

4/12/2011

Computer 12-36 mm lens $\frac{2}{3}$ "

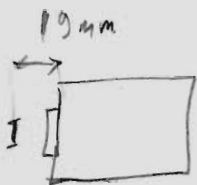
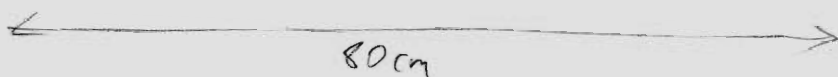


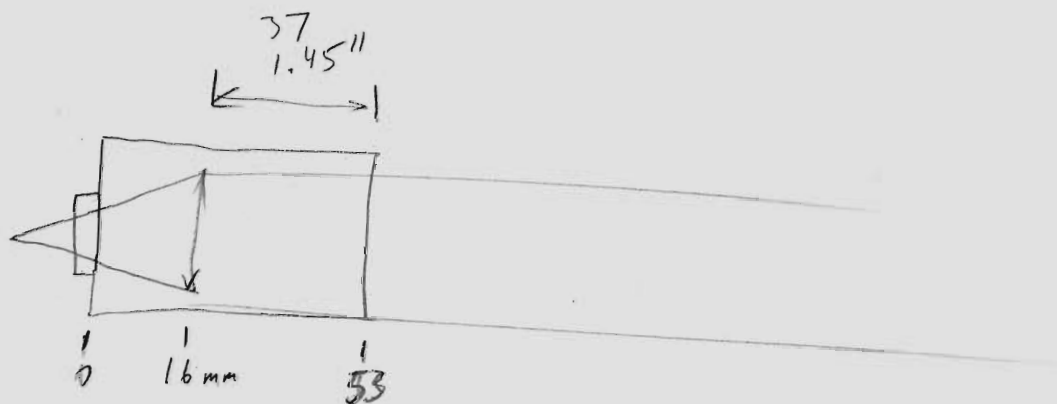
Image 5.75 mm at one side



1.92 mm at other side

$$F = \frac{800}{130} \cdot 5.75 = 35 \text{ mm}$$

$$F = \frac{800}{130} \cdot 1.92 = 11.8 \text{ mm}$$



3/23/2011

Optical distance ~~sensor~~ image FL
3.23 + offset

$3.5 = 3.25 + 0.27 =$	8 mm	35	20 mm
4.11	8	35	23 mm
4.5	8	35	26 mm

4/12/2011

	sensor H	image H	FL
3.25 + offset + total plane offset	7 mm	30 mm	
$3.25 + 0.75 + 1 = 4.5$			$\frac{4.5}{30} \cdot 7.25, 1$ 26 mm
$3.25 + 0.5 + 1 = 4.75$	7	30	28 mm
$3.25 + 0.75 + 1 = 5$	7	30	30 mm

3/24/7011

target:

Prosilica GC 2450

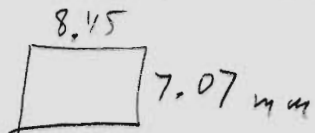
2448 x 2050

2/3 inch

3.45 mm

C-Mount

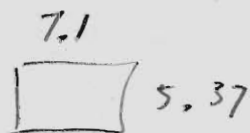
8.454 7.07 mm



GC 1600 :

1620 x 1220

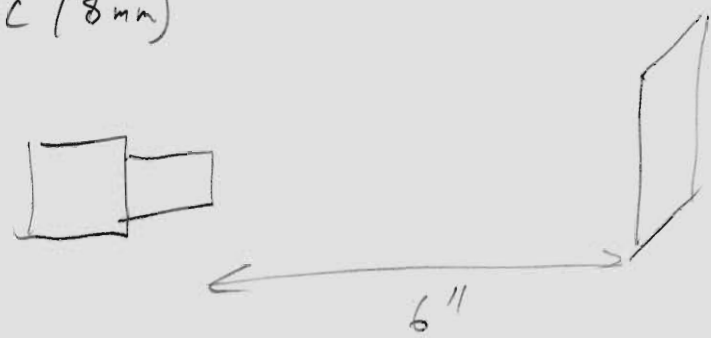
11.4 mm



3/22/2011

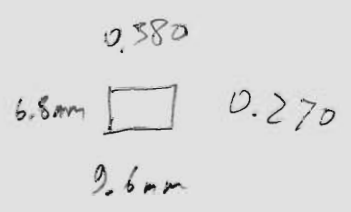
computer with yC 1380 101mm

Prosecco



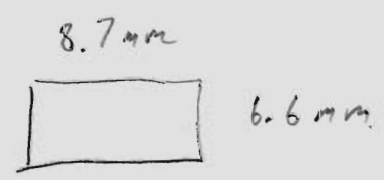
FOV: 7x 5.5"

$$\frac{8.7}{8} = 1.08 \times 6 = 6.5"$$

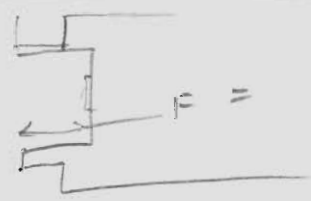


yC 1380: 1.4 μ Pixel
2/3" CCD

1360 x 1024
6.45 μ m / Pixel



C-mount:



17.5 mm for C-mount
12.5 mm for CS-mount

Pin 2x2

HTA 500
Rox 75
R101 12
W 512
Exp 500000



max magnification
16mm wide

• Large Field of View

Varifocal lenses provide a flexible solution to applications that previously would have required multiple fixed focal length lenses. Simply adjust through the indicated focal length range for the desired field of view, within the specified working distance range, and then set focus for best image. They have a different, simplified optical and mechanical design that is more cost-efficient to produce than zoom lenses.

