

# Nikon EL-NIKON ENLARGING LENSES...

ADVANCING THE FRONTIERS OF OPTICAL PRECISION



# Nikon

Garden City, New York 11530

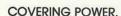
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# **Nikon** EL-NIKKOR ENLARGING LENSES

represent the most advanced state of the lensmaker's art. Each Nikon El-Nikkor lens provides a level of performance

unsurpassed in its class. Performance is, in fact, so high, that excellent results are possible even with inexpensive enlargers.



Nikon El-Nikkor lenses will fully cover the formats for which they were designed with superb resolution. This assures extreme sharpness within the entire magnification range of any given focal length. Prints of outstanding quality are the result of Nikon El-Nikkor's optical performance.



#### ILLUMINATION ACROSS THE FIELD.

Nikon El-Nikkor lenses are designed to provide brilliant, even illumination corner-to-corner even at wide apertures. Eveness of illumination across the field holds a consistent level of brilliance right down to minimum apertures. The resulting prints are free from fall-off at the corners.

#### CORRECTION FOR CHROMATIC

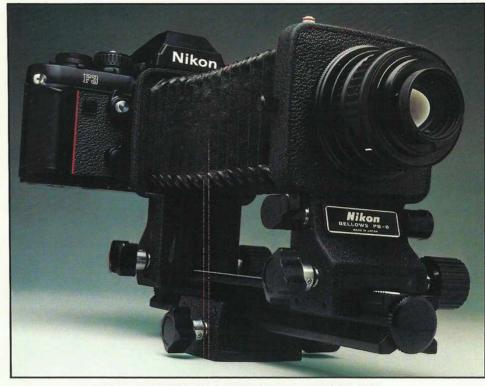
ABERRATION. The optical elements of Nikon El-Nikkor lenses are made of the same glass types as Apo-Nikkor lenses. This means that the performance levels of Nikon El-Nikkor are so high that they may be used for color separation work and, of course, for outstanding performance in all enlarging applications. Print quality is sharp, crisp and without annoying color fringing.

#### NEAR UV CORRECTION.

While the human eye is not sensitive to ultraviolet light, both color and black and white papers are. Nikon El-Nikkor lenses are specifically designed for ultraviolet transmission through the use of special optical glass and matching optical coatings in the 350nm to 450nm range. This assures critical focusing which in turn produces superb sharpness and brilliance in the final printed image.

#### IMAGE RESOLUTION.

The inherently high resolution of Nikon El-Nikkor lenses is retained through a design that produces a completely flat field corner-to-corner. In addition, critical focus is maintained at all apertures. Optimum performance is achieved producing crisp, needle sharp images across the field and brilliant print quality.



#### USING YOUR NIKON EL-NIKKOR AS A CAMERA LENS.

The Nikon El-Nikkor makes a superb taking lens when used at close working ratios.\* It is ideal for still life, extreme close-ups of all kinds, including flowers and every type of small-object photography. When the size of the image is larger than the size of the object, use of the Nikon Reverse Adapter assures critically sharp performance.

# 

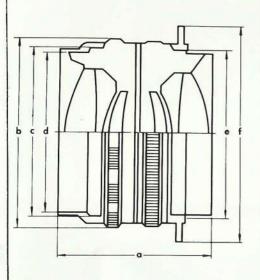
#### THE NIKON REVERSE ADAPTER.

Best possible lens performance is achieved when the front element of the Nikon El-Nikkor faces the larger image. In ordinary enlarging work the front element faces the print which is larger than the negative. For reductions or photography where magnifications are more than 1X (subject smaller than image), the Nikon Reverse Adapter allows the lens to be used in the reverse position, giving dramatically improved performance. Nikon El-Nikkor lenses of a 135mm focal length and longer, have the reverse adapter built into the front of the lens.



#### REFERENCE TO KEY LETTERS.

Use this chart as a guide to lens dimensions and distances shown in the technical specifications and diagrams for each lens.





