can be used to produce mirrors which reflect greater than 99.99% of the light which falls on them. More complex optical coatings exhibit high reflection over some range of wavelengths, and anti-reflection over another range, allowing the production of dichroic thin-film optical filters. ECOPTIK has advanced optical coating equipment and mature coating technology, can provide a variety of custom thin film services, Such as.

Anti-reflection(AR) coatings

High reflection metal coatings

Dielectric high reflection coatings

Partial reflection coatings



Filters

ecoptik

An optical filter is a device that selectively transmits light of different wavelengths, usually implemented as a glass plane device in the optical path, which are either dyed in the bulk or have interference coatings. The optical properties of filters are completely described by their frequency response, which specifies how the magnitude and phase of each frequency component of an incoming signal is modified by the filter.

ECOPTIK provides many kinds of filters, such as

Bandpass filters

- Longpass filters
- Shortpass filters
- Neutral density (ND) filters
- Color glass filters
- IR cut filters
- Birefringent filters
- IPL filters/IPL Crystal
- Notch filters

