

12 MEGA PIXEL LENS(1.1") / 9 MEGA PIXEL LENS(1") (Manual Iris, with Locking Screws)

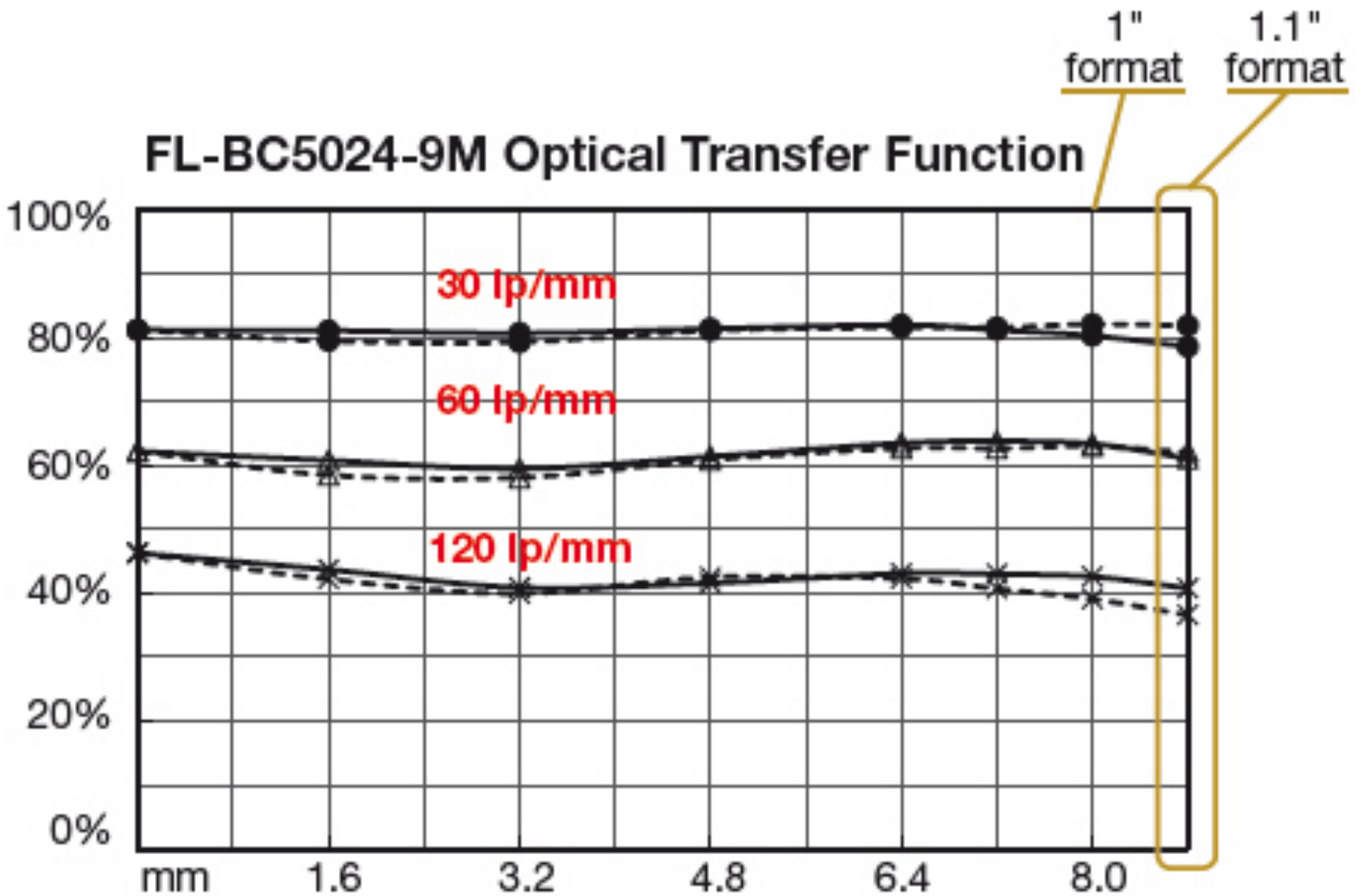
This series of high resolution, low distortion are developed for cameras with sensors up to 12 megapixel for 1.1" format / 9 megapixel for 1" format and ideal for versatile applications such as AOI.