**High resolution, low distortion lens for megapixel cameras.

Note: CS-Mount lenses are not compatible with C-Mount cameras.

• C and CS-Mount Lenses



1.8-3.6mm FL 2X Varifocal



3.5-8.0mm FL 2.3X Varifocal

VARIFOCA LENS SPECIFICATIONS

*FOV=Field of View, calculated for 1/2" or max. 1/3" format sensor. †Maximum

Focal Length (mm)	Mount	Max Sensor Format	Aperture f/# (C=Closed)	Angular FOV* Horizontal	FOV* (Hor.) at Min WD (mm)	Min. Working Distance (m)	Dimensions (mm)			Filter Thread (Dia. x pitch)	Stock No.	Price
							Max. Dia.	Length	Rear Prot.			
1.8 - 3.6	CS	1/8"	F1.6-16C	144.2 - 79.4°	1236 - 332	0.2	37.4	51.0	0	—	P55-254	\$200.00
2.8 - 12.0	CS	1/8"	F1.3-16C	98.2 - 23.8°	692 - 126	0.3	40.7	56.0	2.3	—	P57-675	\$85.00
2.9 - 8.2	CS	1/8"	F1.0-16C	98.3 - 35.2°	1156 - 317	0.5	36.5	44.3	0	—	P59-915	\$85.00
3.5 - 10.5	CS	1/8"	F1.0-C	81.6 - 27.2°	518 - 145	0.3	41.7	48.8	2.5	37.5 x 0.5mm	P59-916	\$95.00
4.0 - 8.0	C	1/2"	F1.4-16C	90.4 - 47°	1007 - 435	0.5	41.6	48.8	4.1	—	P59-917	\$225.00
4.0 - 12.0	C	1/2"	F1.2-16C	93.6 - 31.2°	639 - 168	0.3	40.0	50.3	4.6†	—	P58-365	\$150.00
5.0 - 50.0	CS	1/8"	F1.3-16C	51.8 - 5.6°	777 - 78	0.8	47.0	57.7	0	37.5 x 0.5mm	P55-256	\$150.00
10.0 - 30.0	CS	1/2"	F1.4-16C	35.7 - 12.5°	387 - 131	0.6	47.0	57.5	0	37.5 x 0.5mm	P57-677	\$205.00
12.0 - 36.0**	C	2/3"	F2.8-16C	30.2 - 10°	107 - 35	0.2	41.6	53.0	0	35.5 x 0.5mm	P57-680**	\$299.00
20 - 100	CS	1/8"	F1.6-16C	13.6 - 28°	238 - 49	1.0	50.0	110.0	0	—	P58-440	\$225.00

LOW DISTORTION WIDE ANGLE LENSES

• <3% and <1% Distortion Versions Available

• No Refocusing from 100mm to Infinity

The optical design of these low-distortion angle lenses enables users to achieve less than 3% distortion over a 125° field of view or less than 1% over a 110° field of view. Originally targeted for security applications, these lenses maintain high resolution and can accommodate camera sensors up to 3 Megapixels, making them an ideal replacement for machine vision or factory automation applications. No refocusing is needed from 100mm to infinity. Locking screw for manual iris enables lenses to be used in high vibration environments.

*For 1/3" format sensor.

• High 3 Megapixel Resolution

• Lightweight Design



Focal Length (mm)	Max. Sensor Format	Camera Mount	Distortion*	Aperture (f/#)	Angular Field of View*	Min. Working Distance	Dia. x L (mm)	Weight	Stock No.	Price
1.28mm	1/8"	CS	<3%	F1.8 - C	125°	10mm	36.0 x 65.0	110g	P62-046	\$595.00
1.28mm	1/8"	C	<3%	F1.8 - C	125°	10mm	36.0 x 65.1	110g	P62-050	\$595.00
1.67mm	1/2s"	CS	<1%	F1.8 - C	110°	100mm	36.0 x 56.0	80g	P64-105	\$350.00

FISHEYE VIDEO LENSES

• Wide Field of View (185°)

• Fixed Focus

These fisheye lenses are designed to support Megapixel resolution cameras across a 185° field of view. Their large depth of field eliminates the need for focus adjustment, and allows the lenses to be sharply focused between 100mm and infinity. A lockable iris adjustment enables control over the exposure without changing integration time, and stays locked in place to prevent accidental alteration. This lens is excellent for space-constrained applications where large fields of view are required at short working distances. *FOV for 1/2" format sensor.

