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TECHSPEC[®] 18.0mm Dia. x 22.5mm FL, VIS 0°, Inked, Plano-Convex Lens



Stock **#49-900-INK** [CONTACT US](#)

☐ [Other Coating Options](#)

-

1

+

A\$95^{.20}

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Volume Pricing	
Qty 1-9	A\$95.20 each
Qty 10-24	A\$85.60 each
Qty 25-49	A\$76.40 each
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Product Downloads

General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

18.00 ±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):
VIS 0° (425-675nm)	Coating:
R _{avg} ≤0.4% @ 425 - 675nm	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:
425 - 675	Wavelength Range (nm):
5 J/cm² @ 532nm, 10ns	Damage Threshold, By Design: □

Regulatory Compliance

View	Certificate of Conformance:
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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 <0.4% Reflectance per Surface for 425 - 675nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [MgF₂](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)

TECHSPEC® VIS 0° 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. Plano-Convex lenses are ideal for a multitude of optics and photonics applications, including biotech instruments such as DNA sequencers and polymerase chain reaction (PCR) testing platforms. TECHSPEC® VIS 0° 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 [MgF₂](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#).

These coated lenses can be utilized in a host of optics and photonics applications, including biotech instruments such as DNA sequencers and polymerase chain reaction (PCR) testing platforms.

Technical Information



N-BK7																															
Uncoated N-BK7 Typical Transmission <table border="1"><caption>Approximate data for Uncoated N-BK7 Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>85</td></tr><tr><td>400</td><td>92</td></tr><tr><td>600</td><td>92</td></tr><tr><td>800</td><td>92</td></tr><tr><td>1000</td><td>92</td></tr><tr><td>1200</td><td>92</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>92</td></tr><tr><td>1800</td><td>92</td></tr><tr><td>2000</td><td>91</td></tr><tr><td>2200</td><td>89</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	85	400	92	600	92	800	92	1000	92	1200	92	1400	92	1600	92	1800	92	2000	91	2200	89	Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data				
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N-BK7 with MgF₂ Coating Typical Transmission <table border="1"><caption>Approximate data for N-BK7 with MgF2 Coating Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>85</td></tr><tr><td>400</td><td>92</td></tr><tr><td>500</td><td>95</td></tr><tr><td>600</td><td>95</td></tr><tr><td>700</td><td>95</td></tr><tr><td>800</td><td>94</td></tr><tr><td>1000</td><td>93</td></tr><tr><td>1200</td><td>93</td></tr><tr><td>1400</td><td>93</td></tr><tr><td>1600</td><td>93</td></tr><tr><td>1800</td><td>92</td></tr><tr><td>2000</td><td>91</td></tr><tr><td>2200</td><td>90</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	85	400	92	500	95	600	95	700	95	800	94	1000	93	1200	93	1400	93	1600	93	1800	92	2000	91	2200	90	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: $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7) Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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N-BK7 with VIS-EXT Coating Typical Transmission <table border="1"><caption>Approximate data for N-BK7 with VIS-EXT Coating Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>85</td></tr><tr><td>350</td><td>92</td></tr><tr><td>400</td><td>95</td></tr><tr><td>500</td><td>98</td></tr><tr><td>600</td><td>98</td></tr><tr><td>700</td><td>98</td></tr><tr><td>800</td><td>95</td></tr><tr><td>900</td><td>90</td></tr><tr><td>1000</td><td>85</td></tr><tr><td>1100</td><td>80</td></tr><tr><td>1200</td><td>78</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	85	350	92	400	95	500	98	600	98	700	98	800	95	900	90	1000	85	1100	80	1200	78	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: $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data				
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N-BK7 with VIS-NIR Coating Typical Transmission <table border="1"><caption>Approximate data for N-BK7 with VIS-NIR Coating Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>85</td></tr><tr><td>400</td><td>92</td></tr><tr><td>500</td><td>95</td></tr><tr><td>600</td><td>95</td></tr><tr><td>700</td><td>95</td></tr><tr><td>800</td><td>95</td></tr><tr><td>900</td><td>95</td></tr><tr><td>1000</td><td>95</td></tr><tr><td>1100</td><td>90</td></tr><tr><td>1200</td><td>85</td></tr><tr><td>1300</td><td>80</td></tr><tr><td>1400</td><td>78</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	85	400	92	500	95	600	95	700	95	800	95	900	95	1000	95	1100	90	1200	85	1300	80	1400	78	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: $R_{abs} \leq 0.25\% @ 880\text{nm}$ $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data		
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2004006008001000120014001600 Wavelength (nm)		
N-BK7 with VIS 0° Coating Typical Transmission T (%) 100959085807570 20040060080010001200 Wavelength (nm)		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: $R_{avg} \leq 0.4\%$ @ 425 - 675nm 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 T (%) 100959085807570 2004006008001000120014001600 Wavelength (nm)		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: $R_{abs} \leq 0.25\%$ @ 532nm $R_{abs} \leq 0.25\%$ @ 1064nm $R_{avg} \leq 1.0\%$ @ 500 - 1100nm 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 T (%) 100959085807570 2004006008001000120014001600 Wavelength (nm)		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: $R_{avg} \leq 0.5\%$ @ 600 - 1050nm 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 T (%) 100959085807570 200400600800100012001400160018002000 Wavelength (nm)		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: $R_{abs} \leq 1.5\%$ @ 750 - 800nm $R_{abs} \leq 1.0\%$ @ 800 - 1550nm $R_{avg} \leq 0.7\%$ @ 750 - 1550nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data

Coating Curves

Compatible Mounts

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