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**TECHSPEC® 50.8mm Dia. x 50.8mm FL, 3-12µm BBAR Coated, ZnSe Plano-Convex Lens**

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TECHSPEC Zinc Selenide (ZnSe) Plano-Convex (PCX) Lenses

Stock **#11-430** **5 In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ MRP ₹1,76,558

📌 Price inclusive of all taxes

**ADD TO CART**

Volume Pricing	
Qty 1-10	₹1,76,558 each
Qty 11-25	₹1,58,902 each
Qty 26-49	₹1,25,104 each
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Product Downloads

**General**

Plano-Convex Lens **Type:**

**Physical & Mechanical Properties**

50.80 +0.00/-0.10 **Diameter (mm):**

≤12.7	<b>Centering, ETD (μm):</b>
7.10 ±0.10	<b>Center Thickness CT (mm):</b>
2.42	<b>Edge Thickness ET (mm):</b>
45.72	<b>Clear Aperture CA (mm):</b>
Protective as needed	<b>Bevel:</b>
<50 RMS	<b>Surface Roughness (□):</b>

## Optical Properties

50.80 @ 10.6μm	<b>Effective Focal Length EFL (mm):</b>
47.85	<b>Back Focal Length BFL (mm):</b>
BBAR (3000-12000nm)	<b>Coating:</b>
R <sub>avg</sub> ≤3.0% @ 3 - 12μm	<b>Coating Specification:</b>
Coherent® Infrared ZnSe	<b>Substrate:</b> □
40-20	<b>Surface Quality:</b>
λ	<b>Power (P-V) @ 632.8nm:</b>
λ/20	<b>Irregularity (P-V) @ 10.6μm:</b>
71.26	<b>Radius R<sub>1</sub> (mm):</b>
1.00	<b>f#:</b>
0.50	<b>Numerical Aperture NA:</b>
3000 - 12000	<b>Wavelength Range (nm):</b>
<0.0005 @ 10.6μm	<b>Bulk Absorption Coefficient (cm<sup>-1</sup>):</b>

## Electrical

λ/10	<b>Power (P-V) @ 10.6μm:</b>
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## Regulatory Compliance

<a href="#">Compliant</a>	<b>RoHS 2015:</b>
<a href="#">View</a>	<b>Certificate of Conformance:</b>
<a href="#">Compliant</a>	<b>Reach 242:</b>
Singapore	<b>Country of Origin:</b>
Edmund Optics India Private Limited 267, Greystone Building, Second Floor, 6th Cross Rd, Binnamangala, Stage 1, Indiranagar, Bengaluru, Karnataka, India 560038 Phone: +91- 80-6845 0000	<b>Imported By:</b>

## 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

- Edmund Optics® Designed, Coherent® Manufactured
- Premier Grade ZnSe Material
- Uncoated or Broadband AR Coating Options

TECHSPEC® Zinc Selenide (ZnSe) Plano-Convex (PCX) Lenses are designed for focusing or collimation applications in the mid-wave and longwave infrared spectrum. Manufactured by Coherent®, these lenses feature Infrared ZnSe material with  $<0.0005\text{cm}^{-1}$  bulk absorption at  $10.6\mu\text{m}$  and are available uncoated or with a variety of broadband anti-reflection coating options. The 8- $12\mu\text{m}$  coating is ideal for use with  $\text{CO}_2$  lasers and thermal camera applications, whereas the dual band 3- $12\mu\text{m}$  coating is ideal for hyperspectral applications. TECHSPEC® Zinc Selenide PCX Lenses feature an irregularity of  $<N20$  at  $10.6\mu\text{m}$ , 40-20 surface quality, and  $<50\text{\AA}$  surface roughness. Three diameter options are available, with effective focal lengths ranging from 12.7mm to 250mm.

**Notes:** II-VI Incorporated is now Coherent Corp.

Special care should be taken when handling Zinc Selenide as it is a toxic material. Always wear rubber or plastic gloves to avoid risk of contamination.

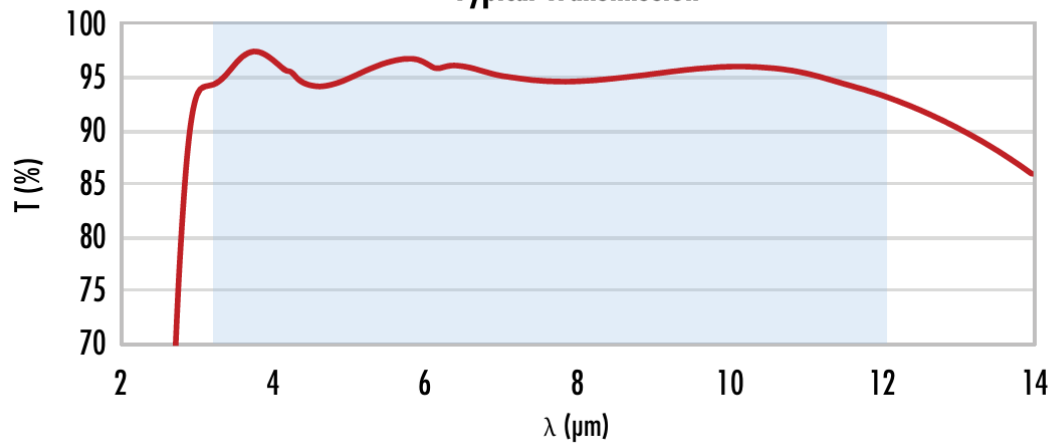
## Technical Information

**Uncoated – 6.3mm Thickness**



### AR COATED ZINC SELENIDE

**ZnSe with 3- $12\mu\text{m}$  AR Coating  
Typical Transmission**



Typical transmission of a ZnSe window with BBAR (3000-12000nm) coating at  $0^\circ$  AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{\text{avg}} < 5.0\% \text{ @ } 3 - 12\mu\text{m}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

**ZnSe with 8- $12\mu\text{m}$  AR Coating  
Typical Transmission**



Typical transmission of a ZnSe window with BBAR (8000-12000nm) coating at  $0^\circ$  AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{\text{avg}} \leq 0.5\% \text{ @ } 8 - 12\mu\text{m}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

## Special Handling

These optics require special handling to avoid damage and ensure long-term performance. Proper handling, cleaning, and storage are essential to maintain optical quality. Explore our [Optics Cleaning Resources](#) for step-by-step guides and best practices. For personalized assistance, [Email us](#) or [Chat](#) with our technical support team.



Component Handling Tools

## Compatible Mounts

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