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TECHSPEC[®] 18.0mm Dia. x 22.5mm FL, MgF₂ Coated, Plano-Convex Lens



Stock **#49-890** 20+ In Stock

☐ [Other Coating Options](#)

-

1

+

A\$66^{.40}

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Volume Pricing	
Qty 1-9	A\$66.40 each
Qty 10-24	A\$59.60 each
Qty 25-49	A\$53.20 each
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General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

18.00 +0.0/-0.025

<1	Centering (arcmin):
4.00 ±0.10	Center Thickness CT (mm):
1.53	Edge Thickness ET (mm):
17	Clear Aperture CA (mm):
Protective as needed	Bevel:

Optical Properties	
22.50 @ 587.6nm	Effective Focal Length EFL (mm):
20.26	Back Focal Length BFL (mm):
MgF ₂ (400-700nm)	Coating:
R _{avg} ≤1.75% @ 400 - 700nm	Coating Specification:
N-SF11	Substrate: ☐
40-20	Surface Quality:
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
±1	Focal Length Tolerance (%):
17.66	Radius R ₁ (mm):
1.25	f/#:
0.40	Numerical Aperture NA:
400 - 700	Wavelength Range (nm):
10 J/cm ² @ 532nm, 10ns	Damage Threshold, By Design: ☐

Regulatory Compliance	
Compliant	RoHS 2015:
Compliant	Reach 219:
View	Certificate of Conformance:

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

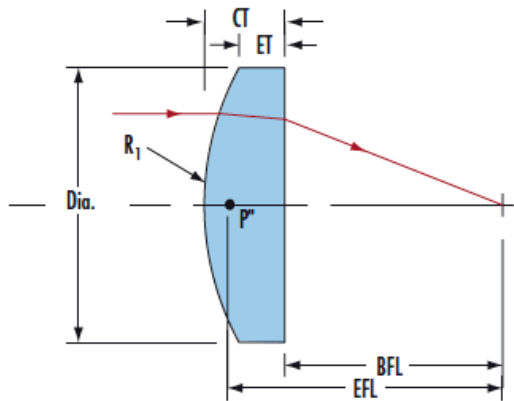
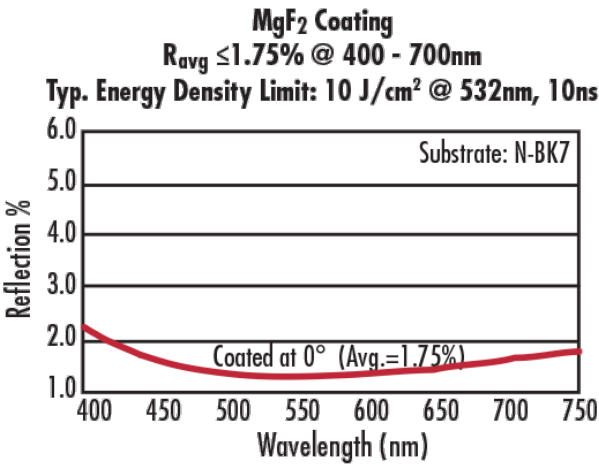
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

