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TECHSPEC[®]

16mm FL f/2.5 Blue Series M12 Lens



16mm FL Blue Series M12 Lens



Stock **#37-181** 20+ In Stock

-

1

+

C\$161⁰⁰

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Volume Pricing	
Qty 1-49	C\$161.00 each
Qty 50+	C\$127.40 each
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Product Downloads

General	
Blue Series	Series:
Fixed Focal Length Lens	Type:
No	IR Cut Filter:

Imaging Lens Type:	
High Performance M12 Lens	
Physical & Mechanical Properties	
Fixed	Iris Option:
22.50	Length (mm):
16	Maximum Diameter (mm):
16	Outer Diameter (mm):
Optical Properties	
Horizontal Field of View @ Max Sensor Format:	
25.3°	
Field of View at Max Sensor Format:	
Horizontal: 64.9mm - 25.3°	
Vertical: 48.7mm - 19.1°	
Diagonal: 81.2mm - 31.4°	
Horizontal Field of View, 1/1.8" Sensor:	
64.9mm - 25.3°	
Horizontal Field of View, 1/2" Sensor:	
58.0mm - 22.5°	
Horizontal Field of View, 1/2.5" Sensor:	
52.5mm - 20.5°	
Horizontal Field of View, 1/3" Sensor:	
43.5mm - 17.0°	
Horizontal Field of View, 1/4" Sensor:	
32.6mm - 12.8°	
Maximum Image Circle (mm):	
9.00	
Numerical Aperture NA, Object Side:	
0.026544	
Number of Elements (Groups):	
6 (6)	
Wavelength Range (nm):	
400 - 700	
Focal Length FL (mm):	
16.00	
Working Distance (mm):	
150 - ∞	
Aperture (f/#):	
f/2.5	
Distortion (%):	
-0.039@ Full Field	
Back Focal Length BFL (mm):	
10.79 - 10.05	
Coating Specification:	
λ/4 MgF ₂ @ 588nm	
Entrance Pupil Position (mm):	
7.5143	
Object Space Principal Plane (mm):	
7.21	
Image Space Principal Plane (mm):	
-7.04	
Maximum Distortion (%):	
-0.039	
Exit Pupil Position (mm):	
-6.7445	
Lens Wavelength Range:	
VIS	
Sensor	
Maximum Sensor Format:	
1/1.8"	
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

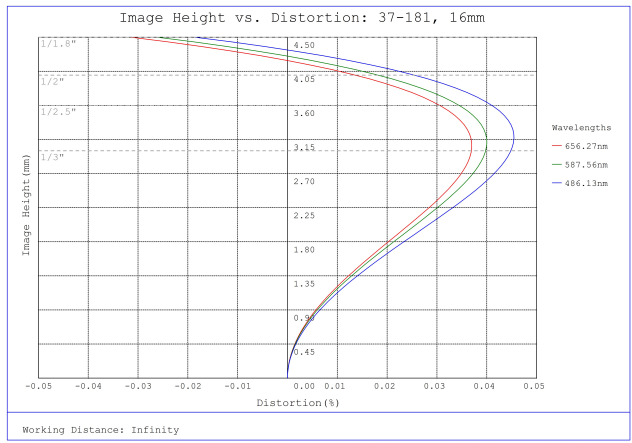
- Up to 1/2", S-Mount Lens
 - Up to 5 MegaPixels, 1.4µm Pixel Size Sensors
 - High Resolution Board Camera Lens Optimized for Close WD
 - 2mm to 35mm Focal Length
 - Ruggedized Designs** Also Available
- TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility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

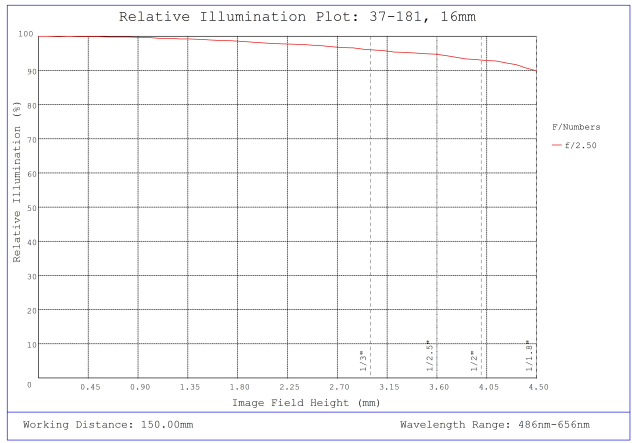
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

