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## TECHSPEC® 50.8mm Dia. x 50.8mm FL, 8-12µm AR Coated, ZnSe Aspheric Lens

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TECHSPEC Zinc Selenide (ZnSe) Aspheric Lenses

Stock **#39-518** **6 In Stock**

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⊖ 1 ⊕ €2.560<sup>00</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-10	€2.560,00 each
Qty 11-25	€2.305,00 each
Qty 26-49	€2.175,00 each
Need More?	<a href="#">Request Quote</a>

ⓘ Prices shown are exclusive of VAT/local taxes

### Product Downloads

#### General

Aspheric Lens **Type:**

#### Physical & Mechanical Properties

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

≤3	<b>Centering (arcmin):</b>
≤12.7	<b>Centering, ETD (μm):</b>
45.72	<b>Clear Aperture CA (mm):</b>
2.08	<b>Edge Thickness ET (mm):</b>
6.50 ±0.10	<b>Center Thickness CT (mm):</b>
Protective as needed	<b>Bevel:</b>
Plano	<b>Shape of Back Surface:</b>
<50 RMS	<b>Surface Roughness (□):</b>

## Optical Properties

50.80	<b>Effective Focal Length EFL (mm):</b>
0.50	<b>Numerical Aperture NA:</b>
48.10	<b>Back Focal Length BFL (mm):</b>
Coherent® Infrared ZnSe	<b>Substrate:</b> □
λ/2	<b>Asphere Figure Error, RMS @ 632.8nm:</b>
BBAR (8000-12000nm)	<b>Coating:</b>
R <sub>avg</sub> <0.5% @ 8 - 12μm	<b>Coating Specification:</b>
40-20	<b>Surface Quality:</b>
1	<b>f#:</b>
2.631	<b>Index of Refraction (n<sub>d</sub>):</b>
8000 - 12000	<b>Wavelength Range (nm):</b>
Infinite	<b>Conjugate Distance:</b>
λ/10	<b>Power (P-V) @ 632.8nm:</b>

## Electrical

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

7.57	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>
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## Regulatory Compliance

<a href="#">Compliant</a>	<b>RoHS 2015:</b>
<a href="#">Compliant</a>	<b>Reach 224:</b>
<a href="#">View</a>	<b>Certificate of Conformance:</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 8-12 $\mu$ m AR Coating Available

TECHSPEC® Zinc Selenide (ZnSe) Aspheric Lenses are designed to provide diffraction-limited focusing performance for 10.6 $\mu$ m CO<sub>2</sub> lasers. Manufactured from Coherent® Infrared ZnSe material featuring <0.0005 cm<sup>-1</sup> bulk absorption at 10.6 $\mu$ m, these lenses are available uncoated or with a broadband anti-reflection coating providing superior transmission from 8 - 12 $\mu$ m. The precision designs are ideal for integration into laser systems, thermal imaging assemblies, and FTIR devices. TECHSPEC Zinc Selenide Aspheric Lenses feature an irregularity of <N20 at 10.6 $\mu$ m, 40-20 surface quality, and <50Å surface roughness.

**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



## 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