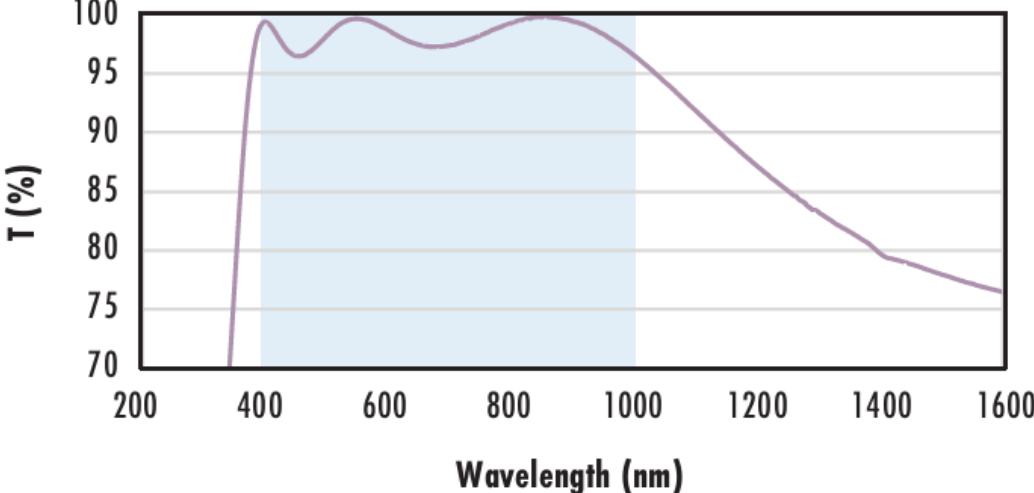
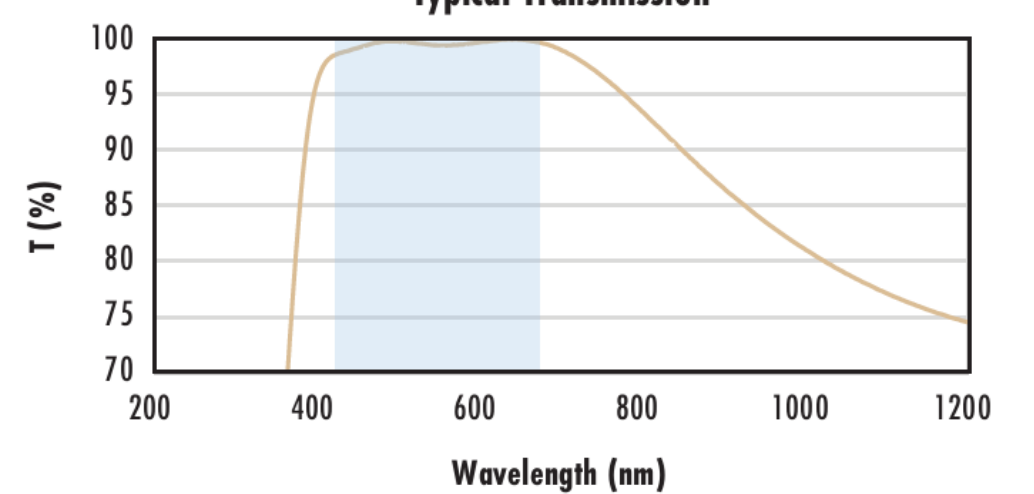
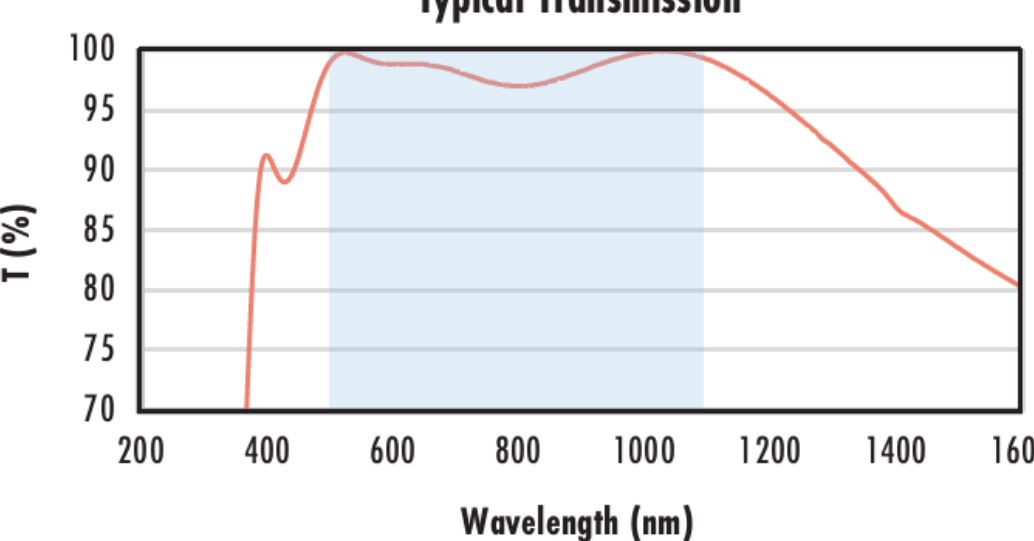
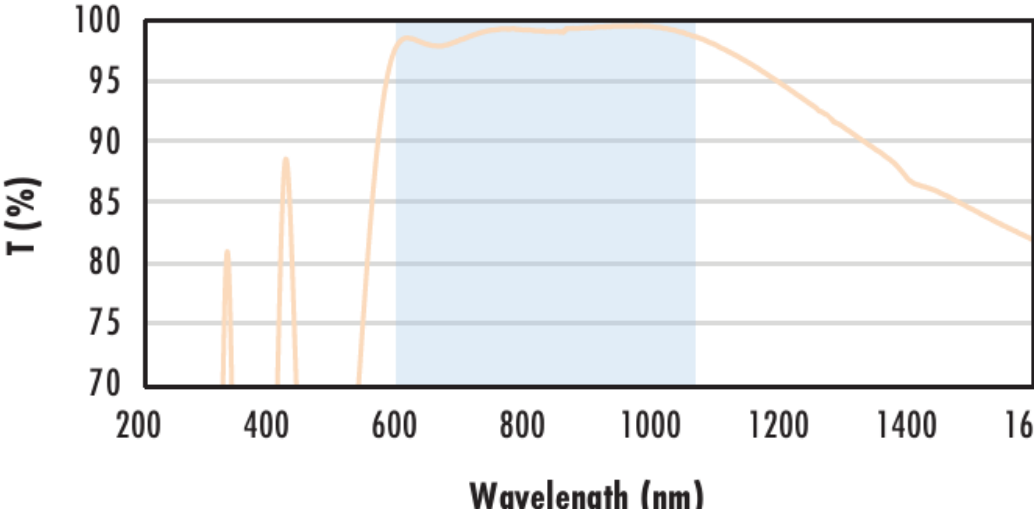
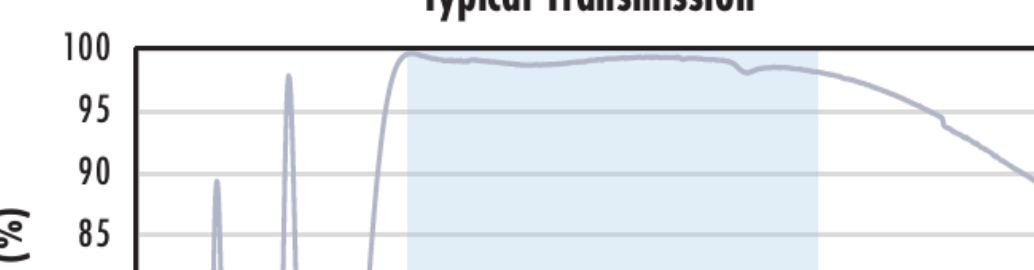
- AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)
- Also Available [Pre-Mounted in Engraved C-Mount Housings](#)