# 50mmF2.8N

52.1mm

Focal length

Minimum t/stop	1/16
Lens construction	4 — 6
Standard magnification	8X
Usable magnification range	2X ~ 20X
Covering power	46°
Correction wavelength range	380 ∼ 700mµ
Format size	1 in. x 1.5 in. (24 x 36mm)
Max. negative diagonal	1.7 in. (43.2mmø)
Weight	3.7 oz. (105g)
Length (a)	1.5 in. (39mm)
Diameter (b)	2.0 in. (51mm)
Front mount size (dia. x pitch) (c)	Not applicable
Attachment size (dia. x pitch) (d)	40.5mmø x 0.5mm
Rear mount size (dia. x pitch) (e)	39mmø x 1/26 in.
Flange diameter (f)	Not applicable



#### 50mmF4

Focal length	51.6mm
Minimum f/stop	f/16
Lens construction	3 — 4
Standard magnification	8X
Usable magnification range	2X ~ 20X
Covering power	46°
Correction wavelength range	380 ~ 700n
Format size	1 in. x 1.5 ir (24 x 36mm
Max. negative diagonal	1.7 in. (43.2mmø
Weight	3.5 oz. (100g)
Length (a)	1.1 in. (28mm)
Diameter (b)	1.8 in, (44.5mm)
Front mount size	Not applicat

(dia. x pitch) (c)

Attachment size

(dia. x pitch) (d) Rear mount size (dia. x pitch) (e)

Flange diameter (f)

34.5mmø x 0.5mm 39mmø x 1/26 in. Not applicable

Not applicable



### 63mmF2.8N

62.9mm

f/16

4 - 68X

2X ~ 20X

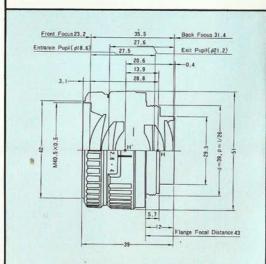
46°

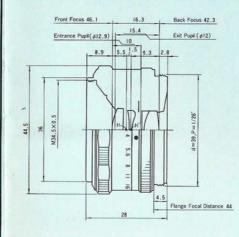
380 ~ 700mµ

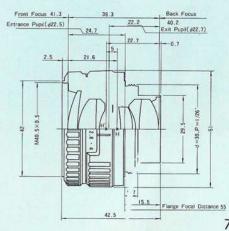
1.3 in. x 1.8 in. (32 x 45mm)

Focal length
Minimum f/stop
Lens construction
Standard
magnification
Usable
magnification range
Covering power
Correction wavelength range
Format size
Max. negative
diagonal
Weight
The state of the s
Length (a)
Diameter (b)
Didifferer (b)
Front mount size
(dia. x pitch) (c)
Attachment size

2.2 in. (55.2mmø) 4.2 oz. (120g) 1.7 in. (42.5mm) 2.0 in. (51mm) er (b) ount size oitch) (c) Not applicable Attachment size (dia. x pitch) (d) 40.5mmø x 0.5mm Rear mount size 39mmø x 1/26 in. (dia. x pitch) (e) Flange diameter (f) Not applicable









#### 75mmF4

Focal length 75mm Minimum f/stop f/45 Lens construction 3 - 4Standard 5X magnification Usable 2X ~ 10X magnification range Covering power 52° Correction 380 ~ 700mu wavelength range 2.4 in. x 2.4 in. Format size (60 x 60mm) Max. negative 3.1 in. diagonal (80mmø) 2.8 oz. Weight (80g) 1.3 in. (32mm) Length (a) 1.8 in. (44.5mm) Diameter (b)

Not applicable

34.5mmø x 0.5mm

29mmø x 1/26 in.