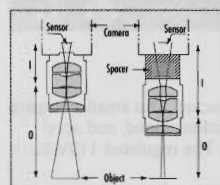
• C-Mount

• Lockable Iris Control



Focal Length (mm)	Max. Sensor Format	Camera Mount	Aperture (f/#)	Angular Field of View*	Min. Working Distance	Dia. (Max) x L. (Max) (mm)	Weight	Stock No.	Price
1.4mm	1/2"	C-Mount	1.4 - 16	185° x 185°	100mm	56.5 x 52.2	140g	P62-273	\$695.00
1.8mm	2/3"	C-Mount	1.4 - 16	185° x 154°	100mm	56.5 x 52.1	135g	P62-274	\$695.00

TECHSPEC FIXED FOCAL LENGTH LENS C-MOUNT SPACER KIT



At long working distances, most lenses are difficult to fix in bench top applications, and provide fields of view larger than required. Spacers address these issues by reducing minimum working distance and by increasing magnification, which decreases field of view. The C-Mount Extender Kit includes 0.5mm, 1mm, two 5mm, 10mm, 15mm and 40mm spacers.

A full listing of C-Mount spacers and tubes can be found on page 164.

C-Mount Extender Kit: Includes 0.5mm, 1mm, two 5mm, 10mm, 15mm, and 40mm spacers

P54-261

\$89.00

5mm Spacer: Converts CS-Mount camera to C-Mount

P03-618

\$15.95



FIXED FOCAL LENGTH LENS EXTENDERS

As an alternative to spacers, adding a negative focal length lens to the camera end of an optical system can decrease the field of view while maintaining the original working distance specifications. For instance, increasing the focal length by 2 decreases the field of view by the same factor. Therefore, the 2X extender converts a 25mm FL lens to a 50mm FL lens. Designed for CS- or C-Mount video lenses.

Description	CS-Mount		C-Mount	
	Stock Number	Price	Stock Number	Price
2X Focal Length Extender	P56-822	\$95.00	P54-356	\$95.00
1.5X Focal Length Extender	P56-823	\$85.00	P54-357	\$85.00

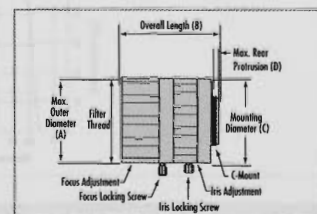


- Industry Leading Price to Performance Ratio
- Supports up to $\frac{3}{4}$ " Sensors
- Large Maximum Aperture
- Designed for True Factory Automation
- Ruggedized Housing
- Low Lens-to-Lens Variation

Designed for use in machine vision applications, our TECHSPEC® Compact Fixed Focal Length lenses are ideal for use in factory automation, inspection or qualification. These lenses have been optically designed with the working distance and resolution requirements of factory automation and inspection in mind. Featuring large maximum apertures, these high performance lenses can be used in even the most restrictive lighting conditions. Each lens has a broadband anti-reflection coating, which increases transmission by up to 12 percent over the standard MgF₂ coating on competitive lenses.

The TECHSPEC® Compact Fixed Focal Length lenses feature locking iris and focus adjustment with recessed set screws to prevent unintentional lens adjustments. The lens housing is ruggedized and robust, yet compact enough for space-restrictive applications. Each lens is manufactured to a high tolerance, resulting in high levels of imaging performance and low lens-to-lens variation, assuring simple installation into multiple systems.

Combining high optical performance, industrial features and small package size, these lenses represent a new standard in factory automation optics. **Volume discounts available.**



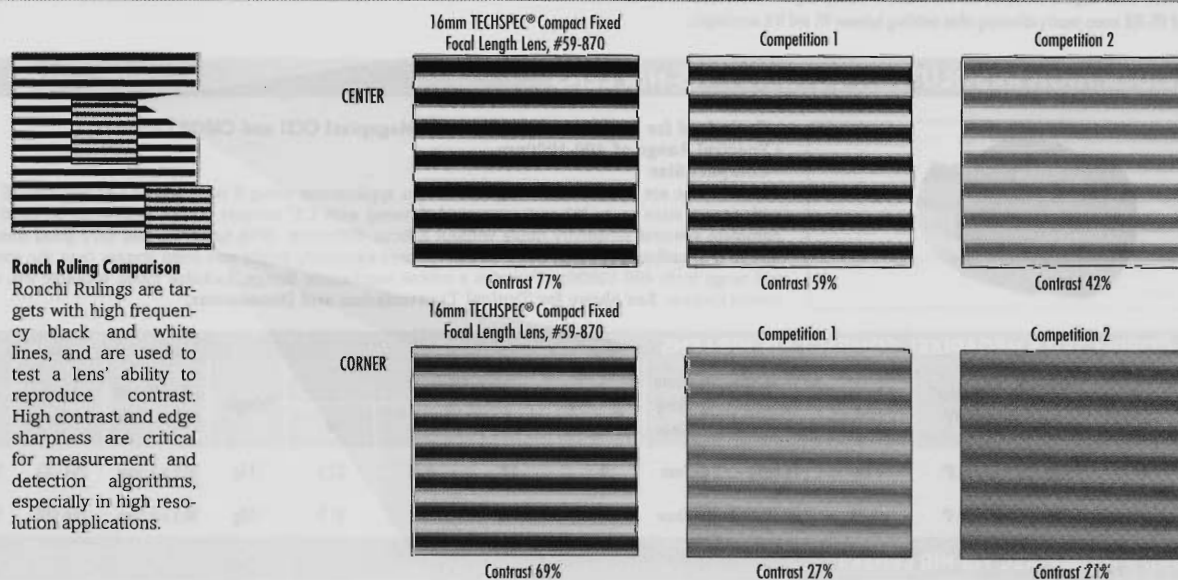
Filter Options	Stock No.	Price	Focal Length	A	B	C	D
Red	P46-542	\$32.50	8.5mm	32.0mm	34.5mm	32.0mm	0mm
Green	P46-543	\$32.50	12mm	32.0mm	27.9mm	32.0mm	0.5mm
Blue	P46-544	\$32.50	16mm	33.0mm	37.5mm	33.0mm	1.0mm
Protective UV	P46-577	\$27.00	25mm	31.0mm	31.2mm	31.0mm	1.3mm
Polarizing	P46-575	\$27.50	35mm	33.0mm	36.1mm	33.0mm	0mm

