

TECHSPEC[®] 17.5mm FL f/8, Rugged Blue Series IR-Cut M12 Lens



TECHSPEC[®] Rugged Blue Series M12 Lenses



Stock **#25-077** **14 In Stock**

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1

+

£80^{.00}

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Volume Pricing	
Qty 1-49	£80.00 each
Qty 50+	£64.00 each
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SPECIFICATIONS

General

Series:

Rugged Blue Series	
M12 Imaging Lens	Type:
	IR Cut Filter:
Yes	
	Special Type of Lens:
IR-Cut Filter	
Physical & Mechanical Properties	
	Iris Option:
Fixed	
	Length (mm):
20.70	
	Maximum Diameter (mm):
14	
	Outer Diameter (mm):
14	
	Weight (g):
7	
Optical Properties	
	Horizontal Field of View @ Max Sensor Format: 50.7mm - 20.6°
	Field of View at Max Sensor Format: Horizontal: 57.0mm - 23.1° Vertical : 38mm - 15.6° Diagonal: 63.3mm - 25.6°
	Horizontal Field of View, 1.2" Sensor: 50.7mm - 20.6°
	Horizontal Field of View, 1/1.8" Sensor: 57.0mm - 23.1°
	Horizontal Field of View, 1/2.5" Sensor: 45.9mm - 18.7°
	Horizontal Field of View, 1/3" Sensor: 38.0mm - 15.6°
	Horizontal Field of View, 1/4" Sensor: 28.5mm - 11.7°
	Maximum Image Circle (mm): 9.00
	Numerical Aperture NA, Object Side: 0.0067
	Number of Elements (Groups): 6(5)
	Wavelength Range (nm): 400 - 700
	Focal Length FL (mm): 17.50
	Working Distance (mm): 150 - ∞
	Aperture (f/#): f/8
	Distortion (%): 0.76 @Full Field
	Back Focal Length BFL (mm): 5.8 - 4.9
	Coating Specification: N4 MgF ₂ @ 550nm
	Entrance Pupil Position (mm): 13.01
	Object Space Principal Plane (mm): 5.57
	Image Space Principal Plane (mm): -12.71
	Maximum Distortion (%): 0.76
	Exit Pupil Position (mm): -7.49
	Lens Wavelength Range: VS
Sensor	
	Maximum Sensor Format: 1/1.8"
	Pixel Size (μm): 1.40

Threading & Mounting	
Filter Thread:	N/A
Mount:	S-Mount (M12 x 0.5)
Environmental & Durability Factors	
Type of Ruggedization:	Stabilized (Robust Mechanics for Shock and Vibration)
Regulatory Compliance	
Certificate of Conformance:	View

PRODUCT DETAILS

- Up to 1/2", S-Mount Lens
- Up to 5 MegaPixels, 1.4µm Pixel Size Sensors
- Ruggedized Designs (50g Shock) of our Blue Series Lens with Individual Optics Glued in Place
- 2mm to 25mm Focal Length
- [Non-Ruggedized Designs](#) Also Available

TECHSPEC® Rugged Blue Series M12 Lenses have [stabilized ruggedization](#), protecting the lens from damage, while reducing pixel shift and maintaining optical pointing stability after shock and vibration. Each lens consists of several precision glass optics that are glued in place inside a compact, aluminum housing. Gluing the glass optics prevents even the smallest movements that often cause pixel shift. Object to image mapping is maintained even after heavy shock and vibration; if the center of the object maps onto the center pixel, it will always map to that same center pixel. TECHSPEC Rugged Blue Series M12 Lenses are ideal for calibrated imaging applications such as measurement and gauging, 3D stereo vision, robotics and sensing, autonomous vehicles, and object tracking. These lenses are available in a variety of f/# options ranging from f/2.5 to f/8.

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

