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TECHSPEC® 50mm f/1.8, HPr Series Fixed Focal Length Lens

50mm HPr Series Fixed Focal Length Lens

Stock **#36-532** **10 In Stock**

- 1 + **€825**.00

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Volume Pricing	
Qty 1+	**€825,00** each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Series:
HPr Series

Type:
Fixed Focal Length Lens

Physical & Mechanical Properties

Iris Option:
Fixed

Length (mm):

72.58

Maximum Diameter (mm):
41.74

Outer Diameter (mm):
41.74

Maximum Rear Protrusion (mm):
0

Optical Properties

Horizontal Field of View @ Max Sensor Format:
Horizontal: 72.4mm - 19.6° Vertical: 54.1mm - 14.8°
Diagonal: 90.9mm - 24.4°

Field of View at Max Sensor Format:
Horizontal: 72.4mm - 19.6°
Vertical: 54.1mm - 14.8°
Diagonal: 90.9mm - 24.4°

Horizontal Field of View, 4/3" Sensor:
72mm - 19°

Horizontal Field of View, 1.2" Sensor:
26.6mm - 7.3°

Horizontal Field of View, 1.1" Sensor:
59.3mm - 16.2°

Horizontal Field of View, 1" Sensor:
53.4mm - 14.6°

Horizontal Field of View, 2/3" Sensor:
36.6mm - 10.1°

Horizontal Field of View, 1/1.8" Sensor:
29.9mm - 8.2°

Horizontal Field of View, 1/2" Sensor:
26.6mm - 7.3°

Horizontal Field of View, 1/2.5" Sensor:
24.1mm - 6.6°

Horizontal Field of View, 1/3" Sensor:
19.9mm - 5.5°

Horizontal Field of View, 1/4" Sensor:
14.9mm - 4.1°

Maximum Image Circle (mm):
21.60

Numerical Aperture NA, Object Side:
0.0595

Number of Elements (Groups):
7 (5)

Focal Length FL (mm):
50.00

Working Distance (mm):
200 - ∞

Aperture (f/#):
f/1.8

Coating:
λ/4 MgF2

Coating Specification:
λ/4 MgF_2

Entrance Pupil Position (mm):
30.94

Object Space Principal Plane (mm):
55.37

Image Space Principal Plane (mm):
-27.42

Maximum Distortion (%):
-0.21

Exit Pupil Position (mm):
-75.19

Optimized Working Distance (mm):
200 - ∞

Lens Wavelength Range:
VIS

Sensor

Optimized Sensor Format:
1"

Maximum Sensor Format:
4/3"

Pixel Size (µm):
1.85

Threading & Mounting

Filter Thread:
M37.5 x 0.50 (Female)

Mount:
C-Mount

Environmental & Durability Factors

Storage Temperature (°C):
-20 to +60

Type of Ruggedization:
Stabilized (Robust Mechanics for Shock and Vibration)

Regulatory Compliance

Certificate of Conformance:
View

Product Details

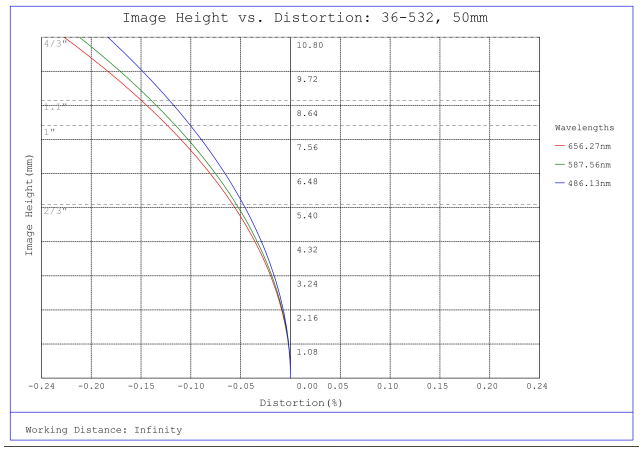
- 1.1", C-Mount Lens
- Up to 20 MegaPixels, 1.85µm Pixel Size Sensors
- Ruggedized (HPr) Designs (50g Shock) of our HP Series Lens with Individual Optics Glued in Place
- 16mm to 50mm Focal Length
- Instrumentation (HPi) Versions Also Available

