



# PHILIPS



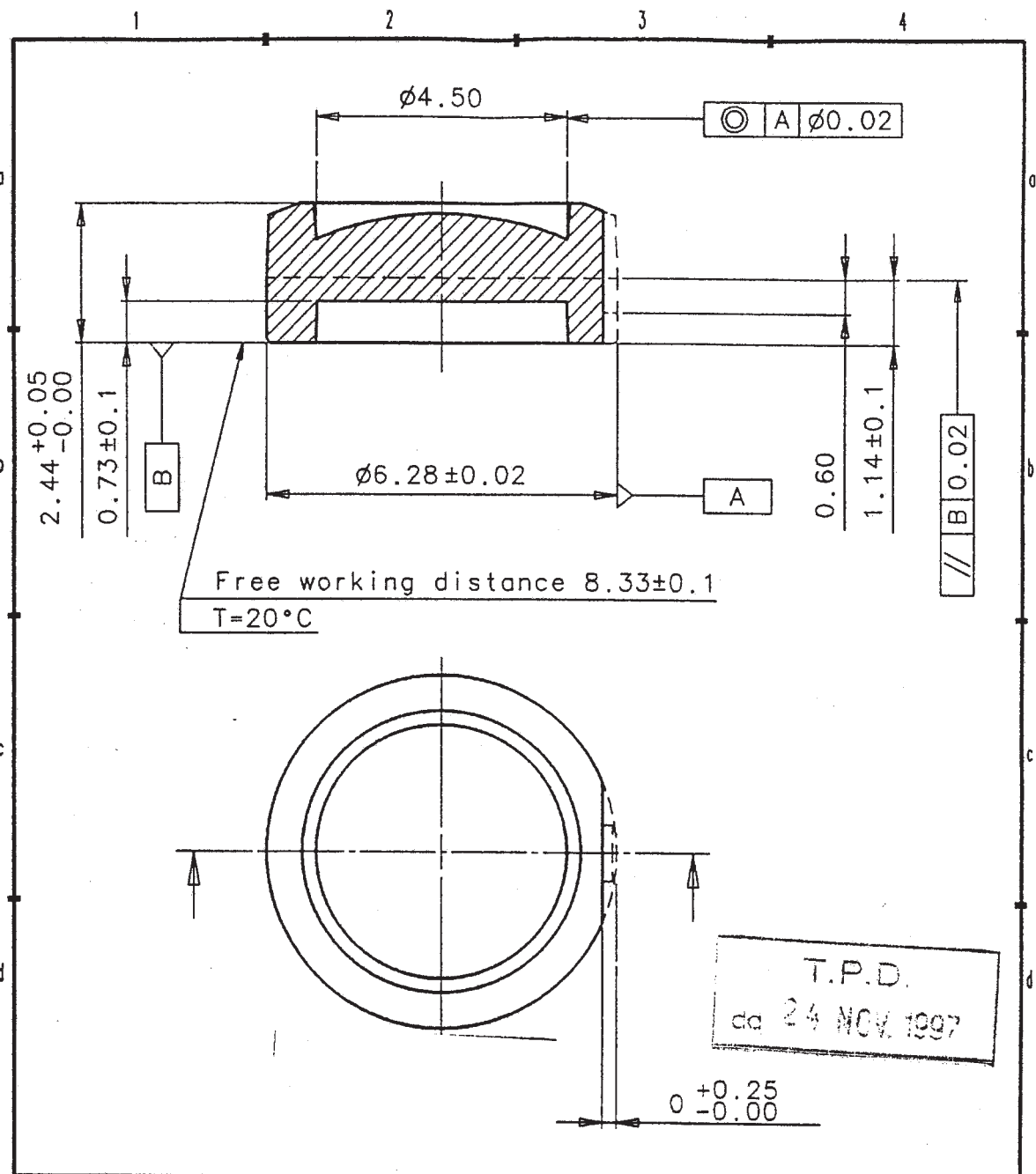
## Datasheet Plastic Collimator Lens CAX100

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 670 nm	Unit
<b>Design conditions</b>		
N.A.	0.20	--
Clear Aperture <i>CA</i>	4.1	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	10.0	mm
Back Focal Length <i>BFL</i> ( <i>incl BK7-glass</i> )	9.21	mm
Free Working Distance <i>FWD</i>	8.48	mm
<i>RMS</i> mean	on axis	35
<i>RMS</i> max. ( $\pm 3\sigma$ )	on axis	80
<i>RMS</i> max. ( $\pm 3\sigma$ )		mλ
<i>RMS</i> max. ( $\pm 3\sigma$ )		mλ
Optical Tolerance	0.1	mm
Field Radius	0.2	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

<b>General Data:</b> Transmission [%]: 90 Lens Material: Polycarbonate
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Specifications subject to change without notice.  
Zemax catalogue file available.



UN-D 28 <small>... R<sub>a</sub> in μm</small>		TOLERANCES UNLESS OTHERWISE STATED TOLERANTIES TENZIJ ANDERS VERMELD		UN-D 603				
GENERAL ROUGHNESS ALGEMENE RUWHEID		DIMENSION MAAT		ANGLE HOEK		ITEM POST	ASSEMBLY NO. SAMENSTELLINGSNR.	QUANT. AANTAL
UNIT EEDM.		MATERIAL MATERIAAL		Optical Grade Plastic		PATTERN NO./MODELNR.		
SCALE SCHAAL		TREATMENT BEHANDELING		CLASS NO.		ORDER NO./ORDERNR.		QUANT. AANTAL
10:1				Collimating lens		5722 650 3418		1 1 97-07-18 1 97-10-28
NAME NAAM		SUPERV. VERV.		CAX100N670		4 590-4 10		A4
R.d.Schipper		95-03-10		Property of Eigendom van		N.V. PHILIPS' GLOEI-LAMPENFABRIEKEN EINDHOVEN - NEDERLAND		