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TECHSPEC® 4mm f/1.8 Sealed UCw Series Fixed Focal Length Lens



UCw Series Fixed Focal Length Lenses

Stock **#70-581** [CONTACT US](#)

⊖ 1 ⊕ **\$394⁰⁰**

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| Qty 1+ | \$394.80 each |
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General

UCw Series **Product Family:**

Fixed Focal Length Lens **Type:**

High Performance Lens with Compact Form Factor **Imaging Lens Type:**

Physical & Mechanical Properties

Fixed **Iris Option:**

| | |
|-------|--------------------------------------|
| 40.71 | Length (mm): |
| 40 | Maximum Diameter (mm): |
| 40 | Outer Diameter (mm): |
| 6.01 | Maximum Rear Protrusion (mm): |
| 40.6 | Maximum Length (mm): |

Optical Properties

| | |
|---------------------|--|
| 84.8° | Horizontal Field of View @ Max Sensor Format: |
| 84.8° | Horizontal Field of View, 1/2" Sensor: |
| 77.8° | Horizontal Field of View, 1/2.5" Sensor: |
| 65.4° | Horizontal Field of View, 1/3" Sensor: |
| 9.7° | Horizontal Field of View, 1/4" Sensor: |
| 8.00 | Maximum Image Circle (mm): |
| 0.09 | Numerical Aperture NA, Object Side: |
| 8 (7) | Number of Elements (Groups): |
| 4.00 | Focal Length FL (mm): |
| 0 - ∞ | Working Distance (mm): |
| f/1.8 | Aperture (f/#): |
| M4 MgF ₂ | Coating: |
| M4 MgF ₂ | Coating Specification: |
| 12.69 | Entrance Pupil Position (mm): |
| 16.04 | Object Space Principal Plane (mm): |
| 5.84 | Image Space Principal Plane (mm): |
| -20.43 | Maximum Distortion (%): |
| -12.68 | Exit Pupil Position (mm): |
| VIS | Lens Wavelength Range: |

Sensor

| | |
|--------|---------------------------------|
| 1/2.5" | Optimized Sensor Format: |
| 1/2" | Maximum Sensor Format: |
| 1.85 | Pixel Size (µm): |

Threading & Mounting

| | |
|------------------------------------|-------------------------------|
| M62 x 0.75 (Male) | Filter Thread: |
| #33-308 (Required) | Filter Thread Adapter: |
| M40 x 0.5 (Male) | Front Thread: |
| C-Mount | Mount: |

Environmental & Durability Factors

| | |
|--|----------------------------------|
| IPX7 | Environmental Rating: |
| -20 to +60 For questions regarding operating temperature please contact our support team | Storage Temperature (°C): |

Waterproof (IPX7) **Type of Ruggedization:**

Regulatory Compliance

[View](#) **Certificate of Conformance:**

Product Details

- Up to 1/2", C-Mount Lens
- Ultra-Compact (UC), High Resolution Lens for Small Sensors
- Waterproof Versions of UC Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7

TECHSPEC® UCw Series Fixed Focal Length Lenses are waterproof versions of our [TECHSPEC® UC Series Fixed Focal Length Lenses](#), and are designed to meet IEC Ingress Protection Codes IPX7 to withstand exposure to water up to 1 meter depth for 30 minutes. Additionally, their compact size provides high performance at an affordable cost without sacrificing quality or feel. These lenses include a hydrophobic coated window to prevent water droplets from settling on the lens' surface and are sealed with multiple O-rings to prevent moisture from entering the housing. TECHSPEC® UCw Series Fixed Focal Length Lenses are ideal for applications in space constrained, harsh environments such as food inspection, security, medical, and factory automation.

Edmund Optics has created a family of high-performance ultra-compact optical designs (the UC Series family) and developed 3 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the UC Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

UC Series: Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

UCi Series: Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.

UCr Series: All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

UCw Series: Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 to withstand exposure to water up to 1 meter depth for 30 minutes.
