

**TECHSPEC® 6mm, f/1.85 Sealed UCw Series Fixed Focal Length Lens**



UCw Series Fixed Focal Length Lenses

Stock **#70-588** **6 In Stock**

⊖ 1 ⊕ A\$451<sup>00</sup>

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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:**

40.10	<b>Length (mm):</b>
38	<b>Maximum Diameter (mm):</b>
38	<b>Outer Diameter (mm):</b>
3.82	<b>Maximum Rear Protrusion (mm):</b>
40.9	<b>Maximum Length (mm):</b>

## Optical Properties

60.0°	<b>Horizontal Field of View @ Max Sensor Format:</b>
60.0°	<b>Horizontal Field of View, 1/2" Sensor:</b>
54.6°	<b>Horizontal Field of View, 1/2.5" Sensor:</b>
45.4°	<b>Horizontal Field of View, 1/3" Sensor:</b>
34.2°	<b>Horizontal Field of View, 1/4" Sensor:</b>
8.00	<b>Maximum Image Circle (mm):</b>
0.03	<b>Numerical Aperture NA, Object Side:</b>
9 (8)	<b>Number of Elements (Groups):</b>
6.00	<b>Focal Length FL (mm):</b>
50 - ∞	<b>Working Distance (mm):</b>
f/1.8	<b>Aperture (f/#):</b>
N4 MgF <sub>2</sub>	<b>Coating:</b>
N4 MgF <sub>2</sub>	<b>Coating Specification:</b>
12.61	<b>Entrance Pupil Position (mm):</b>
17.55	<b>Object Space Principal Plane (mm):</b>
4.85	<b>Image Space Principal Plane (mm):</b>
-11.19	<b>Maximum Distortion (%):</b>
-23.26	<b>Exit Pupil Position (mm):</b>
VIS	<b>Lens Wavelength Range:</b>

## Sensor

1/2.5"	<b>Optimized Sensor Format:</b>
1/2"	<b>Maximum Sensor Format:</b>
1.85	<b>Pixel Size (µm):</b>

## Threading & Mounting

M34 x0.5 (Female)	<b>Filter Thread:</b>
M34 x0.5 (Female)	<b>Front Thread:</b>
C-Mount	<b>Mount:</b>

## Environmental & Durability Factors

IPX7	<b>Environmental Rating:</b>
-20 to +60 For questions regarding operating temperature please contact our support team	<b>Storage Temperature (°C):</b>
Waterproof (IPX7)	<b>Type of Ruggedization:</b>

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## Regulatory Compliance

Certificate of Conformance:

[View](#)

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## 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.

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