

**TECHSPEC® 12mm, f/1.8 Sealed UCw Series Fixed Focal Length Lens**



UCw Series Fixed Focal Length Lenses

Stock #70-602 **8 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:**

34.16	Length (mm):
30	Maximum Diameter (mm):
30	Outer Diameter (mm):
4.52	Maximum Rear Protrusion (mm):
35.2	Maximum Length (mm):

## Optical Properties

34.0°	Horizontal Field of View @ Max Sensor Format:
34.0°	Horizontal Field of View, 1/1.8" Sensor:
30.3°	Horizontal Field of View, 1/2" Sensor:
27.5°	Horizontal Field of View, 1/2.5" Sensor:
22.8°	Horizontal Field of View, 1/3" Sensor:
17.1°	Horizontal Field of View, 1/4" Sensor:
9.00	Maximum Image Circle (mm):
0.03	Numerical Aperture NA, Object Side:
7 (6)	Number of Elements (Groups):
12.00	Focal Length FL (mm):
100 - ∞	Working Distance (mm):
f/1.8	Aperture (f/#):
M4 MgF <sub>2</sub>	Coating:
M4 MgF <sub>2</sub>	Coating Specification:
15.92	Entrance Pupil Position (mm):
23.04	Object Space Principal Plane (mm):
-1.82	Image Space Principal Plane (mm):
-3.03	Maximum Distortion (%):
-19.24	Exit Pupil Position (mm):
VIS	Lens Wavelength Range:

## Sensor

1/2.5"	Optimized Sensor Format:
1/1.8"	Maximum Sensor Format:
1.85	Pixel Size (µm):

## Threading & Mounting

M25.5 x 0.50 (Female)	Filter 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:

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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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