

TECHSPEC® 75mm DG Series Fixed Focal Length Lens



75mm Focal Length, #54-691

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

⊖ 1 ⊕ C\$1,162.⁰⁰

ADD TO CART

Volume Pricing

| | |
|------------|-------------------------------|
| Qty 1-49 | C\$1,162.00 each |
| Qty 50+ | C\$910.00 each |
| Need More? | Request Quote |

Product Downloads

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](#)

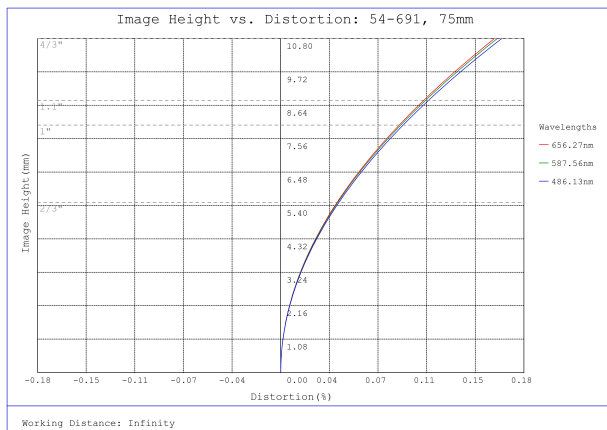
Product Details

- 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

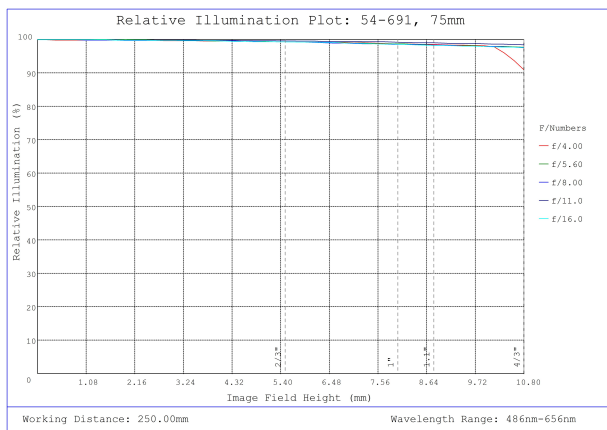
TECHSPEC® DG Series Fixed Focal Length Lenses utilize a Double Gauss design to provide high-performance, low distortion, compact size, and exceptional value, while exceeding the performance of typically available fixed focal length lenses. These lenses feature a mechanical design that allows the focusing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

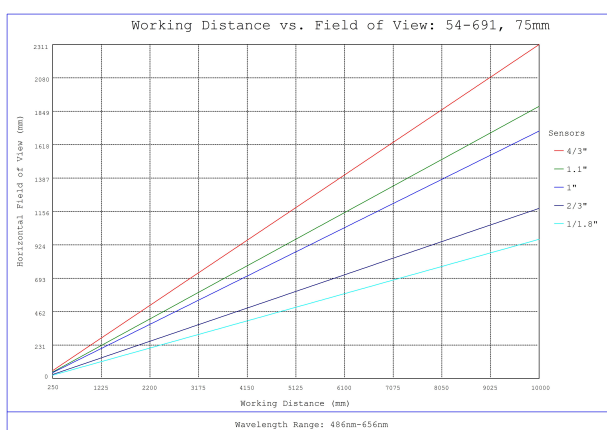
Technical Information



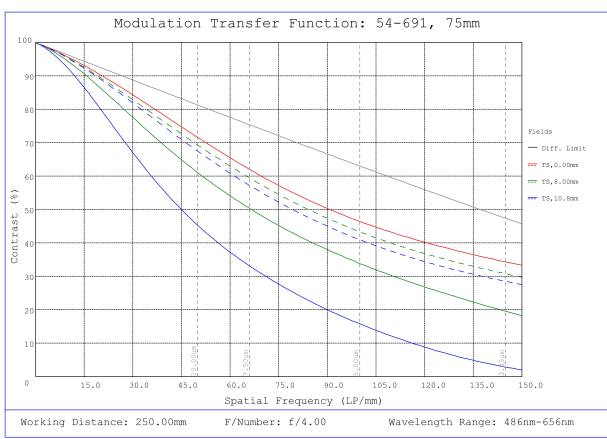
#54-691, 75mm DG Series Fixed Focal Length Lens, Distortion Plot



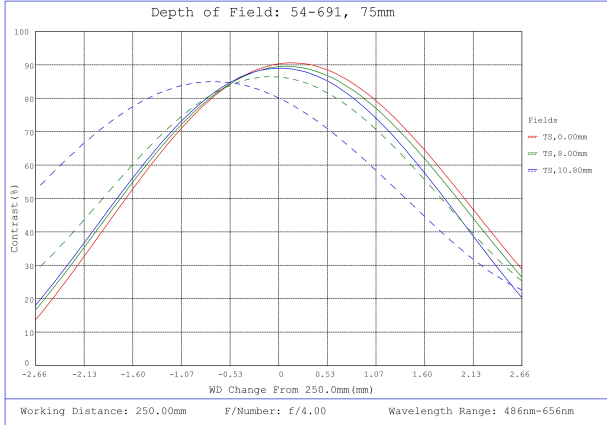
#54-691, 75mm DG Series Fixed Focal Length Lens, Relative Illumination Plot



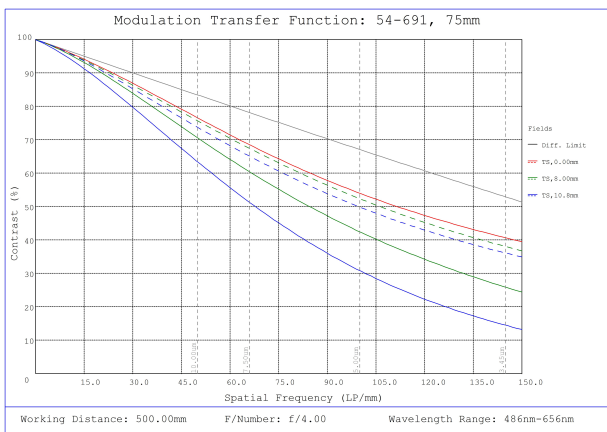
#54-691, 75mm DG Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



#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