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TECHSPEC® **6.4mm FL, Red Series M12 Lens**

6.4mm Focal Length, #57-909

Stock **#57-909**   **20+ In Stock**

-   1   +   **€99**⁰⁰

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Volume Pricing	
Qty 1-49	**€99,00** each
Need More?	Request Quote

❶ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Series:	
Red Series	
Type:	
M12 Imaging Lens	
IR Cut Filter:	
No	
Imaging Lens Type:	
Standard Lens	

Physical & Mechanical Properties

Iris Option:
Fixed

Length (mm):
30.00

Maximum Diameter (mm):
14

Outer Diameter (mm):
14

Weight (g):
7

Optical Properties

Horizontal Field of View @ Max Sensor Format:
326.4mm - 43.9°

Field of View at Max Sensor Format:
Horizontal: 326.3mm - 43.8°
Vertical: 236.8mm - 32.5°
Diagonal: 427.1mm - 55.6°

Horizontal Field of View, 1/3" Sensor:
326.4mm - 43.9°

Horizontal Field of View, 1/4" Sensor:
237.0mm - 32.6°

Maximum Image Circle (mm):
6.00

Numerical Aperture NA, Object Side:
0.0042

Resolution, On-Axis:
100 lp/mm @ 20% Contrast

Resolution, Full Field:
100 lp/mm @ 20% Contrast

Number of Elements (Groups):
4 (3)

Wavelength Range (nm):
400 - 700

Focal Length FL (mm):
6.40

Working Distance (mm):
400 - ∞

Aperture (f/#):
f/1.9

Distortion (%):
-11.49 @ Full Field

Back Focal Length BFL (mm):
10.27 - 10.18

Coating:
λ/4 MgF$_2$

Coating Specification:
λ/4 MgF$_2$ @ 550nm

Entrance Pupil Position (mm):
5.70

Object Space Principal Plane (mm):
10.41

Image Space Principal Plane (mm):
4.58

Maximum Distortion (%):
-11.49

Exit Pupil Position (mm):
-12.96

Lens Wavelength Range:
VIS

Sensor

Maximum Sensor Format:
1/3"

Pixel Size (µm):
5.00

Threading & Mounting

Filter Thread:
N/A

Mount:
S-Mount (M12 x 0.5)

RoHS 2015:	Compliant
Certificate of Conformance:	View
Reach 240:	Compliant

Product Details

- Up to 1/2", S-Mount Lens
- Up to 1.3 MegaPixels, 5µm Pixel Size Sensors
- Board Camera Lens Optimized Long WD and Infinite Conjugate
- 3.6mm to 8mm Focal Lengths

