

TECHSPEC® 12.5mm FL f/8, Blue Series M12 Lens



Stock #83-953 20+ In Stock

1 £63^{.00}

ADD TO CART

12.5mm FL Blue Series M12 Lens



Volume Pricing	
Qty 1-49	£63.00 each
Qty 50+	£50.00 each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

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: No	Imaging Lens Type: High Performance M12 Lens

Physical & Mechanical Properties

Iris Option: Fixed	Length (mm): 22.90
Maximum Diameter (mm): 15	Outer Diameter (mm): 15
Weight (g): 6	

Optical Properties

Horizontal Field of View @ Max Sensor Format: 28.9°	Field of View at Max Sensor Format: Horizontal: 78.1mm - 28.9° Vertical: 58.5mm - 21.8° Diagonal: 97.7mm - 35.7°
Horizontal Field of View, 1/2" Sensor: 78.0mm - 28.8°	Horizontal Field of View, 1/2.5" Sensor: 70.6mm - 26.2°
Horizontal Field of View, 1/3" Sensor: 58.4mm - 21.8°	Horizontal Field of View, 1/4" Sensor: 43.8mm - 16.4°
Maximum Image Circle (mm): 8.00	Numerical Aperture NA, Object Side: 0.0047
Number of Elements (Groups): 5(5)	Wavelength Range (nm): 400 - 700

Focal Length FL (mm):	12.50	Working Distance (mm):	150 - ∞
Aperture (f/#):	f/8	Distortion (%):	-0.36 @ Full Field
Back Focal Length BFL (mm):	10.1 - 9.7	Coating Specification:	λ/4 MgF ₂ @ 550nm
Entrance Pupil Position (mm):	10.87	Object Space Principal Plane (mm):	10.14
Image Space Principal Plane (mm):	-3.01	Maximum Distortion (%):	-0.36
Exit Pupil Position (mm):	-2.33	Lens Wavelength Range:	VIS

Sensor

Maximum Sensor Format:	1/2"	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

#83-953, 12.5mm FL f/8, Blue Series M12 Lens, Distortion Plot

#83-953, 12.5mm FL f/8, Blue Series M12 Lens, Relative Illumination Plot

#83-953, 12.5mm FL f/8, Blue Series M12 Lens, Working Distance versus Field of View Plot

#83-953, 12.5mm FL f/8, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f8

#83-953, 12.5mm FL f/8, Blue Series M12 Lens, Depth of Field Plot, 150mm Working Distance, f8

#83-953, 12.5mm FL f/8, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f8

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	£92.80 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+	M12 Lock Nut		#64-102	£13.20 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+	M12 Lens Holder for Camera Boards		#66-382	£10.00 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+	C-Mount to M12 Lens Adapter w/Oring		#59-241	£37.40 Request Quote	3 In Stock <input type="text" value="1"/>
MORE+	C-Mount to M12 Lens Adapter		#53-675	£26.20 Request Quote	20+ In Stock <input type="text" value="1"/>

Related Products



#36-375 - 12.5mm FL f/8, Rugged Blue Series M12 Lens
£81.00

#69-255 - 8.0mm FL, Red Series M12 Lens
£80.00

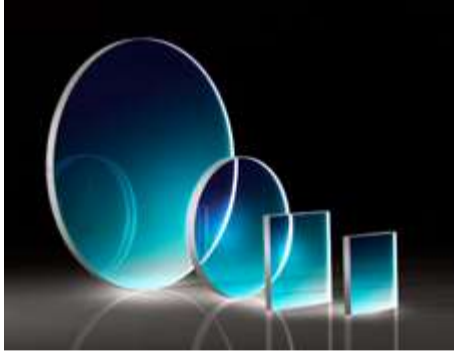
 

#54-854 - f/2, 12mm Focal Length Green Series M12 Lens
£70.00

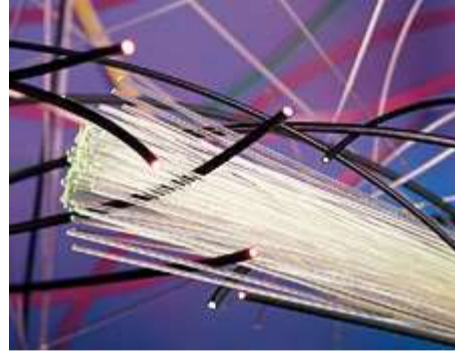
 

#63-759 - f/2.5, Visible, 8.0mm HEO Series M12 Lens
£128.00

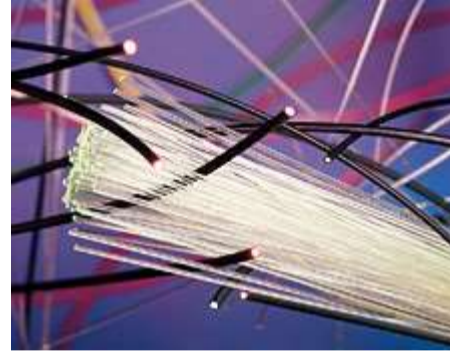
Frequently Purchased Together



#02-105 - 12.5mm Diameter Float Glass Window
£12.00

#02-550 - 1500µm with 1 Fiber, Optical Grade Plastic Light Guide
£3.40

#02-551 - 2000µm with 1 Fiber, Optical Grade Plastic Light Guide
£4.40

#03-618 - 5mm Spacer to convert CS-Mount Cameras to C-Mount
£23.20

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

[View More](#)