

TECHSPEC® f/2, 12mm Focal Length Green Series M12 Lens



12mm Focal Length, #54-854

Stock **#54-854** 1 In Stock

-

1

+

S\$114⁰⁰

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Volume Pricing	
Qty 1-49	S\$114.00 each
Qty 50+	S\$91.00 each
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Product Downloads

General	
Green Series	Series:
M12 Imaging Lens	Type:
No	IR Cut Filter:
Standard Lens	Imaging Lens Type:

Physical & Mechanical Properties

Fixed	Iris Option:
19.50	Length (mm):
16	Maximum Diameter (mm):
16	Outer Diameter (mm):
6	Weight (g):

Optical Properties

Horizontal Field of View @ Max Sensor Format: 80.5mm - 30.1°	
Field of View at Max Sensor Format: Horizontal: 80.5mm - 30.1° Vertical: 60mm - 22.7° Diagonal: 101.5mm - 37.5°	
Horizontal Field of View, 1/2" Sensor: 80.5mm - 30.1°	
Horizontal Field of View, 1/2.5" Sensor: 72.7mm - 27.4°	
Horizontal Field of View, 1/3" Sensor: 60.0mm - 22.7°	
Horizontal Field of View, 1/4" Sensor: 44.9mm - 17.1°	
Resolution: 150 lp/mm @20% Contrast	
Maximum Image Circle (mm): 8.00	
Numerical Aperture NA, Object Side: 0.0191	
Number of Elements (Groups): 5(5)	
Wavelength Range (nm): 400 - 700	
Focal Length FL (mm): 12.00	
Working Distance (mm): 150 - ∞	
Aperture (f/#): f/2	
Distortion (%): -2.2 @ Full Field	
Back Focal Length BFL (mm): 7.1 - 6.75	
Coating Specification: λ/4 MgF ₂ @580nm	
Entrance Pupil Position (mm): 7.50	
Object Space Principal Plane (mm): 10.41	
Image Space Principal Plane (mm): -3.73	
Maximum Distortion (%): -2.2	
Exit Pupil Position (mm): -7.56	
Lens Wavelength Range: VIS	

Sensor

1/2"	Maximum Sensor Format:
8.30	Pixel Size (μm):

Threading & Mounting

N/A	Filter Thread:
M12 x0.5	Mounting Threads:
	Mount:

S-Mount (M12 x0.5)

Regulatory Compliance

Compliant

RoHS 2015:

View

Certificate of Conformance:

Compliant

REACH 241:

Product Details

Optimized Working Distance: 150 - 250mm

- Up to 1/2", S-Mount Lens
- Up to 0.4 MegaPixels, 8.3µm Pixel Size Sensors
- Board Camera Lens Optimized for Close WD and Finite Conjugate
- 6mm to 25mm Focal Lengths

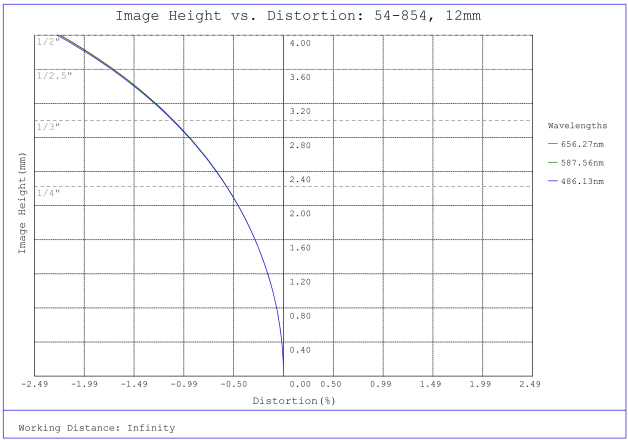
TECHSPEC® Green Series M12 Lenses designed for use in compact and board level cameras provide excellent image quality in a small, versatile package. Optimized to cover 1/3" and ½" sensor formats and weighing only a few grams, these machine vision lenses meet the most demanding space and weight restrictions. Each lens is threaded for M12 x0.5, except the 25.0mm focal length option ([#54-855](#)). TECHSPEC® Green Series M12 Lenses are ideal for wide angle and close focus applications, large area inspect for the automotive, forensic, pharmaceutical, and food industries. Prescription data is available by submitting a [Request for Prescription Form](#).

Note: Compatible [TECHSPEC M12 Imaging Lens Accessories](#) available.

