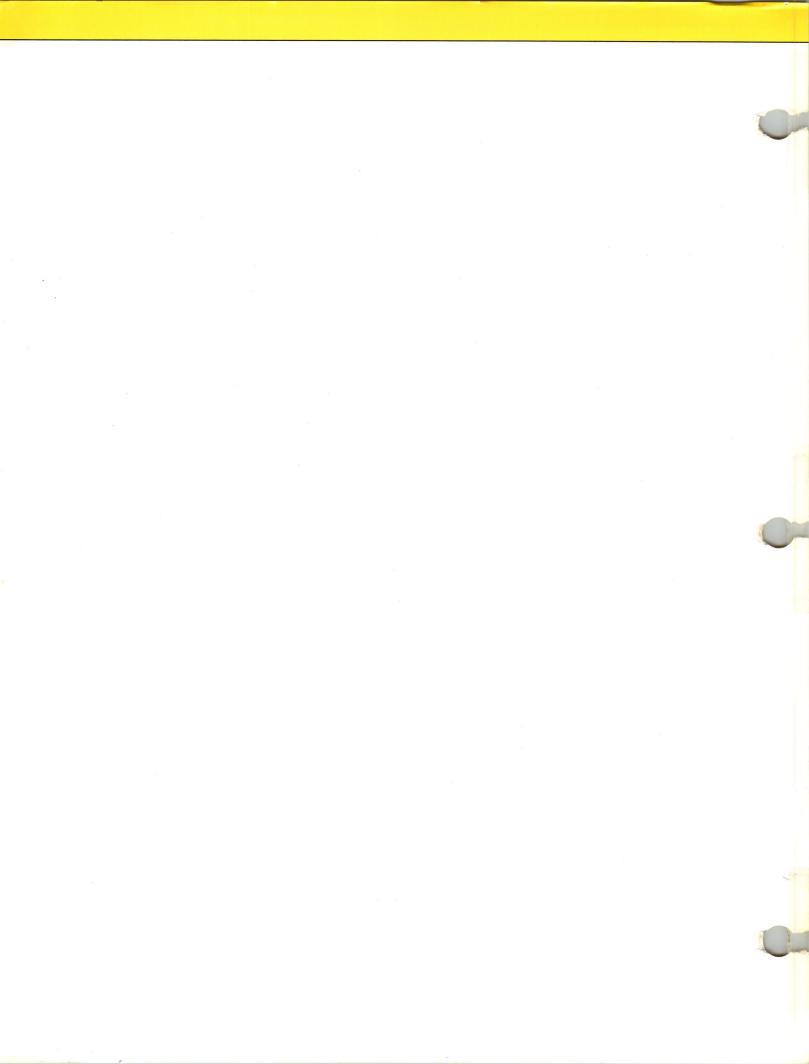
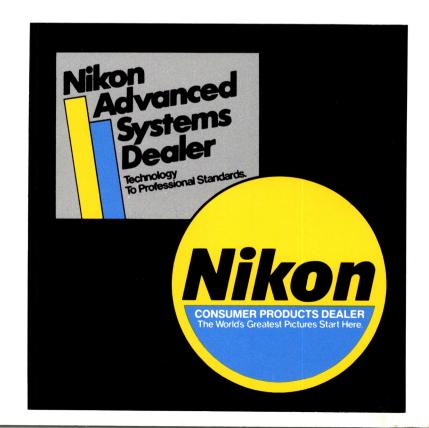
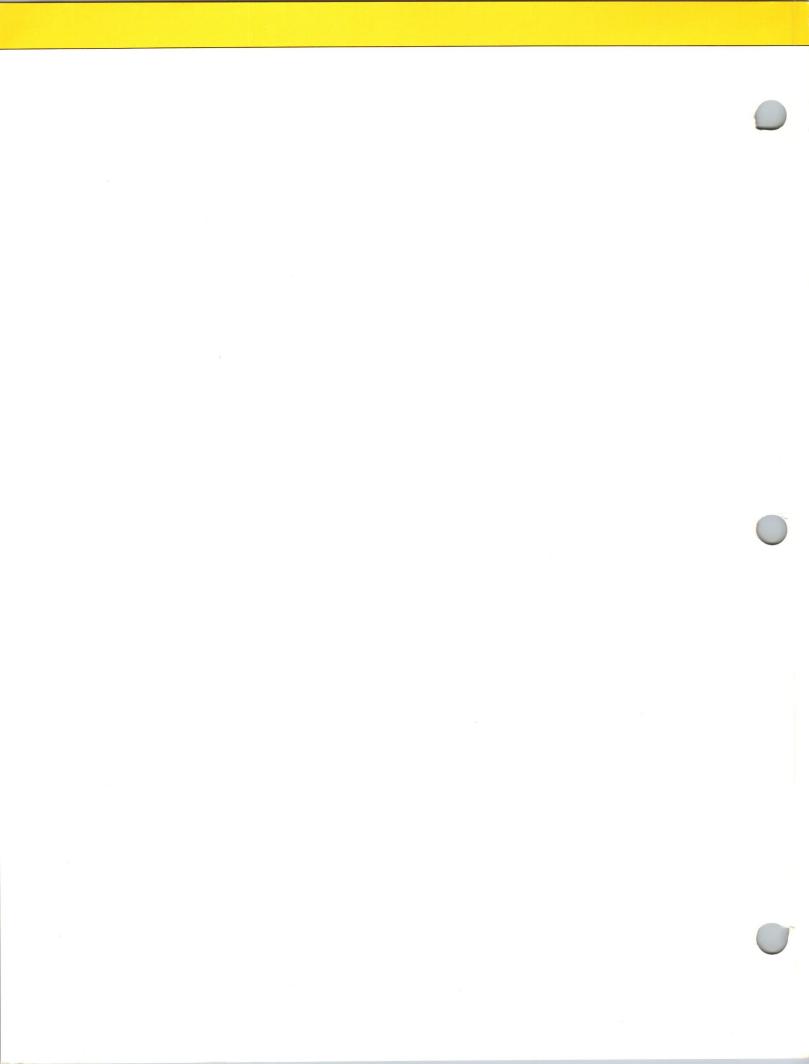
# Nikon

Advances Systems Dealer Nikon Advanced Systems Dealer Catalog Supplement



## Nikon







Nikon I (1948)



Nikon M (1950)



Nikon S (1951)



Nikon S2 (1954)



Nikon SP (1957)



Nikon S3 (1958)



Nikon S4 (1959)



Nikon F (1959)



Nikon S3M (1960)



Nikon F Photomic (1962)



Nikonos I (1963)



Nikkormat FS (1965)



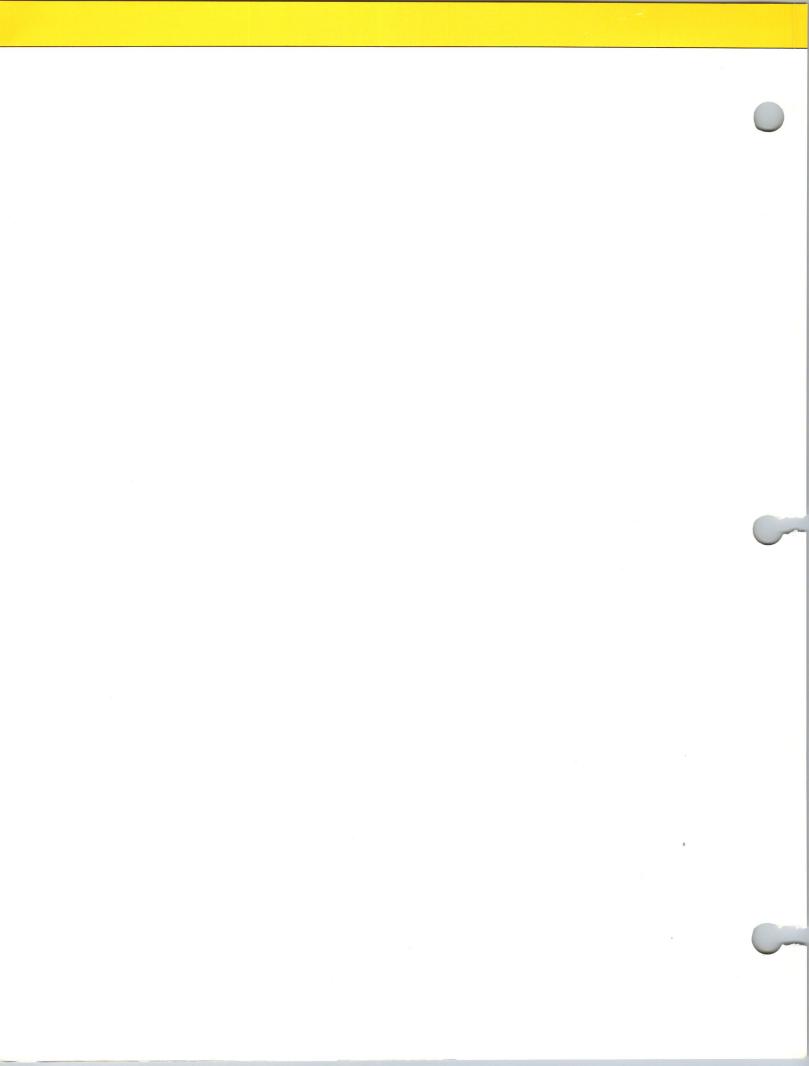
Nikkormat FT (1965)



Nikon F Photomic T (1965)



Nikon F Photomic Tn (1967)





Nikkormat FTn (1967)



Nikonos II (1968)



Nikon F Photomic FTn (1968)



Nikon F2 Eyelevel (1971)



Nikon F2 Photomic (1972)



Nikkormat EL (1972)



Nikon F2S Photomic (1973)



Nikkormat FT2 (1975)



Nikonos III (1975)



Nikon F2SB Photomic (1976)



Nikkormat ELW (1976)



Nikon F2AS Photomic (1977)



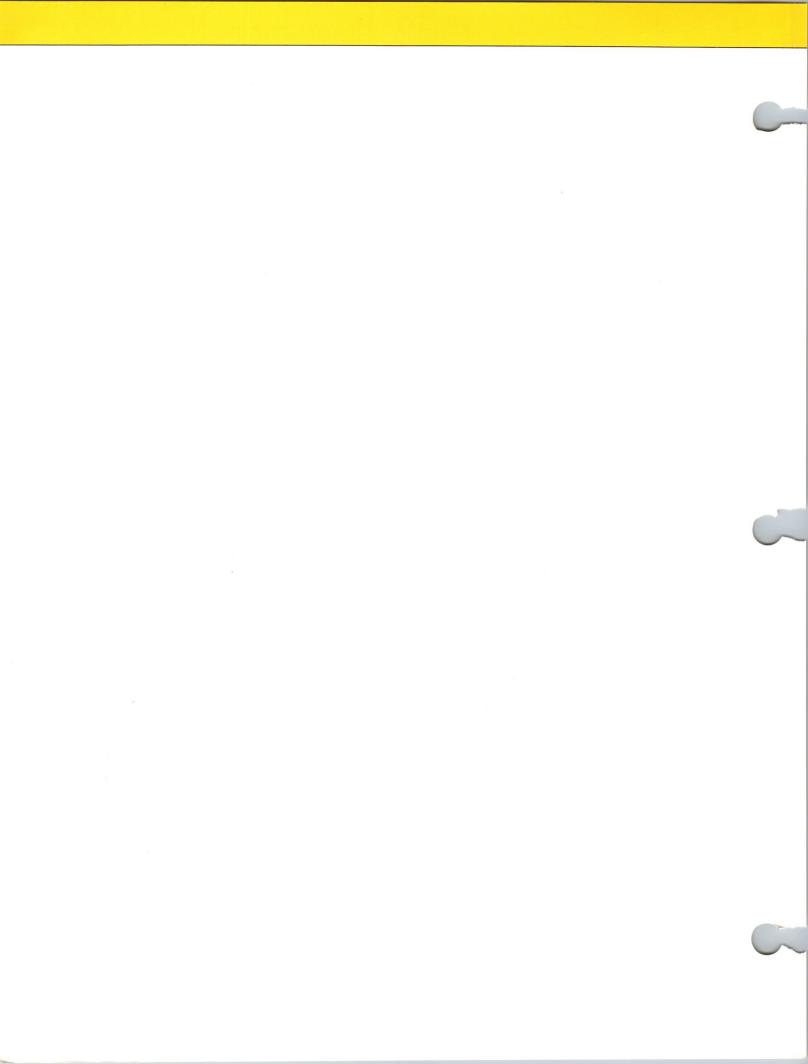
Nikon EL2 (1977)



Nikon F2A Photomic (1977)



Nikkormat FT3 (1977)





Nikon FG-20 (1984)



Nikon F3 (1984)



Nikon L35AF (1984)



Nikon N2000 (1985)



Nikon Tele-Touch (1986)



Nikon Action-Touch (1986)



Nikon N2020 (1986)



Nikon One-Touch (1987)



Nikon Fun-Touch (1987)



Nikon Tele-Touch Deluxe (1987)



Nikon N4004 (1987)



Nikon N8008 (1988)



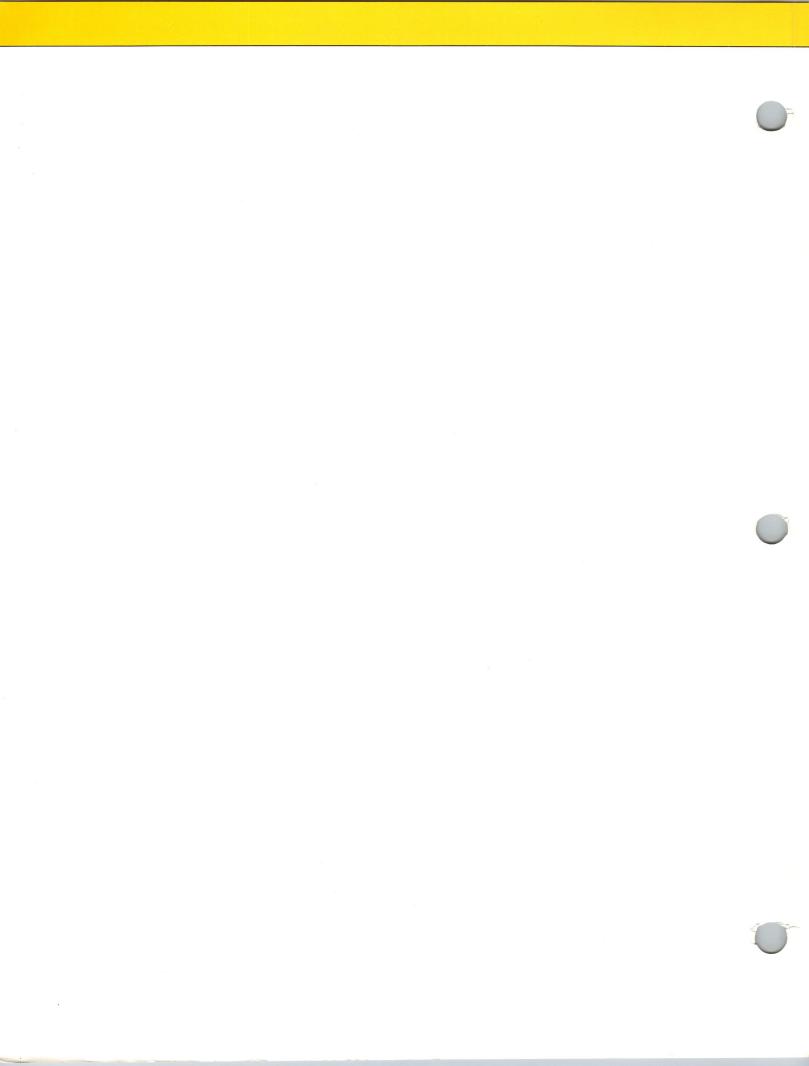
Nikon Zoom-Touch 500 (1988)



Nikon One-Touch 100 (1988)



Nikon F4S (1988)





Nikon N4004S (1988)



Nikon Tele-Touch 300 (1988)



Nikon N6006 (1990)



Nikon N6000 (1990)



Nikon Zoom-Touch 400 (1990)



Nikon N8008s (1991)



Nikon Zoom-Touch 500s (1991)



Nikon N5005 (1991)



Nikon One-Touch 200 (1991)

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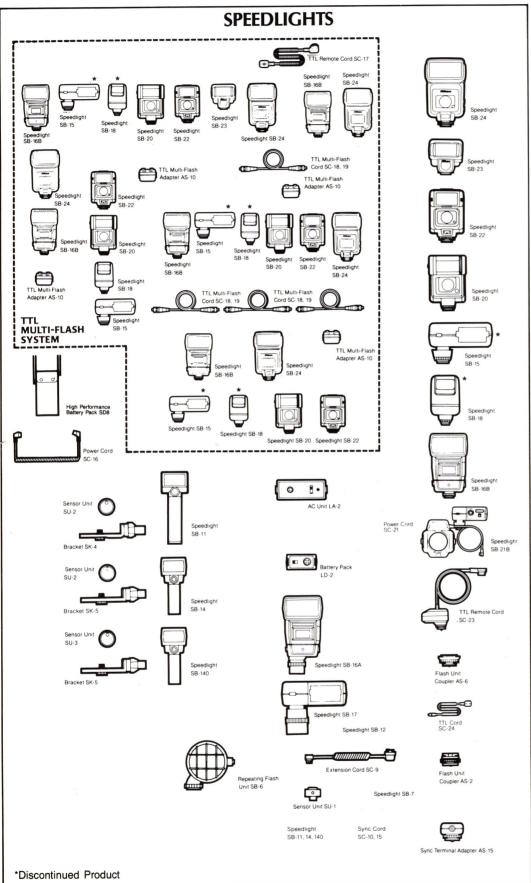


FAS HP F3/T //8008 //8008s

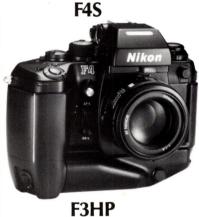
> Nikon Advanced Systems Dealer

## Nikon nced

## ACCESSORY COMPATIBILITY





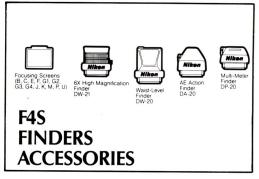


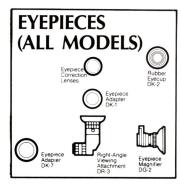


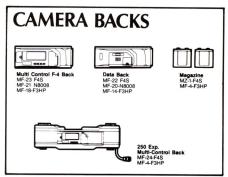


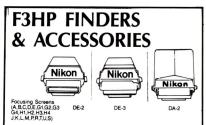
N8008s

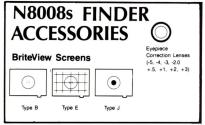


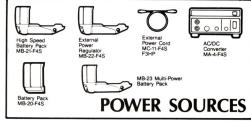


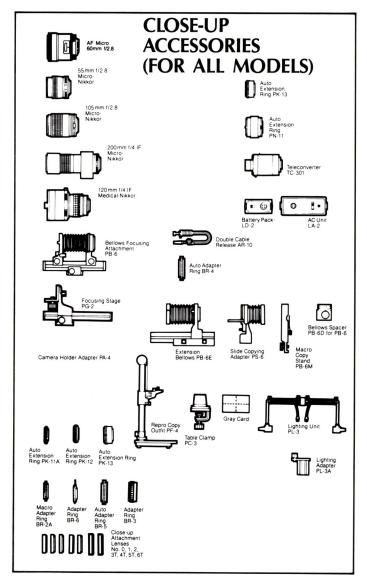


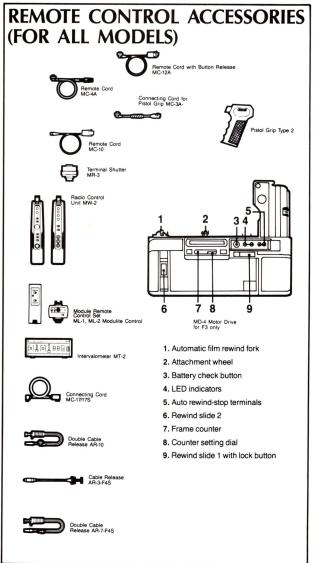
















## Nikon F4S

Product number:

Type of camera:

Picture format: Lens mount: Lenses:

Focus modes:

Autofocus detection:

AF detection range: Autofocus lock:

Exposure metering:

Exposure control:

Metering range:

Shutter:

Shutter control:

Viewfinder:

Viewfinder display:

1791 (With MB-21 High Speed Battery Pack)

Electronically-controlled, professional 35mm singlelens-reflex camera with autofocus and built-in highspeed motor drive

24mm x 36mm (standard 35mm format)

Nikon F bayonet with autofocus contacts

More than 70 Nikkor and Series E SLR lenses in all; more than 15 AF Nikkor lenses for full automatic focus and exposure operation; more than 50 non-autofocus Al lenses for "A" mode automatic and "M" mode manual exposure operation

Single-servo ("S") autofocus, Continuous-servo ("C") autofocus and Manual ("M") focus with electronic rangefinder; electronic rangefinder operation with lenses of maximum aperture f/5.6 or brighter

TTL phase-detection system using Nikon advanced AM200 autofocus module; system equipped with 200-segment CCD sensor unit

EV minus 1 to EV 18 (ISO 100)

Via shutter release button in "S" focus mode or AF lock button (AF-L) in "C" focus mode

5% Spot metering with any viewfinder via light sensor mounted within camera body; traditional 60/40 center-weighted metering via circuitry provided in DP-20 Multi-Meter Finder (standard) and DA-20 Action Finder (optional); Nikon-exclusive Matrix metering for automatic control of difficult lighting conditions via standard DP-20 finder using multisegment silicon-photo-diode (SPD) sensors; advanced built-in micro computer integrates metering functions with flash photography for balanced fill-flash operation with Nikon TTL Speedlights

Automatic exposure modes of "A" (aperture-prior Automatic exposure modes of A (aperture-pric "S" (shutter-priority), "P" (normal programmed exposure), and "P<sub>H</sub>" (high-speed-weighted programmed exposure) via mode selector; manual exposure control of camera provided at "M" mode setting

EV 0 to EV 21 with Center-weighted and Matrix metering: EV 2 to EV 21 with Spot metering (ISO 100 and f//1.4 lens)

Electromagnetically-controlled, vertical-travel highspeed focal plane shutter; aluminum and carbon-fiber shutter blades ensure highly accurate and high speed operation; equipped with special tungsten shutter balance for maximum reduction of shutter vibration

Speed control via lithium niobate oscillator; 16 shutter speed settings (1 EV steps) of from 1/8000 strutter speed settings (1 EV steps) of from 1/8000 sec. to 4 sec. for camera operation in "S" (shutter-priority) automatic and "M" (manual) exposure control modes; stepless operation of from 1/8000 sec. to 30 sec. for camera operation in "P" (normal program), "P<sub>H</sub>" (high-speed-weighted-program) and "A" (aperture-priority) automatic exposure control. "A" (aperture-priority) automatic exposure control modes; additional settings of "B" (bulb), "T" (time) and "X" (1/250 sec. for flash sync.) provided; selection of speed settings via top-mounted shutter-speed dial; safety lock for electronic flash synchronization ("X") setting

Interchangeable finder system; DP-20 Multi-Meter Finder as standard; extensive finder and screen viewing system available as option; virtually 100% viewfinder coverage provided

Camera body equipped with large LCD and LED panels for miscellaneous information display with any camera finder; additional LCD panel provided with standard DP-20 finder; finder display of all a posure information in all modes, compensation values, focusing indicators, flash ready-light and frame counter provided as standard via various finder-visible LCD panels; LCD illuminators provided in camera body and DP-20 finder; illuminator ON/OFF switch provided on camera body at base of shutter-speed selector dial



Focusing screens:

Interchangeable screen system; camera equipped with Type B advanced BriteView screen featuring overall matte/Fresnel field with central autofocus reference brackets and reference circles for Spot (5mm) and Center-weighted metering; 12 optional

F4S-dedicated screens available

Film speed range:

Via top-mounted film speed selector dial; settings provided for manual selection of film speeds of from ISO 6 to ISO 6400 in 1/3 EV steps, plus "DX" position for selection of automatic film speed sensing via DX-code contacts; with DX-code operation, film speed range of from ISO 25 to ISO 5000 is

provided

Film transport:

Film advance via built-in high-speed motor drive; motor firing mode selection enables choice of Single-frame ("S"), Continuous-Hi-Speed ("C<sub>r</sub>"), Continuous-Lo-Speed ("C<sub>c</sub>") and Continuous-"Silent" ("C<sub>s</sub>") rates of fire; shooting speed of up to 5.7 fps (frames/second) are possible; choice of powered or manual film rewind provided; operation of rewind lever "R1" alone enables manual rewind via crank provided; operation of levers "R1" and "R2" enables powered rewind with automatic stop to completion of rewind cycle

Self-timer:

Electronically-controlled timer with 10-second delay provided; flashing LED indicates operation; timer operation cancellable

Flash hot shoe:

Standard ISO-type shoe with supplemental contacts for operation with Nikon-dedicated electronic Speedlights; hot shoe contacts enable finder ready-

light and TTL flash control interface

Flash synchronization:

"X"-type synchronizaiton for electronic flash units possible at manual shutter speeds settings of from 1/250 sec. to 30 sec., plus "B", "T" and "X"; when camera operated in fully automatic programmed exposure modes with selected Nikon TTL Speedlights, shutter speeds of from 1/250 sec. to 1/60 sec. are selected automatically via cybernetic flash sync operation to achieve balanced fill-flash

effects

Power source:

Nikon MB-21 High Speed Battery Pack (six AA-type batteries) as standard; MB-20 Battery Pack (four AA-type batteries) and MB-22 External Power Regulator (for connection to alternative voltage sources) as option

Nikon MB-23 Multi-Power High Speed Battery Pack is an optional accessory for the F4S. Used in conjunction with the Nikon NiCad Battery MN-20, and the Quick Charger MH-20 will allow you to charge up to two batteries sequentially, operated automatically and turn off automatically upon completion of charging. The MB-23 along with the MN-20 also delivers improved operation at low temperatures.

Dimensions (WxHxD):

168.5 x 138 x 76.6mm (6.6 x 5.4 x 3.0 in.) with MB-21 High Speed Battery Pack; 168.5 x 117 x 76.6mm (6.6 x 4.6 x 3.0 in.) with MB-20 Battery

Approx. 1,280g (45.1 oz.) with MB-21 High Speed Battery Pack (without batteries); approx. 1.090g (38.4

oz.) with MB-20 Battery Pack (without batteries)

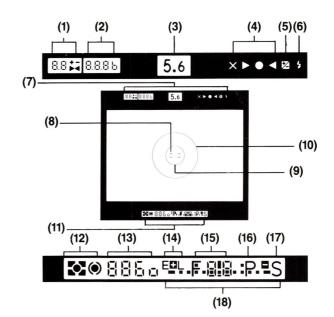
### Nikon F4S Viewfinder Display

Weight:

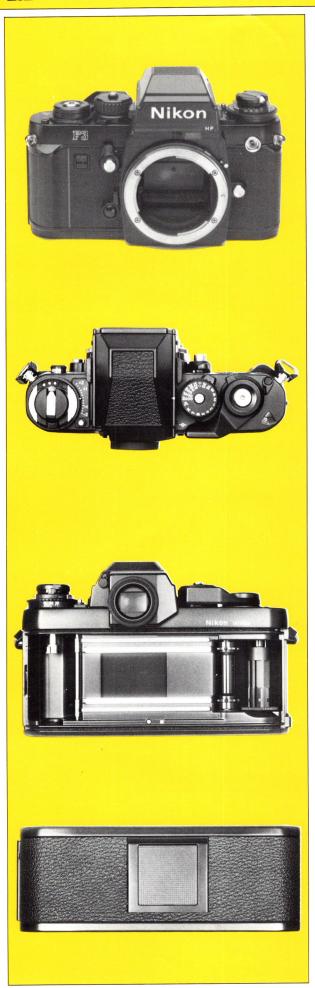
- (1) Exposure Compensation Value
- (2) Frame Counter
- (3) ADR (Aperture Direct Readout)
- (4) Focus Indicators
- (5) Exposure Compensation Indicator
- (6) Flash Ready-light Signal
- (7) Camera Body Side Display
- (8) Camera Focus Brackets
- (9) 12mm-dia. Reference Circle
- (10) 5mm-dia. Reference Circle
- (11) DP-20 Finder Side Display
- (12) Metering System
- (13) Shutter Speed
- (14) AE-Lock Indicator
- (15) Aperture (P/S) A (A) No indication (M)
- (16) P (P)

No indication (S/A/M)

- - No indication (P/A/M)
- (18) Electronic Analog Display (M) No indication (P/S/A)



Viewfinder:







1691 Product number:

Electronically-controlled, single-lens-reflex camera Type of camera:

Picture format: 24mm x 36mm (standard 35mm format)

Nikon F bayonet Lens mount:

More than 70 Nikkor and Nikon Series E lenses Lenses:

Horizontal-travel, titanium foil, focal-plane shutter Shutter:

Shutter release: Electromagnetic type switches meter on when depressed halfway (after shutter release lock is released); meter then remains on for 16 sec. after finger is taken off the shutter release button;

release button threaded to accept ISO-type standard cable release

Backup mechanical release: Lever provided to trigger camera at mechanical 1/60 sec. exposure time, regardless of the exposure

setting (except at T); used to conserve battery power, for T (Time) exposures, or when battery

power is exhausted

Aperture-priority, automatic exposure control with Automatic exposure control: stepless shutter speeds from 8 sec. to 1/2000 sec.

Manual exposure control: Quartz digital control for 16 stepped shutter speeds from 8 sec. to 1/2000 sec., including X (1/80 sec); B (Bulb) and T (Time) also provided

Mechanical shutter control: Possible using backup mechanical release lever at

T (Time) setting on shutter speed dial, or at 1/60 sec. when shutter speed dial set to any other

DE-3 High-eyepoint Eyelevel Finder as standard;

interchangeable with other viewfinders; 0.75X magnification with 50mm lens; virtually 100%

coverage

Eyepiece shutter: Provided; prevents light from entering the finder

eyepiece under remote-control operating

Focusing screen: Type K as standard; 21 other types as optional

accessories

Exposure metering: Thru-the-lens (TTL) light metering; silicon

photodiode and metering circuits incorporated into camera body; meter works with all interchangeable viewfinders and interchangeable finder screens

Metering range: EV1 to EV18 (f/1.4 at 1 sec. to f/11 at 1/2000 sec.) with 50mm f/1.4 lens and ISO 100 film

Film speed setting: ISO 12 to 6400

Accessory shoe: Provided; special Nikon type located at base of rewind knob; accepts direct mount Speedlights SB-16A, SB-17 and SB-21A, as well as accessory

cords SC-12 and SC-14; two optional flash adapters available for flash units with ISO hot shoe contacts and for flash unit for Nikon F2

All speeds of from 8 sec. to 1/60 sec., plus X (1/80 Flash synchronization: sec.) with electronic flash; with F3-dedicated

speedlights, the shutter speed is automatically set to 1/80 sec at A (automatic operation) or at manual shutter speed settings of 1/125 sec. and faster; synchronization is also possible at slower speeds; threaded PC-type sync terminal provided at front of camera for off-camera and mutiple-flash

photography

Viewfinder display: Liquid crystal display shows shutter speed; on auto, +2000 indicates overexposure and -8- indicates

underexposure; on manual, M appears with + indicating overexposure, - indicating underexposure or - and + simultaneously indicating correct exposure; LED ready light glows when F3-dedicated speedlights are ready; the lens

aperture in use is also shown in the viewfinder via the aperture-direct-readout (ADR) scale provided on all AI and AIS lenses

Viewfinder illuminator:

Provided; illuminates both LCD panel in camera and ADR scale on lens aperture ring of AI and AIS

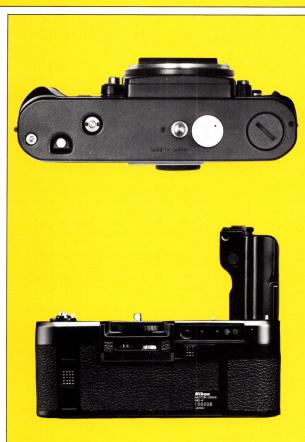
Provided; from +2 to -2 in one-third step Exposure compensation:

increments

Exposure memory: Possible via front-mounted lock button

#### Nikon F3HP, F3/T





Multiple exposure: Self timer:

Reflex mirror:

Depth-of-field preview:

Film advance lever:

Frame counter:

Film rewind:

Camera back:

Batteries:

Dimensions (HxWxD):

Weight:

Optional accessories:

Possible via top-mounted lever

Quartz-controlled, 10 sec. delayed exposure; LED blinks at 2 hz. for the first 8 sec., and at 8 hz.

for the last 2 sec.

Automatic, instant-return type with lock-up facility; incorporates brake mechanism and air damper for reduced vibration and noise

Possible via button fitted coaxial with the mirror

lock-up lever 30° stand-off angle and 140° winding angle; wound

in single stroke or series of smaller strokes

Additive type; automatically reset when camera

back is opened

Via rewind crank after depressing film rewind button; automatic film rewind possible with MD-4

Motor Drive

Interchangeable with optional special-purpose backs; opened by pulling up the film rewind knob (after unlocking)

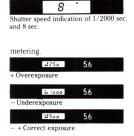
Two 1.5V silver-oxide (button cell) batteries; when optional MD-4 Motor Drive is mounted, the camera receives all power from the motor drive

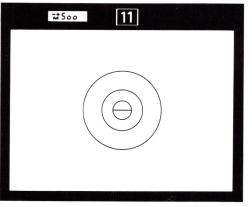
Approx. 101.5 x 148.5 x 69.0mm (4"x5.8"x2.7")

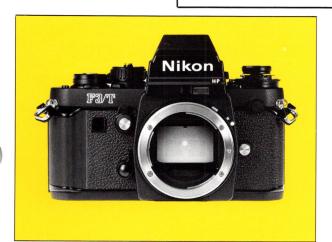
Approx. 760g (26.8 oz.), body only

Eyelevel Finder DE-2 Action Finder DA-2 Waist-Level Finder DW-3 High-Magnification Finder DW-4 Motor Drive MD-4 Miscellaneous focusing screens Speedlights SB-11/14/140/16A/17/21A Data Backs MF-14/17/18 250-ex Magazine Back MF-4 Auto Rewind-Stop Back MF-6B Eyepiece Adapter Ring DK-3

#### Nikon F3HP Viewfinder Display lock and exposure compensation ₩500 11 2000







#### Nikon F3/T

Product number:

Type of camera:

The Nikon F3/T is a ruggedized version of the Nikon F3HP; the use of titanium outer covers makes this camera ideal for heavy-duty users, such as photojournalists.













Product number:

Type of camera: Electronically-controlled, advanced 35mm autofocus single lens reflex camera with built-in motor drive

24mm x 36mm (standard 35mm format) Picture format:

1760

Lens mount: Nikon F bayonet with autofocus contacts

More than 70 Nikkor and Series E SLR lenses in all; more than 15 AF Nikkor lenses for full automatic Lenses:

focus and exposure operation; more than 50 nonautofocus Al lenses for "A" mode automatic and

"M" mode manual exposure operation.

Single-servo (S) autofocus, continuous-servo (C) autofocus and manual (M) focus with electronic Focus modes:

rangefinder; electronic rangefinder operation with lenses of maximum aperture f/5.6 or brighter

TTL phase detection system using Nikon advanced Autofocus detection:

AM200 autofocus module; system equipped with

200-segment CCD sensor unit

AF detection range: EV minus 1 to EV 19 (ISO 100)

Via shutter release button in "S" focus mode or autofocus lock button (AF-L) in "C" focus mode Autofocus lock:

Autofocus sensing: TTL full aperture exposure measurement via five-

segment silicon photo-diode (SPD)

Exposure metering:

Matrix metering via multi-segment SPD for automatic exposure control of difficult lighting conditions; center-weighted automatic exposure control also available via user selection; advanced built-in microcomputer integrates Matrix metering functions with flash photography for balanced fill-flash operation with Nikon TTL Speedlights

Exposure control:

Automatic exposure modes of "A" (aperture-priority), "S" (shutter-priority), "P" (normal programmed exposure), "P $_{\rm H}$ " (hi-speed program) and "P $_{\rm D}$ " (dual program) via mode selection; flexible program operation via the Command Input Control Dial, during P/PH,/P<sub>p</sub> modes; full manual exposure control of camera provided during modes at "M" setting

Metering range: EV 0 to EV 21 (ISO 100 and f//1.4 lens)

Shutter: Electromagnetically controlled, vertical-travel high-

speed focal plane shutter

Shutter control: Speed control via lithium niobate oscillator; setting of from 30 second to 1/8000 second provided in

"M" exposure mode; stepless operation in

automatic modes

Fixed eyelevel pentaprism type; long eye relief provided via high-eyepoint design; 0.75x magnifica-Viewfinder:

tion; 92% finder coverage provided

Nikon advanced Type B BriteView focusing screen; Focusing screen: field features matte fresnel area with central

reference circle and focusing brackets; excellent general-purpose screen; interchangeable with optional Type E and Type J BriteView screens

LCD viewfinder display provided directly below the Viewfinder display: image field; display panel provides for virtually all

information to be visible within viewfinder; equipped with illuminator for operation under low-light

shooting conditions

ISO 25 to 5000 for DX-coded film; ISO 6 to 6400 Usable film speed range:

for manual film speed setting

Single-frame motor advance at "S" motor setting; Film advance:

continuous frame settings provided at "CH" (3.3 fps) and "CL" (2.0 fps)



Self-timer:

Electronically controlled duration, selectable in steps

of from 2 sec. to 30 sec. duration per frame; two-

shot operation possible

Exposure compensation:

Via selector dial in 1/3 EV steps; total range of from

+5 to -5 EV provided

Depth-of-field preview:

Via front-mount button

Flash hot shoe:

Stardard ISO-type shoe with supplemental contacts for operation with Nikon-dedicated electronic

Speedlights: maximum flash speed setting of 1/250

sec. provided

Power source:

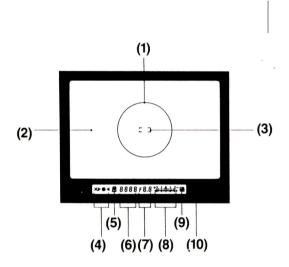
Four AA-type (penlight) batteries 6.0" x 4.0" x 2.6" (WxHxD)

Dimensions:

Weight:

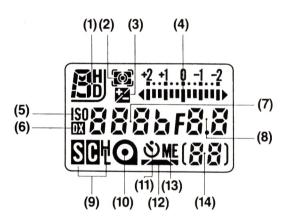
24.5 oz. (body only, without batteries)





#### **Viewfinder LCD Display**

- 12mm-dia, central area
- (2)Clear matte field
- (3)Focus brackets
- (4)Focus indicators
- (5)Exposure mode
- Shutter speed/film speed (6)
- (7)Aperture/exposure compensation value
- Electronic analog display (8)
- (9)Exposure compensation mark
- (10)Ready-light LED



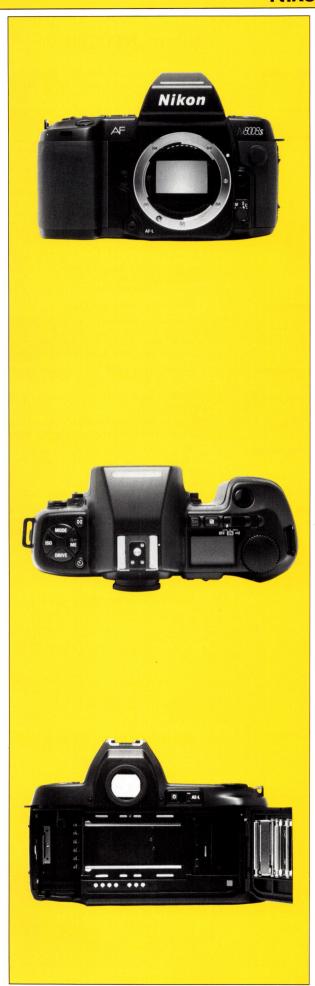
#### **Top Cover LCD Panel**

- Exposure mode (1)
- (2)Metering system
- (3)Exposure compensation
- (4)Electronic analog display
- (5)Film speed setting
- (6)DX-coded film speed setting
- (7)Shutter speeds/film speeds
- (8) Aperture/exposure compensation value
- (9)Film advance mode
- Film installation (10)
- (11)Self-timer
- (12)Film advance and rewind
- (13)Multiple exposure
- (14)Frame counter/self-timer duration/ number of multiple exposure

Product number:

Type of camera:





#### Nikon N8008s

Integral-motor autofocus 35mm single-lens reflex (SLR)

Picture format: 24mm x 36mm (standard 35mm film format)

Nikon F mount Lens mount: Lenses:

AF Nikkor lenses, Nikon lenses with Nikon F mount

Focus modes: Continuous or single autofocus, and manual focus with electronic range finder

Autofocus detection: TTL phase detection system using Nikon Advanced

AM200 autofocus module

Approx. EV minus 1 to EV 19 (at ISO 100) AF detection range:

AF actuation method: Single servo and continuous servo

By lightly pressing shutter release button in Single Servo AF mode or by using AF lock button Autofocus lock:

Available in manual focus mode with an AF Nikkor Electronic range finder:

or other Al-type Nikkor lenses with a maximum aperture of f/5.6 or faster

Exposure metering: Matrix, Center-Weighted and Spot metering built-in Activated by lightly pressing shutter release button; Exposure meter switch:

stays on for approx. 8 sec. after finger is lifted off button

Metering range:

EV 0 to EV 21 (at ISO 100 with f/1.4 lens) for Matrix and Center-Weighed metering; EV 4 to EV

Aperture automatically selected to match manually

Shutter speed automatically selected to match

21 (at ISO 100) for Spot metering

Programmed auto (PD, P, PH), Shutter-priority auto Exposure control: (S), Aperture-priority auto (A) and Manual (M)

Programmed auto Both shutter speed and aperture are set automatically; flexible program in one EV step exposure control:

set shutter speed

Shutter-priority auto exposure control:

Aperture-priority auto

exposure control:

Manual exposure control:

Both aperature and shutter speeds are set

manually

Electromagnetically controlled vertical-travel focal-Shutter:

manually set aperture

plane shutter

Shutter release:

Shutter control:

Electromagnetic shutter by motor trigger

Lithium niobate oscillator-controlled speeds from 1/8000 to 30 sec.; electromagnetically controlled

long exposure at B setting

Viewfinder:

Fixed eyelevel pentaprism high-eyepoint type; approx. 0.75x magnification with 50mm lens set at infinity; approx. 92% frame coverage

Evepoint:

Eyepiece cover:

Auto exposure lock:

Film speed range:

Model DK-8 prevents stray light from entering

Approx. 19mm

Focusing screen:

Nikon advanced B-type BriteView interchangeable

screen (E- and J-type available)

The following LCD indications appear; focus indi-Viewfinder display:

cator, exposure mode, shutter speed, ISO film speed, aperture, exposure compensation value electronic analog display, exposure compensation mark; ready-light LED; viewfinder LCD is illuminated automatically or by pressing viewfinder

illumination button

Electronic beeper:

With power switch at ‡, beeper sounds in the following cases—operating signals: () at end of film roll; (2) when film rewinding is complete; (3) during self-timer operation; alert signals: (1) for over- or under-exposure and possible picture blur in P and A modes; (2) when non-DX-coded film, damaged film or film with an unacceptable DX code is film or film with an unacceptable DX-code is loaded; (3) when camera detects abnormality such

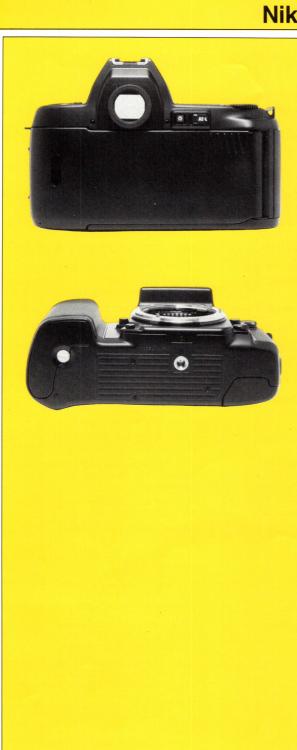
as torn or damaged film during film advance

Available by sliding the AE lock lever while the meter is on

ISO 25 to 5000 for DX-coded film; ISO 6 to 6400

for manual setting





#### Nikon N8008s

Film speed setting:

At DX position, automatically set to ISO speed of DX-coded film used; with non-DX-coded film; IS speed is set manually

Film loading:

Film automatically advances to first frame when shutter release button is depressed once

Film advance: \*

In S (Single-frame) shooting mode, film automatically advances one frame when shutter is released; in CH (Continuous High) or CL (Continuous Low) shooting mode, shots are taken as long as shutter release button is depressed; in CH mode, shooting speed is approx. 3.3 frames per second (fps), and in CL, approx. 2.0 fps (in Continuous Servo Autofocus or Manual focus mode, and a shutter speed faster than 1/125 sec.)

Frame counter: Film rewind:

Additive type; counts back while film is rewinding

Automatic when film rewind button is pressed; approx. 10 sec. per 24-exposure roll; stops automatically when film is rewound; temporary film rewind possible during multiple-exposure operation.

Multiple exposure:

Up to 9 exposures can be set

Self-timer:

Electronically controlled; timer duration can be selected between 2 and 30 sec. in one sec. increments; blinking LED indicates self-timer operation; two-shot self-timer possible; setting cancellable

Exposure compensation:

Possible using exposure compensation button

within ±5 EV range in 1/3 EV steps

Depth-of-field preview:

Provides visual verification of depth-of-field in A or

Flash hot shoe:

Standard ISO-type hot-shoe contact; ready-light

contact, TTL flash contact, monitor contact

Flash synchronization:

1/60 to 1/250 sec. in PD, P, PH or A mode; in S or M mode, shutter fires at speed set, and when set from 1/250 to 1/8000 sec., shutter is automatically set to 1/250 sec.; down to 30 sec. shutter speed

available by using SB-24 in rear-curtain sync

Flash ready-light:

Viewfinder LED lights up when Nikon dedicated speedlight is ready to fire; blinks to warn of poor camera/speedlight connection or of insufficient light

Power source:

Four AA-type batteries

Dimensions (WxHxD): Weight (body only):

6.0 x 4.0 x 2.6 in.

