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TECHSPEC[®] 18mm Dia. x 40mm FL, VIS 0° Coated, UV Double-Convex Lens



UV Fused Silica Double-Convex (DCX) Lenses



Stock **#48-981 8 In Stock**

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-

1

+

₹11,600

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Volume Pricing	
Qty 1-5	₹11,600 each
Qty 6-25	₹9,264 each
Qty 26-49	₹8,719 each
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General

Type:

Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

18.00 +0.0/-0.025	
<1	Centering (arcmin):
	Bevel:
Protective as needed	
4.29 ±0.10	Center Thickness CT (mm):
	Edge Thickness ET (mm):
2.00	
17.00	Clear Aperture CA (mm):

Optical Properties	
38.50	Back Focal Length BFL (mm):
40.00	Effective Focal Length EFL (mm):
	Coating:
VIS 0° (425-675nm)	
R _{avg} ≤0.4% @ 425 - 675nm	Coating Specification:
	Substrate: ☐
Fused Silica (Corning 7980)	
40-20	Surface Quality:
	Power (P-V) @ 632.8nm:
1.5λ	
λ/4	Irregularity (P-V) @ 632.8nm:
	Radius R ₁ =R ₂ (mm):
35.99	
	f/#:
2.22	
587.6	Focal Length Specification Wavelength (nm):
±1	Focal Length Tolerance (%):
	Numerical Aperture NA:
0.23	
425 - 675	Wavelength Range (nm):
	Damage Threshold, Reference: ☐
5 J/cm ² @ 532nm, 10ns	

Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:
	Country of Origin:
Japan	
Edmund Optics India Private Limited	Imported By:

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](#).

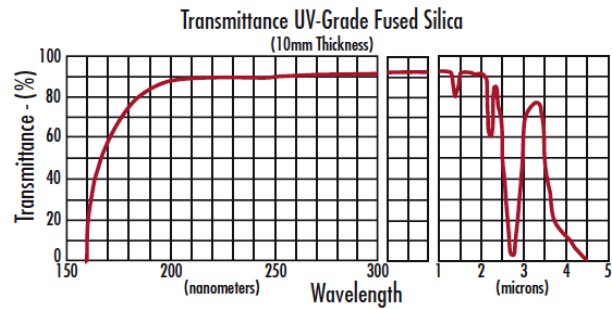
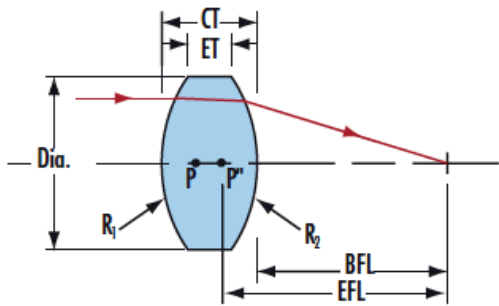
Product Details

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- Precision Fused Silica Substrate

TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging

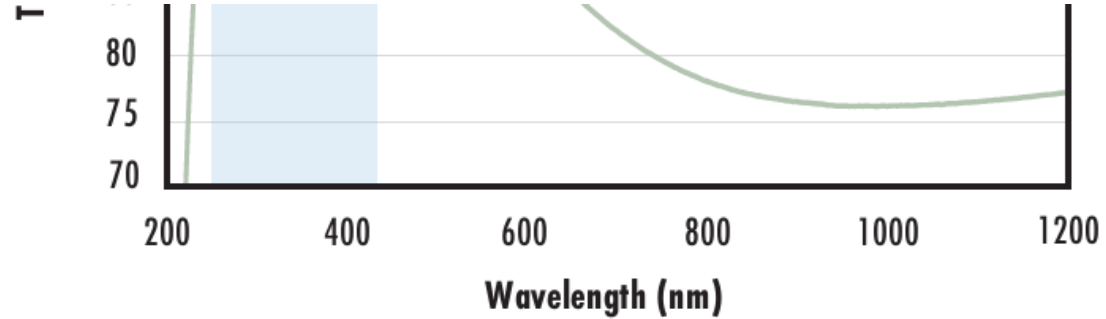
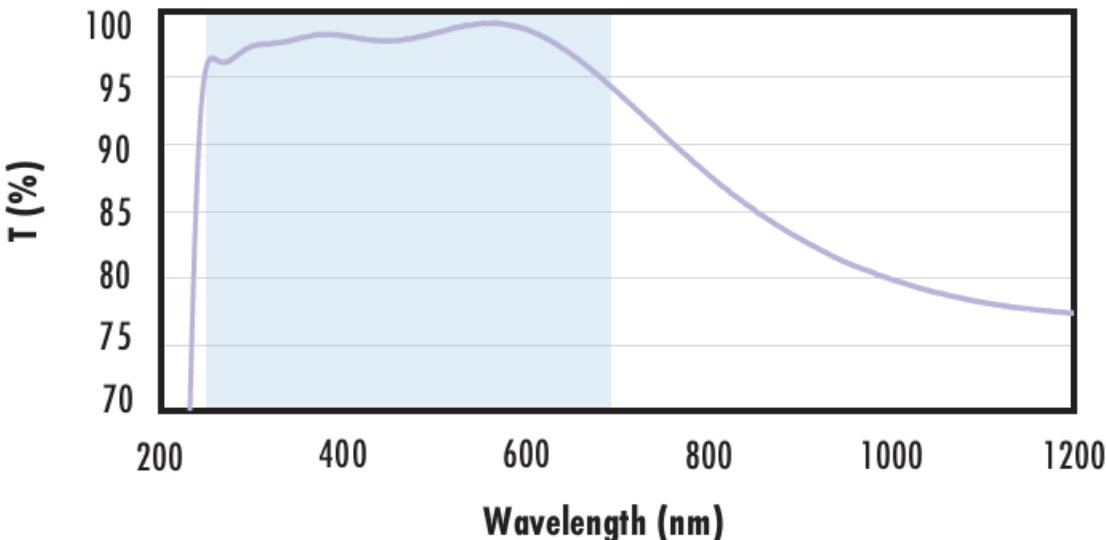
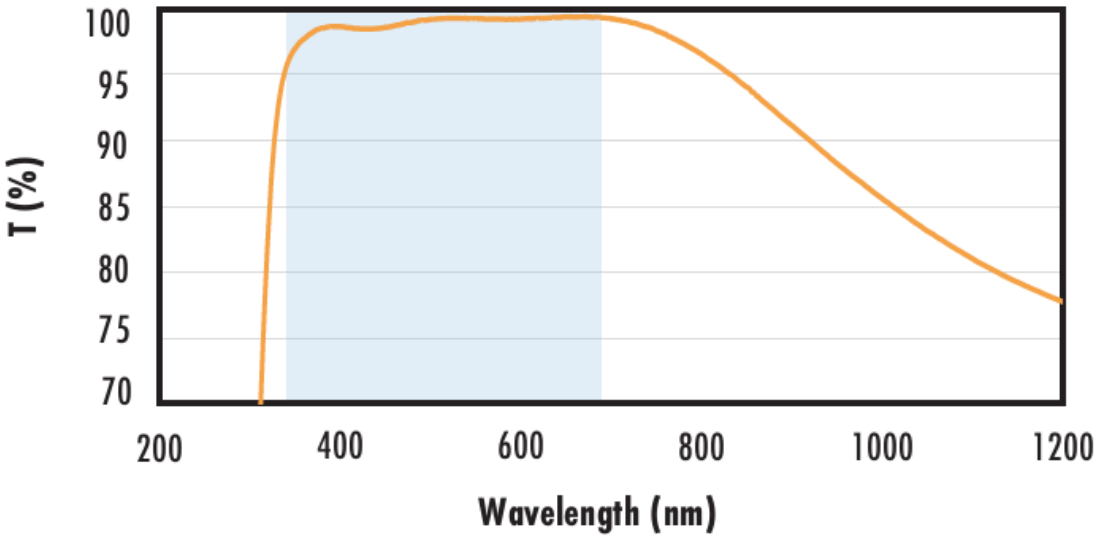
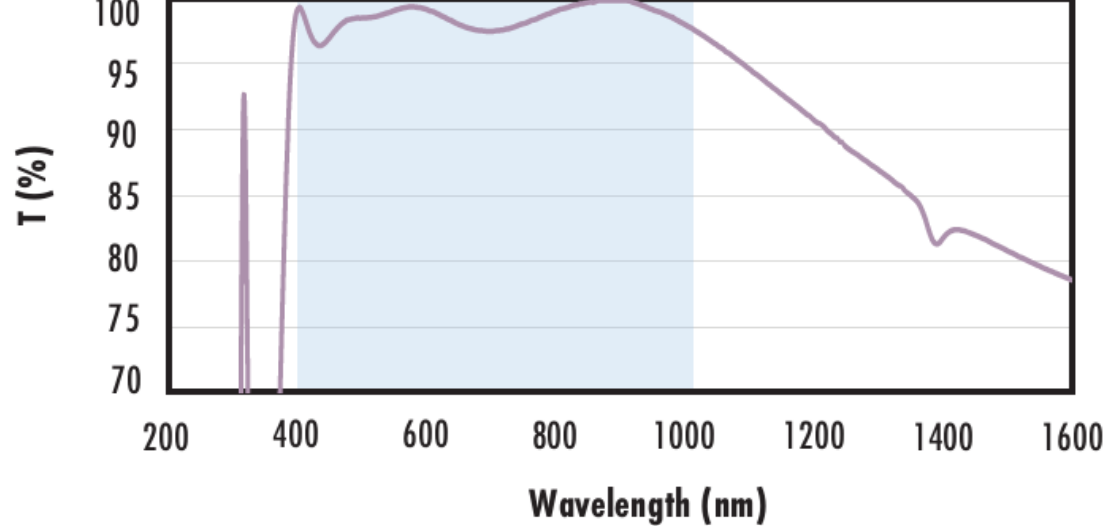
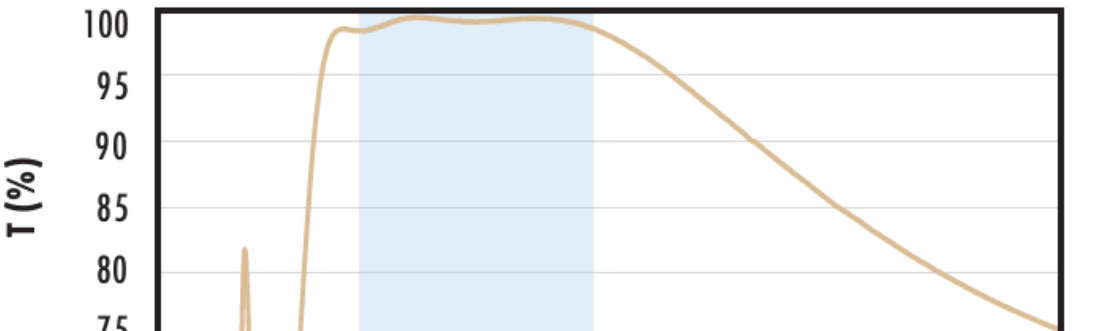
applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or canceled due to the symmetric lens design. TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses have a precision fused silica substrate. These lenses are available uncoated or with UV-AR, UV-VIS, VIS-EXT, VIS-NIR, VIS 0°, NIR I, or NIR II coatings.

