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TECHSPEC® 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens



4.5mm Focal Length



Stock **#15-615** [CONTACT US](#)

⊖ 1 ⊕ ₹32,103

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| Qty 1+ | ₹32,103 each |
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General

Cw Series **Series:**

C-Mount compatible with O-ring 25mm ID x2mm **Note:**

Fixed Focal Length Lens **Type:**

Physical & Mechanical Properties

| | |
|-------|-------------------------------|
| Fixed | Iris Option: |
| 40.82 | Length (mm): |
| 54.00 | Maximum Diameter (mm): |
| 54 | Outer Diameter (mm): |
| 3.3 | Maximum Rear Protrusion (mm): |

Optical Properties

| | |
|------------------|---|
| | Field of View at Max Sensor Format: Horizontal: 84.7° Vertical: 66.1° Diagonal: 100.0° |
| 84.7° | Horizontal Field of View, 1/1.8" Sensor: |
| 76.8° | Horizontal Field of View, 1/2" Sensor: |
| 70.1° | Horizontal Field of View, 1/2.5" Sensor: |
| 59.34° | Horizontal Field of View, 1/3" Sensor: |
| 9.00 | Maximum Image Circle (mm): |
| 0.0130 | Numerical Aperture NA, Object Side: |
| 9 (8) | Number of Elements (Groups): |
| 4.50 | Focal Length FL (mm): |
| 75 - ∞ | Working Distance (mm): |
| f/4 | Aperture (f/#): |
| 425 - 675nm BBAR | Coating Specification: |
| 27.308 | Entrance Pupil Position (mm): |
| -31.12 | Object Space Principal Plane (mm): |
| 35.70 | Image Space Principal Plane (mm): |
| 15.959 | Maximum Distortion (%): |
| -9.272 | Exit Pupil Position (mm): |
| VIS | Lens Wavelength Range: |

Sensor

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

Threading & Mounting

| | |
|--------------------|----------------|
| M49 x0.75 (Female) | Filter Thread: |
| C-Mount | Mount: |

Environmental & Durability Factors

| | |
|-------------------|------------------------|
| IPX7 | Environmental Rating: |
| Waterproof (IPX7) | Type of Ruggedization: |

Regulatory Compliance

| | |
|----------------------|-----------------------------|
| View | Certificate of Conformance: |
| China | Country of Origin: |

Product Details

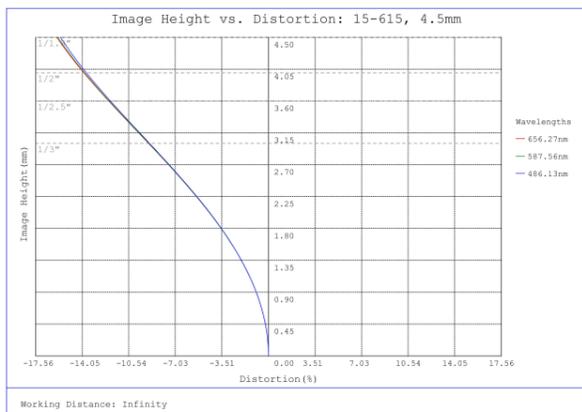
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

TECHSPEC® Cw Series Fixed Focal Length Lenses are waterproof versions of our [TECHSPEC® C Series Fixed Focal Length Lenses](#). Designed to meet IEC Ingress Protection Codes IPX7 and IPX9K, these lenses withstand exposure to water up to 1 meter depth for 30 minutes and operate in close-range high pressure, high temperature water spray downs with the exception of all 3.5 and 4.5mm options which are IPX7. These lenses include a hydrophobic coated window to prevent water droplets from settling on the lens' surface. To prevent moisture from entering the housing, the lenses are sealed with multiple O-rings. TECHSPEC® Cw Series Fixed Focal Length Lenses are designed for up to 7.5 MegaPixel, 2/3" sensors and are ideal for applications including food, pharma, automotive, and security. These lenses won the Bronze-Level 2021 Vision Systems Design Innovators Award.

