

TECHSPEC® 75mm DG Series Fixed Focal Length Lens



75mm Focal Length, #54-691

Stock **#54-691** **20+ In Stock**

⊖ 1 ⊕ **A\$979⁰⁰**

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Volume Pricing	
Qty 1-49	A\$979.00 each
Qty 50+	A\$769.00 each
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General

DG Series **Product Family:**

Fixed Focal Length Lens **Type:**

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

Physical & Mechanical Properties

Variable **Iris Option:**

116.20	Length (mm):
47.5	Maximum Diameter (mm):
47.5	Outer Diameter (mm):
436	Weight (g):
3.5	Maximum Rear Protrusion (mm):

Optical Properties

55.4mm - 13.2°	Horizontal Field of View @ Max Sensor Format:
Horizontal: 53mm - 13.2° Vertical: 39.7mm - 9.9° Diagonal: 66.2mm - 16.4°	Field of View at Max Sensor Format:
55.4mm - 13.2°	Horizontal Field of View, 4/3" Sensor:
45.4mm - 10.8°	Horizontal Field of View, 1.1" Sensor:
40.9mm - 9.8°	Horizontal Field of View, 1" Sensor:
28.1mm - 6.7°	Horizontal Field of View, 2/3" Sensor:
23.0mm - 5.5°	Horizontal Field of View, 1/1.8" Sensor:
20.5mm - 4.9°	Horizontal Field of View, 1/2" Sensor:
18.5mm - 4.4°	Horizontal Field of View, 1/2.5" Sensor:
15.3mm - 3.7°	Horizontal Field of View, 1/3" Sensor:
11.5mm - 2.8°	Horizontal Field of View, 1/4" Sensor:
21.60	Maximum Image Circle (mm):
0.0316	Numerical Aperture NA, Object Side:
6 (4)	Number of Elements (Groups):
75.00	Focal Length FL (mm):
250 - ∞	Working Distance (mm):
f/4 - f/30	Aperture (f/#):
λ/4 MgF ₂	Coating:
λ/4 MgF ₂	Coating Specification:
31.44	Entrance Pupil Position (mm):
39.65	Object Space Principal Plane (mm):
-30.62	Image Space Principal Plane (mm):
0.16	Maximum Distortion (%):
-39.84	Exit Pupil Position (mm):
VS	Lens Wavelength Range:

Sensor

4/3"	Maximum Sensor Format:
2.74	Pixel Size (μm):

Threading & Mounting

M49.0 x0.75 (Female)	Filter Thread:
C-Mount	Mount:

Environmental & Durability Factors

Storage Temperature (°C):

-20 to +60

Regulatory Compliance

RoHS 2015:

Exempt

REACH 201:

Compliant

Certificate of Conformance:

[View](#)

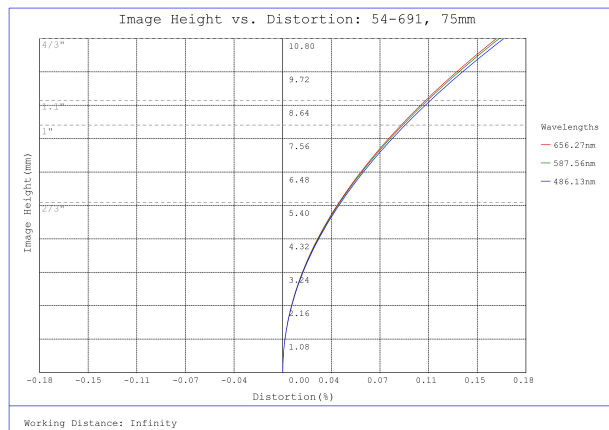
Product Details

- 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

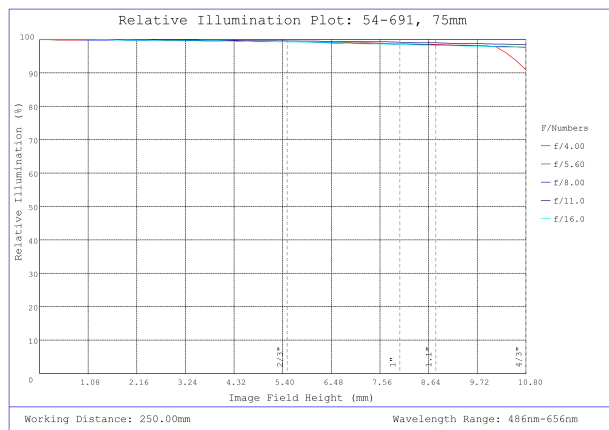
TECHSPEC® DG Series Fixed Focal Length Lenses utilize a Double Gauss design to provide high-performance, low distortion, compact size, and exceptional value, while exceeding the performance of typically available fixed focal length lenses. These lenses feature a mechanical design that allows the focusing 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.

