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TECHSPEC® 6mm, f



6mm UCi Series Fixed Focal Length Lens



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1

€235^{.00}

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Volume Pricing

Qty 1+ €235,00 each

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Product Downloads

- STEP:step
- PDF Drawing:pdf
- IGES:igs
- Zemax
- eDrawing:eprt
- EO Spec Sheet

General

Product Family:	UCi Series	Type:	Fixed Focal Length Lens
IR Cut Filter:	No		

Physical & Mechanical Properties

Iris Option:	Fixed	Length (mm):	47.30
Maximum Diameter (mm):	30.5	Outer Diameter (mm):	30.5
Weight (g):	52	Maximum Rear Protrusion (mm):	0

Optical Properties

Horizontal Field of View @ Max Sensor Format:	72.8mm - 60.0°	Field of View at Max Sensor Format:	Horizontal: 72.8mm - 60° Vertical: 52.7mm - 45.4° Diagonal: 95.5mm - 73.8°
Horizontal Field of View, 1/2" Sensor:	72.8mm - 60.0°	Horizontal Field of View, 1/2.5" Sensor:	65.0mm - 54.6°
Horizontal Field of View, 1/3" Sensor:	52.7mm - 45.4°	Horizontal Field of View, 1/4" Sensor:	38.7mm - 34.2°
Maximum Image Circle (mm):	8.00	Numerical Aperture NA, Object Side:	0.0084
Number of Elements (Groups):	9 (8)	Focal Length FL (mm):	6.00
Working Distance (mm):	50 - ∞	Aperture (f/#):	f/5.6

Coating:	$\lambda/4$ MgF ₂	Coating Specification:	$\lambda/4$ MgF ₂
Entrance Pupil Position (mm):	12.61	Object Space Principal Plane (mm):	17.55
Image Space Principal Plane (mm):	4.85		
Exit Pupil Position (mm):	-23.26	Wavelength Range:	
Sensor			
Optimized Sensor Format:	1/2.5"	Maximum Sensor Format:	1/2"
Pixel Size (μm):	1.85		
Threading & Mounting			
Filter Thread:	M30.5 x 0.50 (Male)	Mount:	S-Mount (M12 x 0.5)
Environmental & Durability Factors			
Storage Temperature ($^{\circ}\text{C}$):	-20 to +60	Type of Ruggedization:	Industrial (Fixed Aperture with Simplified Mechanics)
Regulatory Compliance			
Certificate of Conformance:	View		

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Product Details

- Up to 1/1.8", C-Mount, S-Mount Lens
- Up to 12 MegaPixels, 1.85 μm Pixel Size Sensors
- Instrumentation (UCi) versions of our UC Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 4mm to 35mm Focal Length

TECHSPEC® UCi Series Fixed Focal Length Lenses utilize the same optics as the TECHSPEC UC Series Lenses and feature 4K resolution. These lenses are designed for small pixels $\leq 2.2\mu\text{m}$ and offer a wide range of fixed apertures for a variety of applications. While optimized for 1/2.5" sensors, many focal length options can be used on sensors up to 1/1.8". TECHSPEC® UCi Series Fixed Focal Length Lenses are ideal for OEM applications that require small, robust, and lightweight imaging solutions.

Note: For adjustable aperture options, see our [TECHSPEC® UC Series Fixed Focal Length Lenses](#).

Edmund Optics has created a family of high-performance ultra-compact optical designs (the UC Series family) and developed 3 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the UC Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

UC Series: Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

UCi Series: Simplified mechanics featuring fixed apertures with compact housing. **Industrial Ruggedization** for reduced size, cost, and locked focus.

UCr Series: All optics glued in place and a locking C-clamp focus ring. **Stabilized Ruggedization** for reduced pixel shift and improved focus stability.

UCw Series: Waterproof, designed to meet IEC **Ingress Protection** Code IPX7 to withstand exposure to water up to 1 meter depth for 30 minutes.

Technical Information

#33-865, 6mm, f/5.6 UCi Series Fixed Focal Length Lens, Distortion Plot

#33-865, 6mm, f/5.6 UCi Series Fixed Focal Length Lens, Relative Illumination Plot

#33-865, 6mm, f/5.6 UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot

#33-865, 6mm, f/5.6 UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f5.6

#33-865, 6mm, f/5.6 UCi Series Fixed Focal Length Lens, Depth of Field Plot, 150mm Working Distance, f5.6

#33-865, 6mm, f/5.6 UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 850mm Working Distance, f5.6

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Accessories

Note: Compatible accessories for individual stock numbers may vary. If unsure about which accessories work with your products, please contact us [here](#).

