

TECHSPEC® 12mm, f/11 Ci Series Fixed Focal Length Lens



12mm Focal Length

Stock #86-612 2 In Stock

-

1

+

MRP ₹15,656

Price inclusive of all taxes

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1+         | ₹15,656 each                  |
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Product Downloads

General

|                         |                 |
|-------------------------|-----------------|
| Ci Series               | Product Family: |
| Fixed Focal Length Lens | Type:           |

Physical & Mechanical Properties

|       |              |
|-------|--------------|
| Fixed | Iris Option: |
| 29.00 | Length (mm): |

|       |                               |
|-------|-------------------------------|
| 26.5  | Maximum Diameter (mm):        |
| 26.5  | Outer Diameter (mm):          |
| 31    | Weight (g):                   |
| 0.31  | Maximum Rear Protrusion (mm): |
| 26.50 | Diameter (mm):                |

Optical Properties

|                                                                                     |                                               |
|-------------------------------------------------------------------------------------|-----------------------------------------------|
| 80.9mm - 41.2°                                                                      | Horizontal Field of View @ Max Sensor Format: |
| Horizontal: 81.3mm - 41.2°<br>Vertical: 60.5mm - 31.3°<br>Diagonal: 102.3mm - 50.5° | Field of View at Max Sensor Format:           |
| 80.9mm - 41.2°                                                                      | Horizontal Field of View, 2/3" Sensor:        |
| 65.8mm - 34.0°                                                                      | Horizontal Field of View, 1/1.8" Sensor:      |
| 58.3mm - 30.4°                                                                      | Horizontal Field of View, 1/2" Sensor:        |
| 52.8mm - 27.6°                                                                      | Horizontal Field of View, 1/2.5" Sensor:      |
| 43.5mm - 22.9°                                                                      | Horizontal Field of View, 1/3" Sensor:        |
| 32.6mm - 17.2°                                                                      | Horizontal Field of View, 1/4" Sensor:        |
| 11.00                                                                               | Maximum Image Circle (mm):                    |
| 0.0048                                                                              | Numerical Aperture NA, Object Side:           |
| 7 (7)                                                                               | Number of Elements (Groups):                  |
| 12.00                                                                               | Focal Length FL (mm):                         |
| 100 - ∞                                                                             | Working Distance (mm):                        |
| f/11                                                                                | Aperture (f/#):                               |
| 425 - 675nm BBAR                                                                    | Coating:                                      |
| 425 - 675nm BBAR                                                                    | Coating Specification:                        |
| 11.01                                                                               | Entrance Pupil Position (mm):                 |
| 17.32                                                                               | Object Space Principal Plane (mm):            |
| 1.98                                                                                | Image Space Principal Plane (mm):             |
| -2.09                                                                               | Maximum Distortion (%):                       |
| -11.38                                                                              | Exit Pupil Position (mm):                     |
| VIS                                                                                 | Lens Wavelength Range:                        |

Sensor

|      |                        |
|------|------------------------|
| 2/3" | Maximum Sensor Format: |
| 2.74 | Pixel Size (µm):       |

Threading & Mounting

|                     |                        |
|---------------------|------------------------|
| M25.5 x 0.50 (Male) | Filter Thread:         |
| #89-941 (Required)  | Filter Thread Adapter: |
| M22.0 x 0.75 (Male) | Front Thread:          |
| C-Mount             | Mount:                 |

| Environmental & Durability Factors                                                                                                                                                                      |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| -20 to +60                                                                                                                                                                                              | Storage Temperature (°C):   |
|                                                                                                                                                                                                         |                             |
| Industrial (Fixed Aperture with Simplified Mechanics)                                                                                                                                                   | Type of Ruggedization:      |
|                                                                                                                                                                                                         |                             |
| Regulatory Compliance                                                                                                                                                                                   |                             |
| Compliant                                                                                                                                                                                               | RoHS 2015:                  |
|                                                                                                                                                                                                         |                             |
| Compliant                                                                                                                                                                                               | REACH 201:                  |
|                                                                                                                                                                                                         |                             |
| View                                                                                                                                                                                                    | Certificate of Conformance: |
|                                                                                                                                                                                                         |                             |
| China                                                                                                                                                                                                   | Country of Origin:          |
|                                                                                                                                                                                                         |                             |
| Edmund Optics India Private Limited<br>267, Greystone Building, Second Floor,<br>6th Cross Rd, Binnamangala,<br>Stage 1, Indiranagar, Bengaluru,<br>Karnataka, India 560038<br>Phone: +91- 80-6845 0000 | Imported By:                |
|                                                                                                                                                                                                         |                             |

## Product Details

These compact lenses are designed specifically for volume integration into applications such as analytical medical devices, including benchtop-based blood analyzers. For customized f/# versions to best suit your instrumentation application needs and to discuss volume requirements, please [contact us](#).

