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Standard Glass Collimator (Molding Glass Lens) Key features

Collimated output beam for 600nm~850nm range
Molding glass lens production process
High temperature application to 150℃
High precision for small divergence to 0.2~0.3mrad
High stability and reliability
Lens focal length 9mm
Lens back focal length 9mm
Accept TO-18(5.6mm) laser diode package

Applications

Industrial and automotive alignment
Positioning and sensing
Laser scanning
Machine Vision
Targeting application
Small size requirement for optical design
High stability or precision requirement
High temperature or adverse circumstance application

Molding Glass Laser Collimator Lens Solutions

The molding glass collimator is designed as the aspherical lens technology and made by molding tool technology. It has both the features of aspherical and glass lens: high precision, small divergent angle, high stability, high reliability and high capacity for mass production. Collimator lens produces an collimated and elliptical beam by laser diode.

The CO(collimator) M series is molding glass collimator. The series is application to high stability, high reliability, high temperature, high precision or adverse circumstance. And the adventure of aspherical lens, the design can combine the requirements of 2 to 3 spherical lenses set. It also has the features for smaller size, better performance, good capacity and quality control in mass production, even better price competence to glass lenses set. They are also useful in a variety of applications involving industrial laser marking and detecting, distance meters, fiber optics, laser projection and laser optical system etc..

We provide several kinds of focal length, outer diameter and wavelength for option and best technical service. eGgismos also provide the optics design and ODM/OEM service except the standard products as the datasheet list.

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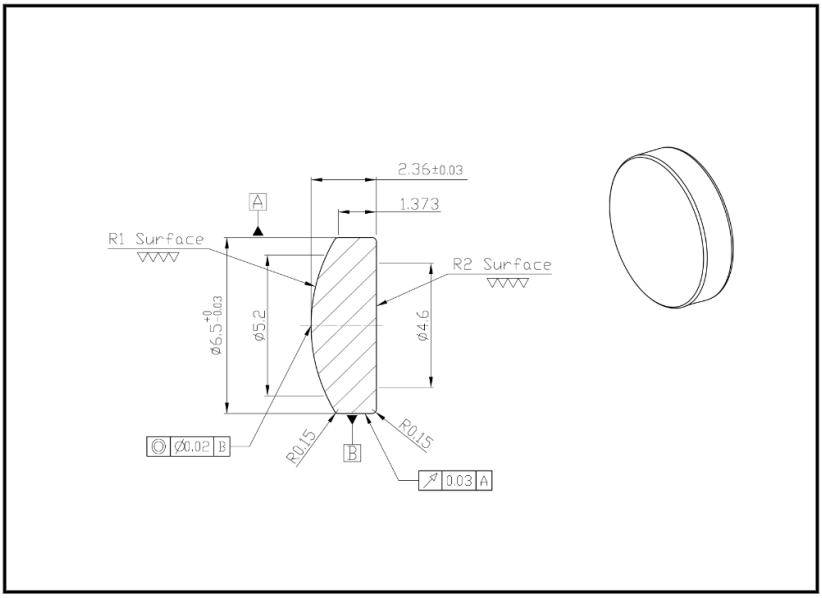
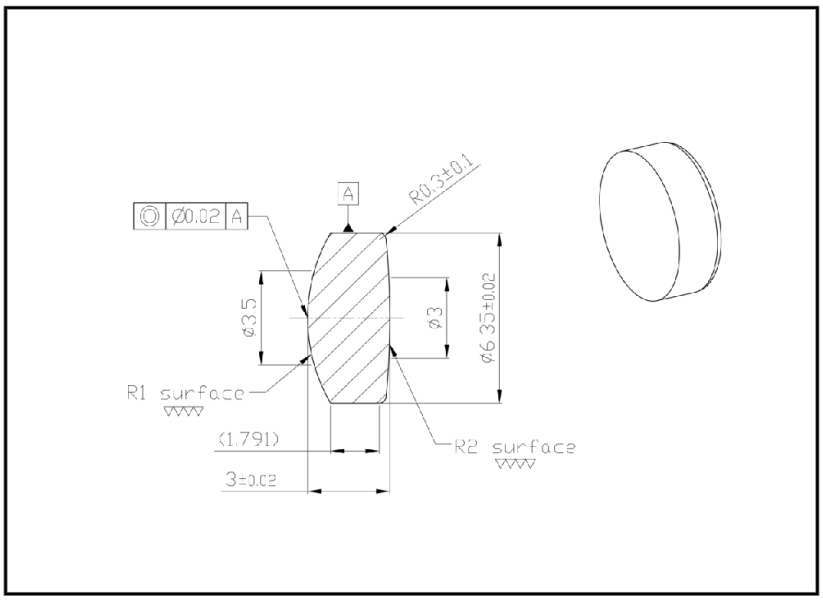


O1-CO-6.5-8.9-M



O1-CO-6.3-9.8-M

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Specifications(typical@tc=25℃)

Item.	symbol	O1-CO-6.3-9.8-M	O1-CO-6.5-8.9-M
Material		Glass (OHARA L-BAL42)	Glass (OHARA L-TIM28)
Operating Wavelength	λ	650nm,780nm	635nm
Numerical Aperture	N.A.	0.17	0.29
Effective Focal Length	EFL	9.8mm	8.9mm
Working Distance		8.25mm	7.55mm
Collimated Beam Size		≤10mm at 10m	≤8mm at 10m
Collimated Beam Divergence		≤0.3mrad	≤0.2mrad
Wave Front Error		≤0.04λ (780nm)	≤0.05λ (635nm)
Outer Diameter	D	6.35mm±0.02mm	6.50mm 0/-0.03mm
Effective Diameter		R1 Φ3.5mm / R2 Φ3.0mm	R1 Φ5.2mm / R2 Φ4.6mm
Thickness		3.00mm±0.02mm	2.36mm±0.03mm
Transmittance (AR Coating)	Tr	≥97% (650nm,780nm)	≥97%(635nm)
Operating Temperature		-40 ℃to +150 ℃	-40℃ to +150 ℃
Storage Temperature		-60 ℃to +180 ℃	-60 ℃to +180 ℃

CE RoHS TÜV FDA

Laser Safety

The light emitted from these devices has been set in accordance with IEC60825. However, staring into the beam, whether directly or indirectly, must be avoided. IEC60825 classifies laser products into three different categories depending on light emitted, wavelength and eye safety.

CLASS II

"Caution", visible laser light less than 1.0mW. Considered eye safe, normal exposure to this type of beam will not cause permanent damage to the retina.

CLASS IIIR

"Danger", visible laser light between 1.0mW and 5.0mW. Considered eye safe with caution. Focusing of this light into the eye could cause some damage.

CLASS IIIB

"Danger", infrared (IR), and high power visible lasers considered dangerous to the retina if exposed. NB: It is important to note that while complying with the above classifications, unless otherwise stated, our laser diode products are not certified and are designed solely for use in OEM products. The way in which the device is used in the final product may alter its original design classification,and it is the responsibility of the OEM to ensure compliance with the relevant standards.

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