

**TECHSPEC®**

**Doppelkonvexe Linse aus UV-Quarzglas, 12 mm D. x 12 mm eff. BW, VIS-0°-beschichtet**



UV Fused Silica Double-Convex (DCX) Lenses



Produkt **#48-974** **9 In Stock**

[Andere Beschichtungen](#)

- 1 + €151<sup>00</sup>

**+ WARENKORB**

Mengenrabatte	
Stk. 1-5	€151,00 stückpreis
Stk. 6-25	€121,00 stückpreis
Stk. 26-49	€114,00 stückpreis
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ⓘ Preise exklusiv der geltenden Mehrwertsteuer und Abgaben

Downloadbereich

**Produktdetails**

Double-Convex Lens **Typ:**

## Physikalische und mechanische Eigenschaften

Durchmesser (mm):  
12.00 +0.0/-0.025

Zentrierung (Bogenminuten):  
<1

Fase:  
Protective as needed

Mittendicke CT (mm):  
7.09 ±0.05

Randdicke ET (mm):  
2.96

Freie Apertur CA (mm):  
11.00

## Optische Eigenschaften

Hintere Brennweite BFL (mm):  
9.25

Effektive Brennweite EFL (mm):  
12.00

Beschichtung:  
VIS 0° (425-675nm)

Beschichtungsspezifikation:  
R<sub>avg</sub> ≤0.4% @425 - 675nm

Substrat:   
Fused Silica (Corning 7980)

Oberflächenqualität:  
40-20

Power (P-V) @ 632,8 nm:  
1.5λ

Unregelmäßigkeit (P-V) @ 632,8 nm:  
λ/4

Radius R<sub>1</sub>=R<sub>2</sub> (mm):  
9.74

Blende:  
1.00

Designwellenlänge Brennweite (nm):  
587.6

Toleranz Brennweite (%):  
±1

Numerische Apertur NA:  
0.50

Wellenlängenbereich (nm):  
425 - 675

Zerstörschwelle, Referenz:   
5 J/cm<sup>2</sup> @ 532nm, 10ns

## Konformität mit Standards

RoHS 2015:  
Konform

Konformitätszertifikat:  
Anzeigen

Reach 235:  
Konform

## Gewünschte Spezifikationen nicht dabei?

Edmund Optics bietet einen umfangreichen kundenspezifischen Fertigungsservice für Optik- und Bildverarbeitungskomponenten an, speziell hergestellt für Ihre Anwendungsanforderungen. Wir ermöglichen flexible Lösungen für Ihre Bedürfnisse – von der Prototypenphase bis zur Serienfertigung. Unsere erfahrenen IngenieurInnen freuen sich auf die Zusammenarbeit und unterstützen Sie bei jedem Projektschritt.

Unser Service beinhaltet:

- Kundenspezifische Abmessungen, Materialien und mehr
- Hochpräzise Oberflächenqualität und -ebenheit
- Enge Toleranzen und komplexe Formen
- Skalierbare Produktion – vom Prototypen zur Serie

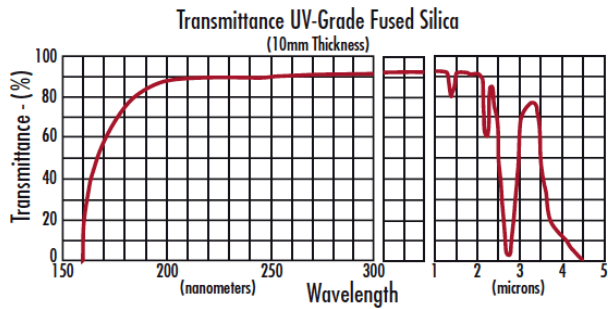
Erfahren Sie mehr über unsere [kundenspezifischen Fertigungsmöglichkeiten](#) oder senden Sie [hier](#) eine Anfrage.

## Produktdetails

- Ideal für die Bildgebung
- Minimieren Aberrationen wie sphärische Aberration oder Koma
- Präzises Substrat aus Quarzglas

Die TECHSPEC® doppelkonvexen Linsen (DCX-Linsen) aus UV-Quarzglas, auch bikonvexe Linsen genannt, haben zwei positive, symmetrische Oberflächen mit gleichem Krümmungsradius auf beiden Seiten. Die Linsen werden generell für Bildgebungen mit endlichem Abstand und Konjugiertenverhältnis (Verhältnis zwischen Objekt- und Bildweite) zwischen 0,2 und 5 empfohlen. Bei einem Konjugiertenverhältnis von 1 sind Aberrationen wie sphärische Aberration, chromatische Aberration, Koma und Verzeichnung aufgrund des symmetrischen Linsendesigns minimiert oder sogar ganz eliminiert.