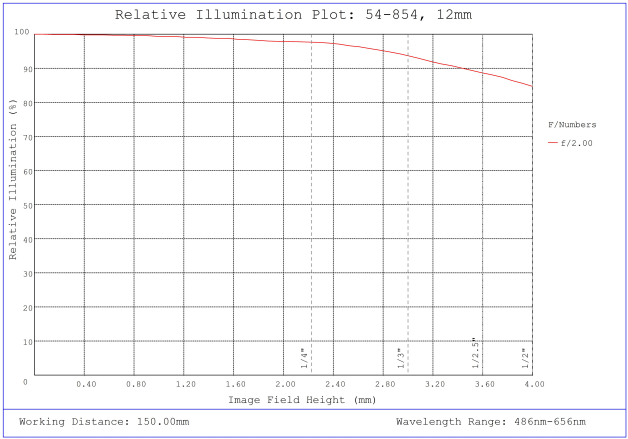
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

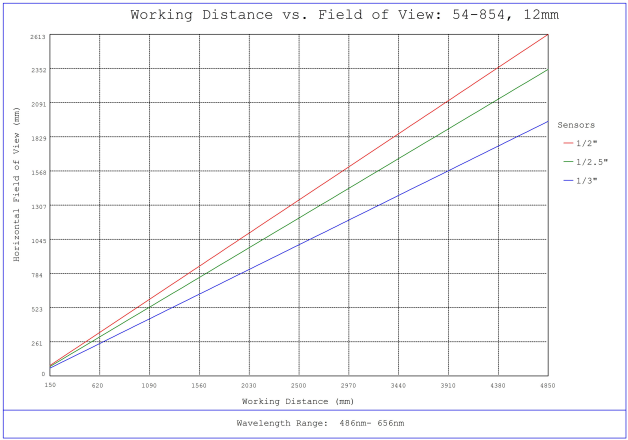
Technical Information



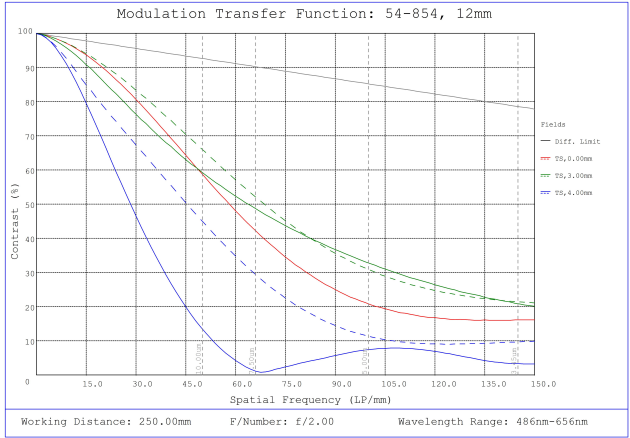
#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Distortion Plot



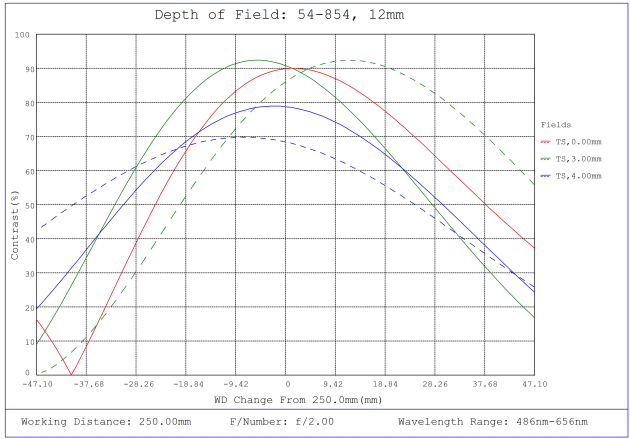
#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Relative Illumination Plot



#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Working Distance versus Field of View Plot

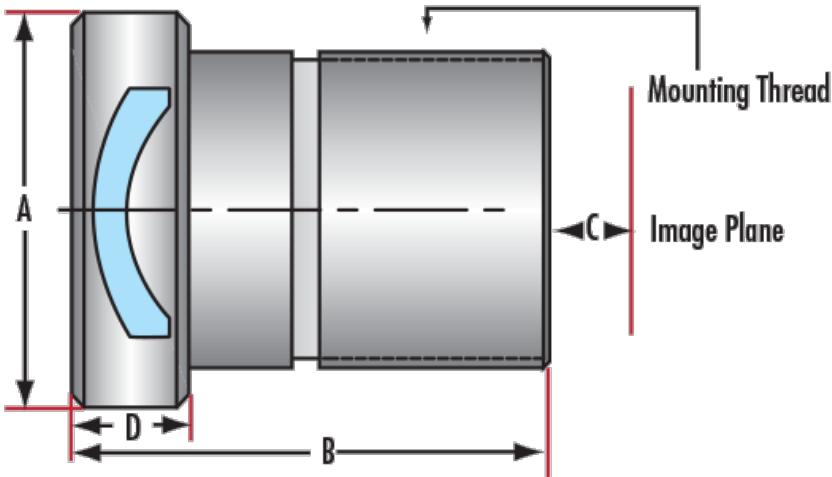


#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f2



#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Depth of Field Plot, 250mm Working Distance, f2

Focal Length	A	B	C**	D	Mounting Thread
6.00	14.0	11.70	4.0 - 3.9	3.5	M12 x0.5
8.00	14.0	20.40	8.9 - 8.7	6.0	M12 x0.5
12.00	16.0	19.50	7.1 - 6.75	6.0	M12 x0.5
25.00	18.0	24.40	12.6 - 11.9	9.0	M16 x0.5



**Minor adjustment required to match WD limits.