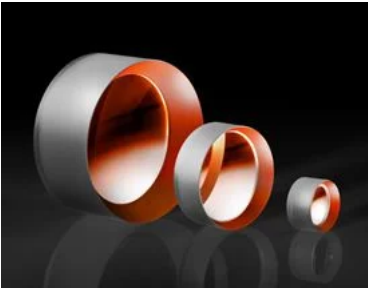


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# 40mm Dia x -100mm FL Negative Doublet Lens MgF<sub>2</sub> Coated



Stock **#63-765** ✓ **In Stock**

-

1

+

\$193<sup>.32</sup>

Qty 1-5	Qty 6+	Volume
\$193.32	\$154.44	Pricing

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## Product Downloads

- STEP:stp
- PDF Drawing:pdf
- ISO 10110 Drawing
- IGES:igs
- Spec Sheets:pdf
- Zemax:zar
- Zemax:zmx
- eDrawing:easm
- Code V:seq
- EO Spec Sheet

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## SPECIFICATIONS

SPECIFICATIONS

General			
Type:		Negative Achromatic Lens	
Physical & Mechanical Properties			
Diameter (mm):		40.00 +0.0/-0.025	Clear Aperture CA (mm): 39.00
Centering (arcmin):		<1	Center Thickness CT (mm): 10.50 ±0.20
Center Thickness CT 1 (mm):		4.00 ±0.10	Center Thickness CT 2 (mm): 6.50 ±0.10
Edge Thickness ET (mm):		15.08	Bevel: Protective as needed
Optical Properties			
Effective Focal Length EFL (mm):		-100.00	Focal Length Tolerance (%): ±1
Back Focal Length BFL (mm):		-104.33	Focal Length Specification Wavelength (nm): 587.6
Radius R <sub>1</sub> (mm):		-60.11	Radius R <sub>2</sub> (mm): 48.43

<div>Radius R<sub>3</sub> (mm):</div>	149.50	<div>Substrate: N-BK7</div> <div><div><div></div><div>i</div></div> / N-SF5</div>
<div>Surface Quality:</div>	40-20	<div>f/#:</div> 2.5
<div>Numerical Aperture NA:</div>	0.20	<div>Coating:</div> MgF <sub>2</sub> (400-700nm)
<div>Coating Specification:</div> <div>R<sub>avg</sub> 1.75% @ 400 - 700nm</div>		<div>Power (P-V) @ 632.8nm:</div> 1.5λ
<div>Irregularity (P-V) @ 632.8nm:</div> λ/4		<div>Wavelength Range (nm):</div> 400 - 700

### Regulatory Compliance

<div>RoHS 2015:</div>	Compliant	<div>Reach 219:</div>	Compliant
<div>Certificate of Conformance:</div>	View		

## PRODUCT DETAILS

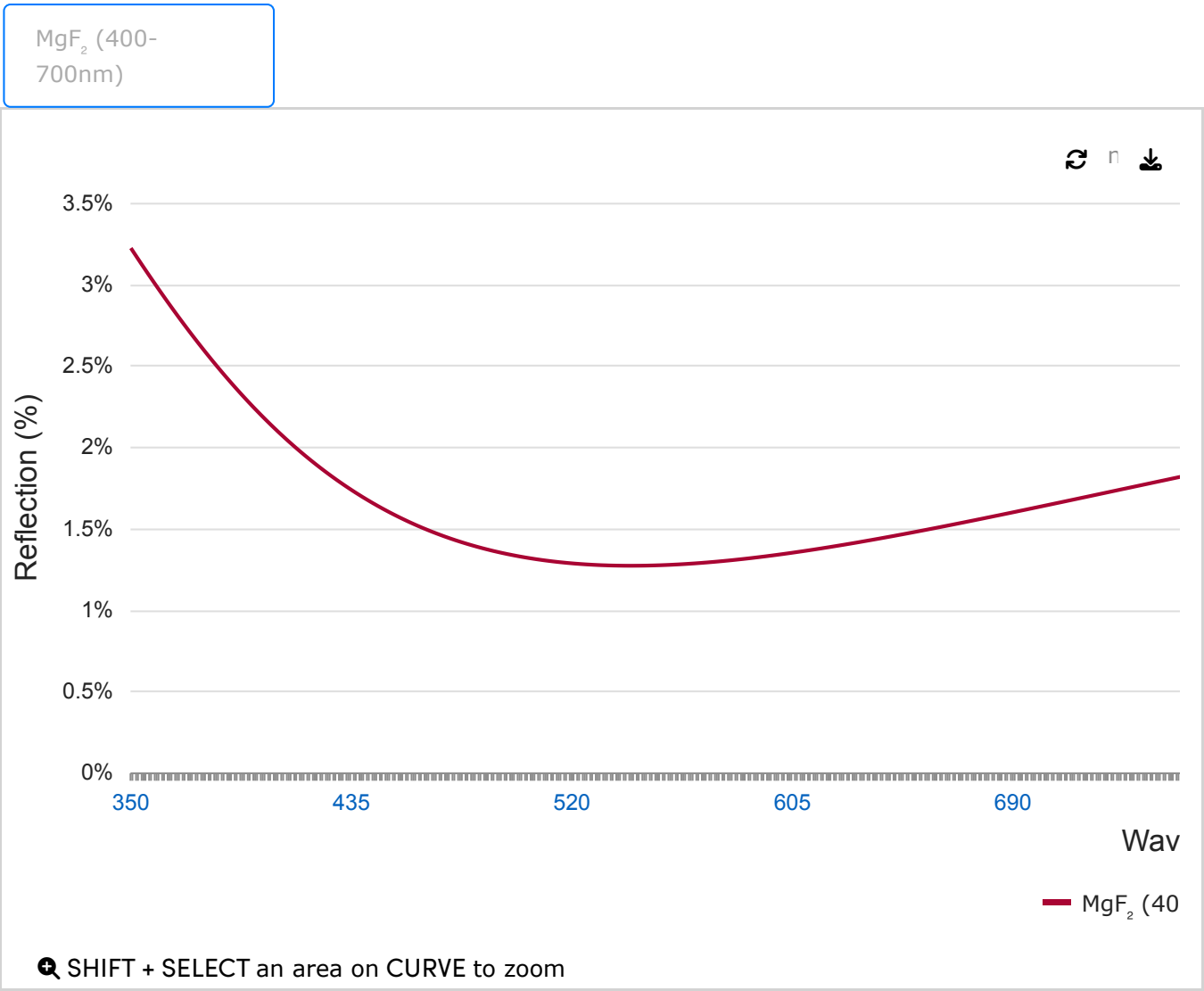
- Magnesium Fluoride (MgF<sub>2</sub>) Coating
- Used to Extend Focal Length
- **Broadband AR Coated Negative Achromatic Lenses** Also Available

