

Egismos *DATASHEET*

O1-CO-3.0-3.8-M(CO304M)



Small Glass Collimator (Molding Glass Lens) Key features

Collimated output beam for 400nm~800nm range
Molding glass lens production process
Small size for laser collimating, divergence to 0.4~0.6mrad
High temperature application to 200°C
High stability and reliability

Part No./ Parameter	λ (nm)	Dia. (mm)	Total Length CT+BFL (mm)	NA (for LD Beam Divergence Angle)	Smallest Beam Size (mm) at 1m	Smallest Beam Size (mm) at 10m
O1-CO-3.0-3.8-M (CO304M)	400~800	3.0	4.4	0.32 (34.5°)	1.6 (30° angle)	8.0 (30° angle)

Applications

Industrial and automotive alignment laser for small dimension
Laser collimated for hand-held positioning and sensing
Laser scanning and projector for small and short length
Small dimension or short focal length requirement for optical design
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 good for mass production. Collimator lens produces an collimated and elliptical beam by laser diode.

The CO(collimator) - M series is molding glass collimator. The adventure of aspherical lens can combine the requirements of 2 to 3 spherical lenses set in one. It 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 useful in a variety of applications involving industrial laser marking and detecting, distance meters, laser projection and laser optical system etc..

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

Egismos

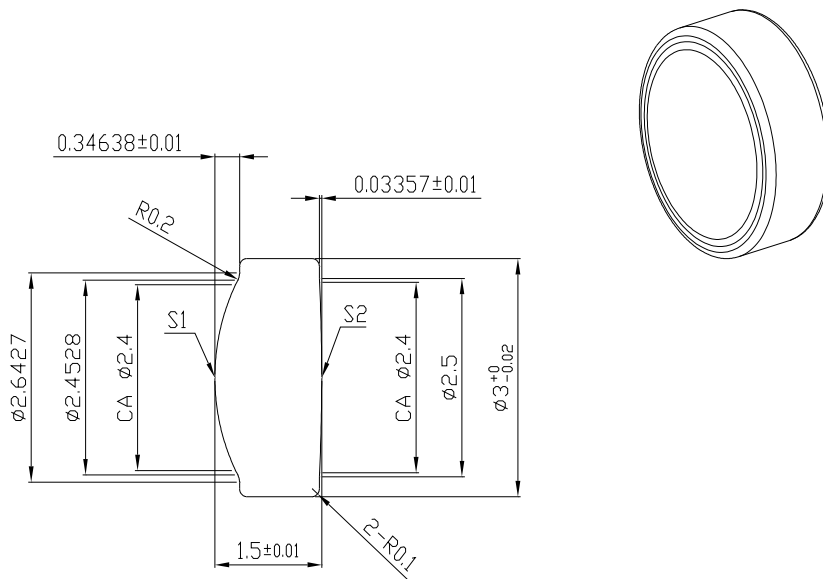
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Specifications (typical @ $t_c=25^{\circ}\text{C}$)

Item.	symbol	O1-CO-3.0-3.8-M (CO304M)
Material		Glass (OHARA L-BAL35)
Operating Wavelength	λ	400~800nm
Numerical Aperture	NA	0.32
Effective Focal Length	EFL	3.77mm
Working Distance (Back Focal Length)	WD BFL	2.9mm
Collimated Beam Size		$\leq 15\text{mm}$ at 10m
Collimated Beam Divergence		$\leq 0.8\text{mrad}$
Wave Front Error		$\leq 0.04\lambda$ (655nm)
Outer Diameter	OD (ϕ)	3.0mm \pm 0.02mm
Clear Aperture (Effective Diameter)	CA	2.4mm (R1) R1 ϕ 2.4mm / R2 ϕ 2.4mm
Center Thickness	CT	1.50mm \pm 0.01mm
Transmission (AR Coating)	Tr	$\geq 95\%$ (605nm~675nm)
Operating Temperature		-40 $^{\circ}\text{C}$ to +200 $^{\circ}\text{C}$
Storage Temperature		-60 $^{\circ}\text{C}$ to +240 $^{\circ}\text{C}$
Surface Quality (Mill Standard)		60/40