Approx. 24.5 oz. (695g)

<sup>\*</sup> With fresh alkaline batteries at normal temperature (68°F)

16006 16000 15005

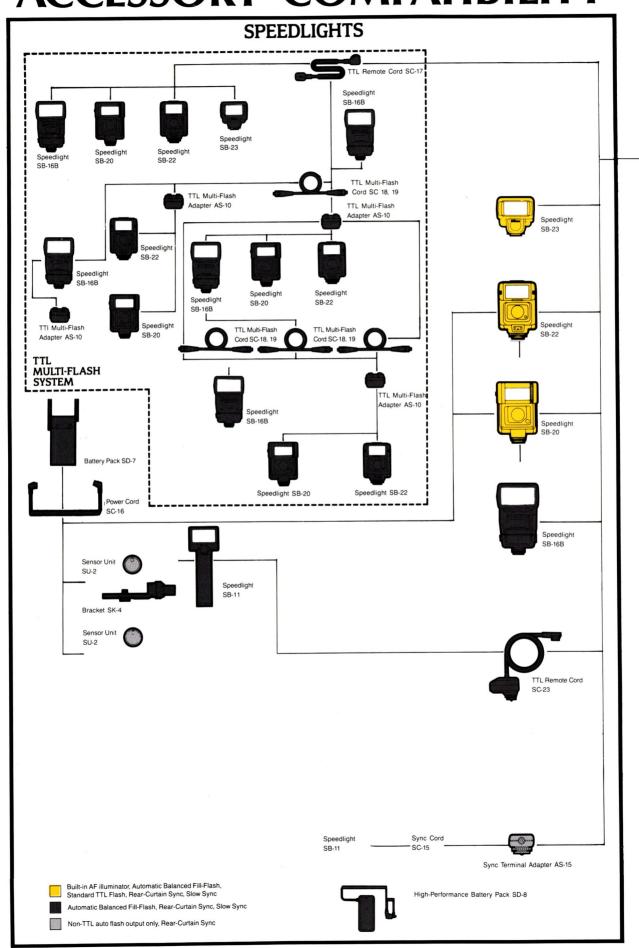
 $\sqrt{40045}$ 

FM2





## ACCESSORY COMPATIBILITY







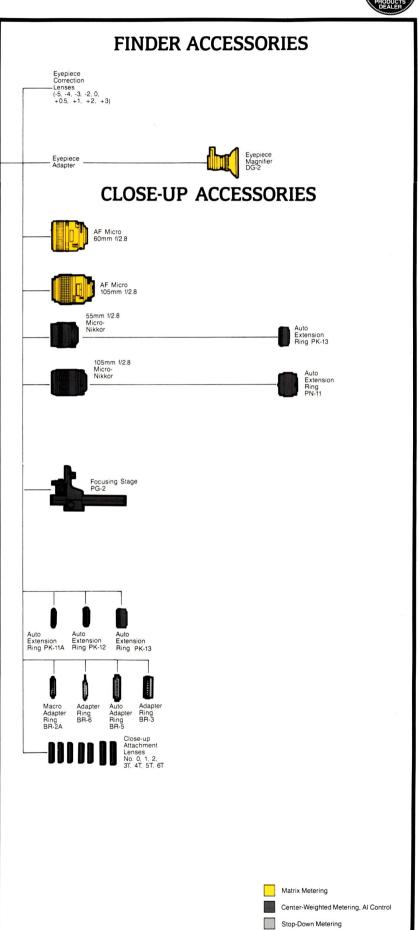




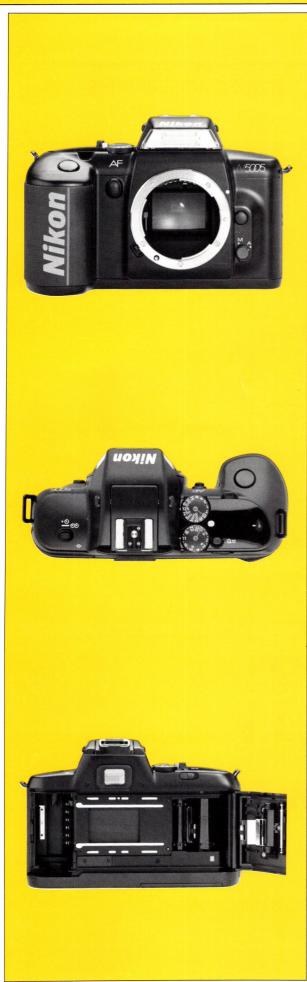












Product number: 1780

Type of camera: Integral-motor autofocus 35mm single-lens reflex

with built-in TTL flash

Picture format: 24mm x 36mm (standard 35mm film format)

Lens mount: Nikon bayonet mount

Lens: AF Nikkor lenses (except AF-Nikkor 80mm f/2.8, ED 200mm f/3.5 IF, and autofocus converter

TC-16/TC-16A), and non-AF Nikkor lenses (with

limitation) available

Focus modes: Autofocus, and manual focus with focusing

confirmation

Autofocus detection system: TTL phase detection system using Nikon Advanced

AM200 sensor

Autofocus detection range: Approx. EV -1 to EV 19 (at ISO 100)

Autofocus actuation method: Single servo Autofocus Lock: Possible

Focus tracking: Automatically activated with a moving subject

Focusing confirmation: Available in manual focus mode with an AF Nikkor,

mountable Nikkor and Series E lens with a max-

imum aperture of f/5.6 or faster

Matrix Metering (for ensuring correct automatic Exposure metering:

operation in programmed, shutter-priority and aperture-priority auto exposure modes); Center-Weighted Metering (for manual exposure mode or when using the AEL button in auto exposure

mode)

Exposure meter switch: Activated by lightly pressing shutter release button;

stays on for approx. 8 sec. after lifting finger from

button

Metering range: EV 0 to EV 19 at ISO 100 with f/1.4 lens

Exposure modes: Programmed auto, shutter-priority auto, aperture

priority auto and manual exposure modes

Programmed auto-exposure Nikon Auto Multi-program; both shutter speed and

control:

Shutter:

Eyepiece cover:

Viewfinder information:

Film speed setting:

Film loading:

aperture are set automatically Shutter-priority auto-Aperture automatically selected to match manually

set shutter speed

exposure control: Aperture-priority auto-

exposure control:

Shutter speed automatically selected to match manually set aperture

Manually exposure control:

Both aperture and shutter speed are set manually

Electronically controlled vertical-travel focal-plane

shutter

Shutter release: Electromagnetic

Shutter speeds:

1/2000 to 30 sec. on programmed and aperturepriority auto exposure modes; 1/2000 to 1 sec. on shutter-priority auto and manual exposure modes;

T setting for long-time exposure provided

Fixed eye-level pentaprism type; 0.8x magnification Viewfinder: with 50mm lens set at infinity; 92% frame coverage

Model DK-5 prevents stray light from entering

viewfinder

Nikon BriteView screen with central focus brackets Focusing screen:

for autofocus operation

Green focus indicator LED for focusing, red exposure indicator LED shows over- and underexposure warning, and correct exposure; red flash ready-light for flash photography

Auto exposure lock: Available via pressing the AEL button while the

meter is on (Center-Weighted Metering selected when the AEL button is pressed)

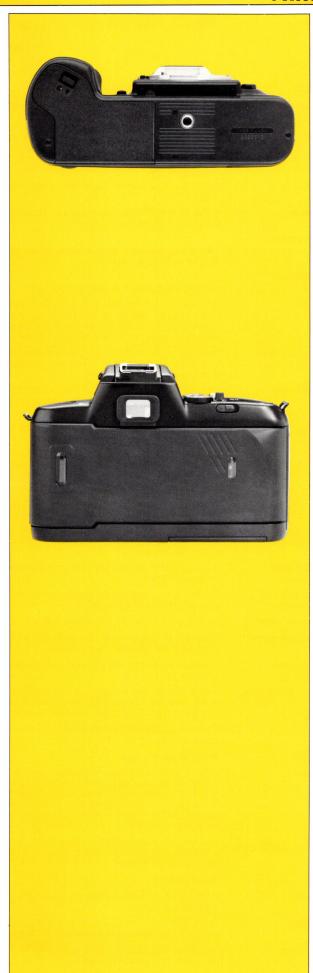
Film speed range: ISO 25 to 5000 for DX-coded film

> Automatically set by DX-coded film (ISO 100 i automatically set for all non-DX-coded films)

Film automatically advances to frame one when shutter release button is depressed once; film advance indicator rotates to show that film is loaded

and being advanced properly





Film advance:

Film automatically advances one frame at approx. 0.4 sec. when shutter is released; film advance

stops automatically at end of film roll

Frame counter: Accumulative type; automatically reset when

camera back is opened

Automatically rewound by built-in motor Film rewind:

Self-timer: Electronically controlled; approx. 10 sec. exposure

delay; blinking LED indicates self-timer operation; two-shot self-timer is possible; cancellable

Reflex mirror: Automatic, instant-return type

Hinged back; film cartridge confirmation window Camera back:

and film advance indicator

Standard ISO-type with hot-shoe contact, ready-Accessory shoe:

light contact, TTL flash contact, monitor contact

Built-in TTL flash:

Guide number: 12 (meters) or 39 (feet) at IS 100 and 20°C; angle of coverage: 28mm lens or longer; Matrix Balanced Fill-Flash is possible in auto expsoure modes; Center-Weighted Fill-Flash is possible in manual exposure mode

Flash synchronization:

In programmed auto or aperture-priority auto, shutter operates 1/125 to 1/60 sec. (or 1/[focal length] sec. with lens focal length less than 60mm); in shutter-priority auto or manual exposure mode, automatically set to 1/125 sec. when shutter is manually set at 1/125 sec. or faster; if shutter is manually set at 1/125 sec. or slower, shutter fires

as set

Flash indication: Flash ready-light blinks when flash is recommended

(scene darker than EV 10 at ISO 100, or a scene with brightness of EV 10 or higher at ISO 100 where the center portion is darker than other areas by more than EV 2) and lights up when built-in TTL flash or accessory Nikon Speedlight is ready

to fire

Possible only with Nikon Autofocus Speedlight SB-24, SB-23, SB-22 and SB-20 Autofocus flash

photography:

Power source: Four AA-type batteries

Dimensions (WxHxD): 154 x 102 x 65mm (6.1 x 4.0 x 2.6 in.)

Weight (body only): Approx. 647 g. (22.8 oz.)

With fresh alkaline batteries at normal temperature (20°C [68°F]). Specifications and design are subject to change without notice.





Product number: 1770

Type of camera: Integral-motor autofocus 35mm single-lens reflex Picture format: 24mm x 36mm (standard 35mm film format)

Lens mount: Nikon F mount

Nikkor lenses having CPU contacts, Al-S-type Nikkor Lens: lenses\*, Al-Nikkor lenses\* and Al-modified Nikkor

lenses

\*With limitation.

Focus modes: Autofocus, and manual focus with electronic

range-finder

Autofocus mode: Focus-Priority Single autofocus and Focus-Priority

Continuous autofocus

Autofocus detection TTL phase detection system using Nikon advanced system:

Autofocus detection

range:

Autofocus lock:

Approx. EV minus 1 to EV 19 (ISO 100)

AM200 autofocus module

Possible once a subject is in focus in Focus-Priority Single autofocus; in Focus-Priority Continuous autofocus, focus can be locked by using AE-L/AF-L lever when AF-L function is se

Electronic Rangefinder:

Available in manual focus mode with an AF Nikkor and other Al-type Nikkor lenses with a maximum aperture of f/5.6 or faster

Exposure metering: Three types of exposure metering systems -

Matrix Metering, Center-Weighted Metering and Spot Metering

EV 0 to EV 19 (at ISO 100 with f/1.4 lens) for Metering range: Matrix and Center-Weighted Metering; EV 4 to EV

19 (at ISO 100) for Spot Metering

Activated by lightly pressing shutter release button; Exposure meter: stays on for approx. 8 sec. after lifting finger from

button

Exposure modes: Programmed auto (PM, P), Shutter-Priority auto

Aperture-Priority auto (A) and Manual (M) modes

Both shutter speed and aperture are set Programmed auto automatically; Flexible Program in one EV step inexposure control:

crements possible

Aperture automatically selected to match manually Shutter-Priority auto set shutter speed

exposure control:

Aperture-Priority auto

exposure control:

Manual exposure control:

Exposure compensation:

Auto exposure bracketing:

Focusing screen:

Film speed range:

Shutter speed automatically selected to match manually selected aperture

Both aperture and shutter speed are set manually

Possible using exposure compensation button within ±5 EV range in 1/3 EV steps

Available by sliding the AE lock lever while the Auto exposure lock:

meter is on 3 or 5 frames can be taken of the same subject

using a variety of exposures (with compensation

degree of 0.3, 0.7 or 1 EV between each frame) Electromagnetically controlled vertical-travel focal-

Shutter: plane shutter

Shutter release: Electromagnetic type

Lithium niobate oscillator-controlled speeds from Shutter speeds:

1/2000 to 30 sec.; stepless in Programmed auto and Aperture-Priority auto exposure modes; one EV steps in Shutter-Priority auto and Manual exposure modes; Electromagnetically controlled long

exposure at B setting

Fixed eyelevel pentaprism high-eyepoint type; Viewfinder: 0.75X magnification with 50mm lens at infinity;

92% frame coverage

Eyepoint: Approx. 18mm

Model DK-5 (provided) prevents stray light from Eyepiece cover:

entering viewfinder

Fixed Nikon advanced B-type BriteView screen

with central focus brackets for autofocus operation

ISO 25 to ISO 5000 for DX-coded film; ISO 6 to

ISO 6400 for manual setting

Film speed setting: Auto for DX-coded films and manual setting

available





Self-timer:

Electronically controlled; timer duration can be selected between 2 and 30 sec. in one sec. increments; blinking LED indicates self-timer operation; two-shot self-timer is possible; can cancel at

any time

Reflex mirror:

Automatic, instant-return type

Flash sync control:

Normal sync, slow sync and rear-curtain sync provided.

Built-in TTL flash:

Guide number: 43 (at ISO 100, 20°C, ft); angle of coverage: 28mm lens or longer; TTL auto flash including automatic balanced Fill-Flash is possible

Flash synchronization:

In Programmed auto or Aperture-Priority auto shutter operates 1/125 to 1/60 sec. (or 1/[focal length] in use at lens focal length less than 60mm) in normal sync or 1/125 to 30 sec. in slow sync; in Shutter-Priority auto or Manual exposure mode, shutter fires at speed set, and when set from 1/250 to 1/2000 sec., shutter is automatically set to

1/125 sec.

Automatic balanced fill-flash:

Possible with built-in TTL flash or Nikon dedicated Speedlights such as SB-24, SB-23, SB-22, SB-20,

SB-18, and SB-16B

Manual flash light output compensation:

Can be controlled from +1EV to -3EV in 1/3 step

increments

Flash ready-light:

Without flash: Blinks when using flash is recommended (with scene brightness darker than EV10 at ISO 100 or scene brightness of EV10 or higher at ISO 100 where the center portion is darker than other areas by more than 1EV); With flash: Lights up when built-in TTL flash or Nikon dedicated Speedlight is ready to fire or blinks to warn of in-

sufficient light for correct exposure

Accessory shoe:

Standard ISO-type hot-shoe contact; ready light contact, TTL flash contact, monitor contact

Film loading:

Film automatically advances to first frame when shutter release button is depressed once

Film advance:

In S (Single-frame) shooting mode, film automatically advances one frame when shutter is released; In CH (Continuous High) or CL (Continuous Low) shooting mode, shots are taken as long as shutter release button is depressed; in CH mode, shooting speed is approx. 2.0fps, and in CL,

approx. 1.2fps

Number of 36-exposure film rolls per fresh battery\*:

Without flash, at 20°C (68°F), Approx. 75 With 50% flash, at 20°C (68°F), Approx 16 Without flash, at -10°C (14°F), Approx. 22 With 50% flash, at -10°C (14°F), Approx. 3

\*For autofocus operation with AF Zoom-Nikkor 35-70mm f/3.3-f/4.5 lens covering the full range from infinity ( $\infty$ ) to the closest distance and back to infinity ( $\infty$ ) before each shot, at 1/125 sec. or faster shutter speed.

Frame counter: Frame rewind:

Additive type; counts back while film is rewinding

Automatically rewinds by sliding film rewind lever while pressing film rewind button; approx. 26 sec. per 36-exp. roll or 19 sec. per 24-exp. film roll; stops automatically when film is rewound

Camera back:

Hinged back; unchangeable

Power source:

6V lithium battery pack (Duracell DL-223A/Panasonic CR-P2 or equivalent)

Checking battery power:

Battery power is sufficient if shutter speed and aperture indications appear on the LCD panel and viewfinder by turning camera on or by lightly pressing shutter release button, and remain on for

approx. 8 sec. after finger is removed from the button; battery power is insufficient if these indications turn off immediately after finger is removed from the button; if LCD blinks and shutter does not operate, batteries are exhausted or improperly

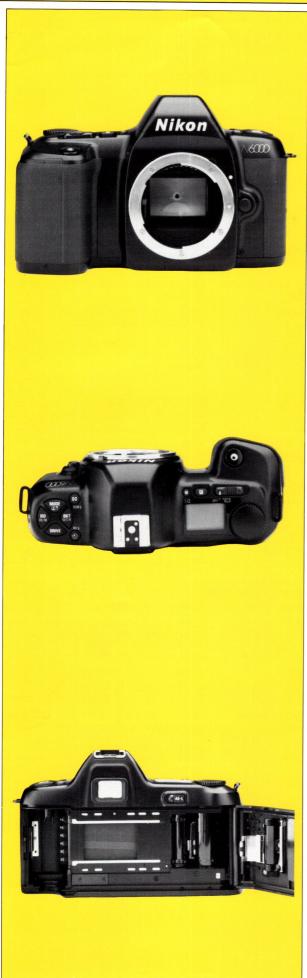
Dimensions (WxHxD):

154.5 x 100 x 66.5mm or 6.1 x 4.0 x 2.6 in.

Weight:

Approx 650g or 23.0 oz. (without battery pack)





Product number: 1775

Type of camera: Integral-motor 35mm single-lens reflex Picture format: 24mm x 36mm (standard 35mm film format)

Lens mount: Nikon F mount

Nikkor lenses having CPU contacts, Al-S-type Nikkor lenses\*, Al-Nikkor lenses\* and Al-modified Nikkor lenses\* Lens:

\*With limitation

Exposure metering: Two types of exposure metering sytems-Matrix Metering and Center-Weighted Metering

Metering range: EV 0 to EV 19 at ISO 100 with f/1.4 lens

Exposure meter:

Activated by powering the camera on or by lightly pressing shutter release button; stays on for approx. 16 sec. after lifting finger from button

Exposure modes: Programmed auto (PM, P), Shutter-Priority auto (S) Aperture-Priority auto (A) and Manual (M) modes

Programmed auto Both shutter speed and aperture are set

automatically; Flexible Program in one EV step exposure control: increments possible

Shutter-Priority auto Aperture automatically selected to match manually exposure control: set shutter speed

Shutter speed automatically selected to match Aperture-Priority auto manually selected aperture exposure control:

Manual exposure control: Both aperture and shutter speed are set manually

Exposure compensation: Possible using exposure compensation button within ±5 EV range in 1/3 EV steps

Auto exposure lock: Available by sliding the AE lock lever while the

meter is on

Auto exposure bracketing: 3 or 5 frames can be taken of the same subject

using a variety of exposures (with compensation degree of 0.3, 0.7 or 1 EV between each frame)

Shutter: Electromagnetically controlled vertical-travel focalplane shutter

Shutter release:

Electromagnetic type Shutter speeds:

Lithium niobate oscillator-controlled speeds from 1/2000 to 30 sec.; stepless in Programmed auto and Aperture-Priority auto exposure modes; one EV steps in Shutter-Priority auto and Manual exposure modes; Electromagnetically controlled long

exposure at B setting

Viewfinder: Fixed eyelevel pentaprism high-eyepoint type;

0.75X magnification with 50mm lens at infinity;

92% frame coverage

Eyepoint: Approx. 18mm

Eyepiece cover: Model DK-5 (provided) prevents stray light from

entering viewfinder

Focusing screen: Fixed Nikon Type K screen with central split-image

rangefinder circle, microprism collar and matte/Fresnel outer field; 12mm-dia. reference circie denotes Center-Weighted Metering area

Film speed range: ISO 25 to ISO 5000 for DX-coded film; ISO 6 to ISO 6400 for manual setting

Film speed setting: Auto for DX-coded films and manual setting

available

Self-timer: Electronically controlled; timer duration can be selected between 2 to 30 sec. in one sec. in-

crements; blinking LED indicates self-timer operation; two-shot self-timer is possible; can cancel at

any time

Reflex mirror: Automatic, instant-return type

Flash sync control: Normal sync, slow sync and rear-curtain sync

provided

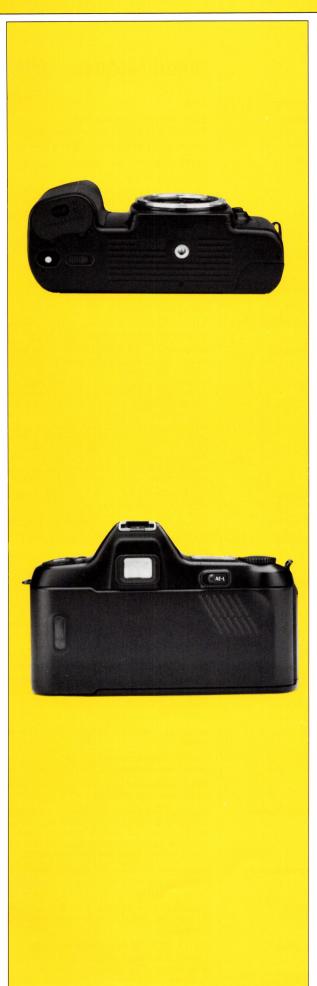
Flash synchronization: In Programmed auto or Aperture-Priority auto shutton operates 1/125 to 1/60 sec. (or 1/[focal length] in

use at lens focal length less than 60mm) in normal sync or 1/125 to 30 sec. in slow sync; in Shutter-Priority auto or Manual exposure mode, shutter fires at speed set, and when set from 1/250 to 1/2000 sec., shutter is automatically set to

Automatic balanced flash: Possible with Nikon-dedicated Speedlights such as

SB-24, SB-23, SB-22, SB-20, SB-18 and SB-16B





Manual flash light output compensation:

Flash ready-light:

Accessory shoe:

Film loading:

Viewfinder LED lights up when Nikon-dedicated Speedlight is ready to fire; blinks to alert poor camera/speedlight connection or insufficient light

Can be controlled from +1EV to -3EV in 1/3 step

for correct exposure

increments

Standard ISO-type hot-shoe contact; ready-light contact, TTL flash contact, monitor contact

Film automatically advances to first frame when shutter release button is depressed once

Film advance:

In S (Single-frame) shooting mode, film automatically advances one frame when shutter is released; in CH (Continuous High) or CL (Continuous Low) shooting mode, shots are taken as long as shutter release button is depressed; in CH mode, shooting speed is approx. 2.0fps, and in  $C_L$ , approx. 1.2fps

Number of film rolls per fresh battery\*:

With 36-exposure film rolls at 20°C (68°F) -

Approx. 140
With 24-exposure film rolls at 20°C (68°F) -

Approx. 210

With 36-exposure film rolls at -10°C (14°F) -

Approx. 80

With 24-exposure film rolls at -10°C (14°F) -

Approx. 120 \*At 1/125 sec. or faster shutter speed

Frame counter:

Additive type; counts back while film is rewinding

Film rewind: Automatically rewinds by sliding film rewind lever while while pressing film rewind button; approx. 25 sec. per 36-exp. roll or 17 sec. per 24-exposure film roll; stops automatically when film is rewound

Camera back:

Power source:

Hinged back; unchangeable

6V lithium battery pack (Duracell DL-223A/Panasonic CR-P2 or equivalent)

Checking battery power:

Battery power is sufficient if shutter speed and aperature indications appear on the LCD panel and viewfinder by turning camera on or by lightly pressing shutter release button, and remain on for approx. 16 sec. after finger is removed from the button; battery power is insufficient if these indications turn off immediately after finger is removed from the button; if LCD blinks and shutter does not operate, batteries are exhausted or improperly

Dimensions (WxHxD):

Weight:

154.5 x 96 x 65mm or 6.1 x 3.8 x 2.6 in.

Approx. 565g or 19.9 oz. (without battery pack)





#### Nikon N4004s

Product number:

Type of camera:

Picture format: Lens mount:

lenses.

Focus modes:

Autofocus detection:

AF detection range: Autofocus lock: Exposure metering:

Exposure control:

Exposure memory:

Film speed setting: Metering range:

Shutter:

Shutter control:

Film advance:

Frame counter:

Film rewind:

Self-timer:

Viewfinder:

Viewfinder information:

Focusing screen:

Flash hot shoe:

Built-in TTL flash:

1755

Electronically-controlled, autofocus single-lens-reflex camera with built-in motor drive and TTL flash unit

24mm x 36mm (standard 35mm format) Nikon F bayonet with autofocus contacts

More than 15 AF Nikkor lenses for all operation modes; more than 50 non autofocus Nikkor and Series E lenses (with limitation) usable

"A" mode for autofocus priority with shutter release possible after the green focusing LED lights up; "M" mode for manual focusing

TTL phase detection system using Nikon advanced AM200 autofocus module; system equipped with 200-segment CCD sensor unit

EV minus 1 to EV 17 (ISO 100)

Via shutter release button

TTL full aperture exposure measurement via segmented silicon photo-diode (SPD)

Multi-sensor metering provided in all auto control modes for automatic exposure correction under difficult lighting conditions; exposure modes selected via shutter and aperture dials at top of camera; in automatic dual-program exposure mode, shutter speed and aperture are set automatically taking into account the focal length of the lens; in shutter-priority mode, aperture is set automatically for pre-selected shutter speed; in aperture-priority mode, shutter speed is set automatically for pre-selected aperature; in manual mode, aperture and shutter speed are set manually and metering is via center-weighted method

Via front-mounted AE-lock control; center-weig' exposure measurement provided

ISO 25-5000 automatic setting via DX-coded films

EV 1 to EV 19 (ISO 100 and f/1.4 lens) Electromagnetically controlled, vertical-travel

focal-plane-shutter

Stepless, automatic settings between 1 sec. and 1/2000 sec. In program and aperture-priority automatic exposure control; 12 fixed shutter speed settings of from 1 sec to 1/2000 sec. via Lithium-Niobate oscillator for shutter-priority automatic and manual exposure operation

Automatic loading check system; film automatically advanced to frame "1" after shutter release is depressed once; film advance indicator provided on camera back

Additive-type with automatic reset to "S" when the camera back is opened

Motorized, automatic after depressing rewind button

Electronically-controlled, 10 sec. shutter release delay; visual display via LED at front of camera

Fixed pentaprism viewfinder with approximately 92% finder coverage provided

Green LED provides information on focusing via steady illumination when subject is correctly focused; red LEDs of "+," "0," "-" provide information on exposure (over, correct, under), as well as red "thunderbolt" mark for flash ready-light

Nikon new BriteView focusing screen; field features matte fresnel area with central reference circle and focusing brackets

Standard ISO-type shoe with supplemental contacts for operation with Nikon-dedicated TTL

speedlights

GN 12 (ISO 100 film and Meters) with angle of coverage sufficient for use with lenses to 35mm focal length; TTL automatic flash control via builtin sensor; operation integrated with standard triplesensor metering to enable proper exposure control even under difficult lighting conditions



Flash synchronization: 1/100 sec. for automatic modes; 1/100 sec. or

slower speeds (including B setting) with manual

Flash ready-light:

Flash "thunderbolt" LED visible as soon as the Nikon Speedlight is ready; blinks to indicate when flash is required or when light output of flash is

inadequate for correct exposure

AF-assist flash photography:

Possible with optional Nikon Speedlights SB-20, SB-22 and SB-23.

Power source:

Four 1.5V AA-type (penlight) batteries via battery chamber at base of camera

**Dimensions (HxWxD):** 154 x 102 x 65.5mm (6.0" x 4.0" x 2.6")

Weight:

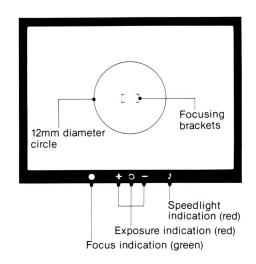
Approx. 650g (22.9 oz.), body only, without

batteries

Neck Straps AN-1/4B/4Y/6W/6Y Body Cap BF-1A Optional accessories:

Speedlights SB-20/22/23/24

## Nikon N4004s Viewfinder Information



Exposure	mode	Program auto	Shutter-priority auto	Aperture-priority auto	Manual						
● lights up		In focus									
Focus indicator LED	● blinks		Autofoc	us impossible							
	<ul><li>disappears</li></ul>	Re	cusing)								
Exposure indicator LEDs	Olights up		Corre	ct exposure							
	○ blinks	Camera shake warning	_	Camera shake warning	-						
	+ lights up		oosure	Under (~ −1EV)							
	- lights up		Under (~ −1EV)								
•	+- blink	Lens aperture not set to minimum									
	alternately										
	+○light up			Over (+1 $\sim$ +1/3EV)							
	○- light up			Under (-1/3 ~ -1E							
	4 blinks	Flash recommended (when built-in flash or external speedlight is OFF)									
		Beyond a	(over ISO 400)								
	(before shooting)	SB-19 is s	set to B or B (EM)	SB-19 is set to B or B (EM)							
Ready-light LED	4 disappears	Recharging (shutter does not lock with external speedlight)									
	4 lighta up		Re	charged							
	4 lights up	External spee	edlight not set to TTL	External speedligh	t not set to TTL						
	\$ blinks (after shot)										

Shutter is locked





#### Nikon N2000

Product number:

Type of camera: Electronically-controlled, single-lens-reflex camera

with built-in motor drive

Picture format: 24mm x 36mm (standard 35mm format)

Lens mount: Nikon F bayonet

Lenses: More than 70 Nikkor and Nikon Series

F lenses

Viewfinder: Fixed pentaprism viewfinder with approximately 92%

frame coverage

Viewfinder information: Via LEDs; shutter speed, warning of overexposure

or underexposure and recycling of flash provided

Focusing screen: Fixed Type K2 BriteView focusing screen with

central non-shading split-image rangefinder circle, microprism collar and matte/Fresnel outer field; 12mm diameter reference circle denotes

centerweighted metering area

Exposure metering: Thru-the-lens (TTL), center-weighted, full-aperture

exposure measurement via silicon photodiode (SPD)

Standard program, shutter speed and aperture are set automatically; high-speed program, shutter Exposure control:

speed and aperture are set automatically, particularly suitable for longer focal lengths; aperture-priority mode, shutter speed is set automatically for preselected aperture; manual mode, aperture and

shutter speed are set manually

Metering range: EV1 to EV19 (f/1.4 at 1 sec. to f/16 at 1/2000 sec.)

with 50mm f/1.4 lens and ISO 100 film

Exposure memory: Via front-mounted exposure-lock

+2EV to -2EV in one-third EV increments via Exposure compensation:

selector dial

Film speed setting: Automatically for DX-coded films (ISO 25-4000)

manually for films without DX code (ISO 12-3200)

Shutter: Electronically-controlled, vertical-travel, focal plane

shutter

Shutter speeds: Stepless, automatic speed setting between 1 sec

and 1/2000 sec on P, P<sub>HI</sub>, and A; 12 stepped, electronically-controlled fixed speeds from 1 sec. to 1/2000 sec, plus B (Bulb) in manual mode

Automatic loading check system; with simultaneous film advance to frame 1; Mode of operation, single-frame mode (S), Continuous-frame mode with 2.5 Film advance:

frames/sec. (C) and Locked mode (L)

Frame counter: Additive-type; automatically resets to S when the

camera back is opened

Film rewind: With rewind crank after rewind button is depressed

Sounds in the following cases: DX setting but no Audible warning alarm:

DX-coded film; DX contact dirty; over- or under-exposure and possible picture blur in autoexposure

modes; and at end of film roll

Electronically-controlled, 10 sec. delay; audible and Self-timer:

visual indication

Accessory shoe: Standard ISO hot shoe with additional contacts for

TTL metering and flash ready light for use with

N2000-dedicated speedlights



Flash synchronization:

 $1/125~{\rm sec}$  in auto modes;  $1/125~{\rm sec}$  and all slower speeds, including B, in manual mode

Flash ready-light:

Flash symbol visible as soon as the

N2000-dedicated Speedlight is ready; blinks when

light intensity is insufficient

Power source:

Four 1.5V AAA-type (penlight) batteries; with optional Battery Holder MB-3, four 1.5V AA-type batteries

can be used

Camera back:

Interchangeable with Multi-Data Back MF-19

Dimensions (WxHxD):

148.5 x 97.5 x 54.5mm (5.8" x 3.8" x 2.0")

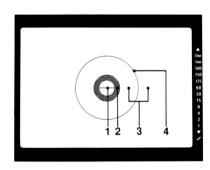
Weight:

Approximately 570g (20.0 oz.), body only

Optional accessories:

Body Cap BF-1A Battery Holder MB-3 (for AA-type batteries) Multi-Data Back MF-19 Remote Trigger Cord MC-12A Tripod Adapter AH-3 Speedlights SB-15/16B/18/20/21B/22

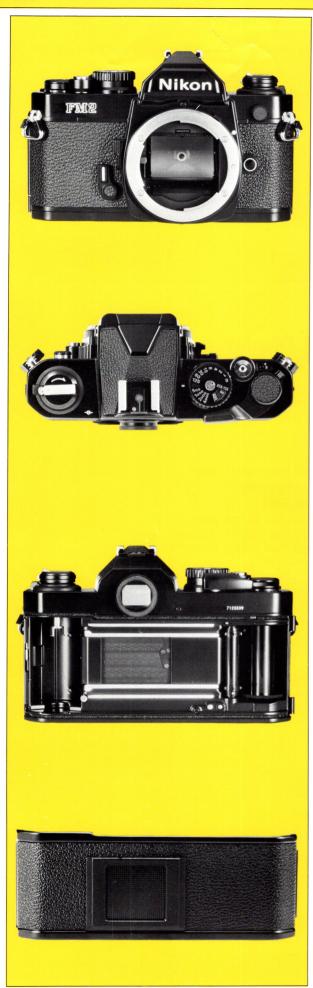
#### Nikon N2000 Viewfinder Display



- 1. Split-image rangefinder
- 2. Microprism color
- 3. Matte field
- 4. 12mm-dia. central area

Correct exposure is assured when main subject is placed in this area.

Type of camera:



#### Nikon FM2

1683 (chrome) 1684 (black) Product number:

Mechanically-controlled, single-lens-reflex camera

Picture format: 24mm x 36mm (standard 35mm format)

Lens mount: Nikon F bayonet

Lenses: More than 70 Nikkor and Nikon Series E lenses

Shutter: Mechanically-controlled, vertical-travel, metal focal

plane shutter

Shutter release: Mechanical shutter release with ISO screw socket

for cable release AR-3; shutter release button locked when film advance lever is flush with

camera body

Mechanically governed speeds of 1 sec. to 1/4000 sec., plus B (Bulb) Shutter speeds:

Film advance lever: Single-stroke type; 30° stand-off angle and 135°

winding angle

Self-timer: Mechanical type; 10 sec. exposure delay

Viewfinder: Fixed pentaprism viewfinder with approx. 93%

frame coverage

Shutter speed, f-number in use via aperture-direct-readout scale on lens and 3 LEDs  $(+,\ 0,\ -)$  for Viewfinder display:

exposure setting in 5 steps

Focusing screen: Standard Type K2 with split-image rangefinder spot and microprism ring; full matte screen B2 and full

matte screen with grid E2 as optional accessories

Mirror: Rapid-return mirror with special control and braking

to reduce vibrations and operating noise; depth-offield preview lever provided at front of camera

Electrical contact and mechanical coupling for Motor drive coupling:

optional MD-12 Motor Drive

Provided; couples with frame counter to stop count Multiple exposure lever:

when multi-exposure being executed

Frame counter: Additive-type, with automatic resetting to S when

the camera back is opened

Film rewind: Via film rewind crank after rewind button is

depressed

Standard ISO-type; contact for ready light provided Accessory shoe:

Flash sync: X synchronization up to 1/250 sec.; ISO-type hot

shoe contact; separate PC-type flash connector with screw thread for connection to flash units

mounted off-camera

Flash ready-light: LED in viewfinder lights up when Nikon

FM2-dedicated speedlight is fully charged

Exposure metering system: Thru-the-Lens (TTL), center-weighted full aperture

metering with two silicon photodiodes (SPD)



Metering range:

EV1 to EV18 (1 sec. at f/1.4 to 1/4000 sec. at f/8)

with 50mm f/1.4 lens and ISO 100 film

Film speed range:

ISO 12 to 6400

ower source:

One 3V lithium battery or two 1.5V silver-oxide

(button-cell) batteries

Exposure meter switch:

Pressing the shutter release button switches meter on; meter is automatically switched off about 30 seconds after the shutter release button is released

Battery power check:

LED in viewfinder lights up to indicate sufficient power when the shutter release button is pressed Camera back:

Dimensions (WxHxD):

**Optional Accessories:** 

Pops open when the film rewind knob is pulled up; can be removed to insert MF-16 Data Back; memo

holder provided

142.5 x 90 x 60mm (5.6" x 3.5" x 2.4")

Weiaht:

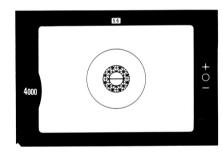
Approx. 540g (19 oz.), body only

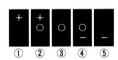
Focusing Screen Type B2/E2 Motor Drive MD-12

Data Back MF-16 Body Cap BF-1A

Speedlights SB-15/16B/18/20/21B/22

## **Nikon FM2 Viewfinder Display**





Exposure information

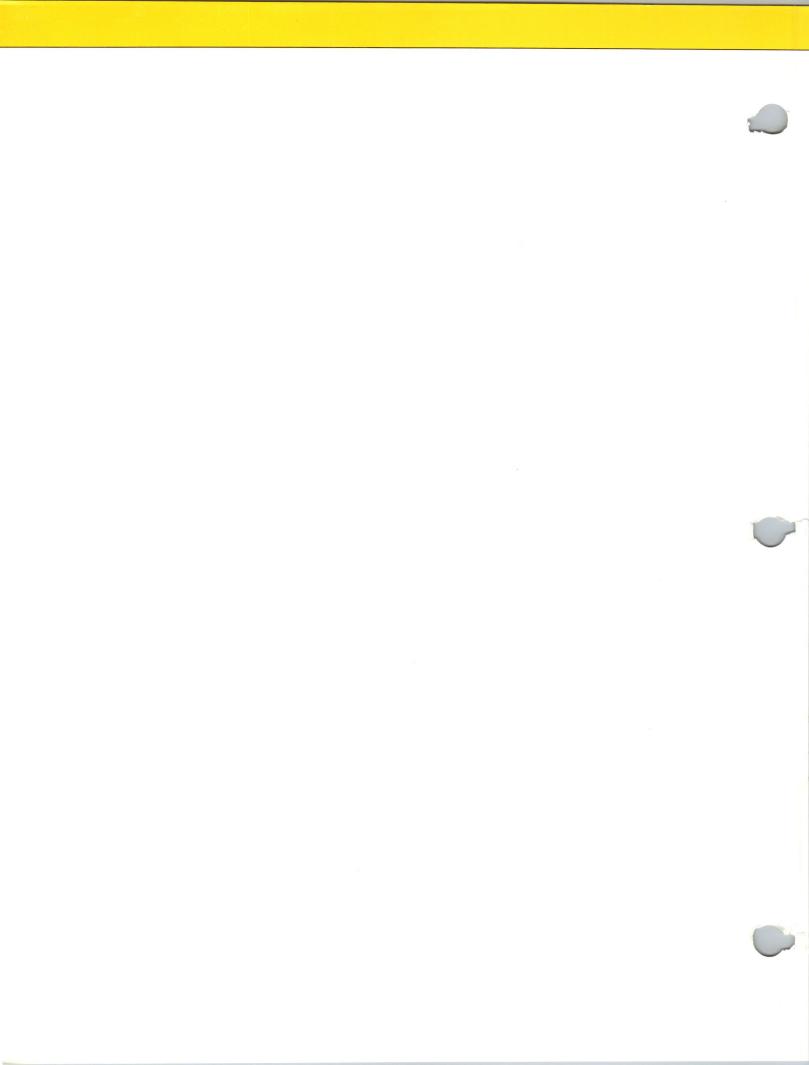
• Overexposed by more than 1 stop

② Overexposed by 1/5 to 1 stop

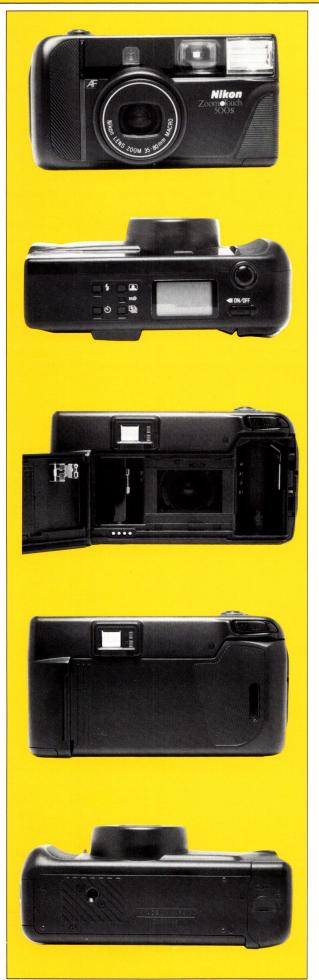
**3** Correct exposure

4 Underexposed by 1/5 to

O Underexposed by more than 1 stop









Product number:

Type of camera: 35mm compact camera with Nikon zoom 35mm-80mm lens; features include autofocus, auto exposure,

auto flash, auto flash exposure, auto shutter lock auto film loading, auto film speed setting, auto film advance, auto film rewind, auto film rewind stop

and auto ready lens cover.

Picture format: 24mm x 36mm (standard 35mm format)

35mm f/3.5-80mm f/7.8, 9 elements in 7 groups

Lens cover: Opens or closes automatically with power switch

Shooting distance: 0.71m (approx. 2.3 ft.)-infinity

Automatically set to ISO 64, 100, 200, 400, 1000, Film speed setting:

1600 with DX-coded film; non DX-coded films are automatically set to ISO 100

Shutter: Programmed electronic shutter; also serves as

diaphragm blades

Viewfinder: Reverse Galilean Albada-type bright-frame

viewfinder: 0.44X-0.9X magnification automatically selected and set by motor; frame coverage is 80%

Eyesight adjustment: -1/+0.5 diopter selectable

Zoom operation: Single-frame shooting, with or without zoom; con-

tinuous shooting without zoom; continuous zoom shooting (automatic consecutive shooting in three steps); step zoom shooting (selectable 5-step zooming); image size selection for full-body, half-

body or head and shoulders

Focusing: Active infrared autofocus system (0.71m [approx. 2.3 ft.]- ); lightly pressing shutter release button

locks focus

EV 4 - EV 16 at 35mm setting EV 6.2 - EV 16 at Auto-exposure range:

80mm setting (at ISO 100)

Film loading: Film automatically advances to first frame when

camera back is closed

Film advance: Automatic, at approx. 0.6 sec.\* per frame

Film advance speed in

continuous shooting:

Approx. 0.8\* frames per sec. Film rewinding:

Automatic rewinding when end of roll is reached; approx. 17 sec.\* per 24-exposure roll; stops

automatically when film is rewound; mid-roll rewind

Additive type; automatically resets when camera Frame counter:

back is opened; counts back while film is

rewinding

Self-timer: Activated by depressing self-timer button and shut-

ter release button; locks focus and exposure; 10-sec. delay with indicator lamp; two-shot selftimer and timer interval control (from 5 to 30 sec.)

possible; cancellable

Built-in flash: Fires at user selection or automatically if existing light is insufficient for normal shooting; ready-light;

shutter lock if flash is not charged; recycling time approx. 3 sec.\*; flash guide number (ISO 100) of GN41(ft.) or GN12.5(meters) at 35mm setting, to GN46(ft.) or GN14(meters) at 80mm setting

LCD panel:

Film counter; battery power indicator; continuous shooting indicator; flash mode indicator; self-timer indicator; continuous zoom indicator; step zoom indicator; image size indicator; exposure compensa-

tion indicator; focal length scale

Battery life: Approx. 30\* rolls of 24-exposure film w/50% flash

Power source: Lithium battery pack (Duracell DL223A 6V or

Panasonic CR-P2 6V)

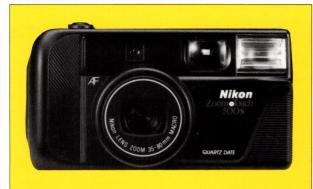
Dimensions (WxHxD): Approx. 136.8mm x 73mm x 57.8mm

Approx. 5.4 x 2.9 x 2.3 in.

Weight: Approx. 370g; Approx 13 oz (without battery)

\*With fresh battery pack at standard room temperature (20°C [68°F])







#### Nikon Zoom-Touch 500s **Quartz Date**

Product number:

Type of camera:

Special version of Nikon Zoom-Touch 500s equipped with date back capable of imprinting date or time on film during exposure

Year/Month/Day, Day/Month/Year, Month/Day/Year, Day/Hour/Minute or no imprint, as selected: 24-hr. built-in clock with timing accuracy to within ±90 sec. a month at normal temperatures

Power source:

Dimensions (WxHxD):

Data imprint functions:

One lithium (CR2025) battery

Approx. 136.8 x 73 x 61.3mm Approx. 5.4 x 2.9 x 2.4 in.

Weight:

Approx 380g; Approx. 13.4 oz. (without batteries)

\*With fresh battery pack at standard room temperature (20°C [68°F])













#### Nikon Zoom-Touch 500



Product number:

1820

Type of camera:

35mm autofocus, compact camera with Nikon 35-80mm Zoom lens plus Advanced Smart

Flash operation

Picture format:

24mm x 36mm (standard 35mm format)

Lens:

Nikon 35-80mm f/3.5-7.8 zoom lens with macro range; 9 elements in 7 groups; cover built into front of lens; cover opens and closes automatically with camera ON/OFF switch

Shutter:

Programmed, electronic in-lens shutter; shutter also

serves as lens diaphragm blades

Viewfinder:

Reverse-Galilean, Albada-type viewfinder; 0.44X to 0.9X finder magnification across 35-80mm lens zoom range; approx. 80% frame coverage (infinity

focus); -1 diopter

Viewfinder Information:

Picture, autofocus and parallax compensation frame marks via bright-line display; two LEDs provided for "correct focus" (green) and flash "ready-light" (red)

indication at viewfinder

Focusina:

Active, infrared autofocus system; range of 2.3 ft. (0.71m) to infinity; focus lock built into camera shutter

release button

Auto exposure range:

Programmed automatic exposure control; EV 4 to EV 16 at 35mm setting (ISO 100); EV 6.2 to EV 16 at 80mm setting (ISO 100)

Film speed selection:

Automatically set to ISO 64, 100, 200, 400, 1000, or 1600 via DX-code; automatically set to ISO 100 for cartridges with no DX coding

Film loading:

Automatic motorized film loading with auto advance

to first frame when back is closed

Film advance:

Automatic motorized film advance after each frame; up to approx. 1.7 frames per second firing rate in

continuous firing mode

Film rewind:

Automatic motorized rewind when end of film is reached; approx. 18 sec. per 24-expsoure roll; auto film stop when end of roll is reached; mid-roll

rewind button provided

Film counter:

Additive-type via LDC panel; automatically resets when camera back is opened; counts in reverse as

film rewinds

Self timer:

Selected via button and started with shutter release: ten second release delay as standard; delay variable from 5 to 30 sec. in 1 sec. increments; LED indicator flashes count-down; two-shot self timer function provided; focus/exposure lock during

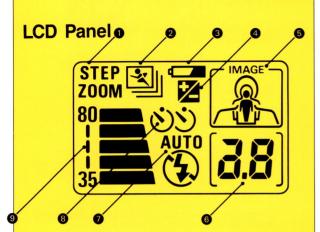
timer operation

Built-In electronic flash:

Equipped with Advanced Smart Flash; fires auto-Equipped with Advanced Smart Flash; tres automatically if existing light is insufficient for normal shooting or if subject is backlit; flash ready-light visible at viewfinder; flash zooms with lens focal length changes; auto shutter lock during charging; power rating is approx. GN 41 to 46 (in feet, ISO 100) across the 35mm to 80mm zoom range; flash concline time approx. recýcling time approx. 3 sec.



#### Zoom-Touch 500



- 1 Zoom mode indicator
- 2 Continuous shooting indicator
- 3 Battery power indicator
- 4 Exposure compensation indicator
- 5 Image size indicator
- 6 Film counter/Exposure compensation value/Self-timer interval
- Flash indicator
- 8 Self-timer indicator
- 9 Focal length scale

LCD panel:

Display provided for film counter, battery power indicator, continuous shooting indicator, flash mode indicator, self-timer indicator, sequence zoom and step zoom shooting indicators, image size indicator, exposure compensation indicator and focal length

scale

Power source:

One 6V lithium power pack (DL223A)

Battery performance:

Approx. 30 rolls of 24-exposure film with 50% flash

operation

Dimensions (WxHxD):

136.8 x 73 x 57.8mm (5.4 x 2.9 x 2.3 in.)

Weight:

Approx. 360g (12.7 oz.), without battery

## Nikon Zoom-Touch 500

**Quartz Date** 

Product number:

1821

Type of camera:

Special version of Nikon Zoom-Touch 500 equipped with date back capable of imprinting date or time

on film during exposure

Data imprint functions:

"M/D/Y" (month/day/year) or "Hr./-/Min."

(hour/[blank]/minute) via MODE selector, cancellable;

imprint via LED

Data back power source:

One 3V lithium battery (provided)

Dimensions (WxHxD):

Weight:

136.8 x 73 x 61.3mm (5.4 x 2.9 x 2.4 in.)

