

RICOH

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Two New RICOH FA Lenses with 12 and 16mm focal lengths

Stronger line-up with the addition of S-Rank (Best Performance Class) High Performance Lenses for 5 Megapixel Cameras

RICOH proudly announces the introduction of two new 12 and 16mm high performance image processing lenses for 5 Megapixel cameras to complement its three current 2/3" 5 Megapixel lens range.

The new models use JIA (Japan Industrial Imaging Association) lens standards and satisfy S-Rank* (Best Performance Class) criteria. This allows the lenses to take high resolution, high contrast, sharp images over the entire sensor. The lenses provide a high resolution image right up to the periphery and have low distortion, making them ideal for visually inspecting high density printed circuit boards, confirming hairline cracks and other surface defects on sheet metals, checking for missing pixels on LCD monitors, inspecting multiple aspects simultaneously such as the shape, color and surface of food and pharmaceuticals for errors and in making detailed inspections of a wide range of objects. These lenses can also be used as visual sensors in any machine's vision system making them perfect for robot vision applications.

The new lenses feature a 33mm compact design. Despite their 5 Megapixel high resolution, their size allows a high degree of freedom incorporating them into wide range of equipment positions.

Lenses up to 2 Megapixels are currently dominant in the FA camera market. However, the market is transitioning to higher resolution lenses. By extending our line-up with two high performance 5 megapixel lenses, we are able to meet the diverse needs of our customers. Our goal is to continue developing new products and further expand our business in the FA lens market.

* JIA Technical Report LER-007: Recommended specifications for high definition camera lenses Applications (S-Rank): For applications requiring higher resolution over the entire image Evaluation Criteria (S-Rank): Resolving spatial frequency corresponding to the Nyquist frequency over the entire image



FL-CC1218-5MX



FL-CC1618-5MX

Key Features of the New RICOH FL-CC1218-5MX and FL-CC1618-5MX

1. Provides high resolution and high contrast images

Right from the center to the periphery, these lenses have a high resolution of over 147 lp/mm. Due to a minimal degradation of resolution right up to the periphery they produce sharp, high contrast images. Therefore, even images on the periphery can be suitable for measurement and inspection.

These lenses use JIA (Japan Industrial Imaging Association) high performance class/evaluation standards for high definition camera lenses, and satisfy S-Rank (Best Performance Class) criteria. As entire field 5 Megapixel camera lenses, they capture high resolution, low distortion images not just from the center to the periphery but over the entire image measurement field.

2. Achieves low distortion

Optically designed to reduce distortion, which poses a problem in image measuring and recognition, these lenses keep TV distortion to less than 0.1%, making them ideal for capturing low distortion images over the entire image measurement field.

3. Floating focusing mechanism

The use of a floating mechanism in their focusing systems allows them to capture low-distortion, high resolution images at all distances, from infinity right down to their minimum object distance, demonstrating maximum performance at any magnification.

4. 33mm compact design

The lenses have a 33mm compact design ideal for installation with high performance equipment, enhancing production line working efficiency.

Specification of the New RICOH FL-CC1218-5MX and FL-CC1618-5MX

Model	FL-CC1218-5MX	FL-CC1618-5MX
Resolution	over 5 Mega-Pixel	over 5 Mega-Pixel
Format Size	2/3" format	2/3" format
Focal length	12mm	16mm
Maximum aperture ratio	1:1.8	1:1.8
Iris range	1.8~16	1.8~16
Mount	C	C
Horizontal angle of view (1/3" format)	22.7°	17.1°
Horizontal angle of view (1/2" format)	30.0°	22.7°
Horizontal angle of view (1/1.8" format)	33.6°	25.4°
Horizontal angle of view (2/3" format)	40.5°	30.9°
Minimum object distance	0.1m	0.1m
Back focal length	13.2mm	13.4mm
Filter size	30.5 P=0.5mm	30.5 P=0.5mm
Dimensions	33 x 47mm	33 x 47mm
Weight	85g	80g
Remarks	Focus & Iris lock skrew	Focus & Iris lock skrew

RICOH will continue to evolve its RICOH FA lenses to meet the diverse needs of its customers.