

Egismos *DATASHEET*

01-CO-6.5-8.9-M(CO659M)

01-CO-6.3-9.8-M(CO631CM)

Standard Glass Collimator (Molding Glass Lens) Key features

Collimated output beam for 600nm~850nm range
Molding glass lens production process
High temperature application to 160°C
High precision for small divergence to 0.2~0.3mrad
High stability and reliability
Accept TO-18(5.6mm) laser diode package



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
01-CO-6.5-8.9-M (CO659M)	600~810	6.50	9.91	0.29 (32.3°)	2.5	4.0
01-CO-6.3-9.8-M (CO631CM)	630~850	6.35	11.25	0.17 (19.3°)	3.0	6.0

Applications

Industrial and automotive alignment laser
Laser collimated for stable positioning and sensing
Laser scanning and projector for high performance
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 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

<http://www.egismos.com>

TEL:+1-888-3481454

FAX:+1-604-4339864

E-Mail:sales@eGismos.com

EGISMOS *DATASHEET*

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

Item.	symbol	O1-CO-6.5-8.9-M	O1-CO-6.3-9.8-M
Material		Glass (OHARA L-TIM28)	Glass (OHARA L-BAL42)
Operating Wavelength	λ	600~810nm	630~850nm
Numerical Aperture	NA	0.29	0.17
Effective Focal Length	EFL	8.9mm	9.8mm
Working Distance (Back Focal Length)	WD BFL	7.55mm	8.25mm
Collimated Beam Size		$\leq 6\text{mm}$ at 10m	$\leq 8\text{mm}$ at 10m
Collimated Beam Divergence		0.2~0.3mrad	$\leq 0.3\text{mrad}$
Wave Front Error		$\leq 0.05\lambda$ (635nm)	$\leq 0.04\lambda$ (780nm)
Outer Diameter	OD (ϕ)	6.50mm 0/-0.03mm	6.35mm \pm 0.02mm
Clear Aperture (Effective Diameter)	CA	5.2mm (R1) R1 ϕ 5.2mm / R2 ϕ 4.6mm	3.5mm (R1) R1 ϕ 3.5mm / R2 ϕ 3.0mm
Center Thickness	CT	2.36mm \pm 0.03mm	3.00mm \pm 0.02mm
Transmission (AR Coating)	Tr	$\geq 97\%$ (635nm)	$\geq 97\%$ (650nm,780nm)
Operating Temperature		-40 $^\circ\text{C}$ to +160 $^\circ\text{C}$	-40 $^\circ\text{C}$ to +160 $^\circ\text{C}$
Storage Temperature		-60 $^\circ\text{C}$ to +200 $^\circ\text{C}$	-60 $^\circ\text{C}$ to +200 $^\circ\text{C}$
Surface Quality (Mill Standard)		60/40	60/40



EGISMOS

<http://www.egismos.com>
 TEL: +1-888-3481454
 FAX: +1-604-4339864
 E-Mail: sales@eGismos.com