

TECHSPEC[®] 12.5mm FL f/5.6, Blue Series M12 Lens



12.5mm FL Blue Series M12 Lens



Stock #83-942 12 In Stock

-

1

+

S\$119^{.00}

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Volume Pricing	
Qty 1-49	S\$119.00 each
Qty 50+	S\$94.00 each
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General

Blue Series

Product Family:

M12 Imaging Lens

Type:

No

IR Cut Filter:

Imaging Lens Type:	
High Performance M12 Lens	
Physical & Mechanical Properties	
Fixed	Iris Option:
22.90	Length (mm):
15	Maximum Diameter (mm):
15	Outer Diameter (mm):
6	Weight (g):
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:	
0.0068	
Number of Elements (Groups):	
5(5)	
Wavelength Range (nm):	
400 - 700	
Focal Length FL (mm):	
12.50	
Working Distance (mm):	
150 - ∞	
Aperture (f/#):	
f/5.6	
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	
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

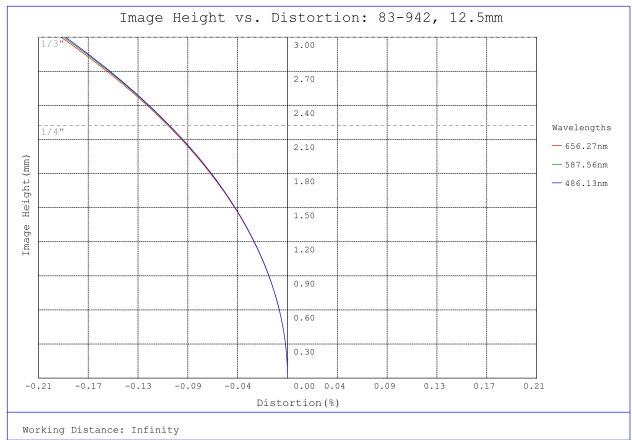
- Up to 1/2", S-Mount Lens
 - Up to 5 MegaPixels, 1.4µm Pixel Size Sensors
 - High Resolution Board Camera Lens Optimized for Close WD
 - 2mm to 35mm Focal Length
 - Ruggedized Designs Also Available
- TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility 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.

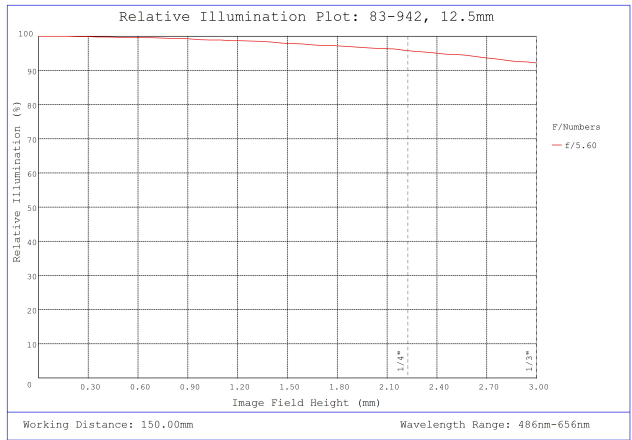
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application 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.

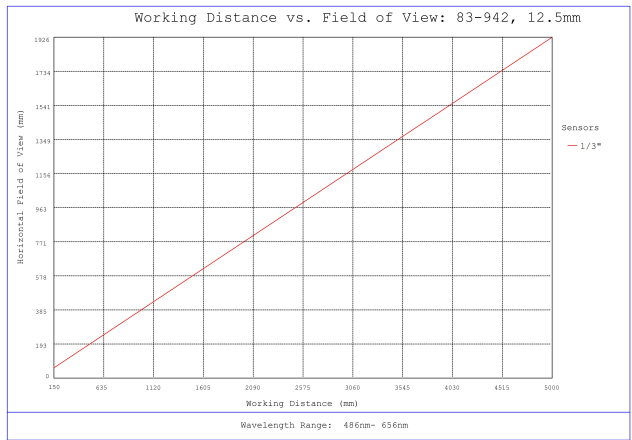
Technical Information



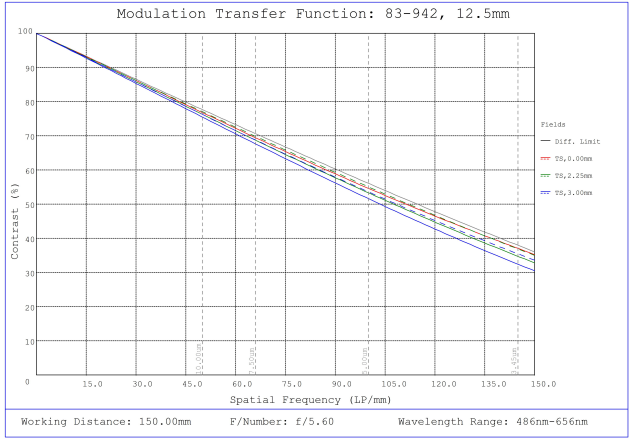
#83-942, 12.5mm FL f/5.6, Blue Series M12 Lens, Distortion Plot



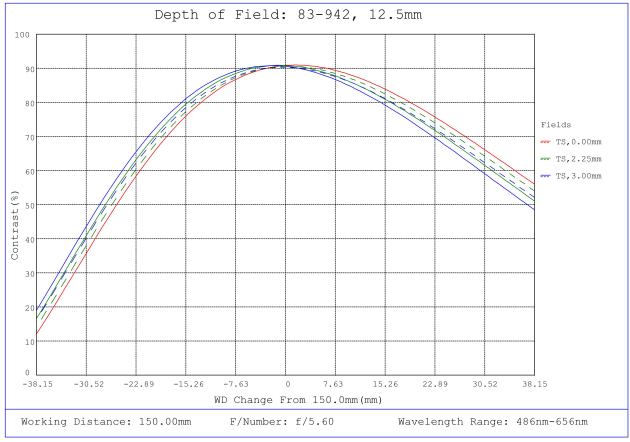
#83-942, 12.5mm FL f/5.6, Blue Series M12 Lens, Relative Illumination Plot



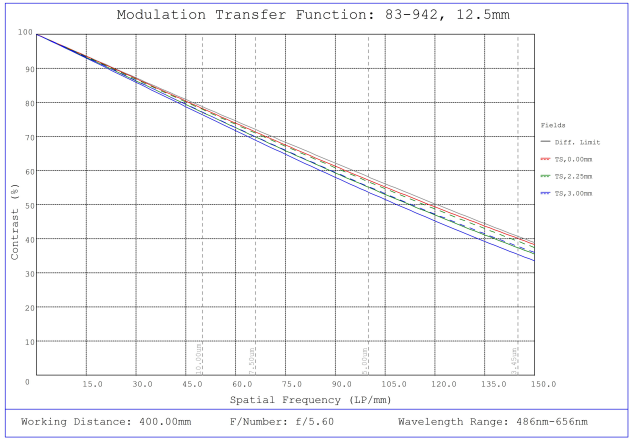
#83-942, 12.5mm FL f/5.6, Blue Series M12 Lens, Working Distance versus Field of View Plot



#83-942, 12.5mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f5.6



#83-942, 12.5mm FL f/5.6, Blue Series M12 Lens, Depth of Field Plot, 150mm Working Distance, f5.6



#83-942, 12.5mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f5.6



#83-942, 12.5mm FL f/5.6, Blue Series M12 Lens, Depth of Field Plot, 400mm Working Distance, f5.6

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.