

**TECHSPEC® 50mm, f/4.0 Sealed Cw Series Fixed Focal Length Lens**

50mm Focal Length

Stock #15-664 **1 In Stock** 1  A\$457<sup>00</sup>**ADD TO CART**

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Qty 1+	A\$457.00 each
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**SPECIFICATIONS****General**

Cw Series

Series:

Note:

C-Mount compatible with O-ring 25mm ID x2mm

Type:  
Fixed Focal Length Lens

## Physical & Mechanical Properties

Iris Option:  
Fixed

Length (mm):  
51.80

Maximum Diameter (mm):  
41.00

Outer Diameter (mm):  
41

Maximum Rear Protrusion (mm):  
2.1

## Optical Properties

Field of View at Max Sensor Format:  
Horizontal: 10.0°  
Vertical: 7.54°  
Diagonal: 12.5°

Horizontal Field of View, 2/3" Sensor:  
10.0°

Horizontal Field of View, 1/1.8" Sensor:  
8.22°

Horizontal Field of View, 1/2" Sensor:  
7.31°

Horizontal Field of View, 1/2.5" Sensor:  
6.58°

Horizontal Field of View, 1/3" Sensor:  
5.49°

Maximum Image Circle (mm):  
11.00

Numerical Aperture NA, Object Side:  
0.021

Number of Elements (Groups):  
6 (5)

Focal Length FL (mm):  
50.00

Working Distance (mm):  
100 - ∞

Aperture (f#):  
f/4.0

Coating Specification:  
425 - 675nm BBAR

Entrance Pupil Position (mm):  
41.82

Object Space Principal Plane (mm):  
-11.85

Image Space Principal Plane (mm):  
-38.15

Maximum Distortion (%):  
0.257

Exit Pupil Position (mm):  
-40.88

Lens Wavelength Range:  
VIS

## Sensor

Maximum Sensor Format:  
2/3"

Pixel Size (μm):  
2.74

## Threading & Mounting

Filter Thread:  
M36 x 0.50 (Female)

Mount:  
C-Mount

## Environmental & Durability Factors

Environmental Rating:  
IPX7 and IPX9K

Storage Temperature (°C):  
-20 to +60

Type of Ruggedization:  
Waterproof (IPX7 and IPX9K)

## Regulatory Compliance

Certificate of Conformance:

[View](#)

## PRODUCT DETAILS

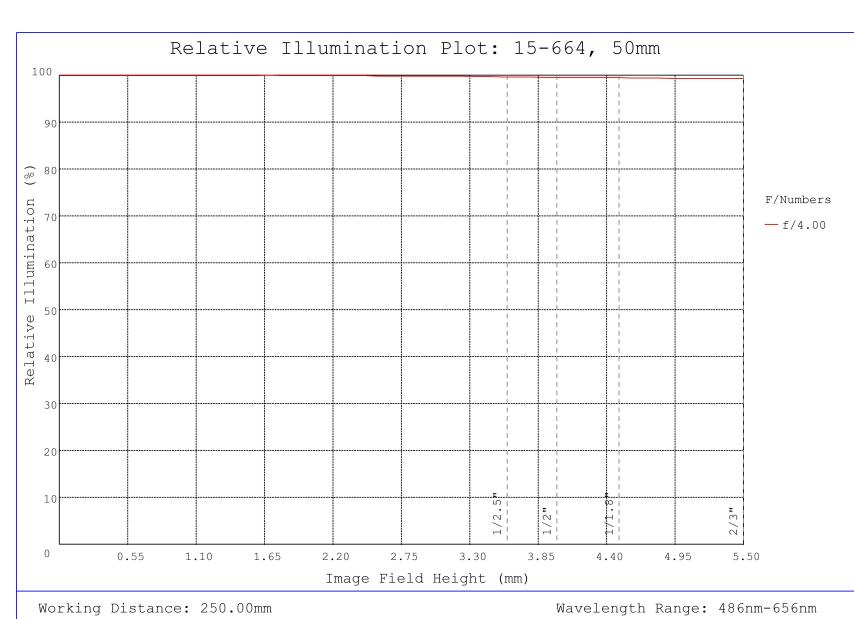
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

