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**TECHSPEC® 12mm Dia. x -18mm FL, MgF<sub>2</sub> Coated, Double-Concave Lens**



Stock #48-937 **20+ In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ A\$66<sup>40</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-9	A\$66.40 each
Qty 10-25	A\$59.60 each
Qty 26-49	A\$53.20 each
Need More?	<a href="#">Request Quote</a>

Product Downloads

**General**

Double-Concave Lens **Type:**

**Physical & Mechanical Properties**

12.00 +0.0/-0.025 **Diameter (mm):**

Protective as needed	<b>Bevel:</b>
2.00	<b>Center Thickness CT (mm):</b>
±0.05	<b>Center Thickness Tolerance (mm):</b>
<1	<b>Centering (arcmin):</b>
11.0	<b>Clear Aperture CA (mm):</b>
3.76	<b>Edge Thickness ET (mm):</b>
<b>Optical Properties</b>	
-18.00	<b>Effective Focal Length EFL (mm):</b>
<b>N-BK7</b>	<b>Substrate:</b> <input type="checkbox"/>
1.5	<b>f#:</b>
0.33	<b>Numerical Aperture NA:</b>
MgF <sub>2</sub> (400-700nm)	<b>Coating:</b>
400 - 700	<b>Wavelength Range (nm):</b>
-18.65	<b>Back Focal Length BFL (mm):</b>
R <sub>avg</sub> ≤ 1.75% @ 400 - 700nm	<b>Coating Specification:</b>
587.6	<b>Focal Length Specification Wavelength (nm):</b>
±1	<b>Focal Length Tolerance (%):</b>
-18.94	<b>Radius R<sub>1</sub>=R<sub>2</sub> (mm):</b>
40-20	<b>Surface Quality:</b>
10 J/cm <sup>2</sup> @ 532nm, 10ns	<b>Damage Threshold, By Design:</b> <input type="checkbox"/>
1.5λ	<b>Power (P-V) @ 632.8nm:</b>
λ/4	<b>Irregularity (P-V) @ 632.8nm:</b>

<b>Regulatory Compliance</b>	
<b>Compliant</b>	<b>RoHS 2015:</b>
<b>View</b>	<b>Certificate of Conformance:</b>
<b>Compliant</b>	<b>Reach 235:</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

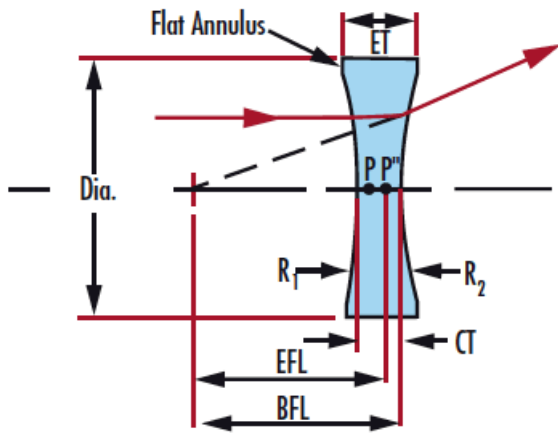
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), and [NIR II](#)

TECHSPEC® MgF<sub>2</sub> Coated Double-Concave (DCV) Lenses are designed to have two inward curved surfaces and a negative focal length similar to Plano-Concave (PCV) lenses. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Double-Concave (DCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® MgF<sub>2</sub> Coated Double-Concave (DCV) Lenses are ideal for broadband applications. These lenses are also available in [Uncoated](#), [VIS-EXT](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), or with [NIR II](#) AR coating options.

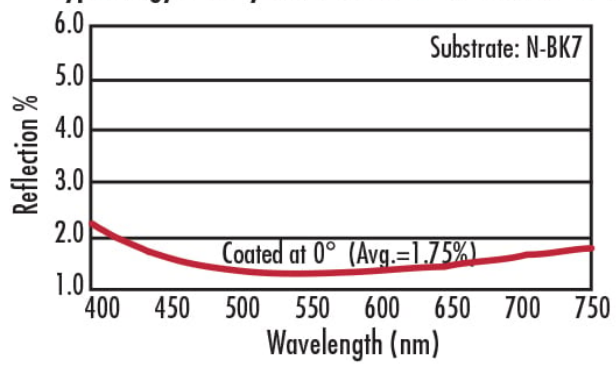
## Technical Information



### MgF<sub>2</sub> Coating

$R_{avg} \leq 1.75\%$  @ 400 - 700nm

Typ. Energy Density Limit: 10 J/cm<sup>2</sup> @ 532nm, 10ns



## Coating Curves

## Compatible Mounts