- Focal Length 12 mm, 16 mm, 25 mm, 35 mm, 50 mm, 75 mm
- Pixel pitch 3.45 μm
- 147 lp/mm from center to corners of the image (design value)
- Extremely low distortion, suitable for image measurement
- Even light distribution
- Locking Screws
- Ideal for integration in system with large sensors (Suitable for Sony IMX253 sensor)
- Compact design, robust and durable

Key Features

- **High resolution and high contrast**

Supports 1.1" format 12 megapixel / 1" format, 9 megapixel cameras. Achieves 147 lp/mm high resolution from center to periphery.



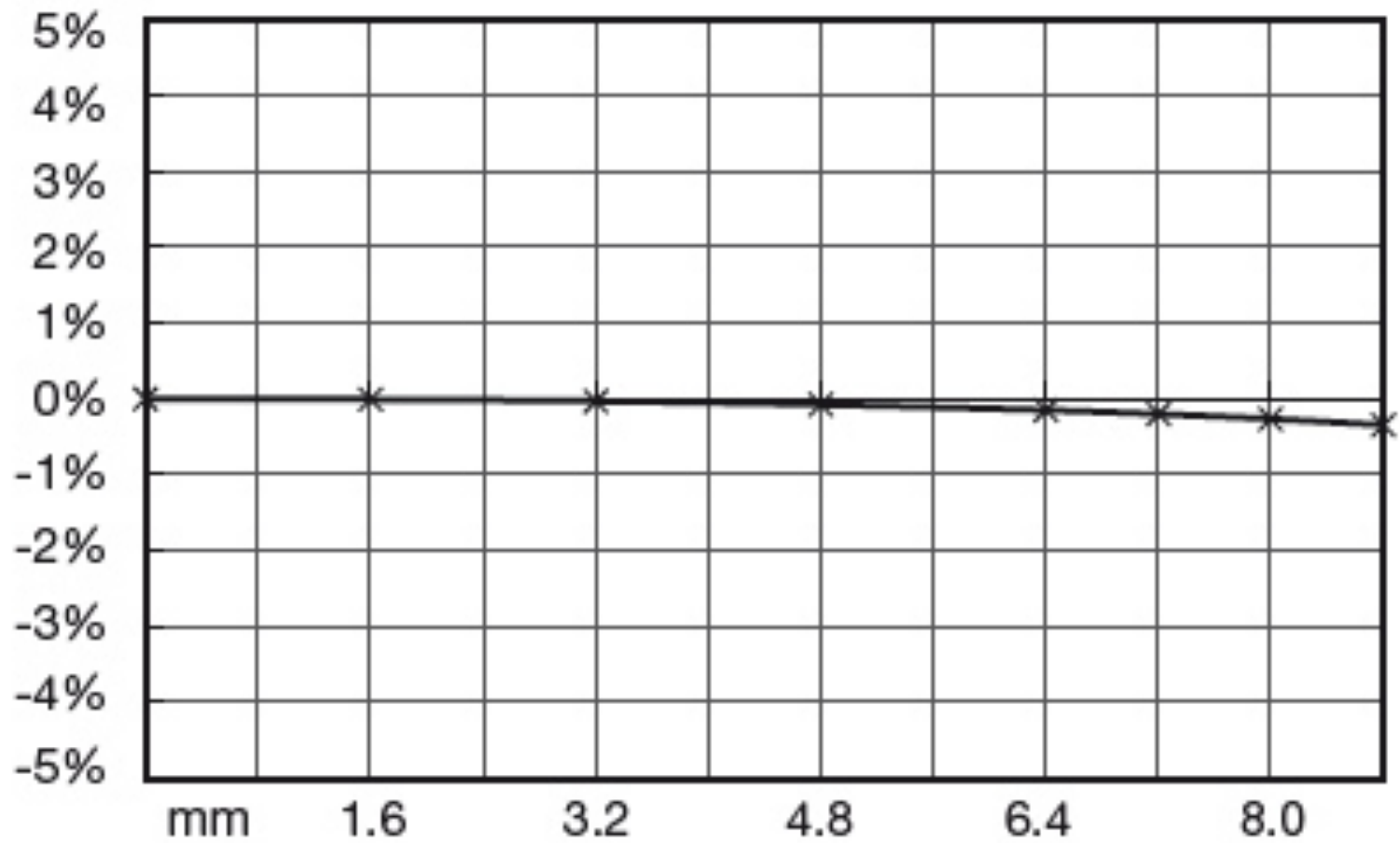
■ **Compact design $\Phi 42\text{mm}$**

To suit 44 mm housings used for most 12 megapixel cameras, these lenses have a 42 mm compact design ideal for installation with high performance equipment.