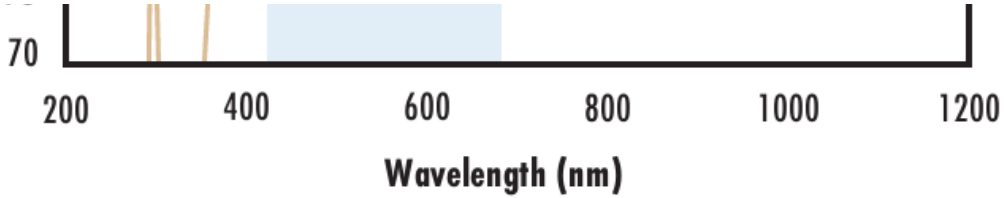
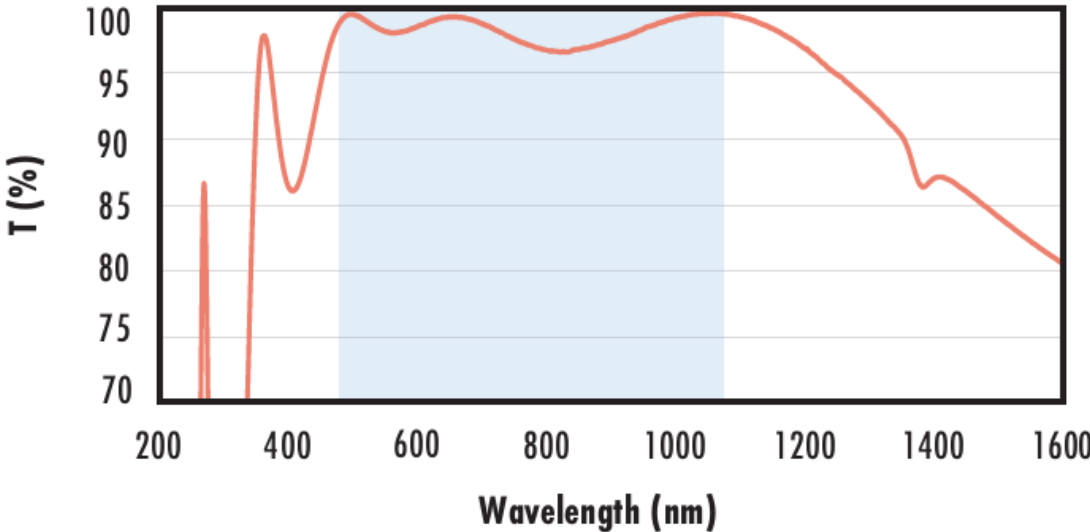
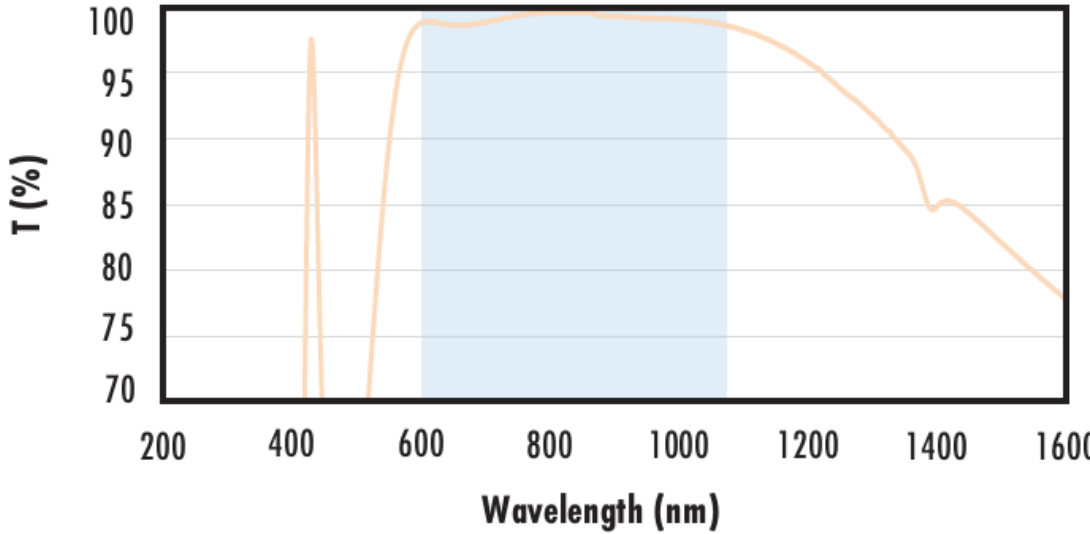
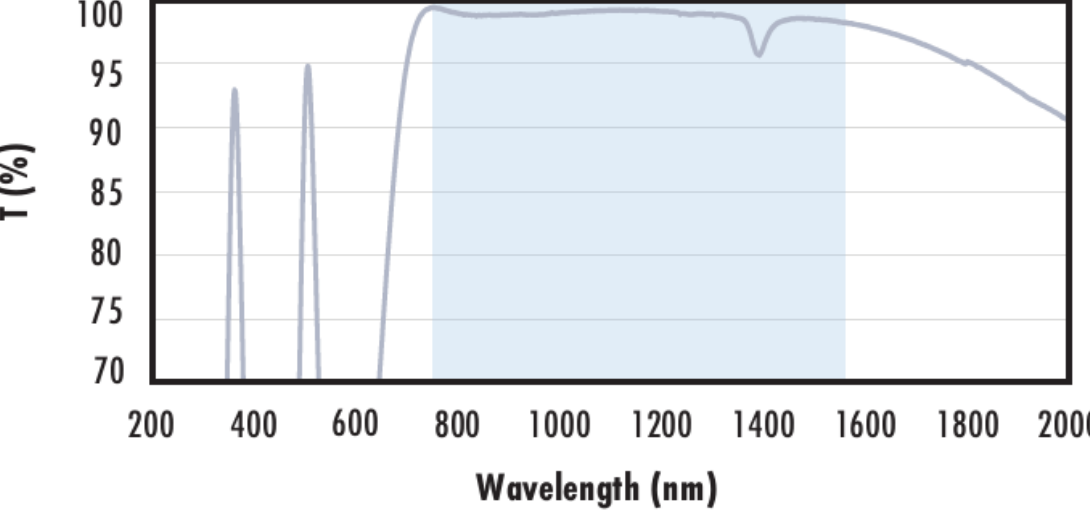
Technical Information



