

TECHSPEC® 6mm, f/1.8 Ci Series Fixed Focal Length Lens



6mm Focal Length

Stock #86-592 **3 In Stock**

⊖ 1 ⊕ £231⁰⁰

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| Volume Pricing | |
|----------------|-------------------------------|
| Qty 1-24 | £231.00 each |
| Qty 25+ | £208.00 each |
| Need More? | Request Quote |

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Ci Series **Product Family:**
Fixed Focal Length Lens **Type:**

Physical & Mechanical Properties

Fixed **Iris Option:**

| | |
|-------|-------------------------------|
| 47.80 | Length (mm): |
| 34 | Maximum Diameter (mm): |
| 34 | Outer Diameter (mm): |
| 64 | Weight (g): |
| 1.17 | Maximum Rear Protrusion (mm): |
| 26.50 | Diameter (mm): |

Optical Properties

| | |
|--|---|
| 110.2mm - 62.1° | Horizontal Field of View @ Max Sensor Format: |
| Horizontal: 110.2mm - 62.1° Vertical: 80.5mm - 47.8° Diagonal: 142.1mm - 75.1° | Field of View at Max Sensor Format: |
| 110.2mm - 62.1° | Horizontal Field of View, 1/1.8" Sensor: |
| 96.8mm - 55.9° | Horizontal Field of View, 1/2" Sensor: |
| 86.9mm - 51.0° | Horizontal Field of View, 1/2.5" Sensor: |
| 71.0mm - 42.7° | Horizontal Field of View, 1/3" Sensor: |
| 52.6mm - 32.4° | Horizontal Field of View, 1/4" Sensor: |
| 9.00 | Maximum Image Circle (mm): |
| 0.0191 | Numerical Aperture NA, Object Side: |
| 9 (7) | Number of Elements (Groups): |
| 6.00 | Focal Length FL (mm): |
| 75 - ∞ | Working Distance (mm): |
| f/1.8 | Aperture (f/#): |
| 425 - 675nm BBAR | Coating: |
| 425 - 675nm BBAR | Coating Specification: |
| 16.08 | Entrance Pupil Position (mm): |
| 21.35 | Object Space Principal Plane (mm): |
| 6.60 | Image Space Principal Plane (mm): |
| -6.82 | Maximum Distortion (%): |
| -25.52 | Exit Pupil Position (mm): |
| VIS | Lens Wavelength Range: |

Sensor

| | |
|--------|------------------------|
| 1/1.8" | Maximum Sensor Format: |
| 2.74 | Pixel Size (μm): |

Threading & Mounting

| | |
|------------------------------------|------------------------|
| M43 x 0.75 (Female) | Filter Thread: |
| #89-940 (Required) | Filter Thread Adapter: |
| M34.0 x 0.5 (Male) | Front Thread: |
| C-Mount | Mount: |

Environmental & Durability Factors

Storage Temperature (°C):

-20 to +60

Type of Ruggedization:

Industrial (Fixed Aperture with Simplified Mechanics)

Regulatory Compliance

RoHS 2015:

Compliant

REACH 201:

Compliant

Certificate of Conformance:

[View](#)

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](#).

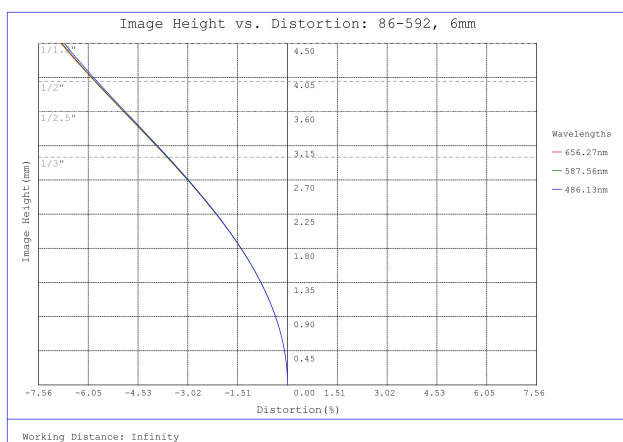
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8 μ m Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- [Ruggedized \(Cr\) Designs](#) Also Available

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.

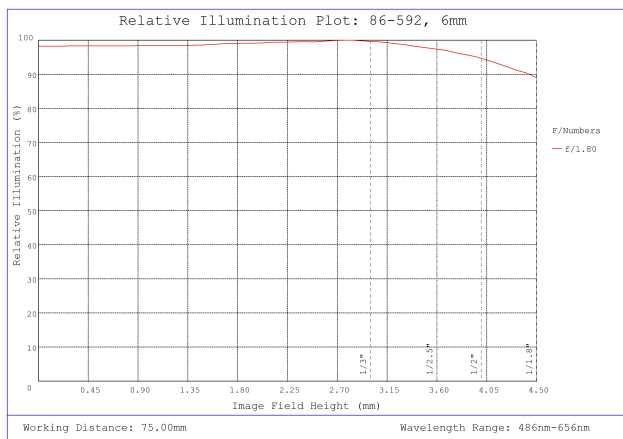
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