# Technische Informationen



UV FS Transmission Curve

FUSED SILICA	
<h3>Uncoated Fused Silica Typical Transmission</h3>	<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>
<h3>Fused Silica with MgF<sub>2</sub> Coating Typical Transmission</h3>	<p>Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° 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 - 700\text{nm}</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>
<h3>Fused Silica with UV-AR Coating Typical Transmission</h3>	<p>Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° 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 - 425\text{nm}</math>  <math>R_{avg} \leq 0.75\% @ 250 - 425\text{nm}</math>  <math>R_{avg} \leq 0.5\% @ 370 - 420\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p>



[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:

$$R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$

$$R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}$$

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:

$$R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}$$

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:

$$R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

### Fused Silica with VIS 0° Coating Typical Transmission



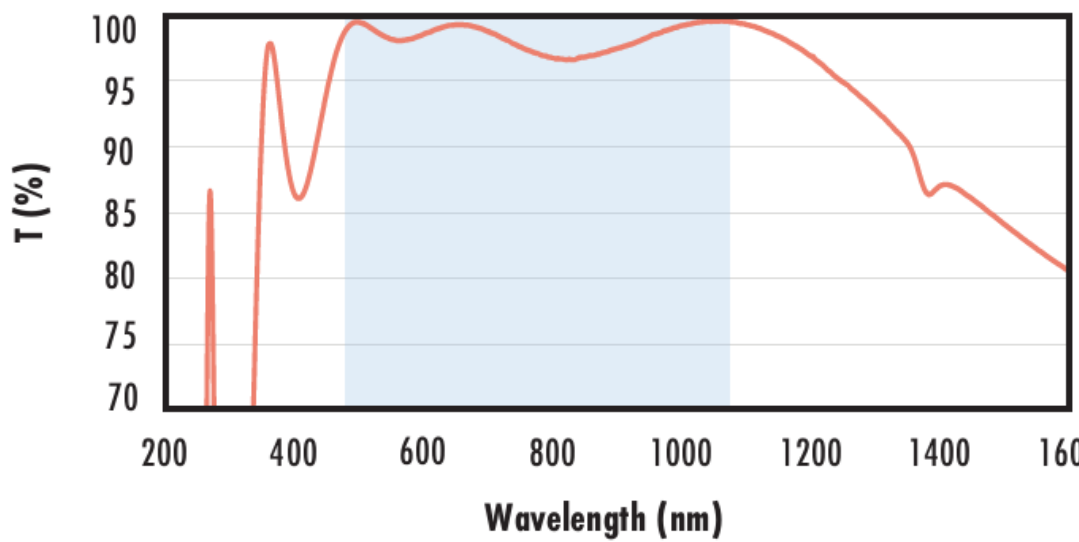
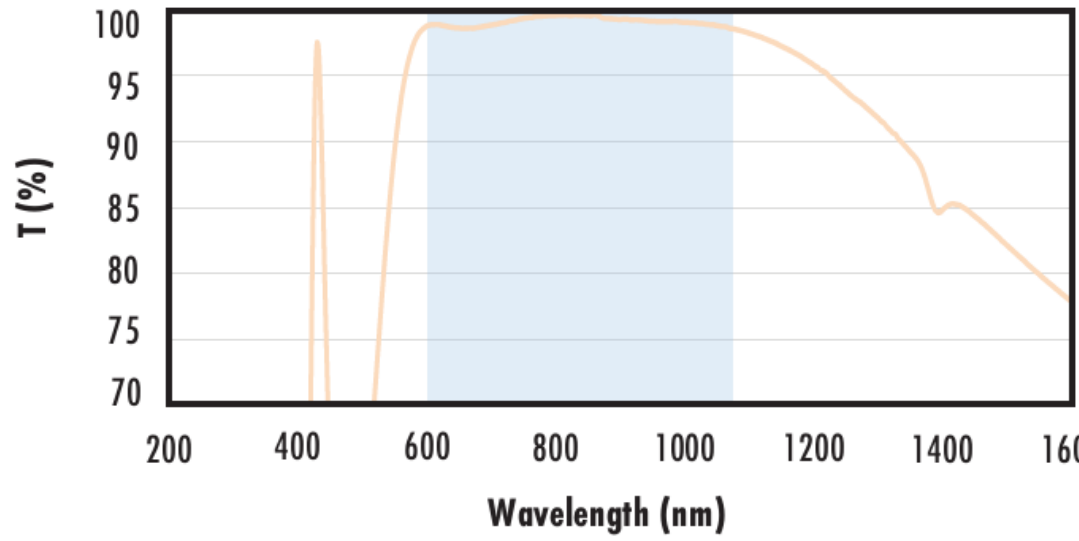
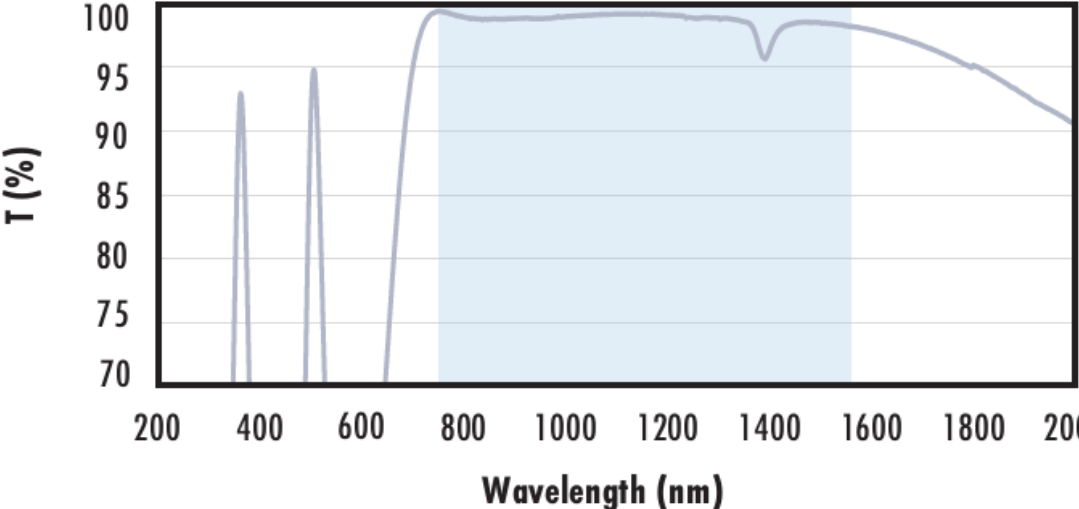
Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