TECHSPEC® Red Series M12 Lenses feature a high resolution, all glass element design. The slight negative (barrel) distortion can be easily factored out since the Angular Field of View is increased, thereby offering more workable field of view (FOV) in the object domain. Threaded for M12 x 0.5, these lenses are optimized for 1/3" and ½" sensor formats. TECHSPEC® Red Series M12 Lenses are ideal for demanding imaging applications. 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.
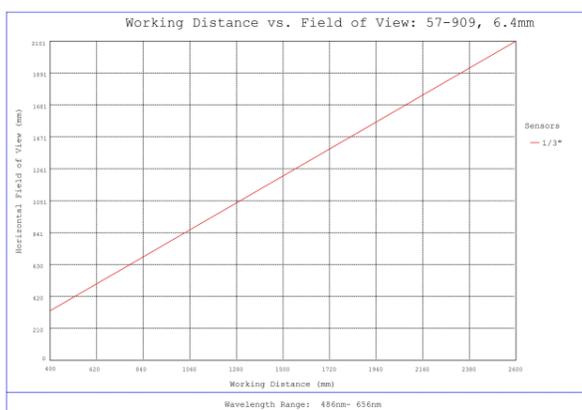- Liquid Lens M12 Lenses: Integrated liquid lens for fast electronic focus.
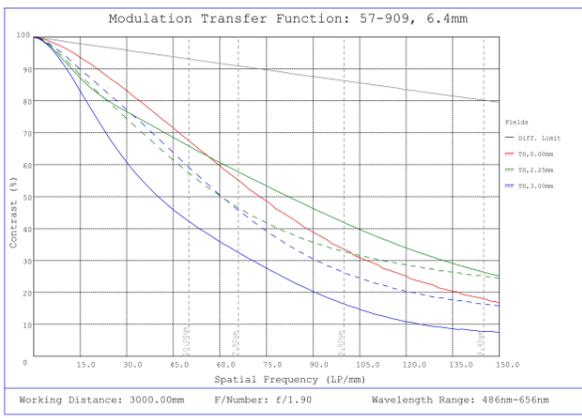
Technical Information
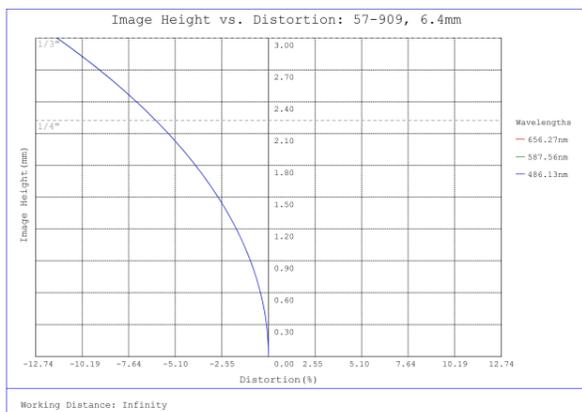
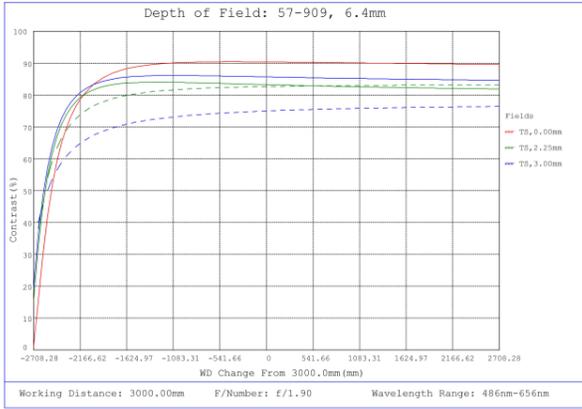*#57-909, 6.4mm FL, Red Series M12 Lens, Distortion Plot*
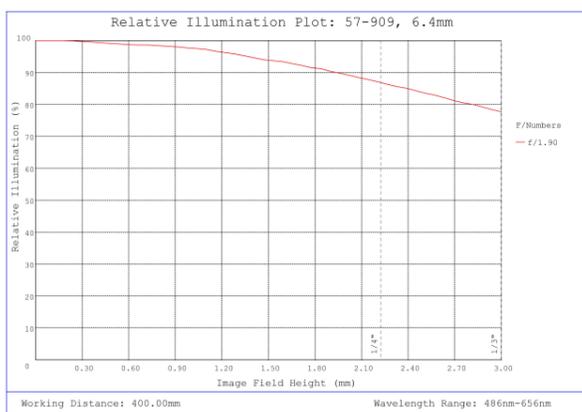
#57-909, 6.4mm FL, Red Series M12 Lens, Relative Illumination Plot

#57-909, 6.4mm FL, Red Series M12 Lens, Working Distance versus Field of View Plot

#57-909, 6.4mm FL, Red Series M12 Lens, Modulated Transfer Function (MTF) Plot, 3000mm Working Distance, f1.9

#57-909, 6.4mm FL, Red Series M12 Lens, Depth of Field Plot, 3000mm Working Distance, f1.9

Focal Length	A	B	C	D
3.6	14	14.6	4.5	4.2
4.4	14	24	6.4	3.8
6.4	14	30	10.2	3.8
7.2	14	22.1	8.3	4.0
8.0	14	15	8.7	4.0