

TECHSPEC[®] 16mm FL f/5.6 Blue Series M12 Lens



16mm FL Blue Series M12 Lens



Stock **#37-183** 10 In Stock

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1

+

S\$123^{.23}

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SPECIFICATIONS

General

Blue Series	Series:
	Type:

Fixed Focal Length Lens	
No	IR Cut Filter:
High Performance M12 Lens	Imaging Lens Type:
Physical & Mechanical Properties	
Fixed	Iris Option:
22.50	Length (mm):
16	Maximum Diameter (mm):
16	Outer Diameter (mm):
Optical Properties	
25.3°	Horizontal Field of View @ Max Sensor Format:
Field of View at Max Sensor Format: Horizontal: 64.9mm - 25.3° Vertical: 48.7mm - 19.1° Diagonal: 81.2mm - 31.4°	
64.9mm - 25.3°	Horizontal Field of View, 1/1.8" Sensor:
58.0mm - 22.5°	Horizontal Field of View, 1/2" Sensor:
52.5mm - 20.5°	Horizontal Field of View, 1/2.5" Sensor:
43.5mm - 17.0°	Horizontal Field of View, 1/3" Sensor:
32.6mm - 12.8°	Horizontal Field of View, 1/4" Sensor:
9.00	Maximum Image Circle (mm):
0.011948	Numerical Aperture NA, Object Side:
6 (6)	Number of Elements (Groups):
400 - 700	Wavelength Range (nm):
16.00	Focal Length FL (mm):
150 - ∞	Working Distance (mm):
f/5.6	Aperture (f/#):
-0.039@Full Field	Distortion (%):
10.79 - 10.05	Back Focal Length BFL (mm):
N4 MgF ₂ @ 588nm	Coating Specification:
7.5143	Entrance Pupil Position (mm):
7.21	Object Space Principal Plane (mm):
-7.04	Image Space Principal Plane (mm):
-0.039	Maximum Distortion (%):
-6.7445	Exit Pupil Position (mm):
VS	Lens Wavelength Range:
Sensor	
1/1.8"	Maximum Sensor Format:
1.40	Pixel Size (μm):
Threading & Mounting	
N/A	Filter Thread:

S-Mount (M12 x0.5)	Mount:
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

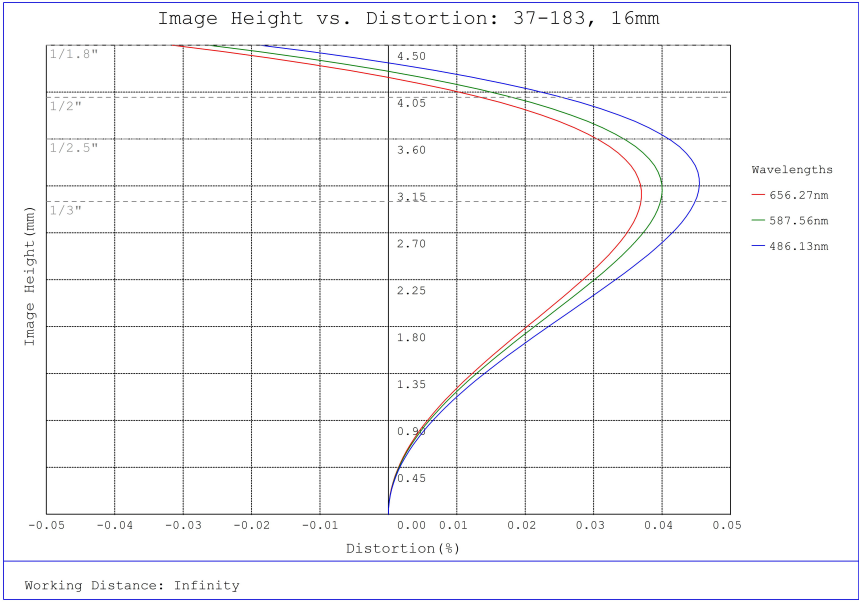
TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility of our [TECHSPEC® Green Series M12 Lenses](#). Each lens consists of several precision glass elements mounted in a compact, aluminum housing. These lenses can connect to C-Mount cameras using the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