	Title	Compare	Stock Number	Price	Buy
MORE+	C-Mount to M12 Adapter for UCi Lens		#12-879	€48,00 Request Quote	20+ In Stock <input type="text" value="1"/>

Related Products



#33-301 - 6mm UC Series Fixed Focal Length Lens
€260,00

Qty



#67-709 - 6mm C Series Fixed Focal Length Lens
€350,00

Qty



USAF 1951 Glass Slide Resolution Targets

Frequently Purchased Together



#33-301 - 6mm UC Series Fixed Focal Length Lens
€260,00

Qty



#33-308 - Filter Adapter M62 x 0.75 from M40 x 0.5 (Female)
€40,50

Qty



#34-711 - 2.5mm FL, High Resolution, f/2, Micro Video Lens
€87,00

Qty



#58-840 - f/2.0, Visible, 2.2mm HEO Series M12 Lens
€159,00

Qty


































Compatible Cameras























	Title	Type	Compare	Stock Number	Price	Buy
MORE+	Allied Vision Alvium 1800 U-501m NIR, 1/2.5" 5MP S-Mount, Right Angle USB 3.1 NIR Camera (Partial Housing)	NIR Camera		#19-558	€270,00 Request Quote	CONTACT US <input type="text" value="1"/>

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	Allied Vision Alvium 1800 U-501m NIR, 1/2.5" 5.0MP S-Mount, USB 3.0 NIR Camera (Partial Housing)					CONTACT US 1
MORE+	Allied Vision Alvium 1800 U-501m NIR, 1/2.5" 5MP S-Mount, Right Angle USB 3.1 NIR Camera	NIR Camera		#19-552	€280,00 Request Quote	2 In Stock 1
MORE+	Allied Vision Alvium 1800 U-501m NIR, 1/2.5" 5.0MP S-Mount, USB 3.0 NIR Camera	NIR Camera		#19-551	€280,00 Request Quote	1 In Stock 1
MORE+	Allied Vision Alvium 1800 U-500m, 1/2.5" 5.0MP S-Mount, Right Angle USB 3.1 Monochrome Camera (Partial Housing)	Monochrome Camera		#14-148	€290,00 Request Quote	CONTACT US 1
MORE+	Allied Vision Alvium 1800 U-500m, 1/2.5" 5.0MP S-Mount, USB 3.0 Monochrome Camera (Partial Housing)	Monochrome Camera		#14-142	€299,00 Request Quote	CONTACT US 1
MORE+	Allied Vision Alvium 1800 U-500c, 1/2.5" 5.0MP S-Mount, Right Angle USB 3.1 Color Camera (Partial Housing)	Color Camera		#14-149	€300,00 Request Quote	CONTACT US 1
MORE+	Allied Vision Alvium 1800 U-500m, 1/2.5" 5.0MP S-Mount, USB 3.0 Monochrome Camera	Monochrome Camera		#14-128	€300,00 Request Quote	CONTACT US 1
MORE+	Allied Vision Alvium 1800 U-500c, 1/2.5" 5.0MP S-Mount, USB 3.0 Color Camera	Color Camera		#14-129	€310,00 Request Quote	1 In Stock 1
MORE+	Allied Vision Alvium 1800 U-500c, 1/2.5" 5.0MP S-Mount, Right Angle USB 3.1 Color Camera	Color Camera		#14-133	€310,00 Request Quote	1 In Stock 1
MORE+	Allied Vision Alvium 1800 U-500c, 1/2.5" 5.0MP S-Mount, USB 3.0 Color Camera (Partial Housing)	Color Camera		#14-143	€311,00 Request Quote	CONTACT US 1
MORE+	Allied Vision Alvium 1800 U-500m, 1/2.5" 5.0MP S-Mount, Right Angle USB	Monochrome Camera		#14-132	€311,00 Request Quote	CONTACT US 1