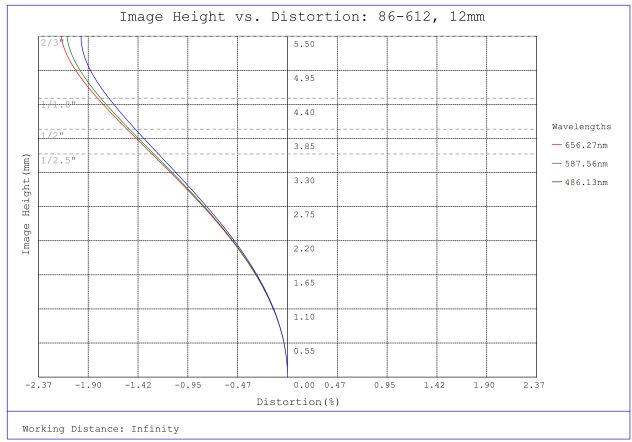
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- [Ruggedized \(Cr\) Designs](#) Also Available

TECHSPEC® Ci Series Fixed Focal Length Lenses are a streamlined version of our C Series Fixed Focal Length Lenses. They feature the same low lens-to-lens variation and broadband anti-reflection (BBAR) coating for maximum light transmission, while offering reduced weight and size. An adjustable, lockable focus allows for setting and locking the best focus position for instrumentation integration. TECHSPEC® Ci Series Fixed Focal Length Lenses are designed specifically for volume integration into applications such as factory inspection and automation to benchtop biomedical devices. The Ci Series offers a wide range of aperture options, ensuring maximum flexibility of resolution, throughput, and depth of field.

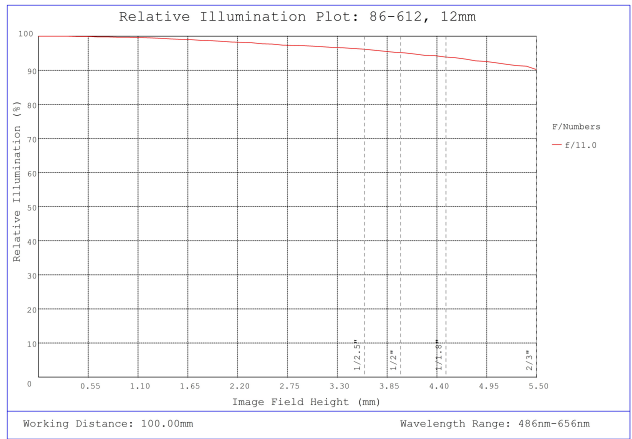
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

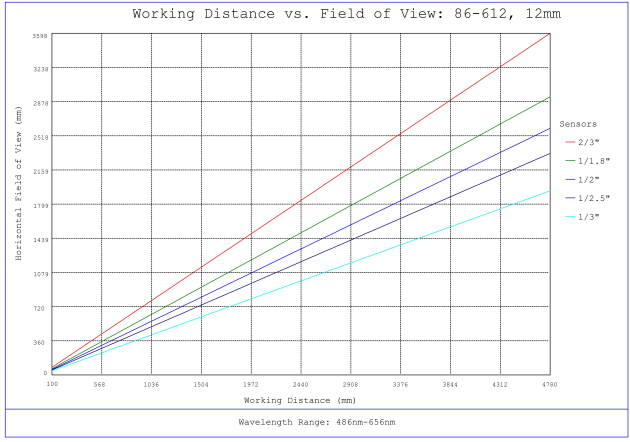
## Technical Information



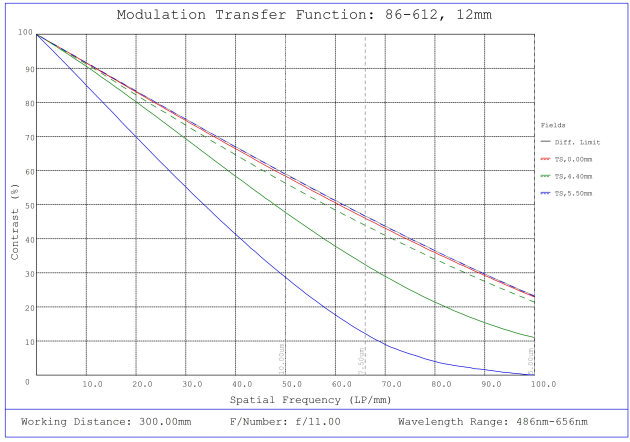
#86-612, 12mm, f/11 Ci Series Fixed Focal Length Lens, Distortion Plot



