

TECHSPEC® f/5.6, 6mm Focal Length Green Series M12 Lens



6mm Focal Length

Stock #83-934 5 In Stock

-

1

+

S\$110<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-49       | S\$110.00 each                |
| Qty 50+        | S\$91.00 each                 |
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Product Downloads

| General          |                    |
|------------------|--------------------|
| Green Series     | Series:            |
| M12 Imaging Lens | Type:              |
| No               | IR Cut Filter:     |
| Standard Lens    | Imaging Lens Type: |

| Physical & Mechanical Properties                                                                                          |                                     |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Fixed                                                                                                                     | Iris Option:                        |
|                                                                                                                           |                                     |
| 11.70                                                                                                                     | Length (mm):                        |
|                                                                                                                           |                                     |
| 14                                                                                                                        | Maximum Diameter (mm):              |
|                                                                                                                           |                                     |
| 14                                                                                                                        | Outer Diameter (mm):                |
|                                                                                                                           |                                     |
| 3                                                                                                                         | Weight (g):                         |
|                                                                                                                           |                                     |
| Optical Properties                                                                                                        |                                     |
| Horizontal Field of View @ Max Sensor Format:<br>130.9mm - 46.5°                                                          |                                     |
| Field of View at Max Sensor Format:<br>Horizontal: 129.8mm - 46°<br>Vertical: 95.2mm - 34.6°<br>Diagonal: 168.5mm - 57.7° |                                     |
| Horizontal Field of View, 1/3" Sensor:<br>129.8mm - 46.2°                                                                 |                                     |
| Horizontal Field of View, 1/4" Sensor:<br>95.1mm - 34.7°                                                                  |                                     |
| 80 lp/mm @ 20% Contrast                                                                                                   | Resolution:                         |
|                                                                                                                           |                                     |
| 6.00                                                                                                                      | Maximum Image Circle (mm):          |
|                                                                                                                           |                                     |
| 0.0034                                                                                                                    | Numerical Aperture NA, Object Side: |
|                                                                                                                           |                                     |
| 5(5)                                                                                                                      | Number of Elements (Groups):        |
|                                                                                                                           |                                     |
| 400 - 700                                                                                                                 | Wavelength Range (nm):              |
|                                                                                                                           |                                     |
| 6.00                                                                                                                      | Focal Length FL (mm):               |
|                                                                                                                           |                                     |
| 150 - ∞                                                                                                                   | Working Distance (mm):              |
|                                                                                                                           |                                     |
| f/5.6                                                                                                                     | Aperture (f/#):                     |
|                                                                                                                           |                                     |
| -8.27 @ Full Field                                                                                                        | Distortion (%):                     |
|                                                                                                                           |                                     |
| 4.0 - 3.9                                                                                                                 | Back Focal Length BFL (mm):         |
|                                                                                                                           |                                     |
| λ/4 MgF <sub>2</sub> @ 580nm                                                                                              | Coating Specification:              |
|                                                                                                                           |                                     |
| 3.99                                                                                                                      | Entrance Pupil Position (mm):       |
|                                                                                                                           |                                     |
| 6.38                                                                                                                      | Object Space Principal Plane (mm):  |
|                                                                                                                           |                                     |
| -1.43                                                                                                                     | Image Space Principal Plane (mm):   |
|                                                                                                                           |                                     |
| -8.27                                                                                                                     | Maximum Distortion (%):             |
|                                                                                                                           |                                     |
| -5.43                                                                                                                     | Exit Pupil Position (mm):           |
|                                                                                                                           |                                     |
| VIS                                                                                                                       | Lens Wavelength Range:              |
|                                                                                                                           |                                     |
| Sensor                                                                                                                    |                                     |
| 1/3"                                                                                                                      | Maximum Sensor Format:              |
|                                                                                                                           |                                     |
| 8.30                                                                                                                      | Pixel Size (μm):                    |
|                                                                                                                           |                                     |
| Threading & Mounting                                                                                                      |                                     |
| N/A                                                                                                                       | Filter Thread:                      |
|                                                                                                                           |                                     |
| M12 x 0.5                                                                                                                 | Mounting Threads:                   |
|                                                                                                                           |                                     |
| S-Mount (M12 x 0.5)                                                                                                       | Mount:                              |
|                                                                                                                           |                                     |
| Regulatory Compliance                                                                                                     |                                     |

