

# Nikon Printing-Nikkor Lenses





# Nikon Printing-Nikkor Lenses for optical printing

## Apochromatic correction ensures top optical printing results

Printing-Nikkor lenses from Nikon are designed to meet the demanding requirements for optical printing of cine films, particularly when the print and original formats differ substantially in size as when employing enlarging or reducing methods. For these duplication techniques, strictest correction of aberrations (especially chromatic aberration) is essential to ensure the highest image quality.

Nikon offers a choice of four Printing-Nikkor lenses for a variety of print and original format combinations. Whether used to enlarge or reduce, these strictly corrected units provide high resolution images and faithful color rendition. Specific focal lengths available are the 75mm, 95mm, 105mm and 150mm lenses.

## Lens Features

- Printing-Nikkor lenses offer outstanding performance throughout the entire usable magnification range, as well as at the individually specified standard magnification. This feature enables greater flexibility of operation for various enlargement/reduction techniques.
- The picture angle of each lens is individually selected and limited to enable optimum correction for a wide range of lens aberrations. This design ensures that each lens is capable of reproducing the finest details of the original film for outstanding printing results.

- Strict correction of chromatic aberration is ensured via the incorporation of apochromatic lens design for each model. As all units are fully corrected at wavelengths of red, green and blue, unexcelled performance is realized across the full 400 ~ 800nm wavelength range. In fact, Printing-Nikkor lenses maintain original tone and detail, with no significant fringing to interfere with the sharpest and most faithful reproduction.
- All lenses use NIC (Nikon Integrated Coating) on air-to-glass lens surfaces for control of flare and ghost. NIC also enhances performance by providing for increased contrast and improved color rendition.

## Other Applications

These four outstanding printing lenses are suited to other optical tasks in addition to those already mentioned, including:

- Enlarging, reducing and 1:1 duplication of 35mm format and half-frame format slides.
- Reproduction of CRT (Cathode-Ray Tube) images for photographic applications.

Table of Printing-Nikkor Lenses

LENS	MAX. APERTURE	STANDARD MAG.	IMAGE SIZE
75mm	f/2.8	1/4X	16mm dia.
95mm	f/2.8	1/2X	30mm dia.
105mm	f/2.8	1X	54mm dia.
150mm	f/2.8	1X	30mm dia.

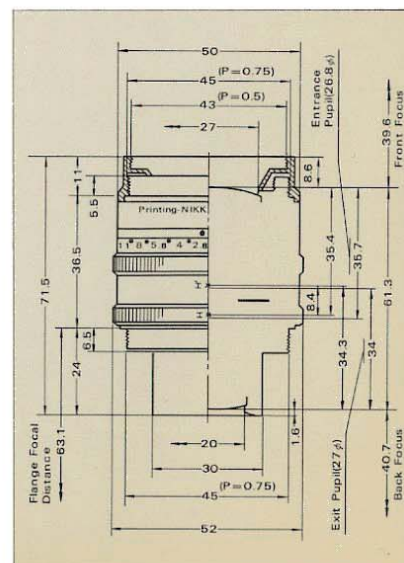
Table of Lens/Format Selection

Original Print	All 8mm films	16mm film	35mm film	70mm film
Super-8 film	105mm f/2.8	95mm f/2.8	75mm f/2.8	75mm f/2.8
16mm film	95mm f/2.8	105mm f/2.8	95mm f/2.8	75mm f/2.8
35mm film	75mm f/2.8	95mm f/2.8	105mm f/2.8	95mm f/2.8
70mm film	75mm f/2.8	75mm f/2.8	95mm f/2.8	105mm f/2.8

## Printing-Nikkor 75mm F/2.8



Focal length:	75mm
Maximum aperture ratio:	1:2.8 (at infinity)
Minimum f/stop:	f/11
Lens construction:	12 elements in 4 groups
Correction wavelength range:	400 ~ 800nm (apochromatic)
Standard magnification:	1/4X
Usable magnification range:	1/6X ~ 1/3X
Picture angle:	9°50'
Vignetting:	0% (at f/3.4)
Distortion:	+0.1% (at 1/4X)
Image size:	16mmφ (at 1/4X)
Original size:	64mmφ (at 1/4X)
Overall working distance:	460mm (at 1/4X)
Weight:	240g
Diameter:	52mm
Length:	71.5mm
Rear mount size:	45mm (P = 0.75mm)
Front mount size:	45mm (P = 0.75mm)
Attachment size:	43mm (P = 0.5mm)