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	Title	Type	Compare	Stock Number	Price	Buy
	3.1 Monochrome Camera					
	 LUCID Vision Labs Phoenix™ PHX016S-CS, Sony IMX273 1.6 MP, Color Camera					8 In Stock <input type="text" value="1"/> 
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	 LUCID Vision Labs Phoenix™ PHX016S-CS-IX, Sony IMX273, 1.6 MP, Color Camera	Color Camera		#13-660	€335,00 Request Quote	2 In Stock <input type="text" value="1"/> 
	 LUCID Vision Labs Phoenix™ PHX016S-MS, Sony IMX273, 1.6 MP, Monochrome Camera	Monochrome Camera		#13-653	€335,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 LUCID Vision Labs Phoenix™ PHX016S-MS-IX, Sony IMX273, 1.6 MP, Monochrome Camera	Monochrome Camera		#13-659	€335,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 Allied Vision Alvium 1800 U-120m, 1/3" 1.2MP S-Mount, USB 3.0 Monochrome Camera	Monochrome Camera		#14-861	€350,00 Request Quote	1 In Stock <input type="text" value="1"/> 
	 Allied Vision Alvium 1800 U-120m, 1/3" 1.2MP S-Mount, Right Angle USB 3.1 Monochrome Camera	Monochrome Camera		#14-863	€350,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 Allied Vision Alvium 1800 U-158m, 1/2.9" 1.6MP S-Mount, USB 3.0 Monochrome Camera (Partial Housing)	Monochrome Camera		#14-869	€350,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 Allied Vision Alvium 1800 U-158c, 1/2.9" 1.6MP S-Mount, USB 3.0 Color Camera (Partial Housing)	Color Camera		#14-870	€360,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 Allied Vision Alvium 1800 U-158m, 1/2.9" 1.6MP S-Mount, USB 3.0 Monochrome Camera	Monochrome Camera		#14-865	€360,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 Allied Vision Alvium 1800 U-158m, 1/2.9" 1.6MP S-Mount, Right Angle USB 3.1 Monochrome Camera	Monochrome Camera		#14-867	€360,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 Allied Vision Alvium 1800 U-120c, 1/3" 1.2MP S-Mount,	Color Camera		#14-862	€370,00 Request Quote	3 In Stock <input type="text" value="1"/> 

	Title	Type	Compare	Stock Number	Price	Buy
	USB 3.0 Color Camera					
MORE+ 	Allied Vision Alvium 1800 120c, 1/3" 1.2MP S-Mount Right Angle USB 3.1 Color Camera					CONTACT US 1 
MORE+ 	Allied Vision Alvium 1800 U-158c, 1/2.9" 1.6MP S-Mount, USB 3.0 Color Camera	Color Camera		#14-866	€370,00 Request Quote	CONTACT US 1 
MORE+ 	Allied Vision Alvium 1800 U-158c, 1/2.9" 1.6MP S-Mount, Right Angle USB 3.1 Color Camera	Color Camera		#14-868	€370,00 Request Quote	4 In Stock 1 
MORE+ 	LUCID Vision Labs Phoenix™ PHX023S-CS, Sony IMX392, 2.3MP, Color Camera	Color Camera		#13-666	€371,00 Request Quote	CONTACT US 1 
MORE+ 	LUCID Vision Labs Phoenix™ PHX023S-CS-IX, Sony IMX392, 2.3MP, Color Camera	Color Camera		#13-672	€371,00 Request Quote	CONTACT US 1 
MORE+ 	LUCID Vision Labs Phoenix™ PHX023S-MS, Sony IMX392, 2.3MP, Monochrome Camera	Monochrome Camera		#13-665	€371,00 Request Quote	CONTACT US 1 
MORE+ 	LUCID Vision Labs Phoenix™ PHX023S-MS-IX, Sony IMX392, 2.3MP, Monochrome Camera	Monochrome Camera		#13-671	€371,00 Request Quote	CONTACT US 1 
MORE+ 	IDS U3-3041LE-C-HQ, USB 3.0, 1/2.9" Color Camera	Color Camera		#24-085	€375,00 Request Quote	2 In Stock 1 
MORE+ 	IDS U3-3041LE-M-GL, USB 3.0, 1/2.9" Monochrome Camera	Monochrome Camera		#24-087	€375,00 Request Quote	1 In Stock 1 
MORE+ 	Allied Vision Alvium 1800 U-240m, 1/2.3" 2.35MP S-Mount, USB 3.0 Monochrome Camera	Monochrome Camera		#23-178	€380,00 Request Quote	1 In Stock 1 
MORE+ 	Allied Vision Alvium 1800 U-240m, 1/2.3" 2.35MP S-Mount, Right Angle USB 3.1 Monochrome Camera	Monochrome Camera		#23-202	€380,00 Request Quote	CONTACT US 1 

