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TECHSPEC® 17.5mm FL f/5.6, Blue Series M12 Lens

17.5mm FL Blue Series M12 Lens

Stock **#83-943** **20+ In Stock**

- 1 + **€81**.00

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Volume Pricing	
Qty 1-49	**€81,00** each
Qty 50+	**€64,00** each
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Prices shown are exclusive of VAT/local taxes

Product Downloads

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):
20.70

Maximum Diameter (mm):
14

Outer Diameter (mm):
14

Weight (g):
7

Optical Properties

Horizontal Field of View @ Max Sensor Format:
23.1°

Field of View at Max Sensor Format:
Horizontal: 57.0mm - 23.1°
Vertical: 38mm - 15.6°
Diagonal: 63.3mm - 25.6°

Horizontal Field of View, 1/1.8" Sensor:
57.0mm - 23.1°

Horizontal Field of View, 1/2" Sensor:
50.7mm - 20.6°

Horizontal Field of View, 1/2.5" Sensor:
45.9mm - 18.7°

Horizontal Field of View, 1/3" Sensor:
38.0mm - 15.6°

Horizontal Field of View, 1/4" Sensor:
28.5mm - 11.7°

Maximum Image Circle (mm):
9.00

Numerical Aperture NA, Object Side:
0.0096

Number of Elements (Groups):
6(5)

Wavelength Range (nm):
400 - 700

Focal Length FL (mm):
17.50

Working Distance (mm):
150 - ∞

Aperture (f/#):
f/5.6

Distortion (%):
0.76 @ Full Field

Back Focal Length BFL (mm):
5.8 - 4.9

Coating Specification:
λ/4 MgF_2 @ 550nm

Entrance Pupil Position (mm):
13.01

Object Space Principal Plane (mm):
5.57

Image Space Principal Plane (mm):
-12.71

Maximum Distortion (%):
-0.76

Exit Pupil Position (mm):
-7.49

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 x 0.5)

Regulatory Compliance

RoHS 2015:

Compliant

Certificate of Conformance:

View

Reach 247:

Compliant

Product Details

- Up to ½", 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.

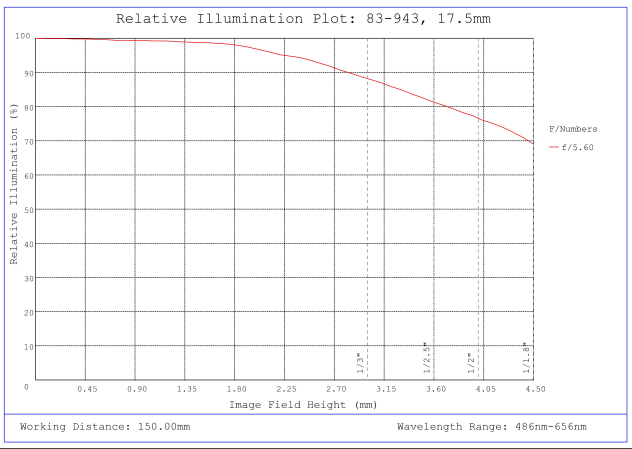
Note: Compatible TECHSPEC® M12 Imaging Lens Accessories available.

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.

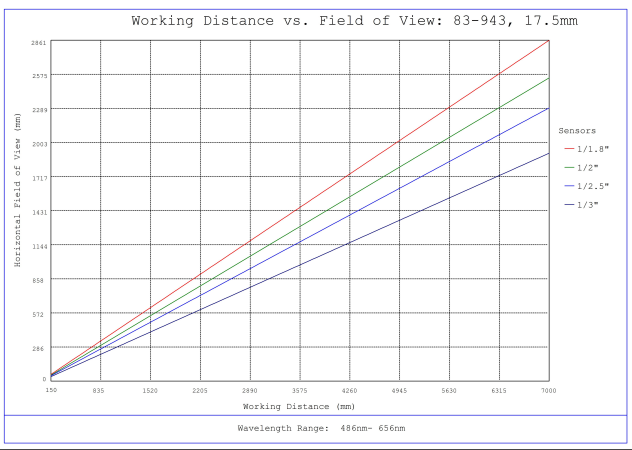
- Blue Series M12 Lenses: High resolution finite conjugate designs optimized for machine vision working distances.
- Rugged Blue Series M12 Lenses: Stabilized ruggedization versions of our Blue Series M12 Lenses, utilizing the same optics.
- Green Series M12 Lenses: Finite conjugate designs optimized 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