TECHSPEC® HPr Series Fixed Focal Length Lenses provide a stabilized ruggedization that maintains optical pointing stability after shock and vibration without sacrificing performance. This makes them ideal for calibrated imaging systems such as measurement and gauging, 3D stereo vision, robotics and sensing, autonomous vehicles, and object tracking. Every lens element is glued in place so that object to image mapping is always maintained. Additionally, the TECHSPEC HPr Series Fixed Focal Length Lenses feature a robust mechanical design with a simplified focus and stainless steel locking C-Mount clamp. Call for OEM Quantity Pricing.

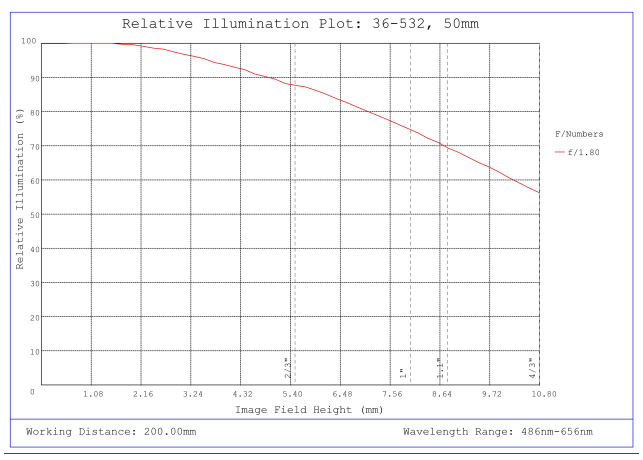
Edmund Optics has created a family of high performance optical designs (the HP Series family) and developed three customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the HP Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

- **HP Series**: Features locking cam focus and iris adjustment. This is the most adjustable version of these optical designs and is the typical high quality machine vision lens.
- **HPi Series**: Simplified mechanics featuring fixed apertures with compact housing. **Industrial Ruggedization** for reduced size, cost, and locked focus.
- HPr Series: All optics glued in place and a locking C-clamp focus ring. **Stabilized Ruggedization** for reduced pixel shift and improved focus stability.

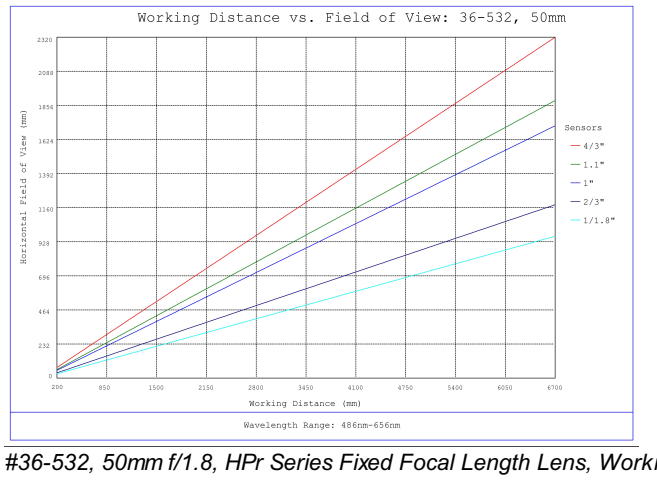
Technical Information



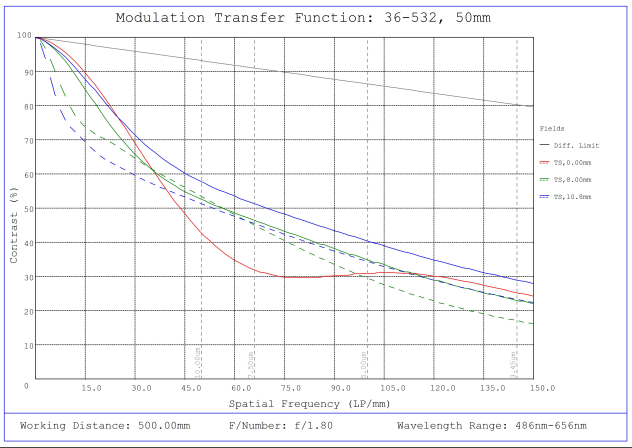
#36-532, 50mm f/1.8, HPr Series Fixed Focal Length Lens, Distortion Plot



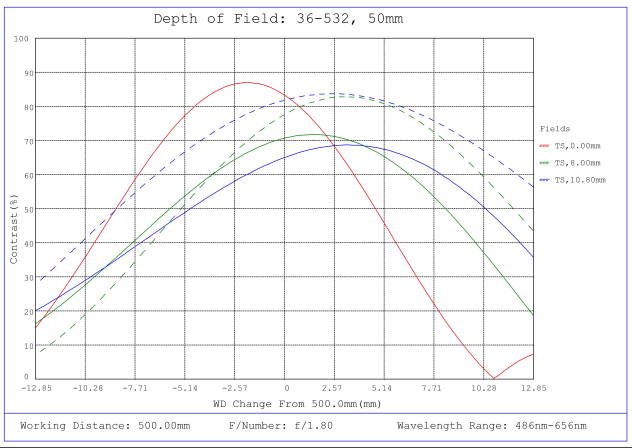
#36-532, 50mm f/1.8, HPr Series Fixed Focal Length Lens, Relative Illumination Plot



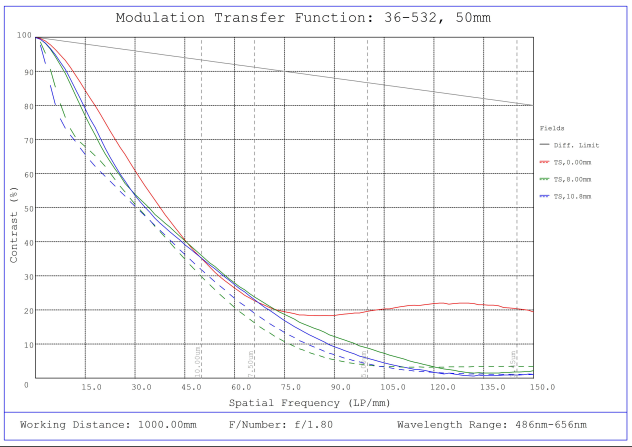
#36-532, 50mm f/1.8, HPr Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



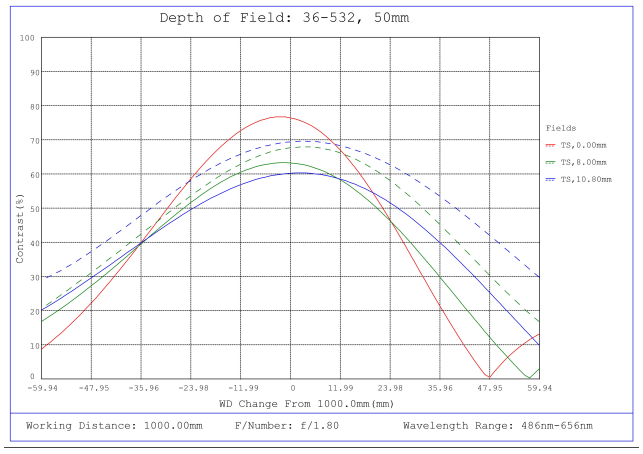
#36-532, 50mm f/1.8, HPr Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f1.8



#36-532, 50mm f/1.8, HPr Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f1.8



#36-532, 50mm f/1.8, HPr Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f1.8



#36-532, 50mm f/1.8, HPr Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f1.8

Compatible Cameras

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