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TECHSPEC® 12.5mm Dia x -50mm FL Negative Doublet Lens MgF₂ Coated



Stock #45-220 **20+ In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ **S\$129⁵⁰**

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| Volume Pricing | |
|----------------|-------------------------------|
| Qty 1-5 | S\$129.50 each |
| Qty 6-25 | S\$103.60 each |
| Qty 26-49 | S\$97.30 each |
| Need More? | Request Quote |

Product Downloads

General

Negative Achromatic Lens **Type:**

Physical & Mechanical Properties

12.50 +0.0/-0.025 **Diameter (mm):**

11.50 **Clear Aperture CA (mm):**

| | |
|----------------------|------------------------------------|
| <1 | Centering (arcmin): |
| 3.56 ±0.10 | Center Thickness CT (mm): |
| 2.00 ±0.05 | Center Thickness CT 1 (mm): |
| 1.56 ±0.05 | Center Thickness CT 2 (mm): |
| 4.40 | Edge Thickness ET (mm): |
| Protective as needed | Bevel: |

Optical Properties

| | |
|--------------------------------------|--|
| -50.00 | Effective Focal Length EFL (mm): |
| ±1 | Focal Length Tolerance (%): |
| -51.58 | Back Focal Length BFL (mm): |
| 587.6 | Focal Length Specification Wavelength (nm): |
| -30.83 | Radius R₁ (mm): |
| 23.47 | Radius R₂ (mm): |
| 69.20 | Radius R₃ (mm): |
| N-BK7 / N-SF5 | Substrate: <input type="checkbox"/> |
| 40-20 | Surface Quality: |
| 4.00 | f/#: |
| 0.13 | Numerical Aperture NA: |
| MgF ₂ (400-700nm) | Coating: |
| R _{avg} ≤1.75% @400 - 700nm | Coating Specification: |
| 1.5λ | Power (P-V) @ 632.8nm: |
| λ/4 | Irregularity (P-V) @ 632.8nm: |
| 400 - 700 | Wavelength Range (nm): |

Regulatory Compliance

| | |
|---------------------------|------------------------------------|
| Compliant | RoHS 2015: |
| Compliant | Reach 219: |
| 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:

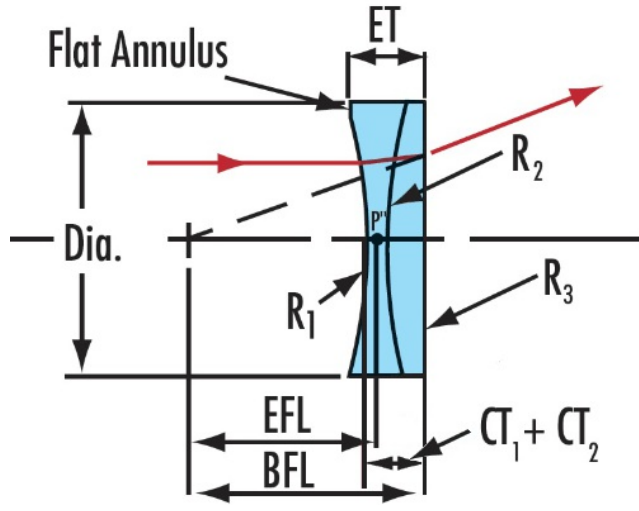
- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

- Magnesium Fluoride (MgF₂) Coating
 - Used to Extend Focal Length
 - [Broadband AR Coated Negative Achromatic Lenses](#) Also Available
- TECHSPEC® MgF₂ Coated Negative Achromatic Lenses consist of two optical elements cemented together. Negative doublet lenses are corrected for color and on-axis aberrations. TECHSPEC MgF₂ Coated Negative Achromatic Lenses are used predominantly as Barlow lenses to extend focal lengths. These lenses are often combined with positive achromatic mirror systems and imaging lenses.

Technical Information



Coating Curves

Compatible Mounts