Not applicable

Front mount size

(dia. x pitch) (c)

Attachment size

(dia. x pitch) (d)

Rear mount size

(dia. x pitch) (e)

Flange diameter (f)



#### 80mmF5.6N

Focal length 80.1mm Minimum f/stop f/32 Lens construction 4-6 Standard 5X magnification Usable 2X ~ 15X magnification range Covering power 56° Correction 380 ~ 700mµ wavelength range 2.4 in. x 2.8 in. Format size (60 x 70mm) Max. negative 3.7 in. diagonal (95mmø) 3.5 oz. Weight (100g) 1.5 in. Length (a) (38.5mm) 2.0 in. Diameter (b) (51mm) Front mount size Not applicable (dia. x pitch) (c) Attachment size 40.5mmø x 0.5mm (dia. x pitch) (d) Rear mount size 39mmø x 1/26 in. (dia. x pitch) (e) Flange diameter (f) Not applicable



#### 105mmF5.6N

Focal length 105.5mm Minimum f/stop f/32 Lens construction 4-6 Standard 5X magnification Usable magnification range Covering power 51° Correction wavelength range Format size Max. negative 4.7 in. diagonal 3.9 oz. Weight (110g) 1.6 in. Length (a) (40mm) 2.0 in. Diameter (b) (51mm) Front mount size

(dia. x pitch) (c)

Attachment size (dia. x pitch) (d)

Rear mount size

(dia. x pitch) (e)

Flange diameter (f)

2X ~ 10X 380 ~ 700mµ 2.4 in. x 3.5 in. (60 x 90mm) (120mmø) Not applicable

40.5mmø x 0.5mm 39mmø x 1/26 in. Not applicable



#### 135mmF5.6

Focal length Minimum f/stop Lens construction Standard magnification Usable magnification range Covering power Correction wavelength range Format size Max. negative

diagonal Weight

Length (a)

Diameter (b)

Front mount size (dia. x pitch) (c) Attachment size (dia. x pitch) (d) Rear mount size (dia. x pitch) (e) Flange diameter (f)

135mm f/45 4 - 65X 2X ~ 10X 54° 380 ~ 700mµ 4 in. x 5 in.

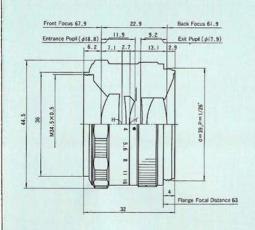
(90 x 120mm) 6.3 in. (160mmø) 9.2 oz.

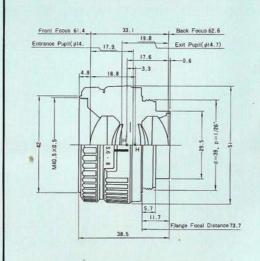
(260g) 1.9 in. (47.2mm) 2.2 in. (57mm)

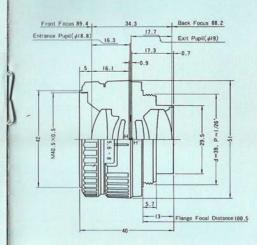
46mmø x 0.5mm

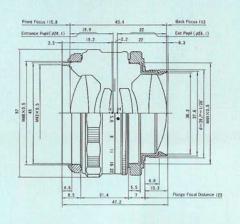
43mmø x 0.5mm 39mmø x 1/26 in.

45mmø x 0.5mm Not applicable











### 150mmF5.6

Focal length 150mm Minimum f/stop f/45 Lens construction 4-6 Standard magnification 4X Usable 2X ~ 8X magnification range 54° Covering power Correction 380 ~ 700mµ wavelength range 4 in. x 5 in. (100 x 130mm) Format size Max. negative 7.5 in. (190mmø) diagonal 10.6 oz. Weight (300g) 2.2 in. (55.5mm) Length (a) 2.4 in. Diameter (b) (62mm) Front mount size 53mmø x 0.75mm

47mmø x 0.5mm

53mmø x 0.75mm

74mm

(dia. x pitch) (c)

Attachment size

(dia. x pitch) (d)

Rear mount size

(dia. x pitch) (e)

Flange diameter (f)



# 180mmF5.6

Focal length	180mm
Minimum f/stop	f/45
Lens construction	4 – 6
Standard magnification	4X
Usable magnification range	2X ~ 8X
Covering power	54°
Correction wavelength range	- 380 ~ 700mµ
Format size	5 in. x 7 in. (130 x 180mm)
Max. negative diagonal	9.1 in. (230mmø)
Weight	15.2 oz. (430g)
Length (a)	2.5 in. (62.6mm)
Diameter (b)	3.0 in. (76mm)
Front mount size (dia. x pitch) (c)	62mmø x 1mm
Attachment size (dia. x pitch) (d)	58mmø x 75mm
Rear mount size (dia. x pitch) (e)	62mmø x 1mm
Flange diameter (f)	88mm