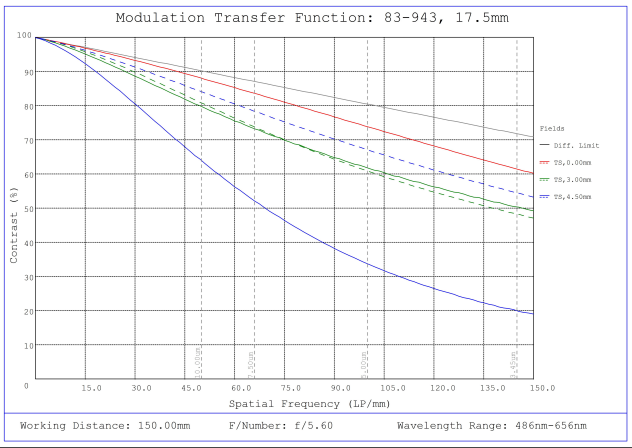
#83-943, 17.5mm FL f/5.6, Blue Series M12 Lens, Distortion Plot



#83-943, 17.5mm FL f/5.6, Blue Series M12 Lens, Relative Illumination Plot

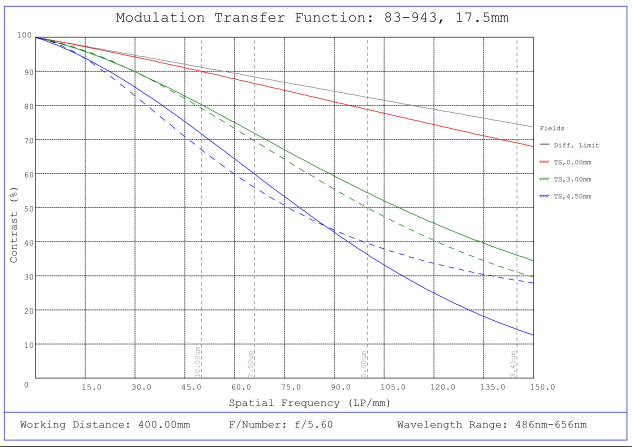


#83-943, 17.5mm FL f/5.6, Blue Series M12 Lens, Working Distance versus Field of View Plot

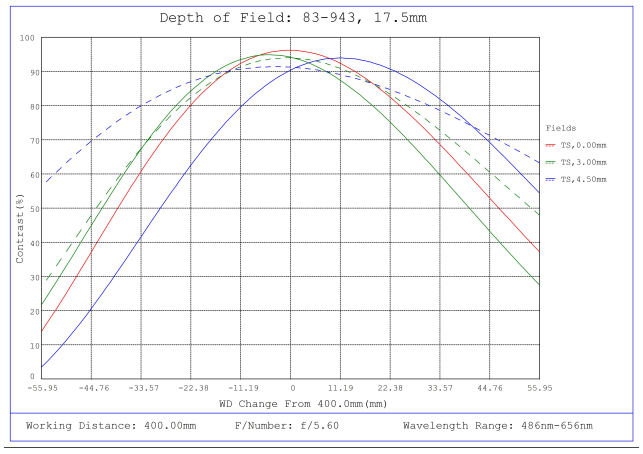


#83-943, 17.5mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f5.6

#83-943, 17.5mm FL f/5.6, Blue Series M12 Lens, Depth of Field Plot, 150mm Working Distance, f5.6



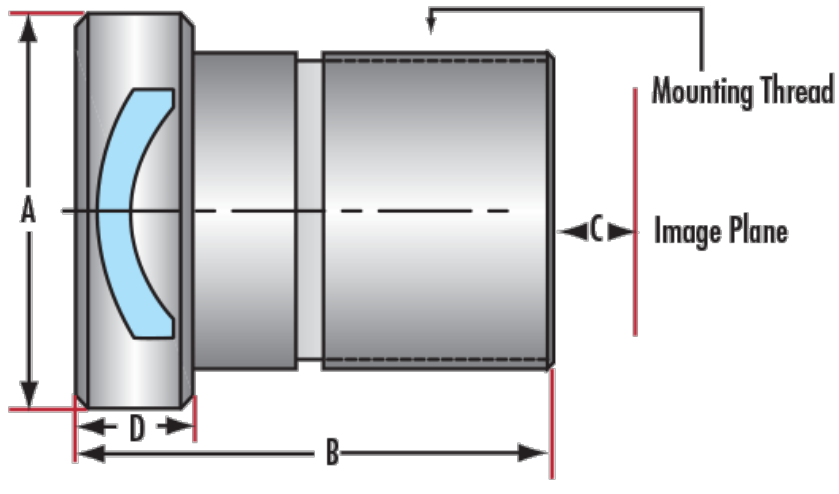
#83-943, 17.5mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f5.6



#83-943, 17.5mm 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.

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