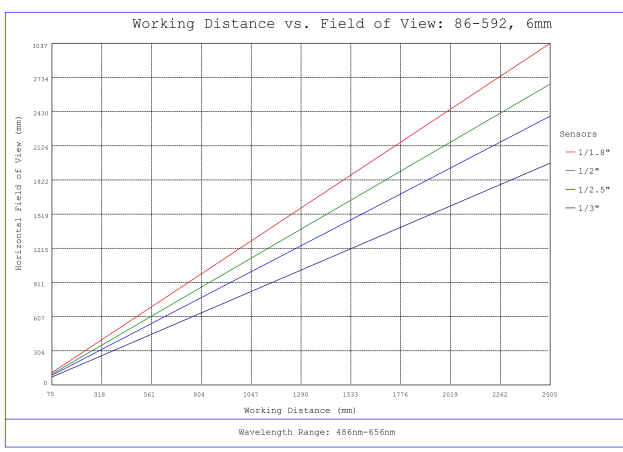
Technical Information



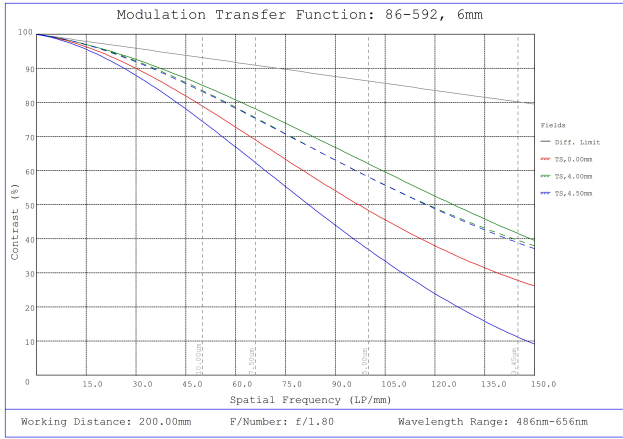
#86-592, 6mm, $f/1.8$ Ci Series Fixed Focal Length Lens, Distortion Plot



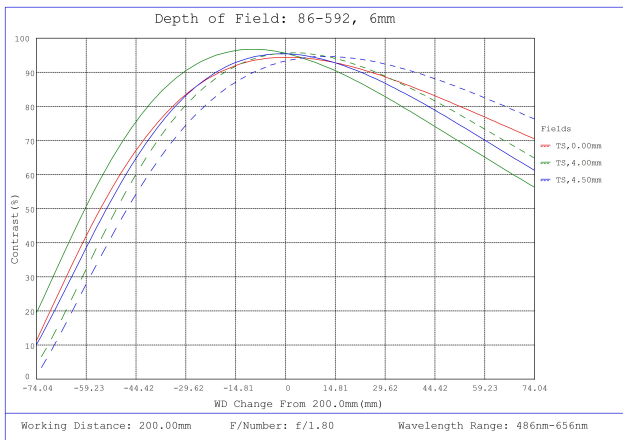
#86-592, 6mm, $f/1.8$ Ci Series Fixed Focal Length Lens, Relative Illumination Plot



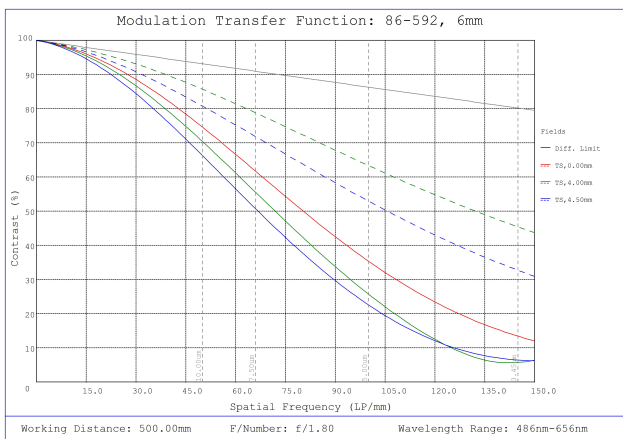
#86-592, 6mm, f/1.8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



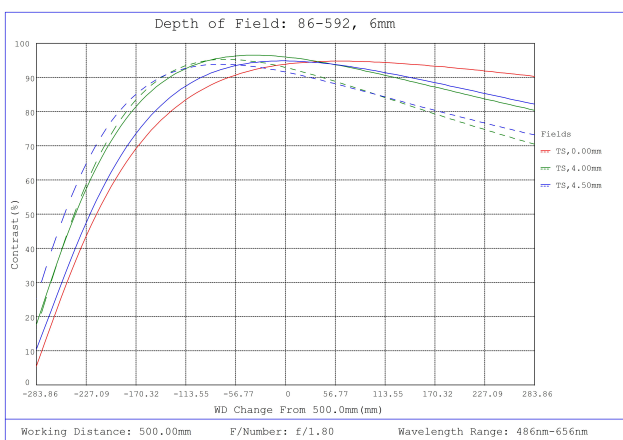
#86-592, 6mm, f/1.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f1.8



#86-592, 6mm, f/1.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f1.8



#86-592, 6mm, f/1.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f1.8



#86-592, 6mm, f/1.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f1.8

| Focal Length | A | B | C | D |
|--------------|--------------|--------|--------|--------|
| 6mm | M34.0 x 0.5 | 47.8mm | 34mm | 1.17mm |
| 12mm | M22.0 x 0.75 | 29.0mm | 22mm | 0.96mm |
| 16mm | M22.0 x 0.75 | 40.8mm | 22mm | 1.09mm |
| 25mm | M22.0 x 0.75 | 29.9mm | 22mm | 1.33mm |
| 35mm | M25.5 x 0.5 | 41mm | 22.5mm | 3.82mm |
| 50mm | M30.5 x 0.5 | 49.5mm | 30.5mm | 2.06mm |



Compatible Cameras