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**TECHSPEC®**

# 12.5mm Dia x -50mm FL NIR I Coated, Illumination Grade PCV Cylinder Lens



TECHSPEC® Illumination Grade PCV Cylinder Lenses

Stock #69-815 **9 In Stock**

1 C\$141<sup>.40</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-5	C\$141.40 each
Qty 6-25	C\$126.70 each
Qty 26-49	C\$119.70 each
Need More?	<a href="#">Request Quote</a>

Product Downloads	
STEP:stp	Curve:pdf
PDF Drawing:pdf	IGES:igs
Curve (xlsx)	Zemax:zar
Zemax:zmx	eDrawing:eprt
Code V:seq	EO Spec Sheet
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## General

**Type:** Cylinder Lens, Plano-Concave

## Physical & Mechanical Properties

<b>Diameter (mm):</b>	12.50 +0.0/-0.2	<b>Center Thickness CT (mm):</b>	2.00
<b>Center Thickness Tolerance (mm):</b>	±0.1	<b>Edge Thickness ET (mm):</b>	2.77

## Optical Properties

<b>Effective Focal Length EFL (mm):</b>	-50.00	<b>Substrate:</b>	<a href="#"> ⓘ </a> <b>N-BK7</b>
<b>f/#:</b>	4.00	<b>Numerical Aperture NA:</b>	0.13
<b>Coating:</b>	NIR I (600-1050nm)	<b>Wavelength Range (nm):</b>	600 - 1050
<b>Back Focal Length BFL (mm):</b>	-51.32	<b>Coating Specification:</b>	R <sub>avg</sub> ≤ 0.5% @ 600 - 1050nm
<b>Focal Length Tolerance (%):</b>	±3	<b>Radius R<sub>1</sub> (mm):</b>	-25.84
<b>Surface Quality:</b>	60-40	<b>Damage Threshold, By Design:</b>	<a href="#"> ⓘ </a> 7 J/cm <sup>2</sup> @ 1064nm, 10ns

## Regulatory Compliance

## Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- Cylinder Lenses Ideal for 1 Dimensional Laser Beam Convergence
- Circular and Rectangular Form Factors
- Multiple Coating Options Available

TECHSPEC® Illumination Grade PCV Cylinder Lenses are commonly used to turn a collimated laser source into a line generator. These PCV Cylinder Lenses and [TECHSPEC Illumination Grade PCX Cylinder Lenses](#) can be used together for beam expander applications.

The thin lens approximation for the length of a line generated by a negative cylinder lens is:  $L = 2 * (r_0/f) * (z + f)$  where L is the line length,  $r_0$  is half the beam diameter, z is the projection distance, and -f is the focal length of the lens.

## Technical Information

## Related Products



Laser Grade Broadband  
Cylinder Lenses



Laser Grade Laser Line  
Cylinder Lenses

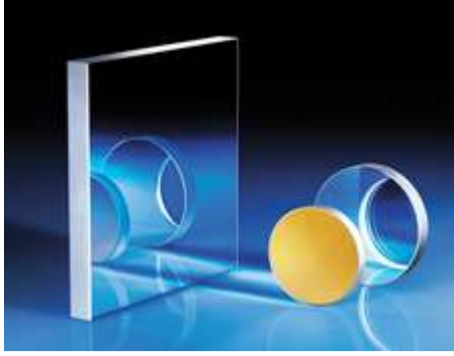


Imaging Grade PCV  
Cylinder Lenses



Illumination Grade PCX  
Cylinder Lenses

## Frequently Purchased Together



#43-793 - 25 x 25mm Protected Gold, 4-6λ Mirror  
C\$71.40

Qty



#43-928 - 4" x 5" Size, Plastic Optical Window  
C\$67.20

Qty



#47-530 - 1.0 OD 25mm Dia., NIR ND Filter  
C\$176.40

Qty



#33-426 - LightPath 354125 | 11mm Dia., 0.50 NA, BBAR (600-1050nm), Molded Aspheric Lens  
C\$166.60

Qty

# Resources

## Media Type

- Application Note
- Trending in Optics
- Published Article
- FAQ
- Glossary
- Video

APPLICATION NOTE

Anti-Reflection (AR) Coatings

APPLICATION NOTE

Laser Beam Shaping Overview

TRENDING IN OPTICS

Non-Circular Optics for System Miniaturization

APPLICATION NOTE

What are Cylinder Lenses?

APPLICATION NOTE

Considerations When Using Cylinder Lenses

PUBLISHED ARTICLE

Cylinder Lenses for Beam Shaping

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