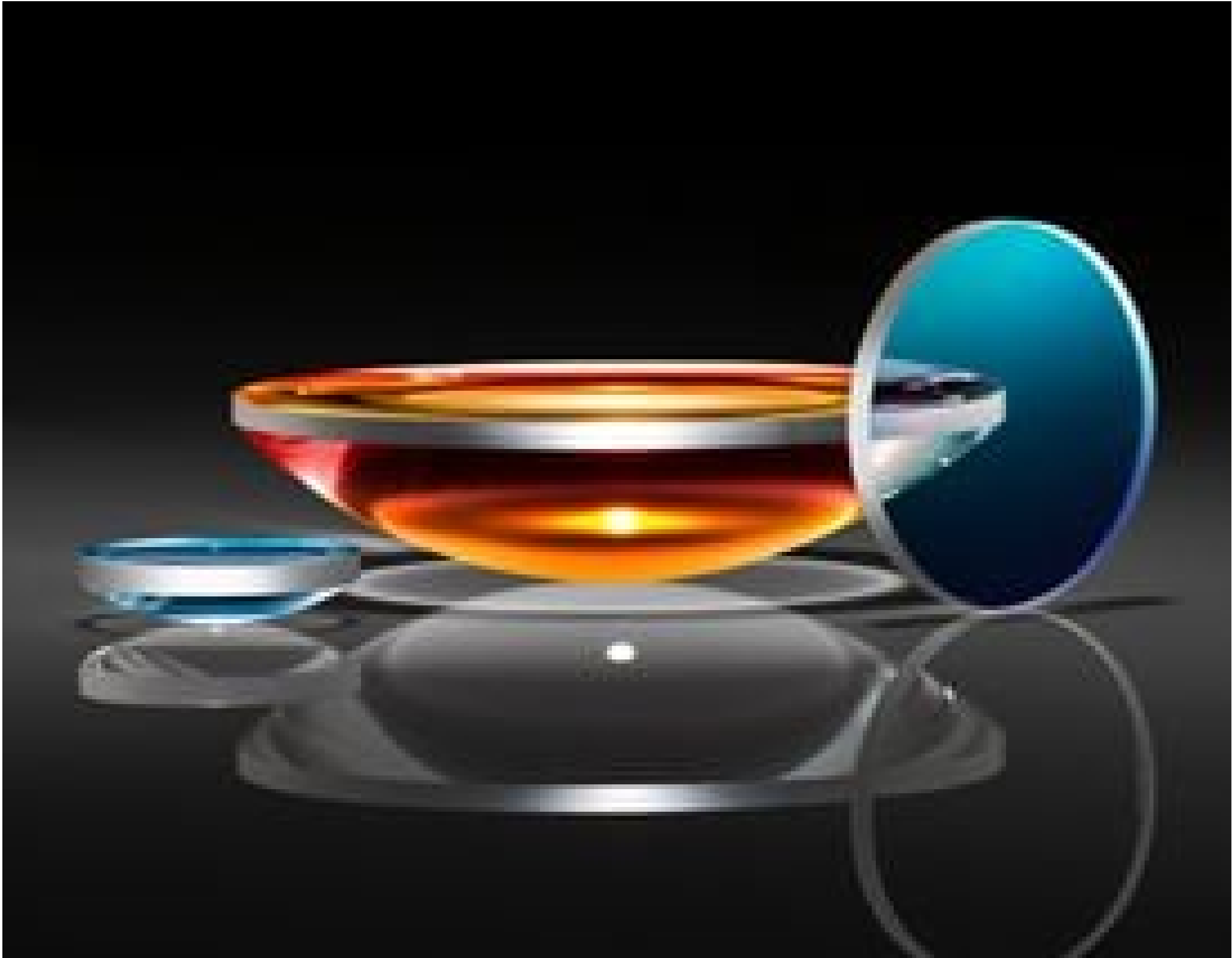


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TECHSPEC<sup>®</sup>

12mm Dia. x 40mm FL VIS-NIR Coated, UV Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock **#63-797** 3 In Stock

-

1

+

S\$218<sup>-40</sup>

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| Volume Pricing |                               |
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| Qty 1-5        | S\$218.40 each                |
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Product Downloads

General

Plano-Convex Lens

Type:

Physical & Mechanical Properties

12.00 +0.0/-0.025

Diameter (mm):

|                      |                           |
|----------------------|---------------------------|
| <1                   | Centering (arcmin):       |
| 3.13 ±0.05           | Center Thickness CT (mm): |
| 2.12                 | Edge Thickness ET (mm):   |
| 11                   | Clear Aperture CA (mm):   |
| Protective as needed | Bevel:                    |