Approx. 370 g (13 oz.), without batteries





#### Nikon Zoom-Touch 400

Product number:

Picture format:

Shooting distance:

Film speed setting:

Lens cover:

Lens:

Shutter:

Viewfinder:

Focusing:

Focus lock:

Weight (without battery):

Type of camera:

f/4-70mm f/7.6 lens

24mm x 36mm (standard 35mm format)

35mm f/4-70mm f/7.6; 6 elements in 5 groups

Opens/closes automatically with power switch ON/OFF

1822

0.65m (approx. 2.1 ft.)-infinity; 1m (approx. 3.3 ft.)-

35mm compact camera with Nikon Zoom 35mm

infinity in Flash-Cancel mode

DX-coded film automatically set to ISO 64, 100,

200, 400, 1000 or 1600

Programmed electronic shutter; also serves as

diaphragm blades

Real-image viewfinder; 0.45X-0.83X magnification automatically selected and set by motor; finder

coverage (at approx. 9 ft.) approx. 83%

Three focus modes provided - Carefree Autofocus, Spot Autofocus and Infinity Focus:

Carefree Autofocus detects camera-to-subject distance by measuring three positions instan-

taneously via three infrared beams;

Spot Autofocus detects focus in central focus frames;

Infinity Focus locks focus at infinity

Focus is locked as long as shutter release button is lightly pressed in Carefree Autofocus or Spot

Autofocus

Zoom control: Via pressing zoom button; W side for zoom out or

T side for zoom in

EV 4-EV 16 at 35mm setting or EV 5.9-EV 16 at Auto exposure range:

70mm setting (ISO 100)

f/4-f/22 at 35mm setting or f/7.6-f/43.3 at 70mm Controlled aperature:

settina

Film operation: Fully automatic loading, advance and rewind; film advances by one frame after each shot; mid-roll

rewind via button provided; auto rewind at end of film roll; temporary interruption of film rewind

possible

Frame counter: Additive type; counts back during film rewind

Self-timer: Set by focus mode/self-timer button and activated by depressing shutter release button; one-shot or

two-shot operation selectable; cancellable

Built-in flash: Four modes provided - Auto Flash, Flash-Cancel,

Anytime Flash and Auto Flash with red-eye

reduction

LCD panel: Shows frame counter, AF mode indicator, Infinity Focus indicator, flash mode indicator, insufficient

battery power indicator

Battery life: Approx. 30 rolls of 24-exposure film or 20 rolls of 36-exposure film with 50% flash.

Lithium battery pack (Duracell DL223A 6V or Panasonic CR-P2 6V) Power source:

Dimensions (WxHxD): Approx. 5.6 x 2.9 x 2.0 in. (143.2 x 73.2 x 52.0mm)

Approx. 12.7 oz. (360g)





#### Nikon Zoom-Touch 400 **Quartz Date**

Product number:

Type of camera:

Data imprint functions:

Data back power source: Dimensions (WxHxD):

Weight (without battery):

Special version of Nikon Zoom-Touch 400 equipped with date back capable of imprinting date or time on film during exposure

M/D/Y, D/M/Y, Y/M/D, D/H/M, no imprint is selectable; 24-hour built-in clock with timing accuracy within ±90 seconds a month at normal temperatures

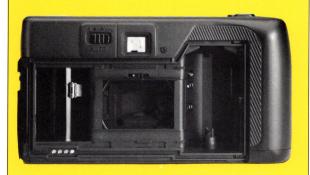
One 3V lithium (CR2025) battery

Approx. 5.6 x 2.9 x 2.1 in. (143.2 x 73.2 x 54.4mm) Approx. 13.1 oz. (370g)











#### Nikon Tele-Touch 300



Product number:

Type of camera:

35mm autofocus, compact camera with Nikon wide-angle, telephoto and macro function, plus

red-eye reduction control

Picture format:

Lens cover:

Lens:

24mm x 36mm (standard 35mm format) Wide: Nikon 35mm f/3.8; 3 elements in 3 groups

Tele: Nikon 55mm f/5.7; 5 elements in 5 groups

Camera equipped with sliding lens cover panel; opening cover turns camera ON, with lens extend-

ing to 35mm focal length position; closing panel

retracts lens and turns camera OFF

Shutter:

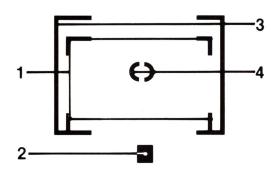
Programmed, electronic in-lens shutter; shutter also serves as lens diaphragm blades

Viewfinder: Reverse-Galilean, Albada-type viewfinder; 0.4X

finder magnification at 35mm lens setting; 0.6X finder magnification at 55m lens setting; approx. 85% frame coverage (infinity focus) at both lens

settings; -1 diopter

#### Tele-Touch 300 Viewfinder Information



1. Parallax compensation marks

2. Flash ready-light LED

Picture frame marks

4. Autofocus frame marks

Viewfinder information:

Picture, autofocus and parallax compensation frame marks via bright-line display; red flash "ready-light" LED indication at viewfinder

Active, infrared autofocus system; range of 1.5 ft. (0.68m) to infinity (1.9 ft., or 0.59m, to infinity at Tele); focus lock built into camera shutter release

Auto exposure range:

Programmed automatic exposure control; EV 6 to EV 16 at 35mm setting (ISO 100); EV 7.25 to EV 16 at 55mm setting (ISO 100)

Automatically set to ISO 100, 200, 400 or 1000 via

DX-code; automatically set to ISO 100 for

cartridges with no DX coding

Automatic motorized film loading with auto

advance to first frame when back is closed Automatic motorized film advance after each

frame; film advance indicator rotates to show film

is properly loaded and being advanced

Automatic motorized rewind when end of film is reached; approx. 18 sec. per 24-exposure roll; auto film stop when end of roll is reached; mid-roll

rewind button provided



#### Nikon Tele-Touch 300 Quartz Date



Film counter:

Additive-type; automatically resets when camera back is opened; counts in reverse as film rewinds

Self timer:

Selected via self-timer button and started with shutter release; ten second release delay with LED indicator flashes count-down; two-shot self timer function provided; focus/exposure lock during

timer operation

Electronic flash:

Equipped with Advanced Smart-Flash; fires automatically if existing light is insufficient for normal shooting or if subject is backlit; flash ready-light visible at viewfinder; flash adjusts to lens focal length changes; equipped with Nikon exclusive red-eye reduction system; auto shutter lock during charging; power rating of approx. GN 8.5 (in meters, ISO 100); flash recycling time approx.

3 sec.

Power source:

Weight:

One 6V lithium power pack (DL223A)

Battery performance:

Approx. 25 rolls of 24-exposure film with 50% flash

operation

Dimensions (W x H x D):

136 x 72.6 x 42.8mm (5.4 x 2.9 x 1.7 in.)

Approx. 290g (10.2 oz.), without battery

#### Nikon Tele-Touch 300 **Quartz Date**



Product number:

Type of camera:

Special version of Nikon Tele-Touch 300 equipped with data back capable of imprinting date or time

on film during exposure

Data imprint functions:

"M/D/Y" (month/day/year) or "Hr./--/Min." (hour/[blank]/minute) via MODE selector, cancellable; imprint via LED

Data back power source:

One 3V lithium battery (provided)

Dimensions (W x H x D):

Weight:

136 x 72.6 x 47.3mm (5.4 x 2.9 x 1.9 in.)

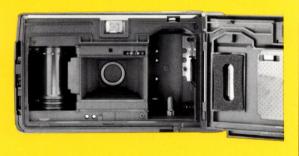
Approx 305g (10.8 oz.), without batteries

Self-timer:













#### Nikon One-Touch 200



Product number: 1850

Type of camera: 35mm compact camera with autofocus, auto-

exposure, auto-flash, auto-flash exposure, autoshutter lock, auto-film loading, auto-film speed set-ting, auto-film advance, auto-film rewind, auto-film

rewind stop and auto-ready lens cover

Picture format: 24mm x 36mm (standard 35mm format)

Nikon lens 35mm f/3.5; three elements in three Lens:

aroups

Lens cover: Opens by turning on main switch

Film speed setting: Automatic; ISO 100, 200, 400, 1000 for DX-coded film; all non-DX-coded films are automatically set

Shutter: Programmed electronic shutter; also serves as

diaphragm blade

Viewfinder:

Reverse Galilean Albada-type bright-frame viewfinder; 0.37X magnification; approx. 85% frame

coverage (at infinite focus); -0.8 diopter

Viewfinder information: Picture frame marks, parallax compensation frame marks, autofocus frame marks, flash ready-light

LED, flash recycling LED, battery check LED, in-

focus LED (red)

Shutter release/ Blinks when shutter release button is lightly pressed; self-timer LED:

lights up when self-timer starts working, blinks 3

sec. before shutter is released

Active autofocus system (0.65m [approx. 2.1 ft.] -Focusing:

∞); lightly pressing shutter release button locks focus

Focus Memory: Lightly pressing shutter release button while depressing the focus memory button locks focus

for approx. 30 sec.; cancellable

Exposure metering: Uses CdS sensor; programmed auto-exposure control from EV6.5 to EV16 with ISO 100 film

Film loading: Closing the camera back automatically advances film to frame #1; film advance indicator rotates to

show film is properly loaded and being advanced

Film advance: Film automatically advances one frame at a speed

of approx. 1 frame per sec.\* when shutter is

released

Film rewinding: Automatic rewind at the end of the film roll: stops

automatically when film is rewound; mid-roll rewind

Frame counter: Resets automatically when camera back is

opened; counts in reverse as film is rewinding

Activated by pressing self-timer button; locks focus; 10-second delay with indicator LED; two-shot self-

timer possible w/o flash; cancellable

Built-in flash: Four modes provided—Auto-Flash, Flash Cancel,

Anytime Flash and Auto-Flash with red-eye reduction; flash guide number of GN9 (ISO 100 and meters), GN30 (ISO 100 and ft); ready-light; shutter locks if flash is not charged; recycling time approx.

5 sec.

Auto-flash shooting range:

ISO 100 0.65-3.5m (approx. 2.1-11.5 ft.) ISO 200 0.65-5m (approx. 2.1-16.4 ft.) ISO 400, 1000 0.65-7.5m (approx. 2.1-24.6 ft.)

Battery life: Approx. 24 rolls\* of 24-exposure film w/50% flash

Power source: Two 1.5V AA-type alkaline manganese batteries

(LR-6)

Dimensions (W x H x D): Approx. 124 x 68 x 50mm

Approx 4.9 x 2.7 x 2.0 in.

Weight: Approx. 200g (without batteries)

Approx. 7.1 oz (without batteries)

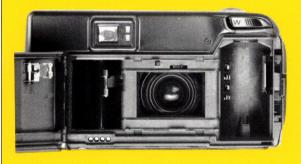
\*With fresh batteries at normal room temperature (20°C [68°F]). Specifications and design are subject to change without notice.

Shutter:













#### Nikon One-Touch 100

1808 Product number:

Type of camera: 35mm autofocus, compact camera Picture format: 24mm x 36mm (standard 35mm format)

Nikon 35mm f/3.5; 4 elements in 3 groups; lens l ens: cover built into camera body; sliding Open/Close lever also serves as camera ON/OFF switch

Programmed, electronic in-lens shutter; shutter also

serves as lens diaphragm blades

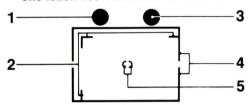
Reverse-Galilean, Albada-type viewfinder; 0.46 finder magnification approx. 83% frame coverage (infinity Viewfinder:

focus); -1 diopter

Viewfinder Information:

Picture, autofocus and parallax compensation frame marks via bright-line display; two LEDs provided for "correct focus" (green) and flash "ready-light" (red) indication at viewfinder

#### **One-Touch 100 Viewfinder Information**



1. Picture frame marks

2. Parallax compensation marks For close-up shooting at a distance of 0.65 to 1m

3. Flash ready-light LED (red)

Autofocus frame marks

Focus/focus memory indicator LED (green)

Focusing: Active, infrared autofocus system; range of 2.1 ft. (0.65m) to infinity; focus lock built into camera

shutter release button

Focus memory: Selected via button in tandem with operation of shutter release; focus setting locked for approx. 30

sec.; operation cancellable

Programmed automatic exposure control via CdS sensor; EV 9 to EV 16 (ISO 100) Auto exposure range:

Automatically set to ISO 64, 100, 200, 400, or 1000 Film speed selection:

via DX-code; automatically set to ISO 100 for

cartridges with no DX coding

Automatic motorized film loading with auto advance Film loading:

to first frame when back is closed and shutter

release button is pressed once

Film advance: Automatic motorized film advance after each frame

Film rewind: Automatic motorized rewind when end of film is reached; approx. 20 sec. per 24-exposure roll; auto

film stop when end of roll is reached; mid-roll

rewind button provided

Film counter: Additive-type; automatically resets when camera back is opened; counts in reverse as film rewinds

Select via button and started with shutter release;

Self timer ten second release delay as standard; LED indicator flashes count-down; two-shot self timer

function provided; focus and exposure locked during

timer operation; operation cancellable

Built-In electronic flash: Flash fires automatically if existing light is insufficient

for normal shooting; flash ready-light visible at viewfinder; auto shutter; lock during charging; power rating of approx. GN 30 (in feet, ISO 100); flash operation range of 0.65-3.5m (2.1-11.5 ft.). ISO 100; flash recycling time approx 3.5 sec.

Power source: Two 1.5V AA-type (penlight) batteries or one 3V

lithium power pack (DL123A)

Battery performance: Approx. 24 rolls of 24-exposure film with 50% flash

operation using AA-type batteries or 30 rolls of 24 exposure film with 50% flash operation using

lithium power pack

Dimensions (WxHxD):

Weight:

133 x 71.3 x 48.7mm (5.2 x 2.8 x 1.9 in.) Approx. 250g (8.8 oz.), without batteries

Camera case: Nikon Soft Camera Case (P/N 690), optional

25













#### Nikon Tele-Touch Deluxe



Product number:

Lens cover:

Type of camera: Autofocus compact camera with wide-angle, telephoto and macro function, plus Advanced Smart Flash

Picture format: 24mm x 36mm (standard 35mm format)

Wide-Nikon 35mm f/3.5; 4 elements in 3 groups Lens: Tele-Nikon 70mm f/6.8; 8 elements in 6 groups

Opens or closes automatically with the power

Filter: Built-in soft-effect filter; 1 element in 1 group

0.69m to infinity Shooting distance: (2.3 ft. to infinity)

Automatically set to ISO 64, 100, 200, 400, 1000, 1600 for DX-coded film; Non-DX-coded films are Film speed setting:

automatically set at ISO 100

Programmed electronic shutter; also serves as Shutter:

diaphragm blades

Viewfinder: Reverse-Galilean Albada-type bright-frame

viewfinder; 0.42x (at W) or 0.79x (at T) magnification automatically selected and set by motor; approx. 85% (W) or 86.5% (T) frame coverage; - 1 diopter

Viewfinder information: Picture frame marks, autofocus frame marks, parallax compensation frame marks, focus indicator

LED (green), flash ready-light indicator LED (red)

Active autofocus system; lightly pressing shutter Focusina: release button locks focus

Exposure metering:

Programmed auto exposure control (ISO 100): EV6 to EV16 on "W" EV7.9 to EV16 on "T"

Film automatically advances to first frame when Film loading:

camera back is closed

Film advance: Automatic, at 0.7 second per frame in continuous

shooting mode

Automatic rewinding when end of film roll is reached; approx. 18 sec. per 24-exposure roll; stops Film rewinding:

automatically when film is rewound; mid-roll rewind

button provided

Frame counter: Additive type; automatically resets when camera

back is opened; counts back while film is rewinding

Self timer: Activated by self-timer/continuous shooting button and by depressing shutter release button; locks

focus and exposure; 10-second delay with indicator lamp; two-shot self-timer possible; cancellable

Fire automatically if existing light is insufficient for normal shooting; ready-light; shutter locks if flash is **Built-in flash:** 

not charged; recycling time approx. 1.8 sec.

LCD panel: Film counter, battery power indicator, continuous

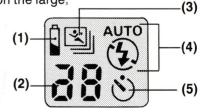
shooting indicator, flash mode indicator and self-

timer indicator appear on LCD panel

#### **Tele-Touch Deluxe LCD Information Panel**

 Essential information displayed on the large, easy-to-read LCD panel are:

- (1) Battery status
- (2) Picture frame number
- (3) Continuous shooting
- (4) Advanced Smart Flash mode
- (5) Self-timer (one-shot, two-shots)



## Nikon Tele-Touch Deluxe Quartz Date



Battery life: Power source: Approx. 25 rolls\* of 24-exposure film w/50% flash

Lithium battery pack (Duracell DL223A 6V or Panasonic BR-P2)

Dimensions:

Camera case:

136mm x 72mm x 46.6mm (5.4" x 2.8" x 1.8")

Weight:

Approx. 310g (10.9 oz.) without batteries

Pouch Case for Tele-Touch Deluxe/One Touch

Fun-Touch (optional)

\*With fresh battery pack at normal temperature (68°F/20°C).

## Nikon Tele-Touch Deluxe **Quartz Date**



(Not Pictured)

Product number:

Type of camera:

Special version of Nikon Tele-Touch Deluxe equipped with date back capable of imprinting date or time on film during exposure

Data imprint functions:

"M/D/Y" (month/day/year) or "Hr./--/Min." (hour/ [blank] /minute) via MODE selector, cancellable; imprint via LED

Data back power source:

Dimensions (WxHxD):

Weight:

One 3V lithium battery (provided)

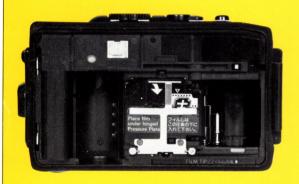
136.8 x 72 x 49.8mm (5.3 x 2.8 x 1.9 in.) Approx. 290 g (10 oz.), without batteries



#### Nikon Action-Touch











#### Nikon Action-Touch

Product number:

1840

Type of camera:

All weather, autofocus, compact camera.

watertight to a depth of 10 ft.

Picture format:

Lens:

24mm x 36mm (standard 35mm format) Nikon 35mm f/2.8 lens, 4 elements in 3 groups

Shutter: Viewfinder:

Programmed, electronic in-lens shutter

Field of view:

Bright-frame viewfinder; 0.5x magnification Approximately 85% frame coverage at infinity

Viewfinder information:

Bright frame with parallax compensation marks. autofocus frame marks, focus symbols and focus indicator needle; M for manual focusing; LED warning of insufficient light and "too-near-subject" warning also provided

#### **Action Touch** Viewfinder Display

1) Auto flash-prompter

2) Picture frame marks

3) Parallax compensation marks

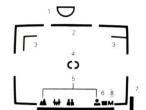
4) Autofocus frames

Focus symbols

6) Too-near-subject warning

Focus indicator needle

8) Manual focus mark



Focusing:

Infrared, active autofocus system; 0.7m (2.2 ft) to

infinity; four-step manual focusing via stepped

Focus memory:

By pressing the shutter release button

Exposure metering:

Lens-mounted CdS cell coupled to programmed,

automatic exposure system

Metering range:

EV6 to EV17 (f/2.8 at 1/8 sec. to f/17.5 at 1/430 sec.) with ISO 100 film

Film speed setting:

Automatically for DX-coded films; set to ISO 100

for non-DX film

Film speed range:

ISO 50 to 1600

Film loading/advance:

Auto film loading with film automatically advanced to first frame

Frame counter:

Additive type; resets when the camera back is

opened

Film rewind:

Automatic after pressing rewind lever at base of camera; film rewind stop automatic as film leader

leaves sprocket

Electronic flash:

Switched on by turning flash lever; LED flash prompt provided; shutter release button is

blocked until flash fully charged and ready to fire

Flash range:

0.7m to 3.6m (2.3ft to 10.8ft), ISO 100 film

Electronic with 10 sec. exposure delay and

Self-timer:

audible signal

Battery capacity:

Approximately 100 rolls of 24-exposure film without flash; approximately 10 rolls of

24-exposure film with flash

Power source:

Two 1.5V AA-type (penlight) alkaline-manganese

batteries (NiCd batteries not suitable)

Dimensions (WxHxD):

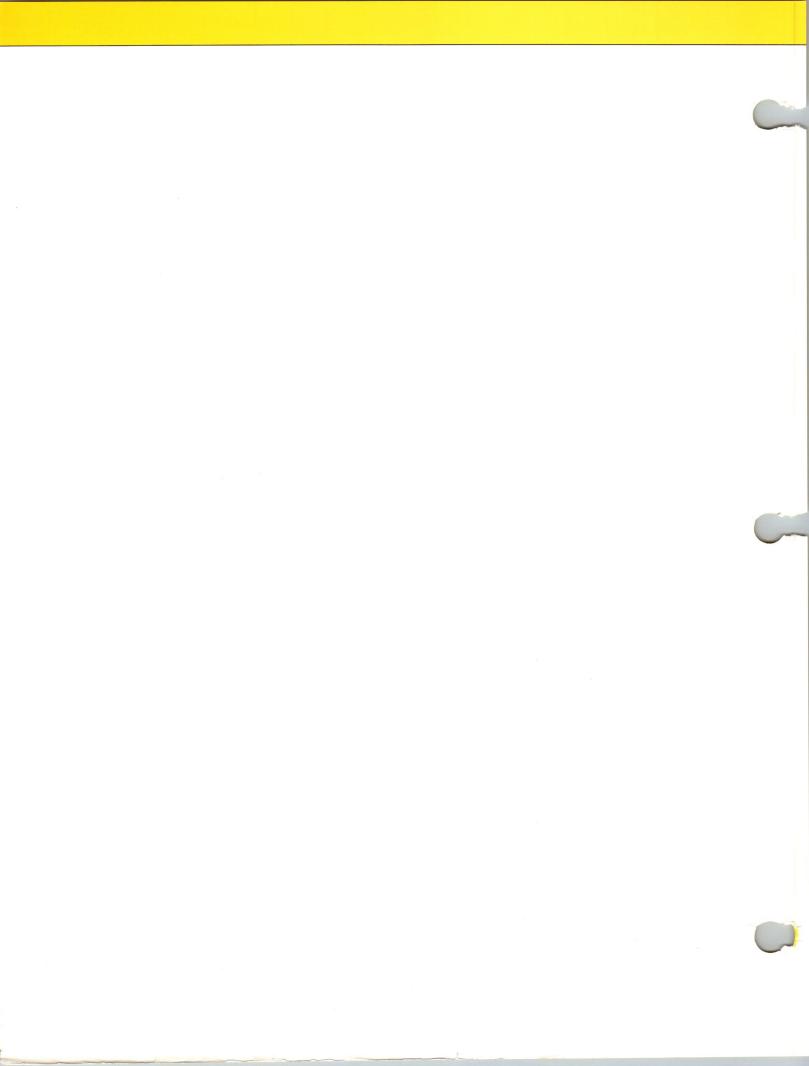
134 x 81 x 48mm (5.2" x 3.2" x 1.9")

Camera cases:

CS-L35AW Semi-Soft Camera Case and

Pouch Case with Strap for Action-Touch (optional)

# Nikkor Lenses for 35mm SLR Cameras



#### Nikkor Al Lens Table



#### Nikkor Al Lens Table

			_											
Description	Optical Construction	Picture Angle	Mini- mum f-stop	Closest Focusing Distance	Filter Size	Lens Hood	Lens Case	Weight (grams)	Dimensions (mm)**	TC 16A	TC 14A	TC 14B	TC 201	TC 301
Fisheye (NAS)														
6mm f/2.8 Fisheye Nikkor	12-9	220°	f/22	0.25m (0.9 ft)	5 filters Built-in	_	Trunk Case	5200	236×160 (171)	0	0	X	0	X
8mm f/2.8 Fisheye Nikkor	10-8	180°	f/22	0.3m (1ft)	5-filters Built-in	_	CL-11	1100	123x128 (139)	0	0	X	0	Х
16mm f/2.8 Fisheye Nikkor	8-5	180°	f/22	0.3m (1ft)	4 special filters supid=	Built-in	CL-30S. No. 61	330	63×55.5 (66)	0	0	X	0	X
Wide Angle (NAS)														
13mm f/5.6 Nikkor	16-12	118°	f/22	0.3m (1 ft)	4 special filters supid†	Built-in	CL-14	1200	115x88.5 (99)	X	0	X	0	×
15mm f/3.5 Nikkor	14-11	110°	f/22	0.3m (1ft)	4 special filters sup dr	Built-in	CL-17	630	90×83.5 (94)	X	0	X	0	X
18mm f/3.5 Nikkor	11-10	100°	f/22	0.25m (0.9 ft)	72mm	HK-9	CL-37	350	75x61.5 (72.5)	X	0	X	0	X
20mm f/2.8 Nikkor	12-9	94°	f/22	0.25m (0.9 ft)	62mm	HK-14	CL-30S, No. 61	260	65×42.5 (54)	X	0	X	0	X
24mm f/2 Nikkor	11-10	84°	f/22	0.3m (1 ft)	52mm	HK-2	CL-31S, No. 61	300	63x51.5 (63)	0	0	X	0	X
28mm f/2 Nikkor	9-8	74°	1/22	0.25m (0.9 ft)	52mm	HN-1	CL-31S, No. 61	360	63×58.5 (68.5)	0	0	X	0	X
35mm f/1.4 Nikkor	9-7	62°	f/16	0.3m (1 ft)	52mm	HN-3	CL-31S. No. 61	400	67.5x62 (74)	0	0	X	0	X
Wide Angle (NCP)														
24mm f/2.8 Nikkor	9-9	84°	1/22	0.3m (1 ft)	52mm	HN-1	CL-30S. No. 61	250	63×46 (57)	0	0	X	0	X
28mm f/2.8 Nikkor	8-8	-74°	f/22	0.2m (0.7 ft)	52mm	HN-2	CL-30S. No. 61	250	63x44.5 (53)	0	0	X	0	X
35mm f/2 Nikkor	8-6	62°	1/22	0.3m (1 ft)	52mm	HN-3	CL-31S. No. 61	280	63x51.5 (59.5)	0	0	X	0	X
Normal (NAS)					- CEMINI	71110	02010.110.01	200	00.01.0 (00.0)			^	0	^
50mm f/1.2 Nikkor	7-6	46°	f/16	0.5m (1.7 ft)	52mm	HS-12, HR-2	CL-34A, No. 61	380	68.5x47.5 (59)	0	0	X	0	X
Normal (NCP)									\		Ü			
50mm f/1.4 Nikkor	7-6	46°	f/16	0.45 (1.5 ft)	52mm	HS-9, HR-1	CL-34A, No. 61	250	63×40 (50.5)	0	0	X	0	X
Telephoto (NAS)														
85mm f/1.4 Nikkor	7-5	28°-30′	f/16	0.85m (3 ft)	72m	HN-20	CL-34A. No. 62	620	80.5x64.5 (72.5)	0	0.	X	0.	X
105mm f/1.8 Nikkor	5-5	23°-20′	f/22	1m (3 ft)	62mm	Built-in	CL-15S. No. 62	580	78.5×80.5 (88.5)	0	0.	X	0.	X
135mm f/2 Nikkor	6-4	18°	f/22	1.3m (4.5 ft)	72mm	Built-in	CL-15S, No. 62	860	80.5×93.5 (103)	0	0.	X	0.	X
200mm f/2N Nikkor ED-IF	10-8	12°-20′	f/22	2.5m (10 ft)	Gel Holder	Built-in + HE-4	CT-200	2550	132×225.5 (233.5)	0	0	0.	0.	X
300mm f/4.5 Nikkor ED-IF	7-6	8°-10′	f/32	2.5m (10 ft)	72mm	Built-in	CL-20A	1060	80×192 (200)	X	X	0	X	0
400mm f/2.8 Nikkor ED-IF	8-6	6°-10′	f/22	4m (13 ft)	52mm	Built-in + HE-3	CT-400	5150	163×378.5 (386.5)	X	X	0	Δ	0
400mm f/3.5 Nikkor ED-IF	8-6	6°-10′	f/22	4.5m (13 ft)	122mm/39mm	Built-in	CL-61A, No. 57	2800	134×296 (304)	X	Δ	0	X	0
400mm f/5.6 Nikkor ED-IF	7-6	6°-10′	f/32	4m (13 ft)	72mm	Built-in	CL-27A	1200	85x254 (262)	X	0	0	0	0
500mm f/4 Nikkor P ED-IF	8-6	5°	f/22	5m (20 ft)	39mm	HK-7	CT-500	3000	138x384 (393)	X	0	0	0	0
600mm f/4N Nikkor ED-IF	8-6	4°-10′	f/22	6.5m (24 ft)	39mm	Built-in +HE-5	CT-601	5650	173×465.5 (473.5)	X	X	0	X	0
600mm f/5.6N Nikkor ED-IF	7-6	4°-10′	1/32	5m (20 ft)	39mm	Built-in + HE-4	CL-603	2800	132x387.5 (395.5)	X	X	0	X	0
800mm f/5.6 Nikkor ED-IF	8-6	3°	f/32	8m (30 ft)	52mm	Built-in + HE-3	CT-800	5450	163×546 (554)	X	X	0	X	0
T 1 1 (110D)														
Telephoto (NCP)														
	5-5		f/22				CL:315 No. 61	310	63×52 5 (60 5)			_		
85mm f/2 Nikkor	5-5 5-4	28°-30′	1/22	0.85m (3 ft)	52mm	HS-10	CL-31S, No. 61	310	63x52.5 (60.5)	0	0	X	0	X
85mm f/2 Nikkor 105mm f/2.5 Nikkor	5-4	28°-30′ 23°-20′	f/22	0.85m (3 ft) 1m (3.5 ft)	52mm 52mm	HS-10 Built-in	CL-32S. No. 62	435	64x69.5 (77.5)	0	0	Х	0	Х
85mm f/2 Nikkor 105mm f/2.5 Nikkor 135mm f/2.8 Nikkor	5-4 5-4	28°-30′ 23°-20′ 18°	f/22 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft)	52mm 52mm 52mm	HS-10 Built-in Built-in	CL-32S, No. 62 CL-32S, No. 62	435 435	64x69.5 (77.5) 64x83.5 (91.5)	0		X	-	
85mm f/2 Nikkor 105mm f/2.5 Nikkor 135mm f/2.8 Nikkor 200mm f/4 Nikkor	5-4 5-4 5-5	28°-30′ 23°-20′ 18° 12°-20′	f/22 f/32 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft) 2m (8 ft)	52mm 52mm 52mm 52mm	HS-10 Built-in Built-in Built-in	CL-32S, No. 62 CL-32S, No. 62 CL-13A, No. 63	435 435 510	64x69.5 (77.5) 64x83.5 (91.5) 65x116 (124)	0	0	X O	0	X X
85mm f/2 Nikkor 105mm f/2.5 Nikkor 135mm f/2.8 Nikkor 200mm f/4 Nikkor 300mm f/4.5 Nikkor	5-4 5-4	28°-30′ 23°-20′ 18°	f/22 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft)	52mm 52mm 52mm	HS-10 Built-in Built-in	CL-32S, No. 62 CL-32S, No. 62	435 435	64x69.5 (77.5) 64x83.5 (91.5)	0	0	X	0	Х
85mm f/2 Nikkor 105mm f/2.5 Nikkor 135mm f/2.8 Nikkor 200mm f/4 Nikkor 300mm f/4.5 Nikkor <b>Reflex (NAS)</b>	5-4 5-4 5-5 6-5	28°.30′ 23°.20′ 18° 12°.20′ 8°.10′	f/22 f/32 f/32 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft) 2m (8 ft) 3.5m (11.5 ft)	52mm 52mm 52mm 52mm 72mm	HS-10 Built-in Built-in Built-in	CL-32S, No. 62 CL-32S, No. 62 CL-13A, No. 63 CL-20A	435 435 510 1200	64x69.5 (77.5) 64x83.5 (91.5) 65x116 (124) 78.5x194 (202)	0 X	O X	× 0 · 0	O	X X •
85mm f/2 Nikkor 105mm f/2.5 Nikkor 135mm f/2.8 Nikkor 200mm f/4 Nikkor 300mm f/4.5 Nikkor	5-4 5-4 5-5	28°-30′ 23°-20′ 18° 12°-20′	f/22 f/32 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft) 2m (8 ft)	52mm 52mm 52mm 52mm	HS-10 Built-in Built-in Built-in	CL-32S, No. 62 CL-32S, No. 62 CL-13A, No. 63	435 435 510	64x69.5 (77.5) 64x83.5 (91.5) 65x116 (124)	0	0	X O	0	X X
85mm f/2 Nikkor 105mm f/2.5 Nikkor 135mm f/2.8 Nikkor 200mm f/4 Nikkor 300mm f/4.5 Nikkor  Reflex (NAS)	5-4 5-4 5-5 6-5	28°.30′ 23°.20′ 18° 12°.20′ 8°.10′	f/22 f/32 f/32 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft) 2m (8 ft) 3.5m (11.5 ft) 8m (25 ft)	52mm 52mm 52mm 52mm 52mm 72mm	HS-10 Built-in Built-in Built-in Built-in	CL-32S. No. 62 CL-32S. No. 62 CL-13A. No. 63 CL-20A	435 435 510 1200	64x69.5 (77.5) 64x83.5 (91.5) 65x116 (124) 78.5x194 (202) 119x233.5 (241)	O	О • • • •	X	О	X X •
85mm f/2 Nikkor 105mm f/2.5 Nikkor 135mm f/2.8 Nikkor 200mm f/4 Nikkor 300mm f/4.5 Nikkor  Reflex (NAS) 1000mm f/11 Nikkor  Reflex (NCP)	5-4 5-4 5-5 6-5 5-5	28°-30′ 23°-20′ 18° 12°-20′ 8°-10′ 2°-30′	f/22 f/32 f/32 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft) 2m (8 ft) 3.5m (11.5 ft)	52mm 52mm 52mm 52mm 72mm	HS-10 Built-in Built-in Built-in	CL-32S, No. 62 CL-32S, No. 62 CL-13A, No. 63 CL-20A	435 435 510 1200	64x69.5 (77.5) 64x83.5 (91.5) 65x116 (124) 78.5x194 (202)	0 X	O X	× 0 · 0	O	X X •
85mm f/2 Nikkor 105mm f/2.5 Nikkor 135mm f/2.8 Nikkor 200mm f/4 Nikkor 300mm f/4.5 Nikkor  Reflex (NAS) 1000mm f/11 Nikkor  Reflex (NCP) 500mm f/8N Nikkor	5-4 5-4 5-5 6-5 5-5	28°-30′ 23°-20′ 18° 12°-20′ 8°-10′ 2°-30′	f/22 f/32 f/32 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft) 2m (8 ft) 3.5m (11.5 ft) 8m (25 ft)	52mm 52mm 52mm 52mm 52mm 72mm	HS-10 Built-in Built-in Built-in Built-in Built-in	CL-32S, No. 62 CL-32S, No. 62 CL-13A, No. 63 CL-20A CL-29	435 435 510 1200 1900	64x69 5 (77.5) 64x83.5 (91.5) 65x116 (124) 78.5x194 (202) 119x233.5 (241) 89x109 (116)	О	О • • ×	X	О	X X •
85mm 1/2 Nikkor 105mm 1/2 Nikkor 105mm 1/2 5 Nikkor 135mm 1/2.8 Nikkor 200mm 1/4 Nikkor 300mm 1/4.5 Nikkor  Reflex (NAS) 1000mm 1/11 Nikkor  Reflex (NCP) 500mm 1/8N Nikkor  Zoom (NAS)	5-4 5-4 5-5 6-5 5-5 6-6	28°.30′ 23°.20′ 18° 12°.20′ 8°.10′ 2°.30′	f/22 f/32 f/32 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft) 2m (8 ft) 3.5m (11.5 ft) 8m (25 ft) 1.5m (5.25 ft)	52mm 52mm 52mm 52mm 72mm 39mm	HS-10 Built-in Built-in Built-in Built-in	CL-32S, No. 62 CL-32S, No. 62 CL-13A, No. 63 CL-20A CL-29 CL-39	435 435 510 1200 1900 840	64x69 5 (77.5) 64x83.5 (91.5) 65x116 (124) 78.5x194 (202) 119x233.5 (241) 89x109 (116) 70x119 (128)	О	О • • • • • • • • • • •	X	О X X	X X • •
85mm t/2 Nikkor 105mm t/2.5 Nikkor 135mm t/2.8 Nikkor 200mm t/4 Nikkor 300mm t/4.5 Nikkor  Reflex (NAS) 1000mm t/11 Nikkor  Reflex (NCP) 500mm t/8N Nikkor  Zoom (NAS) 35-200mm t/3.5-4.5 Zoom-Nikkor	5-4 5-4 5-5 6-5 5-5 6-6	28°.30′ 23°.20′ 18° 12°.20′ 8°.10′ 2°.30′ 5°	f/22 f/32 f/32 f/32 f/32	0.85m (3 ft) 1m (3.5 ft) 1.3mm (4.5 ft) 2m (8 ft) 3.5m (11.5 ft)  8m (25 ft) 1.5m (5.25 ft)	52mm 52mm 52mm 52mm 52mm 72mm 39mm	HS-10 Built-in Built-in Built-in Built-in HN-27	CL-32S, No. 62 CL-32S, No. 62 CL-13A, No. 63 CL-20A CL-29	435 435 510 1200 1900	64x69 5 (77.5) 64x83.5 (91.5) 65x116 (124) 78.5x194 (202) 119x233.5 (241) 89x109 (116)	О	О • • ×	X	О	X X •

- KEY:

  Fully Compatible

  Unusable

  Usable

  When used at smaller apertures than f/11 with high shutter speeds, there is occasional uneven exposure

  Usable with filter removed
  Copy to come

  4 special filters supplied





#### Nikkor Al Lens Table

Description	Optical Construc- tion	Picture Angle	Mini- mum f-stop	Closest Focusing Distance	Filter Size	Lens Hood	Lens Case	Weight (grams)	Dimensions (mm)**	TC 16A	TC 14A	TC 14B	TC 201	TC 301
Zoom (NCP)														
28-85mm f/3.5-4.5 Zoom Nikkor	15-11	74°-28°-30′	f/22	0.8m (3 ft)	62mm	HK-16	CL-33S, No. 62	510	67×89 (97.5)	X	0	X	0	X
35-135mm f/3.5-4.5 Zoom Nikkor	15-14	62°-18′	f/22	1.5m (4 ft)	62mm	HN-22	CL-15S, No. 62	600	68x104 (112)	X	0	X	0	X
100-300mm f/5.6 Zoom Nikkor	14-10	24° 20′-8° 10′	f/32	2m (8 ft)	62mm	HN-24	CL-40	930	74x199 (207)	X	0	X	0	Х
Special (NAS)														
28mm f/3.5 PC Nikkor	9-8	74°	f/22	0.3m (1ft)	72mm	HN-9	CL-34A, No. 62	380	78×64.5 (69)	X	X	X	X	X
35mm f/2.8 PC Nikkor	7-7	62°	f/32	0.3m (1ft)	52mm	HN-1	CL-34A. No. 61	320	62x61.5 (66)	X	X	X	X	X
58mm f/1.2 Noct Nikkor	7-6	40°-50′	f/16	0.5m (1.7 ft)	52mm	HS-7. HR-2	CL-34A. No. 61	465	74x51.5 (63)	0	0,	X	0.	X
105mm f/4.5 UV Nikkor	6-6	23°-20′	f/32	0.48m (1.57 ft)	52mm	_	CL-15S. No. 63	515	68.5×108 (116.5)	X	X	0	X	0
120mm f/4 Medical-Nikkor IF	6-9	18°-50′	f/32	0.35m (1.1 ft)	49mm	_	Leatherette Compartment	890	98×142 (150)	X	X	X	X	X
200mm f/4 Micro-Nikkor	9-6	12°-20′	f/32	0.71m (2.34 ft)	52mm	Built-in	CL-36	800	66x172 (180)	X	Δ	0	X	0
Special (NCP)														
55mm f/2.8 Micro-Nikkor	6-5	43°	f/32	0.25m (0.9 ft)	52mm	HN-3	CL-31S. No. 61	290	63.5×62 (70)	0	0	X	0	X
105mm f/2.8 Micro-Nikkor	10-9	23°-20′	f/32	0.41m (1.34 ft)	52mm	HS-14	CL-33S, No. 63	515	66.5x83.5 (91.5)	0	0	X	0	X
Teleconverter (NAS)														
TC-14B	5-5	_	_	-	_		CL-30S. No. 61	165	65x22 (34)	_	_	_	_	
TC-301	5-5	_	_		_	_	CL-33S. No. 62	280	64.5x83 (115)	_	_	_	_	_
Teleconverter (NCP)														
TC-14A	5-5	_	-		-		CL-30S. No. 61	145	65×17 (25.5)		_	-	-	_
TC-201	7-5				-		CL-30S, No. 61	230	64.5x44 (52.5)	-	-	_	-	_

KEY:

Fully Compatible

Unusable

Usable

When used at smaller apertures than f/11 with high shutter speeds, there is occasional uneven exposure

Usable with filter removed
Copy to come

4 special filters supplied

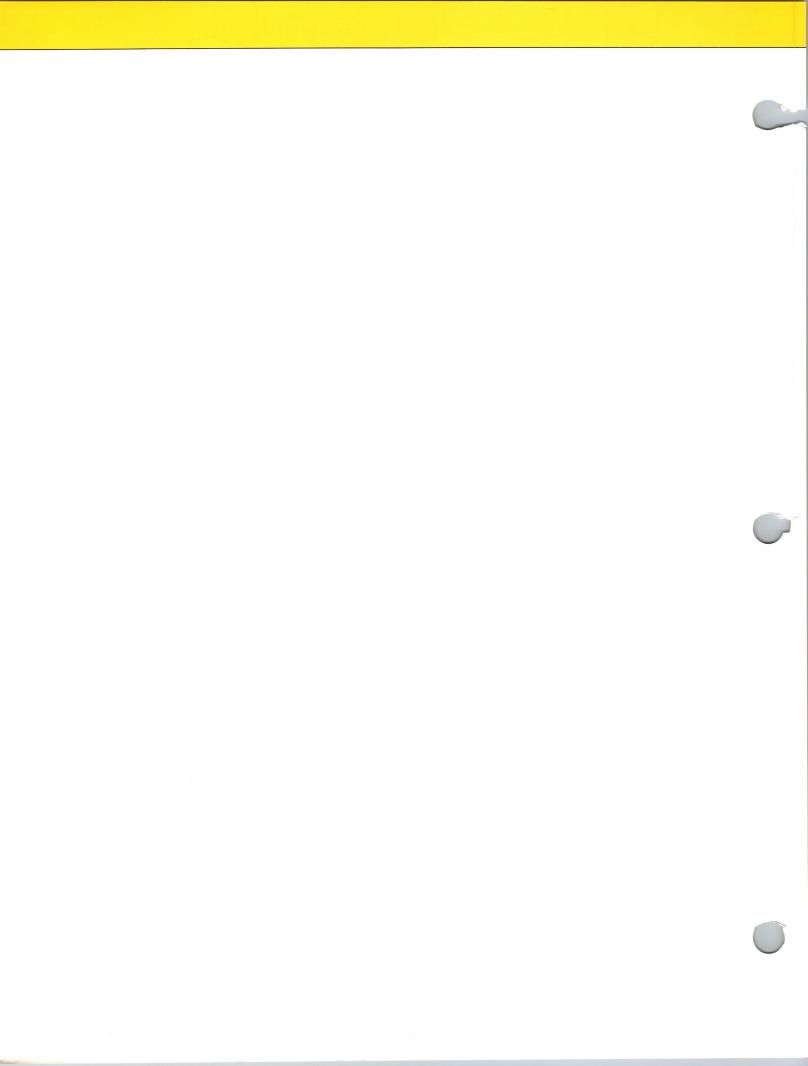
#### **AF Nikkor Lens Table**



#### AF Nikkor Lens Table

Description	Optical Construc- tion	Picture Angle	Mini- mum f-stop	Closest Focusing Distance	Filter Size	Lens Hood	Lens Case	Weight (grams)	Dimensions (mm)**	TC 16A	TC/ 14A	TC 14B	TC 201	TC 301
Wide Angle (NAS)														
20mm f/2.8 AF Nikkor	12-9	94°	f/22	0.25m (0.85 ft)	62mm	HB-4	CL-30S, No. 61	260	69x42.5 (52)	0	0	X	0	X
Wide Angle (NCP)														
24mm f/2.8 AF Nikkor	9-9	84°	f/22	0.3m (1 ft)	52mm	HN-1	CL-30S, No. 61	260	65×46 (55.5)	0	0	X	0	X
28mm f/2.8 AF Nikkor	5-5	74°	f/22	0.3m (1 ft)	52mm	HN-2	CL-30S, No. 61	195	65x39 (48.5)	0	0	X	0	X
35mm f/2 AF Nikkor	6-5	62°	f/22	0.25m (0.85 ft)	52mm	HN-3	CL-30S, No. 61	215	63×43.5 (53)	0	0	X	0	X
Normal (NCP)														
50mm f/1.4 AF Nikkor	7-6	46°	f/16	0.45m (1.5 ft)	52mm	HR-2	CL-30S, No. 61	255	65x42 (52.5)	0	0.	X	0.	X
50mm f/1.8 AF Nikkor	6-5	46°	f/22	0.45m (1.5 ft)	52mm	HR-2	CL-30S, No. 61	210	65x39 (48)	0	0	X	0	X
Telephoto (NAS)														
180mm f/2.8N AF Nikkor ED-IF	8-6	13°-40′	f/22	1.5m (5 ft)	72mm	Built-in	CL-38	750	78.5x144 (153)	Δ	Δ	X	Δ	X
300mm f/2.8N AF Nikkor ED-IF	8-6	8°-10′	f/22	3m (10 ft)	39mm	Built-in + HE-6	CT-303, No. 57	2700	133×255 (263)	Δ	Δ	Ô	Δ	ô
300mm f/4 AF Nikkor ED-IF	8-6	8°-10′	f/32	2.5m (9 ft)	82mm/39mm	Built-in	CL-42	1330	89x219 (227)	X	X	0	Δ	0
Telephoto (NCP)														Ŭ
85mm f/1.8 AF Nikkor	6-6	28°-30′	f/16	0.85 (3 ft)	62mm	HN-23	CL-15S, No. 62	415	71×58.5 (69)	Δ	Δ.*	X	0.	X
Zoom (NAS)									(==)					X
35-70mm f/2.8 AF Zoom-Nikkor	15-12	62°-34°-20′	f/22	0.6m (2 ft)	. 62mm	HB-1	CL-33S, No 63	665	71.5x94.5 (105)	0	0	X	0	X
80-200 f/2.8 AF Zoom-Nikkor	16-11	30°-10′-12°-20′	f/22	1.8m (6 ft)	77mm	HN-28	CL-43	1200	85.5x176.5 (184.5)	Δ	Δ	0	0	X
Zoom (NCP)														
24-50mm f/3.3-4.5 AF Zoom-Nikkor	9-9	84°-46°	f/22	0.6m (2 ft)	62mm	HB-3	CL-32S, No. 62	375	70.5x73.5 (82.5)	X	0	Х	0	X
28-85mm f/3.5-4.5 AF Zoom-Nikkor	15-11	74°-28° 30′	f/22	0.8m (3 ft)	62mm	HB-1	CL-33S, No. 62	540	71x89 (97.5)	X	0.	X	0.	X
35-70mm f/3.3-4.5 AF Zoom-Nikkor	8-7	62°-34° 20′	f/22	0.5m (1.5 ft)	52mm	HN-2	CL-32S, No. 62	260	70.5x61 (69)	X	0	X	0	X
35-105mm f/3.5-4.5 AF Zoom-Nikkor	16-12	62°-23° 20′	f/22	1.4m (4.5 ft)	52mm	HB-2	CL-33S, No. 62	460	69×87 (95.5)	X	0	X	0	X
35-135mm f/3.5-4.5N AF Zoom-Nikkor	15-12	62°-18°	f/22	1.5m (5 ft)	62mm	HB-1	CL-41, No. 62	685	72.5x109 (117)	X	0	Х	0	X
70-210mm f/4-5.6 AF Zoom-Nikkor	12-9	34°-20′-11° 50′	f/32	1.5m (5 ft)	62mm	HN-24	CL-15S, No. 63	590	73.5x108 (116)	X	0	Х	0	X
Micro (NCP)														
55mm f/2.8 AF Micro-Nikkor	6-5	43°	f/32	0.299m (1 ft)	62mm		CL-32S, No. 62	420	74×74 (82)	0	0.	Х	0.	X
60mm f/2.8 AF Micro Nikkor	8-7	39°-40′	f/32	0.219m (8.75 in)	62mm	_	CL-32S, No. 62	455	70x74 (82)	0	0	X	0	X
105mm f/2.8 AF Micro-Nikkor	9-8	39°-40′	f/28	0.314m (1.2 ft)	52mm	HS-7	CL-15S	565	75x104.5	0	0	X	0	X
TeleConverter (NCP)														
TC 16A	5-5		_		_		CL-30S, No. 61	150	71x21 (30)	_			_	