■ **Extremely low distortion**

The optical distortion of this series is generally $\sim 2\%$, (wide angle lens FL-BC1220-9M) or less, partially even $< 0.1\%$. The resulting extremely low-distortion images are excellent for use in the image measurement field.

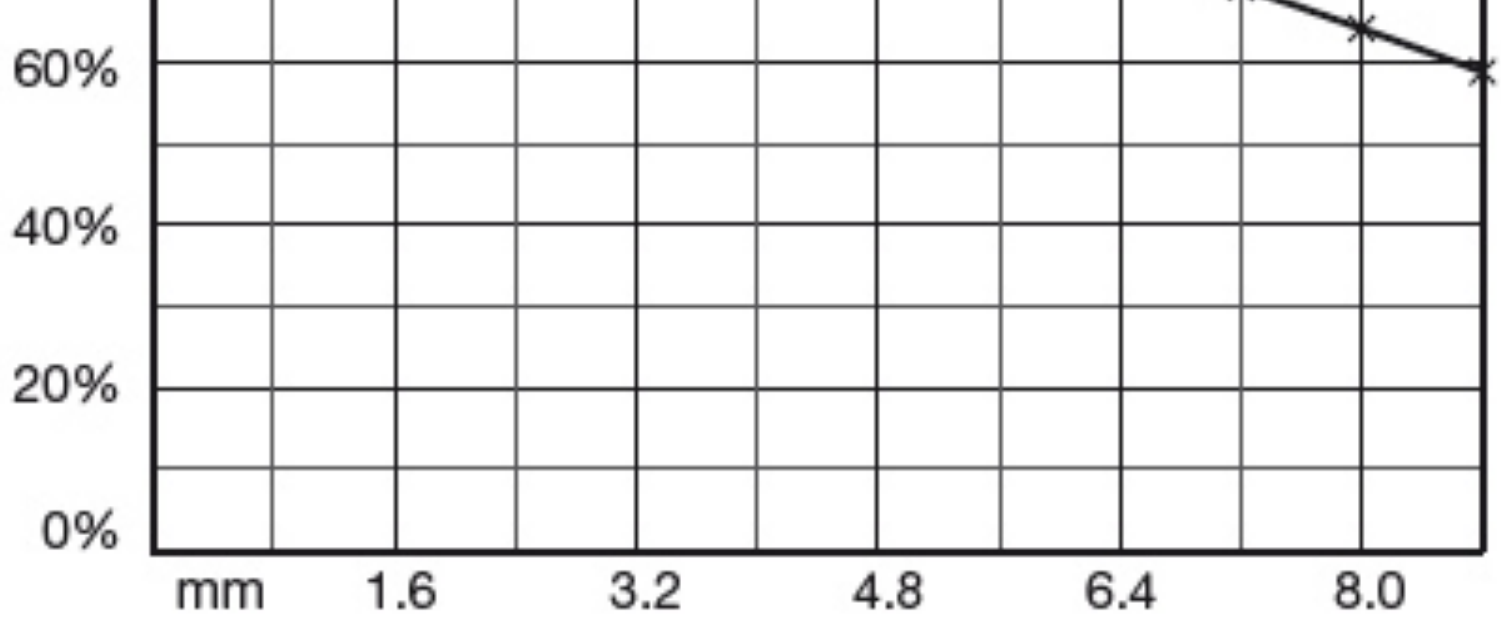
FL-BC5024-9M Distorsion



■ Bright and clear to the periphery

Despite the small diameter of 42 mm, the vignetting has been reduced to the minimum.

Combined with the 12 megapixel resolution, bright, high contrast images are achieved all the way to the edges.