TECHSPEC® COMPACT FIXED FOCAL LENGTH LENSES									Horizontal	
Focal Length	Max Sensor Format	FOV* Range on $\frac{3}{4}$ " Sensor	FOV* Range on $\frac{1}{2}$ " Sensor	FOV* Range on $\frac{1}{3}$ " Sensor	Working Distance	Aperture (f/#)	Filter Thread	Stock Number	Prices	
8.5mm	$\frac{3}{4}$ "	246.9mm - 60.8°	169.3mm - 43.8°	123.6mm - 32.7°	200mm - ∞	F1.3 - F16	M25.5 x 0.5mm	P58-000	\$250.00	5+
12mm	$\frac{3}{4}$ "	159.4mm - 41.1°	115mm - 30.3°	85.9mm - 22.9°	200mm - ∞	F1.8 - F16	M25.5 x 0.5mm	P58-001	\$250.00	
16mm	$\frac{3}{4}$ "	61.4mm - 30.9°	44.5mm - 22.7°	33.3mm - 17.1°	100mm - ∞	F1.4 - F16	M25.5 x 0.5mm	P59-870	\$270.00	
25mm	$\frac{3}{4}$ "	35mm - 19.8°	25.4mm - 14.5°	19mm - 10.9°	100mm - ∞	F1.4 - F17	M25.5 x 0.5mm	P59-871	\$270.00	
35mm	$\frac{3}{4}$ "	39.3mm - 14.3°	28.5mm - 10.4°	21.4mm - 7.8°	165mm - ∞	F1.65 - F22	M25.5 x 0.5mm	P59-872	\$270.00	

RESOLUTION AND CONTRAST COMPARISON OF COMPACT FIXED FOCAL LENGTH LENSES

High levels of optical performance are critical for successful imaging solutions. Edmund Optics® has taken care to maintain optical performance across the entire image plane. Resolution and contrast typically deteriorate at the corners of an image, thus both the center and corners of an image must be considered when comparing overall lens performance.

Shown below are comparisons of our TECHSPEC® Compact Fixed Focal Length Lens at the center and at the corner of the images to the performance of various competitor lenses. Edmund Optics® lenses show a 30% increase in contrast over the closest competitor at the center of the image. Additionally, Edmund Optics® lenses show over twice the contrast in the corner making our Compact Fixed Focal Length Lens ideal from the most simple to the most complex applications. All tests are done with a 16mm lens at f/2 on a 1.3MP, $\frac{1}{2}$ " sensor camera and 1.5" field of view.



FIXED FOCAL LENGTH LENSES FOR 1" CAMERA SENSORS

NEW



- Ideal for Larger Camera Sensors, up to 1" Format
- "Fast" Lenses for Increased Throughput
- Excellent Performance From Center to Corner of the Field

Our lenses for 1" format sensors are a great value. They provide high throughput (f/1.4) and high resolution across the entire camera sensor allowing for excellent imaging even in less than ideal lighting conditions. Offered in 7 focal lengths from 8mm to 75mm, this is a complete family that covers many of the applications in the market today. Engineered to minimize distortion, these lenses provide an image perfect for a human operator or for an automated system. Our lenses for 1" format sensors also feature a standard C-Mount lens mount for easy integration with the most common machine vision cameras that we offer. All lenses feature front filter threading to attach to your choice of optical filter.