- KEY:
  Dimensions are give in mm
  Diam x length from mounting flange (overall length)
  Usable
  Not usable
  Usable, but occasional vignetting
  When used at smaller apertures than f/11 with high shutter speeds, there is occasional uneven exposure



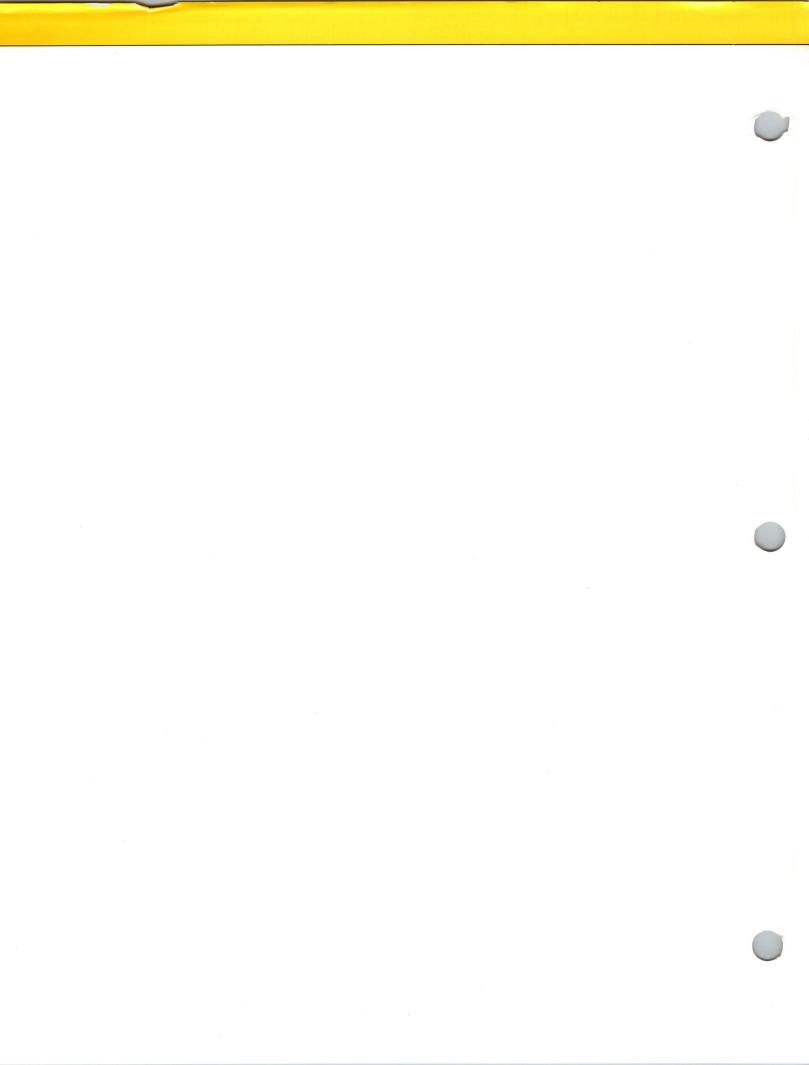
Description	Optical Construc- tion	Picture Angle	Mini- mum f-stop	Minimum Normal Focusing Distance	Minimum Macro Focusing Distance	Filter Size	Lens Hood	Lens Case	Weight (grams)	Dimensions (mm)**	TC 16A	TC 14A	TC 14B	TC 201	TC 301
Wide Angle (NAS)						Fill						-			
20mm f/2.8 AF Nikkor	12-9	94°	f/22	0.25m (0.85 ft)	_	62mm	HB-4	CL-30S, No. 61	260	69x42.5 (52)	0	0	X	0	X
Wide Angle (NCP)									7						
24mm f/2.8 AF Nikkor	9-9	84°	1/22	0.3m (1 ft)		52mm	HN-1	CL-30S, No. 61	260	64.5x46 (55.5)	0	0	X	0	X
28mm f/2.8 AF Nikkor	5-5	74°	f/22	0.3m (1 ft)		52mm	HN-2	CL-30S, No. 61	195	64.5x39 (48.5)	0	0	X	0	X
35mm f/2 AF Nikkor	6-5	62°	f/22	0.25m (0.85 ft)		52mm	HN-3	CL-30S, No. 61	215	63×43.5 (53)	0	0	Х	0	X
Normal (NCP)															
50mm f/1.4 AF Nikkor	7-6	46°	f/16	0.45m (1.5 ft)		52mm	HR-2	CL-30S, No. 61	255	64.5x42 (52.5)	0	0	X	0	
50mm f/1.8 AF Nikkor	6-5	46°	1/22	0.45m (1.5 ft)		52mm	HR-2	CL-30S, No. 61	210	65x39 (48)	0	0	X	0	X
Telephoto (NAS)															
135mm f/2.0 AF DC-Nikkor	7-6	18°	f/16	1.1m (4 ft)	_	72mm	Built-in	CL-39	870	79x120 (128)	X	X	0	X	X
180mm f/2.8N AF Nikkor ED-IF	8-6	13°-40′	f/22	1.5m (5 ft)	_	72mm	Built-in	CL-38	750	78.5x144 (153)	Δ	Δ	X	Δ	X
300mm f/2.8N AF Nikkor ED-IF	8-6	8°-10′	f/22	3m (10 ft)	_	39mm	Built-in + HE-6	CT-303, No. 57	2700	133×255 (263)	Δ	Δ	0	Δ	0
300mm f/4 AF Nikkor ED-IF	8-6	8°-10′	f/32	2.5m (9 ft)		82mm/39mm	Built-in	CL-42	1330	89x219 (227)	X	X	0	Δ	0
Telephoto (NCP)															
85mm f/1.8 AF Nikkor	6-6	28°-30′	f/16	0.85 (3 ft)		62mm	HN-23	CL-15S. No. 62	415	71x58.5 (69)	Δ	Δ	X	0	X
Zoom (NAS)															
35-70mm f/2.8 AF Zoom-Nikkor	15-12	62°-34° 20′	f/22	0.6m (2 ft)	0.28m (0.9 ft)	62mm	HB-1	CL-33S, No 63	665	71.5x94.5 (105)	0	0	X	0	X
80-200 f/2.8 AF Zoom-Nikkor	16-11	30° 10′-12° 20′	f/22	1.8m (6 ft)	1.5m (4.9 ft)	77mm	HN-28	CL-43	1200	85.5x176.5 (184.5)	Δ	Δ	0	0	X
Zoom (NCP)	1 19														
24-50mm f/3.3-4.5 AF Zoom-Nikkor	9-9	84°-46°	f/22	0.6m (2 ft)	0.5m (1.6 ft)	62mm	HB-3	CL-32S, No. 62	375	70.5x73.5 (82.5)	X	0	X	0	X
28-70mm f/3.5-4.5 AF Zoom-Nikkor	8-7	74°-34° 20′	f/22	0.5m (1.5 ft)	0.39m (1.3 ft)	'52mm	HB-6	CL-32S, No. 62	350	67.5x71 (79)	X	0	X	0	X
28-85mm f/3.5-4.5 AF Zoom-Nikkor	15-11	74°-28° 30′	f/22	0.8m (3 ft)	0.23m (0.8 ft)	62mm	HB-1	CL-33S, No. 62	540	71x89 (97.5)	X	0	X	0	X
35-70mm f/3.3-4.5 AF Zoom-Nikkor	8-7	62°-34° 20′	f/22	0.5m (1.5 ft)	0.35m (1 ft)	52mm	HN-2	CL-32S, No. 62	260	70.5x61 (69)	Х	0	X	0	X
35-105mm f/3.5-4.5 AF Zoom-Nikkor	16-12	62°-23° 20′	f/22	1.4m (4.6 ft)	0.38m (1.3 ft)	52mm	HB-5	CL-33S, No. 62	510	69x87 (95.5)	X	0	X	0	X
35-135mm f/3.5-4.5N AF Zoom-Nikkor	15-12	62°-18°	f/22	1.5m (5 ft)	0.3m (1.2 ft)	62mm	HB-1	CL-41, No. 62	685	72.5x109 (117)	X	0	Х	0	X
70-210mm f/4-5.6 AF Zoom-Nikkor	12-9	34°-20′-11° 50′	f/32	1.5m (5 ft)	1.2m (4 ft)	62mm	HN-24	CL-38, No. 63	590	73.5x108 (116)	X	0	Х	0	X
75-300mm f/4.5-5.6 AF Zoom-Nikkor	13-11	31° 40′-8° 10′	f/32	3m (10 ft)	1.5m (5 ft)	62mm	HN-24	CL-35A	850	72×166 (174)	Х	0	×X	0	X
Micro (NCP)															
55mm f/2.8 AF Micro-Nikkor	6-5	43°	f/32	0.299m (1 ft)		62mm		CL-32S, No. 62	420	74×74 (82)	0	0	X	0	X
60mm f/2.8 AF Micro-Nikkor	8-7	39°-40′	f/32	0.219m (8.75 in)		62mm		CL-32S, No. 62	455	70×74 (82)	0	0	Х	0	X
105mm f/2.8 AF Micro-Nikkor	9-8	39°-40′	f/28			52mm	HS-7	CL-15S	565	75×104.5 (113)	0	0	X	0	X
TeleConverter (NCP)															
TC 16A	5-5							CL-30S, No. 61	150	71x21 (30)					

- KEY:

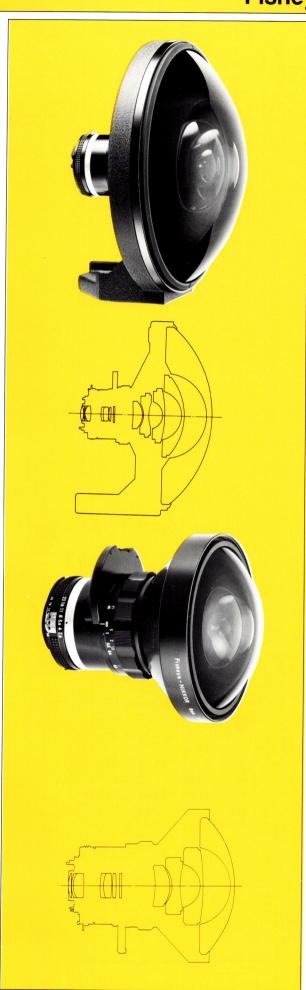
  •• Dimensions are given in mm
- Diam x length from mounting flange (overall length)

  Usable

- Not usable
   ∆ Usable, but occasional vignetting
   When used at smaller apertures than f/11 with high shutter speeds, there is occasional uneven exposure







#### Fisheye-Nikkor 6mm f/2.8

Product number: 1405

Focal length: 6mm Maximum aperture: f/2.8

Picture angle: 220°

Optical construction: 12 elements in 9 groups

Projection formula: Equidistant Image diameter: 23mm

Minimum focusing distance: 0.25m (0.9 ft.) Aperture range: f/2.8-f/22

Lens aperture: Via automatic diaphragm

Filters: 5 built-in filters (L1B, Y48, Y52, 056 and R60)

Tripod mount: Via built-in, tripod mounting foot Lens case: Supplied

Dimensions: 236mm dia. x 171mm (9.3" x 6.7")

Weight: 5200g (183.7 oz.)

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 2x Teleconverter TC-201 Usable teleconverters:

#### Fisheye-Nikkor 8mm f/2.8

Product number:

Focal length:

Maximum aperture:

Picture angle:

Optical construction:

Projection formula:

Image diameter: Minimum focusing distance:

Aperture range:

Lens aperture:

Filters: Lens case:

Dimensions:

Weight:

Usable teleconverters:

1402

8mm

f/2.8

180°

10 elements in 8 groups

Equidistant 23mm

0.3m (1 ft.) f/2.8-f/22

Via automatic diaphragm

5 built-in filters (L1B, Y48, Y52, 056 and R60)

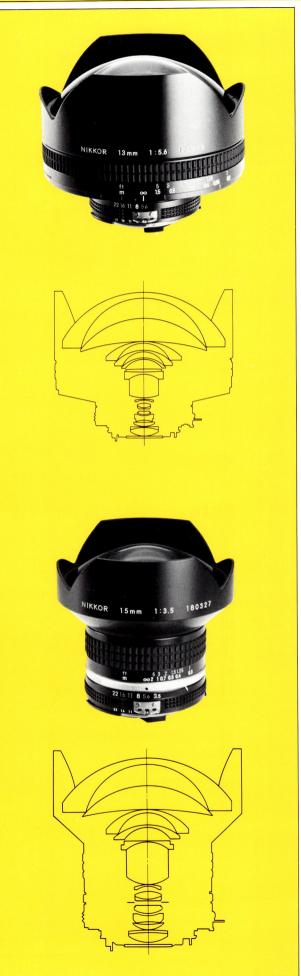
Supplied (CL-11)

123mm dia. x 139mm (4.8" x 5.5")

1100g (38.9 oz.)

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 2x Teleconverter TC-201





#### Nikkor 13mm f/5.6

Product number: 1410 13mm Focal length: Maximum aperture: f/5.6

Picture angle: 118° Optical construction:

Special characteristics:

Minimum focusing distance:

Aperture range:

Lens aperture:

Filter size:

Lens hood:

Lens case: Dimensions:

Weight:

Optional accessories: Usable teleconverters:

16 elements in 12 groups

Close-range correction (CRC) system

0.3m (1 ft.) f/5.6-f/22

Via automatic diaphragm

Bayonet mount; 4 filters (L1B, 056, A2 and B2)

supplied

Built-in

Supplied (CL-14)

115mm dia. x 101mm (4.5" x 3.9")

1200g (42.4 oz.)

Miscellaneous Bayonet Mount Filters

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

#### Nikkor 15mm f/3.5



Product number: 1412 Focal length: 15mm f/3.5 Maximum aperture: Picture angle:

Optical construction:

Special characteristics:

Minimum focusing distance: Aperture range:

Lens aperture:

Filter size:

Lens hood: Lens case:

Dimensions:

Weight:

Optional accessories:

Usable teleconverters:

110°

14 elements in 11 groups

Close-range correction (CRC) system

0.3m (1 ft.) f/3.5-f/22

Via automatic diaphragm

Bayonet mount; 4 filters (L1B, 056, A2 and B2)

supplied

Built-in

Supplied (CL-17)

90mm dia. x 94mm (3.5" x 3.7")

630g (22.3 oz.)

Miscellaneous Bayonet Mount Filters

1.4x Teleconverter TC-14A 2x Teleconverter TC-201





## Fisheye-Nikkor 16mm f/2.8

Product number: Focal length: Maximum aperture: Picture angle:

Optical construction:

Minimum focusing distance:

Aperture range: Lens aperture:

Filter size:

Weight:

Lens hood: Dimensions:

Optional accessories:

Usable teleconverters:

1408 16mm

f/2.8 180°

8 elements in 5 groups

0.3m (1 ft.) f/2.8-f/22

Via automatic diaphragm

Bayonet mount; 4 filters supplied (L1B, 056, A2 and B2)

Built-in

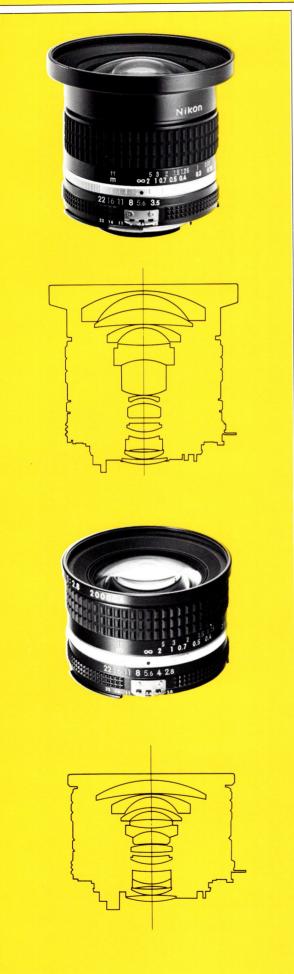
63mm dia. x 66mm (2.5" x 2.6")

330g (11.7 oz.)

Hard Lens Case CL-30S Soft Leather Lens Pouch #61 Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 2x Teleconverter TC-201

37





#### Nikkor 18mm f/3.5

Advenced Advenced Systems Decker

Product number:1413Focal length:18mmMaximum aperture:f/3.5Picture angle:100°

Optical construction: 11 elements in 10 groups

Special characteristics: Close-range correction (CRC) system

Minimum focusing distance: 0.25m (0.85 ft.)

Aperture range: f/3.5-f/22

Lens aperture: Via automatic diaphragm

Filter size:72mm diameterLens hood:Supplied (HK-9)Lens case:Supplied (CL-37)

**Dimensions:** 75mm dia. x 72.5mm (3.0" x 2.9")

Weight: 350g (12.4 oz.)

Optional accessories: Plastic Lens Case CP-8

Plastic Lens Case CP-8 Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable teleconverters: 1.4x Teleconverter TC-14A 2x Teleconverter TC-201

#### Nikkor 20mm f/2.8

Product number: 1415
Focal length: 20mm
Maximum aperture: f/2.8
Picture angle: 94°

Optical construction: 12 elements in 9 groups

Special characteristics: Close-range correction (CRC) system

Minimum focusing distance: 0.25m (0.85 ft.)

Aperture range: f/2.8-f/22

Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter

**Dimensions:** 65mm dia. x 54mm (2.6" x 2.1")

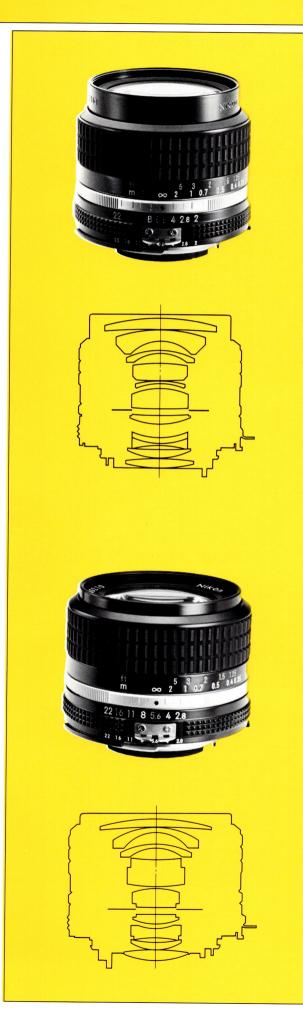
Weight: 260g (9.2 oz.)
Optional accessories: Lens Hood HK-14

Hard Lens Case CL-30S
Soft Leather Lens Pouch #61
Plastic Lens Case CP-8
62.72mm Filter Adapter Ring LIB

62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable teleconverters: 1.4x Teleconverter TC-14A 2x Teleconverter TC-201





#### Nikkor 24mm f/2

Product number: 1417 Focal length: 24mm Maximum aperture: f/2 Picture angle: 84°

Optical construction: 11 elements in 10 groups

Special characteristics: Close-range correction (CRC) system

Minimum focusing distance: 0.3m (1 ft.) Aperture range: f/2-f/22

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

Weight:

Dimensions: 63mm dia. x 63mm (2.5" x 2.5")

300g (10.6 oz.) Optional accessories: Lens Hood HK-2 Hard Lens Case CL-31S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

#### Nikkor 24mm f/2.8



Product number: 1416 Focal length: 24mm Maximum aperture: f/2.8 Picture angle: 84°

Optical construction: 9 elements in 9 groups

Special characteristics: Close-range correction (CRC) system

Minimum focusing distance: 0.3m (1 ft.) Aperture range: f/2.8-f/22

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

Dimensions: 63mm dia. x 57mm (2.5" x 2.2")

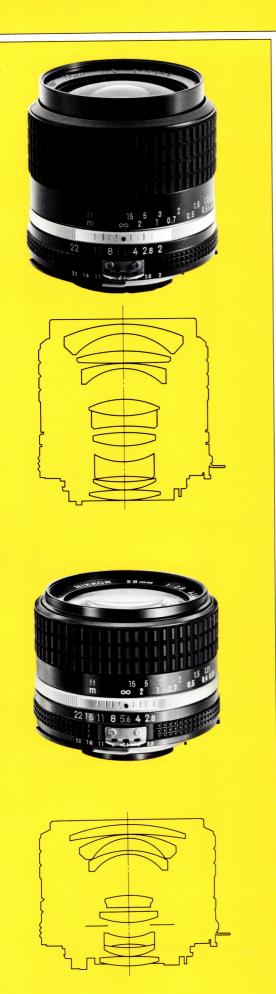
Weight: 250g (8.8 oz.) Optional accessories: Lens Hood HN-1 Hard Lens Case CL-30S

Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A

1.4x Teleconverter TC-14A 2x Teleconverter TC-201





#### Nikkor 28mm f/2

Product number:1419Focal length:28mmMaximum aperture:f/2Picture angle:74°

Optical construction: 9 elements in 8 groups

Special characteristics: Close-range correction (CRC) system

Minimum focusing distance: 0.25m (0.85 ft.)

Aperture range:f/2-f/22Lens aperture:Via automatic diaphragm

Filter size: 52mm diameter

**Dimensions:** 63mm dia. x 68.5mm (2.5" x 2.7")

Weight: 360g (12.1 oz.)

Optional accessories: Lens Hood HN-1

Hard Lens Case CL-31S Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A 1.4x Teleconverter TC-14A

2x Teleconverter TC-201

#### Nikkor 28mm f/2.8



Product number:1420Focal length:28mmMaximum aperture:f/2.8Picture angle:74°

Optical construction: 8 elements in 8 groups

Special characteristics: Close-range correction (CRC) system

Minimum focusing distance: 0.2m (0.7 ft.)

Aperture range: f/2.8-f/22

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

**Dimensions:** 63mm dia. x 53mm (2.5" x 2.1")

Weight:

250g (8.8 oz.)

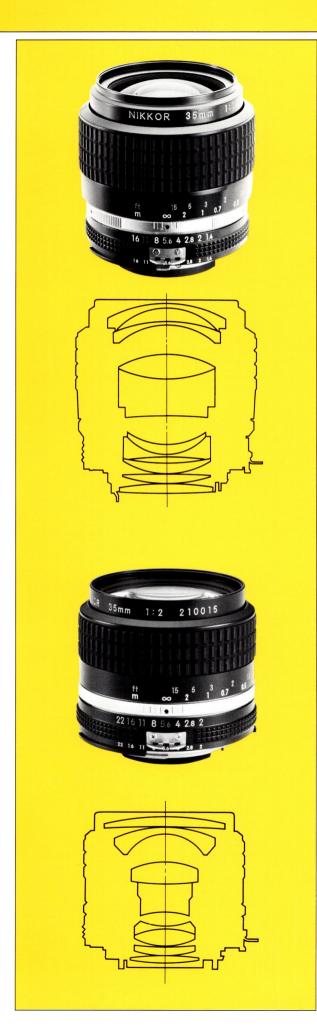
Optional accessories: Lens Hood HN-2

Hard Lens Case CL-30S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters:

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 2x Teleconverter TC-201





#### Nikkor 35mm f/1.4

Advanced Advanced Systems Decker

Product number:1429Focal length:35mmMaximum aperture:f/1.4Picture angle:62°

Optical construction: 9 elements in 7 groups

Special characteristics: Close-range correction (CRC) system

Minimum focusing distance: 0.3m (1 ft.)
Aperture range: f/1.4-f/16

Weight:

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

**Dimensions:** 67.5mm dia. x 74mm (2.7" x 2.9")

Optional accessories:

Lens Hood HN-3
Hard Lens Case CL-31S
Soft Leather Lens Pouch #62
Plastic Lens Case CP-9
Miscellaneous 52mm Filters
Gelatine Filter Holder AF-1

Usable teleconverters:

Autofocus Converter TC-16A
1.4x Teleconverter TC-14A
2x Teleconverter TC-201

400g (14.1 oz.)

# Nikkor 35mm f/2



Product number:1428Focal length:35mmMaximum aperture:f/2Picture angle:62°

Optical construction: 8 elements in 6 groups

Minimum focusing distance: 0.3m (1 ft.)
Aperture range: 1/2-1/22

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

**Dimensions:** 63mm dia. x 59.5mm (2.5" x 2.3")

Weight: 280g (9.9 oz.)
Optional accessories: Lens Hood HN-3

Hard Lens Case CL-31S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A

1.4x Teleconverter TC-14A 2x Teleconverter TC-201





# Nikkor 50mm f/1.2

Advance Advance System Decke

Product number:1435Focal length:50mmMaximum aperture:f/1.2Picture angle:46°

Optical construction: 7 elements in 6 groups

Minimum focusing distance: 0.5m (1.7 ft.)
Aperture range: f/1.2-f/16

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

**Dimensions:** 68.5mm dia. x 59mm (2.7" x 2.3")

Weight: 380g (13.4 oz.)

Optional accessories: Lens Hood HS-12
Rubber Lens Hood HR-2
Hard Lens Case CL-31S
Soft Leather Lens Pouch #61
Plastic Lens Case CP-8
Miscellaneous 52mm Filters
Gelatine Filter Holder AF-1

Usable teleconverters:

Autofocus Converter TC-16A
1.4x Teleconverter TC-14A
2x Teleconverter TC-201

# Nikkor 50mm f/1.4



Product number:1433Focal length:50mmMaximum aperture:f/1.4Picture angle:46°

Optical construction: 7 elements in 6 groups

Minimum focusing distance: 0.45m (1.5 ft.)

Aperture range: f/1.4-f/16

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

**Dimensions:** 63mm dia. x 50.5mm (2.5" x 2.0")

Weight: 250g (8.8 oz.)

Optional accessories: Lens Hood HS-9
Rubber Lens Hoo

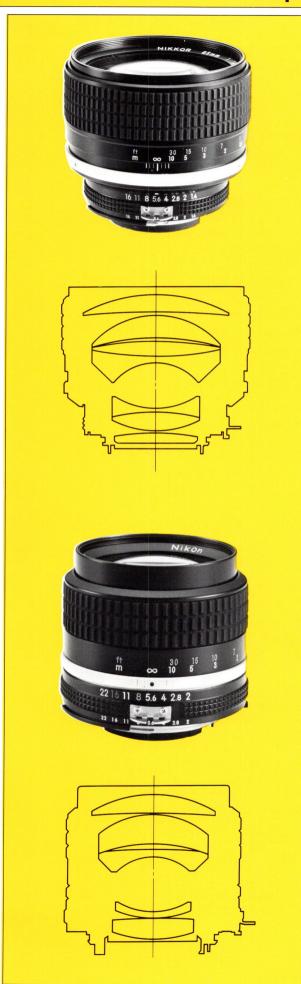
Rubber Lens Hood HR-1 Hard Lens Case CL-30S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A 1.4x Teleconverter TC-14A

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# **Telephoto Lenses**





#### Nikkor 85mm f/1.4

Product number: Focal length: 85mm Maximum aperture: f/1.4 Picture angle: 28° 30′

Optical construction:

Minimum focusing distance: Aperture range:

Lens aperture:

Filter size: Lens hood:

Dimensions:

Weight: Optional accessories:

Usable teleconverters:

1450

7 elements in 5 groups 0.85m (3 ft.)

f/1.4-f/16

Via automatic diaphragm

72mm diameter Supplied (HN-20)

80.5mm dia. x 72.5mm (3.2" x 2.9")

620g (21.9 oz.)

Hard Lens Case CL-34A Plastic Lens Case CP-9 Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# Nikkor 85mm f/2



Product number: 1451 Focal length: 85mm Maximum aperture: f/2

Picture angle: 28° 30′

Optical construction: 5 elements in 5 groups 0.85m (3 ft.)

Minimum focusing distance: Aperture range:

Lens aperture:

Filter size:

Lens hood:

Dimensions:

Weight:

Optional accessories:

Usable teleconverters:

52mm diameter Supplied (HS-10)

63mm dia. x 60.5mm (2.5" x 2.4")

310g (10.9 oz.)

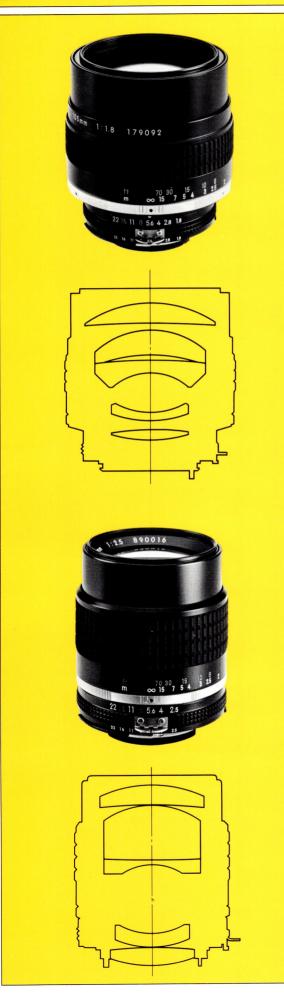
Hard Lens Case CL-31S

Via automatic diaphragm

Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A





# Nikkor 105mm f/1.8

Product number: 1457 Focal length: 105mm

f/1.8 Maximum aperture: Picture angle: 23° 20'

Optical construction: 5 elements in 5 groups

Minimum focusing distance: 1m (3.5 ft.) Aperture range: f/1.8-f/22

Via automatic diaphragm Lens aperture:

Filter size: 62mm diameter Lens hood: Built-in

Dimensions: 78.5mm dia. x 80.5mm (3.1" x 3.5")

580g (20.5 oz.) Weight:

Optional accessories: Hard Lens Case CL-15S Soft Leather Lens Pouch #62

Plastic Lens Case CP-9 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable teleconverters: Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# Nikkor 105mm f/2.5

1456 105mm f/2.5

23° 20′

Optical construction: 5 elements in 4 groups

Minimum focusing distance: 1m (3.5 ft.) Aperture range: f/2.5-f/22

Product number:

Focal length: Maximum aperture:

Picture angle:

Via automatic diaphragm Lens aperture:

52mm diameter Filter size:

Built-in Lens hood:

64mm dia. x 77.5mm (2.5" x 3.1") Dimensions:

435g (15.4 oz.) Weight:

Optional accessories: Hard Lens Case CL-32S

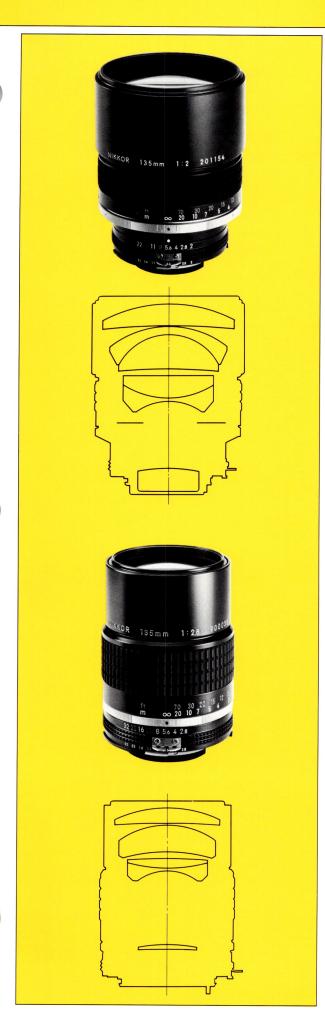
Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A Usable teleconverters:









#### Nikkor 135mm f/2

135mm

Picture angle: 18° Optical construction:

Product number:

Maximum aperture:

Focal length:

6 elements in 4 groups Minimum focusing distance: 1.3m (4.5 ft.)

Aperture range: f/2-f/22

Lens aperture: Via automatic diaphragm Filter size: 72mm diameter

Lens hood: Built-in

Dimensions: 80.5mm dia. x 103mm (3.2" x 4.1")

1459

f/2

Weight: 860g (30.4 oz.)

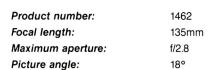
Optional accessories: Hard Lens Case CL-15S

Plastic Lens Case CP-9 Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable teleconverters: Autofocus Converter TC-16A

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# Nikkor 135mm f/2.8



Optical construction: 5 elements in 4 groups

Minimum focusing distance: 1.3m (4.5 ft.) Aperture range: f/2.8-f/32

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

Lens hood: Built-in

Dimensions: 64mm dia. x 91.5mm (2.5" x 3.6")

Weight: 435g (15.4 oz.)

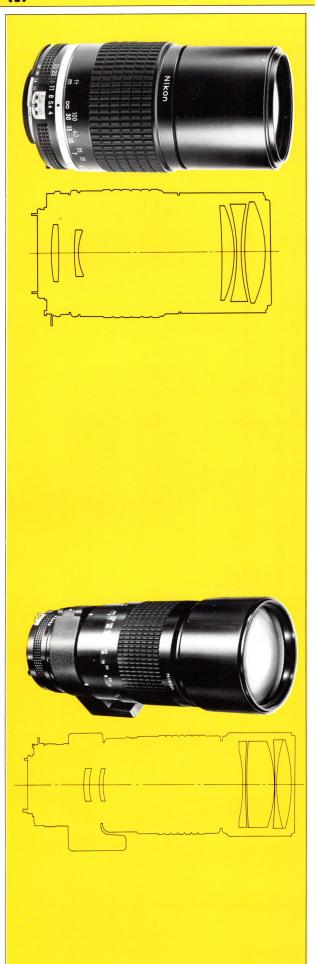
Optional accessories: Hard Lens Case CL-32S

Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters:

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 1.4x Teleconverter TC-14B 2x Teleconverter TC-201





#### Nikkor 200mm f/4

1467 Product number: Focal length: 200mm f/4 Maximum aperture: Picture angle: 12° 20′

5 elements in 5 groups Optical construction:

Minimum focusing distance: 2m (7 ft.) f/4-f/32 Aperture range:

Lens aperture: Via automatic diaphragm

52mm diameter Filter size: Built-in Lens hood:

Dimensions: 65mm dia. x 124mm (2.6" x 4.9")

Weight: 510g (18 oz.)

Usable teleconverters:

Hard Lens Case CL-13A Soft Leather Lens Pouch #63 Optional accessories:

Plastic Lens Case CP-9 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# Nikkor 300mm f/4.5

1470 Product number: 300mm Focal length: f/4.5 Maximum aperture: 8° 10′ Picture angle:

Optical construction: 6 elements in 5 groups

Minimum focusing distance: 3.5 (12 ft.) Aperture range: f/4.5-f/32

Lens aperture: Via automatic diaphragm Filter size: 72mm diameter

Built-in Lens hood:

Via built-in, rotatable collar Tripod mount: Dimensions: 78.5mm dia. x 203mm (3.1" x 8.0")

Weight: 1200g (42.4 oz.)

Hard Lens Case CL-20A Optional accessories:

Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable teleconverters: 1.4x Teleconverter TC-14A 1.4x Teleconverter TC-14B 2x Teleconverter TC-301





#### Nikkor ED Lenses with Internal Focusing

A new Nikon technique has produced a new class of telephoto lenses.

Nikon first used the term "internal focusing" about 10 years ago. What does this term mean, what advantages does this principle have for the user and what types of lenses are equipped with this technology?

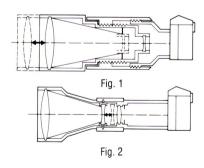
As a rule, every normal lens focusing system has a system which moves the entire optical system in a barrel during focusing (Fig. 1). This mechanism is complicated and bulky and has to be made of particularly robust material. These preconditions are invariably disadvantageous in terms of the weight and size of the lens. As the focal length and maximum aperture increase, lenses based on this conventional design become technically more complicated and heavy.

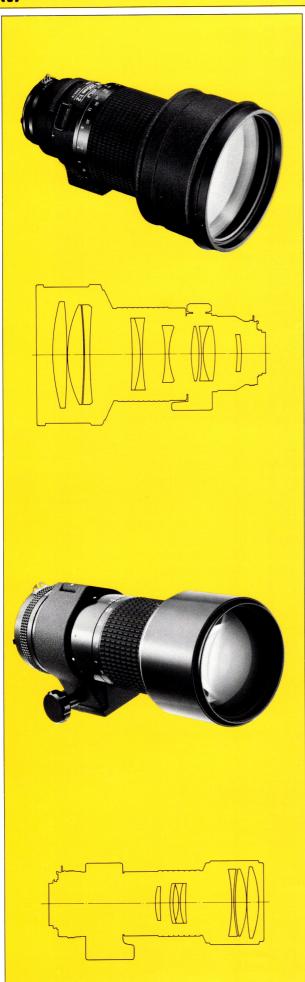
Although these conventional lenses are based on well established designs, Nikon has nevertheless been making efforts to improve the focusing systems of long focal length lenses. The result is a new class of telephoto lenses, lenses with internal focusing-referred to as the IF system. This IF system permits very convenient and rapid focusing. This is particularly important where the photographer is concerned with newspaper reporting or sport or animal photography-subjects which do not leave him very much time for focusing. Furthermore, the total length of a conventional lens changes during focusing, making hand-held shooting with long focal length lenses more difficult; this is not the case with the new IF designs. Here, an easily operated ring in a convenient position permits focusing with a completely rigid barrel. Because a lens group is moved inside the lenses system (Fig. 2), these new Nikkor lenses are usually compact and free from any change in the overall center of gravity.

At the same time, this novel technology has made it possible to achieve substantially better imaging and an unusually short minimum focusing distance. These lenses are therefore also suitable for close-ups (for example of small animals) from relatively far away.

Most IF Nikkor lens systems have lenses made of ED glass. Because of its particularly low dispersion, this ED glass permits exception correction of color abberation over a very wide wavelength range. The optical properties of ED glass are similar to those of calcium fluoride glasses; however, the ED glasses have the great advantage that the low dispersion remains constant over a wide temperature range. Moreover, this material is much harder and much more scratch-resistant and is therefore also suitable for front and rear lens elements.

The ED lenses provide a substantial improvement in quality: significantly cleaner contours coupled with sharp focus and fresher colors with greater saturation - and all this with the aperture fully open!





#### Nikkor ED 200mm f/2N IF

Product number: 1465
Focal length: 200mm
Maximum aperture: f/2
Picture angle: 12° 20′

Optical construction: 10 elements in 8 groups

Minimum focusing distance: 2.5m (9 ft.)

Aperture range: f/2-f/22

Lens aperture: Via automatic diaphragm

Filter size: Gelatine filter can be inserted via special rear mount; front end of lens has built-in protective

glass

Lens hood:Extension Lens Hood HE-4 providedTripod mount:Via built-in, rotatable tripod collar

Lens case: Supplied (CT-200)

**Dimensions:** 132mm dia. x 233.5mm (5.4" x 8.7")

Weight: 2550g (84.8 oz.)

Usable teleconverters:

Autofocus Converter TC-16A
1.4x Teleconverter TC-14A
1.4x Teleconverter TC-14B
2x Teleconverter TC-201

# Nikkor ED 300mm f/4.5 IF

Product number:1488Focal length:300mmMaximum aperture:f/4.5Picture angle:8° 10'

Optical construction: 7 elements in 6 groups

Minimum focusing distance:2.5m (10 ft.)Aperture range:f/4.5-f/32

Lens aperture:Via automatic diaphragmFilter size:72mm diameter (P=0.75mm)

Lens hood: Built-in

Tripod mount: Via built-in, rotatable tripod collar

Lens case: Supplied (CL-20A)

**Dimensions:** 80mm dia. x 200mm (3.1" x 7.9")

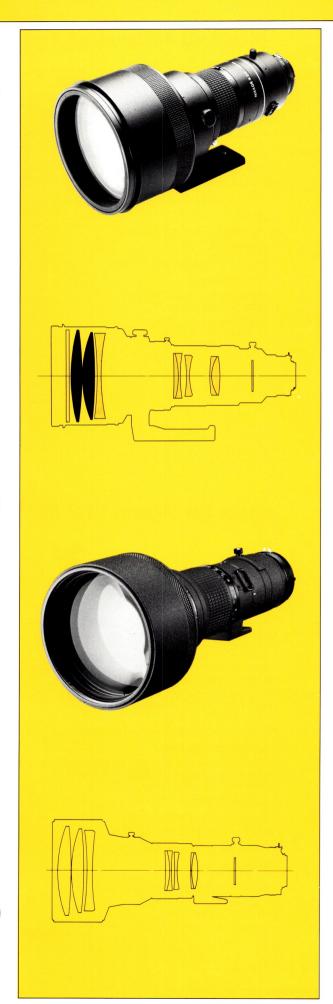
Weight: 1060g (35 oz.)

Optional accessories: Miscellaneous 72mm Filters

Gelatine Filter Holder AF-2

Usable teleconverters: 1.4x Teleconverter TC-14B 2x Teleconverter TC-201





#### Nikkor ED 400mm f/2.8 IF

Product number:

1499

Focal length:

400mm



f/2.8



6° 10′ 8 elements in 6 groups

Minimum focusing distance:

4m (15 ft.)

Aperture range:

f/2.8-f/22

Lens aperture:

Filter size:

Via automatic diaphragm

52mm filters via slip-in holder; gelatine filters via special holder provided; front end of lens has

built-in slip-in protective glass

Lens hood:

Built-in, with Extension Hood HE-3 provided Via built-in, rotatable tripod collar

Tripod mount:

Supplied (CT-400)

Lens case: **Dimensions:** 

163mm dia. x 386.5mm (6.4" x 15.2")

Weight:

5150g (180.3 oz.)

Optional accessories: Usable teleconverters: Miscellaneous 52mm Filters 1.4x Teleconverter TC-14B

2x Teleconverter TC-201 2x Teleconverter TC-301

#### Nikkor ED 400mm f/3.5 IF

Product number:

1473

Focal length:

400mm

Maximum aperture:

f/3.5

Picture angle:

6° 10'

Optical construction:

8 elements in 6 groups

Minimum focusing distance:

4.5m (15 ft.)

Aperture range: Lens aperture:

f/3.5-f/22

Filter size:

Via automatic diaphragm

122mm filters via front thread; 39mm filters via slip-in holder; gelatine filters via special slip-in holder provided

Lens hood:

Built-in

Tripod mount:

Via built-in, rotatable tripod collar

Lens case:

Supplied (CL-61A)

Dimensions:

134mm dia. x 304mm (5.3" x 12")

Weight:

2800g (98.9 oz.)

Optional accessories:

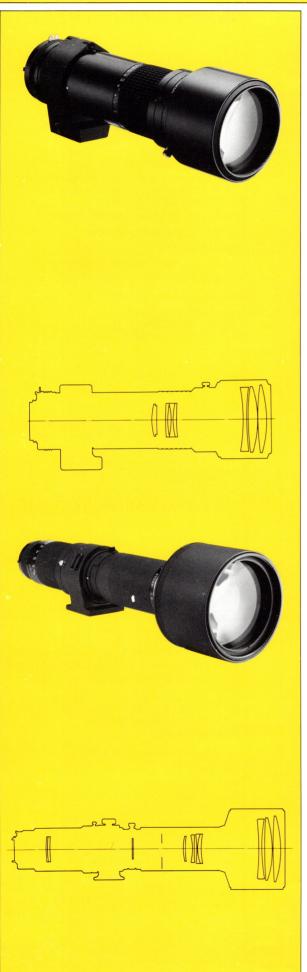
Miscellaneous 39mm Filters

Usable teleconverters:

Miscellaneous 122mm Filters 1.4x Teleconverter TC-14A

1.4x Teleconverter TC-14B





#### Nikkor ED 400mm f/5.6 IF

Product number: 1489 Focal length: 400mm Maximum aperture: f/5.6 Picture angle: 6° 10'

Optical construction: 7 elements in 6 groups

Minimum focusing distance: 4m (15 ft.) Aperture range: f/5.6-f/32

Lens aperture: Via automatic diaphragm Filter size: 72mm diameter (P=0.75mm)

Lens hood:

Tripod mount: Via built-in, rotatable tripod collar

Lens case: Supplied (CL-27A)

Dimensions: 85mm dia. x 262mm (3.3" x 10.3")

Weight: 1200g (42.4 oz.)

Miscellaneous 72mm Filters Optional accessories:

Gelatine Filter Holder AF-2

1.4x Teleconverter TC-14B Usable teleconverters: 2x Teleconverter TC-301

#### Nikkor ED 500mm f/4 P IF

Product number: 1447 Focal length: 500mm f/4 Maximum aperture:

5° Picture angle:

Optical construction: 8 elements in 6 groups

Equipped with electronic circuitry including CPU to Special characteristics:

enable use of all exposure operation modes with Nikon N2020, N4004S, N8008 and F4S autofocus cameras; compatible with other Nikon SLR cameras via normal mechanical interface provided

at lens mount

Minimum focus distance: 5m (20 ft.); preset lock ring fitted coaxial with

focus ring for rapid refocus operation at

preselected focus distance

f/4-f/22; minimum aperture lock provided Aperture range:

Lens aperture: Via automatic diaphragm

Slip-in filters via slip-in holder; gelatine filters via special slip-in holder provided; front end of lens Filter size:

has built-in protective glass

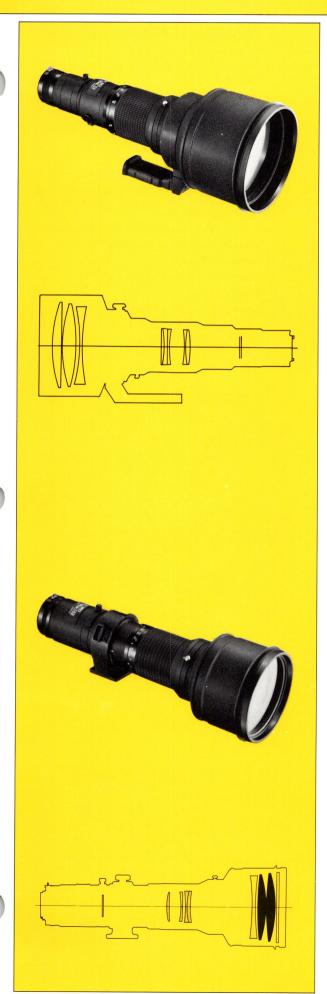
Lens hood: Supplied (Slip-on Hood HK-17) Via built-in rotatable tripod collar Tripod mount: Lens case: Supplied (Fitted Trunk Case CT-500)

138mm dia. x 393mm (5.4" x 15.5") Dimensions:

3000g (6.6 lbs.) Weight:

Optional accessories: Miscellaneous 39mm Filters 1.4x Teleconverter TC-14B Usable Teleconverters: 2x Teleconverter TC-301





#### Nikkor ED 600mm f/4N IF

Product number:

1492 600mm

Focal length: Maximum aperture:

f/4

Picture angle:

4° 10′

Optical construction: Minimum focusing distance: 8 elements in 6 groups 6.5m (25 ft.)

Aperture range:

f/4-f/22

Lens aperture:

Filter size:

Via automatic diaphragm

39mm filters via slip-in holder; gelatine filters via special slip-in holder provided; front end of lens

has built-in protective glass

Lens hood: Tripod mount: Built-in, with Extension Hood HE-5 provided Via built-in, rotatable tripod collar

Lens case:

Supplied (CT-602)

Dimensions:

173mm dia. x 473.5mm (7" x 18.1")

Weight:

5650g (222.5 oz.)

