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TECHSPEC<sup>®</sup> 12.7mm Dia. x 20mm FL, 8-12μm BBAR Coated, ZnSe Plano-Convex Lens

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

Stock **#39-543** **1 In Stock**

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-

1

+

€449<sup>.00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-10       | €449,00 each                  |
| Qty 11-25      | €404,00 each                  |
| Qty 26-49      | €229,00 each                  |
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Plano-Convex Lens

Type:

Physical & Mechanical Properties

12.70 +0.00/-0.10

Diameter (mm):

|                      |                           |
|----------------------|---------------------------|
| ≤50.8                | Centering, ETD (μm):      |
| 1.85 ±0.10           | Center Thickness CT (mm): |
| 1.12                 | Edge Thickness ET (mm):   |
| 11.43                | Clear Aperture CA (mm):   |
| Protective as needed | Bevel:                    |
| <50 RMS              | Surface Roughness (□):    |

|                         |                                                  |
|-------------------------|--------------------------------------------------|
| Optical Properties      |                                                  |
| 20.00 @ 10.6μm          | Effective Focal Length EFL (mm):                 |
| 19.23                   | Back Focal Length BFL (mm):                      |
| BBAR (8000-12000nm)     | Coating:                                         |
| Ravg ≤0.5% @ 8 - 12μm   | Coating Specification:                           |
| Coherent® Infrared ZnSe | Substrate: □                                     |
| 40-20                   | Surface Quality:                                 |
| λ                       | Power (P-V) @ 632.8nm:                           |
| λ/20                    | Irregularity (P-V) @ 10.6μm:                     |
| 28.05                   | Radius R <sub>1</sub> (mm):                      |
| 1.57                    | f/#:                                             |
| 0.32                    | Numerical Aperture NA:                           |
| 8000 - 12000            | Wavelength Range (nm):                           |
| <0.0005 @ 10.6μm        | Bulk Absorption Coefficient (cm <sup>-1</sup> ): |

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

|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | Reach 242:                  |

## 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.

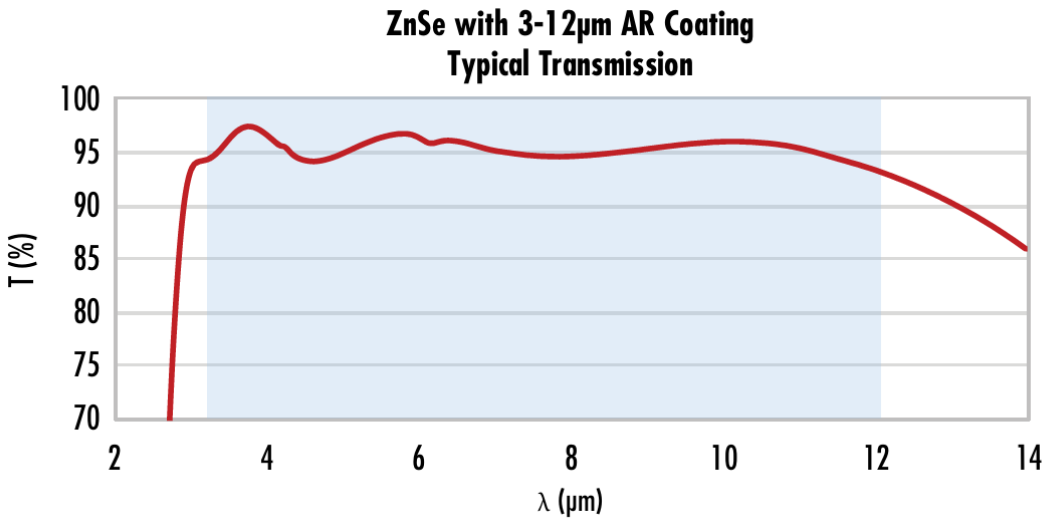
**Notes:** II-VI Incorporated is now Coherent Corp.

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



AR COATED ZINC SELENIDE



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 - 12μm

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

[Click Here to Download Data](#)



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 - 12μm

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

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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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