

TECHSPEC® 8mm FL f/4, Blue Series IR-Cut M12 Lens



Stock #24-451 20+ In Stock

1 C\$161^{.00}

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Volume Pricing	
Qty 1-49	C\$161.00 each
Qty 50+	C\$127.40 each
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Product Downloads	
STEP:step	PDF Drawing:pdf
IGES:igs	Zemax
eDrawing:eprt	
EO Spec Sheet	

General

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

Physical & Mechanical Properties

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

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: 0.0064
Number of Elements (Groups): 5(5)	Wavelength Range (nm): 400 - 700
Focal Length FL (mm): 8.00	Working Distance (mm): 150 - ∞
Aperture (f/#): f/4	Distortion (%): -3.63 @ Full Field
Back Focal Length BFL (mm): 8.8 - 8.6	Coating Specification: λ/4 MgF ₂ @ 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

Maximum Sensor Format:	1/3"	Pixel Size (µm):	1.40
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Threading & Mounting

Filter Thread:	N/A	Mount:	S-Mount (M12 x 0.5)
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Regulatory Compliance

RoHS 2015:	Compliant	Certificate of Conformance:	View
Reach 247:	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 x 0.5 Adapter for C-Mount Cameras (**#53-675**) or the M12 x 0.5 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.

Accessories

Note: Compatible accessories for individual stock numbers may vary. If unsure about which accessories work with your products, please contact us [here](#).

	Title	Compare	Stock Number	Price	Buy
MORE+	M12 Lock Nut, 10 Pack		#16-788	C\$162.40 Request Quote	20+ In Stock 1
MORE+	M12 Lock Nut		#64-102	C\$23.10 Request Quote	20+ In Stock 1
MORE+	M12 Lens Holder for Camera Boards		#66-382	C\$18.20 Request Quote	20+ In Stock 1
MORE+	C-Mount to M12 Lens Adapter w/Oring		#59-241	C\$65.45 Request Quote	3 In Stock 1
MORE+	C-Mount to M12 Lens Adapter		#53-675	C\$45.85 Request Quote	20+ In Stock 1

Related Products



C, S, and T-Mount Extensions Tubes



#63-975 - 16mm, S-Mount Ring Mount, 1/4-20 Tapped Hole
C\$91.00

Qty

Frequently Purchased Together



#33-444 - 300mm, White, EuroBrite™ Linear Array
C\$609.00

Qty



#33-463 - M12 Female to Bare Leads 5 pin, 2m
C\$56.00

Qty



#54-853 - f/1.9, 8mm Focal Length Green Series M12 Lens
C\$140.00

Qty



#68-228 - S-Mount Brass Spacer Ring Kit (2 of each size)
C\$135.10

Qty



Resources

Media Type

- Application Note
- Video
- Published Article
- FAQ
- Glossary
- Technical Tool

APPLICATION NOTE

Anti-Reflection (AR) Coatings

APPLICATION NOTE

An Introduction to Optical Coatings

VIDEO

Wavelength and f#

APPLICATION NOTE

Understanding Focal Length and Field of View

APPLICATION NOTE

Introduction to Modulation Transfer Function

WEBINARS

Choosing the Right Machine Vision Lens

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