Optional accessories: Usable teleconverters:

Miscellaneous 39mm Filters 1.4x Teleconverter TC-14B 2x Teleconverter TC-301

# Nikkor ED 600mm f/5.6N IF

Product number:

1494

Focal length:

600mm

Maximum aperture: Picture angle:

f/5.6 4° 10'

Optical construction:

Minimum focusing distance:

7 elements in 6 groups

Aperture range:

5m (20 ft.)

f/5.6-f/32

Lens aperture:

Via automatic diaphragm

Filter size:

39mm filter via slip-in holder; gelatine filters via special slip-in holder provided; front end of lens

has built-in protective glass

Lens hood:

Built-in, with Extension Hood HE-4 provided Via built-in, rotatable tripod collar

Tripod mount:

Lens case:

Supplied (CT-603)

Dimensions:

132mm dia. x 395.5mm (5.3" x 15")

Weight:

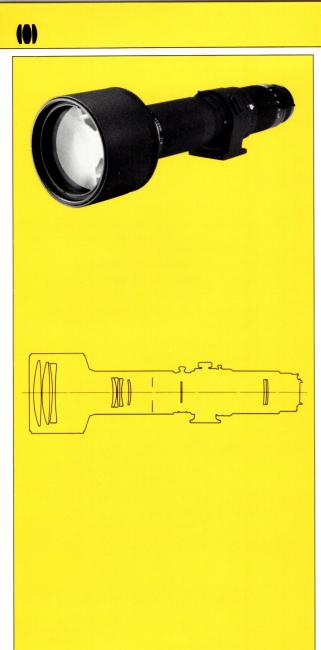
2800g (95.4 oz.)

Optional accessories:

Miscellaneous 39mm Filters

Usable teleconverters:

1.4x Teleconverter TC-14B



#### Nikkor ED 800mm f/5.6 IF

Product number: 1446 Focal length: 800mm f/5.6 Maximum aperture:

Picture angle:

8 elements in 6 groups Optical construction: 8m (30 ft.)

Minimum focusing distance: Aperture range:

f/5.6-f/32

Lens aperture:

Via automatic diaphragm

Filter size:

52mm filters via slip-in holder; gelatine filter via special slip-in holder provided; front of lens has built-in protective glass

Lens hood: Built-in, with Extension Hood HE-3 provided

Tripod mount: Via built-in, rotatable tripod collar Lens case:

Supplied (CT-800)

163mm dia. x 554mm (6.4" x 21.8") Dimensions:

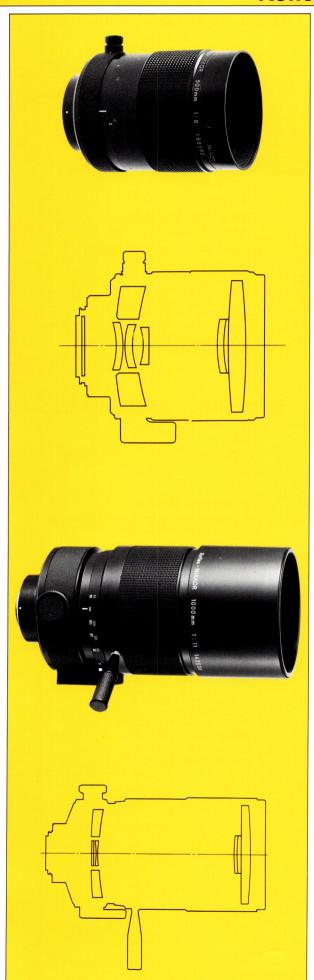
Weight: 5450g (190.8 oz.)

Optional accessories: Miscellaneous 52mm Filters Usable teleconverters: 1.4x Teleconverter TC-14B

# **Reflex Lenses**

Lens hood:





# Reflex-Nikkor 500mm f/8N

Product number:953Focal length:500mmMaximum aperture:f/8Picture angle:5°



Optical construction: 6 elements in 6 groups

Minimum focusing distance: 1.5m (5 ft.); 1:2.5 reproduction ratio provided
Lens aperture: Fixed aperture; exposure control via ND filter

Filter size:

39mm filter via rear mount (82mm filter via front thread also useable); 5 filters (L37c, 056, A2, B2 and ND-4) supplied; a filter must always be mounted

Supplied (HN-27)

**Tripod mount:** Via built-in, rotatable tripod collar

Lens case: Supplied (CL-39)

**Dimensions:** 89mm dia. x 116mm (3.5" x 4.6")

Weight: 840g (29.7 oz.)

Optional accessories: Miscellaneous 39mm Filters
Usable teleconverters: 1.4x Teleconverter TC-14A
1.4x Teleconverter TC-14B
2x Teleconverter TC-201

#### Reflex-Nikkor 1000mm f/11

Product number:952Focal length:1000mmMaximum aperture:f/11Picture angle:2° 30'

Optical construction: 5 elements in 5 groups

Minimum focusing distance: 8m (25 ft.)

Lens aperture: Fixed aperture exposure control via ND filter Filter size: 39mm filter via rear mount: 5 filters (L37c. 0

ter size: 39mm filter via rear mount; 5 filters (L37c, 056, A2, B2, and ND-4) supplied; a filter must always be

mounted

Lens hood: Built-in

Tripod mount: Via built-in, rotatable tripod collar

Lens case: Supplied (CL-29)

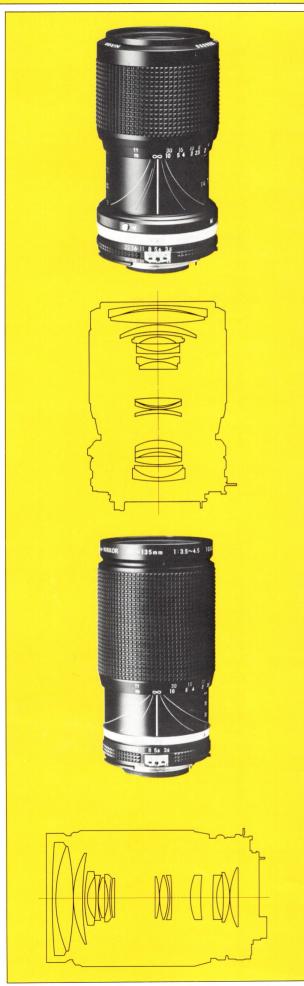
**Dimensions:** 119mm dia. x 241mm (4.7" x 9.5")

Weight: 1900g (67.1 oz.)

Optional accessories: Miscellaneous 39mm Filters
Usable teleconverters: 1.4x Teleconverter TC-14A
1.4x Teleconverter TC-14B

2x Teleconverter TC-201 2x Teleconverter TC-301

# **Zoom Lenses**



#### Zoom Nikkor 35-105mm f/3.5-4.5

Product number: 1477

Focal length: 35-105mm

f/3.3-f/4.5 Maximum aperture: Picture angle: 62°-23° 20'

Optical construction: 16 elements in 12 groups

One-touch operation for zooming and focusing maximum reproduction ratio of 1:4 at 35mm setting Special characteristics:

in the macro mode

Minimum focusing distance: 1.4m (5 ft.) as standard; and 0.27m (0.9 ft.) at

macro setting

f/3.5-f/22 Aperture range:

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

64mm dia. x 95mm (2.5" x 3.8") Dimensions:

510g (18.0 oz.) Weight:

Lens Hood HK-11 Optional accessories:

Hard Lens Case CL-33S Soft Leather Lens Pouch #62 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

1.4x Teleconverter TC-14A Usable teleconverters: 2x Teleconverter TC-201

#### Zoom-Nikkor 35-135mm f/3.5-4.5

Product number 1976

Focal length: 35-135mm

Maximum aperture: f/3.5-f/4.5

Picture angle: 62°-18°

Optical construction: 15 elements in 14 groups

Special characteristics:

One-touch operation for zooming & focusing; maximum reproduction ratio of 1:3.5 production via

macro setting

Minimum focus distance: 1.5m (5 ft.) as normal; 0.4m (1.4 ft.) via macro

setting

f/3.5-f/22 Aperture range:

Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter

Dimensions: 72mm dia. x 117 (2.7" x 4.1")

Weight:

630g (21 oz.)

Optional accessories: Lens Hood HB-1

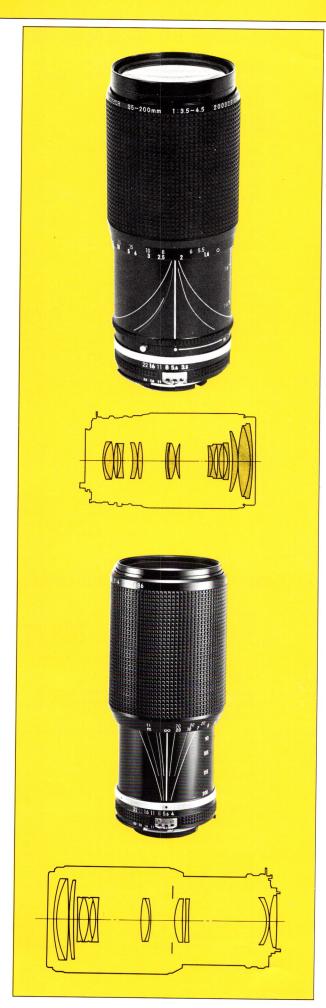
Hard Lens Case CL-41S

Soft Leather Case No. 62 62-72mm Filter Adaptor Ring UR-1 Miscellaneous 62mm Filters

Miscellaneous 72mm Filters Gelatine Filter Holder AF-2 1.4x Teleconverter TC-14A

Usable teleconverters:





# Zoom-Nikkor 35-200mm f/3.5-4.5

Product number: 1445

Focal length: 35-200mm

 Maximum aperture:
 f/3.5-f/4.5

 Picture angle:
 62°-12° 20′

Optical construction: 17 elements in 13 groups

Special characteristics: One-touch operation for zooming and focusing; max. magnification of 1:4 provided at macro

setting

Minimum focusing distance: 1.6m (4 ft.) as standard; 0.3m (1 ft.) at macro

setting

Aperture range: f/3.5-f/22

Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter

**Dimensions:** 70mm dia. x 128mm (2.7" x 5")

Weight: 740g (25.9 oz.)

Optional accessories:

Lens Hood HK-15
Hard Lens Case CL-13A
Soft Leather Lens Pouch #63
62-72mm Filter Adapter Ring UR-1
Miscellaneous 62mm Filters

Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable teleconverters: 2x Teleconverter TC-201

# Zoom-Nikkor 80-200mm f/4

Product number: 1484

Focal length: 80-200mm

Maximum aperture: f/4

**Picture angle:** 30° 10′ -12° 20′

Optical construction: 13 elements in 9 groups

Special characteristics: One touch operation for zooming and focusing

Minimum focusing distance: 1.2m (4 ft.)
Aperture range: f/4-f/32

Aperture range: f/4-f/32

Lens aperture: Via automatic

Lens aperture:Via automatic diaphragmFilter size:62mm diameter (P=0.75mm)Dimensions:73mm dia. x 162mm (2.9" x 6.4")

Weight: 810g (28.6 oz.)
Optional accessories: Lens Hood HN-

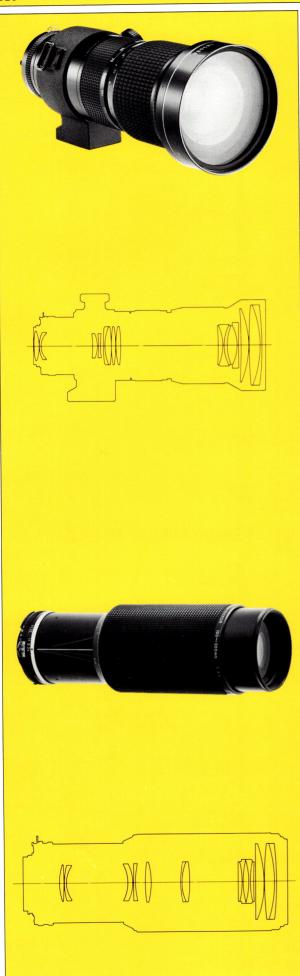
ional accessories:

Lens Hood HN-23
Hard Lens Case CL-35A
Soft Leather Lens Pouch #63
62-72mm Filter Adapter Ring UR-1
Miscellaneous 62mm Filters
Miscellaneous 72mm Filters

Miscellaneous 72mm Filters Gelatine Filter Holder AF-2 1.4x Teleconverter TC-14B

Usable teleconverters: 1.4x Teleconverter TC-14E 2x Teleconverter TC-201





# Zoom-Nikkor ED 50-300mm f/4.5

Product number:

1483

Focal length:

50-300mm

Maximum aperture:

f/4 5

Picture angle:

46° -8' 10°

Optical construction: Special characteristics: 15 elements in 11 groups

Two-ring operation for zooming and focusing

Minimum focusing distance: Aperture range:

2.5m (8.5 ft.) f/4.5-f/32

Lens aperture: Filter size:

Via automatic diaphragm 95mm diameter

Tripod mount:

Lens case:

Via built-in rotatable tripod collar Supplied (CL-64)

Dimensions:

98mm dia. x 247mm (3.9" x 9.7")

Weight:

1950g (68.9 oz.)

Lens Hood HK-5

Optional accessories: Usable teleconverters:

Miscellaneous 95mm Filters

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# Zoom-Nikkor 100-300mm f/5.6

Product number:

1481

Focal length: Maximum aperture: 100-300mm

Picture angle:

f/5.6

24° 20′ -8° 10′

Optical construction:

14 elements in 10 groups

Special characteristics:

One touch operation for zooming and focusing; magnification ratio 1:4.4 provided at 100mm macro

Minimum focusing distance:

2m (7 ft.) as standard; 0.71m (2.34) ft.) at macro

setting

Aperture range:

f/5.6-f/32

Lens aperture:

Via automatic diaphragm

Filter size:

62mm diameter (P=0.75mm)

Lens hood:

Supplied (HN-24)

Dimensions:

74mm dia. x 207mm (2.9" x 8.4")

Weight:

930g (32.8 oz.)

Optional accessories:

Lens Hood HN-24

Hard Lens Case CL-40 62-72mm Filter Adapter Ring UR-1

Miscellaneous 62mm Filters Miscellaneous 72mm Filters

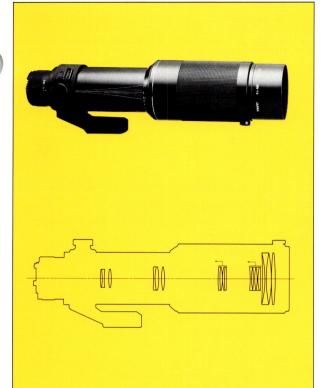
Gelatine Filter Holder AF-2

Usable teleconverters:

1.4x Teleconverter TC-14A

1.4x Teleconverter TC-14B 2x Teleconverter TC-201





#### Zoom-Nikkor ED 180-600mm f/8

Product number:

1490

Focal length:

Picture angle:

180-600mm

Maximum aperture:

f/8

Optical construction:

13° 40′-4° 10′

Special characteristics:

18 elements in 11 groups One-touch operation for zooming and focusing

Minimum focusing distance:

2.5m (9 ft.) as standard

Aperture range:

f/8-f/32

Lens aperture:

Via automatic diaphragm

Filter size: Lens hood:

Tripod mount: Dimensions:

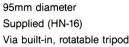
Via built-in, rotatable tripod collar

Weight: Optional accessories: 105mm dia. x 402mm (4.1 x 16.0") 3600g (126.9 oz.)

Usable teleconverters:

Lens Case CZ-1860 Miscellaneous 95mm Filters

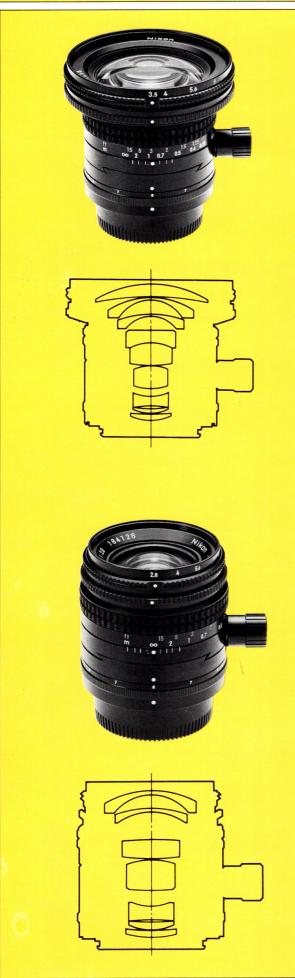
1.4x Teleconverter TC-14B 2x Teleconverter TC-301





# **Special Purpose Lenses**

Picture angle:



PC lenses are designed for all-around image control. PC stands for perspective control. You can shift the lens barrel of a PC-Nikkor to 11mm off-axis and rotate it a full 360°. This gives you truly full image control. PC lenses are convenient for correcting the distortion caused by horizontal and vertical lines in architectural and interior photography, or for avoiding the obstacles in front of your subject.

#### PC-Nikkor 28mm f/3.5

Product number1024Focal length:28mmMaximum aperture:f/3.5

74°, 92° covering power via shift operation

Optical construction: 9 elements in 8 groups

Maximum lateral shift: Up to 11mm, depending on format positioning

Minimum focus distance: 0.3m (1 ft.)
Aperture range: f/3.5-f/22

Lens aperture: Manual preset diaphragm

Filter size: 72mm diameter
Lens case: Supplied (CL-34A)

**Dimensions:** 78mm dia. x 69mm (3.1" x 2.8")

69mm (2.6")

Weight: 380g (13.4 oz.)
Optional accessories: Lens Hood HN-9

Soft Leather Lens Pouch #62 Miscellaneous 72mm filters Gelatine Filter Holder AF-2

#### PC-Nikkor 35mm f/2.8N

Product number: 1025
Focal length: 35mm

Maximum aperture: f/2.8

Picture angle: 62°; 78° covering power via shift operation

Optical construction: 7 elements in 7 groups

Maximum lateral shift: Up to 11mm, depending on format positioning

Minimum focusing distance: 0.3m (1 ft.)

Aperture range: f/2.8-f/32

Lens aperture: Manually preset diaphragm

Filter size: 52mm diameter
Lens case: Supplied (CL-34A)

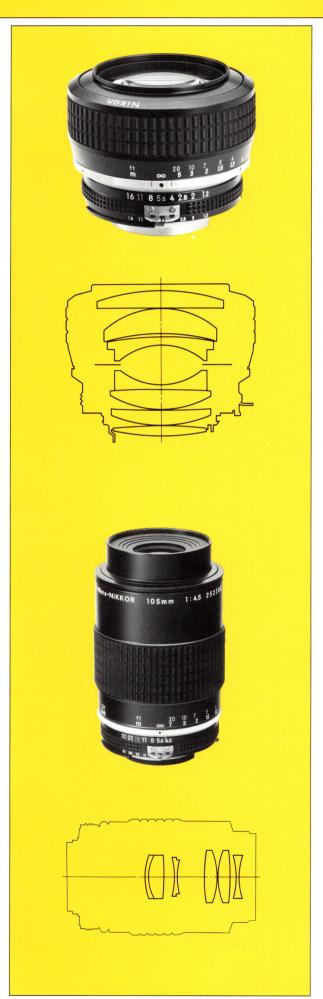
**Dimensions:** 62mm dia. x 66mm (2.4" x 2.6")

Weight: 320g (11.3 oz.)
Optional accessories: Lens Hood HN-

Optional accessories: Lens Hood HN-1 Soft Leather Lens Po

Soft Leather Lens Pouch #62 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1





# Noct-Nikkor 58mm f/1.2

Product number: 1439

> This lens was specially designed for photography at night and in poor light. It has an aspherical lens surface in order to correct coma at full aperture. Bright image areas against a dark background are optimally reproduced. The large maximum aperture permits high shutter speeds, particular important for night photography without a tripod; also, the large maximum aperture yields a viewfinder image that is exceptionally bright, permitting particularly fast and precise focusing even when illumination is poor.

Focal length: 58mm Maximum aperture: f/1.2 Picture angle: 40° 50′

Optical construction: 7 elements in 6 groups

Minimum focusing distance: 0.5m (1.7 ft.) Aperture range: f/1.2-f/16

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

Dimensions: 74mm dia. x 63mm (2.9" x 2.5")

Weight: 465g (16.4 oz.) Optional accessories: Lens Hood HS-7

Rubber Lens Hood HR-2 Hard Lens Case CL-31S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# UV-Nikkor 105mm f/4.5

Product number:

UV rays are electromagnetic waves around 200-400nm. Though the human eye is sensitive only within a range of 380-780 nm, it is possible to get valuable information from UV photography which the human eye cannot catch, particularly in fields as medical and forensic science, criminal lab work, and examination of fine art and industrial works.

Focal length: 105mm Maximum aperture: f/4.5 Picture angle: 23° 20'

Optical construction: 6 elements in 6 groups (fluorite and quartz

elements)

Minimum focus distance: 0.48m (1.57 ft.) Aperture range: \* f/4.5-f/32

Lens aperture: Via automatic diaphragm 52mm diameter (P=0.75mm)

Dimensions: 68.5mm dia. x 116.5mm (2.7" x 4.6")

Weight: 515g (18 oz.)

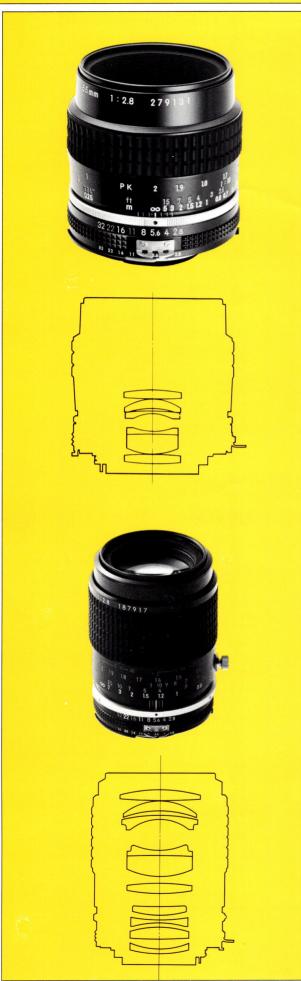
Filter size:

Optional accessories: Hard Lens Case CL-15S Soft Leather Lens Pouch #63

Plastic Lens Case CP-9 Miscellaneous 52mm filters Gelatine Filter Holder AF-1 Auto Extension Tube PN-11

Usable teleconverters: 1.4x Teleconverter TC-14B 2x Teleconverter TC-301

# Micro-Nikkor Lenses



Micro Lenses are designed for close-up work, including macrophotography, a very specialized type of photography demanding the use of a Micro-Nikkor lens. Micro Nikkors offer continuous focusing from infinity to a reproduction ratio of 1:2. The use of optional auto-extension rings or a teleconverter makes even closer focusing possible-from 1:2 to 1:1 life-size.

#### Micro-Nikkor 55mm f/2.8

Product number: 1442 Focal length: 55mm Maximum aperture: f/2.8Picture angle: 43°

Optical construction: 6 elements in 5 groups

Minimum focus distance: 0.25m (0.9 ft.) Reproductin ratio of 1:2 provided

Aperture range: f/2.8-f/32

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

Dimensions: 62mm dia. x 70mm (2.5" x 2.7")

Weight: 290g (10.9 oz.) Optional accessories: Lens Hood HN-3

Hard Lens Case CL-31S (Lens only); CL-33S (with PK-13)

Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# Micro-Nikkor 105mm f/2.8

Product number: 1455 Focal length: 105mm Maximum aperture: f/2.8 Picture angle: 23° 20′

Optical construction: 10 elements in 9 groups

Minimum focusing distance: 0.41m (1.34 ft.); reproduction ratio of 1:2 provided

Aperture range: f/2.8-f/32

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter Lens hood: Supplied (HS-14)

**Dimensions:** 66.5mm dia. x 91.5mm (2.6" x 3.6")

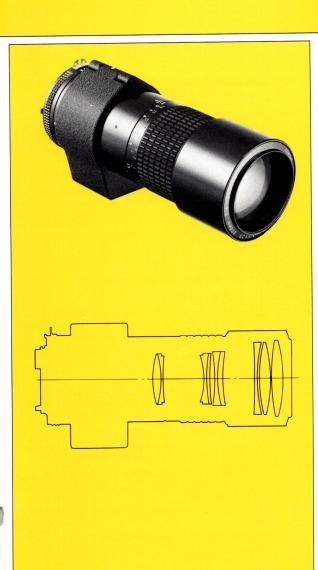
Weight: 515g (18.2 oz.)

Optional accessories: Hard Lens Case CL-33S

Soft Leather Lens Pouch #63 Plastic Lens Case CP-9 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A 1.4x Teleconverter TC-14A





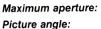
# Micro-Nikkor 200mm f/4 IF

Product number:

1468 f/4

Focal length:

200mm



12° 20′

Optical construction:

9 elements in 6 groups

Minimum focusing distance:

0.71m (2.34 ft.); reproduction ratio of 1:2 provided

Aperture range:

Lens aperture:

Via automatic diaphragm

Filter size:

52mm diameter

Lens hood:

Built-in

Tripod mount: Dimensions:

Via built-in, rotatable tripod collar 66mm dia. x 180mm (2.6" x 7.1")

Weight:

800g (28.3 oz.)

Optional accessories:

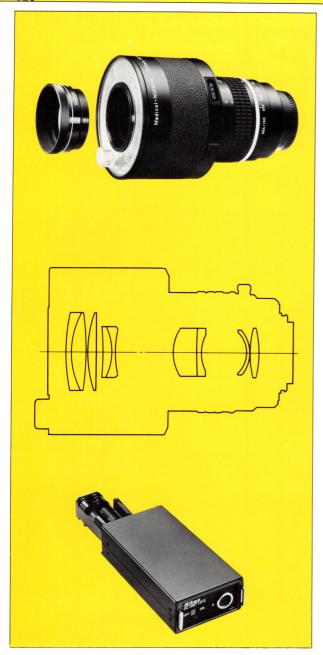
Hard Lens Case CL-36 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters:

1.4x Teleconverter TC-14A 1.4x Teleconverter TC-14B 2x Teleconverter TC-201







# Medical-Nikkor 120mm f/4 IF

Product number:

983
The Medical Nikkor 120mm f/4 IF is a professional close-up lens with a built-in ringlight. It is widely cooling ranging from medical photography to general close-ups. By itself, this lens provides continuously variable reproduction ratios from 1/11X to 1X; used in conjunction with a single 2X close-up attachment lens, the ratios are also continuously variable from 0.8X to 2X. You can superimpose the reproduction ratio in use on film. Also, optimum exposure becomes automatic because the aperture is set automatically according to the shooting distance, with flash output itself being determined by the film speed set. This has been made possible through the incorporation into the lens of a "Guide Number flash system."

Focal length:

120mm

Maximum aperture:

Picture angle:

18° 50' (at 1:11 reproduction ratio)

Optical construction:

9 elements in 6 groups

Focusing distance range:

0.26m-1.6m; provides stepless operation with reproduction ratios of 1:11 to 1:1 as standard; ratios of 1:08 to 2:1 with 2x close-up attachment lens

provided

Aperture range:

f/4-f/32

Lens aperture:

Via automatic diaphragm

Data imprinting:

Via LED; stepped reproduction ratios of 1:11-2:1 can be imprinted in the lower right-hand corner of

the picture; selected via switch on lens barrel

Filter size:

49mm diameter

Power source:

DC via optional Battery Pack LD-2 (eight 1.5V AAtype batteries); AC via optional Power Unit LA-2

Dimensions:

98mm dia. x 150mm (3.9" x 5.9"), lens only; 150mm x 81mm x 40mm (6.1" x 3.3" x 0.2"),

Battery Pack LD-2

Weight:

890g (3.14 oz.), lens only; 490g (17.2 oz.), Battery

Optional Accessories:

Medical Nikkor Compartment Case

AC Power Unit LA-2 DC Battery Pack LD-2

	Film speed	Recycling time		Number of flash	
		ese	Alkaline- mangan ese batteries	ese	Alkaline- mangan ese batteries
	ISO 25	About 12 sec.	About 9 sec.	About 50.	About 90.
	ISO 100	About 5 sec.	About 4 sec.	About 250	About 450

#### · Basic lens alone

Reproduction ratio	Focusing distance	Depth of field	Subject size
1:11 (1/11×)	1,6	+ 25,4 - 24,4	264 × 396
1:8 (1/8×)	1,2	+ 17,9 - 17,3	192 × 288
1:6 (1/6×)	0,95	+ 13,2 - 12,7	144 × 216
1:5 (1/5 ×)	0,83	+ 10,8 - 10,5	120 × 180
1:4(1/4×)	0,7	+ 8,45 - 8,15	96 × 144
1:3 (1/3×)	0,6	+ 6,18 - 5,97	72 × 108
1:2,5 (1/2,5 ×)	0,53	+ 4,99 - 4,81	60 × 90
1:2(1/2×)	0,47	+ 3,85 - 3,71	48 × 72
1:1,5 (1/1,5 ×)	0,4	+ 2,74 - 2,64	36 × 54
1:1,2 (1/1,2×)	0,37	+ 2,07 - 1,99	28,8 × 43,2
1:1 (1 × )	0,35	+ 1,63 - 1,56	24 × 36

#### Notes:

+ denotes background

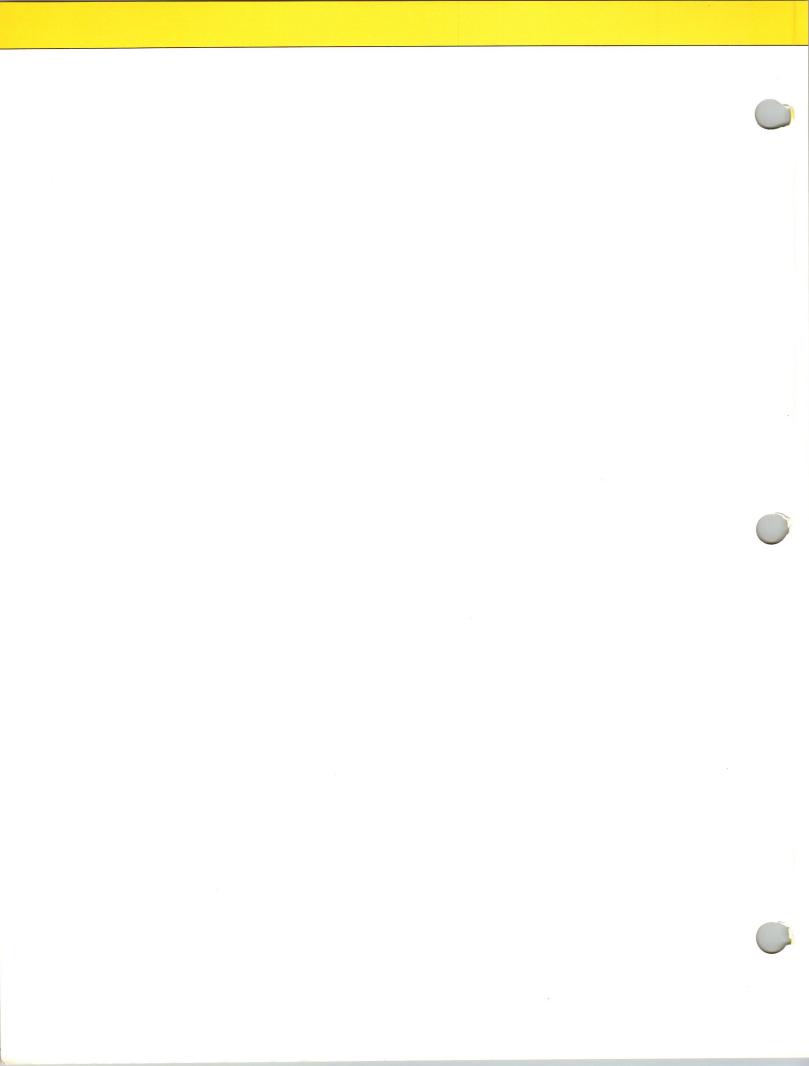
denotes foreground

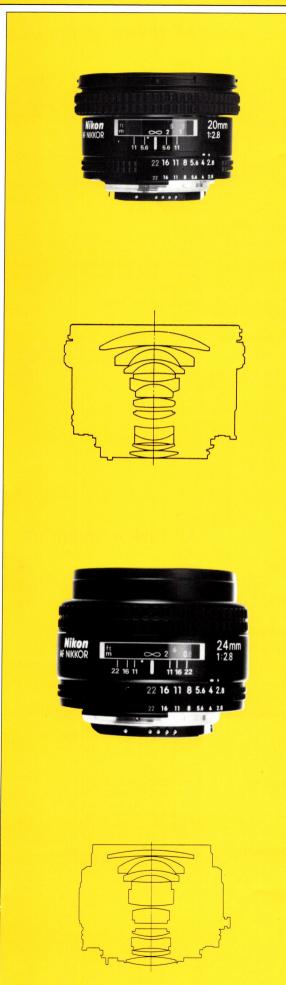
The focusing distance is always relative to the plane of the film

#### · With 2x close-up attachment lens

Reproduction ratio			Subject size
1:1,25 (0,8 × )	0,33	+ 2,47 - 2,35	30 × 45
1:1,18 (0,85 × )	0,325	+ 2,21 - 2,11	28,2 × 42,4
1:1,11 (0,9 × )	0,32	+ 1,95 - 1,88	26,7 × 40
1:1,05 (0,95 × )	0,315	+ 1,78 - 1,71	25,3 × 37,9
1:1 (1 × )	0,31	+ 1,55 - 1,50	24 × 36
1,1:1 (1,1×)	0,30	+ 1,28 - 1,23	21,8 × 32,7
1,2:1 (1,2×)	0,29	+ 1,10 - 1,06	20 × 30
1,3:1 (1,3×)	0,285	+ 0,90 - 0,86	18,5 × 27,7
1,5:1 (1,5×)	0,275	+ 0,67 - 0,65	16 × 24
1,8:1 (1,8×)	0,27	+ 0,52 - 0,50	13,3 × 20
2:1 (2 × )	0,26	+ 0,41 - 0,40	12 × 18

# AF Nikkor Lenses for 35mm SLR Cameras





#### AF Nikkor 20mm f/2.8

Product number: 1912 Focal length: 20mm Maximum aperture: f/2 8 Picture angle: 94°

Optical construction: 12 elements in 9 groups

Minimum focusing distance: 0.25m (0.85 ft.)

Aperture range: f/2.8-f/22; minimum aperture lock provided Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter

Special characteristics:

Close-Range Correction (CRC) system; autofocus operation with Nikon N2020, N4004, N4004S, N8008 and F4S cameras; compatible with other

Nikon SLR cameras in manual focus mode

Dimensions: 69mm dia. x 52mm (2.6" x 2.1")

Weight: 260g (9.2 oz.)

Optional accessories: Lens Hood HB-4

Hard Lens Case CL-30S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A Usable teleconverters:

2x Teleconverter TC-201

#### AF Nikkor 24mm f/2.8

Product number: 1915 Focal length:

Focus system: Autofocus capable; manual focusing ring provided

Optical construction: 9 elements in 9 groups

Picture angle: 84 degrees

f/2.8 to f/22 on both standard and aperture-direct Aperture scale: readout scales

Diaphragm: Fully automatic

Central processing unit: Built-in

Exposure measurement: Via full aperture method with AI cameras or

cameras with CPU interface system; via stop-down method with non-Al cameras; usable with programmed and shutter-priority auto-exposure

modes.

Distance Scale: Graduated in feet and meters from 0.3m (1 ft.) to

infinity

Mount: Nikon bayonet mount Attachment size: 52mm (P=0.75mm) Weight:

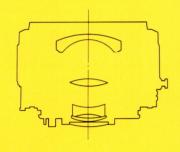
Approx. 260 grams Dimensions:

Approx. 64.5mm dia. x 46mm extension from the camera's lens mounting flange; overall length is

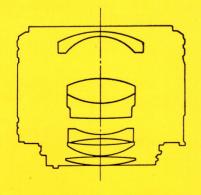
approx. 55.5mm











#### AF Nikkor 28mm f/2.8

Product number: Focal length:

Autofocus capable; manual focusing ring provided Focus system:

Optical construction: 5 elements in 5 groups

Picture angle:

Dimensions:

74 degrees Distance scale: Graduated in meters and feet from 0.3m (1 ft.) to

1917

28mm

Aperture scale: f/2.8 to f/22 on both standard and aperture-direct

readout scales

Diaphragm: Fully automatic

Central processing unit: Built-in

Exposure measurement:

Via full aperture method with AI cameras or cameras with CPU interface system; via stop-down

method with non-Al cameras; usable with programmed and shutter-priority auto-exposure

Mount: Nikon bayonet mount

Attachment size: 52mm (P=0.75mm) Weight: Approx. 195 grams

> Approx. 64.5mm dia. x 39mm extension from the camera's lens mounting flange; overall length is

approx. 48.5mm

# AF Nikkor 35mm f/2

Product number:

Focal length:

Maximum aperture:

Picture angle:

Optical construction:

Minimum focusing distance:

Aperture range:

Lens aperture:

Filter size:

Special characteristics:

Dimensions: Weight:

Optional accessories:

Usable teleconverters:

1920

35mm f/2

62°

6 elements in 5 groups

52mm diameter

0.25m (0.9 ft.)

f/2-f/22; minimum aperture lock provided

Via automatic diaphragm

Autofocus with Nikon N2020, N4004, N4004S, N8008 and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

63mm dia. x 53mm (2.5" x 2.1")

215g (7.5 oz.)

Lens Hood HN-3 Hard Lens Case CL-30S

Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 2x Teleconverter TC-201



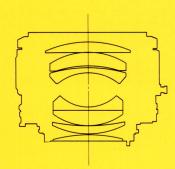
# **Normal Lenses**

Diaphragm:

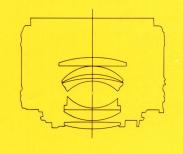
Weight:











#### AF Nikkor 50mm f/1.4

Product number: 1904 Focal length: 50mm

Focus system: Autofocus capable; manual focusing ring provided

Optical construction: 7 elements in 6 groups

Distance scale: Graduated in meters and feet from

0.45m (1.5 ft.) to infinity

Picture angle: 46 degrees

Aperture scale: f/1.4 to f/16 on both standard and aperture-direct

readout scales Fully automatic

Central processing unit: Built-in

Exposure measurement: Via full aperture method with Al cameras or

cameras with CPU interface system; via stop-down method with non-Al cameras; usable with programmed and shutter-priority auto-exposure

modes.

Mount: Nikon bayonet mount 52mm (P=0.75mm) Attachment size:

Dimensions:

Approx. 64.5mm dia. x 42mm extension from the camera's lens mounting flange; overall length is

approx. 52.5mm

Approx. 255 grams

#### AF Nikkor 50mm f/1.8N

Product number 1906 Focal length: 50mm f/1.8 Maximum aperture: 46° Picture angle:

Optical construction: 6 elements in 5 groups

Minimum focusing distance: 0.45m (1.75 ft)

Aperture range: f/1.8-f/22; minimum aperture lock provided

Lens aperture: Via automatic diaphragm

Filter size: 52mm diameter

Special characteristics: Autofocus with Nikon N2020, N4004, N4004S,

N8008 and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

Dimensions: 63mm dia. x 48mm (2.3" x 1.5")

Weight: 155g (5.5 oz.)

Optional accessories: Rubber Lens Hood HR-2

Hard Lens Case CL-30S Soft Leather Lens Pouch #61 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1 Autofocus Converter TC-16A

Usable Teleconverters: 1.4x Teleconverter TC-14A



# **AF Micro-Nikkor Lenses**



#### AF Micro-Nikkor 55mm f/2.8

Product number: 1990
Focal length: 55mm
Maximum aperture: f/2.8
Picture angle: 43°

Optical construction: 45

6 elements in 5 groups

Minimum focusing distance: 0.299m (1 ft.); reproduction ratio of 1:1 provided

Aperture range: f/2.8-f/32; minimum aperture lock provided

Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter

Special characteristics: Autofocus with Nikon N2020, N4004, N4004S,

N8008 and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

**Dimensions:** 74mm dia. x 82mm (2.7" x 2.9")

Weight: 420g (14 oz.)

Optional accessories: Hard Lens Case CL-32S

Soft Leather Lens Pouch #62 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

#### AF Micro-Nikkor 60mm f/2.8

Product number: 1991
Focal length: 60mm
Maximum aperture: 1/2.8
Picture angle: 39° 40′

Optical construction: 8 elements in 7 groups

Minimum focusing distance: 0.219m (8.75 in.); reproduction ratio of 1:1 provided

Aperture range: f/2.8-f/32; minimum aperture lock provided

Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter

Special characteristics: Autofocus with Nikon N2020, N4004, N4004S, N8008 and F4S cameras; compatible with other

Nikon SLR cameras in manual focus mode

**Dimensions:** 70mm dia. x 82mm (2.5" x 2.9")

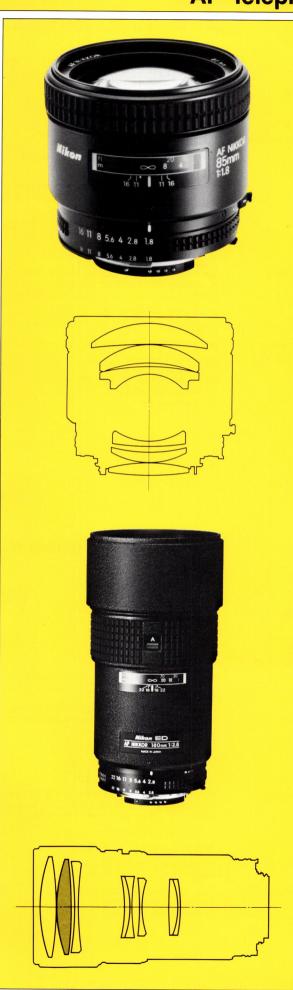
Weight: 455g (16 oz.)

Optional accessories: Hard Lens Case CL-32S
Soft Leather Lens Pouch #6

Soft Leather Lens Pouch #62 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-1

Usable teleconverters: Autofocus Converter TC-16A 1.4x Teleconverter TC-14A





# AF Nikkor 85mm f/1.8

Product number:

1930

Focal length:

85mm

Maximum aperture:

Picture angle:

f/1.8

Optical construction:

28° 30′

Minimum focus distance:

6 elements in 6 groups 0.85m (3 ft.)

Aperture range:

f/1.8-f/16; minimum aperture lock provided

Lens aperture:

Via automatic diaphragm

Filter size: Lens hood: 62mm diameter Supplied (HN-23)

Special characteristics:

Autofocus with Nikon N2020, N4004, N4004S, N8008 and F4S cameras; compatible with other

Nikon SLR cameras in manual focus mode

Dimensions:

71mm dia. x 69mm (2.8" x 2.7")

Weight:

415g (14.6 oz.)

Optional accessories:

Hard Lens Case CL-15S Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters

Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2 Autofocus Converter TC-16A

Usable teleconverters:

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

See Page 75 for information on the New 105mm f/2.8 AF Micro-Nikkor Lens

# AF Nikkor 180mm f/2.8N ED IF

Product number:

1938

Focal length:

180mm

Maximum aperture:

f/2.8

Picture angle:

13° 40′

Optical construction:

8 elements in 6 groups

Minimum focusing distance:

1.5m (5 ft.)

Aperture range:

f/2.8-f/22; minimum aperture lock provided

Lens aperture:

Via automatic diaphragm

Filter size:

72mm diameter

Special characteristics:

Autofocus with Nikon N2020, N4004, N4004S,

N8008 and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

Lens hood:

Nikon built-in

Lens case:

Supplied (CL-38)

Dimensions:

78.5mm dia. x 153mm (3.1" x 5.6")

Weight:

750g (25.2 oz.)

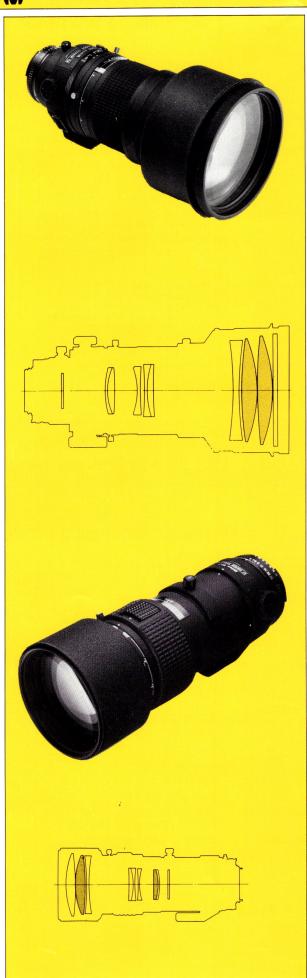
Optional accessories:

Miscellaneous 72mm Filters

Usable teleconverters:

Gelatine Filter Holder AF-2

Autofocus Converter TC-16A 1.4x Teleconverter TC-14A



#### AF Nikkor ED 300mm f/2.8N

Product number: 1944 Focal length: 300mm Maximum aperture: f/2.8 Picture angle: 8° 10'

Optical construction: 8 elements in 6 groups

Minimum focusing distance: 3m (10 ft.)

Aperture range: f/2.8-f/22; minimum aperture lock provided

Lens aperture: Via automatic diaphragm

Filter size:

39mm filter via slip-in holder; gelatine filter via special slip-in holder provided; front end of lens

has built-in protective glass

Lens hood: Built-in, with Extension Lens Hood HE-6 provided

Tripod mount: Via built-in, rotatable tripod collar

Lens case: Supplied (CT-303)

Special characteristics: Autofocus with Nikon N2020, N4004, N4004S,

N8008 and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

Dimensions: 133mm dia. x 263mm (5.4" x 9.8")

Weight: 2700g (89 oz.)

Optional accessories: Miscellaneous 39mm Filters Usable teleconverters: Autofocus Converter TC-16A 1.4x Teleconverter TC-14A 1.4x Teleconverter TC-14B

2x Teleconverter TC-201 2x Teleconverter TC-301

#### AF Nikkor ED 300mm f/4 IF

Product number: 1946 300mm Focal length: Maximum aperture: f/4

Picture angle: 8° 10'

Optical construction: 8 elements in 6 groups

Minimum focusing distance: 2.5m (9 ft.)

Aperture range: f/4-f/32; minimum aperture lock provided

Lens aperture: Via automatic diaphragm

39mm filters via slip-in holder; gelatine filters via Filter size:

special slip-in holder provided; 82mm via thread mount at front end of lens

Lens hood:

Special characteristics:

Tripod mount: Via built-in, rotatable tripod collar

Lens case: Supplied (CL-42)

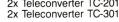
> Autofocus with Nikon N2020, N4004, N4004S, N8008 and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

Dimensions: 89mm dia. x 227mm (4.1" x 10.5")

1330g (46.6 oz.) Weight:

Optional accessories: Miscellaneous 39mm Filters Miscellaneous 82mm Filters

1.4x Teleconverter TC-14A Usable teleconverters: 2x Teleconverter TC-201





(0)

The 135mm f/2.0 AF DC-Nikkor introduced a brand-new category of lens. With the special Defocus Control, the photographer can selectively vary the out-of-focus effect for either the foreground or the background of a picture, without changing the aperture or the depth-of-field.



Combined with the benefits of the maximum f/2.0 aperture and relatively long focal length lens, this feature is particularly useful for portraiture or any other photography where depth-of-field normally plays an important role.

#### **Special Features**

- Foreground or background "out-of-focus" effect can be varied by adjusting the Defocus Control
  ring
- Rear Focusing mechanism provides highly consistent performance throughout the focusing range; focusing movement is internal and lens does not extend or change size when focused
- · Lens hood is built-in
- The lens diaphragm uses nine blades for rounder, softer effect at all f/stops



DC Ring set at central neutral position

Mount:

# **Specifications:**



Product number: 1934
Focal length: 135mm
Maximum aperture: f/2

Lens construction: 7 elements in 6 groups (plus built-in dustproof glass front plate)

Picture angle: 18°
Distance scale: Graduated in meters and feet/inches from 1.1m

Aperture scale: (4 feet) to infinity ( $\infty$ )

Aperture scale: f/2 to f/16 on both standard and aperture-direct-

readout scales

Minimum aperture lock: Provided
Diaphragm: Fully automatic

Focusing: Nikon Rear Focusing (RF) system

Exposure measurement: Via full-aperture method for Al cameras or cameras with CPU interface system; via stop-down

method for other cameras

method for other camera

Attachment size: 72mm (P-0.75mm)

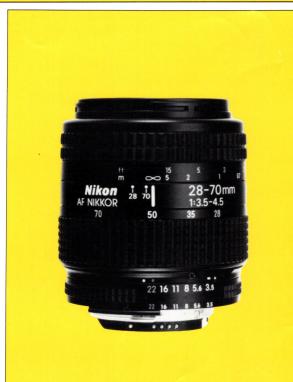
Dimensions: Approx. 79mm dia.