200 400 600 800 1000 1200 Wavelength (nm)	
<p data-bbox="546 201 1113 311"><b>Fused Silica with YAG-BBAR Coating Typical Transmission</b></p>  <p data-bbox="252 326 1260 831">The graph shows transmission T (%) on the y-axis (70 to 100) and Wavelength (nm) on the x-axis (200 to 1600). A red line represents the transmission curve. A blue shaded region highlights the design wavelength range from 500 nm to 1100 nm. There are sharp absorption peaks at approximately 280 nm and 350 nm.</p>	<p data-bbox="1323 356 1848 415">Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1323 430 1848 474">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1449 489 1722 563"> <math>R_{abs} \leq 0.25\% @ 532nm</math>  <math>R_{abs} \leq 0.25\% @ 1064nm</math>  <math>R_{avg} \leq 1.0\% @ 500 - 1100nm</math> </p> <p data-bbox="1323 578 1848 623">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1449 638 1722 667"><a href="#">Click Here to Download Data</a></p>
<p data-bbox="588 875 1071 994"><b>Fused Silica with NIR I Coating Typical Transmission</b></p>  <p data-bbox="252 1009 1260 1513">The graph shows transmission T (%) on the y-axis (70 to 100) and Wavelength (nm) on the x-axis (200 to 1600). An orange line represents the transmission curve. A blue shaded region highlights the design wavelength range from 600 nm to 1050 nm. There are sharp absorption peaks at approximately 450 nm and 500 nm.</p>	<p data-bbox="1323 1053 1848 1113">Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1323 1127 1848 1172">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1449 1187 1722 1216"><math>R_{avg} \leq 0.5\% @ 600 - 1050nm</math></p> <p data-bbox="1323 1231 1848 1276">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1449 1291 1722 1320"><a href="#">Click Here to Download Data</a></p>
<p data-bbox="577 1558 1081 1676"><b>Fused Silica with NIR II Coating Typical Transmission</b></p>  <p data-bbox="252 1691 1260 2166">The graph shows transmission T (%) on the y-axis (70 to 100) and Wavelength (nm) on the x-axis (200 to 2000). A blue line represents the transmission curve. A blue shaded region highlights the design wavelength range from 750 nm to 1550 nm. There are sharp absorption peaks at approximately 350 nm and 500 nm.</p>	<p data-bbox="1323 1706 1848 1765">Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1323 1780 1848 1825">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1449 1840 1722 1914"> <math>R_{abs} \leq 1.5\% @ 750 - 800nm</math>  <math>R_{abs} \leq 1.0\% @ 800 - 1550nm</math>  <math>R_{avg} \leq 0.7\% @ 750 - 1550nm</math> </p> <p data-bbox="1323 1929 1848 1973">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1449 1988 1722 2018"><a href="#">Click Here to Download Data</a></p>

**Beschichtungskurven**

**Kompatible Halterungen**