FIXED FOCAL LENGTH LENSES FOR 1" CAMERA SENSORS

*Specified at Max. Sensor Format

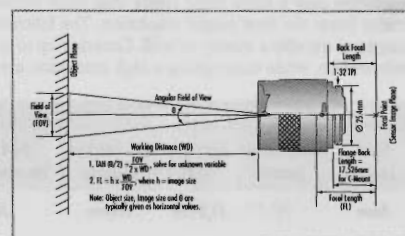
Focal Length	Max. Sensor Format	Aperture (f/#)	Min. Working Distance	Angular Field of View*	Resolution at Center Field	Resolution at Corner Field	Distortion	Filter Thread	Mount	Dimension	Weight	Stock No.	Price Each
8mm	1"	F1.4-F16	100mm	79.7°	120 lp/mm	80 lp/mm	<-1.3%	M57 x 0.75	C-Mount	57mm x 58mm	200g	P63-243	\$540.00
12.5mm	1"	F1.4-F16	300mm	55.6°	120 lp/mm	80 lp/mm	<-1.6%	M35 x 0.5	C-Mount	42mm x 52mm	150g	P63-244	\$410.00
16mm	1"	F1.4-F16	300mm	44.3°	120 lp/mm	80 lp/mm	<-1.0%	M35.5 x 0.5	C-Mount	42mm x 52.9mm	140g	P63-245	\$470.00
25mm	1"	F1.4-F16	300mm	29.3°	120 lp/mm	80 lp/mm	<-1.0%	M35.5 x 0.5	C-Mount	42mm x 43mm	125g	P63-246	\$460.00
35mm	1"	F1.4-F16	300mm	20.9°	120 lp/mm	80 lp/mm	<-0.5%	M35.5 x 0.5	C-Mount	42mm x 43mm	130g	P63-247	\$460.00
50mm	1"	F1.4-F16	500mm	14.5°	120 lp/mm	80 lp/mm	<-0.1%	M40.5 x 0.5	C-Mount	47.5mm x 48mm	200g	P63-248	\$495.00
75mm	1"	F1.8-F16	1000mm	9.7°	120 lp/mm	80 lp/mm	<-0.2%	M46 x 0.75	C-Mount	48mm x 57mm	180g	P63-249	\$470.00

MEGAPIXEL FIXED FOCAL LENGTH LENSES



- Compact Size
- Lockable, Manual Focus and Aperture Control
- Working Distance from 100mm to Infinity

Designed for high resolution, industrial C-Mount cameras, our Megapixel Fixed Focal Length Lenses are ideal for machine vision applications with demanding space constraints. These lenses complement the resolution of many megapixel cameras with $\frac{2}{3}$ " and smaller formats. Low distortion and high resolution enable these economically priced lenses to produce sharp, high contrast images compared to standard CCTV and compact lenses. Lenses accept M30.5 x 0.5 filters (see page 304). Maximum rear protrusion beyond the C-Mount is 1.1mm.



MEGAPIXEL FIXED FOCAL LENGTH LENSES

*FOV = Horiz. Field of View; calculated for $\frac{1}{2}$ " sensor **Max. W.D. is 0.9m

Focal Length (mm)	Max Sensor Format	Aperture f/# (C=closed)	Angular* FOV (Horiz.)	FOV* at Minimum Working Distance	Minimum Working Distance	Dimensions (mm)			Weight (g)	Filter Thread (Dia. x Pitch)	Stock No.	Price Each
						Max Dia.	Length	Rear Prot.				
5**	$\frac{1}{2}$ "	F1.4-16C	65.5°	407.1mm	0.30m	44.5	45.5	3.0	102	43 x 0.75	P64-867	\$215.00
8	$\frac{2}{3}$ "	F1.4-16C	42.5°	87mm	0.10m	33.5	28.2	0.6	63	30.5 x 0.5	P56-786	\$195.00
12	$\frac{2}{3}$ "	F1.4-16C	30.0°	88mm	0.15m	33.5	28.2	0.8	62	30.5 x 0.5	P56-787	\$195.00
16	$\frac{2}{3}$ "	F1.4-16C	22.7°	125mm	0.30m	33.5	28.2	0.9	60	30.5 x 0.5	P56-788	\$195.00
25	$\frac{2}{3}$ "	F1.4-16C	14.6°	77mm	0.30m	33.5	36.0	1.1	71	30.5 x 0.5	P56-789	\$195.00
35	$\frac{2}{3}$ "	F1.4-16C	10.1°	44mm	0.30m	33.5	38.2	0.0	87	30.5 x 0.5	P64-868	\$195.00
50	$\frac{2}{3}$ "	F1.8-16C	7.6°	63mm	0.50m	33.5	38.1	0.9	85	30.5 x 0.5	P56-790	\$195.00
75	$\frac{2}{3}$ "	F2.8-16C	5.0°	22.5mm	0.30m	35.0	57.75	4.0	113	30.5 x 0.5	P64-869	\$255.00

COMPACT FIXED FOCAL LENGTH LENSES



- Lockable, Manual Focus and Aperture Control
- Working Distance from 150mm to Infinity

Designed for industrial C-Mount cameras, our Compact Fixed Focal Length Lenses are ideal for machine vision applications with demanding space constraints. Locking screws for the manual iris and focus enable these lenses to be used in high vibration environments. Select aperture and focus values are labeled on the housing for repeatability. An advanced mechanical construction allows these lenses to achieve a closer minimum working distance compared to standard fixed focal length lenses. Typical applications include factory automation, inspection, and macro work. **Note: Maximum rear protrusion beyond the C-Mount is 2.8mm.**