Approx. 79mm dia. x 120mm extension from the camera's lens mounting flange; overall length is

approx. 128mm

Weight: Approx. 870g





#### AF Zoom-Nikkor 28-70mm f/3.5-4.5

Product number:

1957

Focal length:

28mm to 70mm

Apeture range:

Variable maximum aperture from f/3.5 to f/4.5

Focus system:

Autofocus capable; manual focusing ring provided 8 elements in 7 groups

Optical construction:

74 degrees to 34 degrees 20 minutes

Picture angle: Distance scale:

Graduated in meters and feet from 0.5m (2 ft.) to

infinity; M and orange line for macro focus is also graduated from 0.5m (2 ft.) to 0.39m

Focal length scale:

28mm, 35mm, 50mm and 70mm Via zoom ring

Zoom control: Focus control:

Via focus ring

Macro focusing function:

Operable at any focal length setting; maximum

Aperture scale:

reproduction ratio is 1:4.6 at 70mm focal length setting

f/3.5, 5.6, 8, 11, 16 and 22 on both standard and

aperture-direct-readout scales; at f/4 there is a

click stop, but no mark

Minimum aperture lock:

Provided by minimum aperture lock lever

Infrared compensation index:

Two white dots are provided for the 28mm and

70mm focal length settings

Diaphragm:

Fully automatic Built-in

Central processing unit: Exposure measurement:

Via full aperture method with AI cameras or

cameras with CPU interface system; via stop-down method with non-Al cameras; usable with programmed and shutter-priority auto-exposure

modes.

Mount:

Nikon bayonet mount

Attachment size:

52mm (P=0.75mm)

Weight:

350 grams

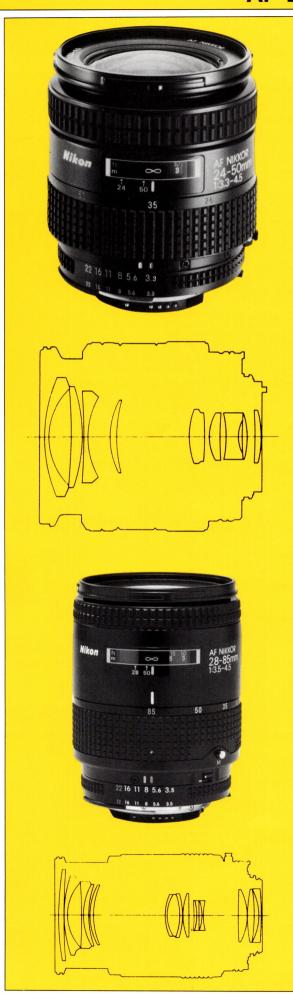
Dimensions:

Approx. 67.5mm dia. x 71mm extension from the camera's lens mounting flange; overall length is

approx. 79mm

# **AF Zoom Lenses**





#### AF Zoom-Nikkor 24-50mm f/3.3-4.5

Product number:

1954

Focal length:

24-50mm

Maximum aperture:

f/3.3-4.5

Picture angle:

84°-46°

Optical construction: Minimum focusing distance: 9 elements in 9 groups

0.6m (2 ft.) as normal; 0.5m (1.6 ft.) via macro range; macro range usable at all focal length settings;

maximum reproduction ratio of 1:8.5 possible

(50mm zoom setting)

Aperture range:

f/3.3-f/22; minimum aperture lock provided Via automatic diaphragm

Lens aperture: Filter size:

62mm diameter

Special characteristics:

Autofocus with Nikon N2020, N4004, N4004S.

N8008(s) and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

**Dimensions:** Weight:

70.5mm dia. x 82.5mm (2.8" x 3.2") 375g (13.2 oz.)

Optional accessories:

Lens Hood HB-3

Hard Lens Case CL-32S Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 62-72mm Filter Adapter Ringe UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable teleconverters:

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

#### AF Zoom-Nikkor 28-85mm f/3.5-4.5

Product number

1959

Focal length:

28-85mm

Maximum aperture:

f/3.5-4.5

Picture angle:

74°-28° 30′

Optical construction:

Minimum focusing distance:

15 elements in 11 groups

0.8m (3 ft.) as normal; 0.23m (0.9 ft.) via macro setting; reproduction ratio of 1:3.4 provided

Aperture range:

f/3.5-f/22; minimum aperture lock provided

Lens aperture:

Via automatic diaphragm

Filter size:

62mm diameter

Special characteristics:

Autofocus with Nikon N2020, N6006, N6000, N4004, N4004S, N8008(s) and F4S cameras;

compatible with other Nikon SLR cameras in manual focus mode

71mm dia. x 97.5mm (2.8" x 3.5")

Weight:

540g (18.9 oz.)

Dimensions:

Optional accessories:

Lens Hood HB-1 Hard Lens Case CL-33S

Soft Leather Lens Pouch #62 62-72mm Filter Adapter Ringe UR-1 Miscellaneous 62mm Filters

Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable Teleconverters:

1.4x Teleconverter TC-14A 2x Teleconverter TC-201







# AF Zoom-Nikkor 35-70mm f/2.8

Product number: 1962

Focal length: 35-70mm

Maximum aperture:

Picture angle:

62°-34° 20′

f/2.8

Optical construction: 15 elements in 12 groups

Minimum focusing distance: 0.6m (2 ft.) as normal: 0

0.6m (2 ft.) as normal; 0.28m (0.9 ft.) via macro mode at 35mm zoom setting; maximum reproduc-

tion ratio of 1:4 possible in macro mode

Aperture range: f/2.8-f/22; minimum aperture lock provided
Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter

mer size.

Special characteristics: Autofocus with Nikon N2020, N4004, N4004S,

N8008(s) and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

**Dimensions:** 71.5mm dia. x 105mm (2.8" x 3.7")

**Weight:** 665g (23.5 oz.)

Optional accessories: Lens Hood HB-1

Hard Lens Case CL-33S Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable teleconverters: Autofocus Converter TC-16A

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# AF Zoom-Nikkor 35-70mm f/3.3-4.5

Product number:

1965

Focal length:

35-70mm

Maximum aperture:

f/3.3-f/4.5

Picture angle:

62°-34° 20′

Optical construction:

02 -34 20

Minimum focusing distance:

8 elements in 7 groups 0.5m (1.5 ft.) as normal; 0.35m (1 ft.) via macro

minimum rocusing distant

setting; reproduction ratio of 1:44 provided

Aperture range:

f/3.3-f/22; minimum aperture lock provided

Lens aperture:

Via automatic diaphragm

Filter size:

52mm diameter

Special characteristics:

Autofocus with Nikon N2020, N4004, N4004S, N8008(s) and F4S cameras; compatible with other

Nikon SLR cameras in manual focus mode

Dimensions:

66.5mm dia. x 57mm (approx. 2.6" x 2.5")

Weight:

240g (8.5 oz.)

Optional accessories:

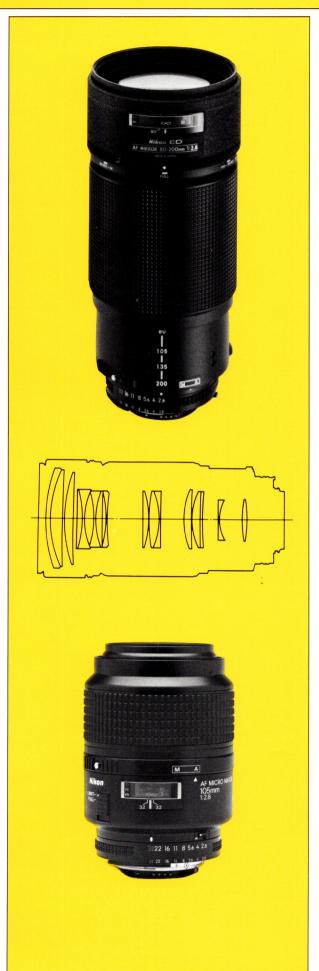
Lens Hood HN-2

Hard Lens Case CL-31S Soft Leather Lens Pouch #61 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Usable teleconverters:

1.4x Teleconverter TC-14A





# AF Zoom-Nikkor ED 80-200mm f/2.8

Product number: 1984

Minimum focusing distance:

Focal length: 80-200mm
Maximum aperture: f/2.8

**Picture angle:** 30° 10′-12° 20′

Optical construction: 16 elements in 11 groups

1.8m (6 ft.) as normal; 1.5m (4.9 ft.) via macro range; macro range usable at all focal length settings; maximum reproduction ratio of 1:5.9 possible

tings; maximum reproduction ratio of 1 (200m zoom setting)

(200111 200111 Setting)

Aperture range: f/2.8-f/22; minimum aperture lock provided

Lens aperture: Via automatic diaphragm

Filter size: 77mm diameter Lens case: Supplied (CL-43)

Special characteristics: Autofocus with Nikon N2020, N4004, N4004S,

N8008 and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

**Dimensions:** 85.5mm dia. x 184.5mm (3.4" x 7.3")

Weight: 1200g (42.3 oz.)
Optional accessories: Lens Hood HN-28

77mm UV Haze (L-37C) Filter

Usable teleconverters: Autofocus Converter TC-16A
1.4x Teleconverter TC-14A
1.4x Teleconverter TC-14B

1.4x Teleconverter TC-14B 2x Teleconverter TC-201

# AF Micro-Nikkor 105mm f/2.8

Product number: 1992

Focal length: 105mm
Maximum aperture: f/2.8

Picture angle: 39°-40′

Optical constructon: 9 elements in 8 groups

Minimum focusing

 distance:
 0.314m (1.2 ft.)

 Aperature range:
 f/2.8-f/3.2

 Filter size:
 52mm

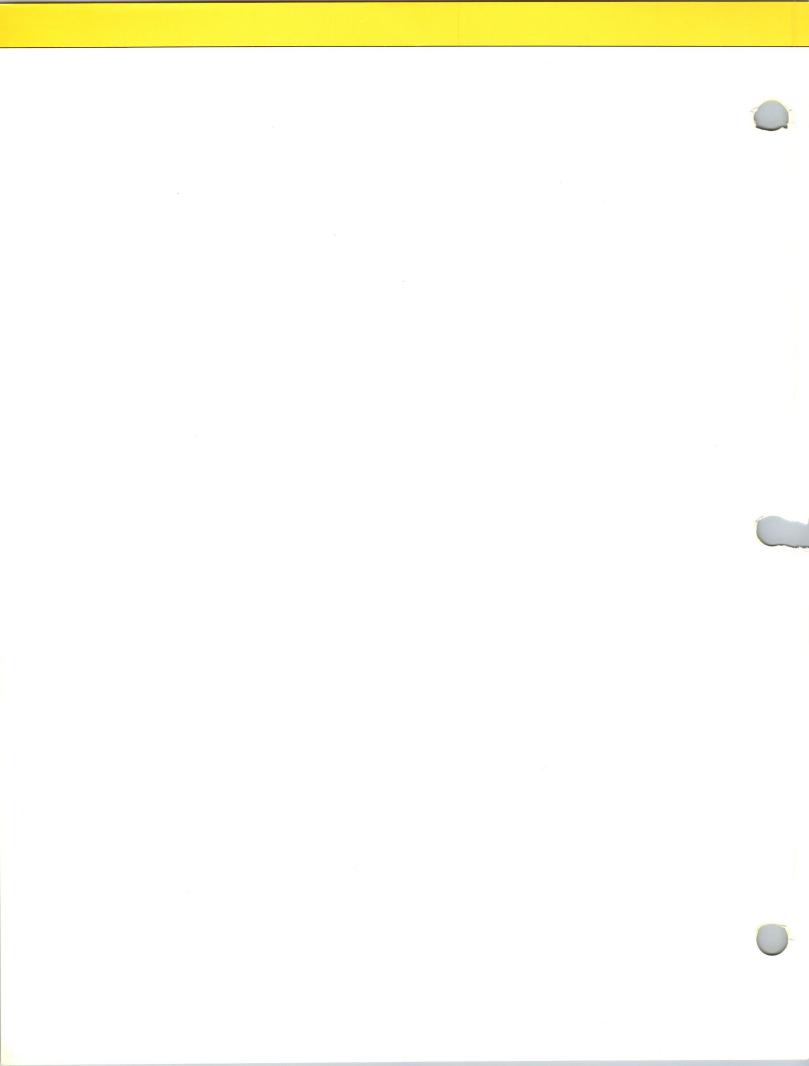
Dimensions:75mm x 104.5mmWeight:565g (21.3 oz)Optional accessories:Lens Hood HS-7

Lens Case CL-15S

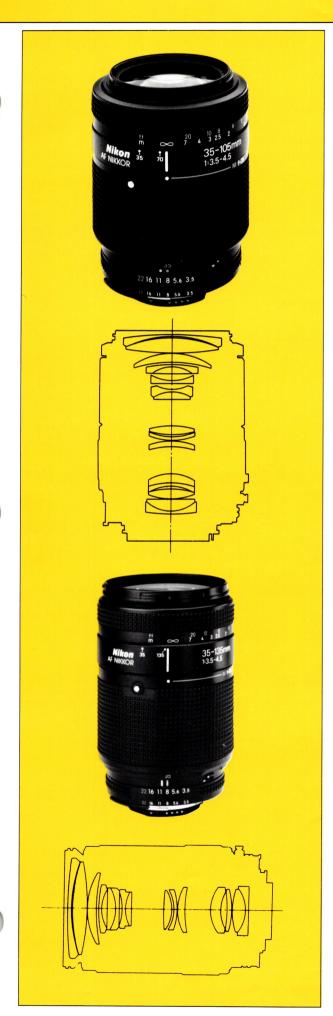
Usable teleconverters: Autofocus Converter TC-16A 1.4x Teleconverter TC-14A

2x Teleconverter 201









# AF Zoom-Nikkor 35-105mm f/3.5-4.5

Product number: 1967

Focal length: 35 to 105mm Maximum aperture: f/3.5 to f/4.5

Lens construction: 16 elements in 12 groups

62° to 23° 20' Picture angle:

Focal length scale: 35mm, 50mm, 70mm and 105mm

Graduated in meters and feet from 1.4m (4.6 ft.) to Distance scale:

infinity (∞); M and orange line for macro focus is also graduated from 1.4m (4.6 ft.) to 0.28m (0.9 ft.)

Focus/zoom control: Via two independent control rings

f/3.5 to f/22 on both standard and aperture-direct-Aperture scale: readout scales; at f/4 there is a click stop, but no

mark.

Macro focusing function: Push macro button while turning the zoom ring

from the 35mm setting; maximum reproduction

ratio is 1:4

Minimum aperture lock: Provided

Infrared compensation

indexes:

Two white dots are provided for the 35mm and

70mm focal length settings.

Diaphragm: Fully automatic

Via full-aperture method with Al cameras or cameras with CPU interface system; via stop-down Exposure measurement:

method with other cameras

Mount: Nikon bayonet mount

Attachment size: 52mm (P=0.75mm)

Dimensions: Approx. 70mm dia. x 87mm extension from the camera's lens mounting flange; overall length is

approx. 95.5mm

Weight: Approx. 510g (18 oz.)

Optional accessories: 52mm screw-in filters

Bayonet hood HB-5 Flexible lens pouch No. 62 Hard lens case CL-33S

Usable teleconverters: Teleconverter TC-201

Teleconverter TC-14A

# AF Zoom-Nikkor 35-135mm f/3.5-4.5N

Product number 1969 Focal length: 35-135mm Maximum aperture: f/3.5-4.5

62°-18° Picture angle: Optical construction: 15 elements in 12 groups

Minimum focusing

Aperture range:

1.5m (5 ft.) as normal; 0.3m (1.2 ft.) via macro distance:

setting; reproduction ratio of 1:35 provided f/3.5-F/22; minimum aperture lock provided

Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter

Autofocus with Nikon N2020, N6006, N6000, Special characteristics:

N4004, N4004S, N8008(s) and F4S cameras; compatible with other Nikon SLR cameras in

manual focus mode

Dimensions: 72.5mm dia. x 117mm (2.7" x 4.4") approx.

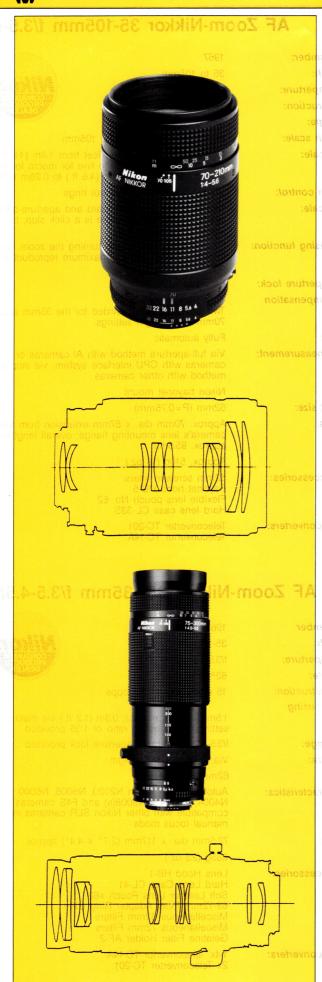
Weight: 685g (23 oz.) Optional accessories:

Lens Hood HB-1 Hard Lens Case CL-41

Soft Leather Lens Pouch #63 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters

Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Usable Teleconverters: 1.4x Teleconverter TC-14A 2x Teleconverter TC-201



# AF Zoom-Nikkor 70-210mm f/4-f/5.6

Product number Focal length: Maximum aperture:

Picture angle:

Optical construction:

Minimum focusing distance:

Aperture range:

Lens aperture: Filter size:

Special characteristics:

**Dimensions:** 

Weight:

Optional accessories:

Usable teleconverters:

1981

70-210mm

f/4-5.6

34°-20'-11° 50'

12 elements in 9 groups

1.5m (5 ft.) as normal; 1.2m (4 ft.) via macro setting; reproduction ratio of 1:4.5 provided

f/4-f/32; minimum aperture lock provided

Via automatic diaphragm

62mm diameter

Autofocus with Nikon N2020, N4004, N4004S, N8008(s) and F4S cameras; compatible with other Nikon SLR cameras in manual focus mode

73.5mm dia. x 116mm (2.8" x 4.5")

590g (20.6 oz.)

Lens Hood HN-24 Hard Lens Case CL-38 Soft Leather Lens Pouch #63

1.4x Teleconverter TC-14A 2x Teleconverter TC-201

# AF Zoom-Nikkor 75-300mm f/4.5-5.6

Product number:

Focal length:

Maximum aperture:

Picture angle:

Optical construction:

Minimum focus distance:

Aperture range:

Lens aperture: Filter size:

Tripod mount:

Special characteristics:

Dimensions:

Weight:

Optional accessories:

Usable teleconverters:

1982

75-300mm

f/4.5-5.6

31° 40′-8° 10′

13 elements in 11 groups

3m (10 ft.) as normal; 1.5m (5 ft) via macro setting; reproduction ratio 1:3.8 provided

f/4.5-f/32; minimum aperture lock provided Via automatic diaphragm

Via built-in, rotatable tripod collar

Autofocus with Nikon N2020, N4004, N4004S, N8008(s) and F4S cameras; compatible with other

Nikon SLR cameras in manual focus mode

72mm dia. x 174mm (2.6" x 6.8")

850g (30 oz.)

Lens Hood HN-24 Hard Lens Case CL-35A

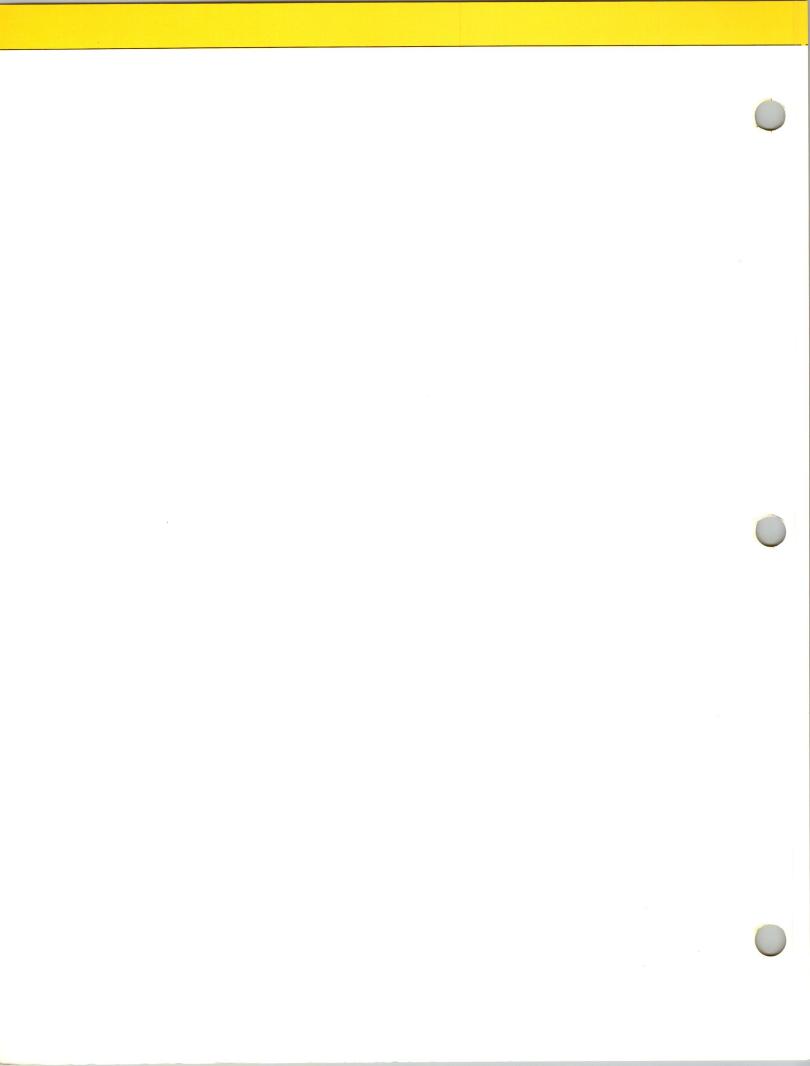
62-72mm Filter Adaptor Ring UR-1 Miscellaneous 62mm filter

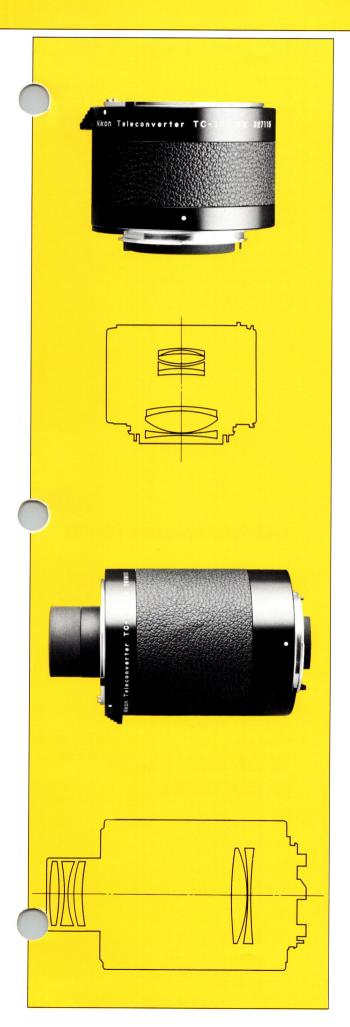
Miscellaneous 72mm filter Gelatine filter holder AF-2

1.4x Teleconverter TC-14A 2x Teleconverter TC-201



# Teleconverters & Extension Tubes





# 2X Teleconverter TC-201

**Product Number:** 

1403 Focal length: Double that of the mounted prime lens

Optical construction: 7 elements in 5 groups

Aperture coupling range: f/2 - f/32Effective aperture range: f/4 to f/64

Diaphragm coupling: Via built-in automatic mechanism

Reproduction ratio: Double that of the mounted prime lens Depth of field: Half that of the mounted prime lens Closest focusing distance: Same as that of mounted prime lens

Extension from flange: 44m (1.8")

Dimensions: 64.5mm dia. x 51.4mm (2.5" x 2.0")

Weight: 230g (8.1 oz.)

> Information of the use of the TC-201 is given in the Table of Nikkor Lenses (see pages 43/44).

**Optional Accessories:** Hard Lens Case CL-30S

Soft Leather Lens Pouch #61

# 2X Teleconverter TC-301

**Product Number:** 

Focal length:

Optical construction:

Aperture coupling range:

Effective aperture range: Diaphragm coupling:

Reproduction ratio: Depth of field:

Optional Accessories:

Closest focusing distance: Extension from flange:

Dimensions:

Weight:

1404

Double that of the mounted prime lens

5 elements in 5 groups

f/2.8 to f/32

f/5.6--f/64

Via built-in automatic mechanism Double that of mounted the prime lens

Half that of the mounted prime lens Same as that of mounted prime lens Mount-to-mount length 22mm (0.9")

64.5mm dia. x 115mm (2.5" x 4.5")

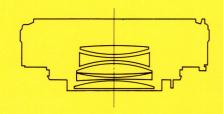
300g (9.9 oz.)

Information on the use of the TC-301 is given in the Table of Nikkor Lenses (see pages 43/44).

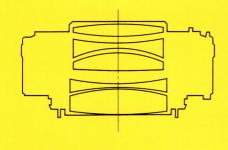
Hard Lens Case CL-33S Soft Leather Lens Pouch #62











# 1.4X Teleconverter TC-14A

**Product Number:** 

Focal length:

Optical construction:

Aperture coupling range: Effective aperture range:

Diaphragm coupling: Reproduction ratio:

Depth of field:

Closest focusing distance:

Dimensions: Weight:

Extension from flange:

Optional Accessories:

1400

1.4x that of the mounted prime lens

5 elements in 5 groups

1.8 to f/32 f/2.8--f/45

Via built-in automatic mechanism

1.4x that of mounted prime lens About 70% that of mounted prime lens Same as that of mounted prime lens Mount-to-mount length 22mm (0.9")

65mm dia. x 25.5mm (2.6" x 1.0")

145g (5.1 oz.)

Information on the use of the TC-14A is given in the

Table of Nikkor Lenses (see pages 16/17).

Hard Lens Case CL-30S Soft Leather Lens Pouch #61

# 1.4X Teleconverter TC-14B

**Product Number:** 

Focal length:

Optical construction:

Aperture coupling range: Effective aperture range:

Diaphragm coupling:

Reproduction ratio: Depth of field:

Closest focusing distance:

Extension from flange: Dimensions:

Weight:

1401

1.4x that of the mounted prime lens

5 elements in 5 groups

f/2 to f/45

f/2.8 to f/45

Via built-in automatic mechanism

1.4X that of mounted prime lens About 70% that of mounted prime lens

Same as that of mounted prime lens

22m (0.9") 65mm dia. x 34mm (2.6" x 1.3")

165g (5.8 oz.)

Information on the use of the TC-14B is given in the

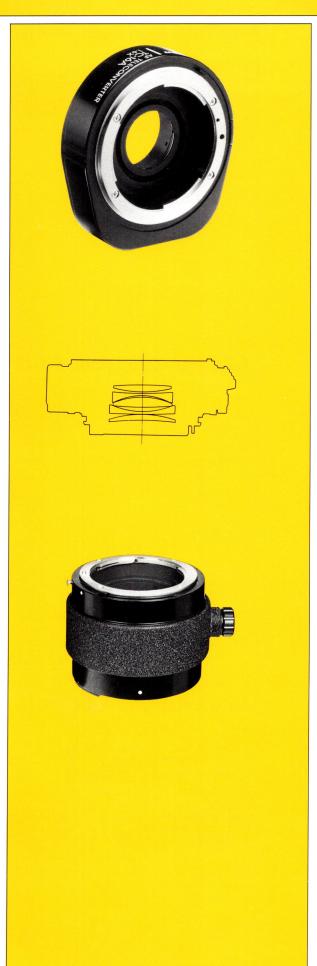
Table of Nikkor Lenses (see pages 16/17).

Optional Accessories:

Hard Lens Case CL-30S

Soft Leather Lens Pouch #61





#### **Autofocus Converter TC-16A**

Product Number:

Focal length:

Optical construction:

Aperture coupling range:

Effective aperture range: Diaphragm coupling:

Special characteristic:

Focusing drive:

Dimensions: Weight:

Optional Accessories:

1999

1.6x that of the mounted prime lens

5 elements in 5 groups

f/1.8 - f/32

f/2.9 to f/51

Via built-in automatic mechanism

Provides autofocus operation of Nikkor lenses with f/2.8 and brighter maximum aperture and N2020

camera.

Via focus drive motor in N2020, N4004

69mm dia. x 30mm (2.7" x 1.2")

150g (5.0 oz.)

Soft Leather Lens Pouch #61

Discer TWUET

# **Extension Tubes**

# **Auto Extension Tube PN-11**

Product number:

Extension from flange:

Dimensions:

Weight:

Tripod mount:

Optional accessories:

52.5mm; provides reproduction ratio of approximately 1:1 with both Micro-Nikkor 105mm f/2.8 and UV-Nikkor 105mm f/4.5 lenses

70.5mm dia. x 67mm (2.8 x 2.7")

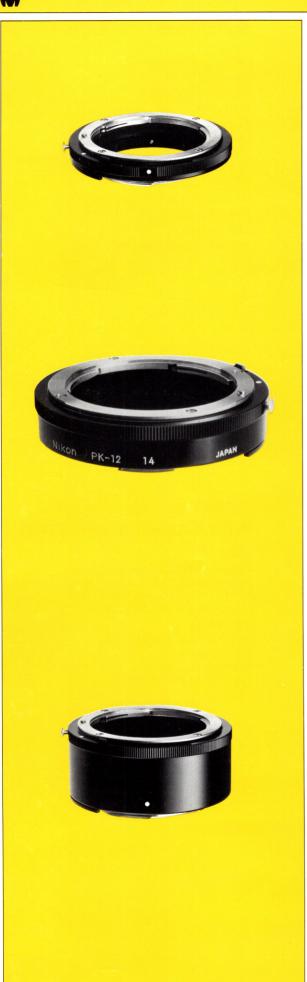
245g (8.6 oz.)

Via built-in, rotatable tripod collar

Body Cap BF-1A Rear Lens Cap LF-1 Soft Leather Lens Pouch #61







#### **Auto Extension Tube PK-11A**

Product number

Extension from flange::

Dimensions:

Weight: Note:

2656

8mm

64.4mm dia. x 17.0mm

Cannot be used in conjunction with AF Nikkor Lenses

# **Auto Extension Tube PK-12**

Product number

Extension from flange::

**Dimensions:** 

Weight:

Note:

2652

14mm

64.4mm dia. x 23.0mm

Cannot be used in conjunction with AF Nikkor lenses

# **Auto Extension Tube PK-13**

Product number:

Extension from flange:

Dimensions:

Weight:

Optional accessories:

2653

27.5mm; provides reproduction ratio of 1:1 with Micro-Nikkor 55mm f/2.8 lens

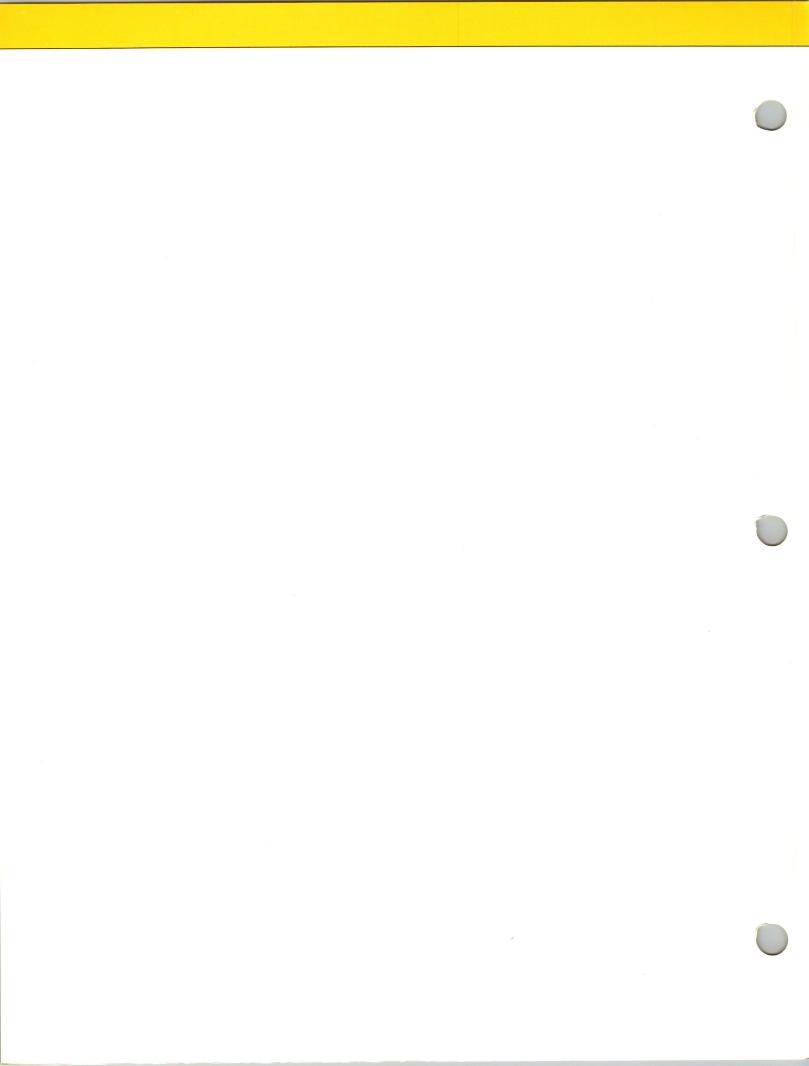
64.4mm dia. x 30.5mm (2.7" x 1.3")

100g (3.5 oz.)

Body Cap BF-1A Rear Lens Cap LF-1 Hard Lens Case CL-30S Soft Leather Lens Pouch #61



# Depth-of-Field Tables





# **Depth-of-field Tables (Wide-angle Lenses)**

# Nikkor 13mm f/5.6



Focusing distance	Depth of Field								
		f/5.6	f/8	f/11	f/16	f/22	ratio		
0,3		0,284-0,322	0,278-0,334	0,271-0,353	0,262-0,394	0,253-0,478			
0,35		0,320-0,395	0,310-0,422	0,300-0,467	0,285-0,592	0,272-1,04			
0,4		0,354-0,478	0,339-0,531	0,324-0,629	0,304-1,02	0,286-∞			
0,5		0,413-0,686	0,388-0,851	0,364-1,31	0,333-∞	0,308-∞			
0,8		0,546-2,14	0,490-23,9	0,441-∞	0,385-∞	0,343-∞			
1,5		0,720-∞	0,610-∞	0,521-∞	0,484-∞	0,373-∞			
∞		1,11-∞	0,830-∞	0,651-∞	0,501-∞	0,411-∞			

# Nikkor 15mm f/3.5



Focusing distance				Depth o	f Field				Reproduction
		f/3.5	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
0,3	0,28	30-0,325	0,278-0,329	0,270-0,343	0,260-0,367	0,248-0,405	. 0,233–0,499	0,218-0,732	1/13,2
0,4	0,38	59-0,457	0,354-0,467	0,339-0,503	0,320-0,571	0,299-0,699	0,272-1,19	0,249-40,0	1/19,8
0,5	0,43	31-0,606	0,423-0,626	0,399-0,701	0,370-0,864	0,341-1,26	0,303-7,93	0,271-∞	1/26,3
0,7	0,58	58-0,967	0,543-1,03	0,501-1,28	0,451-2,11	0,404-16,7	0,348-∞	0,302-∞	1/39,3
1	0,7	17–1,76	0,691-1,98	0,619-3,42	0,539-∞	0,468-∞	0,389-∞	0,330-∞	1/58,9
2	1,07	7–38,4	1,01-∞	0,851-∞	0,696-∞	0,573-∞	0,452-∞	0,369-∞	1/124
∞	2,12	2-∞	1,86-∞	1,36-∞	0,979-∞	0.738-∞	0.538-∞	0.417-∞	1/∞

# Nikkor 18mm f/3.5



Focusing distance	Depth of Field								
	f/3.5	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio	
0,25	0,243-0,257	0,243-0,258	0,240-0,262	0,236-0,267	0,231-0,275	0,224-0,289	0,216-0,309	1/8,51	
0,30	0,288-0,313	0,287-0,315	0,282-0,322	0,275-0,333	0,267-0,349	0,255-0,380	0,243-0,428	1/11,3	
0,40	0,373-0,432	0,370-0,438	0,359-0,455	0,345-0,486	0,329-0,531	0,307-0,637	0,285-0,858	1/16,7	
0,50	0,453-0,561	0,447-0,571	0,430-0,607	0,407-0,671	0,382-0,780	0,348-1,09	0,317-2,28	1/22,1	
0,70	0,599-0,850	0,588-0,878	0,554-0,982	0,510-1,20	0,467-1,70	0,411-6,52	0,363-∞	1/33,0	
1	0,790-1,39	0,767-1,48	0,705-1,84	0,630-3,00	0,558-16,9	0,474-∞	0,406-∞	1/49,3	
2	1,25–5,45	1,19-7,32	1,03-∞	0,860-∞	0,720-∞	0,580-∞	0,470-∞	1/104	
∞	3-∞	3–∞	2-∞	1-∞	1-∞	1_∞	1-∞	1/∞	

# Nikkor 20mm f/2.8



Focusing distance		Depth of Field								
_	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio		
0,25	0,244-0,256	0,242-0,259	0,239-0,262	0,235-0,268	0,230-0,276	0,222-0,291	0,214-0,312	1/8,4		
0,3	0,290–0,311	0,287-0,315	0,282-0,322	0,275-0,333	0,267-0,348	0,254-0,377	0,242-0,422	1/10,9		
0,4	0,380-0,423	0,372-0,435	0,362-0,451	0,348-0,477	0,332-0,517	0,310-0,604	0,288-0,768	1/15,8		
0,5	0,465-0,542	0,452-0,563	0,435-0,593	0,413-0,647	0,389-0,732	0,356-0,954	0,325-1,533	1/20,7		
0,7	0,626–0,797	0,599-0,849	0,567-0,931	0,526-1,093	0,484-1,407	0,428-2,824	0,379-∞	1/30,6		
1	0,844-1,23	0,793-1,38	0,734-1,63	0,661-2,27	0,591-4,61	0,505-∞	0,433-∞	1/45,3		
2	1,42–3,44	1,27-5,02	1,11–13,35	0,94-∞	0,79-∞	0,64-∞	0,52-∞	1/94,4		
∞	5–∞	3,2-∞	2,3-∞	1,6-∞	1,2-∞	0,9-∞	0,6-∞	1/∞		



Nikkor 24mm f/2										
Focusing distance	Depth of Field									
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio	
0,3	0,295-0,306	0,293-0,308	0,289-0,312	0,286-0,317	0,280-0,325	0,273-0,336	0,263-0,356	0,253-0,386	1/8,6	
0,35	0,342-0,359	0,339-0,362	0,334-0,368	0,329-0,376	0,320-0,388	0,311-0,406	0,297-0,440	0,282-0,491	1/10,7	
0,4	0,389-0,412	0,384-0,417	0,378-0,425	0,370-0,437	0,359-0,455	0,347-0,481	0,328-0,534	0,309-0,619	1/12,8	
0,5	0,481-0,521	0,474-0,530	0,463-0,544	0,451-0,565	0,433-0,600	0,413-0,651	0,384-0,763	0,356-0,974	1/16,9	
0,7	0,659-0,747	0,645-0,768	0,624-0,801	0,598-0,852	0,565-0,943	0,528-1,092	0,478-1,502	0,431-2,866	1/25,0	
1	0,914–1,106	0,884-1,156	0,842-1,241	0,794-1,378	0.731-1,653	0,667-2,227	0,585-5,576	0,512-∞	1/37,3	
2	1,661-2,525	1,557-2,826	1,424-3,447	1,280-4,905	1,114-13,871	0,962-∞	0,789-∞	0,654-∞	1/78,1	
∞	9,090-∞	6,517-∞	4,588-∞	3,302-∞	2,337-∞	1,723-∞	1,221-∞	0,904-∞	1/∞	

Nikkor	24mm	f/2.8

Focusing distance	CONSUMER PRODUCTS DEALER	CONSUMER PROGRES Depth of Field								
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio		
0,3	0,292-0,308	0,289-0,312	0,285-0,318	0,279-0,326	0,272-0,337	0,262-0,359	0,251-0,390	1/8,8		
0,35	0,338-0,363	0,334-0,368	0,328-0,377	0,319-0,390	0,310-0,408	0,295-0,443	0,280-0,498	1/11		
0,4	0,384-0,418	0,378-0,426	0,369-0,438	0,358-0,457	0,345-0,484	0,326-0,539	0,307-0,629	1/13		
0,5	0,473-0,531	0,463-0,546	0,449-0,567	0,431-0,603	0,411-0,655	0,382-0,772	0,353-0,996	1/17		
0,7	0,644-0,769	0,622-0,804	0,597-0,855	0,562-0,949	0,525-1,10	0,475-1,53	0,428-3,02	1/25		
1	0,882-1,16	0,840-1,25	0,791-1,38	0,728-1,67	0,663-2,27	0,580-5,95	0,507-∞	1/38		
2	1,55–2,84	1,42-3,48	1,27-4,99	1,11–14,8	0,955-∞	0,782-∞	0,648-∞	1/79		
∞	6,46-∞	4,55-∞	3,27-∞	2,31-∞	1,71-∞	1,20-∞	0,894-∞	1/∞		

# Nikkor 28mm f/2

		Dealer							
Focusing distance				Depth o	of Field				Reproduction
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
0,25	0,248-0,252	0,247-0,253	0,246-0,255	0,244-0,257	0,241-0,260	0,239-0,264	0,234-0,271	0,229-0,280	1/5,3
0,3	0,296-0,304	0,295-0,306	0,293-0,308	0,290-0,311	0,286-0,317	0,281-0,324	0,273-0,337	0,265-0,354	1/7,1
0,35	0,344-0,356	0,342-0,359	0,339-0,362	0,335-0,368	0,328-0,376	0,321-0,387	0,310-0,408	0,298-0,437	1/8,9
0,4	0,392-0,409	0,389-0,412	0,384-0,418	0,378-0,425	0,370-0,437	0,360-0,454	0,345-0,485	0,330-0,531	1/10,7
0,5	0,486-0,515	0,481-0,521	0,473-0,531	0,463-0,545	0,450-0,567	0,434-0,598	0,410-0,661	0,386-0,760	1/14,2
0,7	0,670-0,733	0,659-0,747	0,643-0,770	0,623-0,803	0,596-0,859	0,565-0,942	0,522-1,130	0,480-1,504	1/21,2
1	0,936-1,075	0,912-1,109	0,880-1,163	0,840-1,247	0,788-1,399	0,732-1,656	0,656-2,422	0,586-5,746	1/31,7
2	1,740–2,358	1,655-2,541	1,542-2,881	1,415-3,512	1,261-5,272	1,113–14,604	0,935-∞	0,789-∞	1/66,7
∞	12,353-∞	8,850-∞	6,223-∞	4,471-∞	3,157-∞	2,321-∞	1,625-∞	1,207-∞	1/∞

# Nikkor 28mm f/2.8

Focusing distance	PRODUCTS DEALER	CONSUMER PRODUCES DEALER Depth of Field								
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio		
0,2	0,199-0,201	0 198-0,202	0,198-0,202	0,197-0,203	0,196-0,204	0,194-0,207	0,192-0,209	1/3,88		
0,25	0,247-0,253	0,246-0,254	0,245-0,255	0,243-0,258	0,240-0,261	0,237-0,266	0,232-0,273	1/5,71		
0,3	0,295-0,305	0,294-0,307	0,291-0,310	0,288-0,314	0,283-0,320	0,277-0,330	0,269-0,344	1/7,5		
0,35	0,343-0,357	0,340-0,361	0,336-0,365	0,331-0,372	0,324-0,382	0,314-0,399	0,303-0,422	1/9,28		
0,4	0,390-0,411	0,386-0,416	0,380-0,422	0,373-0,433	0,364-0,447	0,350-0,473	0,335-0,510	1/11		
0,5	0,482-0,519	0,475-0,528	0,466-0,541	0,453-0,560	0,438-0,588	0,416-0,641	0,392-0,723	1/14,6		
0,7	0,661-0,744	0,646-0,766	0,627-0,796	0,601-0,847	0,571-0,921	0,529-1,09	0,487-1,39	1/21,6		
1	0,916–1,10	0,884-1,16	0,845-1,23	0,794-1,37	0,739-1,61	0,663-2,26	0,593-4,60	1/32,1		
2	1,66-2,53	1,55–2,85	1,42-3,45	1,27-5,07	1,12–12,6	0,94-∞	0,79-∞	1/67		
∞	9-∞	6-∞	4-∞	3-∞	2-∞	2-∞	1-∞	1/∞		



Focusing distance	m f/1.4 Nitron of Field Depth of Field									
	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	ratio	
0,3	0,298-0,302	0,298-0,302	0,297-0,303	0,295-0,305	0,294-0,307	0,291–0,310	0,288-0,314	0,283-0,321	1/5,5	
0,35	0,347-0,353	0,346-0,354	0,345-0,355	0,343-0,358	0,340-0,361	0,336-0,365	0,331-0,372	0,324-0,383	1/6,9	
0,4	0,396-0,404	0,395-0,405	0,393-0,407	0,390-0,411	0,386-0,415	0,381-0,422	0,374-0,431	0,364-0,448	1/8,3	
0,5	0,494-0,506	0,491-0,509	0,488-0,513	0,483-0,519	0,476-0,527	0,467-0,540	0,456-0,556	0,439-0,588	1/11,1	
0,7	0,686-0,714	0,681-0,720	0,674-0,729	0,663-0,742	0,649-0,761	0,630-0,791	0,608-0,832	0,575-0,914	1/16,7	
1	0,971-1,032	0,958-1,046	0,943-1,065	0,921-1,096	0,893-1,141	0,854-1,216	0,811-1,326	0,749-1,568	1/25,1	
2	1,876-2,143	1,827-2,211	1,767-2,309	1,683-2,474	1,585-2,737	1,457-3,263	1,326-4,313	1,155-9,516	1/52,9	
∞	27,870-∞	19,538-∞	13,983-∞	9,817-∞	7,040-∞	4.957-∞	3.631-∞	2.526-∞	1/∞	

Nikkor	35mm	f/2	Nikon
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Focusing distance	CONSUMER PRODUCTS DEALER DEPTH of Field									
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	Reproduction ratio	
0,3	0,298-0,303	0,297-0,304	0,295-0,305	0,293-0,307	0,290-0,311	0,287-0,315	0,282-0,322	0,276-0,322	1/5,67	
0,35	0,346-0,354	0,345-0,355	0,343-0,358	0,340-0,361	0,336-0,366	0,331-0,373	0,323-0,385	0,314-0,400	1/7,10	
0,4	0,395-0,405	0,393-0,408	0,390-0,411	0,386-0,416	0,380-0,423	0,373-0,433	0,362-0,450	0,350-0,474	1/8,51	
0,5	0,491-0,510	0,487-0,513	0,482-0,519	0,476-0,528	0,466-0,541	0,455-0,558	0,437-0,591	0,418-0,637	1/11,3	
0,7	0,683-0,718	0,676-0,726	0,666-0,738	0,654-0,755	0,636-0,781	0,615-0,818	0,584-0,888	0,551-0,992	1/16,9	
1	0,958-1,05	0,942-1,07	0,919-1,10	0,891-1,14	0,852-1,22	0,808-1,33	0,745-1,58	0,683-2,05	1/25,3	
2	1,83-2,21	1,77-2,31	1,68-2,48	1,58-2,74	1,45-3,28	1,32-4,34	1,15-9,71	0,999-∞	1/53,1	
∞	19,5-∞	14,0-∞	9,80-∞	7,03-∞	4,94-∞	3,62-∞	2,52-∞	1,85-∞	1/∞	

