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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 ⊕ €2.560⁰⁰

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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?	Request Quote

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

Optical Properties

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

Electrical

λ/10	Power (P-V) @ 10.6μm:
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Material Properties

7.57	Coefficient of Thermal Expansion CTE (10⁻⁶/°C):
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Regulatory Compliance

Compliant	RoHS 2015:
Compliant	Reach 224:
View	Certificate of Conformance:

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 μm AR Coating Available

TECHSPEC® Zinc Selenide (ZnSe) Aspheric Lenses are designed to provide diffraction-limited focusing performance for 10.6 μm CO₂ lasers. Manufactured from Coherent® Infrared ZnSe material featuring $<0.0005\text{ cm}^{-1}$ bulk absorption at 10.6 μm , these lenses are available uncoated or with a broadband anti-reflection coating providing superior transmission from 8 - 12 μm . 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 μm , 40-20 surface quality, and $<50\text{\AA}$ 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