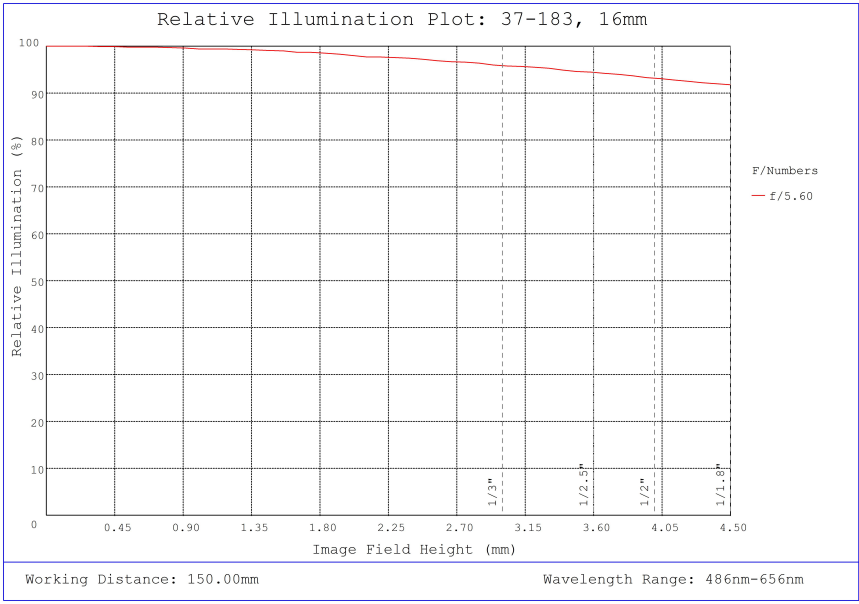
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

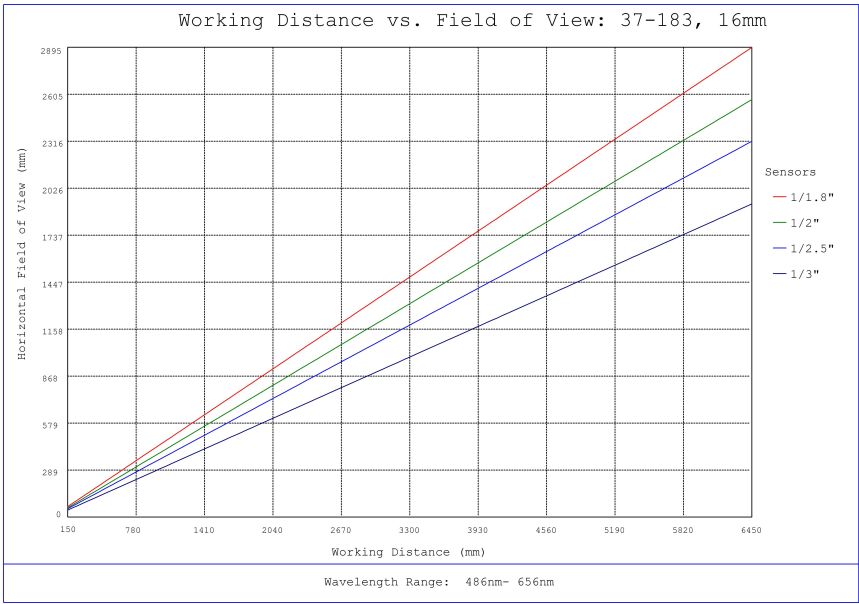
TECHNICAL INFORMATION



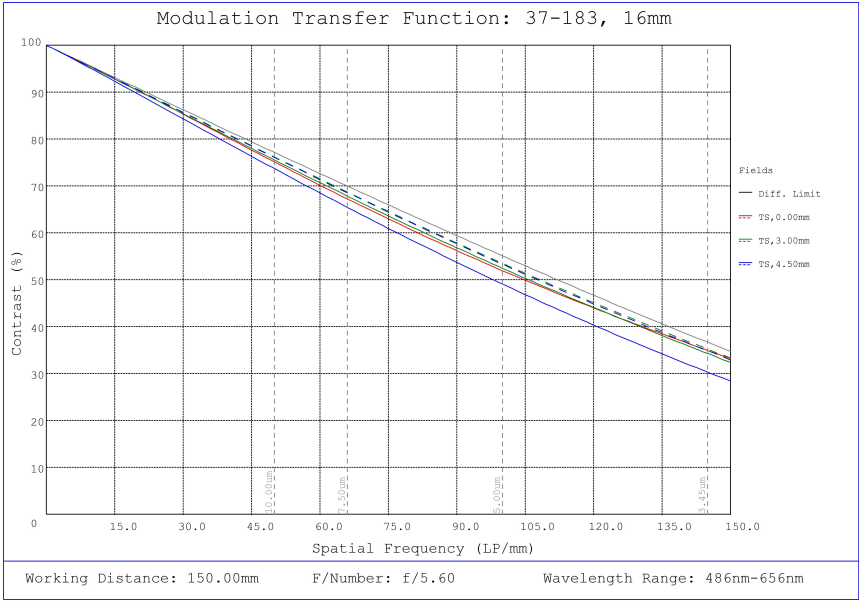
#37-183, 16mm FL f/5.6 Blue Series M12 Lens, Distortion Plot



