NikonRayfact XG Series

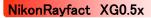
Features

- For high resolution, large-sized line sensor cameras.
- Recommendable line sensor cameras 5.2 μ m x 12K / 7 μ m x 8K
- Fixed magnification : Choice of 5 types of magnification $(0.35x \cdot 0.5x \cdot 0.7x \cdot 1x \cdot 1.4x)$
- High performance guaranteed in all range of magnification.
- Aperture lockable screw and floating ring lockable screw for easy use.

Applications

- Inspection by high-resolution line censor cameras
- Flat panel inspection
- PCB inspection
- Wafer inspection
- Printed materials inspection.

NikonRayfact XG0.35x







Specifications

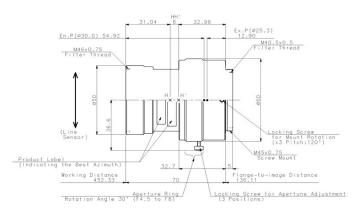
Model	L-OFM035030MN
Focal length	125.3mm
F Number (∞)	F4.5
NA	0.030
Magnification scale	−0.35x
Reference wavelength	546.07nm(e-line)
Wavelength range	400∼700nm
Picture angle	27.4°
Image size	86.4mm ϕ
Object Size	246.9mm ϕ
Distortion ※1	-0.2%
Relative illumination ※1	59.8%
Aperture scale ※2	4.5 5.6 8 (with a click stop)
Object-to-image distance	658.4mm
Working distance	452.3mm
Mount size	M45(P=0.75)
Flange-to-image distance	136.1mm
Attachment size	Front: M46 × 0.75 Back: M40.5 × 0.5
Diameter/length ※3	60 mm $\phi \times 70$ mm
Weight	Approximately 340g

- X1 Highest image height (Y'=43.2mm) at F4.5
- $\divideontimes 2$ Diaphragm scale indicated with indexes. No numeric indication.
- 💥 3 Dimension excludes protrusion of screws or other convex part.

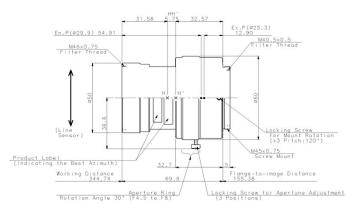
Specifications

Model	L-OFM050037MN
Focal length	125.4mm
F Number (∞)	F4.5
NA	0.037
Magnification scale	−0.5x
Reference wavelength	546.07nm(e-line)
Wavelength range	400∼700nm
Picture angle	24.4°
Image size	86.4mm ϕ
Object Size	172.8mm ϕ
Distortion ※1	-0.2%
Relative illumination ※1	66.5%
Aperture scale ※2	4.5 5.6 8 (with a click stop)
Object-to-image distance	570.0mm
Working distance	344.7mm
Mount size	M45(P=0.75)
Flange-to-image distance	155.4mm
Attachment size	Front: M46 × 0.75 Back: M40.5 × 0.5
Diameter/length ※3	60 mm $\phi \times 69.9$ mm
Weight	Approximately 340g

- X1 Highest image height (Y'=43.2mm) at F4.5
- $\divideontimes 2$ Diaphragm scale indicated with indexes. No numeric indication.
- $\divideontimes 3$ Dimension excludes protrusion of screws or other convex part.



Object-to-image Distance 658.44



Object-to-image Distance 570.02

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[•] Specifications are subject to change without prior notice.

