

TECHSPEC[®] 10mm FL f/5.6, Blue Series M12 Lens



10mm FL Blue Series M12 Lens



Stock **#83-941** 3 In Stock

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1

+

₹7,395

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Qty 1+	₹7,395 each
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General	
Blue Series	Series:
M12 Imaging Lens	Type:
No	IR Cut Filter:
High Performance M12 Lens	Imaging Lens Type:

Physical & Mechanical Properties	
Iris Option:	Fixed
Length (mm):	17.00
Maximum Diameter (mm):	14
Outer Diameter (mm):	14
Weight (g):	5
Optical Properties	
Horizontal Field of View @ Max Sensor Format:	27.1°
Field of View at Max Sensor Format: Horizontal: 71.8mm - 27.1° Vertical: 53.8mm - 20.5° Diagonal: 89.9mm - 33.6°	
Horizontal Field of View, 1/3" Sensor:	71.8mm - 27.1°
Horizontal Field of View, 1/4" Sensor:	53.8mm - 20.5°
Maximum Image Circle (mm):	6.00
Numerical Aperture NA, Object Side:	0.0056
Number of Elements (Groups):	5(4)
Wavelength Range (nm):	400 - 700
Focal Length FL (mm):	10.00
Working Distance (mm):	150 - ∞
Aperture (f/#):	f/5.6
Distortion (%):	-0.25 @ Full Field
Back Focal Length BFL (mm):	6.6 - 6.3
Coating Specification:	λ/4 MgF ₂ @ 550nm
Entrance Pupil Position (mm):	8.45
Object Space Principal Plane (mm):	8.24
Image Space Principal Plane (mm):	-3.29
Maximum Distortion (%):	-0.25
Exit Pupil Position (mm):	-3.08
Lens Wavelength Range:	VIS
Sensor	
Maximum Sensor Format:	1/3"
Pixel Size (μm):	1.40
Threading & Mounting	
Filter Thread:	N/A
Mount:	S-Mount (M12 x0.5)
Regulatory Compliance	
RoHS 2015:	Compliant
Certificate of Conformance:	View

Compliant	Reach 247:
China	Country of Origin:
Edmund Optics India Private Limited	Imported By:

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

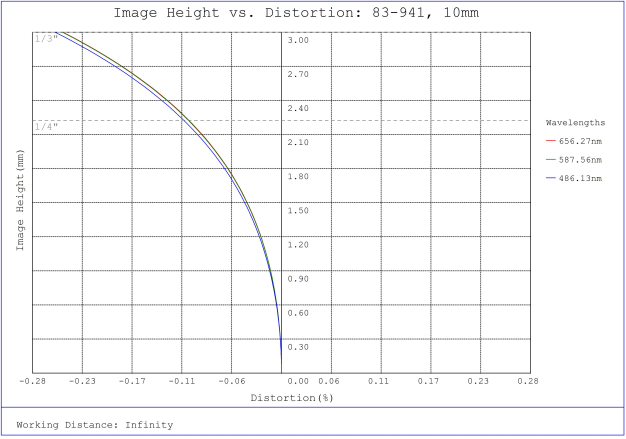
TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility of our **TECHSPEC® Green Series M12 Lenses**. Each lens consists of several precision glass elements mounted in a compact, aluminum housing. These lenses can connect to C-Mount cameras using the 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.

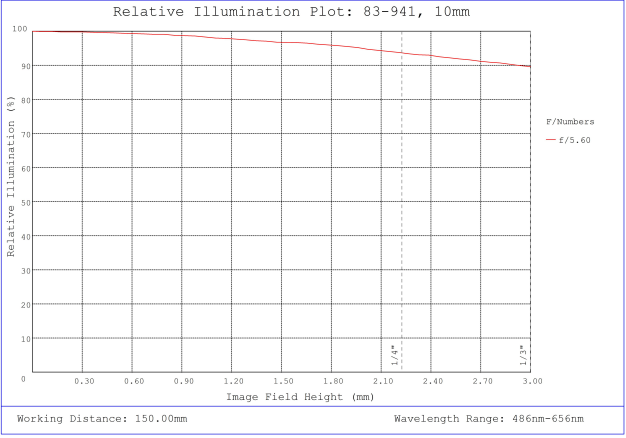
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

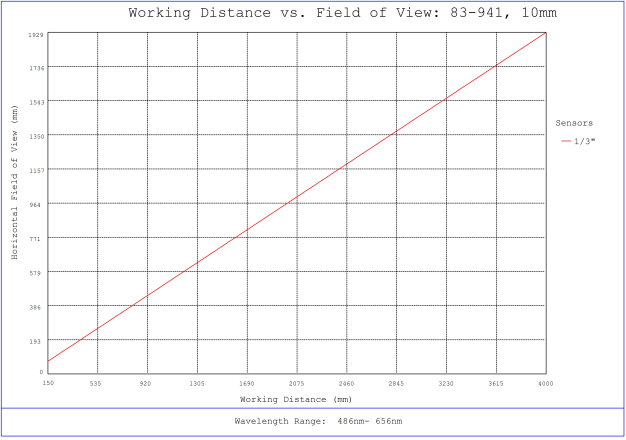
Technical Information



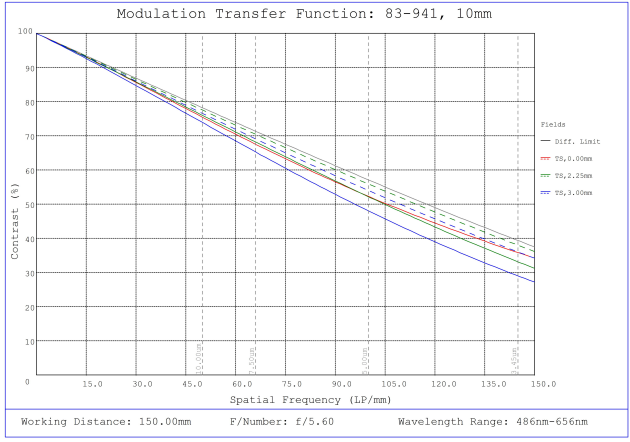
#83-941, 10mm FL f/5.6, Blue Series M12 Lens, Distortion Plot