|                             |  |
|-----------------------------|--|
| RoHS 2015:                  |  |
| Compliant                   |  |
| Certificate of Conformance: |  |
| View                        |  |

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|            |  |
|------------|--|
| REACH 241: |  |
| Compliant  |  |

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## Product Details

- Up to 1/2", S-Mbunt Lens
- Up to 0.4 MegaPixels, 8.3µm Pixel Size Sensors
- Board Camera Lens Optimized for Close WD and Finite Conjugate
- 6mm to 25mm Focal Lengths

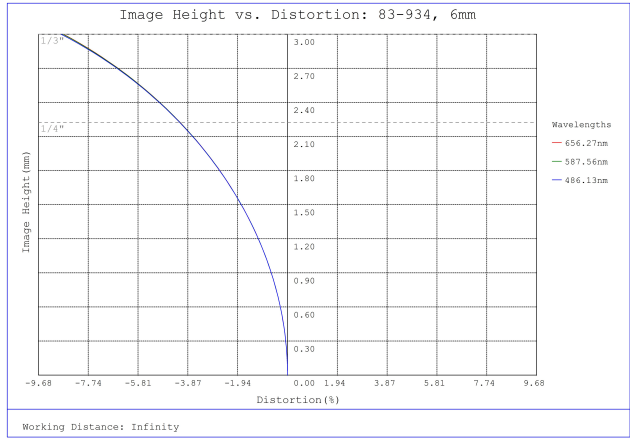
TECHSPEC® Green Series M12 Lenses designed for use in compact and board level cameras provide excellent image quality in a small, versatile package. Optimized to cover 1/3" and ½" sensor formats and weighing only a few grams, these machine vision lenses meet the most demanding space and weight restrictions. Each lens is threaded for M12 x0.5, except the 25.0mm focal length option ([#54-855](#)). TECHSPEC® Green Series M12 Lenses are ideal for wide angle and close focus applications, large area inspect for the automotive, forensic, pharmaceutical, and food industries. Prescription data is available by submitting a [Request for Prescription Form](#).

**Note:** Compatible [TECHSPEC M12 Imaging Lens Accessories](#) available.

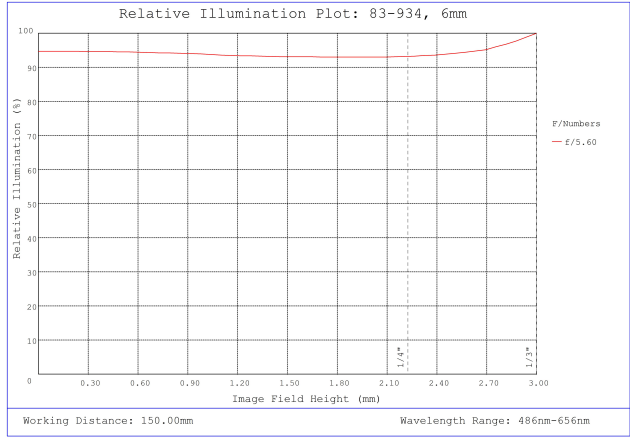
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mbunt Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application needs.

- **Blue Series M12 Lenses:** High resolution finite conjugate designs optimized for machine vision working distances.
- **Rugged Blue Series M12 Lenses:** [Stabilized ruggedization](#) versions of our Blue Series M12 Lenses, utilizing the same optics.
- Green Series M12 Lenses: Finite conjugate designs optimized for machine vision working distances.
- **Red Series M12 Lenses:** Infinite conjugate designs optimized for high resolution performance out to infinity.
- **HEO Series M12 Lenses:** Harsh Environment Optics (HEO) sealed versions of our Red Series M12 Lenses.
- **Liquid Lens M12 Lenses:** Integrated liquid lens for fast electronic focus.