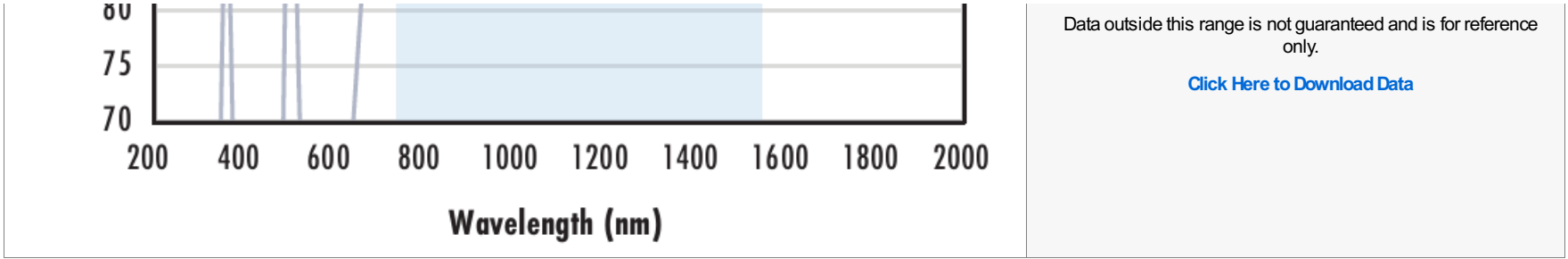
TECHSPEC® MgF2 Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. TECHSPEC® MgF2 Coated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered [uncoated](#) or with broadband anti-reflective (BBAR) coatings, which include [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#).

Technical Information



N-BK7	
Uncoated N-BK7 Typical Transmission Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data	
N-BK7 with MgF₂ Coating Typical Transmission Typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: R_{avg} ≤ 1.75% @ 400 - 700nm (N-BK7) Data outside this range is not guaranteed and is for reference only. Click Here to Download Data	
N-BK7 with VIS-EXT Coating Typical Transmission Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: R_{avg} ≤ 0.5% @ 350 - 700nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data	

N-BK7 with VIS-NIR Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$ $R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with VIS 0° Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with YAG-BBAR Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}$ $R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$ $R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with NIR I Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with NIR II Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{abs} \leq 1.5\% \text{ @ } 750 - 800\text{nm}$ $R_{abs} \leq 1.0\% \text{ @ } 800 - 1550\text{nm}$ $R_{avg} \leq 0.7\% \text{ @ } 750 - 1550\text{nm}$



Coating Curves

Compatible Mounts