

TECHSPEC® 18mm DG Series Fixed Focal Length Lens



18mm Focal Length, #54-857

Stock **#54-857 2 In Stock**

⊖ 1 ⊕ ₹37,149

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Volume Pricing

Qty 1+	₹37,149 each
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General

DG Series **Series:**

Fixed Focal Length Lens **Type:**

Traditional Double-Gauss Style Lens **Imaging Lens Type:**

Physical & Mechanical Properties

Variable **Iris Option:**

Length (mm):

32.30

54 **Maximum Diameter (mm):**

54 **Outer Diameter (mm):**

116 **Weight (g):**

3.5 **Maximum Rear Protrusion (mm):**

Optical Properties

Horizontal Field of View @ Max Sensor Format:

159.2mm - 38.4°

Field of View at Max Sensor Format:

Horizontal: 159.2mm - 38.5°

Vertical: 118.8mm - 29.3°

Diagonal: 200.1mm - 47.2°

Horizontal Field of View, 1" Sensor:

159.2mm - 38.4°

Horizontal Field of View, 2/3" Sensor:

108.7mm - 26.8°

Horizontal Field of View, 1/1.8" Sensor:

88.8mm - 22.0°

Horizontal Field of View, 1/2" Sensor:

78.8mm - 19.6°

Horizontal Field of View, 1/2.5" Sensor:

70.2mm - 17.5°

Horizontal Field of View, 1/3" Sensor:

59.2mm - 14.8°

Horizontal Field of View, 1/4" Sensor:

44.4mm - 11.1°

Maximum Image Circle (mm):

16.00

Numerical Aperture NA, Object Side:

0.0098

Number of Elements (Groups):

6 (4)

Focal Length FL (mm):

18.00

Working Distance (mm):

210 - ∞

Aperture (f/#):

f/4 - f/12

Coating:

λ/4 MgF₂

Coating Specification:

λ/4 MgF₂

Entrance Pupil Position (mm):

12.23

Object Space Principal Plane (mm):

20.45

Image Space Principal Plane (mm):

-5.66

Maximum Distortion (%):

-0.96

Exit Pupil Position (mm):

-20.48

Lens Wavelength Range:

VIS

Sensor

Maximum Sensor Format:

1"

Pixel Size (μm):

2.74

Threading & Mounting

Filter Thread:

M30.5 x 0.50 (Female)

Mount:

C-Mount

Environmental & Durability Factors

Storage Temperature (°C):

-20 to +60

Regulatory Compliance

Compliant

RoHS 2015:

Compliant

REACH 201:

View

Certificate of Conformance:

China

Country of Origin:

Edmund Optics India Private Limited

Imported By:

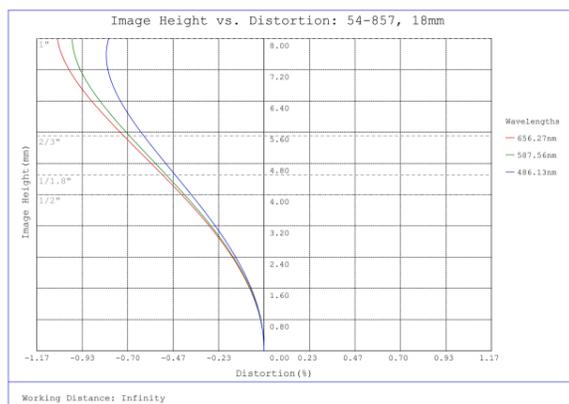
Product Details

- Up to 4/3", C-Mount Lens
- Up to 9 MegaPixels, 2.8µm Pixel Size Sensors
- Double Gauss (DG) Lens with low distortion and high performance
- 18mm to 75mm Focal Length

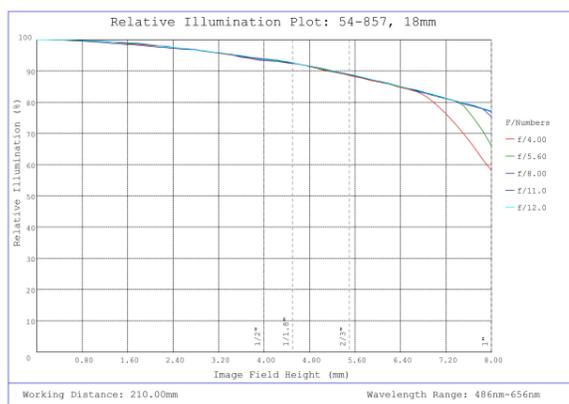
TECHSPEC® DG Series Fixed Focal Length Lenses utilize a Double Gauss design to provide high-performance, low distortion, compact size, and exceptional value, while exceeding the performance of typically available fixed focal length lenses. These lenses feature a mechanical design that allows the focusing movement to be motorized by the user, yields image resolution greater than 100 lp/mm, and have a standard C-Mount. For most applications, the camera-lens combination can be attached to workstations using the 1/4-20 mount provided on the camera. TECHSPEC® DG Series Fixed Focal Length Lenses include focus ring, manual iris, and set screws to facilitate a low profile integration in machine vision applications. Typical applications for the DG Series lenses include machine vision, assembly-line integration, and measurement and image analysis.