# 210mmF5.6

Focal length	210mm
Minimum f/stop	f/45
Lens construction	4-6
Standard magnification	4X
Usable magnification range	2X ∼ 8X
Covering power	54°
Correction wavelength range	380 ∼ 700mµ
Format size	5 in. x 7 in. (130 x 210mm)
Max. negative diagonal	10.6 in. (270mmø)
Weight	21.2 oz. (600g)
Length (a)	3.0 In. (77mm)
Diameter (b)	3.2 in. (82mm)
Front mount size (dia. x pitch) (c)	72mmø x 1mm

68mmø x 0.75mm

72mmø x 1mm

98mm

Attachment size

(dia. x pitch) (d)

Rear mount size

(dia. x pitch) (e)

Flange diameter (f)



### 240mmF5.6

Focal length Minimum f/stop Lens construction Standard magnification Usable magnification range Covering power Correction wavelength range Format size Max. negative diagonal Weight Length (a)

Diameter (b)

Front mount size (dia. x pitch) (c) Attachment size (dia. x pitch) (d) Rear mount size (dia. x pitch) (e) Flange diameter (f)

3.8 in. (96mm) 82mmø x 1mm

240mm

f/45

4-6

3X

1X ~ 6X

54°

380 ~ 700mµ

8 in. x 10 in. (180 x 240mm)

13.0 in. (330mmø)

32.1 oz.

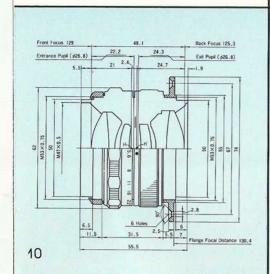
(910g)

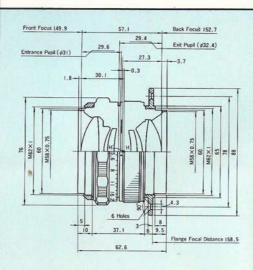
3.2 in.

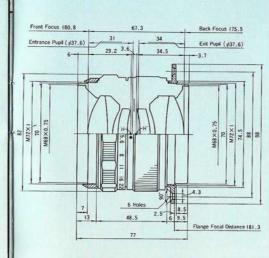
(81.7mm)

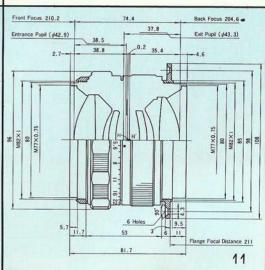
77mmø x 0.75mm

82mmø x 1mm 108mm











# 300mmF5.6

300mm Focal length Minimum f/stop f/45 Lens construction 4-6 Standard 2X magnification Usable 1X ~ 4X magnification range 52° Covering power Correction wavelength range 380 ~ 700mµ 10 in. x 12 in. (270 x 330mm) Format size 17.3 in. (440mmø) Max. negative diagonal 54.7 oz. (1550g) Weight 3.8 in. (97mm) Length (a) 4.6 in. (117mm) Diameter (b) Front mount size

(dia. x pitch) (c) Attachment size (dia. x pitch) (d) 100mmø x 1mm

95mmø x 1mm



# 360mmF5.6

Focal length 360mm Minimum f/stop f/45 Lens construction 4-6 Standard 2X magnification Usable 1X ~ 4X magnification range Covering power 52° Correction 380 ~ 700mµ wavelength range 11 in. x 14 in. Format size (300 x 400mm) Max. negative 19.7 in. (500mmø) diagonal 95.2 oz. (2700g) Weight 4.7 in. (119mm) Length (a) 5.6 in. (143mm) Diameter (b) Front mount size (dia. x pitch) (c) 130mmø x 1.5mm

