

TECHSPEC<sup>®</sup>

Doppelkonvexe Linse aus UV-Quarzglas, 9 mm D. x 18 mm eff. BW, NIR-II-beschichtet



UV Fused Silica Double-Convex (DCX) Lenses



Produkt **#22-178** 4 In Stock

[Andere Beschichtungen](#)

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1

+

€149<sup>00</sup>

+ WARENKORB

| Mengenrabatte |                                 |
|---------------|---------------------------------|
| Stk. 1-5      | €149,00 stückpreis              |
| Stk. 6-25     | €119,00 stückpreis              |
| Stk. 26-49    | €111,00 stückpreis              |
| Need More?    | <a href="#">Angebotsanfrage</a> |

Preise exklusiv der geltenden Mehrwertsteuer und Abgaben

Downloadbereich

| Produktdetails     |      |
|--------------------|------|
| Double-Convex Lens | Typ: |
|                    |      |
|                    |      |

| Physikalische und mechanische Eigenschaften |                      |
|---------------------------------------------|----------------------|
| Durchmesser (mm):                           | 9.00 +0.0/-0.025     |
| Zentrierung (Bogenminuten):                 | <1                   |
| Fase:                                       | Protective as needed |
| Mittendicke CT (mm):                        | 2.60 ±0.05           |
| Randdicke ET (mm):                          | 1.32                 |
| Freie Apertur CA (mm):                      | 8.1                  |
| Optische Eigenschaften                      |                      |

|                                                     |                                                                                                                        |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Hintere Brennweite BFL (mm):                        | 17.09                                                                                                                  |
| Effektive Brennweite EFL (mm):                      | 18.00                                                                                                                  |
| Beschichtung:                                       | NIR II (750-1550nm)                                                                                                    |
| Beschichtungsspezifikation:                         | R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤0.7% @ 750 - 1550nm |
| Substrat: <input type="checkbox"/>                  | <a href="#">Fused Silica</a> (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):         | 16.09                                                                                                                  |
| Blende:                                             | 2.00                                                                                                                   |
| Designwellenlänge Brennweite (nm):                  | 587.6                                                                                                                  |
| Toleranz Brennweite (%):                            | ±1                                                                                                                     |
| Numerische Apertur NA:                              | 0.25                                                                                                                   |
| Wellenlängenbereich (nm):                           | 750 - 1550                                                                                                             |
| Zerstörschwelle, Referenz: <input type="checkbox"/> | 8 J/cm² @ 1064nm, 10ns                                                                                                 |

| Konformität mit Standards |                          |
|---------------------------|--------------------------|
| RoHS 2015:                | <a href="#">Konform</a>  |
| Konformitätszertifikat:   | <a href="#">Anzeigen</a> |
| Reach 235:                | <a href="#">Konform</a>  |

## Produktdetails

- Ideal für die Bildgebung
  - Mnimieren 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                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><h3>Uncoated Fused Silica<br/>Typical Transmission</h3><p>T (%)</p><p>Wavelength (nm)</p></div>                     | <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>                                                                                                                                                                                                                                                                              |
| <div><h3>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</h3><p>T (%)</p><p>Wavelength (nm)</p></div> | <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> |
| <div><h3>Fused Silica with UV-AR Coating<br/>Typical Transmission</h3></div>                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     | <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><br/><math>R_{avg} \leq 0.75\% @ 250 - 425\text{nm}</math><br/><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> <p><a href="#">Click Here to Download Data</a></p> |
| <p><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></p>    | <p>Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.0\% @ 350 - 450\text{nm}</math><br/><math>R_{avg} \leq 1.5\% @ 250 - 700\text{nm}</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><b>Fused Silica with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) 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 0.5\% @ 350 - 700\text{nm}</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><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) 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 0.25\% @ 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 400 - 870\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}</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><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>   | <p>Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p>                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     | <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</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><b>Fused Silica with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) 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 0.25\% @ 532\text{nm}</math><br/><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</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><b>Fused Silica with NIR I Coating</b><br/><b>Typical Transmission</b></p>    | <p>Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) 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 0.5\% @ 600 - 1050\text{nm}</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><b>Fused Silica with NIR II Coating</b><br/><b>Typical Transmission</b></p>   | <p>Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) 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 1.5\% @ 750 - 800\text{nm}</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</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> |

## Kundenspezifische Produkte

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.

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