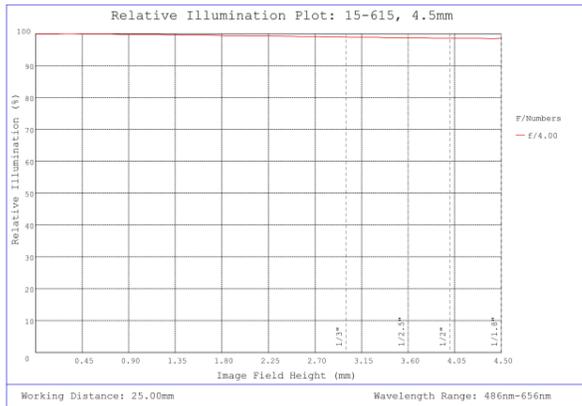
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

- **C Series:** Features locking cam focus and iris adjustment and is the most adjustable version of these optical designs; they are the typical high quality machine vision lenses. Also available with a [VIS-NIR Broadband Anti-Reflection \(BBAR\) Coating](#).
- **Ci Series:** Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.
- **Cr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.
- **Cx Series:** Modular, flexible mechanics allows lenses to be taken apart for easy integration of accessories such as liquid lenses, apertures, and more.
- **Liquid Lens Cx Series:** Designed with an integrated liquid lens for quick autofocus.
- **Cw Series:** Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 and IPX9K.

Technical Information



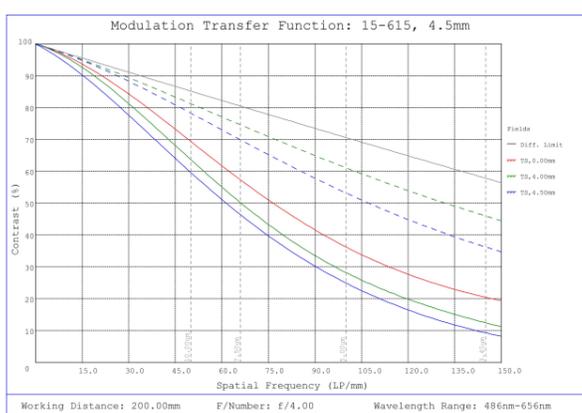
#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Distortion Plot



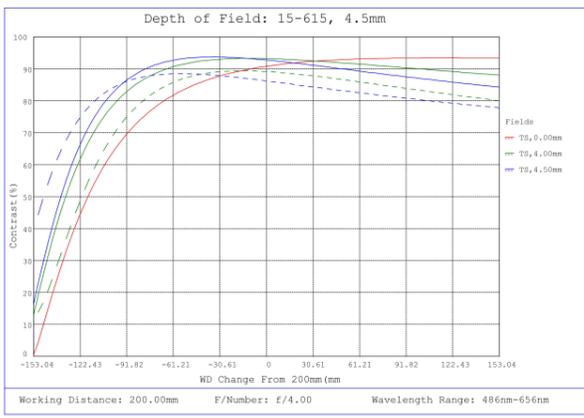
#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Relative Illumination Plot



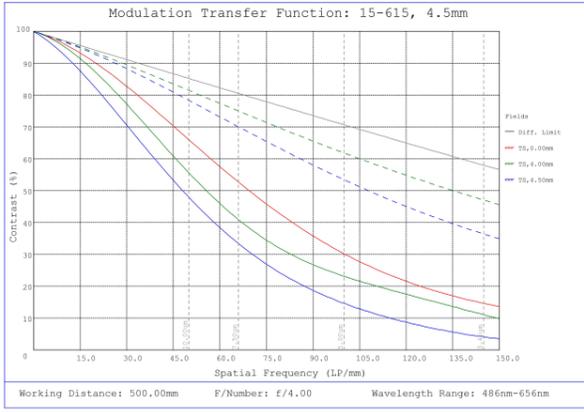
#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



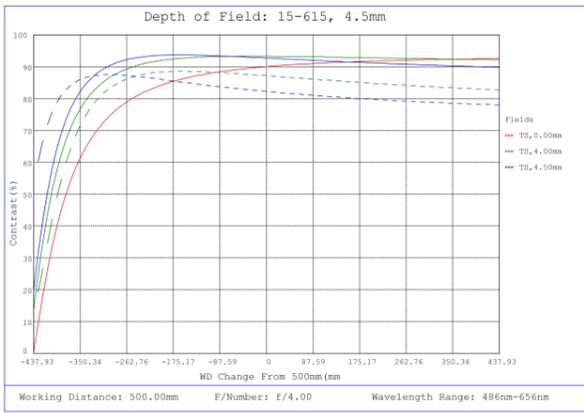
#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f4



#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f4



#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f4



#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f4