120mmø x 1mm

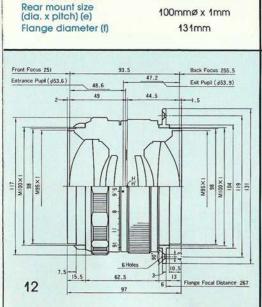
130mmø x 1.5mm

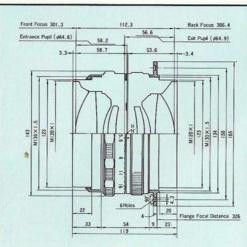
165mm

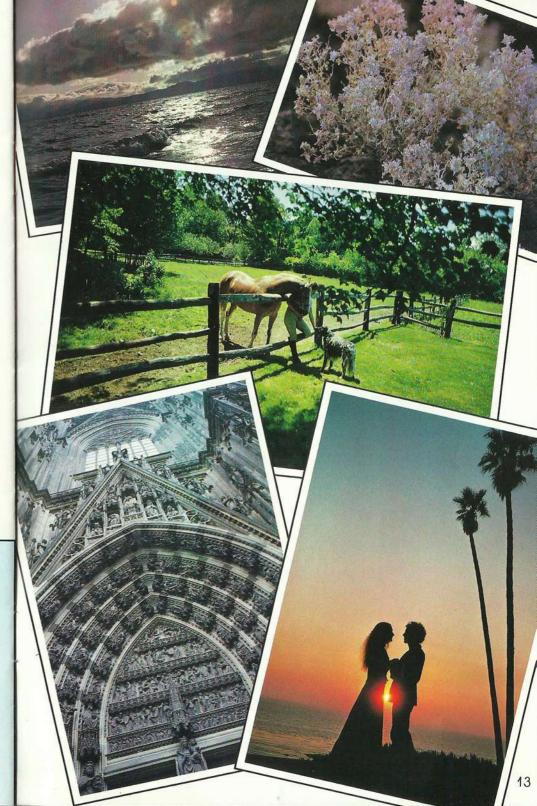
Attachment size (dia. x pitch) (d)

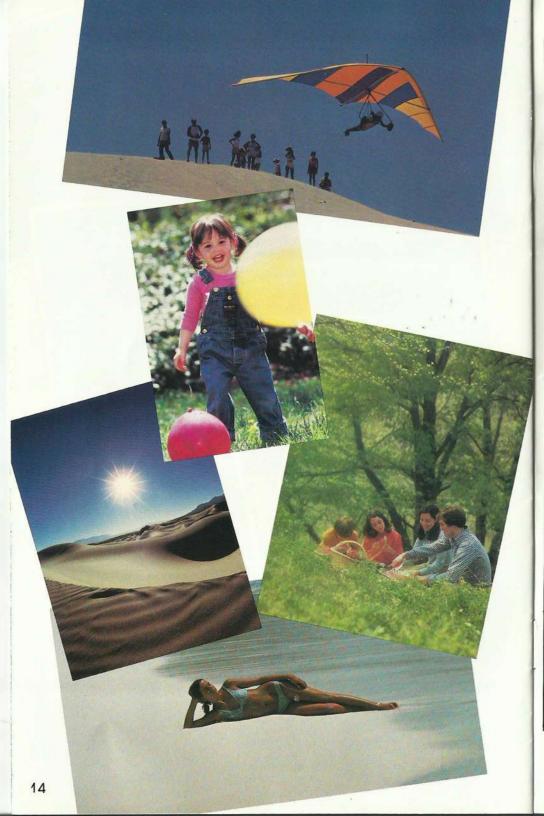
Rear mount size (dia. x pitch) (e)

Flange diameter (f)