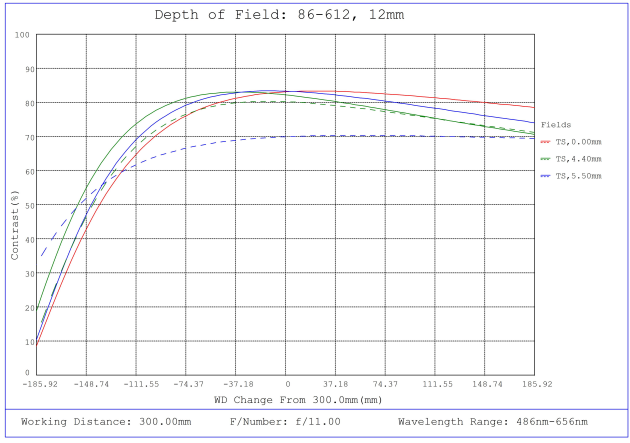
#86-612, 12mm, f/11 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



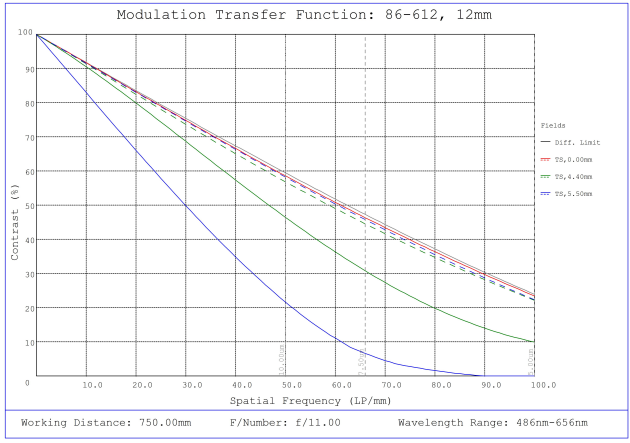
#86-612, 12mm, f/11 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



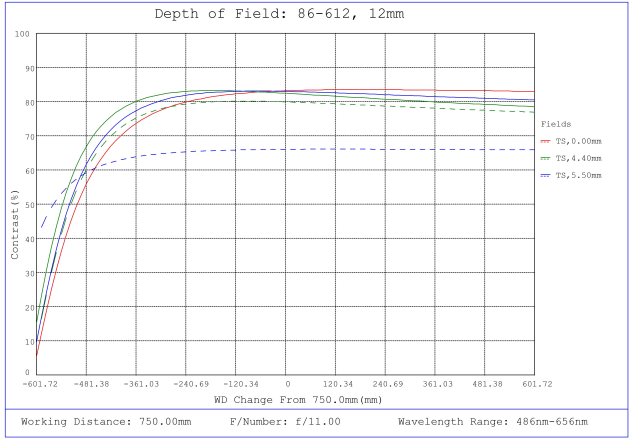
#86-612, 12mm, f/11 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 300mm Working Distance, f11



#86-612, 12mm, f/11 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 300mm Working Distance, f11

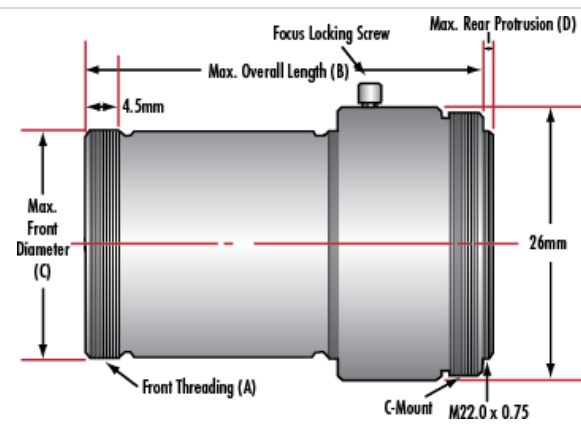


#86-612, 12mm, f/11 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 750mm Working Distance, f11



#86-612, 12mm, f/11 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 750mm Working Distance, f11

| Focal Length | A           | B      | C      | D      |
|--------------|-------------|--------|--------|--------|
| 6mm          | M34.0 x0.5  | 47.8mm | 34mm   | 1.17mm |
| 12mm         | M22.0 x0.75 | 29.0mm | 22mm   | 0.96mm |
| 16mm         | M22.0 x0.75 | 40.8mm | 22mm   | 1.09mm |
| 25mm         | M22.0 x0.75 | 29.9mm | 22mm   | 1.33mm |
| 35mm         | M25.5 x0.5  | 41mm   | 22.5mm | 3.82mm |
| 50mm         | M30.5 x0.5  | 49.5mm | 30.5mm | 2.06mm |



## Compatible Cameras