

## 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	
<b>Design conditions</b>			
N.A.	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
<b>Optical parameters</b>			
Focal Length	18.15	18.33	mm
Back Focal Length <i>BFL</i> (with 0.25mm laserglass)	17.51	17.69	mm
Free Working Distance <i>FWD</i>	16.30	16.48	mm
<i>RMS</i> mean		25	mλ
			total mλ
<i>RMS</i> max. ( $\pm 3\sigma$ )		30	mλ
		35	total mλ
Optical Tolerance	0.1		mm
Field Radius	0.3		mm
<b>Mechanical parameters</b>			
Mounting hole diameter $D_{mh}$	∅ 6.28		mm
Other parameters: see drawing			
<b>Environmental stability</b>			
Storage Temperature	-25 to 100		°C
Operating Temperature	-10 to 75		°C

**General Data:**

Transmission [%]: 90

Lens Material: Polycarbonate

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