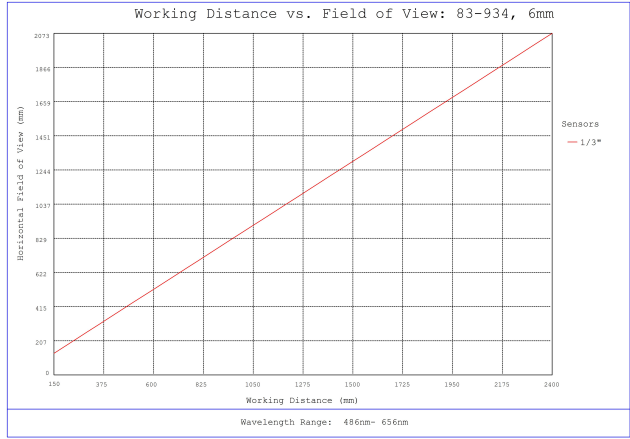
## Technical Information



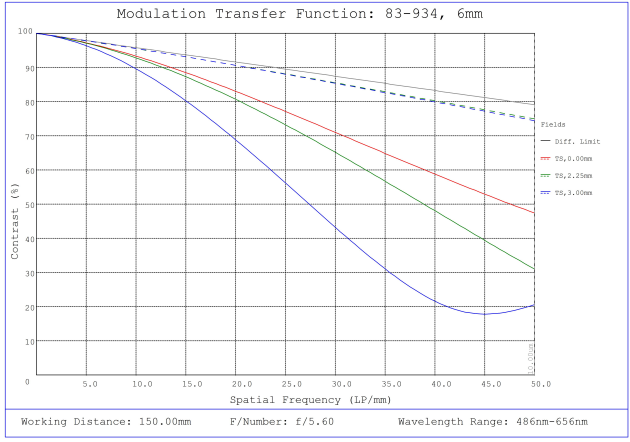
#83-934, f/5.6, 6mm Focal Length Green Series M12 Lens, Distortion Plot



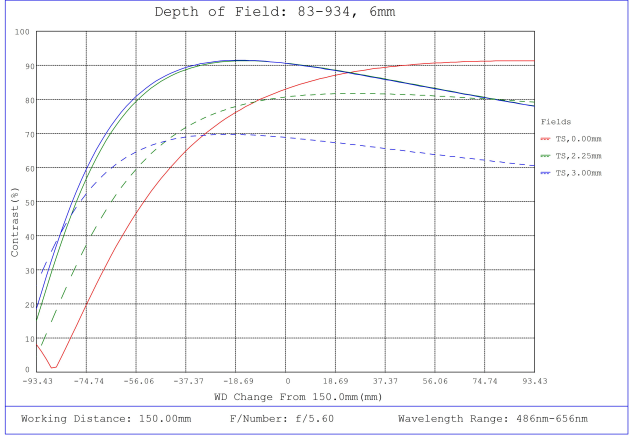
#83-934, f/5.6, 6mm Focal Length Green Series M12 Lens, Relative Illumination Plot



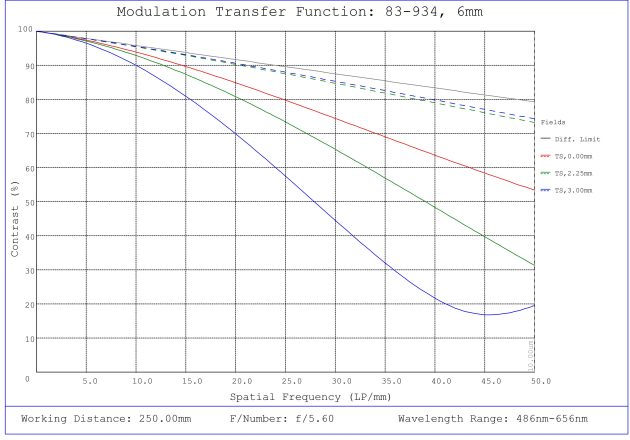
#83-934, f/5.6, 6mm Focal Length Green Series M12 Lens, Working Distance versus Field of View Plot



