

## TECHSPEC® 16mm, f/5, Liquid Lens Cx Series Fixed Focal Length Lens



Stock #33-646 **5 In Stock**

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**Note:** This item requires accessories for use | [Learn More](#)

### Product Downloads

### General

LL Cx Series **Product Family:**

**Note:**  
Separate driver not included. Electronic development kit #28-773 recommended.

Fixed Focal Length Lens **Type:**

**Integrated Liquid Lens Model:**  
Corning® Varioptic® A-25H0

**Imaging Lens Type:**  
Integrated Liquid Lens to Adjust Focus Electronically

**Special Type of Lens:**  
Liquid Lens Focusable

## Physical & Mechanical Properties

**Iris Option:**  
Fixed

**Length (mm):**  
40.22

**Maximum Diameter (mm):**  
30

**Outer Diameter (mm):**  
30

**Weight (g):**  
39

**Maximum Rear Protrusion (mm):**  
0.48

## Optical Properties

**Field of View at Max Sensor Format:**  
Horizontal: 59.9mm - 31°  
Vertical: 44.7mm - 23.4°  
Diagonal: 75.2mm - 38.3°

**Horizontal Field of View, 2/3" Sensor:**  
66.8mm - 31.0°

**Horizontal Field of View, 1/1.8" Sensor:**  
54.5mm - 25.5°

**Horizontal Field of View, 1/2" Sensor:**  
48.4mm - 22.8°

**Horizontal Field of View, 1/2.5" Sensor:**  
43.8mm - 20.7°

**Horizontal Field of View, 1/3" Sensor:**  
36.2mm - 17.1°

**Maximum Image Circle (mm):**  
11.00

**Numerical Aperture NA, Object Side:**  
0.0115

**Number of Elements (Groups):**  
8 (7)

**Focal Length FL (mm):**  
16.00

**Working Distance (mm):**  
100 - ∞

**Aperture (f/#):**  
f/5

**Coating Specification:**  
425 - 675nm BBAR

**Entrance Pupil Position (mm):**  
18.04

**Object Space Principal Plane (mm):**  
21.17

**Image Space Principal Plane (mm):**  
-2.99

**Maximum Distortion (%):**  
-0.73

**Exit Pupil Position (mm):**  
-6.87

**Lens Wavelength Range:**  
VIS

## Sensor

**Maximum Sensor Format:**  
2/3"

**Pixel Size (µm):**  
2.74

## Threading & Mounting

**Filter Thread:**  
M25.5 x 0.50 (Male)

**Filter Thread Adapter:**  
[#89-941 \(Required\)](#)

**Mount:**

## Environmental & Durability Factors

**Storage Temperature (°C):**  
-20 to +60

## Regulatory Compliance

**RoHS 2015:**  
Compliant

**Certificate of Conformance:**  
View

**Reach 250:**  
Compliant

## Product Details

- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Liquid Lens Provides Dynamic Autofocus
- 12mm to 50mm Focal Length

TECHSPEC® Liquid Lens Cx Series Fixed Focal Length Lenses are designed with an integrated liquid lens providing a quick autofocus solution. Combining our high-resolution optical design with a liquid lens allows for fast electronic focus with superior image performance. The C-Mount design simplifies integration into machine vision and [factory automation](#) applications. TECHSPEC® Liquid Lens Cx Series Fixed Focal Length Lenses features a modular 3-piece housing design for easy access and replacement of the integrated liquid lens. For further documentation information or questions regarding ease of assembly and design support, please review our quick start guides, lens manuals, or [contact technical support](#).

**Note:** Driver and software are required for operation and must be purchased separately unless camera in use has liquid lens control capability. Various drivers and software are included in the Electronics Development Kit ([#28-773](#)). Individual drivers can also be purchased separately if software is not needed ([#12-247](#) or [#12-248](#)).

TECHSPEC® Liquid Lens Cx Series Fixed Focal Length Lenses are also available without a liquid lens as [TECHSPEC® Cx Series Fixed Focal Length Lenses](#). This standalone modular 3-piece design without the liquid lens allows other accessories such as filter holders and apertures to be integrated. Additional CxLens accessory options are available for purchase separately.

Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

- **C Series:** Features locking cam focus and iris adjustment and is the most adjustable version of these optical designs; they are the typical high quality machine vision lenses. Also available with a [VIS-NIR Broadband Anti-Reflection \(BBAR\) Coating](#).
- **Cl Series:** Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.
- **Cr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.
- **Cx Series:** Modular, flexible mechanics allows lenses to be taken apart for easy integration of accessories such as liquid lenses, apertures, and more.
- **Liquid Lens Cx Series:** Designed with an integrated liquid lens for quick autofocus.
- **Cw Series:** Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 and IPX9K.