

Nikon Rayfact

Tochigi Nikon Industrial Lens

TOCHIGI NIKON CORPORATION
Marketing Sec.
Industrial Equipment Dept.

▪ Features

- Rayfact 2x and 1x : successor models to Printing Nikkor Lenses.
- No lens aberration (0.0%) at the standard magnification ratio.
- Guarantee high resolution and uniformity from the center to the edge of the lens.
- Anti-reflection coating applied to minimize lens surface reflection.
- Rayfact 2x and 1x : Apochromatic lens with the best chromatic aberration correction in the wide-range of 400–800nm.
- Rayfact 7x and 3.5x : Image size ϕ 64mm has a high relative illumination.
- Rayfact 7x : Bilateral telecentric lenses.
- RoHS compliant.

▪ Applications

- Inspection by high resolution line sensor cameras.
- FPD inspection.
- Fine pattern inspection – e.g. PCB.
- Printed materials inspection.
- Reproduction of color and monochrome film in the same size or scaling and data fetch.
- 35mm format : Enlargement of half format sliding and reduction copy.

Nikon Rayfact 7x(Straight-tube type)



Specifications

Model	OFM70350HN-TS
Focal length	Both sides telecentric
NA	0.35
Magnification scale	-7.0x
Reference wavelength	546.07nm(e-line)
Wavelength range	510~590nm
Picture angle	—
Image size	64mm ϕ
Object size	9.1mm ϕ
Distortion	0.0% (at 64mm ϕ)
Relative illumination	103% (at 64mm ϕ)
Aperture scale	A fixed diaphragm
Object-to-image distance	613.9mm
Working distance	54.8mm
Mount size	M72(P=0.75)
Flange-to-image distance	19.55mm
Back focus	81.17mm
Attachment size	M96(P=1.0)
Diameter/length	145mm ϕ × 544.5mm
Weight	Approximately 7.4kg
An option	—

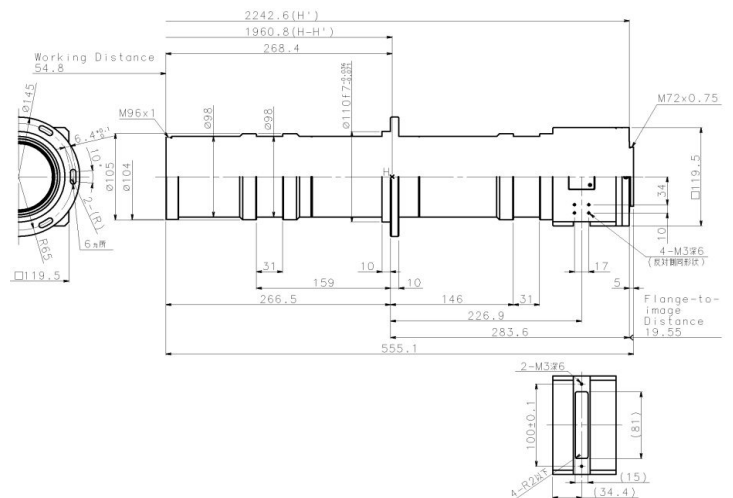
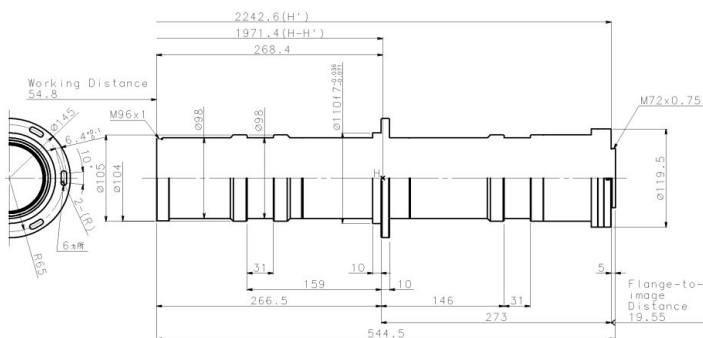
Nikon Rayfact 7x(Epi-illumination type)