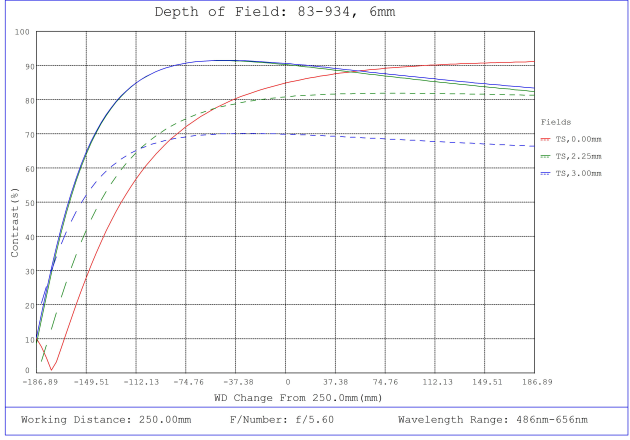
#83-934, f/5.6, 6mm Focal Length Green Series M12 Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f5.6



#83-934, f/5.6, 6mm Focal Length Green Series M12 Lens, Depth of Field Plot, 150mm Working Distance, f5.6

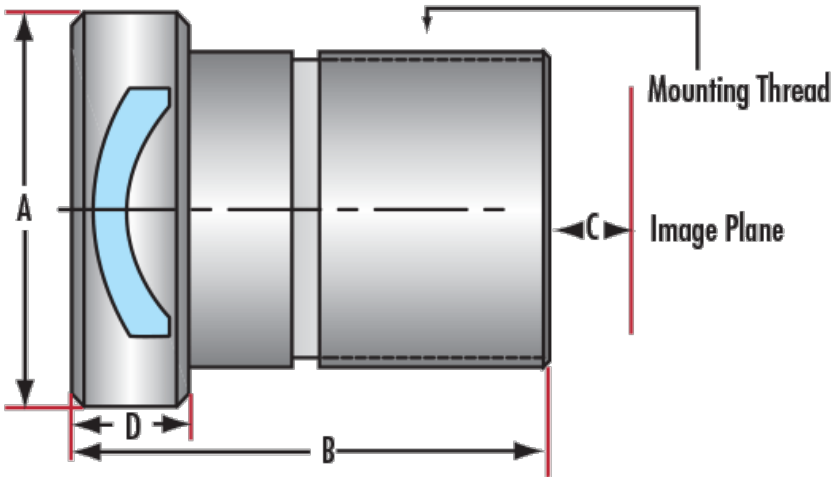


#83-934, f/5.6, 6mm Focal Length Green Series M12 Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f5.6



#83-934, f/5.6, 6mm Focal Length Green Series M12 Lens, Depth of Field Plot, 250mm Working Distance, f5.6

| Focal Length | A    | B     | C**         | D   | Mounting Thread |
|--------------|------|-------|-------------|-----|-----------------|
| 6.00         | 14.0 | 11.70 | 4.0 - 3.9   | 3.5 | M12 x0.5        |
| 8.00         | 14.0 | 20.40 | 8.9 - 8.7   | 6.0 | M12 x0.5        |
| 12.00        | 16.0 | 19.50 | 7.1 - 6.75  | 6.0 | M12 x0.5        |
| 25.00        | 18.0 | 24.40 | 12.6 - 11.9 | 9.0 | M16 x0.5        |



\*\*Minor adjustment required to match WD limits.