	50mmF2.8N	50mmF4	63mmF2.8N	75mmF4	80mmF5.6N	105mmF5.6N	135mmF5.6
Focal length	52.1mm	51.6mm	62.9mm	75mm	80.1mm	105.5mm	135mm
Minimum f/stop	1/16	f/16	1/16	1/45	1/32	f/32	f/45
Lens construction (group-element)	4-6	3-4	4-6	3-4	4-6	4-6	4-6
Standard magnification	8X	8X	8X	5X	5X	5X	5X
Usable magnifi- cation range	2X ~ 20X	2X ~ 20X	2X ~ 20X	2X ~ 10X	2X ∼ 15X	2X ~ 10X	2X ~ 10X
Covering power	46°	46°	46°	52°	56°	51°	54°
Correction wavelength range	$380\sim700\text{m}\mu$	380 ∼ 700mµ					
Max. neg. diagon:	1 43.2mmø	43.2mmø	55.2mmø	80 mmø	95mmø	120mmø	160mmø
Format size	24 × 36mm	24 x 36mm	32 x 45mm	60 x 60mm	60 x 70mm	60 x 90mm	90 x 120mm (4 x 5 in.)
Weight	105g	100g	120g	80g	100g	110g	260g
Length	39mm	28mm	42.5mm	32mm	38.5mm	40mm	47.2mm
Diameter	51 mm	44.5mm	51mm	44.5mm	51mm	51mm	57mm
Front mount size (dia. x pitch)	N/A	N/A	N/A	N/A	N/A	N/A	46mmøx0.5mm
Attachment size (dia. x pitch)	40.5mmØ x 05.mm	34.5mmØ x 0.5mm	40.5mmØ x 0.5mm	34.5mmØ x 0.5mm	40.5mmØ x 0.5mm	40.5mmØ x 0.5mm	43mmø x 0.5mm
Rear mount size (dia. x pitch)	39mmø x 1/26"	39mmø x 1/26	′ 39mmø x 1/26″	39mmø x1/26"	39mmø x 1/26"	39mmø x 1/26	39mmø x1/26 45mmø x0.5mm
Flange diameter	N/A	N/A	N/A	N/A	N/A	N/A	N/A

	150mmF5.6	180mmF5.6	210mmF5.6	240mmF5.6	300mmF5.6	360mmF5.6
Focal length	150mm	180mm	210mm	240mm	300mm	360mm
Minimum f/stop	f/45	f/45	f/45	1/45	1/45	f/45
Lens construction (group-element)	4-6	4-6	4-6	4-6	4-6	4-6
Standard magnification	4X	4X	4X	3X	2X	2X
Usable magnifi- cation range	2X ∼ 8X	2X ∼ 8X	2X ∼ 8X	1X ∼ 6X	1X ~ 4X	1X ∼ 4X
Covering power	54°	54°	54°	54°	52°	52°
Correction wavelength range	380 ∼ 700mµ	$380\sim700$ m $\mu$	$380 \sim 700 \text{m}\mu$	380 ∼ 700mµ	380 ∼ 700mµ	380 ∼ 700mµ
Max. neg. diagonal	190mmø	230mmø	270mmØ	330mmØ	440mmø	500mmø
Format size	100 x 130mm (4 x 5 in.)	130 x 180mm (5 x 7 in.)	130 x 210mm (5 x 7 in.)	180 x 240mm (8 x 10 in.)	270 x 330mm (10 x 12 in.)	300 x 400mm (11 x 14 in.)
Weight	300g	430g	600g	910g	1550g	2700g
Length	55.5mm	62.6mm	77mm	81.7mm	97mm	119mm
Diameter	62mm	76mm	82mm	96mm	117mm	143mm
Front mount size (dia. x pitch)	53mmØ x 0.75mm	62mmø x 1mm	72mmø x 1mm	82mmø x 1mm	100mm∅ x 1mm	130mmø x 1.5mm
Attachment size (dia. x pitch)	47mmØ x 0.5mm	58mmø x 0.75mm	68mmø x 0.75mm	77mmø x 0.75mm	95mmøx1mm	120mmøx1mm
Rear mount size (dia. x pitch)	53mmØ x 0.75mm	62mmø x 1mm	72mmø x 1mm	82mmø x 1mm	100mmø x 1mm	130mmø x 1.5mm
Flange diameter	74mm	88mm	98mm	108mm	131mm	165mm

N/A — Not applicable

Special notes on lens usage.

Special attention should be paid to the size and the outline of the mounts of both the enlarger and lens to assure that mounting has been completed properly.

