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**TECHSPEC® 16mm FL f/4.0 Blue Series IR-Cut M12 Lens**



Stock #24-463 **20+ In Stock**

⊖ 1 ⊕ S\$119<sup>00</sup>

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**General**

Blue Series **Product Family:**  
M12 Imaging Lens **Type:**  
Yes **IR Cut Filter:**  
**Special Type of Lens:**

## Physical & Mechanical Properties

|       |                               |
|-------|-------------------------------|
| Fixed | <b>Iris Option:</b>           |
| 22.50 | <b>Length (mm):</b>           |
| 16    | <b>Maximum Diameter (mm):</b> |
| 16    | <b>Outer Diameter (mm):</b>   |

## Optical Properties

**Horizontal Field of View @ Max Sensor Format:**  
25.3°

**Field of View at Max Sensor Format:**  
Horizontal: 64.9mm - 25.3°  
Vertical: 48.7mm - 19.1°  
Diagonal: 81.2mm - 31.4°

**Horizontal Field of View, 1.2" Sensor:**  
58.0mm - 22.5°

**Horizontal Field of View, 1/1.8" Sensor:**  
64.9mm - 25.3°

**Horizontal Field of View, 1/2.5" Sensor:**  
52.5mm - 20.5°

**Horizontal Field of View, 1/3" Sensor:**  
43.5mm - 17.0°

**Horizontal Field of View, 1/4" Sensor:**  
32.6mm - 12.8°

**Maximum Image Circle (mm):**  
9.00

**Numerical Aperture NA, Object Side:**  
0.017068

**Number of Elements (Groups):**  
6 (6)

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

**Focal Length FL (mm):**  
16.00

**Working Distance (mm):**  
150 - ∞

**Aperture (f/#):**  
f/4

**Distortion (%):**  
-0.039@Full Field

**Back Focal Length BFL (mm):**  
10.79 - 10.05

**Coating Specification:**  
M4 MgF<sub>2</sub> @588nm

**Entrance Pupil Position (mm):**  
7.5143

**Object Space Principal Plane (mm):**  
7.21

**Image Space Principal Plane (mm):**  
-7.04

**Maximum Distortion (%):**  
-0.039

**Exit Pupil Position (mm):**  
-6.7445

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

## Sensor

**Maximum Sensor Format:**  
1/1.8"

**Pixel Size (µm):**  
1.40

## Threading & Mounting

**Filter Thread:**  
N/A

**Mount:**  
S-Mount (M12 x0.5)

## Regulatory Compliance

[Compliant](#) **RoHS 2015:**

[View](#) **Certificate of Conformance:**

[Compliant](#) **Reach 247:**

## 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.