TECHSPEC® MgF<sub>2</sub> Coated Negative Achromatic Lenses consist of two optical elements cemented together. Negative doublet lenses are corrected for color and on-axis aberrations. TECHSPEC MgF<sub>2</sub> 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.

The diagram illustrates a flat annulus with the following labeled components and dimensions:

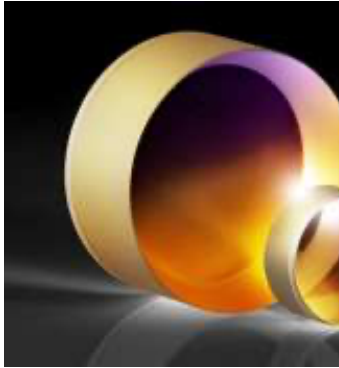
- Flat Annulus**: The central blue-shaded region.
- ET**: End Thickness, the thickness of the annulus at the ends.
- Dia.**: Diameter, indicated by a vertical double-headed arrow on the left.
- $R_1$** : Radius of the inner cylindrical part.
- $R_2$** : Radius of the flat annulus.
- $R_3$** : Radius of the outer cylindrical part.
- $p_{in}$** : Internal pressure, shown as a red arrow pointing into the annulus.
- EFL**: Effective Flange Length, the length of the annulus.
- BFL**: Bolt Circle Diameter, the diameter of the bolt circle.
- $CT_1 + CT_2$** : Combined thickness of the flange and gasket.

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Please note that coating performance outside each product’s specified design range is theoretical and may vary.

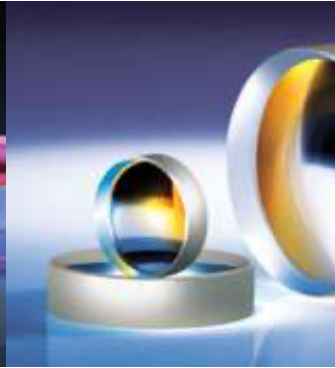
RELATED PRODUCTS



**Broadband AR Coated  
Negative Achromatic  
Lenses**



**MgF<sub>2</sub> Coated  
Achromatic Lenses**



**MgF<sub>2</sub> Coated Double-  
Concave (DCV)  
Lenses**



**MgF<sub>2</sub> Coated Plano-  
Concave (PCV)  
Lenses**

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## 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](#).

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## FREQUENTLY PURCHASED TOGETHER




**#32-886 - 50mm Dia. x 150mm FL, MgF<sub>2</sub> Coated, Achromatic Doublet Lens**  
\$187.92



**#32-921 - 40mm Dia. x 120mm FL, MgF<sub>2</sub> Coated, Achromatic Doublet Lens**  
\$174.96








**#45-037 - 50.0mm Diameter x -100 FL, MgF<sub>2</sub> Coated, Plano-Concave Lens**  
\$64.26



**#45-039 - 50.0mm Diameter x -125 FL, MgF<sub>2</sub> Coated, Plano-Concave Lens**  
\$64.26

COMPATIBLE MOUNTS

	Title 	Type 	Compare	Stock Number 	Price 	Buy
<div><div>MORE+</div><div></div></div>	40mm Diameter, T-Mount Thick Optic Mount	Fixed		<div>#57-978</div>	<div>\$68.78</div> <div>Request Quote</div>	<div>✓ In Stock</div>

Check out our full selection of mounts [here](#).

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Why Use an Achromat Lens?

FAQ

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<https://www.edmundoptics.com/p/40mm-dia-x100mm-fl-negative-doublet-lens-mgfs<sub>2</sub>sub-coated/18488/>

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