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**TECHSPEC® 50.8mm Dia. x 100mm FL, 8-12µm BBAR Coated, ZnSe Plano-Convex Lens**

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

Stock **#11-410** **1 In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ £1,168<sup>00</sup>

**ADD TO CART**

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-10       | £1,168.00 each                |
| Qty 11-25      | £1,052.00 each                |
| Qty 26-49      | £704.00 each                  |
| Need More?     | <a href="#">Request Quote</a> |

ⓘ Prices shown are exclusive of VAT/local taxes

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>                           |
| 4.60 ±0.10                        | <b>Center Thickness CT (mm):</b>                      |
| 2.28                              | <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>                         |
| <b>Optical Properties</b>         |   |
| 100.00 @ 10.6μm                   | <b>Effective Focal Length EFL (mm):</b>               |
| 98.09                             | <b>Back Focal Length BFL (mm):</b>                    |
| BBAR (8000-12000nm)               | <b>Coating:</b>                                       |
| R <sub>avg</sub> ≤0.5% @ 8 - 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>                   |
| 140.27                            | <b>Radius R<sub>1</sub> (mm):</b>                     |
| 1.97                              | <b>f#:</b>  |
| 0.25                              | <b>Numerical Aperture NA:</b>                         |
| 8000 - 12000                      | <b>Wavelength Range (nm):</b>                         |
| <0.0005 @ 10.6μm                  | <b>Bulk Absorption Coefficient (cm<sup>-1</sup>):</b> |

|                   |                              |
|-------------------|------------------------------|
| <b>Electrical</b> |                              |
| λ/10              | <b>Power (P-V) @ 10.6μm:</b> |

|                              |                                    |
|------------------------------|------------------------------------|
| <b>Regulatory Compliance</b> |                                    |
| <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>                  |

## Product Details

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

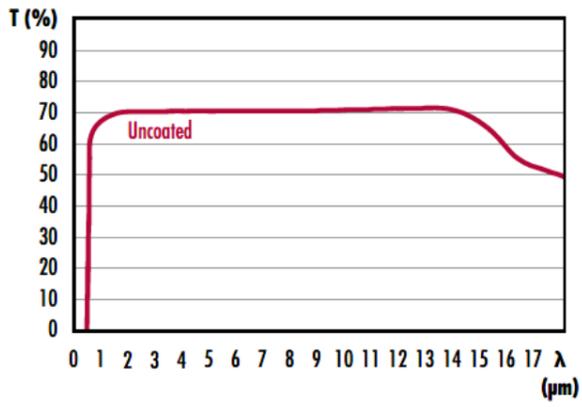
TECHSPEC® Zinc Selenide (ZnSe) Plano-Convex (PCX) Lenses are designed for focusing or collimation applications in the mid-wave and longwave infrared spectrum. Manufactured by Coherent®, these lenses feature Infrared ZnSe material with <0.0005cm<sup>-1</sup> bulk absorption at 10.6μm and are available uncoated or with a variety of broadband anti-reflection coating options. The 8-12μm coating is ideal for use with CO<sub>2</sub> lasers and thermal camera applications, whereas the dual band 3-12μm coating is ideal for hyperspectral applications. TECHSPEC® Zinc Selenide PCX Lenses feature an irregularity of <λ/20 at 10.6μm, 40-20 surface quality, and <50Å 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.

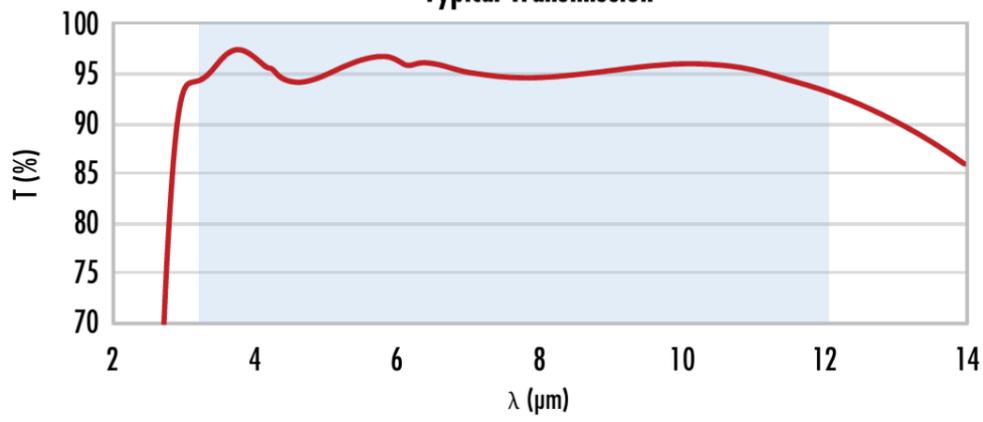
## Technical Information

**Uncoated – 6.3mm Thickness**



**AR COATED ZINC SELENIDE**

**ZnSe with 3-12μm AR Coating  
Typical Transmission**



Typical transmission of a ZnSe window with BBAR (3000-12000nm) coating at 0° AOI.

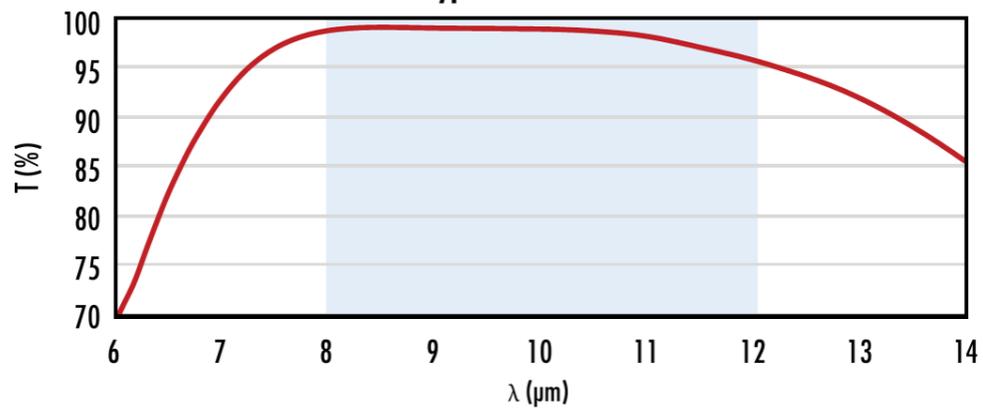
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

**ZnSe with 8-12μm AR Coating  
Typical Transmission**



Typical transmission of a ZnSe window with BBAR (8000-12000nm) coating at 0° AOI.

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

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

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.



## Custom

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](#).

## Compatible Mounts

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