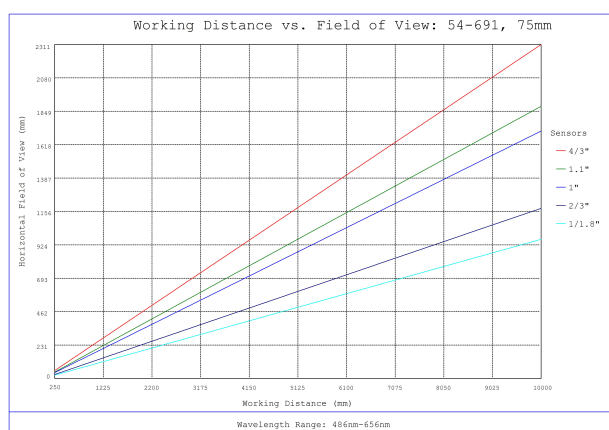
Technical Information



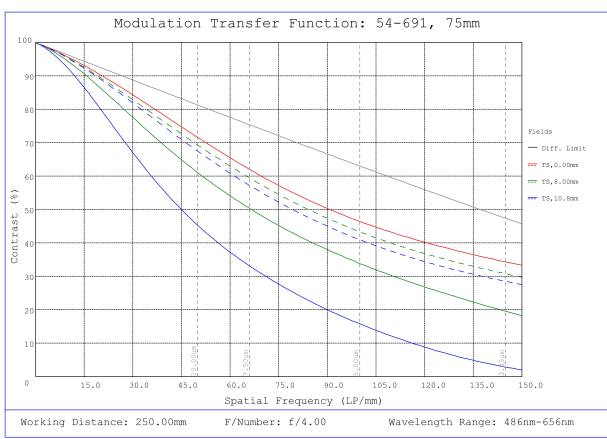
#54-691, 75mm DG Series Fixed Focal Length Lens, Distortion Plot



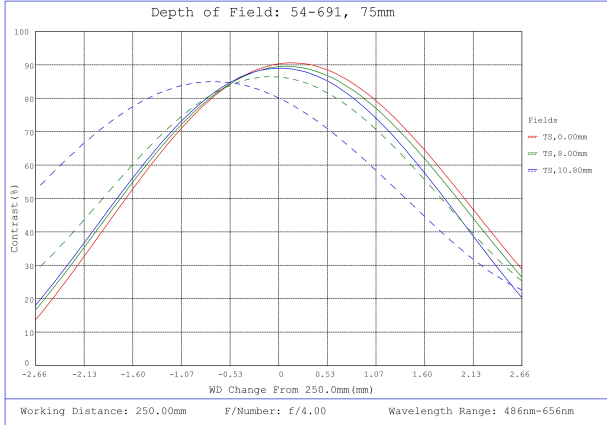
#54-691, 75mm DG Series Fixed Focal Length Lens, Relative Illumination Plot



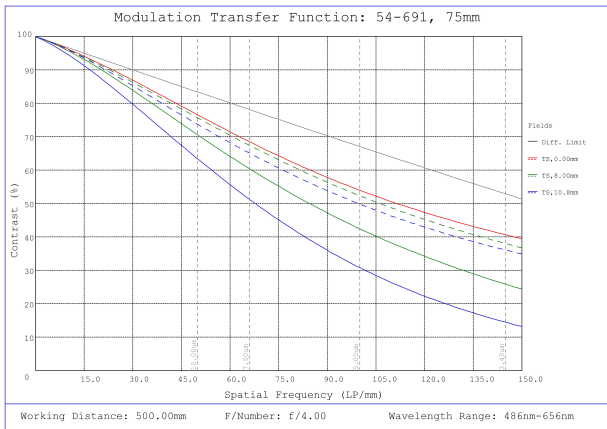
#54-691, 75mm DG Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



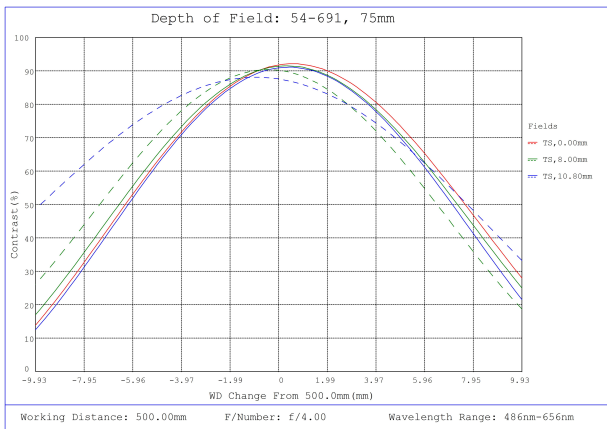
#54-691, 75mm DG Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f4



#54-691, 75mm DG Series Fixed Focal Length Lens, Depth of Field Plot, 250mm Working Distance, f4



#54-691, 75mm DG Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f4



#54-691, 75mm 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