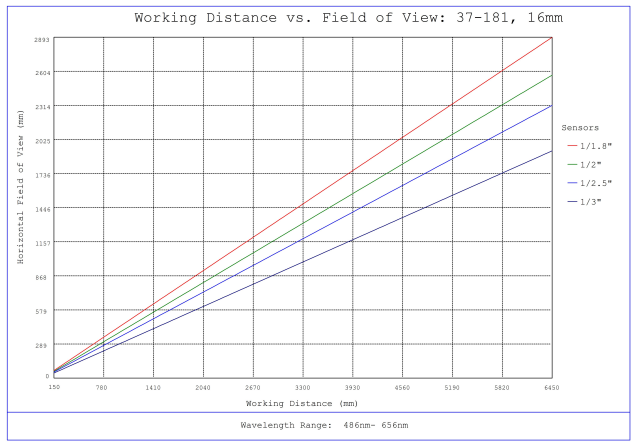
Technical Information



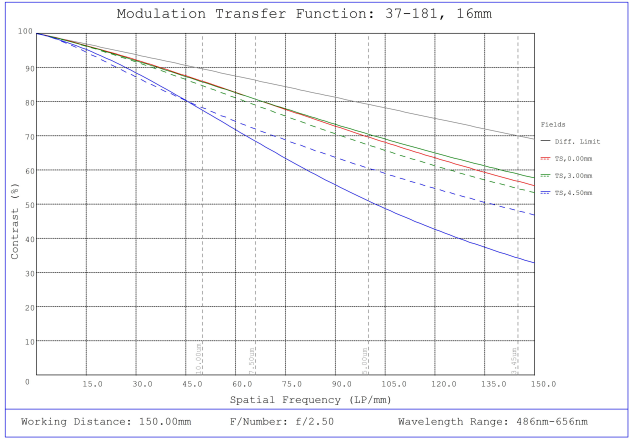
#37-181, 16mm FL f/2.5 Blue Series M12 Lens, Distortion Plot



#37-181, 16mm FL f/2.5 Blue Series M12 Lens, Relative Illumination Plot



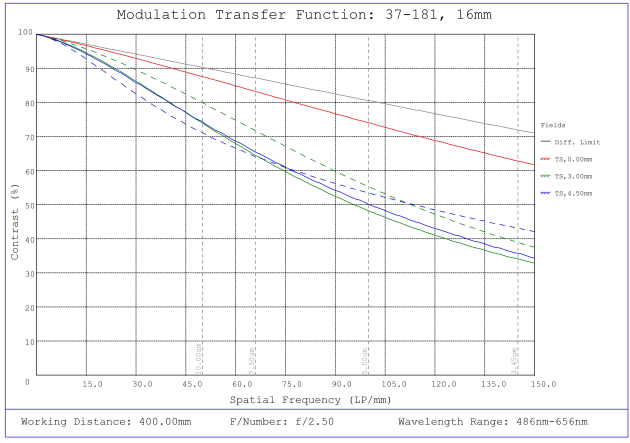
#37-181, 16mm FL f/2.5 Blue Series M12 Lens, Working Distance versus Field of View Plot



#37-181, 16mm FL f/2.5 Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f2.5



#37-181, 16mm FL f/2.5 Blue Series M12 Lens, Depth of Field Plot, 150mm Working Distance, f2.5



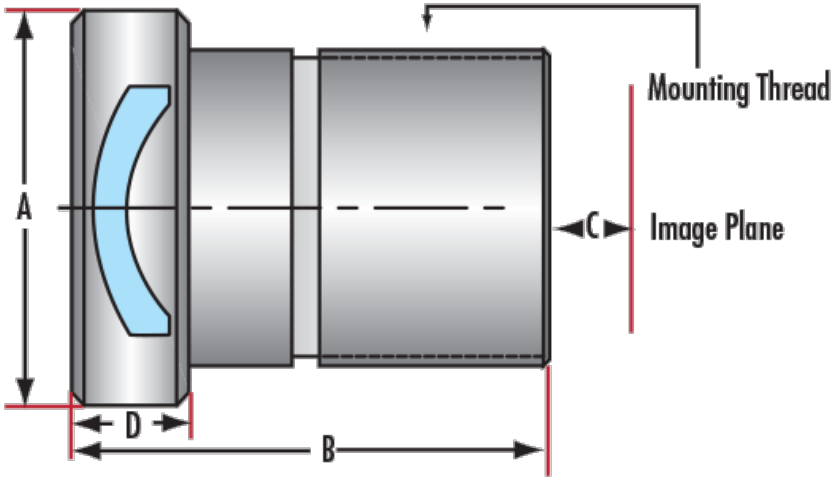
#37-181, 16mm FL f/2.5 Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f2.5



#37-181, 16mm FL f/2.5 Blue Series M12 Lens, Depth of Field Plot, 400mm Working Distance, f2.5

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.