

**TECHSPEC® 4mm f/11 Sealed UCw Series Fixed Focal Length Lens**



UCw Series Fixed Focal Length Lenses

Stock **#70-586** **2 In Stock**

⊖ 1 ⊕ **\$394<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:**

Length (mm):  
40.71

Maximum Diameter (mm):  
40

Outer Diameter (mm):  
40

Maximum Rear Protrusion (mm):  
6.01

Maximum Length (mm):  
40.6

## Optical Properties

Horizontal Field of View @ Max Sensor Format:  
84.8°

Horizontal Field of View, 1/2" Sensor:  
84.8°

Horizontal Field of View, 1/2.5" Sensor:  
77.8°

Horizontal Field of View, 1/3" Sensor:  
65.4°

Horizontal Field of View, 1/4" Sensor:  
49.7°

Maximum Image Circle (mm):  
8.00

Numerical Aperture NA, Object Side:  
0.01

Number of Elements (Groups):  
8 (7)

Focal Length FL (mm):  
4.00

Working Distance (mm):  
0 - ∞

Aperture (f/#):  
f/11.0

Coating:  
M4 MgF<sub>2</sub>

Coating Specification:  
M4 MgF<sub>2</sub>

Entrance Pupil Position (mm):  
12.69

Object Space Principal Plane (mm):  
16.04

Image Space Principal Plane (mm):  
5.84

Maximum Distortion (%):  
-20.43

Exit Pupil Position (mm):  
-12.68

Lens Wavelength Range:  
VIS

## Sensor

Optimized Sensor Format:  
1/2.5"

Maximum Sensor Format:  
1/2"

Pixel Size (µm):  
1.85

## Threading & Mounting

Filter Thread:  
M62 x 0.75 (Male)

Filter Thread Adapter:  
[#33-308 \(Required\)](#)

Front Thread:  
M40 x 0.5 (Male)

Mount:  
C-Mount

## Environmental & Durability Factors

Environmental Rating:  
IPX7

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

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

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## Regulatory Compliance

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

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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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