Note: [Industrial Boom Stands](#) are recommended for building vibration-free workstations.

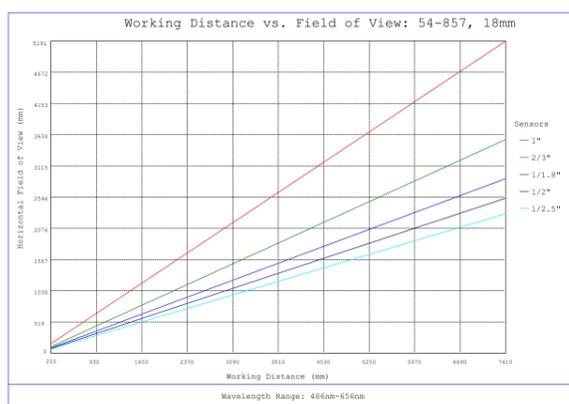
Technical Information



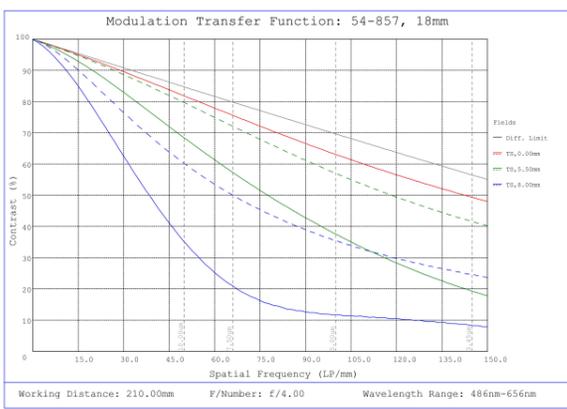
#54-857, 18mm DG Series Fixed Focal Length Lens, Distortion Plot



#54-857, 18mm DG Series Fixed Focal Length Lens, Relative Illumination Plot



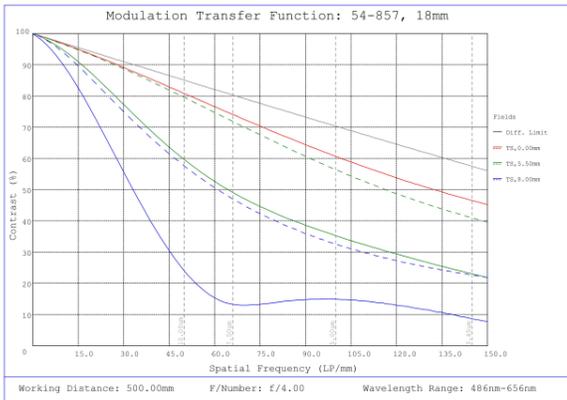
#54-857, 18mm DG Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



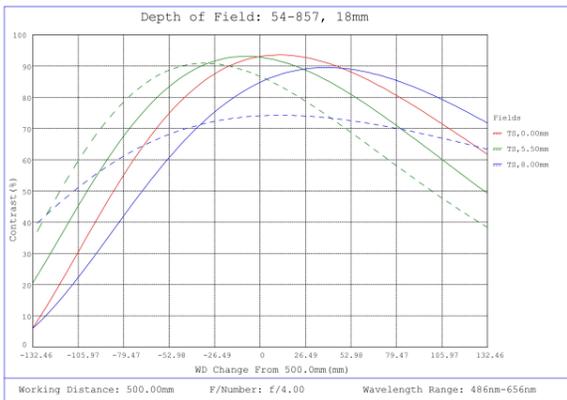
#54-857, 18mm DG Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 210mm Working Distance, f4



#54-857, 18mm DG Series Fixed Focal Length Lens, Depth of Field Plot, 210mm Working Distance, f4



#54-857, 18mm DG Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f4



#54-857, 18mm DG Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f4

Dimensions							
FL (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Filter Thread (Dia. x Pitch)
18	48.0	32.3	4.6	40.0	-	2.5	M30.5 x 0.5
25	39.0	40.0	5.8	34.7	30.7	2.2	M30.5 x 0.5
35	45.0	50.1	11.6	40.0	42.1	0	M37.0 x 0.75
50	47.5	69.0	10.6	40.0	40.8	0	M39.0 x 0.5
75	54.0	116.2	19.2	46.0	67.7	0	M49.0 x 0.75

Compatible Cameras