# Nikkor 50mm f/1.2

		Dealer								
Focusing distance					Depth of Field					Reproduction
	f/1.2	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	ratio
0,5	0,498-0,502	0,498-0,502	0,497-0,504	0,495-0,505	0,493-0,507	0,490-0,510	0,487-0,514	0,482-0,520	0.474-0.530	1/7,86
0,6	0,597-0,603	0,596-0,604	0,594-0,606	0,592-0,608	0,589-0,611	0,585-0,616	0,579-0,623	0,571-0,633	0.559-0.649	1/9.83
0,7	0,695-0,705	0,694-0,706	0,692-0,708	0,689-0,712	0,684-0,717	0,678-0,724	0,669-0,735	0,658-0,749	0,641-0,774	1/11,78
0,8	0,793-0,807	0,792-0,808	0,789-0,812	0,784-0,816	0,778-0,824	0,770-0,833	0,757-0,849	0,743-0,869	0,719-0,904	1/13,73
1	0,989-1,01	0,987-1,01	0,981-1,02	0,974-1,03	0,963-1,04	0,949-1,06	0,929-1,08	0,906-1,12	0,869-1,18	1/17,6
1,2	1,18-1,22	1,18-1,22	1,17-1,23	1,16-1,24	1,15-1,26	1,12-1,29	1,10-1,33	1,06-1,39	1,01–1,49	1/21,5
1,5	1,47-1,53	1,47–1,53	1,45-1,55	1,44-1,57	1,41-1,60	1,38-1,65	1,33–1,72	1,28-1,82	1,20-2.02	1/27.3
2	1,95–2,05	1,94–2,06	1,92-2,09	1,88-2,13	1,84-2,19	1,78-2,28	1,70-2,43	1,61-2,65	1,49-3,11	1/37,0
3	2,88-3,13	2,86–3,15	2,81-3,22	2,74-3,32	2,64-3,48	2,52-3,72	2,36-4,16	2,18-4,87	1,94-6,84	1/56,4
5	4,67–5,38	4,62-5,45	4,47-5.68	4,29-6,00	4,04-6,57	3,76-7,52	3,40-9,61	3.04-14.8	2,58-157,64	1/95.2
∞	67,0-∞	57,0-∞	40,0-∞	29,0-∞	20,0-∞	14,0-∞	10,0-∞	7,0-∞	5,0-∞	1/∞

Nik	knr	50	mm	f/1	1
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Focusing distance	CONSUMER PRODUCTS DEALER			Depth of Field					Reproduction
	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	ratio
0,45	0,448-0,453	0,446-0,454	0,445-0,455	0,443-0,457	0,440-0,460	0,436-0,465	0,431-0,471	0,424-0,481	1/6,84
0,5	0,497-0,503	0,495-0,505	0,494-0,507	0,491-0,509	0,488-0,513	0,482-0,519	0,476-0,527	0,466-0,541	1/7,83
0,6	0,595-0,605	0,593-0,607	0,590-0,610	0,586-0,614	0,581-0,621	0,573-0,630	0,564-0,642	0,549-0,663	1/9,79
0,7	0,693-0,707	0,690-0,710	0,686-0,714	0,681-0,721	0,673-0,729	0,663-0,743	0,650-0,760	0,629-0,792	1/11,7
0,8	0,791–0,810	0,787–0,814	0,782-0,819	0,774-0,828	0,764-0,840	0,750-0,858	0,733-0,882	0,707-0,927	1/13,7
1	0,985-1,02	0,979-1,02	0,970-1,03	0,958-1,05	0,943-1,07	0,920-1,10	0,894-1,14	0.854-1.22	1/17,6
1,2	1,18–1,22	1,17–1,23	1,16-1,25	1,14-1,27	1,12-1,30	1,08-1,35	1,05-1,41	0,991-1,54	1/21,5
1,5	1,46–1,54	1,45–1,55	1,43-1,58	1,40-1,61	1,37-1,66	1,32-1,74	1,26-1,85	1,18-2,08	1/27,3
2	1,94–2,07	1,91–2,10	1,88-2,14	1,83-2,21	1,77-2,30	1,69-2,47	1,59-2,71	1,46-3,23	1/37,0
3	2,86–3,16	2,80-3,23	2,73-3,33	2,62-3,51	2.50-3,76	2,33-4,23	2,16-5,00	1,92-7,24	1/56,4
5	4,61–5,47	4,46–5,70	4,27-6,03	4,02-6,62	3,73-7,62	3,37-9,85	3,01–15,6	2,55-∞	1/95,2
∞	57,2-∞	40,0-∞	28,6-∞	20,1-∞	14,4-∞	10,1-∞	7,35-∞	5,08-∞	1/∞

# (0)

# **Depth-of-field Tables (Telephoto Lenses)**

# Nikkor 85mm f/1.4



Focusing distance					Depth of Field					Reproduction
	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
0,85	0,847-0,853	0,846-0,855	0,844-0,856	0,841-0,859	0,838-0,863	0,832-0,869	0,826-0,876	0,816-0,888	0,804-0,904	1/7,9
1	0,995-1,00	0,993-1,01	0,991-1,01	0,987-1,01	0,982-1,02	0,974-1,03	0,965-1,04	0,950-1,06	0,932-1,08	1/9,7
1,2	1,19–1,21	1,19-1,21	1,19-1,21	1,18–1,22	1,17–1,23	1,16–1,24	1,15–1,26	1,12–1,29	1,10–1,33	1/12,1
1,5	1,49-1,51	1,48-1,52	1,48-1,52	1,47-1,53	1,45–1,55	1,44-1,57	1,41-1,60	1,38–1,65	1,34–1,72	1/15,6
2	1,98–2,02	1,97-2,03	1,96–2,05	1,94–2,07	1,91–2,09	1,88–2,14	1,84-2,19	1,78-2,30	1,712,43	1/21,5
3	2,95-3,05	2,93-3,08	2,90-3,11	2,86-3,16	2,80-3,23	2,73-3,34	2,64-3,49	2,50-3,77	2,36-4,17	1/33,3
5	4,85-5,16	4,79-5,23	4,71-5,33	4,60-5,48	4,46-5,70	4,26-6,06	4,04-6,59	3,72-7,73	3,40–9,75	1/56,8
10	9,41-10,7	9,18–11,0	8,89-11,4	8,48-12,2	8,00-13,4	7,37–15,6	6,71–19,9	5,85–36,5	5,07-∞	1/115,7
∞	155,0-∞	109,0-∞	78,0-∞	54,0-∞	39,0-∞	27,0-∞	20,0-∞	14,0-∞	10,0-∞	1/∞

# Nikkor 85mm f/2



	CONSUMER PRODUCTS DEALER			Depth of Field					Reproduction
Focusing distance	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
0,85	0,845-0,855	0,843-0,857	0,840-0,860	0,837-0,864	0,831-0,870	0,824-0,878	0,813-0,891	0,800-0,908	1/8,1
1	0,993-1,007	0,990-1,010	0,986-1,015	0,981-1,020	0,972-1,030	0,963-1,041	0,947-1,061	0,928-1,087	1/9,9
1,2	1,189-1,211	1,185-1,215	1,179-1,222	1,171-1,231	1,159-1,245	1,144-1,263	1,120-1,294	1,094-1,344	1/12,2
1,5	1,483-1,518	1,476-1,525	1,466-1,536	1,452-1,551	1,433-1,574	1,410-1,605	1,372-1,658	1,331-1,727	1/15,8
2	1,968-2,033	1,955-2,047	1,937-2,068	1,913-2,097	1,878-2,141	1,836-2,200	1,771-2,306	.1,699-2,448	1/21,7
3	2,925-3,079	2,869-3,112	2,854-3,162	2,800-3,233	2,723-3,345	2,632-3,496	2,495–3,784	2,348-4,203	1/33,5
5	4,789-5,231	4,710-5,329	4,596-5,485	4,453-5,707	4,254-6,077	4,031-6,616	3,707-7,771	3,384-9,851	1/57
10	9,174-10,993	8,881-11,449	8,475-12,209	7,990-13,397	7,359-15,696	6,701-20,000	5,836-37,025	5,058-∞	1/115,8
∞	108,540-∞	77,572-∞	54,347-∞	38.863-∞	27,250-∞	19,860-∞	13,702-∞	10,007-∞	1/∞

# Nikkor 105mm f/1.8



ocusing distance					Depth of Field					Reproduction
ocusing distance	f/1.8	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
1	0,997-1,00	0,997-1,00	0,995-1,00	0,993-1,01	0,991-1,01	0.987-1.01	0,982-1,02	0,974-1,03	0,965-1,04	1/7,6
1,2	1,20-1,20	1,19-1,21	1,19-1,21	1,19-1,21	1,19-1,22	1,18-1,22	1,17-1,23	1,16–1,25	1,14-1,26	1/9,5
1,5	1,49-1,51	1,49-1,51	1,49-1,51	1,48-1,52	1,47-1,53	1,46-1,54	1,45-1,55	1,43-1,58	1,40-1,61	1/12,4
2	1,98-2,02	1,98-2,02	1,97-2,03	1,96-2,04	1,95-2,05	1,93-2,08	1,90-2,11	1,86–2,16	1,82-2,23	1/17,2
2,5	2,47-2,53	2,47-2,53	2,46-2,54	2,44-2,96	2,42-2,59	2,38-2,63	2,34-2,68	2,28-2,77	2,21-2,89	1/22
3	2,96-3,04	2,96-3,05	2,94-3,07	2,91-3,09	2,88-3,13	2,83-3,20	2,77-3,28	2,68-3,42	2,57-3,61	1/26,8
4	3,93-4,08	3,92-4,09	3,88-4,12	3,84-4,18	3,78-4,25	3,69-4,37	3,58-4,53	3,42-4,83	3,25-5,24	1/36,3
5	4,88-5,13	4,87-5,14	4,82-5,20	4,74-5,29	4,65-5,41	4,51-5,62	4,35-5,89	4,11-6,41	3,86-7,18	1/45,8
7	6,76-7,26	6,74-7,29	6,63-7,41	6,49-7,60	6,31-7,87	6,05-8,32	5,76-8,95	5,33-10,26	4,90-12,46	1/64,9
15	13,9-16,3	13,8-16,4	13,4-17,1	12,8-18,2	12,0-19,9	11,1-23,2	10,1-29,2	8,8-51,4	7,7–661,7	1/141,1
∞	184.0-∞	165,0-∞	118,0-∞	83,0-∞	59,0-∞	41,0-∞	30,0-∞	21,0-∞	15,0-∞	1/∞

# Nikkor 105mm f/2.5



Facility distance		CONSUMER PRODUCTS DEALER		Depth o	f Field				Reproduction
Focusing distance	f/2.5	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
1	0,994–1,01	0,994-1,01	0,991–1,01	0,988-1,01	0,983-1,02	0,976-1,03	0,966-1,04	0,954-1,05	1/7,69
1,2	1,19–1,21	1,19–1,21	1,19–1,21	1,18–1,22	1,17-1,23	1,16-1,24	1,14–1,26	1,13–1,28	1/9,62
1,5	1,49–1,51	1,48-1,52	1,48–1,52	1,47–1,53	1,46-1,55	1,44-1,57	1,42-1,60	1,38–1,64	1/12,5
2	1,97–2,03	1,97-2,03	1,96-2,04	1,94-2,06	1,92-2,09	1,89-2,12	1,85-2,19	1,79–2,27	1/17,3
2,5	2,46-2,54	2,45-2,55	2,43-2,57	2,41-2,60	2,37-2,64	2,33-2,70	2,26-2,81	2,18-2,94	1/22,1
3	2,94-3,06	2,93-3,07	2,90-3,10	2,87-3,15	2,81-3,21	2,75-3.30	2,65-3,46	2,54–3,68	1/26,8
4	3,89-4,12	3,88-4,13	3,83-4,19	3,76-4,27	3,67-4,40	3,56-4,57	3,39-4,89	3,21–5,35	1/36,4
5	4.83–5.19	4,81-5,21	4,73-5,31	4,63-5,44	4,49-5,65	4,32-5,94	4,07-6,51	3,81-7,35	1/45,9
7	6,66–7,38	6,62-7,42	6,47-7,62	6,28-7,91	6,02-8,37	5,72-9,04	5,29-10,4	4,85–12,8	1/64,9
15	13,5–16,8	13,4–17,1	12,8-18,2	12,1-19,9	11,1-23,1	10,2-29,0	8,9–50,7	7,7–523,4	1/141,1
∞	132,0-∞	118,0-∞	82,9-∞	59,2-∞	41,5-∞	30,3-∞	20,9-∞	15,2-∞	1/∞



Focusing distance		Depth of Field										
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio			
1,3	1,30–1,30	1,29–1,31	1,29–1,31	1,29–1,31	1,28–1,32	1,28–1,32	1,27–1,33	1,26–1,35	1/7,46			
1,5	1,49-1,51	1,49-1,51	1,49-1,51	1,48-1,52	1,48-1,52	1,47-1,53	1,45-1,55	1,44-1,57	1/8,96			
1,7	1,69-1,71	1,69-1,71	1,68-1,72	1,68-1,72	1,67-1,73	1,66–1,75	1,64-1,77	1,62-1,79	1/10,5			
2	1,99–2,01	1,98-2,02	1,98-2,02	1,97-2,03	1,95-2,05	1,94-2,07	1,91-2,10	1,88-2,14	1/12,7			
2,5	2,48-2,52	2,47-2,53	2,46-2,54	2,45-2,55	2,43-2,58	2,40-2,61	2,36-2,66	2,31-2,73	1/16,4			
3	2,97–3,03	2,96-3,04	2,94-3,06	2,92-3,08	2,89-3,12	2,85-3,17	2,79-3,25	2,72-3,35	1/20,1			
4	3,95–4,05	3,93-4,07	3,90-4,11	3,86-4,15	3,80-4,22	3,73-4,31	3,62-4,47	3,50-4,68	1/27,6			
5	4,92–5,09	4,89-5,12	4,84-5,17	4,78-5,25	4,69-5,36	4,58-5,51	4,41-5,78	4,23-6,15	1/35,0			
7	6,84-7,17	6,77-7,24	6,68-7,36	6,56-7,51	6,39-7,75	6,19-8,08	5,88-8,69	5,55-9,56	1/49,8			
10	9,66-10,4	9,53–10,5	9,35-10,8	9,11–11,1	8,77-11,6	8,39-12,4	7,82-13,9	7,24-16,4	1/72,0			
20	18,7–21,5	18,2-22,2	17,5-23,4	16,7-25,0	15,6-28,1	14,4-33,1	12,8-47,4	11,2-98,4	1/146,0			
∞	274,0-∞	196,0-∞	137,0-∞	97,9-∞	68,6-∞	50,0-∞	34,5-∞	25,1-∞	1/∞			

Focusing distance		CONSUMER PRODUCTS DEALER		Depth	of Field				Reproduction
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	ratio
1,3	1,29–1,31	1,29–1,31	1,29–1,31	1,28–1,32	1,28–1,32	1,27–1,34	1,26–1,35	1,24–1,37	1/7,49
1,5	1,49–1,51	1,49-1,51	1,48–1,52	1,48-1,52	1,47-1,53	1,45-1,55	1,44-1,57	1,41-1,60	1/8,99
1,7	1,69-1,71	1,68–1,72	1,68–1,72	1,67-1,73	1,66–1,75	1,64-1,77	1,62-1,79	1,58-1,84	1/10,5
2	1,98-2,02	1,98-2,02	1,97-2,03	1,95–2,05	1,94-2,07	1,91–2,10	1,88-2,14	1,83-2,21	1/12,7
2,5	2,47-2,53	2,46-2,54	2,45-2,55	2,43-2,58	2,40-2,61	2,36-2,66	2,31-2,73	2,23-2,86	1/16,4
3	2,96–3,04	2,94-3,06	2,92-3,08	2,89-3,12	2,85-3,17	2,79-3,25	2,72-3,35	2,61-3,55	1/20,2
4	3,93-4,08	3,90-4,11	3,86-4,15	3,80-4,22	3,73-4,31	3,62-4,47	3,50-4,68	3,31-5,09	1/27,6
5	4,89–5,12	4,84–5,17	4,78-5,25	4,69-5,36	4,58-5,51	4,41-5,78	4,23-6,15	3,95-6,88	1/35,0
7	6,77-7,24	6,68-7,36	6,56-7,51	6,39-7,75	6,18-8,08	5,88-8,69	5,55-9,56	5,07-11,5	1/49,8
10	9,53-10,5	9,35-10,8	9,11–11,1	8,77-11,6	8,39-12,4	7,82-13,9	7,24-16,4	6,44-23,3	1/72,0
20	18,2-22,2	17,5–23,4	16,7-25,0	15,6-28,1	14,4-33,1	12,7-47,4	11,2–98,5	9,40-∞	1/146
∞	196,0-∞	137,0-∞	97,9-∞	68,6-∞	50.0-∞	34,4-∞	25,1-∞	17.4-∞	1/∞

Nikkor 200mm 1/4	Nikon									
Focusing distance	CONSUMES Depth of Field									
•	f/4	f/5.6	f/8	f/11	f/16	f/22	32	ratio		
2	1,99–2,01	1,99-2,01	1,98-2,02	1,98-2,02	1,97-2,03	1,96-2,05	1,94-2,07	1/7.44		
2,5	2,49-2,51	2,48-2,52	2,47-2,53	2,46-2,54	2,44-2,56	2,42-2,58	2,39-2,02	1/9,97		
3	2,98–3,02	2,97-3,03	2,96-3,05	2,94-3,06	2,91-3,09	2,88-3,13	2,83-3,19	1/12,5		
4	3,96-4,04	3,94-4,06	3,92-4,09	3,88-4,12	3,83-4,18	3,78-4,26	3,68-4,38	1/17,5		
5	4,93-5,07	4,90-5.10	4,86-5,15	4,81-5,20	4,73-5,30	4,64-5,43	4,50-5,65	1/22,5		
7 .	6,86–7,15	6,80-7,21	6,72-7,31	6,62-7,43	6,46-7,64	6,29-7,91	6,01-8,42	1/32,6		
10	9,70–10,3	9,59–10,5	9,42-10,7	9,22-10,9	8,91-11,4	8,56-12,1	8,04-13,3	1/47,6		
15	14,3–15,8	14,1-16,1	13,7–16,6	13,3–17,3	12,6-18,6	11,9-20,4	10,9-24,4	1/72,7		
30	27,3–33,3	26,4-34,8	25,1–37,3	23,7-41,1	21,6-49,5	19,6-65,5	16,9-144,0	1/148,0		
∞	300,0-∞	214,0-∞	150,0-∞	109,0-∞	75,3-∞	54,9-∞	37,9-∞	1/∞		

Focusing distance	CONSUMER DEPTH of Field									
rocusing distance	f/4.5	f/5.6	f/8	f/11	f/16	f/22	f/32	Reproduction ratio		
3,5	3,49–3,51	3,48–3,52	3,48–3,52	3,47–3,53	3,45–3,55	3,44–3,57	3,41–3,60	1/8,98		
4	3,98-4,02	3,98-4,02	3,97-4,03	3,95-4,05	3,93-4,07	3,91-4,09	3,87-4,14	1/10,7		
5	4,97-5,03	4,96-5,04	4,94-5,06	4,92-5,08	4,89-5,11	4,85–5,16	4,79-5,24	1/14,0		
6	5,95-6,05	5,94-6,06	5,92-6,09	5,89-6,12	5,84-6,18	5,78-6,25	5,68-6,36	1/17,4		
7	6,93-7,07	6,92-7,09	6,88-7,12	6,84-7,17	6,77-7,25	6,69-7,35	6,55-7,52	1/20,7		
8	7,91–8,09	7,89–8,11	7,84-8,16	7,79-8,23	7,69-8,34	7,58–8,47	7,41–8,71	1/24,1		
10	9,86-10,1	9,82-10,2	9,75-10,3	9,66-10,4	9,51–10,6	9,34–10,8	9,06–11,2	1/30,8		
12	11,8–12,2	11,7–12,3	11,6-12,4	11,5–12,6	11,3–12,8	11,0-13,2	10,7–13,8	1/37,4		
15	14,7–15,4	14,6-15,4	14,4-15,6	14,2-15,9	13,9–16,3	13,5–16,9	12,9–18,0	1/47,4		
20	19,4–20,6	19,3–20,8	18,9-21,2	18,6-21,7	18,0-22,5	17,4–23,6	16,4-25,8	1/64,1		
30	28,6-31,5	28,3-31,9	27,6-32,8	26,9-34,0	25,6-36,2	24,3-39,3	22,4-45,8	1/97.5		
70	62,8-79,1	61,3-81,7	58,2-88,0	54,7-97,4	49,8-119,0	44,9–161,0	38,7–398,0	1/231,0		
∞	600,0-∞	482,0-∞	338,0-∞	246,0-∞	169,0-∞	123,0-∞	85,0-∞	1/∞		



#### Nikkor ED 200mm f/2 IF Depth of field Focusing Reproduction distance f/2 f/2.8 f/4 f/5.6 f/8 f/11 f/16 f/222,461-2,540 2,444-2,559 2,424-2,582 1/10,4 2,486-2,514 2,480-2,520 2,472-2,529 2,493-2,507 2,490-2,510 2.5 2,985-3,016 2.978-3.022 2,969-3,031 2,957-3,045 2,941-3,062 2,915-3,092 2,884-3,128 1/12,9 2,989-3,011 3 3,917-4,087 3,837-4,179 3,780-4,251 1/17,9 4 3,979-4,021 3,970-4,030 3.958-4.043 3.941-4.061 3,887-4,121 4,737-5,297 4,646-5,419 5 4,965-5,035 4,952-5,049 4.931-5.071 4.904-5.100 4.865-5.144 4.816-5.200 1/22,9 5,614-6,448 5,949-6,052 5,928-6,073 5,898-6,106 5,859-6,149 5,800-6,215 5,729-6,300 5,483-6,635 1/27,9 6 7,305-8,851 1/37,9 8 7,906-8,097 7,868-8,136 7,813-8,196 7,741-8,278 7,636-8,403 7,508-8,565 7,076-9,222 11,171-12,968 10,890-13,374 10,453-14,112 9,974-15,118 1/57,9 12 11,781-12,228 11,696-12,321 11,570-12,464 11,407-12,661 20 19,382-20,660 19,145-20,937 18,801-21,366 18,362-21,968 17,740-22,938 17,022-24,280 15,949-26,913 14,830-20,957 1/97,9 50 46,217-54,465 44,860-56,485 42,970-59,814 40,686-64,921 37,686-74,472 34,511-91,294 30,272-146,661 26,396-544,416 1/248,8 428,997-∞ 300,425-∞ 150,425-∞ 75,425-∞ 600,425-∞ 241,711-∞ $\infty$

HINKOI ED OCCIIIII II TIO II	Nikkor	ED	300mm	f/4.5 IF
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Focusing		De	pth of field				Reproduction
distance	f/4.5	f/5.6	f/8	f/11	f/16	f/22	ratio
2,5	2,49–2,51	2,49-2,51	2,49-2,51	2,48-2,52	2,47-2,53	2,46-2,54	1/7,14
3	2,99–3,01	2,99-3,01	2,98-3,02	2,97-3,03	2,96-3,04	2,94-3,06	1/8,80
4	3,98–4,02	3,97-4,03	3,96-4,04	3,95-4,05	3,92-4,08	3,90-4,11	1/12,1
5	4,96–5,04	4,96-5,05	4,94-5,06	4,91-5,09	4,88–5,13	4,83-5,18	1/15,5
7	6,93–7,07	6,91-7,09	6,87-7,13	6,83-7,18	6,75-7,27	6,66-7,38	1/22,1
10	9,85-10,2	9,81-10,2	9,73-10,3	9,64-10,4	9,48-10,6	9,30–10,8	1/32,1
15	14,7–15,4	14,6-15,5	14,4-15,7	14,2-15,9	13,8-16,4	13,4–17,0	1/48,8
30	28,6–31,5	28,3-31,9	27,6-32,9	26,8-34,1	25,6–36,3	24,2-39,5	1/98,8
∞	601-∞	483-∞	338-∞	246-∞	169-∞	123-∞	1/∞

# Nikkor ED 400mm f/2.8 IF

			Dept	th of Field				Reproduction
Focusing distance	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
4	3,99–4,01	3,99-4,1	3,99–4,01	3,98–4,02	3,97-4,03	3,96-4,04	3,94-4,06	1/8,3
5	4,99–5,01	4,98-5,02	4,98–5,02	4,97-5,03	4,95-5,05	4,93–5,07	4,91–5,10	1/10,8
6	5,98-6,02	5,98-6,02	5,97-6,04	5,95-6,05	5,93-6,07	5,90-6,10	5,86-6,14	1/13,3
7	6,98-7,02	6,97-7,03	6,95-7,05	6,93-7,07	6,90-7,10	6,86-7,14	6,81–7,20	1/15,8
8	7,97–8,03	7,95–8,05	7,94–8,07	7,91–8,09	7,87–8,13	7,82–8,19	7,75–8,27	1/18,3
10	9,95–10,1	9,93–10,1	9,90-10,1	9,85-10,2	9,79-10,2	9,71–10,3	9,60–10,4	1/23,2
12	11,9–12,1	11,9–12,1	11,8–12,2	11,8–12,2	11,7–12,3	11,6–12,5	11,4–12,7	1/28,3
15	14,9–15,1	14,8-15,2	14,8–15,3	14,7–15,4	14,5–15,5	14,3–15,7	14,1–16,1	1/35,8
20	19,8–20,3	19,7–20,3	19,6–20,5	19,4-20,7	19,1–20,9	18,8–21,3	18,4–22,0	1/48,3
30	29,5–30,5	29,3-30,7	29,0-31,1	28,6-31,5	28,1–32,2	27,4–33,2	26,4–34,8	1/73,3
50	48,6–51.5	48,0-52,1	47,3-53,1	46,2-54,4	44,8–56,5	43,0–59,8	40,7–65,0	1/123,3
∞	1698-∞	1201-∞	849-∞	601-∞	425-∞	301-∞	213-∞	1/∞

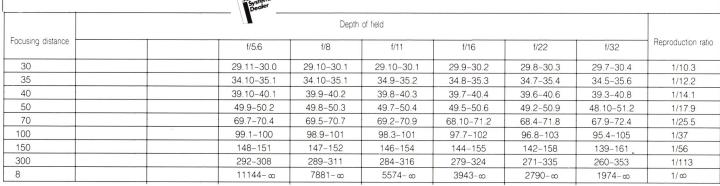
#### Nikkor ED 400mm f/3.5 IF

	L		Depth	of field				
Focusing distance	f/3.5	f/4	f/5.6	f/8	f/11	f/16	f/22	Reproduction ratio
4,5	4,49–4,51	4,49-4,51	4,48–4,52	4,47–4,53	4,46–4,54	4,45–4,55	4,43-4,57	1/9,82
5	4,99-5,01	4,98-5,02	4,98-5,02	4,97-5,03	4,96-5,04	4,93-5,07	4,91-5,09	1/11,07
6	5,98-6,02	5,98-6,02	5,97-6,03	5,95-6,05	5,93-6,07	5,9-6,1	5,86-6,14	1/13,57
7	6,97–7,03	6,97-7,03	6,95-7,05	6,93-7,07	6,91-7,09	6,86-7,14	6,81-7,19	1/16,07
8	7,96–8,04	7,95–8,05	7,94–8,06	7,91–8,09	7,87–8,13	7,82–8,18	7,75-8,25	1/18,57
10	9,94–10,06	9,93-10,07	9,90-10,1	9,85-10,15	9,8–10,2	9,7-10,3	9,59-10,41	1/23,57
12	11,9–12,1	11,89-12,11	11,85–12,15	11,78–12,22	11,7–12,3	11,56–12,44	11,4–12,6	1/28,57
15	14,85–15,15	14,83-15,17	14,76-15,24	14,65-15,35	14,52-15,48	14,31-15,69	14,05-15,69	1/36,07
20	19,72-20,28	19,69-20,31	19,56-20,44	19,37-20,63	19,13-20,87	18,74-21,26	18,27-21,73	1/48,57
30	29,37–30,63	29,28-30,72	28,99-31,01	28,56-31,44	29,02-31,98	27,11-32,89	26,03-33,97	1/73,57
70	66,49-73,51	65,98-74,02	64.38-75,62	61,97-78,03	58,95-81,05	53,93-86,07	47,91–92,09	1/173,57
∞	1372,0-∞	1200,57-∞	857,71-∞	600,57-∞	436,94-∞	300,57-∞	218,75-∞	1/∞



Nikkor ED 400mm f/5.6	Nikon variced Advistems Systems Deciler						
		Depth	n of field				
Focusing distance	f/5.6	f/8	f/11	f/16	f/22	f/32	Reproduction i
4	3,99–4,01	3,98–4,02	3,97–4,03	3,96–4,04	3,94–4,06	3,92–4,09	1/8,82
5	4,98-5,02	4,97–5,03	4,95–5,05	4,93–5,07	4,91–5,10	4,87–5,14	1/11,3
6	5,96-6,04	5,95–6,05	5,93–6,07	5,90–6,10	5,86–6,14	5,80–6,21	1/13,8
7	6,95-7,05	6,93-7,07	6,90–7,10	6,86–7,15	6,81–7,20	6,73–7,30	1/16,3
8	7,93–8,07	7,91–8,10	7,87–8,13	7,82–8,19	7,75–8,27	7,64–8,40	1/18,8
10	9,90–10,1	9,85-10,2	9,80-10,2	9,71–10,3	9,60-10,4	9,43-10,7	1/23,8
12	11,9–12,2	11,8–12,2	11,7–12,3	11,6–12,5	11,4–12,6	11,2–13,0	1/28,8
15	14,8–15,3	14,7–15,4	14,5–15,5	14,3–15,7	14,1–16,0	13,7–16,6	1/36,3
20	19,6–20,5	19,4–20,7	19,2-20,9	18,8–21,4	18,4-21,9	17,8–22,9	1/48,8
30	29,0–31,1	28,6-31,5	28,1-32,2	27,4-33,2	26,5–34,6	25,2-37,3	1/73,8
50	47,3–53,0	46,2-54,5	45,0-56,4	43,0–59,8	40,9-64,6	37,7–74,5	1/124,0
∞	858,0-∞	601,0-∞	437,0-∞	301,0-∞	219,0-∞	151,0-∞	1/∞
likkor ED 600mm f/4 IF	Nikon Advanced Advatems			•	•		
	Pealer	Depth	of field				
ocusing distance	f/4	f/5.6	f/8	f/11	f/16	f/22	Reproduction
0.5							
6,5	6,49–6,51	6,48–6,52	6,48–6,52	6,47–6,53	6,45–6,55	6,44–6,57	1/9,5
7	6,99–7,01	6,98–7,02	6,97–7,03	6,96–7,04	6,94–7,06	6,92–7,08	1/10,3
8	7,98–8,02	7,97–8,03	7,96–8,04	7,95–8,05	7,92–8,08	7,90–8,11	1/12,0
10	9,97–10,03	9,96–10,04	9,94–10,06	9,92–10,09	9,88–10,13	9,83–10,18	1/15,4
12	11,95–12,05	11,94–12,07	11,91–12,09	11,87–12,13	11,82–12,19	11,75–12,26	1/18,7
15	14,93–15,08	14,90–15,11	14,85–15,15	14,80–15,21	14,71–15,31	14,60–15,42	1/23,7
30	19,87–20,14	19,81–20,19	19,73-20,28	19,63-20,38	19,47–20,56	19,28-20,78	1/32.0
50	29,69–30,32	29,57–30,45	29,38–30,65	29,16–30,89	28,79–31,32	28,36–31,85	1/48,7
100	49,12–50,91 96,49–103,78	48,78–51,29 95,15–105,38	48,27–51,86	47,65–52,59	46,66–53,87	45,52–55,48	1/82,0
			93,21–108,87	90,90–111,15	87,29–117,09	83,33–125,12	1/165,0
∞ VIII-I FD C00 4/5 C	2700,81-∞	1929,38-∞	1350,81-∞	982,63-∞	675,81-∞	491,72-∞	1/∞
Nikkor ED 600mm f/5.6	Nikon Nikon Advanced Advanced Advanced Dealer						
ocusing distance		Depth	n of field				Reproduction
oodsing distance	f/5.6	f/8	f/11	f/16	f/22	f/32	Hoproduction
5.5	5,49–5,51	5,48-5,52	5,48-5,52	5,47-5,53	5,45-5,55	5,43-5,57	1/8,09
6	5,99-6,01	5,98-6,02	5,97-6,03	5,96-6,04	5,94-6,06	5,91–6,09	1/8,92
7	6,98-7,02	6,97-7,03	6,96-7,04	6,94-7,06	6,92-7,08	6,88–7,13	1/10,6
8	7,97–8,03	7,96–8,04	7,94–8,06	7,92–8,08	7,89–8,11	7,84–8,17	1/12,3
10	9,95–10,1	9,94–10,1	9,91–10,1	9,87–10,1	9,82–10,2	9,74–10,3	1/15,6
12	11,9–12,1	11,9–12,1	11,9–12,1	11,8–12,2	11,7–12,3	11,6–12,4	1/18,9
15	14,9–15,1	14,9–15,2	14,8–15,2	14,7–15,3	14,6–15,4	14,4–15,7	1/23,9
20	19,8–20,2	19,7–20,3	19,6–20,4	19,5–20,6	19,2–20,8	18,9–21,2	1/32,3
30	29,6–30,5	29,4–30,6	29,1–30,9	28,7–31,3	28,2–31,8	27.6–32,8	1/48,9
70	67,5–72,5	66,4–73,6	65,1–74,9	62,9–77,1	60,2-79,2	58,2–88,1	1/116,0
	1929,0-∞	1351,0-∞	982,0-∞	676,0-∞	492,0-∞	339,0-∞	1/∞

#### Nikkor ED 800mm f/5.6 IF



<sup>\*</sup>By using Internal Focusing (IF), the closest focusing distance of this lens is shorter than previous models at the same focal length, which utilized traditional helicoid focusing



P Nikkor ED 500r	nm f/4 IF	varkes systems Dealer			2004			(ft)
-cousing			Depth	of Field				Reproduction
istance	f/4	1/5.6	f/8	f/11	1/16	1/22		ratio
).	19:1150.	19'11''-20'	19'10''20'1''	19'10''-20'1'	19'9''—20'2''	19'8"-20'3"		1/10.9
	24'10"-25'1"	24'10''—25'1'	24'9"-25'2'	24'9"-25'2"	24'7"-25'4"	24'6"-25'6"		1/14
	29'10''-30'1''	59.930.5	29'8"-30'3"	29'7'' -30'4''	29'5"-30'6"	29'3" -30'8"		1/17.1
	39'9''-40'2''	39.7"-40'4"	39'6''-40'5''	39'4''-40'8''	39'-40'11"	38'8"-41'4"		1/23.2
	49'7'' 50'4''	49'5"-50'6"	49'2"-50'9"	48'11"-51'1"	48'6"-51'7"	47'11"-52'2"		1/29.4
	69'2"-70'9"	68'11"-71'1"	68'5"-71'6"	67'11"-72'2"	67'-73'2"	66'-74'6''		1/41.7
0	98'5"-101'	97'9"-102'	96'10''-103'	95'9''-104'	94'-106'	91'11"-109'		1/60
	6033′—∞	4310'-∞	3018'—∞	2196'—∞	1510'—∞	1099'—∞		1/∞
its = Feet) eflex-Nikkor 50	0mm f/8	kon						
	CON	SUMER DUCTS DUCTS	Dep	th of field				B 1
ocusing istance					Т		1/0	Reproduction ratio
istant6							f/8	
1,5							1,499–1,501	1/2,5
1,7							1,698–1,702	1/2,9
2							1,997–2,003	1/3,5
2,5							2,496–2,504	1/4,5
3							2,993–3,007	1/5,5
4							3,99–4,01	1/7,5
5							4,98–5,02	1/9,5
7							6,96–7,04	1/13,0
0							9.92–10,1	1/19,0
.0							19,7–20,3	1/36,0
0							48,1–52,1	1/96,0
×							1119,0-∞	1/∞
Reflex-Nikkor 10	000mm f/11	dvanced dvanced systems speaker						
			De	epth of field				Reproduction
ocusing listance							f/11	ratio
8							7,98–8,02	1/7,4
10							9,97-10,0	1/9,4
12		1					11,96–12,04	1/11,0
15							14,9-15,1	1/14,0
20							19,9–20,1	1/19,0
30							29,7–30,3	1/29,0
50							49,3–50,7	1/49,0
100	,						97,1–103,0	1/99,0
∞							3000,0-∞	1/∞
isheye-Nikkor (	6mm f/2.8	on dvanced Systems Dealer						
		1	Dep	oth of field				
cusing distance	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	- Reproduction ra
0,25	0,231-0,277	0,224-0,292	0,216-0,318	0,207-0,373	0,196-0,533	0,185–3,66	0,174-∞	1/21,4
0,3	0,266-0,354	0,255-0,389	0,242-0,458	0,228-0,647	0,212-2,60	0,196-∞	0,181-∞	1/29,5
,,,	0,327-0,553	0,306-0,684	0,283-1,09	0,260-∞	0,234-∞	0,211-∞	0,191-∞	1/45,6
	0,027 0,000							
0,4	0,377–0,842	0,346-1,29	0,313-8,43	0,280-∞	0,249-∞	0,221-∞	0,197-∞	1/61,7
0,4 0,5 1		0,346–1,29 0,465–∞	0,313–8,43 0,395–∞	0,280-∞ 0,333-∞•	0,249-∞ 0,282-∞ 0,321-∞	0,221-∞ 0,240-∞	0.197-∞ 0.208-∞	1/61,7

92

1/∞

#### Fisheye-Nikkor 8mm f/2.8 Depth of field Focusing distance Reproduction ratio f/2.8 f/4 f/5.6 f/8 f/11f/16 f/22 0,283-0,322 0,277-0,333 0,269-0,350 0,260-0,383 0,249-0,442 0,236-0,651 0,223-3,208 1/19,7 0,4 0,358-0,462 0,344-0,499 0,328-0,563 0,308-0,720 0,289-1,221 0,265-∞ 0,244-∞ 1/32,2 0,5 0,425-0,630 0,401-0,720 0,376-0,909 0,345-1,647 0,317-∞ 0,284-∞ 0,258-∞ 1/44,7 0,668-2,473 0,286-∞ 1/107,3 0.593-8,945 0,521-∞ 0,448-∞ 0,389-∞ 0,328-∞

0,622-∞

0,491-∞

0,382-∞

0,317-∞

0,828-∞

# Fisheye-Nikkor 16mm f/2.8

1,513-∞

1,102-∞

		ader						
Focusing distance	1		Depth	of field				
Focusing distance	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	Reproduction ratio
0,3	0,283-0,320	0,277-0,329	0,269-0,344	0,259-0,368	0,247-0,407	0,231-0,502	0,215-0,735	1/13,4
0,4	0,366-0,444	0,353-0,467	0,338-0,502	0,319-0,570	0,298-0,695	0,271-1,15	0,247-11,8	1/19,8
0,5	0,443-0,579	0,423-0,624	0,399-0,697	0,370-0,854	0,340-1,22	0,303-5,58	0,270-∞	1/26,2
0,7	0,583-0,891	0,545-1,02	0,503-1,26	0,453-2,00	0,405-9,43	0,348-∞	0,302-∞	1/39,0
1	0,763-1,50	0,695-1,92	0,624-3,16	0,543-∞	0,471-∞	0,391-∞	0,331-∞	1/58,1
2	1,19-7,21	1,02-∞	0,865-∞	0,707-∞	0,582-∞	0,458-∞	0,372-∞	1/122
∞	.2,64-∞	1,84-∞	1,32-∞	0,922-∞	0,671-∞	0,461-∞	0,335-∞	1/∞

#### PC-Nikkor 28mm f/3.5

	Sysaler							
Focusing			Depth of field					Reproduction
distance	f/3.5	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
0,3	0,295-0,305	0,295-0,306	0,293-0,308	0,289-0,312	0,286-0,317	0,280-0,325	0,274-0,336	1/6,9
0,35	0,342-0,358	0,341-0,359	0,338-0,363	0,333-0,369	0,327-0,378	0,319-0,392	0,309-0,412	1/8,68
0,4	0,389-0,412	0,387-0,414	0,382-0,420	0,376-0,429	0,367-0,442	0,355-0,465	0,341-0,497	1/10,5
0,5	0,480-0,522	0,477-0,526	0,469-0,537	0,457-0,555	0,443-0,580	0,422-0,629	0,400-0,701	1/14,0
0,7	0,655-0,754	0,649-0,762	0,631-0,790	0,605-0,838	0,577-0,908	0,537-1,059	0,496-1,336	1/21,0
1	0,900-1,13	0,888-1,15	0,850-1,22	0,800-1,36	0,746-1,58	0,673-2,19	0,604-4,26	1/31,5
2	1,60-2,69	1,56-2,84	1,43-3,42	1,28-4,99	1,13-12,00	0,95-∞	0,81-∞	1/66,5
∞	7-∞	6-∞	4-∞	3-∞	2-∞	2-∞	1-∞	1/∞

# PC-Nikkor 35mm f/2.8

Focusing		- / Dec		Depth of field					Reproductio
distance	f/2.8	f/4	f/5.6	f/8	· f/11	f/16	f/22	f/32	ratio
0,3	0,298-0,302	0,297-0,303	0,296-0,305	0,294-0,307	0,292-0,309	0,288-0,314	0,284-0,319	0,278-0,329	1/5,3
0,35	0,346-0,354	0,345-0,355	0,343-0,358	0,340-0,361	0,336-0,365	0,331-0,373	0,324-0;383	0,314-0,401	1/6,7
0,4	0,395-0,406	0,392-0,408	0,389-0,412	0,385-0,417	0,380-0,424	0,371-0,435	0,362-0,451	0,348-0,481	1/8,1
0,5	0,490-0,511	0,486-0,515	0,480-0,522	0,473-0,532	0,463-0,545	0,449-0,569	0,433-0,602	0,410-0,667	1/11
0,7	0,677-0,725	0,668-0,736	0,656-0,752	0,638-0,778	0,619-0,812	0,588-0,878	0557-0,976	0,512-1,210	1/16
1	0,948-1,06	0,927-1,09	0,902-1,13	0,866-1,19	0,825-1,29	0,766-1,49	0,707-1,84	0,629-3,15	1/25
2	1,78–2,29	1,70-2,44	1,60-2,69	1,48-3,16	1,35-4,08	1,18-8,01	1,03-∞	0,86-∞	1/52
00	14-∞	10-0	7-m	5	1 00	2	2	1	1 /

Moct	_Ni	kkar	58m	m f/	12
INDL	-141	NNUI	JOH	III I <i>I</i>	- 7

Fi			Dealer ——		Depth of field					
Focusing distance	f/1.2	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8 '~	f/11	f/16	Reproduction ratio
0,5	0,498-0,502	0,498-0,502	0,497-0,503	0,495-0,505	0,493-0,507	0,491–0,510	0,487-0,514	0.482-0.520	0.474-0,530	1/6,7
0,55	0,547-0,553	0,547-0,553	0,546-0,554	0,544-0,556	0,541-0,559	0,538-0,563	0,533-0,568	0,527-0,575	0,518-0,588	1/7,6
0,6	0,597-0,603	0,596-0,604	0,595-0,605	0,593-0,608	0,590-0,611	0,585-0,615	0,579-0,622	0,572-0,631	0,561-0,647	1/8,5
0,7	0,695-0,705	0,695-0,705	0,692-0,708	0,689-0,711	0,685-0,716	0,679-0,722	0,691-0,732	0,661-0,745	0,645-0,768	1/10
0,8	0,794-0,806	0,793-0,807	0,790-0,810	0,786-0,815	0,780-0,821	0,772-0,830	0,761-0,844	0,748-0,862	0,726-0,894	1/12
0,9	0,892-0,908	0,891-0,910	0,887-0,914	0,882-0,919	0,874-0,928	0,864-0,939	0,850-0,958	0,833-0,981	0,806-1,02	1/14
1	0,990-1,01	0,988-1,01	0,983-1,02	0,977-1,02	0,967-1,04	0,955-1,05	0,937-1,07	0,916-1,10	0,883-1,16	1/15
1,2	1,19-1,22	1,18-1,22	1,18-1,23	1,17-1,24	1,15-1,25	1,13-1,27	1,11-1,31	1,08-1,36	1,03-1,45	1/19
1,5	1,48–1,52	1,47-1,53	1,46-1,54	1,45-1,56	1,42-1,59	1,40-1,62	1,36–1,68	1,31–1,76	1,24-1,92	1/24
2	1,96-2,05	1,95-2,05	1,93-2,08	1,90-2,11	1,86-2,16	1,81-2,23	1,75–2,35	1,67-2,51	1,55–2,85	1/33
3	2,90-3,11	2,89-3,12	2,84-3,18	2,78-3,26	2,70-3,38	2,60-3,57	2,45-3,89	2,29-4,38	2,08-5,56	1/50
5	4,73-5,31	4,69-5,36	4,56-5,53	4,41-5,78	4,20-6,20	3,94-6,86	3,62-8,17	3,28-10,8	2,85-22,9	1/84
10	8,95-11,3	8,80-11,6	8,37-12,4	7,86-13,8	7,20–16,5	6,48-22,2	5,63-47,0	4,85-∞	3,94-∞	1/171
∞	84,2-∞	72,2-∞	50,6-∞	36,1-∞	25,3-∞	18,1-∞	12,7-∞	9,28-∞	6,41-∞	1/∞



Focusing		CONSUMER PRODUCTS  Depth of field									
distance	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	ratio		
0.25	0.25-0.25	0,25-0,25	0,249-0,251	.0,249-0,251	0,249-0,251	0,248-0,252	0,248-0,252	0.247-0.254	1/1,9		
0.26	0,26-0,26	0,259-0,261	0,259-0,261	0,259-0,261	0,258-0,262	0,258-0,262	0,257-0,263	0,256-0,265	1/2,2		
0,28	0.279-0.281	0,279-0,281	0,279-0,281	0,278-0,282	0,278-0,282	0,277-0,283	0,276-0,285	0,274-0,287	1/2,6		
0.3	0.299-0.301	0,299-0,301	0,298-0,302	0,298-0,302	0,297-0,303	0,296-0,305	0,294-0.307	0,291-0,31	1/3,0		
0,35	0.349-0.351	0,348-0,352	0,347-0,353	0,346-0,354	0,345-0,356	0,342-0,358	0,339-0,362	0,335-0,368	1/4,0		
0.4	0.398-0.402	0,397-0,403	0,396-0,405	0,394-0,406	0,392-0,409	0,388-0,413	0,384-0,419	0,377-0,428	1/5,0		
0.5	0.496-0,504	0,494-0,506	0,492-0,509	0,488-0,513	0,484-0,517	0,477-0,526	0,469-0,537	0,457-0,556	1/6,9		
0,6	0.593-0,607	0,59-0,61	0,587-0,614	0,581-0,621	0,574-0,629	0,564-0,643	0,551-0,661	0,532-0,694	1/8,7		
0.7	0.69-0.71	0,686-0,715	0,68-0,721	0,672-0,731	0,663-0,743	0,647-0,764	0,63-0,792	0,603-0,845	1/10,6		
0.8	0.786-0.814	0,781-0,821	0,773-0,829	0,762-0,843	0,749-0,86	0,728-0,891	0,705-0,932	0,67-1,01	1/12,4		
1	0.977-1.02	0,967-1,04	0,955-1,05	0,937-1,07	0,916-1,1	0,883-1,16	0,846-1,24	0,793-1,39	1/16		
1.2	1,17-1,24	1,15–1,25	1,13-1,28	1,11–1,31	1,08-1,36	1,03-1,45	0,98-1,58	0,9–1,85	1/19,7		
1.5	1,44-1,56	1,42-1,59	1,39–1,63	1,35-1,69	1,3-1,78	1,23-1,94	1,15–2,19	1,05–2,79	1/25,2		
2	1,9-2,12	1,86–2,17	1,8-2,25	1,73-2,37	1,65-2,55	1,53-2,93	1,41–3,56	1,25–5,64	1/34,3		
3	2,77-3,28	2,68-3,42	2,57-3,62	2,42-3,98	2,26-4,54	2,03-5,95	1,82-9,59	1,55-∞	1/52,4		
5	4,36–5,86	4,14-6,34	3,87-7,10	3,53-8,68	3,19-12,04	2,74-34,62	2,53-∞	1,91-∞	1/88,8		
∞	33-∞	23-∞	16-∞	11-∞	8–∞	6-∞	4-∞	3-∞	1/∞		

