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TECHSPEC<sup>®</sup>

3.5mm C Series Fixed Focal Length SWIR Lens



Stock **#23-216**

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-

1

+

€496<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1+         | €496,00 each                  |
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Product Downloads

| General                          |                    |
|----------------------------------|--------------------|
| C SWIR Series                    | Product Family:    |
| Fixed Focal Length Lens          | Type:              |
| Compact Lens                     | Imaging Lens Type: |
| Physical & Mechanical Properties |                    |

|          |                               |
|----------|-------------------------------|
|          |                               |
| Variable | Iris Option:                  |
|          |                               |
| 42.50    | Length (mm):                  |
|          |                               |
| 50       | Maximum Diameter (mm):        |
|          |                               |
| 50       | Outer Diameter (mm):          |
|          |                               |
| 110      | Weight (g):                   |
|          |                               |
| 5.89     | Maximum Rear Protrusion (mm): |
|          |                               |

|                                                                                             |                                               |
|---------------------------------------------------------------------------------------------|-----------------------------------------------|
| Optical Properties                                                                          |                                               |
| 102.4°                                                                                      | Horizontal Field of View @ Max Sensor Format: |
|                                                                                             |                                               |
| 102.4°                                                                                      | Horizontal Field of View, 1/1.8" Sensor:      |
|                                                                                             |                                               |
| 94.1°                                                                                       | Horizontal Field of View, 1/2" Sensor:        |
|                                                                                             |                                               |
| 87.2°                                                                                       | Horizontal Field of View, 1/2.5" Sensor:      |
|                                                                                             |                                               |
| 74.4°                                                                                       | Horizontal Field of View, 1/3" Sensor:        |
|                                                                                             |                                               |
| 57.4°                                                                                       | Horizontal Field of View, 1/4" Sensor:        |
|                                                                                             |                                               |
| 9.00                                                                                        | Maximum Image Circle (mm):                    |
|                                                                                             |                                               |
| 0.0572                                                                                      | Numerical Aperture NA, Object Side:           |
|                                                                                             |                                               |
| 8 (7)                                                                                       | Number of Elements (Groups):                  |
|                                                                                             |                                               |
| 900 - 1700                                                                                  | Wavelength Range (nm):                        |
|                                                                                             |                                               |
| 3.50                                                                                        | Focal Length FL (mm):                         |
|                                                                                             |                                               |
| 0 - ∞                                                                                       | Working Distance (mm):                        |
|                                                                                             |                                               |
| FOV @ Max Sensor Format, H x V (mm):<br>Horizontal: 102.4° Vertical: 82.3° Diagonal: 117.0° |                                               |
| f/2 - f/11                                                                                  | Aperture (f/#):                               |
|                                                                                             |                                               |
| 900 - 1700nm BBAR                                                                           | Coating:                                      |
|                                                                                             |                                               |
| 900 - 1700nm BBAR                                                                           | Coating Specification:                        |
|                                                                                             |                                               |
| 15.27                                                                                       | Entrance Pupil Position (mm):                 |
|                                                                                             |                                               |
| 18.31                                                                                       | Object Space Principal Plane (mm):            |
|                                                                                             |                                               |
| 7.49                                                                                        | Image Space Principal Plane (mm):             |
|                                                                                             |                                               |
| -20.95                                                                                      | Maximum Distortion (%):                       |
|                                                                                             |                                               |
| -15.28                                                                                      | Exit Pupil Position (mm):                     |
|                                                                                             |                                               |
| SWIR                                                                                        | Lens Wavelength Range:                        |
|                                                                                             |                                               |

|        |                        |
|--------|------------------------|
| Sensor |                        |
| 1/1.8" | Maximum Sensor Format: |
|        |                        |
| 2.74   | Pixel Size (µm):       |
|        |                        |

|                      |                        |
|----------------------|------------------------|
| Threading & Mounting |                        |
| M105 x 1.00 (Male)   | Filter Thread:         |
|                      |                        |
| #89-848 (Required)   | Filter Thread Adapter: |
|                      |                        |
| M50 x 0.5 (Male)     | Front Thread:          |
|                      |                        |
| C-Mount              | Mount:                 |
|                      |                        |

Environmental & Durability Factors

Storage Temperature (°C):

-20 to +60 For questions regarding operating temperature please contact our support team

Regulatory Compliance

[View](#)

Certificate of Conformance:

Product Details

- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Compact (C) SWIR Lens for 900-1700nm Wavelength Range
- 3.5mm to 100mm Focal Length

TECHSPEC® C Series Fixed Focal Length [SWIR](#) Lenses are compact, lightweight lenses designed as a low-cost alternative to the [TECHSPEC® SWIR Series Fixed Focal Length Lenses](#). These lenses feature large maximum apertures, broadband AR coatings optimized for a 900 – 1700nm wavelength range, and with the working distances and resolution requirements of factory automation and inspection in mind. For optimum resolution and performance at the application's target spectral range, SWIR Machine Vision filters and [SWIR LED illumination](#) are recommended. TECHSPEC® C Series Fixed Focal Length SWIR Lenses are manufactured to a high tolerance, resulting in greater levels of imaging performance and low lens-to-lens variation, assuring simple installation into multiple systems. Also available with optimized performance in the [VIS](#) or [VIS-NIR](#) spectral ranges, C-Series lenses are ideal for a wide variety of machine vision, factory automation, and autonomous applications.