COMPACT FIXED FOCAL LENGTH LENSES

Focal Length (mm)	Max Sensor Format	Aperture f/# (C=closed)	Angular* FOV (Horiz.)	FOV* at Minimum Working Distance	Minimum Working Distance	Dimensions (mm)			Weight (g)	Filter Thread (Dia. x Pitch)	Stock No.	Price Each
						Max. Dia.	Length	Rear Prot.				
6.5**	$\frac{2}{3}$ "	F1.8-C	53.9°	152.5mm	0.15m	37.0	31.5	0.8	60	35.5 x 0.5	P56-525	\$265.00
8	$\frac{2}{3}$ "	F1.4-16C	43.6°	208.0mm	0.26m	30.5	27.0	2.2	48	25.5 x 0.5	P56-526	\$295.00
12	$\frac{2}{3}$ "	F1.8-16C	30.0°	139.0mm	0.26m	30.5	27.0	2.8	46	25.5 x 0.5	P56-527	\$274.00
16	$\frac{2}{3}$ "	F1.4-16C	22.5°	115.0mm	0.29m	30.5	25.0	2.2	48	25.5 x 0.5	P56-528	\$295.00
25	$\frac{2}{3}$ "	F1.6-16C	14.6°	54.0mm	0.21m	30.5	25.5	0	40	25.5 x 0.5	P56-529	\$295.00
35	$\frac{2}{3}$ "	F2.1-22C	10.4°	55.0mm	0.30m	30.5	32.0	0	44	25.5 x 0.5	P56-530	\$295.00
50	$\frac{2}{3}$ "	F2.8-22C	7.3°	56.0mm	0.44m	30.5	38.5	0	52	25.5 x 0.5	P56-531	\$295.00
75	$\frac{2}{3}$ "	F3.9-32C	5.0°	44.0mm	0.50m	30.5	65.5	0	68	25.5 x 0.5	P56-532	\$295.00



	10X Zoom C-Mount Lens		6X Zoom C-Mount Lens	
Focal Length:	13-130mm (10:1 zoom ratio)		18-108mm (6:1 zoom ratio)	
Max Sensor Format:	1/2"		2/3"	
Aperture (f/#) C=Closed:	F5.6-32C		F2.5-28C	
Total Field of View Range:	7.8mm-280mm		6.4mm-96mm	
Working Distance (WD) Range:	152mm-457mm		127mm-305mm	
Max. Dia. x L (mm):	48 x 98.5		62 x 159	
Weight:	233g		540g	
Front Filter Size (Dia. x pitch):	M46 x 0.75mm		M52 x 0.75mm	
Working Distance:	Min 152mm	Max 457mm	Min 127mm	Max 305mm
Primary Magnification:	0.82X-0.085X	0.23X-0.023X	1.1X-0.2X	0.4X-0.067X
Field of View Zoom Range:	7.8-75mm	28-280mm	5.8-35mm	16-96mm
Stock No. / Price	P54-363	\$450.00	P58-240	\$450.00

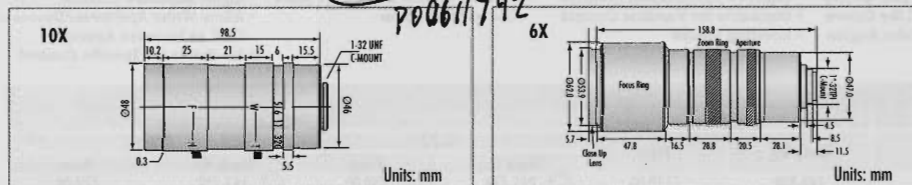
- Versatile and Affordable
- Smaller Fields of View & Working Distances than Fixed FL Lenses
- Manual Iris for Light Control

Close Focus Zoom Lenses are ideal for inspection, documentation and testing applications. Due to their large field of view range, these lenses are generally considered the best selection for multi-purpose use.

10X Zoom



6X Zoom



3.3 MACRO ZOOM LENS



Primary Magnification:	1.0X-0.3X
Max Sensor Format:	2/3"
Aperture (f/#), C=Closed:	F4.5-22C
Field of View*:	6.4-21.3mm
Working Distance:	90mm
Dia. x L (mm):	36.5 x 79.5
Weight:	150g
Filter Thread (Dia. x Pitch):	M34 x 0.5mm

- 3.3:1 Zoom Ratio
- Compact C-Mount Design

- Lockable Manual Zoom, Focus, & Aperture Control

This compact, high resolution 3.3X Macro Zoom Lens is ideal for a variety of inspection and testing applications. By minimizing distortion, sharp, high contrast images are produced over the entire zoom range. With the 3.3 to 1 zoom ratio, fields of view from 6.4mm to 21.3mm can be achieved at a 90mm working distance. Locking screws for the manual zoom, iris, and focus enable these lenses to be used in high vibration environments.

3.3X Macro Zoom Lens	P56-524	\$499.00
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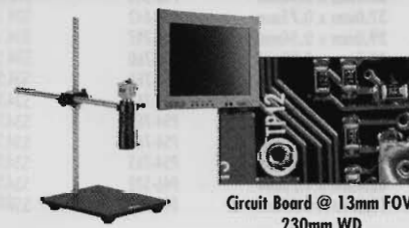
6X AND 10X MACRO VIDEO SYSTEMS

- Available In Digital or Analog Versions
- Offered With or Without Monitor
- Versatile For Various Applications

These video systems are designed around our popular 6X and 10X manual zoom lenses and are able to cover a wide range of FOV's. The system includes either the EO-1312 USB (digital) or the Hitachi KP-D20B color camera (analog), as well as mounting components that allow the lens to be mounted at it's largest working distance.

