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TECHSPEC<sup>®</sup>

6mm, f/1.8 Cw Series Fixed Focal Length Lens



6mm Focal Length



Stock **#15-620** **9 In Stock**

-

1

+

€418<sup>.00</sup>

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| Volume Pricing |                               |
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| Qty 1+         | €418,00 each                  |
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**i** Prices shown are exclusive of VAT/local taxes

Product Downloads

| General                                      |         |
|----------------------------------------------|---------|
| Cw Series                                    | Series: |
| C-Mount compatible with O-ring 25mm ID x 2mm | Note:   |
| Fixed Focal Length Lens                      | Type:   |

| Physical & Mechanical Properties                        |                                          |
|---------------------------------------------------------|------------------------------------------|
| Fixed                                                   | Iris Option:                             |
|                                                         |                                          |
| 51.40                                                   | Length (mm):                             |
|                                                         |                                          |
| 46.00                                                   | Maximum Diameter (mm):                   |
|                                                         |                                          |
| 46                                                      | Outer Diameter (mm):                     |
|                                                         |                                          |
| 1.2                                                     | Maximum Rear Protrusion (mm):            |
| Optical Properties                                      |                                          |
| Horizontal: 62.1°<br>Vertical: 47.7°<br>Diagonal: 75.0° | Field of View at Max Sensor Format:      |
|                                                         |                                          |
|                                                         |                                          |
|                                                         |                                          |
| 62.1°                                                   | Horizontal Field of View, 1/1.8" Sensor: |
|                                                         |                                          |
| 55.8°                                                   | Horizontal Field of View, 1/2" Sensor:   |
|                                                         |                                          |
| 50.7°                                                   | Horizontal Field of View, 1/2.5" Sensor: |
|                                                         |                                          |
| 42.7°                                                   | Horizontal Field of View, 1/3" Sensor:   |
|                                                         |                                          |
| 9.00                                                    | Maximum Image Circle (mm):               |
|                                                         |                                          |
| 0.0180                                                  | Numerical Aperture NA, Object Side:      |
|                                                         |                                          |
| 10 (9)                                                  | Number of Elements (Groups):             |
|                                                         |                                          |
| 6.00                                                    | Focal Length FL (mm):                    |
|                                                         |                                          |
| 75 - ∞                                                  | Working Distance (mm):                   |
|                                                         |                                          |
| f/1.8                                                   | Aperture (f/#):                          |
|                                                         |                                          |
| 425 - 675nm BBAR                                        | Coating Specification:                   |
|                                                         |                                          |
| 21.52                                                   | Entrance Pupil Position (mm):            |
|                                                         |                                          |
| -33.64                                                  | Object Space Principal Plane (mm):       |
|                                                         |                                          |
| 22.43                                                   | Image Space Principal Plane (mm):        |
|                                                         |                                          |
| 6.868                                                   | Maximum Distortion (%):                  |
|                                                         |                                          |
| -25.51                                                  | Exit Pupil Position (mm):                |
|                                                         |                                          |
| VIS                                                     | Lens Wavelength Range:                   |
| Sensor                                                  |                                          |
| 1/1.8"                                                  | Maximum Sensor Format:                   |
|                                                         |                                          |
| 2.74                                                    | Pixel Size (µm):                         |
| Threading & Mounting                                    |                                          |
| M30.5 x0.50 (Female)                                    | Filter Thread:                           |
|                                                         |                                          |
| C-Mount                                                 | Mount:                                   |
| Environmental & Durability Factors                      |                                          |
| IPX7 and IPX9K                                          | Environmental Rating:                    |
|                                                         |                                          |
| -20 to +60                                              | Storage Temperature (°C):                |
|                                                         |                                          |
| Waterproof (IPX7 and IPX9K)                             | Type of Ruggedization:                   |
| Regulatory Compliance                                   |                                          |
|                                                         |                                          |
| Certificate of Conformance:                             |                                          |

# Product Details

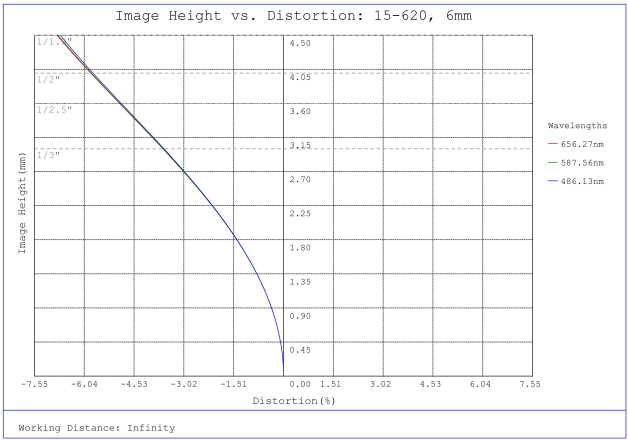
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

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.

