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## TECHSPEC® 8mm FL f/8, Blue Series IR-Cut M12 Lens



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⊖ 1 ⊕ €80<sup>00</sup>

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### General

Blue Series **Product Family:**

M12 Imaging Lens **Type:**

Yes **IR Cut Filter:**

IR-Cut Filter

Special Type of Lens:

## Physical & Mechanical Properties

Fixed	<b>Iris Option:</b>
12.30	<b>Length (mm):</b>
14	<b>Maximum Diameter (mm):</b>
14	<b>Outer Diameter (mm):</b>
3	<b>Weight (g):</b>

## Optical Properties

**Horizontal Field of View @ Max Sensor Format:**  
34.2°

**Field of View at Max Sensor Format:**  
Horizontal: 92.8mm - 34.2°  
Vertical: 68.9mm - 25.7°  
Diagonal: 117.5mm - 42.6°

**Horizontal Field of View, 1/3" Sensor:**  
94.0mm - 34.2°

**Horizontal Field of View, 1/4" Sensor:**  
69.8mm - 25.7°

**Maximum Image Circle (mm):**  
6.00

**Numerical Aperture NA, Object Side:**  
0.0032

**Number of Elements (Groups):**  
5(5)

**Wavelength Range (nm):**  
400 - 700

**Focal Length FL (mm):**  
8.00

**Working Distance (mm):**  
150 - ∞

**Aperture (f#):**  
f/8

**Distortion (%):**  
-3.63 @ Full Field

**Back Focal Length BFL (mm):**  
8.8 - 8.6

**Coating Specification:**  
M4 MgF<sub>2</sub> @ 550nm

**Entrance Pupil Position (mm):**  
5.04

**Object Space Principal Plane (mm):**  
8.13

**Image Space Principal Plane (mm):**  
0.94

**Maximum Distortion (%):**  
-3.63

**Exit Pupil Position (mm):**  
-4.09

**Lens Wavelength Range:**  
VIS (IR-Cut Filter)

## Sensor

1/3"	<b>Maximum Sensor Format:</b>
1.40	<b>Pixel Size (μm):</b>

## Threading & Mounting

N/A	<b>Filter Thread:</b>
S-Mount (M12 x 0.5)	<b>Mount:</b>

## Regulatory Compliance

**RoHS 2015:**  
Compliant

## Product Details

- Up to 1/2", S-Mount Lens
- Up to 5 MegaPixels, 1.4µm Pixel Size Sensors
- High Resolution Board Camera Lens Optimized for Close WD
- 2mm to 35mm Focal Length
- [Ruggedized Designs](#) Also Available

TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility of our [TECHSPEC® Green Series M12 Lenses](#). Each lens consists of several precision glass elements mounted in a compact, aluminum housing. These lenses can connect to C-Mount cameras using the M12 x0.5 Adapter for C-Mount Cameras ([#53-675](#)) or the M12 x0.5 C-Mount Adapter with Rubber O-Ring ([#59-241](#)) for vibration-sensitive environments. TECHSPEC® Blue Series M12 Lenses are ideal for automotive, industrial, and medical imaging application. 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-Mount 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

Focal Length	A	B	C*	D
2.0mm	18.0mm	21.7mm	2.26mm	4.75mm
3.0mm	14.0mm	17.1mm	4.8 - 4.7mm	5.8mm
4.0mm	14.0mm	19.7mm	6.1 - 6.0mm	4.4mm
5.0mm	14.0mm	14.6mm	4.0 - 3.9mm	3.7mm
6.0mm	14.0mm	14.1mm	6.9 - 6.8mm	4.5mm
8.0mm	14.0mm	12.3mm	8.8 - 8.6mm	3.7mm
10.0mm	14.0mm	17.0mm	6.6 - 6.3mm	3.7mm
12.5mm	15.0mm	22.9mm	10.1 - 9.7mm	4.8mm
17.5mm	14.0mm	20.7mm	5.8 - 4.9mm	7.6mm
25.0mm	18.0mm	30.0mm	8.5 - 6.5mm	11.5mm
35.0mm	18.0mm	29.5mm	18.72 - 14.0mm	14.5mm

\*Specified for Optimized Working Distance of 150 - 250mm.