If a larger field of view is necessary, increasing the working distance will increase the maximum and minimum zoom range. Typical zoom ranges are given in the table for a variety of working distances.

This lens is equipped with a manual iris, which allows you to increase the depth of field and control the amount of light entering the system. If front illumination is required, the fluorescent ring illuminator (#53-679) can be used. (10X requires adapter #56-680)

Circuit Board @ 13mm FOV;
230mm WD

6X AND 10X ANALOG COLOR SYSTEMS

Analog	6X		10X	
Hitachi KP-D20B Color Analog Camera	#55-837	page 320	#55-837	page 320
Y-C Cable, 6-ft	#39-255	see web	#39-255	see web
Video Lens-CFZoom 18-108mm	#58-240	see above	#54-363	see above
Base Small Platform 11x13 in.	#53-009	page 325	#53-009	page 325
Stainless Steel Post 24"	#52-100	page 325	#52-100	page 325
Stainless Steel Post 18"	#39-354	page 325	#39-354	page 325
90° Angle Mount	#39-355	page 325	#39-355	page 325
6X Mounting Clamp	#53-763	see web	#56-547	see web
6X Analog Color System	P54-790	\$1,400.00	P56-436	\$1,400.00
Analog System with Monitor**	P53-771	\$2,125.00	P56-437	\$2,125.00

**15.1" LCD Monitor #56-522 (page 324)

6X AND 10X DIGITAL COLOR SYSTEMS

Digital	6X		10X	
EO-1312C Color USB Camera	#59-366	page 310	#59-366	page 310
USB2.0 Cable, 5m	#59-382	page 310	#59-382	page 310
Video Lens-CFZoom 18-108mm	#58-240	see above	#54-363	see above
Base Small Platform 11x13	#53-009	page 325	#53-009	page 325
Stainless Steel Post 24"	#52-100	page 325	#52-100	page 325
Stainless Steel Post 18"	#39-354	page 325	#39-354	page 325
90° Angle Mount	#39-355	page 325	#39-355	page 325
6X Mounting Clamp	#53-763	see web	#56-547	see web
6X Digital Color System	P59-696	\$1,450.00	P59-697	\$1,450.00

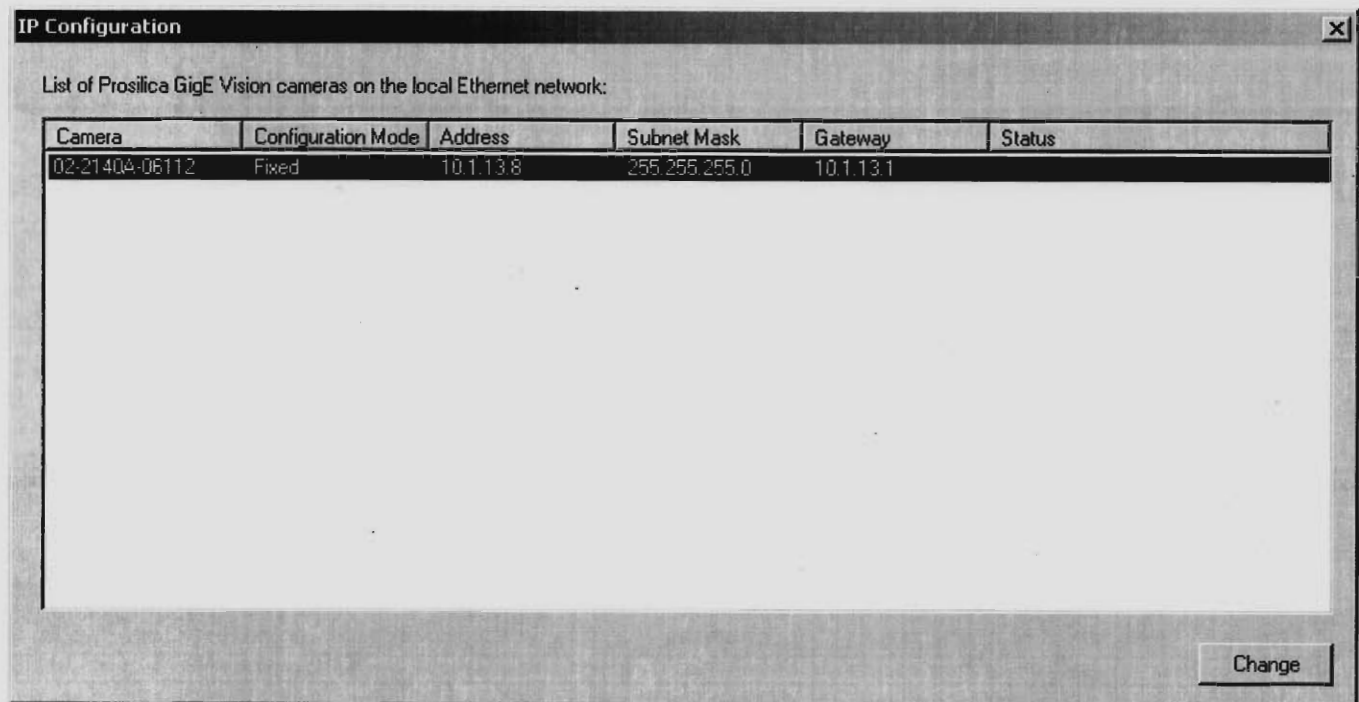
	6X System				10X System			
Primary Mag.:	1.0X - 0.17X	0.55X - 0.09X	0.4X - 0.07X	0.38X - 0.066X	0.82 - 0.085X	0.51 - 0.051X	0.38 - 0.038X	0.23 - 0.023X
System Mag.:	47.9X-8.1X	26.3X-4.3X	19.2X-3.5X	18.2X-3.2X	39.3X-4.1X	24.4X-2.4X	18.2X-1.8X	11X-1.1X
Working Dist.:	140mm (min)	200mm	250mm	280mm (max)	152mm (min)	225mm	300mm	457mm (max)
Field of View*:	6.4-38mm	11.6-71mm	16-91mm	16-97mm	7.8-75mm	12.5-125mm	17-170mm	28-280mm
Resolution in Object Space:	25.39 - 5.04lp/mm	20.16 - 3.56lp/mm	16 - 3.17lp/mm	12.7 - 2.5lp/mm	28.5 - 3.17lp/mm	20.16 - 1.59lp/mm	12.7 - 1.12lp/mm	8.0 - 0.89lp/mm