Left: RICOH FL-BC1220-9M / Right: Usual FA lens

W.D.80mm f2.0

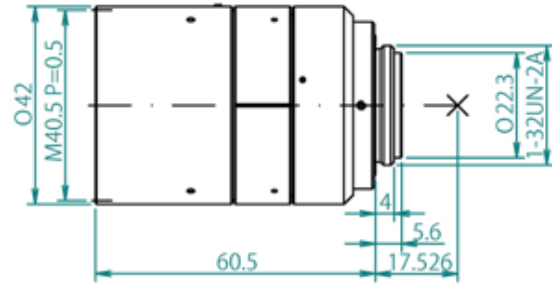
■ Floating focusing mechanism

The floating focus mechanism contributes to low distortion, high resolution images at all distances, from infinity right down to their minimum object distance, demonstrating maximum performance at any magnification. Compared with using macro rings, the floating mechanism maintains higher image quality throughout the entire focusing range, making it possible to capture images with the least deterioration even at the lens's MOD. This series is ideally suited to macro photography.

FL-BC1220-9M



Dimensions



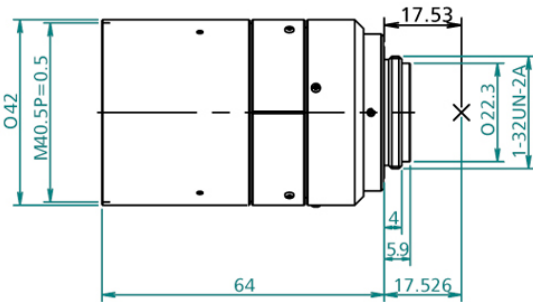
Resolution		9 Mega-pixel(1") / 12 Mega-pixel(1.1")*1
Format size		1" format / 1.1" format
Focal length		12mm
Maximum aperture ratio		1:2.0
Iris range		2.0~16
Mount		C
Horizontal angle of view	1/2" format	30.0°
	1/1.8" format	33.6°
	2/3" format	40.6°
	1" format	57.0°
	1.1" format	61.8°
Minimum object distance		0.08m
Back focal length		14.1mm
Filter size		40.5 P=0.5mm
Dimensions		φ42mmx60.5mm
Weight		156g
Remarks		Focus & Iris lock screws

*1 The lens is also suitable to 4 megapixel and 6 megapixel cameras.

FL-BC1618-9M



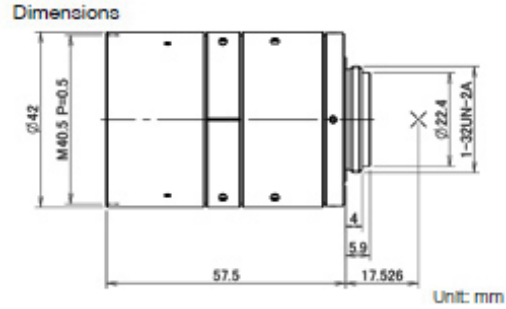
Dimensions



Resolution	9 Mega-pixel(1") / 12 Mega-pixel(1.1")*1	
Format size	1" format / 1.1" format	
Focal length	16mm	
Maximum aperture ratio	1:1.8	
Iris range	1.8~16	
Mount	C	
Horizontal angle of view	1/2" format	22.7°
	1/1.8" format	25.4°
	2/3" format	30.8°
	1" format	43.8°
	1.1" format	47.7°
Minimum object distance	0.08m	
Back focal length	14.1mm	
Filter size	40.5 P=0.5mm	
Dimensions	φ42mmx64mm	
Weight	153g	
Remarks	Focus & Iris lock screws	

*1 The lens is also suitable to 4 megapixel and 6 megapixel cameras.