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	Title	Type	Compare	Stock Number	Price	Buy
	 Allied Vision Alvium 1800 240c, 1/2.3\" data-bbox="203 44 278 108"/> 2.35MP S-Mo USB 3.0 Colo Camera					CONTACT US <input type="text" value="1"/> 
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	 Allied Vision Alvium 1800 240c, 1/2.3\" data-bbox="203 122 278 196"/> 2.35MP S-Mount, Right Angle USB 3.1 Color Camera	Color Camera		#23-203	€390,00 Request Quote	1 In Stock <input type="text" value="1"/> 
	 IDS Imaging U3- 3046LE-C-HQ 1/2.9\" Color USB3 Camera	Color Camera		#24-105	€400,00 Request Quote	1 In Stock <input type="text" value="1"/> 
	 IDS U3-3861LE- C-HQ, USB 3.0, 1/2.8\" Color Camera	Color Camera		#24-095	€410,00 Request Quote	2 In Stock <input type="text" value="1"/> 
	 IDS U3-3866LE- C-HQ, USB 3.0, 1/2.8\" Color Camera	Color Camera		#24-114	€410,00 Request Quote	1 In Stock <input type="text" value="1"/> 
	 IDS U3-3866LE- M-GL, USB 3.0, 1/2.8\" Mono chrome Camera	Monochrome Camera		#24-115	€410,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 IDS U3-3861LE- M-GL, USB 3.0, 1/2.8\" Mono chrome Camera	Monochrome Camera		#24-097	€410,00 Request Quote	1 In Stock <input type="text" value="1"/> 
	 IDS Imaging U3- 3046LE-C-HQ 1/2.9\" Color USB3 Camera (Recertified 05- P)	Color Camera		#24-105-RCD-05P RECERTIFIED	€420,00 Request Quote	1 In Stock <input type="text" value="1"/> 
	 Allied Vision Alvium G1- 240m, 1/2.3\" data-bbox="203 590 278 664"/> 2.4MP S-Mount, GigE PoE Monochrome Camera	Monochrome Camera		#23-545	€430,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 Allied Vision Alvium G1-240c, 1/2.3\" 2.4MP S- Mount, GigE PoE Color Camera	Color Camera		#23-546	€440,00 Request Quote	CONTACT US <input type="text" value="1"/> 
	 Allied Vision Alvium G1- 158m, 1/2.9\" data-bbox="203 750 278 824"/> 1.6MP S-Mount, GigE PoE Monochrome Camera	Monochrome Camera		#23-539	€440,00 Request Quote	1 In Stock <input type="text" value="1"/> 
	 Allied Vision Alvium G1-158c, 1/2.9\" 1.6MP S- Mount, GigE PoE Color Camera	Color Camera		#23-540	€450,00 Request Quote	2 In Stock <input type="text" value="1"/> 
	 Allied Vision Alvium G1- 500m, 1/2.5\" data-bbox="203 900 278 974"/> 5MP S-Mount, GigE PoE Monochrome Camera	Monochrome Camera		#23-553	€460,00 Request Quote	CONTACT US <input type="text" value="1"/> 

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	Allied Vision Alvium G1-500 1/2.5" 5MP S-Mount, GigE Color Camera					CONTACT US 1
MORE+	IDS U3-3041 C-HQ-AF, USB 3.0, 1/2.9" Color Camera				Quote	3 In Stock 1
MORE+	IDS U3-3041LE- M-GL-AF, USB 3.0, 1/2.9" Monochrome Camera	Monochrome Camera		#24-088	€505,00 Request Quote	1 In Stock 1
MORE+	IDS U3-3861LE- C-HQ-AF, USB 3.0, 1/2.8" Color Camera	Color Camera		#24-096	€535,00 Request Quote	2 In Stock 1
MORE+	IDS U3-3861LE- M-GL-AF, USB 3.0, 1/2.8" Monochrome Camera	Monochrome Camera		#24-098	€535,00 Request Quote	1 In Stock 1
MORE+	Allied Vision Alvium G5- 500m, 1/2.5" 5MP S-Mount, 5GigE PoE Monochrome Camera	Monochrome Camera		#23-621	€750,00 Request Quote	CONTACT US 1
MORE+	Allied Vision Alvium G5-500c, 1/2.5" 5MP S- Mount, 5GigE PoE Color Camera	Color Camera		#23-622	€760,00 Request Quote	CONTACT US 1

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