

Datasheet Plastic Collimator Lens CAX183

VIAOPTIC Part No 099-099-001-002

These data concern a full plastic aspherical plano-convex lens. It is specified for use as a collimator in combination with a diode laser. It can be mounted by use of glue or spring-loaded. Mechanical lock-mounting is not advisable because of possible distortions.

Parameters	Wavelength		Unit
	670 nm	785 nm	
Design conditions			
<i>N.A.</i>	0.12		--
Clear Aperture <i>CA</i>	4.3		mm
Designed with laser cover glass (<i>BK7</i>) on source side:			
Distance from source	0.55		mm
Glass thickness	0.25		mm
Optical parameters			
Focal Length	18.15	18.33	mm
Back Focal Length <i>BFL</i> (<i>with 0.25mm laserglass</i>)	17.51	17.69	mm
Free Working Distance <i>FWD</i>	16.30	16.48	mm
<i>RMS</i> mean		25	$m\lambda$
	on axis		$m\lambda$
	total		$m\lambda$
<i>RMS</i> max. ($\pm 3\sigma$)		30	$m\lambda$
	on axis		$m\lambda$
	total	35	$m\lambda$
Optical Tolerance	0.1		mm
Field Radius	0.3		mm
Mechanical parameters			
Mounting hole diameter D_{mh}	$\varnothing 6.28$		mm
Other parameters: see drawing			
Environmental stability			
Storage Temperature	-25 to 100		$^{\circ}C$
Operating Temperature	-10 to 75		$^{\circ}C$

General Data: Transmission [%]: 90 Lens Material: Polycarbonate

Specifications subject to change without notice.
Zemax catalogue file available.