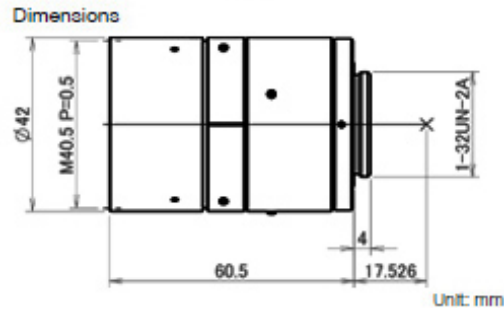
FL-BC2518-9M



Resolution		9 Mega-pixel(1") / 12 Mega-pixel(1.1")*1
Format size		1" format / 1.1" format
Focal length		25mm
Maximum aperture ratio		1:1.8
Iris range		1.8~16
Mount		C
Horizontal angle of view	1/2" format	14.6°
	1/1.8" format	16.4°
	2/3" format	20.0°
	1" format	28.8°
	1.1" format	31.5°
Minimum object distance		0.1m
Back focal length		14.1mm
Filter size		40.5 P=0.5mm
Dimensions		φ42mmx57.5mm
Weight		149g
Remarks		Focus & Iris lock screws

*1 The lens is also suitable to 4 megapixel and 6 megapixel cameras.

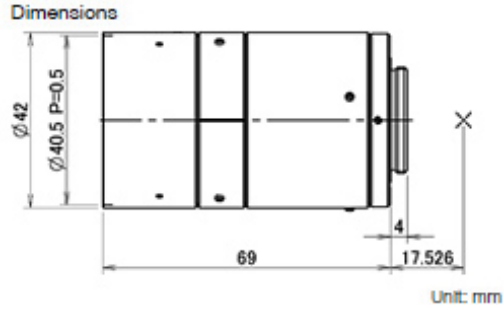
FL-BC3518-9M



Resolution	9 Mega-pixel(1") / 12 Mega-pixel(1.1")*1	
Format size	1" format / 1.1" format	
Focal length	35mm	
Maximum aperture ratio	1:1.8	
Iris range	1.8~22	
Mount	C	
Horizontal angle of view	1/2" format	10.4°
	1/1.8" format	11.7°
	2/3" format	14.3°
	1" format	20.7°
	1.1" format	22.7°
Minimum object distance	0.15m	
Back focal length	16.8mm	
Filter size	40.5 P=0.5mm	
Dimensions	φ42mmx60.5mm	
Weight	150g	
Remarks	Focus & Iris lock screws	

*1 The lens is also suitable to 4 megapixel and 6 megapixel cameras.

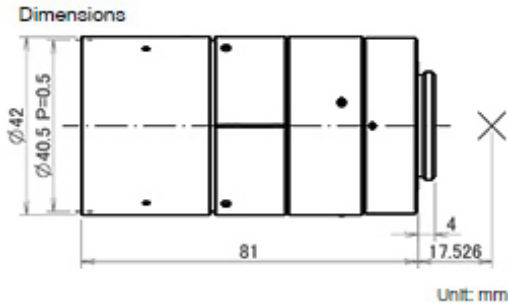
FL-BC5024-9M



Resolution		9 Mega-pixel(1") / 12 Mega-pixel(1.1")*1
Format size		1" format / 1.1" format
Focal length		50mm
Maximum aperture ratio		1:2.4
Iris range		2.4~22
Mount		C
Horizontal angle of view	1/2" format	7.3°
	1/1.8" format	8.2°
	2/3" format	10.1°
	1" format	14.6°
	1.1" format	16.0°
Minimum object distance		0.2m
Back focal length		18.8mm
Filter size		40.5 P=0.5mm
Dimensions		φ42mmx69mm
Weight		166g
Remarks		Focus & Iris lock screws

*1 The lens is also suitable to 4 megapixel and 6 megapixel cameras.

FL-BC7528-9M



Resolution	9 Mega-pixel(1") / 12 Mega-pixel(1.1")*1	
Format size	1" format / 1.1" format	
Focal length	75mm	
Maximum aperture ratio	1:2.8	
Iris range	2.8~32	
Mount	C	
Horizontal angle of view	1/2" format	4.9°
	1/1.8" format	5.5°
	2/3" format	6.7°
	1" format	9.8°
	1.1" format	10.7°
Minimum object distance	0.25m	
Back focal length	21.3mm	
Filter size	40.5 P=0.5mm	
Dimensions	φ42mmx81mm	
Weight	189g	
Remarks	Focus & Iris lock screws	

*1 The lens is also suitable to 4 megapixel and 6 megapixel cameras.



For more information please contact:

BOCK OPTRONICS INC.
14 Steinway Blvd., Unit 7
Toronto, Ontario M9W 6M6

Tel: (416) 674-2804
sales@bockoptronics.ca
www.bockoptronics.ca