

Egismos DATASHEET

O1-CO-6.3-9.8-M(CO610M)

O1-CO-6.0-11-M(CO611M)

Small Glass Collimator (Molding Glass Lens) Key features

Collimated output beam for 500nm~850nm range

Molding glass lens production process

Small size for laser collimating, divergence to $\leq 0.6\text{mrad}$

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-6.3-9.8-M (CO610M)	500~850	6.35	11.2	0.28 (32°)	<3.0 (30° angle)	<6.0 (30° angle)
O1-CO-6.0-11-M (CO611M)	500~850	6.00	11.3	0.24 (27°)	<3.0 (27° angle)	<6.0 (27° angle)

Applications

Industrial and automotive alignment laser for small dimension

Laser collimated for hand-held positioning and sensing

Laser scanning and projector for short length

Small dimension or short focal length requirement for optical design

Applications in high temperature or adverse circumstance

Molding Glass Laser Collimator Lens Solutions

The molding glass collimator lenses are mainly designed with aspherical surface and made by molding technology. Egismos now offer molding glass collimator lens named CO(collimator) – M series.

The advantages of aspherical surface include small size, high performance, stable quality control in mass production and low cost comparing to traditional ground lens. Therefore, molding glass collimator lenses are commonly used in a variety of applications, like industrial laser marking and detecting, distance meters, laser projection and laser optical system.

In addition, Egismos provide CO-M series with options in various focal lengths, outer diameters and wavelength band. Besides the listed standard products, Egismos also provide customized and ODM/OEM service in optical design.

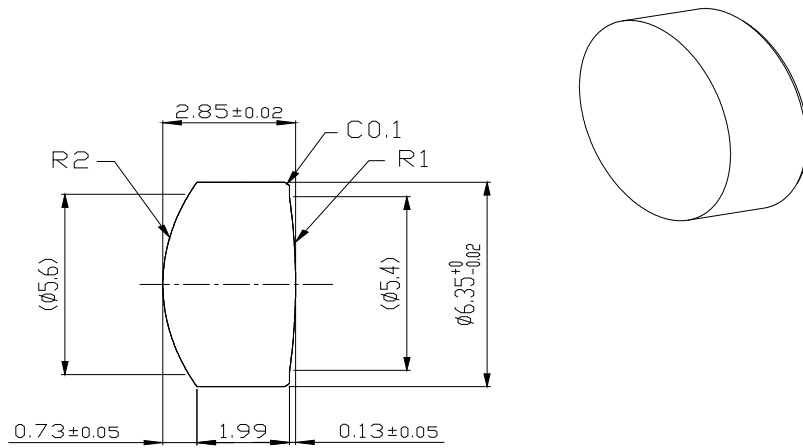
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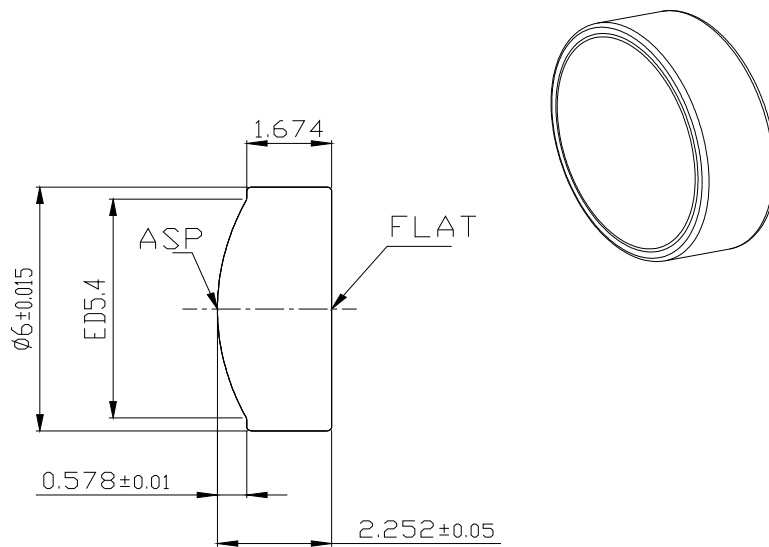
TEL:+1-888-3481454

FAX:+1-604-4339864

E-Mail:sales@eGismos.com



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

Item.	symbol	O1-CO-6.3-9.8-M (CO610M)	O1-CO-6.0-11-M (CO611M)
Material		Glass (L-BAL42)	Glass (D-ZK3)
Operating Wavelength	λ	500~850nm	500~850nm
Numerical Aperture	NA	0.28	0.24
Effective Focal Length	EFL	9.8mm	11mm
Working Distance (Back Focal Length)	WD BFL	8.36mm	9.66mm
Collimated Beam Size		<6mm at 10m <3mm at 1m	<6mm at 10m <3mm at 1m
Collimated Beam Divergence		$\leq 0.6\text{mrad}$	$\leq 0.6\text{mrad}$
Wave Front Error		$\leq 0.05\lambda$ (635nm)	$\leq 0.04\lambda$ (635nm)
Outer Diameter	OD (ϕ)	6.35mm \pm 0.02mm	6.0mm \pm 0.02mm
Clear Aperture (Effective Diameter)	CA	5.4mm(R1) R1 ϕ 5.4mm / R2 ϕ 5.6mm	5.4mm (R1) R1 ϕ 5.4mm / R2 ϕ 5.4mm
Center Thickness	CT	2.85mm \pm 0.02mm	2.252mm \pm 0.05mm
Transmission (AR Coating)	Tave	$\geq 97\%$ (605nm~675nm)	$\geq 97\%$ (605nm~675nm)
Operating Temperature		-40 $^\circ\text{C}$ to +200 $^\circ\text{C}$	-40 $^\circ\text{C}$ to +200 $^\circ\text{C}$
Storage Temperature		-60 $^\circ\text{C}$ to +240 $^\circ\text{C}$	-60 $^\circ\text{C}$ to +240 $^\circ\text{C}$
Surface Quality (Mill Standard)		60/40	60/40



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