|                                                                                                                    |                                  |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Optical Properties                                                                                                 |                                  |
| 40.00 @ 587.6nm                                                                                                    | Effective Focal Length EFL (mm): |
| 37.85                                                                                                              | Back Focal Length BFL (mm):      |
| VIS-NIR (400-1000nm)                                                                                               | Coating:                         |
| R <sub>abs</sub> ≤0.25% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm | Coating Specification:           |
| Fused Silica (Corning 7980)                                                                                        | Substrate: □                     |
| 40-20                                                                                                              | Surface Quality:                 |
| 1.5λ                                                                                                               | Power (P-V) @ 632.8nm:           |
| λ/4                                                                                                                | Irregularity (P-V) @ 632.8nm:    |
| ±1                                                                                                                 | Focal Length Tolerance (%):      |
| 18.34                                                                                                              | Radius R <sub>1</sub> (mm):      |
| 3.33                                                                                                               | f/#:                             |
| 0.15                                                                                                               | Numerical Aperture NA:           |
| 400 - 1000                                                                                                         | Wavelength Range (nm):           |
| 5 J/cm <sup>2</sup> @ 532nm, 10ns                                                                                  | Damage Threshold, Reference: □   |

|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | Reach 235:                  |

## 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

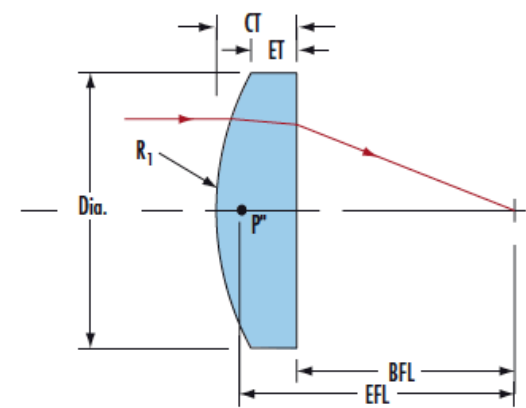
- AR Coated to Provide <1.25% Reflection per Surface for 400 - 870nm and for 890 – 1000nm
- Precision Fused Silica Substrate
- Various Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [UV-AR](#), [UV-VIS](#), [VIS-EXT](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses VIS-NIR Coated feature precision specifications and a [variety of coating options](#) on a broadband substrate. Fused Silica is commonly used in applications from the Ultraviolet (UV) through the Near-Infrared (NIR). Its low index of refraction, low coefficient of thermal expansion, and low inclusion content make it ideal for laser applications and harsh environmental conditions. TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses VIS-NIR Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are VIS-NIR coated to increase their coating performance in the visible and near infrared region.

## Technical Information



UV FS Transmission Curve



| FUSED SILICA                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Uncoated Fused Silica Typical Transmission</b></p> <p>The graph shows transmittance (%) on the y-axis (70 to 100) and wavelength (nm) on the x-axis (200 to 2200). The transmission is high (above 90%) across the entire range, with a slight dip around 1400 nm.</p>                                                                                                                  | <p>Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                             |
| <p><b>Fused Silica with <math>MgF_2</math> Coating Typical Transmission</b></p> <p>The graph shows transmittance (%) on the y-axis (70 to 100) and wavelength (nm) on the x-axis (200 to 2200). A blue shaded region indicates the coating design wavelength range from 400 nm to 700 nm. The transmission is high (above 90%) across the entire range, with a slight dip around 1400 nm.</p> | <p>Typical transmission of a 3mm thick fused silica window with <math>MgF_2</math> (400-700nm) coating at <math>0^\circ</math> AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 1.75\% @ 400 - 700nm</math> (N-BK7)</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                  |
| <p><b>Fused Silica with UV-AR Coating Typical Transmission</b></p> <p>The graph shows transmittance (%) on the y-axis (75 to 100) and wavelength (nm) on the x-axis (200 to 2200). A blue shaded region indicates the coating design wavelength range from 250 nm to 425 nm. The transmission is high (above 90%) across the entire range, with a slight dip around 1400 nm.</p>              | <p>Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at <math>0^\circ</math> AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.0\% @ 250 - 425nm</math><br/> <math>R_{avg} \leq 0.75\% @ 250 - 425nm</math><br/> <math>R_{avg} \leq 0.5\% @ 370 - 420nm</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |

|                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p data-bbox="573 290 1083 394"><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1329 451 1850 498">Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p data-bbox="1329 513 1850 560">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 575 1703 623"><math>R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}</math><math>R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}</math></div> <p data-bbox="1329 661 1850 709">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 724 1703 742"><a href="#">Click Here to Download Data</a></p>                                                                        |
| <p data-bbox="569 973 1087 1077"><b>Fused Silica with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 1154 1850 1202">Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p data-bbox="1329 1216 1850 1264">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1279 1703 1299"><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></div> <p data-bbox="1329 1314 1850 1362">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 1377 1703 1394"><a href="#">Click Here to Download Data</a></p>                                                                                                                          |
| <p data-bbox="573 1656 1083 1760"><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1329 1792 1850 1840">Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1329 1855 1850 1902">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1917 1703 1988"><math>R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}</math><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math><math>R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}</math></div> <p data-bbox="1329 2027 1850 2074">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2089 1703 2107"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="569 2318 1087 2421"><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 2499 1850 2546">Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1329 2561 1850 2608">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 2623 1703 2644"><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <p data-bbox="1329 2659 1850 2706">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2721 1703 2739"><a href="#">Click Here to Download Data</a></p>                                                                                                                           |