UV FS Transmission Curve

FUSED SILICA	
Uncoated Fused Silica Typical Transmission T (%) 100 95 90 85 80 75 70 2004006008001000120014001600180020002200 Wavelength (nm)	Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra. Click Here to Download Data
Fused Silica with MgF₂ Coating Typical Transmission T (%) 100 95 90 85 80 75 70 2004006008001000120014001600180020002200 Wavelength (nm)	Typical transmission of a 3mm thick fused silica 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
Fused Silica with UV-AR Coating Typical Transmission (%) 100 95 90 85	Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: R_{abs} ≤ 1.0% @ 250 - 425nm R_{avg} ≤ 0.75% @ 250 - 425nm

	$R_{avg} \leq 0.5\% @ 370 - 420nm$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with UV-VIS Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{abs} \leq 1.0\% @ 350 - 450nm$ $R_{avg} \leq 1.5\% @ 250 - 700nm$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS-EXT Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} \leq 0.5\% @ 350 - 700nm$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS-NIR Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{abs} \leq 0.25\% @ 880nm$ $R_{avg} \leq 1.25\% @ 400 - 870nm$ $R_{avg} \leq 1.25\% @ 890 - 1000nm$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS 0° Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica 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

	
Fused Silica with YAG-BBAR Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica 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
Fused Silica with NIR I Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica 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
Fused Silica with NIR II Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica 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