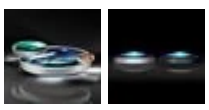
TECHSPEC®

50.0mm Diameter x 175.0mm FL, 633nm V-Coat, PCX Lens

633nm Laser Line Coated Plano-Convex (PCX) Lenses



Stock #69-461 6 In Stock

Other Coating Options

- 1 +

C$105.70

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Volume Pricing	
Qty 1-9	C$105.70 each
Qty 10-25	C$95.20 each
Qty 26-49	C$84.70 each
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Product Downloads

- STEP:stp
- Curve:pdf
- PDF Drawing:pdf
- ISO 10110 Drawing
- IGES:igs
- Zemax:zar
- Zemax:zip
- Zemax:zmx
- eDrawing:eprt
- Code V:seq
- EO Spec Sheet
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General

Type:	Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	50.00 +0.0/-0.025	**Centering (arcmin):**	<1
Center Thickness CT (mm):	9.00 ±0.10	**Edge Thickness ET (mm):**	5.48
Clear Aperture CA (mm):	49	**Bevel:**	Protective as needed

Optical Properties

Effective Focal Length EFL (mm):	175.00 @ 587.6nm	**Back Focal Length BFL (mm):**	169.05
Coating:	Laser V-Coat (633nm)	**Coating Specification:**	R_{abs} <0.25% @ 633nm
Substrate: ⓘ	N-BK7	**Surface Quality:**	40-20
Power (P-V) @ 632.8nm:	1.5λ	**Irregularity (P-V) @ 632.8nm:**	λ/4
Focal Length Tolerance (%):	±1	**Radius R_1 (mm):**	90.44
f/#:	3.5	**Numerical Aperture NA:**	0.14
Design Wavelength DWL (nm):	633	**Damage Threshold, By Design:** ⓘ	5 J/cm^2 @ 633nm, 10ns

Regulatory Compliance

RoHS 2015:	**Compliant**	**Certificate of Conformance:**	**View**
Reach 235:	**Compliant**		

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.**

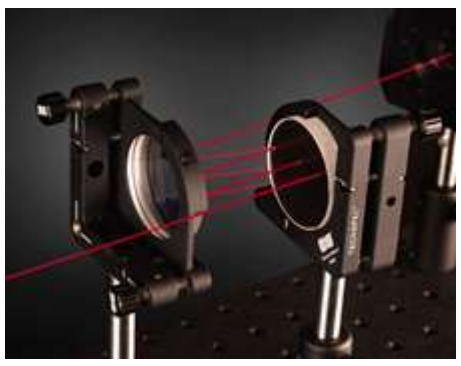
Product Details

- <0.25% Reflection at 633nm for HeNe Applications
- BBAR Coating Options Also Available: **uncoated**, **MgF_2**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**
- **405nm**, **532nm**, 633nm, **785nm**, **980nm**, **1064nm**, and **1550nm** V-Coated Options Offered

TECHSPEC® 633nm Laser Line Coated Plano-Convex (PCX) Lenses are designed for maximum throughput at the specified laser wavelength. These lenses are ideal for collecting and focusing light from laser sources and their corresponding harmonics. With a maximum reflection of <0.25% per surface at the design wavelength, the lenses will provide superior transmission in applications utilizing multiple optical components. TECHSPEC ® 633nm Laser Line Coated Plano-Convex (PCX) Lenses are available Laser V-Coated in a range of other wavelengths: **405nm**, **532nm**, **785nm**, **980nm**, **1064nm**, and **1550nm**. Other coating options are available, including **uncoated**, **MgF2**, **VIS 0°**, **VIS-NIR**, **NIR I**, and **NIR II**.

Technical Information

Related Products



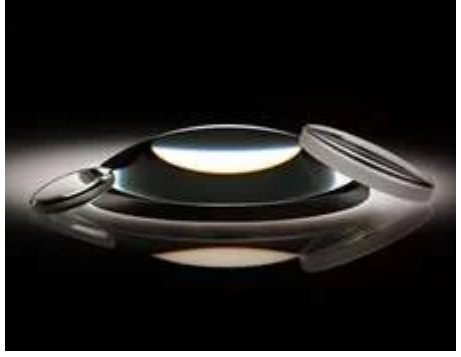
Laser Optics

Laser Sources

Arcturus® HeNe Beam Expanders

633nm Laser Line Coated Fused Silica PCX Lenses

Frequently Purchased Together



#45-250 - 50.0mm Dia. x 175.0mm FL, MgF_2 Coated, Plano-Convex Lens
C$86.10

Qty

#45-325 - 35 x 35mm, 50R/50T, Plate Beamsplitter
C$98.00

Qty

#45-326 - 35 x 35mm, 70R/30T, Plate Beamsplitter
C$98.00

Qty

#45-519 - 35 x 35mm Enhanced Aluminum, 4-6λ Mirror
C$49.70

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	50.0/50.8mm Optic Dia., SM2 Thin Mount	Fixed		#17-716	C$50.75 Request Quote	20+ In Stock 1
MORE+ 	50.0mm Optic Dia., Optic Mount	Fixed		#64-567	C$68.95 Request Quote	2 In Stock 1
MORE+ 	50.0mm Optic Dia., Optic Mount	Fixed		#64-568	C$68.95 Request Quote	7 In Stock 1
MORE+	50mm Diameter, T-Mount Thin Optic Mount	Fixed		#88-943	C$144.20 Request Quote	20+ In Stock 1
MORE+ 	50.0/50.8mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-957	C$431.20 Request Quote	1 In Stock 1
MORE+ 	50.0/50.8mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-960	C$847.00 Request Quote	20+ In Stock 1
MORE+ 	50.0/50.8mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-778	C$1,176.00 Request Quote	10 In Stock 1

Check out our full selection of mounts **here**.

Resources

Media Type

- Application Note
- Technical Tool
- Video
- FAQ
- Trending in Optics
- Glossary

APPLICATION NOTE
An Introduction to Optical Coatings

TECHNICAL TOOL
Gaussian Beams Calculator

VIDEO
Polarization Directed Flat Lenses Product Review

Scientific Paper

Published Article

? FAQ

What is the best lens for focusing or collimating th...

TRENDING IN OPTICS

Free-Space Optical Communication

APPLICATION NOTE

Common Laser Optics Materials

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