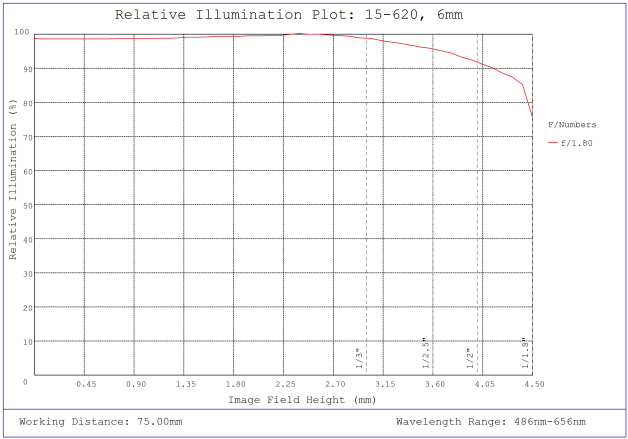
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety 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.

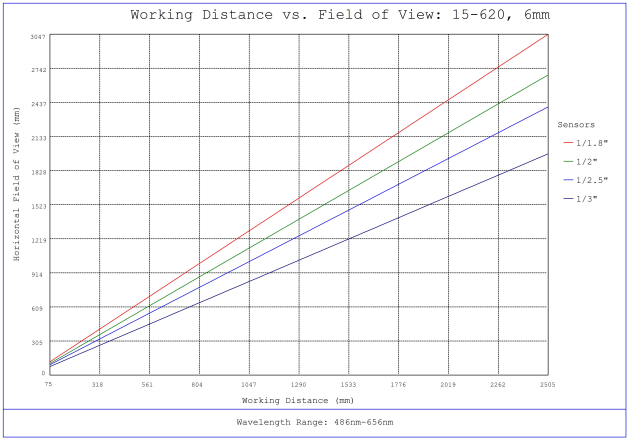
# Technical Information



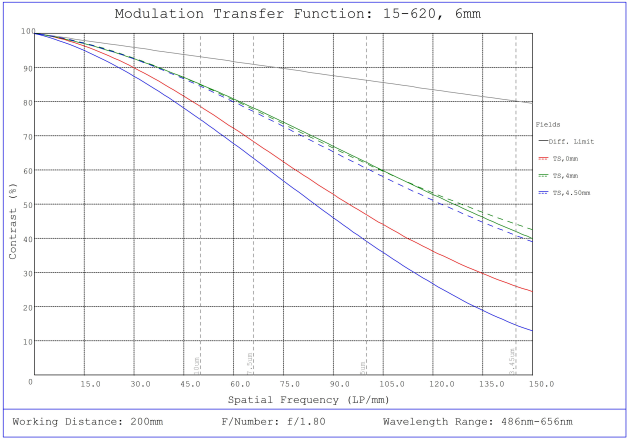
#15-620, 6mm, f/1.8 Cw Series Fixed Focal Length Lens, Distortion Plot



#15-620, 6mm, f/1.8 Cw Series Fixed Focal Length Lens, Relative Illumination Plot



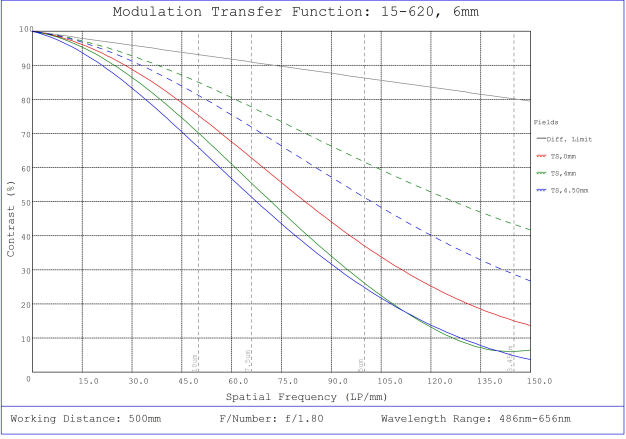
#15-620, 6mm, f/1.8 Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



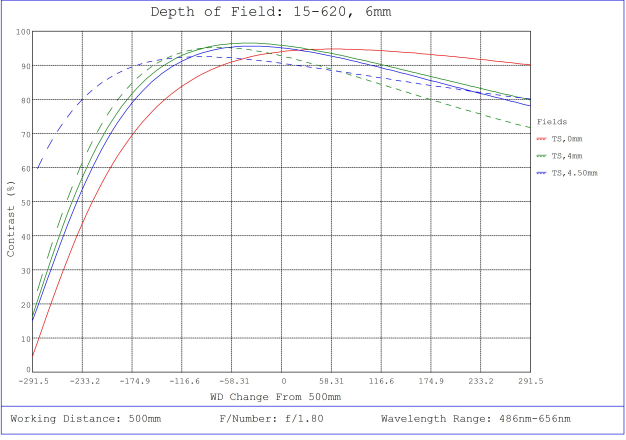
#15-620, 6mm, f/1.8 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f1.8



#15-620, 6mm, f/1.8 Cw Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f1.8



#15-620, 6mm, f/1.8 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f1.8



#15-620, 6mm, f/1.8 Cw Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f1.8