#37-183, 16mm FL f/5.6 Blue Series M12 Lens, Relative Illumination Plot



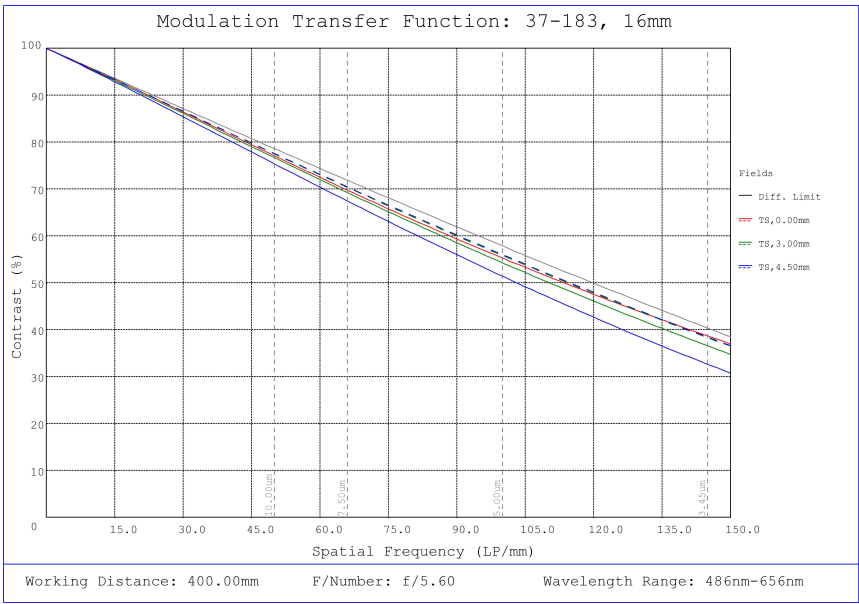
#37-183, 16mm FL f/5.6 Blue Series M12 Lens, Working Distance versus Field of View Plot



#37-183, 16mm FL f/5.6 Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f5.6



#37-183, 16mm FL f/5.6 Blue Series M12 Lens, Depth of Field Plot, 150mm Working Distance, f5.6

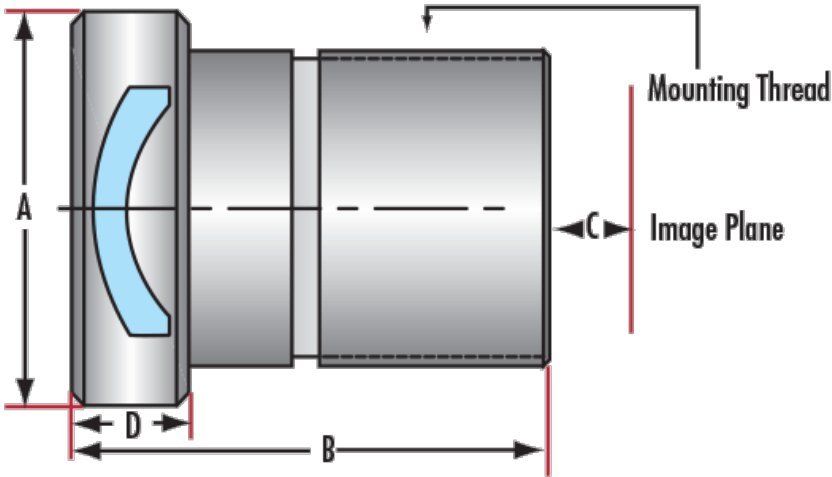


#37-183, 16mm FL f/5.6 Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f5.6



#37-183, 16mm 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.