Specifications

Model	OFM70350HN-TP
Focal length	Both sides telecentric
NA	0.35
Magnification scale	-7.0x
Reference wavelength	546.07nm(e-line)
Wavelength range	510~590nm
Picture angle	—
Image size	64mm ϕ
Object size	9.1mm ϕ
Distortion	0.0% (64mm)
Relative illumination	103% (64mm)
Aperture scale	Fixed diaphragm
Object-to-image distance	624.5mm
Working distance	54.8mm
Mount size	M72(P=0.75)
Flange-to-image distance	19.55mm
Back focus	58.75mm
Attachment size	M96(P=1.0)
Diameter/length	145mm ϕ (partially \square 119.5mm) × 555.1mm
Weight	Approximately 8.9kg
An option	—

※ Suitable for line sensor cameras.



- Specifications unless any specific instructions are stated is at the standard magnification.
- Specifications are subject to change without prior notice.

NikonRayfact3.5x



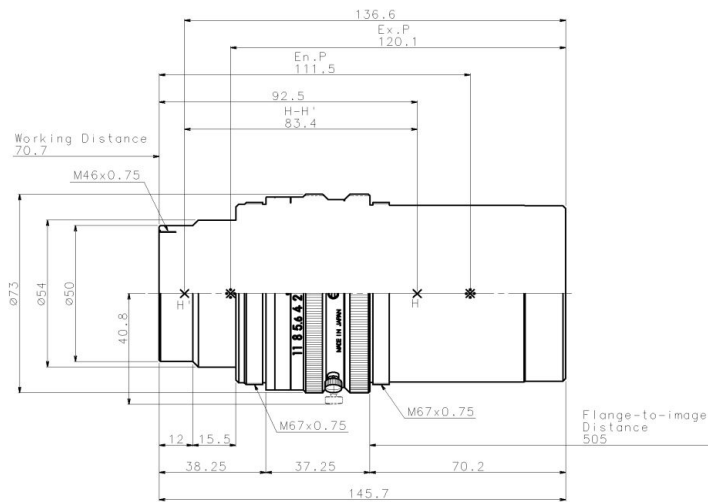
Specifications

Model	OFM35162MN
Focal length	127.0mm
F Number (∞)	F2.4
NA (Diaphragm open)	0.162
Magnification scale	-3.5x
Reference wavelength	546.07nm(e-line)
Wavelength range	400~700nm
Picture angle	5.7°
Image size	64mm ϕ
Object size	18.3mm ϕ
Distortion	0.0%(at 64mm ϕ)
Relative illumination	98%(at 64mm ϕ)
Aperture scale	2.4,4,5,6,8,11 (9° interval ※1, 1/2 dials with a finger stop) ※2
Object-to-image distance	651.3mm
Working distance	70.8mm
Mount size	M67(P=0.75)
Flange-to-image distance	505.0mm
Back focus	437.9mm
Attachment size	M46(P=0.75)
Diameter/length	73mm ϕ × 145.7mm ※3
Weight	Approximately 1.1kg
Option	Coaxial vertical tube

※1 Aperture scale at 2.8 : Only lock-in position available. No numeric indication.

※2 Lockable setting mechanism.

※3 Dimension excludes protrusion of screws or other convex part.



NikonRayfact2.35x(Build-to-order product)



Specifications

Model	OFM24125MN
Focal length	95.1mm
F Number (∞)	F2.8
NA (Diaphragm open)	0.125
Magnification scale	-2.35x
Reference wavelength	546.07nm(e-line)
Wavelength range	400~800nm
Picture angle	11.4°
Image size	64mm ϕ
Object size	27.24mm ϕ
Distortion	0.0%(at 64mm ϕ)
Relative illumination	78.9%(at 64mm ϕ)
Aperture scale	2.8,4,5,6,8,11 (18° interval, 1/2 dials with a finger stop)
Object-to-image distance	424.2mm
Working distance	79.5mm
Mount size	M45(P=0.75)
Flange-to-image distance	254.5mm
Back focus	255.4mm
Attachment size	—
Diameter/length	57mm ϕ × 94.2mm
Weight	Approximately 420g

•Specifications unless any specific instructions are stated is at the standard magnification.

•Specifications are subject to change without prior notice.