NikonRayfact XG0.7x



NikonRayfact XG1x



Specifications

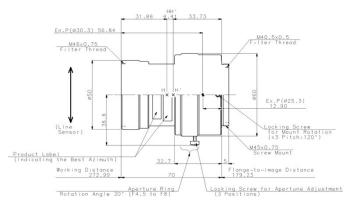
Model L−OFM070046MN Focal length 125.5mm F Number (∞) F4.5 NA 0.046 Magnification scale −0.7x Reference wavelength 546.07nm(e−line) Wavelength range 400~700nm Picture angle 21.2° Image size 86.4mm φ Object Size 123.4mm φ Distortion ※1 +0.1% Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm Weight Approximately 340g	Opecifications	
F Number (∞) F4.5 NA 0.046 Magnification scale −0.7x Reference wavelength 546.07nm(e−line) Wavelength range 400~700nm Picture angle 21.2° Image size 86.4mm φ Object Size 123.4mm φ Distortion ※1 +0.1% Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Model	L-OFM070046MN
NA 0.046 Magnification scale -0.7x Reference wavelength 546.07nm(e-line) Wavelength range 400~700nm Picture angle 21.2° Image size 86.4mm φ Object Size 123.4mm φ Distortion ※1 +0.1% Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Focal length	125.5mm
Magnification scale -0.7x Reference wavelength 546.07nm(e-line) Wavelength range 400~700nm Picture angle 21.2° Image size 86.4mm φ Object Size 123.4mm φ Distortion ※1 +0.1% Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3	F Number (∞)	F4.5
Reference wavelength 546.07nm(e−line) Wavelength range 400~700nm Picture angle 21.2° Image size 86.4mm φ Object Size 123.4mm φ Distortion ※1 +0.1% Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3	NA	0.046
Wavelength range 400 ~ 700nm Picture angle 21.2° Image size 86.4mm φ Object Size 123.4mm φ Distortion ※1 +0.1% Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Magnification scale	−0.7x
Picture angle 21.2° Image size $86.4 \text{mm} \phi$ Object Size $123.4 \text{mm} \phi$ Distortion $\%1$ $+0.1\%$ Relative illumination $\%1$ 73.6% Aperture scale $\%2$ $4.5 5.6 8 \text{ (with a click stop)}$ Object-to-image distance 522.2mm Working distance 273.0mm Mount size $M45(P=0.75)$ Flange-to-image distance 179.2mm Attachment size $Front: M46 \times 0.75 \text{ Back}: M40.5 \times 0.5$ Diameter/length $\%3$ $60 \text{mm} \phi \times 70 \text{mm}$	Reference wavelength	546.07nm(e-line)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Wavelength range	400∼700nm
Object Size 123.4mm φ Distortion ※1 +0.1% Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Picture angle	21.2°
Distortion ※1 +0.1% Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Image size	86.4mm ϕ
Relative illumination ※1 73.6% Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front:M46 × 0.75 Back:M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Object Size	123.4mm ϕ
Aperture scale ※2 4.5 5.6 8 (with a click stop) Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Distortion ※1	+0.1%
Object-to-image distance 522.2mm Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Relative illumination ※1	73.6%
Working distance 273.0mm Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length ※3 60mm φ × 70mm	Aperture scale ※2	4.5 5.6 8 (with a click stop)
Mount size M45(P=0.75) Flange-to-image distance 179.2mm Attachment size Front: M46 × 0.75 Back: M40.5 × 0.5 Diameter/length	Object-to-image distance	522.2mm
Flange-to-image distance 179.2mm Attachment size Front: M46 \times 0.75 Back: M40.5 \times 0.5 Diameter/length 3 60mm 4 \times 70mm	Working distance	273.0mm
Attachment size Front: M46 \times 0.75 Back: M40.5 \times 0.5 Diameter/length 3 60mm 4 \times 70mm	Mount size	M45(P=0.75)
Diameter/length 3 60mm $\phi \times$ 70mm	Flange-to-image distance	179.2mm
,	Attachment size	Front: M46 × 0.75 Back: M40.5 × 0.5
Weight Approximately 340g	Diameter/length ※3	60 mm $\phi \times 70$ mm
	Weight	Approximately 340g

- X1 Highest image height (Y'=43.2mm) at F4.5
- $\divideontimes 2$ Diaphragm scale indicated with indexes. No numeric indication.
- $\stackrel{\cdot}{\otimes} 3$ Dimension excludes protrusion of screws or other convex part.

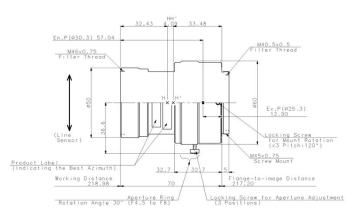
Specifications

Model	L-OFM100055MN
Focal length	125.7mm
F Number (∞)	F4.5
NA	0.055
Magnification scale	-1x
Reference wavelength	546.07nm(e-line)
Wavelength range	400∼700nm
Picture angle	17.8°
Image size	86.4mm ϕ
Object Size	86.4mm ϕ
Distortion ※1	+0.0%
Relative illumination ※1	82.2%
Aperture scale ※2	4.5 5.6 8 (with a click stop)
Object-to-image distance	506.2mm
Working distance	219.0mm
Mount size	M45(P=0.75)
Flange-to-image distance	217.2mm
Attachment size	Front: M46 × 0.75 Back: M40.5 × 0.5
Diameter/length 💥3	60 mm $\phi \times 70$ mm
Weight	Approximately 340g

- ※1 Highest image height (Y'=43.2mm) at F4.5
- $\divideontimes 2$ Diaphragm scale indicated with indexes. No numeric indication.
- 3 Dimension excludes protrusion of screws or other convex part.



Object-to-image Distance 522.22



Object-to-image Distance 506.18

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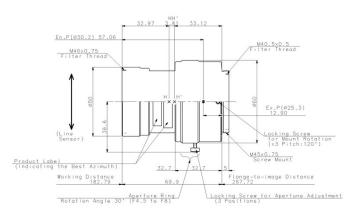
NikonRayfact XG1.4x



Specifications

Model	L-OFM140063MN
Focal length	125.9mm
F Number (∞)	F4.5
NA	0.063
Magnification scale	-1.4x
Reference wavelength	546.07nm (With a click stop)
Wavelength range	400∼700nm
Picture angle	14.6°
Image size	86.4mm ϕ
Object Size	61.7mm ϕ
Distortion ※1	-0.0%
Relative illumination ※1	90.0%
Aperture scale ※2	4.5 5.6 8 (with a click stop)
Object-to-image distance	520.4mm
Working distance	182.8mm
Mount size	M45(P=0.75)
Flange-to-image distance	267.7mm
Attachment size	Front: M46 × 0.75 Back: M40.5 × 0.5
Diameter/length ※3	60 mm $\phi \times 69.9$ mm
Weight	Approximately 340g

- X1 Highest image height (Y'=43.2mm) at F4.5
- $\divideontimes 2$ Diaphragm scale indicated with indexes. No numeric indication.
- 💥 3 Dimension excludes protrusion of screws or other convex part.



Object-to-image Distance 520.41

For further queries, please contact; Marketing Sec. Industrial Equipment Dept. TOCHIGI NIKON CORPORATION

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[•] Specifications are subject to change without prior notice.