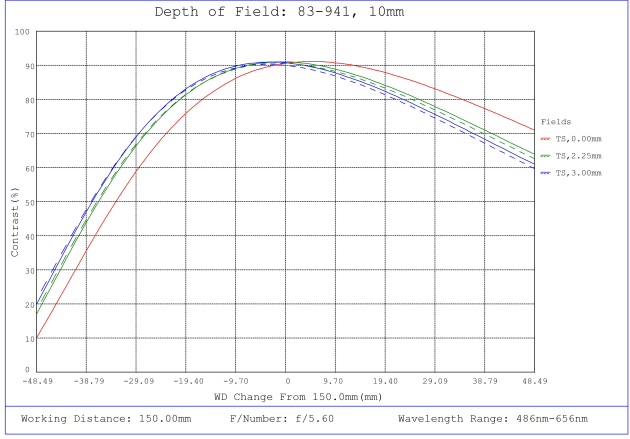
#83-941, 10mm FL f/5.6, Blue Series M12 Lens, Relative Illumination Plot



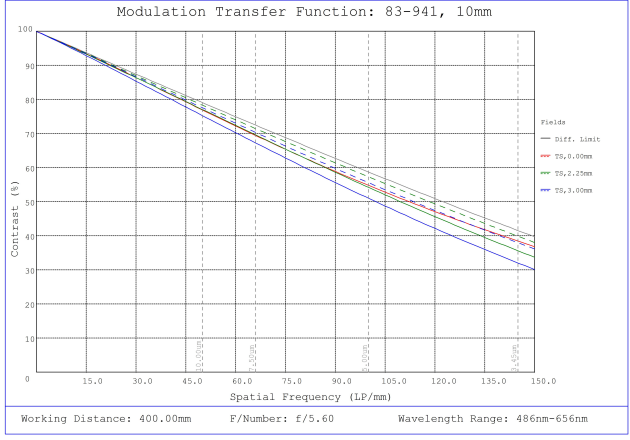
#83-941, 10mm FL f/5.6, Blue Series M12 Lens, Working Distance versus Field of View Plot



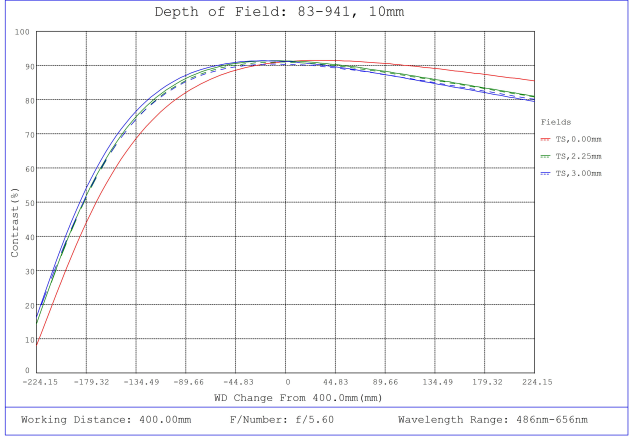
#83-941, 10mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f5.6



#83-941, 10mm FL f/5.6, Blue Series M12 Lens, Depth of Field Plot, 150mm Working Distance, f5.6



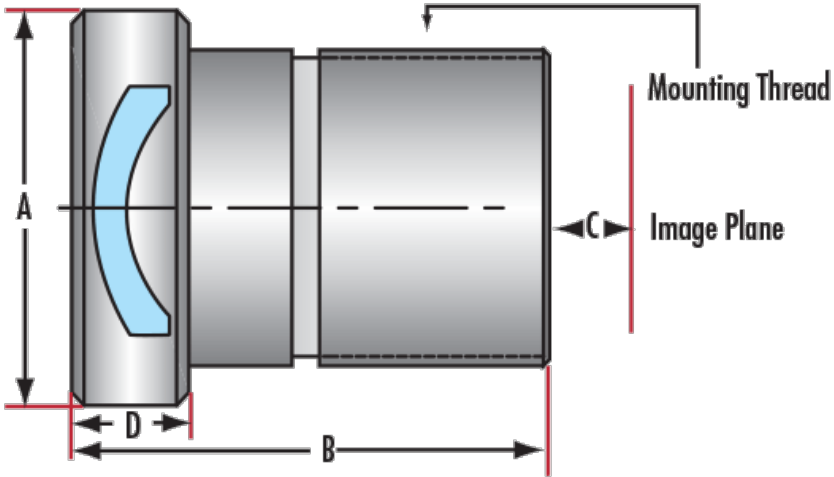
#83-941, 10mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f5.6



#83-941, 10mm 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.