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:

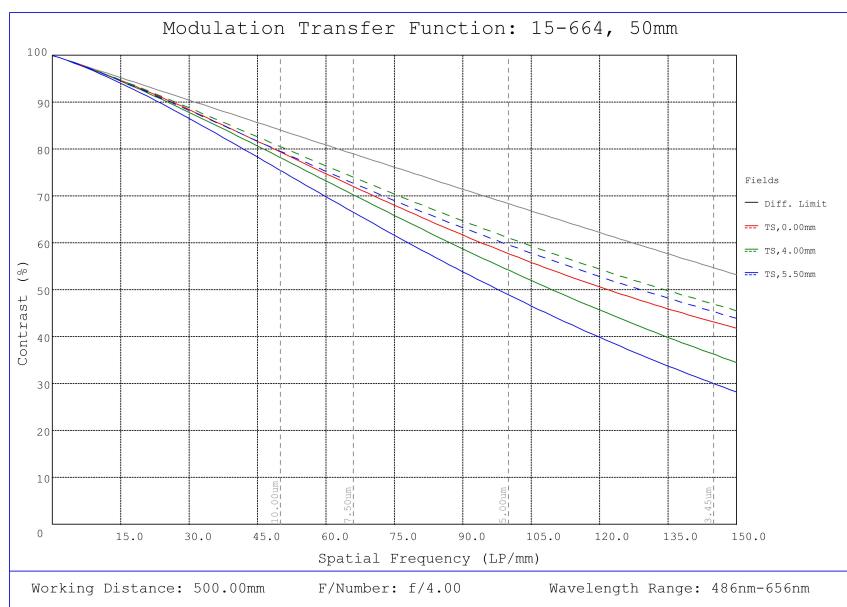
- C Series:** Features locking cam focus and iris adjustment and is the most adjustable version of these optical designs; they are the typical high quality machine vision lenses. Also available with a [VIS-NIR Broadband Anti-Reflection \(BBAR\) Coating](#).
- CI Series:** Simplified mechanics featuring 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





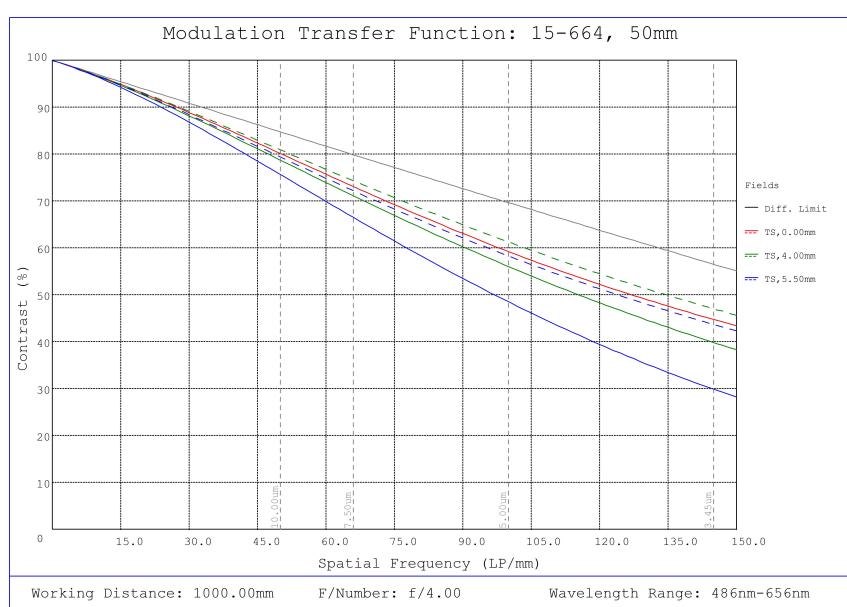
#15-664, 50mm, f/4.0 Sealed Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



#15-664, 50mm, f/4.0 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f4



#15-664, 50mm, f/4.0 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f4



#15-664, 50mm, f/4.0 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f4



#15-664, 50mm, f/4.0 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f4