*based on Horiz., 1/2" Sensor and 15.1" Monitor

Alana,

The ProSilica is on your desk near the monitor. When I was testing the camera the IP detected was not the same as printed on the label, so I asked Paul if it ok to change it, he said ok. So I set some other IP, do not remember what exactly, could be the one from the label, as reserved fixed IP on MBARI network. You may have to check that out.

Denis.



Original IP on YL 1380 camera

3/25/2011

IP Configuration

List of Prosilica GigE Vision cameras on the local Ethernet network:

Camera	Configuration Mode	Address	Subnet Mask	Gateway	Status
02-2140A-06112	Fixed	10.1.13.8	255.255.255.0	10.1.13.1	

Change

ALLIED
Vision Technologies

SEEING IS BELIEVING

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Prosilica GX

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**GC1380**
GC1380C

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Prosilica GC

1380

Interface	IEEE 802.3 1000baseT
Resolution	1360 x 1024
Sensor	Sony ICX285
Type	CCD Progressive
Sensor Size	Type 2/3
Cell size	6.45 μ m
Lens mount	C
Max frame rate at full resolution	20 fps
A/D	12 bit
On-board FIFO	16 MB
Output	
Bit depth	8/12 bit
Mono modes	Mono8, Mono12, Mono16
Color modes YUV	YUV411, YUV422, YUV444
Color modes RGB	RGB24, BGR24, RGBA24, BGRA24
Raw modes	Bayer8, Bayer12, Bayer16
General purpose inputs/outputs (GPIOs)	
TTL I/Os	1 input, 1 output
Opto-coupled I/Os	1 input, 1 output
RS-232	1
Power/Mass/Dimensions/Regulations	
Power requirements (DC)	12 V
Power consumption (12 V)	3.3 W 275 mA
Mass	104 g

MONTEREY
BAY
AQUARIUM
RESEARCH
INSTITUTE



PURCHASE ORDER

Purchase Order Invalid Without PO#

PO#: 0611742

Date: 7/26/2006

VENDOR

Edmund Optics, Inc.
101 E. Gloucester Pike
Barrington, NJ 08007-1380 USA
Phone: (856) 573-6250
Fax: (856) 573-6295
Email:
Contact:
Payment Terms: 1% 10 N 30

SHIPPING

Ship To:
MBARI Building A
7700 Sandholdt Road
Moss Landing, CA 95039-9644 USA

Ship Via: Other: 3 day air
Expected Delivery Date: 7/31/2006
FOB: Shipping Point

MBARI CONTACT

Name: Klimov, Denis
Phone: (831) 775-1914
Fax: (831) 775-1608
Email: klimov@mbari.org

SEND INVOICES TO

MBARI Accounts Payable
7700 Sandholdt Rd.
Moss Landing, CA 95039-9644
Phone: (831) 775-1700 Fax: (831) 775-1630

PROJECT

Project	Account	RefNum	Amount
701520.00	5360-000		\$453.20

REMARKS

ITEM DETAIL

#	Description	Part #	Quantity	U/M	Unit Cost	Ext Amount
1	Close Focus Zoom Lens, 19x CCD C-mount	U54-363	1	Each	\$399.00	\$399.00
2	PCX lens 20mm x 20mm EFL	U45-237	1	Each	\$26.30	\$26.30
3	PCX lens 25mm x 25mm EFL	U45-097	1	Each	\$27.90	\$27.90

C. Michael Panto

Shipping Cost: \$20.00

Sales/Use Tax: \$32.86

Purchase Order Amount: \$506.06

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OMB Circular A110 - Provisions. All purchases made by MBARI under federal grants awards, including small purchases, hereby incorporate the following provisions as applicable: