

TECHSPEC® 12mm C VIS-NIR Series Fixed Focal Length Lens



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⊖ 1 ⊕ **\$\$434.⁰⁰**

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General

C VIS-NIR Series **Product Family:**

Fixed Focal Length Lens **Type:**

Compact Lens Coated for Visible to Near Infrared **Imaging Lens Type:**

Physical & Mechanical Properties

Variable **Iris Option:**

Length (mm):

27.90

Maximum Diameter (mm):

32.0

Outer Diameter (mm):

32

Weight (g):

54

Maximum Rear Protrusion (mm):

0.5

Optical Properties

Horizontal Field of View @ Max Sensor Format:
41.2°

Field of View at Max Sensor Format:
Horizontal: 41.4°
Vertical: 31.4°
Diagonal: 50.8°

Horizontal Field of View, 2/3" Sensor:
41.4°

Horizontal Field of View, 1/1.8" Sensor:
34.2°

Horizontal Field of View, 1/2" Sensor:
30.5°

Horizontal Field of View, 1/2.5" Sensor:
27.7°

Horizontal Field of View, 1/3" Sensor:
23.0°

Horizontal Field of View, 1/4" Sensor:
17.3°

Maximum Image Circle (mm):
11.00

Numerical Aperture NA, Object Side:
0.0285

Number of Elements (Groups):
7 (7)

Focal Length FL (mm):
12.00

Working Distance (mm):
100 - ∞

Aperture (f/#):
f/1.8 - f/16

Coating:
425 - 1000nm BBAR

Coating Specification:
425 - 1000nm BBAR

Entrance Pupil Position (mm):
11.01

Object Space Principal Plane (mm):
17.20

Image Space Principal Plane (mm):
2.05

Maximum Distortion (%):
-2.2

Exit Pupil Position (mm):
-10.84

Lens Wavelength Range:
VIS-NIR

Sensor

Maximum Sensor Format:
2/3"

Pixel Size (µm):
2.74

Threading & Mounting

Filter Thread:
M25.5 x 0.50 (Female)

Mount:
C-Mount

Environmental & Durability Factors

Storage Temperature (°C):
-20 to +60 For questions regarding operating temperature please contact our support team

Regulatory Compliance

Certificate of Conformance:

[View](#)

Product Details

- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Compact (C) Broadband Lens for 425-1000nm Wavelength Range
- 3.5mm to 50mm Focal Length

TECHSPEC® C Series Fixed Focal Length VIS-NIR Lenses are designed for use in machine vision applications that require NIR or VIS-NIR performance, with the working distance and resolution requirements of factory automation and inspection in mind. Featuring large maximum apertures and a Broadband Anti-Reflection (BBAR) coating designed out to 1000nm, these high performance lenses can be used in even the most restrictive lighting conditions. TECHSPEC® C Series Fixed Focal Length VIS-NIR Lenses are manufactured to a high tolerance, resulting in greater levels of imaging performance and low lens-to-lens variation, assuring simple installing into multiple systems. By combining high optical performance, industrial features, and small package size, the C Series Fixed Focal Length VIS-NIR Lenses represent a new standard in factory automation optics.

Also available with a [VIS Broadband Anti-Reflection \(BBAR\)](#) or [SWIR](#) Coatings

Note: For IR imaging alone, [UV-VIS Cut Filters](#) are available and thread directly onto the front filter threads of the 4.5mm, 16mm, 25mm, 35mm and 50mm FL lenses.

Technical Information

Focal Length	A	B	C	D
3.5mm	50.0mm	39.3mm	32.0mm	2.72mm
4.5mm	40.0mm	37.5mm	32.0mm	2.78mm
6.0mm	36.0mm	48.9mm	35.8mm	1.4mm
8.5mm	32.0mm	34.5mm	32.0mm	0.0mm
12mm	32.0mm	27.9mm	32.0mm	0.5mm
16mm	33.0mm	40.5mm	33.0mm	1.0mm
25mm	31.0mm	30.5mm	31.0mm	1.3mm
35mm	33.0mm	41.0mm	33.0mm	0.0mm
50mm	35.8mm	53.7mm	35.8mm	2.85mm
100mm	52.0mm	93.5mm	41.0mm	7.0mm