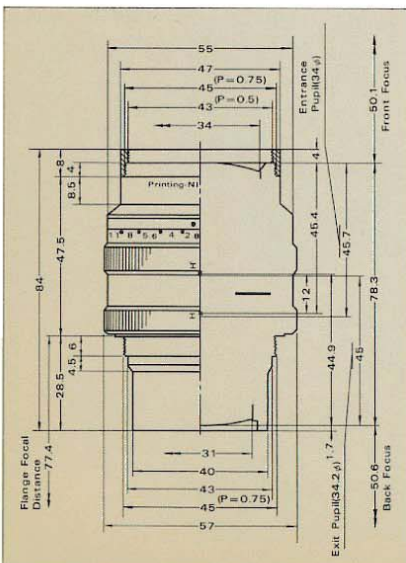




## Printing-Nikkor 95mm F/2.8



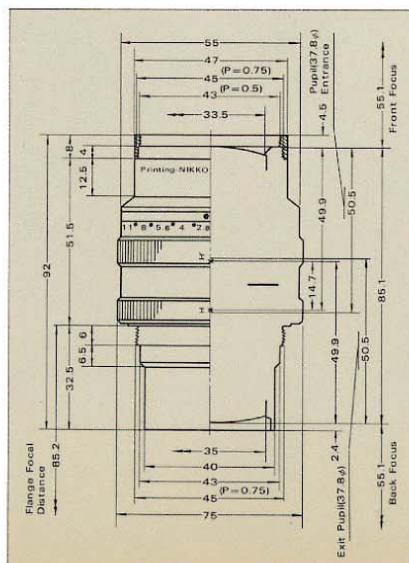
Focal length:	95.5mm
Maximum aperture ratio:	1:2.8 (at infinity)
Minimum f/stop:	f/11
Lens construction:	12 elements in 4 groups
Correction wavelength range:	400 ~ 800nm (apochromatic)
Standard magnification:	1/2X
Usable magnification range:	1/3X ~ 1/1.5X
Picture angle:	12°10'
Vignetting:	0% (at f/3.5)
Distortion:	+0.2% (at 1/2X)
Image size:	30mmφ (at 1/2X)
Original size:	60mmφ (at 1/2X)
Overall working distance:	426mm (at 1/2X)
Weight:	320g
Diameter:	57mm
Length:	84mm
Rear mount size:	45mm (P = 0.75mm)
Front mount size:	45mm (P = 0.75mm)
Attachment size:	43mm (P = 0.5mm)



## Printing-Nikkor 105mm F/2.8



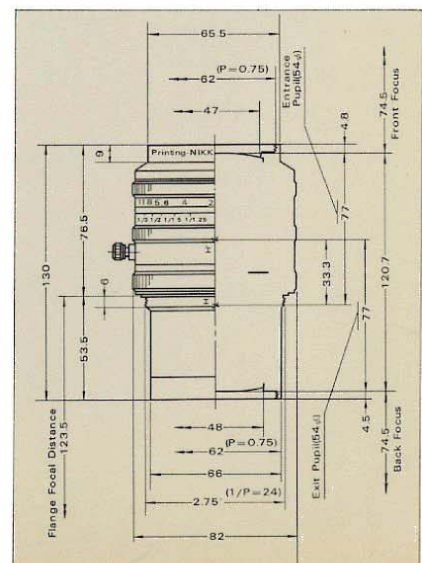
Focal length:	105mm
Maximum aperture ratio:	1:2.8 (at infinity)
Minimum f/stop:	f/11
Lens construction:	12 elements in 4 groups
Correction wavelength range:	400 ~ 800nm (apochromatic)
Standard magnification:	1X
Usable magnification range:	1/1.5X ~ 1.5X
Picture angle:	14°40'
Vignetting:	0% (at f/4)
Distortion:	0% (at 1X)
Image size:	54mmφ (at 1X)
Original size:	54mmφ (at 1X)
Overall working distance:	405mm (at 1X)
Weight:	360g
Diameter:	57mm
Length:	92mm
Rear mount size:	45mm (P = 0.75mm)
Front mount size:	45mm (P = 0.75mm)
Attachment size:	43mm (P = 0.5mm)



## Printing-Nikkor 150mm F/2.8



Focal length:	151.5mm
Maximum aperture ratio:	1:2.8 (at infinity)
Minimum f/stop:	f/11
Lens construction:	10 elements in 4 groups
Correction wavelength range:	400 ~ 800nm (apochromatic)
Standard magnification:	1X
Usable magnification range:	1/4X ~ 4X
Picture angle:	5°50'
Vignetting:	0% (at f/2.9)
Distortion:	0% (at 1X)
Image size:	30mmφ (at 1X)
Original size:	30mmφ (at 1X)
Overall working distance:	573mm (at 1X)
Weight:	1,030g
Diameter:	82mm
Length:	130mm
Rear mount size:	2.75" (1/P = 24)
Front mount size:	—
Attachment size:	62mm (P = 0.75mm)



The products shown in this brochure represent the latest available at the time of this printing. Designs and specifications are subject to change without notice.



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