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TECHSPEC<sup>®</sup> 9mm Dia. x -18mm FL, NIR I Coated, Double-Concave Lens



Stock **#49-545** **5 In Stock**

☐ [Other Coating Options](#)

-

1

+

C\$62<sup>.65</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | C\$62.65 each                 |
| Qty 10-25      | C\$56.00 each                 |
| Qty 26-49      | C\$50.05 each                 |
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Product Downloads

General

Type:

Double-Concave Lens

Physical & Mechanical Properties

Diameter (mm):

9.00 +0.0/-0.025

|                                                       |                                       |
|-------------------------------------------------------|---------------------------------------|
|                                                       | Bevel:                                |
| Protective as needed                                  |                                       |
|                                                       |                                       |
| Center Thickness CT (mm):                             | 1.50                                  |
| Center Thickness Tolerance (mm):                      | ±0.05                                 |
|                                                       |                                       |
| Centering (arcmin):                                   | <1                                    |
| Clear Aperture CA (mm):                               | 8.1                                   |
|                                                       |                                       |
| Edge Thickness ET (mm):                               | 2.45                                  |
|                                                       |                                       |
| Optical Properties                                    |                                       |
|                                                       |                                       |
| Effective Focal Length EFL (mm):                      | -18.00                                |
| Substrate: <input type="checkbox"/>                   | N-BK7                                 |
|                                                       |                                       |
| f#:                                                   | 2.00                                  |
| Numerical Aperture NA:                                | 0.25                                  |
|                                                       |                                       |
| Coating:                                              | NIR I (600-1050nm)                    |
| Wavelength Range (nm):                                | 600 - 1050                            |
|                                                       |                                       |
| Back Focal Length BFL (mm):                           | -18.49                                |
| Coating Specification:                                | R <sub>avg</sub> ≤0.5% @ 600 - 1050nm |
|                                                       |                                       |
| Focal Length Specification Wavelength (nm):           | 587.6                                 |
| Focal Length Tolerance (%):                           | ±1                                    |
|                                                       |                                       |
| Radius R <sub>1</sub> =R <sub>2</sub> (mm):           | -18.86                                |
| Surface Quality:                                      | 40-20                                 |
|                                                       |                                       |
| Damage Threshold, By Design: <input type="checkbox"/> | 7 J/cm <sup>2</sup> @ 1064nm, 10ns    |
| Power (P-V) @ 632.8nm:                                | 1.5λ                                  |
|                                                       |                                       |
| Irregularity (P-V) @ 632.8nm:                         | λ/4                                   |
|                                                       |                                       |
| Regulatory Compliance                                 |                                       |
|                                                       |                                       |
| RoHS 2015:                                            | Compliant                             |
| Certificate of Conformance:                           | View                                  |
|                                                       |                                       |
| Reach 235:                                            | Compliant                             |

## Product Details

- AR Coated to Provide <0.5% Reflectance per Surface for 600 - 1050nm
  - Designed for 0° Angle of Incidence
  - Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), and [NIR II](#)
- TECHSPEC® NIR I Coated Double-Concave (DCV) Lenses are designed to have two inward curved surfaces and a negative focal length similar to Plano-Concave (PCV) lenses. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Double-Concave (DCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® NIR I Coated Double-Concave (DCV) Lenses offer optimal performance in the 600nm to 1050nm range. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), or with [NIR II](#) AR coating options.

## Technical Information



## Custom

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](#).

## Compatible Mounts