Micro-Nikkor 1	105mm f/2.8
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Focusing		CONS	UMER UCTS LER	Depth	of field				Reproduction
distance	f/2.8	f/4	f/5.6	f/8 ·	f/11	f/16	f/22	f/32	ratio
0.41	0.409-0.410	0,409-0,410	0,408-0,411	0,408-0,411	0,407-0,412	0,407-0,412	0,405-0,414	0,404-0,416	1/2
0.45	0.449-0.451	0.449-0.451	0,449-0,451	0,448-0,452	0,447-0,453	0,446-0,454	0,444-0,456	0,442-0,459	1/2,43
0,5	0,499-0,501	0.499-0.501	0,498-0,502	0,497-0,503	0,496-0,504	0,494-0,506	0,492-0,509	0,489-0,512	1/2,95
0.55	0.549-0.551	0.548-0.552	0,547-0,553	0,546-0,554	0,545-0,556	0,542-0,558	0,539-0,561	0,535-0,566	1/3,45
0,6	0.598-0.602	0.598-0.603	0,597-0,604	0,595-0,605	0,593-0,607	0,590-0,610	0,586-0,615	0,581-0,621	1/3,95
0.7	0.697-0.703	0.696-0.704	0.695-0.705	0,693-0,708	0,690-0,711	0,685-0,716	0,680-0,722	0,672-0,732	1/4,93
0,7	0.796-0.804	0.795-0.805	0.793-0.808	0,790-0,811	0,786-0,815	0,780-0,822	0,772-0,831	0,761-0,845	1/5,9
1	0.994-1.01	0.991-1.01	0.987-1,01	0.982-1.02	0,975-1,03	0,966-1,04	0,952-1,05	0,934-1,08	1/7,8
1.2	1.19–1.21	1,19–1,21	1,18–1,22	1,17–1,23	1,16-1,24	1,15-1,26	1,13–1,28	1,10-1,32	1/9,7
	1,48–1,52	1.48–1.52	1,47–1,53	1,46–1,55	1,44-1,57	1,42-1,60	1,38-1,64	1,34-1,71	1/12,6
1,5	1,97–2,03	1,96–2,04	1,94–2,06	1.92-2.09	1.89-2.13	1,85-2,19	1,79-2,28	1,72-2,42	1/17,4
2	2.93–3.07	2.90–3.10	2.87–3.15	2.81–3.21	2,74-3,31	2,65-3,46	2,53-3,71	2,38-4,12	1/26,9
3	6.62-7.43	6.47-7.62	6,28-7,92	6,02–8,37	5.70-9.12	5,29-10,4	4,81-13,2	4,27-21,0	1/65
7 ∞	117-∞	83-∞	59-∞	42-∞	29-∞	21-∞	15-∞	11-∞	1/∞

# Micro-Nikkor 200mm f/4 IF

Farming		Decker	Depth	of field				Reproduction
Focusing distance	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	ratio
0.71	0.709-0.711	0.709-0.711	0.709-0.711	0,708-0,712	0,707–0,713	0,706-0,714	0,705-0,715	1/1,99
0.71	0.799-0.801	0.799-0.801	0,798-0,802	0,797-0,803	0,796-0,804	0,795-0,805	0,792-0,808	1/2,44
0,8	0,899-0,901	0.898-0.902	0,897-0,903	0,896-0,904	0,895-0,905	0,893-0,908	0,889-0,911	1/2,94
1,9	0.998-1,00	0.997-1.00	0,996-1,00	0.995-1,01	0,993-1,01	0,990-1,01	0,986-1,01	1/3,4
1.2	1,20–1,20	1,20–1,20	1,19–1,21	1,19-1,21	1,19-1,21	1,18–1,22	1,18–1,22	1/4,4
1,5	1.49-1.51	1,49–1,51	1,49-1,51	1,49-1,51	1,48-1,52	1,47–1,53	1,46–1,54	1/5,9
2	1.99-2.01	1.99-2.01	1,98-2,02	1,97-2,03	1,96-2,04	1,95–2,06	1,92-2,08	1/8,4
3	2,98-3,03	2.97-3.04	2,95-3,05	2,93-3,07	2,90-3,10	2,87-3,14	2,81–3,22	1/13,4
	3,95-4,05	3.94-4.07	3,91-4,10	3,88-4,13	3,82-4,20	3,76-4,28	3,66-4,42	1/18,4
4	5,89-6,11	5,85–6,16	5,79-6,23	5,71-6,32	5,59-6,48	5,45-6,68	5,24-7,04	1/28,4
6	11.6–12.5	11.4–12.7	11,1–13,0	10,9-13,4	10,4-14,2	9,9-15,2	9,2-17,4	1/58,4
12	300-∞	215-∞	150-∞	109-∞	75–∞	55-∞	38-∞	1/∞



# **Depth-of-field Tables (Autofocus Lenses)**

# AF Nikkor 20mm f/2.8

Focusing	Deode	,		Depth of field					Reproduction
distance									ratio
		f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
0.85		915/16"-107/16"	913/16"-109/16"	911/16"-1011/16"	91/2"-11"	95/16"-115/16"	815/16"-1'	85/8"-1'15/16"	1/8.8
1		119/16"-1'3/8"	117/16"-1'5/8"	113/16"-1'7/8"	1015/16"-1'15/16"	105/8"-1'115/16"	101/8"-1'33/16"	99/16"-1'51/16"	1/11.1
1.25		1'21/4"-1'33/4"	1'2"-1'41/8"	1'15%"-1'411/16"	1'11/8"-1'55/8"	1'5/8"-1'615/16"	1113/16"-1'911/16"	11"-2'23/4"	1/14.8
1.5		1'47/8"-1'71/4"	1'47/16"-1'715/16"	1'31/8"-1'81/8"	1'33/16"-1'107/16"	1'23/8"-2'7/8"	1'11/4"-2'63/4"	1'3/16"-3'77/8"	1/18.6
2		1'913/16"-2'211/16"	1'9"-2'41/16"	1'81/16"-2'61/14"	1'613/16"-2'101/4"	1′57/16″-3′51/4″	1′311/16″-5′41/8″	1'2"-18'45/16"	1/26.1
3		2'61/8"-3'73/8"	2'51/8"-3'1111/16"	2'31/8"-4'71/16"	2'5/8"-6'5/16"	1'103/16"-10'11/8"	1′71⁄8″-8	1'41/2"-8	1/41.1
5		3'101/8"-7'27/8"	3'61/16"-9'1/8"	3'111/16"-13'53/4"	2'83/4"-56'81/16"	2'43/8"	1′111⁄8″-8	1′73/16″-8	1/71.0
8		14′-∞	10′61/₁6″ - ∞	7′67/8″ − ∞	5′49⁄ <sub>16</sub> ″-∞	3′11¾″−∞	2′9¹³/ <sub>16</sub> "- ∞	2'17/16"- co	1/∞

ΔF	Nik	knr	24m	m	f/2	8
AI.	IAIL	NUI	4		uz.	·u

/	MIRUN								
Focusing	CONSUMER PRODUCTS DEALER			Depth of field					Reproduction
distance		f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
0,3		0,292-0,308	0,289-0,312	0,285-0,318	0,279-0,326	0,272-0,337	0,262-0,359	0,251-0,390	1/8,8
0,35		0,338-0,363	0,334-0,368	0,328-0,377	0,319-0,390	0,310-0,408	0,295-0,443	0,280-0,498	1/11
0,4		0,384-0,418	0,378-0,426	0,369-0,438	0,358-0,457	0,345-0,484	0,326-0,539	0,307-0,629	1/13
0,5		0,473-0,531	0,463-0,546	0,449-0,567	0,431-0,603	0,411-0,655	0,382-0,772	0,353-0,996	1/17
0,7		0,644-0,769	0,622-0,804	0,597-0,855	0,562-0,949	0,525-1,10	0,475-1,53	0,428-3,02	1/25
1		0,882-1,16	0,840-1,25	0,791-1,38	0,728-1,67	0,663-2,27	0,580-5,95	0,507-∞	1/38
2		1,55–2,84	1,42-3,48	1,27-4,99	1,11–14,8	0,955-∞	0,782-∞	0,648-∞	1/79
∞		6,46-∞	4,55-∞	3,27-∞	2,31-∞	1,71-∞	1,20-∞	0,894-∞	1/∞

# AF Nikkor 28mm f/2.8

	NIKON								
Focusing	CONSUMER PRODUCTS DEALER			Depth of field					Reproduction
distance		f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
0,3		0,294-0,306	0,292-0,309	0,239-0,313	0,284-0,319	0,279-0,327	0,270-0,341	0,261-0,361	1/7,58
0,4		0,388-0,413	0,383-0,419	0,377-0,427	0,368-0,44	0,357-0,458	0,341-0,492	0,325-0,542	1/11,1
0,5		0,48-0,522	0,472-0,533	0.641-0.547	0,447-0,571	0,430-0,604	0,406-0,671	0,381-0,777	1/14,6
0,7		0,658-0,749	0,641-0,772	0.621-0.806	0,593-0,864	0,561-0,950	0,517-1,15	0,473-1,54	1/21,6
1		0,911-1,11	0,878-1,17	0,838-1,25	0,784-1,41	0,727-1,67	0,650-2,45	0,579-5,86	1/32,0
2		1,65-2,54	1,54-2,88	1,41-3,51	1,26-5,24	1,10-14,1	0,930-∞	0,783-∞	1/66,8
∞		8,96-∞	6,29-∞	4,52-∞	3,19-∞	2,34-∞	1,63-∞	1,21-∞	1/∞

# AF Nikkor 35mm f/2

Focusing distance	CONSUMER PRODUCTS DEALER	)		Depth of field					Reproduction ratio
uistal ice	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	Tallo
0.9	1011/16"-1013/16"	1011/16"-107/8"	1011/16"-107/8"	105/8"-1015/16"	109/16"-11"	101/2"-111/16"	103/8"-111/4"	101/4"-117/16"	1/4.9
1	117/8"-11/16"	117/8"-111/1/16"	1113/16"-1'1/8"	113/4"-1'3/16"	1111/16"-1'5/16"	119/16"-1'7/16"	113/8"-1'5/8"	113/16"-1'15/16"	1/5.8
1.25	1'2'3/16"-1'31/8"	1'23/4"-1'33/16"	1'211/16"-1'31/4"	1'29/16"-1'33/8"	1'23/8"-1'35/8"	1'23/16"-1'37/8"	1'17/8"-1'45/16"	1'11/2"-1'47/8"	1/8.0
1.5	1'53/4"-1'61/4"	1'55/8"-1'65/16"	1′5½"-1′6½"	1'55/16"-1'611/16"	1′51/16″-1′7″	1'43/4"-1'77/16"	1'41/4"-1'81/4"	1'311/16"-1'95/16"	1/10.1
2	1'11½"-2'8½"	1'111/4"-2'11/16"	1'11"-2'11/16"	1'105/8"-2'11/2"	1'101/8"-2'21/4"	1'91/2"-2'31/4"	1'89/16"-2'51/16"	1'79/16"-2'73/4"	1/14.4
3	2'1011/16"-3'13%"	2'101/4"-3'115/16"	2'91/2"-3'27/8"	2'85/8"-3'41/8"	2'77/16"-3'65/16"	2'61/16"-3'95/16"	2'4"-4'35%"	2'115/16"-5'215/16"	1/22.9
5	4'83/16"-5'43/8"	4'613/16"-5'65/16"	4'47/8"-5'91/2"	4'21/2"-6'21/4"	3'115/16"-6'107/8"	3'715/16"-8'11/16"	3'315/16"-11'415/16"	2'11"-23"/2"	1/39.8
15	12'3"-19'4"	11'5"-21'11"	10'4"-27'4"	9'3"-41'2"	7'11"-174'5"	6′9″-8	5′5″-8	4′5″-8	1/124.5
8	64′-∞	45′10″−∞	32′2″-∞	23′-∞	16′2″-∞	11′10″−∞	8′3″−∞	6′1″−∞	1/∞



#### AF Nikkor 50mm f/1.4

Focusing	CONSUM PRODUC DEALE			Depth of field					Reproduction
distance	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	ratio
0.45	0,448-0,453	0,446-0,454	0,445-0,455	0,443-0,457	0,440-0,460	0,436-0,465	0.431-0.471	0.424-0.481	1/6,84
0,5	0,497-0,503	0,495-0,505	0,494-0,507	0,491-0,509	0,488-0,513	0,482-0,519	0,476-0,527	0,466-0,541	1/7,83
0,6	0,595-0,605	0.593-0,607	0,590-0,610	0,586-0,614	0,581-0,621	0,573-0,630	0,564-0,642	0,549-0,663	1/9,79
0,7	0,693-0,707	0,690-0,710	0,686-0,714	0,681-0,721	0,673-0,729	0,663-0,743	0.650-0.760	0,629-0,792	1/11,7
0,8	0,791-0,810	0,787-0,814	0.782-0.819	0,774-0,828	0,764-0,840	0,750-0,858	0,733-0,882	0.707-0.927	1/13.7
1,0	0,985-1,02	0,979-1,02	0,970-1,03	0,958-1,05	0,943-1,07	0,920-1,10	0,894-1,14	0,854-1,22	1/17,6
1,2	1,18–1,22	1,17-1,23	1,16-1,25	1,14-1,27	1,12-1,30	1,08-1,35	1,05-1,41	0,991-1,54	1/21,5
1,5	1,46–1,54	1,45-1,55	1,43-1,58	1,40-1,61	1,37-1,66	1,32-1,74	1,26-1,85	1,18-2,08	1/27,3
2	1,94-2,07	1,91-2,1	1,88-2,14	1,83-2,21	1,77-2,30	1,69-2,47	1,59-2,71	1,46-3,23	1/37,0
3	2,86-3,16	2,80-3,23	2,73-3,33	2,62-3,51	2.50-3.76	2,33-4,23	2,16-5,00	1,92-7,24	1/56,4
5	4,61–5,47	4.46-5.70	4,27-6,03	4,02-6,62	3,73-7,62	3,37-9,85	3,01-15,6	2,55-∞	1/95,0
∞	57,2-∞	40,0-∞	28,6-∞	20,1-∞	14,4-∞	10,1-∞	7,35-∞	5,08-∞	1/∞

# AF Nikkor 50mm f/1.8

Focusing		CONSUME PRODUCT DEALER	\$		Depth of field					Reproduction
distance	f/1.8	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio
0,45	0,448-0,452	0,447-0,453	0,446-0,454	0,445-0,455	0,443-0,458	0,440-0,461	0,436-0,465	0.430-0.473	0,423-0,482	1/6,64
0,5	0,497-0,503	0,496-0,504	0,495-0,505	0,493-0,507	0,490-0,510	0.486-0.515	0,481-0,521	0,473-0,531	0,464-0,543	1/7,63
0,6	0,595-0,605	0,594-0,606	0,592-0,608	0,589-0,612	0,584-0,617	0.578-0.624	0,570-0,634	0.558-0.650	0.544-0.672	1/9,60
0,7	0,693-0,708	0,692-0,708	0,688-0,712	0.684-0.717	0,677-0,724	0,668-0,736	0,657-0,750	0,640-0,776	0,620-0,809	1/11,55
0,8	0,790-0,811	0,789-0,812	0,784-0,817	0.778-0.824	0.769-0.834	0.757-0.849	0.742-0.870	0,718-0,906	0,693-0,955	1/13,50
1,0	0,983-1,02	0,981-1,02	0,974-1,03	0,963-1,04	0,949-1,06	0,929-1,08	0,905-1,12	0,868-1,19	0,828-1,28	1/17,4
1,2	1,17-1,23	1,17-1,23	1,16-1,24	1,14-1,26	1,12-1,29	1,09-1,33	1,06-1,39	1,01-1,50	0,95-1,65	1/21,3
1,5	1,46-1,54	1,45-1,55	1,44-1,57	1,41-1,60	1,38-1,65	1,33-1,72	1,28-1,82	1,20-2,02	1,12-2,34	1/27,1
2	1,92-2,08	1,92-2,09	1,88-2,13	1,84-2,20	1,78-2,29	1,70-2,44	1,61-2,65	1,48-3,13	1,36-4,00	1/36,8
3	2,82-3,20	2,81-3,22	2,74-3,32	2,64-3,48	2,52-3,73	2,35-4,16	2,18-4,89	1,94-6,89	1,72-13,79	1/56,2
5	4,52-5,60	4,47-5,68	4,29-6,01	4,04-6,58	3,75-7,53	3.40-9,65	3,04-14,92	2.58-186.84	2,20-∞	1/95,0
∞	44-∞	40-∞	29-∞	20-∞	14-∞	10-∞	7-∞	5-∞	4-∞	1/∞

# AF Micro Nikkor 55mm f/2.8

Focusing		CONSUME PRODUCT DEALER	\$	Depth of	field				Reproduction
distance	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	Tallo
0,228	0,228-0,229	0,228-0,229	0,228-0,229	0,228-0,229	0.228-0.229	0,228-0,229	0.228-0.229	0,228-0,229	1,0
0,229	0.229-0.229	0.229-0.229	0,229-0,229	0,229-0,229	0,229-0,229	0,229-0,229	0.228-0.230	0,228-0,230	1/1,1
0.23	0,230-0,230	0.230-0.230	.0,230-0,230	0,230-0,230	0,230-0,230	0,230-0,231	0.229-0.231	0,229-0,231	1/1,2
0,235	0,235-0,235	0.235-0.235	0,235-0,235	0.235-0.235	0,234-0,236	0,234-0,236	0.234-0.236	0,233-0,237	1/1,5
0.24	0,240-0,240	0.240-0.240	0,240-0,240	0,240-0,241	0,239-0,241	0,239-0,241	0.239-0.242	0,238-0,242	1/1,6
0,25	0,250-0,250	0.250-0.250	0,250-0,251	0,249-0,251	0,249-0,251	0,249-0,252	0.248-0.252	0,247-0,253	1/1,9
0.27	0,270-0,270	0.269-0.271	0,269-0,271	0,269-0,271	0,268-0,272	0,268-0,273	0,267-0,274	0,265-0,275	1/2,4
0.3	0,299-0,301	0.299-0.301	0,299-0,302	0,298-0,302	0,297-0,303	0,296-0,304	0,294-0,306	0,292-0,309	1/3,0
0.35	0,349-0,351	0.348-0.352	0,347-0,353	0,346-0,354	0,345-0,355	0,343-0,358	0,340-0,361	0,336-0,366	1/4,0
0.4	0,398-0,402	0.397-0.403	0.396-0.404	0,394-0,406	0,392-0,409	0,389-0,412	0,384-0,418	0,378-0,426	1/5,0
0,5	0,496-0,504	0,494-0,506	0.492-0.508	0,489-0,512	0,484-0,517	0,478-0,525	0,470-0,536	0,459-0,553	1/6,9
0.7	0,690-0,710	0.686-0.714	0,681-0,721	0,673-0,730	0,663-0.743	0,649-0.762	0.630-0.792	0,606-0,839	1/10,5
1	0,971-1,024	0.968-1,034	0,956-1,049	0,938-1,071	0,915-1,104	0,885-1,155	0,846-1,237	0,796-1,377	1/16,0
2	1,899-2,118	1,860-2,170	1,807-2,249	1,737-2,371	1,648-2,569	1,537-2,918	1,406-3,622	1,256-5,553	1/34,3
∞	32.2-∞	22.8-∞	16,2-∞	11,5-∞	8,1-∞	5,8-∞	4,1-∞	3,0-∞	1/∞

#### AF Micro Nikkor 60mm f/2.8 Nikon

Focusing		DE	UMER JUCTS ALER	Depth	of field			1	Reproduction
distance	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	ratio
0.219	0.219-0.219	0.218-0.219	0.218-0.219	0.218-0.219	0.218-0.219	0.218-0.219	0.218-0.219	0.218-0.219	1.0
0.22	0.220-0.220	0.219-0.220	0.219-0.220	0.219-0.220	0.219-0.220	0.219-0.220	0.219-0.220	0.219-0.220	1/1.1
0.225	0.225-0.225	0.225-0.225	0.225-0.225	0.225-0.225	0.225-0.225	0.225-0.225	0.224-0.225	0.224-0.225	1/1.3
0.23	0.230-0.230	0.230-0.230	0.230-0.230	0.229-0.230	0.229-0.230	0.229-0.230	0.229-0.230	0.229-0.230	1/1.4
0.235	0.235-0.235	0.234-0.235	0.234-0.235	0.234-0.235	0.234-0.235	0.234-0.235	0.234-0.235	0.234-0.235	1/1.5
0.24	0.239-0.240	0.239-0.240	0.239-0.240	0.239-0.240	0.239-0.240	0.239-0.240	0.239-0.240	0.239-0.240	1/1.7
0.25	0.249-0.250	0.249-0.250	0.249-0.250	0.249-0.250	0.249-0.250	0.249-0.250	0.248-0.251	0.248-0.251	1/1.9
0.27	0.269-0.270	0.269-0.270	0.269-0.270	0.269-0.270	0.269-0.271	0.268-0.271	0.267-0.272	0.267-0.273	1/2.3
0.30	0.299-0.300	0.299-0.300	0.299-0.301	0.298-0.301	0.298-0.302	0.297-0.302	0.296-0.304	0.294-0.305	1/2.8
0.35	0.349-0.351	0.348-0.351	0.348-0.352	0.347-0.352	0.346-0.354	0.344-0.355	0.342-0.358	0.339-0.361	1/3.7
0.40	0.398-0.401	0.397-0.402	0.396-0.403	0.395-0.404	0.393-0.406	0.391-0.409	0.387-0.413	0.382-0.419	1/4.6
0.50	0.496-0.503	0.495-0.504	0.493-0.506	0.491-0.509	0.487-0.513	0.482-0.519	0.475-0.528	0.466-0.541	1/6.3
0.70	0.692-0.708	0.688-0.711	0.684-0.716	0.677-0.724	0.669-0.734	0.657-0.750	0.641-0.773	0.620-0.809	1/9.7
1	0.981-1.020	0.973-1.029	0.963-1.041	0.948-1.059	0.929-1.085	0.903-1.126	0.868-1.189	0.825-1.293	1/14.7
2	1.914-2.096	1.880-2.138	1.835-2.202	1.774-2.298	1.696-2.451	1.159-2.709	1.477-3.189	1.336-4.281	1/31.4
∞	38.3-∞	27.1- ∞	19.2-∞	13.6-∞	9.6-∞	6.8− ∞	4.9-∞	3.5-∞	1/ ∞



AF Nikk	or 85mm f/1.8	Nikon												
Focusing distance		COPRE	NSUMER ODUCTS JEALER	Dept	h of Field				Reproduction ratio					
	f/1.8	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	- ratio					
3	2'11''-13'16''— 3'1/8''	2'11-'3/4''— 3'3/16''	2'11-11/16''— 3'1/4''	2'11-9/16''— 3'3/8''	2'11-7/16''— 3'1/2''	2'11-1/4''— 3'3/4''	2'10-15/16''— 3'1-1/16''	2'10-1/2''— 3'1-9/16''	1/10.0					
4	3'11-5/8''— 4'5/16''	3'11-9/16''— 4'3/8''	3'11-7/16''— 4'1/2''	3'11-3/16''— 4'3/4''	3'10-15/16''— 4-1-1/16''	3'10-1/2''— 4'1-9/16''	3'9-15/16''— 4'2-3/16''	3'9-1/8''— 4'3-1/4''	1/13.6					
6	5'11-1/8''— 6'7/8''	5'11''— 6'15/16''	5'10-5/8''— 6'1-3/8''	5'10-1/16''— 6'1-15/16''	5'9-3/8''— 6'2-13/16''	5'8-5/16''— 6'4-1/16''	5'7-1/16''— 6'5-3/4''	5'5-1/16''— 6'8-3/4''	1/20.2					
8	7'10-3/8''— 8'1-5/8''	7'10-3/16''— 8'1-13/16''	7'9-1/2''— 8'2-9/16''	7'8-7/16''— 8'3-3/4''	7'7-1/8''— 8'5-3/8''	7'5-1/4''— 8'7-7/8''	7'2-15/16''— 8'11-1/4''	6'11-7/16''— 9'5-5/16''	1/28.2					
12	11'8'— 12'4''	11'7''— 12'4''	11'6''— 12'6''	11'3''— 12'9''	11'— 13'1''	10'8''— 13'7''	10'3''— 14'4''	9'8''— 15'10''	1/42.6					
20	19'1''— 20'11''	19'— 21'1''	18'7''— 21'7''	18'1''— 22'4''	17'5''— 23'5''	16'6''— 25'4''	15'6''— 28'2''	14'1''— 34'9''	1/71.4					
∞	393'—∞	354'—∞	253′—∞	177'—∞	126'—∞	88'—∞	64'—∞	44'— ∞	1/∞					

AF Micro Nikkor 105mm f/2.8

Focusing distance	CONSUMER PRODUCTS  Depth of field								Reproduction
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	ratio
1.0 ft.	1′0″5⁄16-1′0″5⁄16	1′0″5⁄16-1′0″5⁄16	1′0″5⁄16-1′0″5⁄16	1′0″5⁄16-1′0″3⁄8	1′0″5⁄16-1′0″3⁄8	1′0″5/16-1′0″3/8	1′0″5/16-1′0″3/8	1′0″1⁄4-1′0″3⁄8	1/1.0
1.1 ft	1′1″7⁄16-1′1″1/2	1′1″7⁄16-1′1″1⁄2	1′1″7⁄16-1′1″1⁄2	1′1″7⁄16-1′1″1⁄2	1′1″7⁄16-1′1″1⁄2	1′1″7⁄16-1′1″1⁄2	1′1″7⁄16-1′1″1⁄2	1′1″7/16-1′1″1/2	1/1.5
1.3 ft.	1′3″%16-1′2″15/16	1′3″%6-1′2″15/16	1′3″%16-1′2″15/16	1′3″%6-1′2″15/16	1′3″%16-1′2″15/16	1′3″%6-1′2″15/16	1′3″%16-1′2″15/16	1′3″%16-1′2″15/16	1/1.9
1.5 ft.	1′6″%16-1′5″15/16	1′6″%16-1′5″15/16	1′6″%16-1′5″15/16	1′6″%6-1′5″15/16	1′6″%16-1′5″15/16	1′6″%6-1′5″15/16	1′6″1⁄16-1′5″7⁄8	1'6"1/16-1'5"7/8	1/2.8
1.8 ft.	1′9″%16-1′8″15/16	1′9″%6-1′8″15/16	1′9″%16-1′8″15/16	1′9″1⁄16-1′8″7⁄8	1′9″¹/16-1′8″7/8	1′9″1⁄8-1′8″13⁄16	1′9″³/ <sub>16</sub> -1′8″³/ <sub>4</sub>	1′9″1⁄4-1′8″11⁄16	1/3.5
2.0 ft.	2′0″% <sub>16</sub> -1′11″15/ <sub>16</sub>	2′0″% <sub>16</sub> -1′11″15⁄ <sub>16</sub>	2′0″1/16-1′11″7/8	2′0″1⁄16-1′11″7⁄8	2′0″1/8-1′11″13/16	2′0″3/16-1′11″3/4	2′0″5/16-1′11″5/8	2′0″7/16-1′11″1/2	1/4.3
2.5 ft.	2'6"1/16-2'5"7/8	2'6"1/8-2'5"7/8	2'6"3/16-2'5"13/16	2'6"1/4-2'5"3/4	2'6"5/16-2'5"5/8	2'6"1/2-2'5"1/2	2'6"11/16-2'5"5/16	2'7"%6-2'5"%6	1/5.8
3.0 ft.	3′0″1/8-2′11″13/16	3′0″3/16-2′11″3/4	3′0″1/4-2′11″11/16	3′0″7/16-2′11″9/16	3′0″%16-2′11″%	3′0″7/8-2′11″1/8	3'1"1/4-2'10"13/16	3′1″1¾6-2′10″¾	1/7.3
5.0 ft.	5′0″1⁄2-4′11″7⁄ <sub>16</sub>	5′0″¾-4′11″¾ <sub>16</sub>	5′1″1⁄8-4′10″7⁄8	5′1″9⁄16-4′10″7⁄16	5′2″5/16-4′9″13/16	5′3″5⁄16-4′9″%16	5'4"13/16-4'7"7/8	5′7″1⁄8-4′6″3⁄8	1/13.1
10.0 ft.	10′2″-9′9″7⁄ <sub>16</sub>	10′3″-9′8″¾	10′5″-9′8″15⁄16	10′8″-9′5″%6	10′11″-9′2″5⁄16	11′5″-8′10″3⁄4	12'2"-8'6"1/8	13′5″-8′0″1⁄4	1/27.6
	384′- ∞	271′− ∞	192′-∞	136′-∞	96′−∞	68′-∞	48′-∞	34′−∞	1/

(Units = Feet)

Focusing	mm f/2.8 ED-IF    September   Depth of field								
distance	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	ratio	
1,5	1,50–1,50	1,49–1,51	1,49–1,51	1,49–1,51	1,48–1,52	1,47–1,53	1,46–1,54	1/6,8	
1,7	1,69-1,71	1,69-1,71	1,69-1,71	1,68-1,72	1,68-1,73	1,67-1,74	1,65-1,75	1/7,9	
2	1,99-2,01	1,99-2,01	1,98-2,02	1,97-2,03	1,96-2,04	1,95-2,05	1,93-2,08	1/9,6	
2,5	2,49-2,52	2,48-2,52	2,47-2,53	2,46-2,54	2,44-2,56	2,42-2,59	2,39-2,63	1/12,3	
3	2,98-3,02	2,97-3,03	2,96-3,05	2,94-3,06	2,91-3,09	2,88-3,13	2,83-3,19	1/15,1	
4	3,96-4,04	3,94-4,06	3,92-4,08	3,89-4,12	3,84-4,17	3,78-4,25	3,70-4,36	1/20,7	
5	4,93-5,07	4,91-5,10	4,87-5,14	4,82-5,19	4,75-5,28	4,65-5,41	4,52-5,60	1/26,2	
6	5,90-6,10	5,87-6,14	5,81-6,20	5,74-6,29	5,64-6,42	5,50-6,61	5,32-6,90	1/31,8	
8	7,83–8,18	7,76-8,26	7,66-8,37	7,53-8,53	7,36-8,77	7,12-9,14	6,81-9,72	1/42,9	
12	11,6–12,4	11,5-12,6	11,2-12,9	11,0-13,3	10,6-13,9	10,1-14,8	9,5-16,5	1/65,1	
20	18,9-21,2	18,5-21,8	18,0-22,6	17,2-23,8	16,3-25,9	15,2-29,6	13,8-36,9	1/109,6	
∞	344-∞	243-∞	172-∞	122-∞	86-∞	61-∞	43-∞	1/∞	

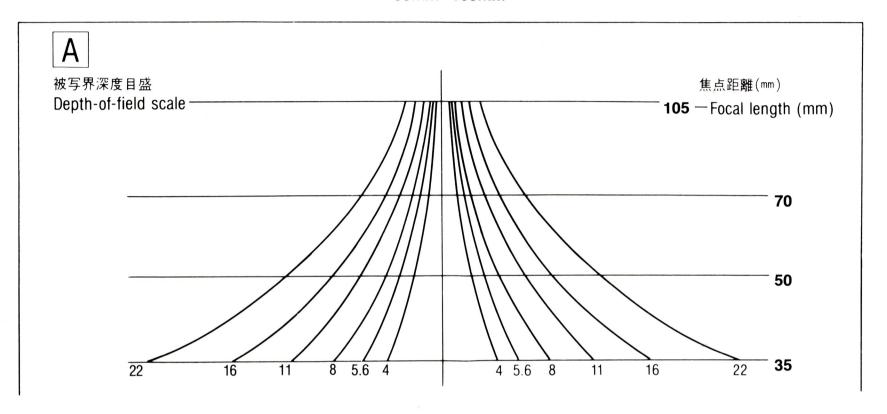
Focusing	mm f/2.8 ED-IF    Depth of field   Depth								
distance	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	Reproduction ratio	
3	2,99-3,01	2,99-3,01	2,99-3,01	2,98-3,02	2,97-3,03	2,96–3,04	2,95–3,06	1/8,4	
4	3,99-4,01	3,98-4,02	3,97-4,03	3,96-4,04	3,95-4,05	3,92-4,08	3,90-4,11	1/11,7	
5	4,98-5,02	4,97-5,03	4,96-5,04	4,94-5,06	4,92-5,09	4,88-5,13	4,83-5,18	1/15,0	
6	5,97-6,03	5,95-6,05	5,94-6,07	5,91-6,09	5,87-6,13	5,82-6,19	5,76-6,27	1/18,4	
7	6,96-7,05	6,94-7,07	6,91-7,09	6,87-7,13	6,83-7,18	6,75-7,27	6,66-7,38	1/21,7	
8	7,94–8,06	7,92-8,09	7,88-8,12	7,83-8,18	7,77-8,24	7,67-8,36	7,56-8,50	1/25.0	
10	9,91–10,1	9,87-10,1	9,81-10,2	9,73-10,3	9,64-10,4	9,48-10,6	9,30-10,8	1/31,7	
12	11,9–12,1	11,8-12,2	11,7–12,3	11,6-12,4	11,5–12,6	11,3-12,9	11,0-13,2	1/38,4	
15	14,8–15,2	14,7-15,3	14,6-15,5	14,4-15,7	14,2-15,9	13,8-16,4	13,4-17,0	1/48,4	
20	19,6-20,4	19,4-20,6	19,2-20,8	18,9-21,2	18,6-21,7	18,0-22,6	17,3-23,7	1/65,0	
30	29,1-30,9	28,8-31,4	28,3-31,9	27,6-32,8	26,8-34,1	25,6-36,3	24,3-39,4	1/98,4	
70	65,3–75,4	63,5-78,0	61,2-81,7	58,1-88,1	54,6-97,6	49,7–119	44,8-162	1/231,7	
∞	965-∞	676-∞	483-∞	338-∞	246-∞	169-∞	123-∞	1/∞	

# AF Nikkor 300mm f/4 ED-IF

Focusing	Depth of field								
distance	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	ratio	
2.5	2.49-2.51	2.49-2.51	2.49-2.51	2.48-2.52	2.47-2.53	2.46-2.54	2.45-2.56	1/7.0	
3	2.99-3.01	2.99-3.01	2.98-3.02	2.97-3.03	2.96-3.04	2.94-3.06	2.92-3.09	1/8.6	
3.5	3.49-3.51	3.48-3.52	3.47-3.53	3.46-3.54	3.44-3.56	3.42-3.58	3.39-3.62	1/10.3	
4	3.98-4.02	3.97-4.03	3.96-4.04	3.95-4.06	3.92-4.08	3.89-4.11	3.85-4.17	1/12.0	
5	4.97-5.03	4.96-5.05	4.94-5.07	4.91-5.09	4.87-5.13	4.83-5.19	4.76-5.27	1/15.3	
6	5.95-6.05	5.93-6.07	5.91-6.10	5.87-6.13	5.82-6.20	5.75-6.28	5.64-6.41	1/18.6	
7	6.93-7.07	6.91-7.09	6.87-7.13	6.82-7.19	6.75-7.27	6.66-7.38	6.51-7.57	1/22.0	
8	7.91-8.09	7.88-8.12	7.83-8.18	7.77-8.25	7.67-8.37	7.55-8.51	7.36-8.77	1/25.3	
10	9.86-10.1	9.81-10.2	9.73-10.3	9.63-10.4	9.48-10.6	9.30-10.8	9.01-11.3	1/32.0	
15	14.7-15.3	14.6-15.5	14.4-15.7	14.2-15.9	13.8-16.4	13.4-17.0	12.8-18.1	1/48.7	
30	28.8-31.4	28.3-31.9	27.6-32.9	26.8-34.1	25.6-36.3	24.2-39.5	22.3-46.2	1/98.7	
∞	675-∞	483-∞	338-∞	246-∞	169-∞	123-∞	85-∞	1/∞	

# **Depth - of - Field Scale for Zoom Lenses**

35mm - 105mm



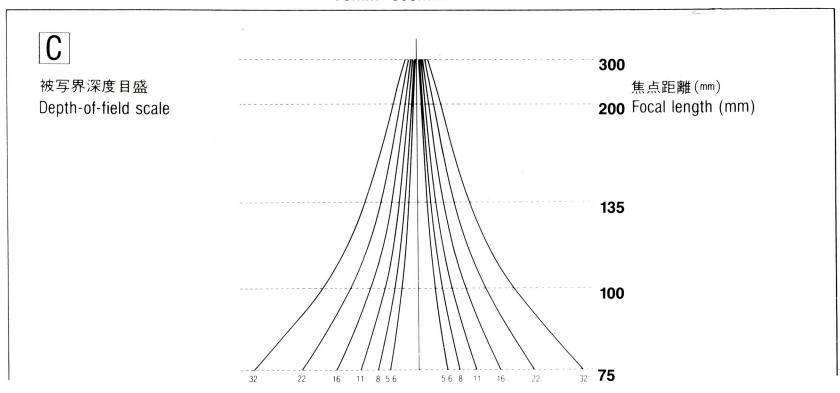
#### To use depth-of-field scale

- 1. Remove scale B from page 101 (extra scales are provided).
- 2. Place scale B over scale A so the bottom edge of scale B is aligned with the focal length in use and the distance is aligned with the central indicator line of scale A.
- Read the scale B numbers that correspond to the aperture in use. For example, if the lens is prefocused at 3m with the focal length at 35mm and the aperture at 1/16 the depth of field will be from approx. 5 feet to infinity.

INSERT SUBJECT-DISTANCE SCALES INTO SLOTS FOR STORAGE.

# **Depth - of - Field Scale for Zoom Lenses**

75mm - 300mm



#### To use depth-of-field scale

- 1. Remove scale D from page 102 (extra scales are provided).
- Place scale D over scale C so the bottom edge of scale D is aligned with the focal length in use, and the distance is aligned with the central indicator line of scale C.
- 3. Read the scale D numbers that correspond to the aperture in use. For example, if the lens is pre-focused at 5m with the focal length at 75mm and the aperture at f/16, the depth of field will be from approx. 12 feet to 30 feet.

INSERT SUBJECT-DISTANCE SCALES INTO SLOTS FOR STORAGE

В

撮影距離目盛 Subject-distance scale

m  $\infty$  7 4 3 2.5 2 1.4 ft.  $\infty$  20 10 8 6 5

В

撮影距離目盛

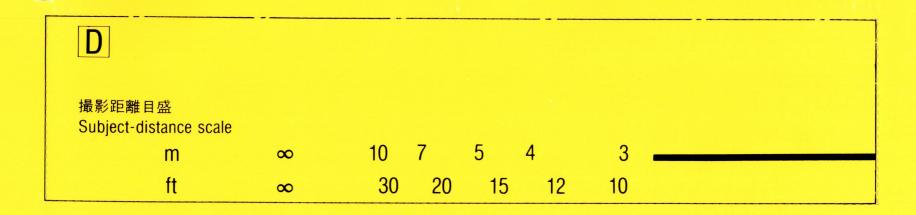
Subject-distance scale

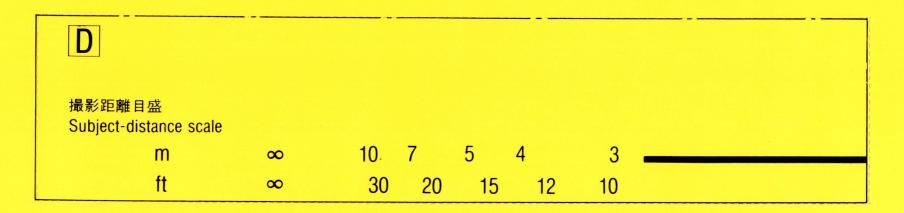
m  $\infty$  7 4 3 2.5 2 1.4 ft.  $\infty$  20 10 8 6 5

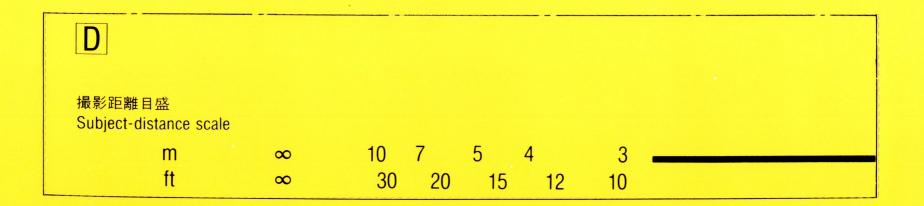
В

撮影距離目盛

Subject-distance scale







# **Enlarging Lenses**







# **Dimension Reference Drawing**

This drawing for common reference for lens and mounting dimensions as provided in accompanying specifications.

#### EL-Nikkor 40mm f/4N

Product Number:209Focal length:40.1mmMaximum aperature ratio1:4Covering power:52°

Optical construction: 6 elements in 4 groups

Standard magnification: 10x
Usable magnification range: 5x-30x
Aperture range: f/4-f/22
Correction wavelength range: 380-700nm
Original size: 43.2mm diameter
Original format size: 24mm x 36mm

**Dimensions (b x a):** 51mm dia. x 42mm (2.0" x 1.7")

Weight: 100g (3.5 oz.)

Attachment size (d): 40.5mm diameter (p = 0.5mm) Rear mount size (e): 39mm diameter (p = 1/26")

#### EL-Nikkor 50mm f/2.8N

Product Number: 210
Focal length: 52.0mm
Maximum aperture ratio: 1:2.8
Covering power: 41°

Optical construction: 6 elements in 4 groups

Standard magnification: 8x
Usable magnification range: 2x-20x
Aperture range: f/2.8-f/16
Correction wavelength range: 380-700nm
Original size: 43.2mm diameter
Original format size: 24mm x 36mm

**Dimensions (b x a):** 51mm dia. x 39mm (2.0" x 1.5")

Weight: 105g (3.7 oz.)

Attachment size (d): 40.5mm diameter (p = 0.5mm) Rear mount size (e): 39mm diameter (p = 1/26")









# EL-Nikkor 63mm f/2.8N

**Product Number:** 

Focal length:

62.9mm

Maximum aperture ratio:

Standard magnification:

1:2.8

211

Covering power:

410

Optical construction:

6 elements in 4 groups

8x Usable magnification range: 2x-20x

Aperture range: Correction wavelength range: f/2.8 - f/16

Original size:

380-700nm 55.2mm diameter

Original format size:

32mm x 45mm

Dimensions:

51mm dia. x 42.5mm (2.0" x 1.7")

Weight:

120g (4.2 oz.)

Attachment size: Rear mount size: (d): 40.5mm diameter (p = 0.5mm) (e): 39mm diameter (p" = 1/26")

### EL-Nikkor 75mm f/4N

**Product Number:** 

224

Focal length:

74.9mm

Maximum aperture ratio:

1:4

Covering power:

48°

4 elements in 3 groups Optical construction:

5x

Standard magnification: Usable magnification range:

2x-10x f/4-f/22

Aperture range:

Correction wavelength range:

380-700nm

Original size: Original format size: 80mm diameter

Dimensions:

60mm x 60mm

51mm dia. x 33mm (2.0" x 1.3")

Weight:

90g (3.2 oz.)

Attachment size (d): Rear mount size (e): 40.5mm diameter (p = 0.5mm) 39mm diameter (P = 1/26")

### EL-Nikkor 80mm f/5.6N

**Product Number:** 

212

Focal length:

80.2mm

Maximum aperture ratio:

1:5.6

Covering power:

56°

Optical construction:

6 elements in 4 groups

Standard magnification:

5x

Usable magnification range:

2x-15x

Aperture range:

f/5.6-f/32

Correction wavelength range:

380-700nm 95mm diameter

Original size:

Original format size:

60mm x 70mm

Dimensions (b x a):

51mm dia. x 38.5mm (2.0" x 1.5")

Weight:

100g (3.5 oz.)

Attachment size (d):

40.5mm diameter (p = 0.5mm)

Rear mount size (e):

39mm diameter (p = 1/26")









# EL-Nikkor 105mm f/5.6N

Product Number:213Focal length:105.5mmMaximum aperture ratio:1:5.6Covering power:51°

Optical construction: 6 elements in 4 groups

Standard magnification: 5x
Usable magnification range: 2x-10x
Aperture range: f/5.6-f/32
Correction wavelength range: 380-700nm
Original size: 120mm diameter
Original format size: 60mm x 90mm

**Dimensions (b x a):** 51mm dia. x 40mm (2.0" x 1.6")

Weight: 110g (3.9 oz.)

Attachment size (d): 40.5mm diameter (p = 0.5mm) Rear mount size (e): 39mm diameter (p = 1/26")

### EL-Nikkor 135mm f/5.6A

Product Number:251Focal length:135mmMaximum aperture ratio:1:5.6Covering power:53°

Optical construction: 6 elements in 4 groups

Standard magnification: 5x
Usable magnification range: 2x-10x
Aperture range: f/5.6-f/45
Correction wavelength range: 380-700nm
Original size: 160mm diameter

Original format size: 90mm x 120mm (4" x 5")

**Dimensions (b x a):** 56mm dia. x 47.5mm (2.2" x 1.9")

Weight: 190g (6.7 oz.)

Attachment size (d): 52mm diameter (p = 0.75mm) Rear mount size (e): 39mm diameter (p = 1/26"); 50mm diameter (p = 0.75mm)

# EL-Nikkor 150mm f/5.6A

Product Number:252Focal length:149.6mmMaximum aperture ratio:1:5.6

Covering power: 51°

Optical construction: 6 elements in 4 groups

Standard magnification:4xUsable magnification range:2x-8xAperture range:f/5.6-f/45Correction wavelength range:380-700nm

Correction wavelength range: 380-700nm
Original size: 180mm diameter

 Original format size:
 100mm x 130mm (4" x 5")

 Dimensions (b x a):
 56mm dia. x 50.2mm (2.2" x 2.0")

Weight: 210g (7.4 oz.)

Attachment size (d): 52mm diameter (p = 0.75mm) Rear mount size (e): 39mm diameter (p = 1/26"); 50mm diameter (p = 0.75mm)







# EL-Nikkor 180mm f/5.6A

Product Number:253Focal length:179.6mmMaximum aperture ratio:1:5.6

Covering power: 54°

Original size:

Optical construction: 6 elements in 4 groups

Standard magnification:4xUsable magnification range:2x-8xAperture range:f/5.6-f/45Correction wavelength range:380-700nm

 Original format size:
 130mm x 180mm (5" x 7")

 Dimensions (b x a):
 77mm dia. x 62mm (3.0" x 2.4")

230mm diameter

**Weight:** 455g (16.0 oz.)

Front mount size: 72mm diameter (p = 1.0mm)

Attachment size (d): 67mm diameter (p = 0.75mm)

Rear mount size (e): 72mm diameter (p = 1.0mm)

Mounting flange: provided; 98mm diameter

# EL-Nikkor 210mm f/5.6A

Product number: 254
Focal length: 210.5mm
Maximum aperture ratio: 1:5.6

Maximum aperture ratio:1:56Covering power:54°

Optical construction: 6 elements in 4 groups

Standard magnification:4xUsable magnification range:2x-8xAperture range:f/5.6-f/45Correction wavelength range:380-700nm

Original size: 270mm diameter

 Original format size:
 130mm x 210mm (5" x 7")

 Dimensions (b x a):
 77mm dia. x 70mm (3.0" x 2.8")

Weight: 550g (19.4 oz.)

Front mount size (c): 72mm diameter (p = 1.0mm)

Attachment size (d): 67mm diameter (p = 0.75mm)

Rear mount size (e): 72mm diameter (p = 0.75mm)

Mounting Flange: provided; 98mm diameter

# EL-Nikkor 240mm F/5.6A

Product number: 255

Focal length: 241.8 mm

Maximum aperture ratio: 1:5.6 Covering power: 57°

Optical construction: 6 elements in 4 groups

Standard magnification:4xUsable magnification range:1x-8xAperture range:f/5.6-f/45

Correction wavelength range:

Original size: 330mm diameter

 Original format size:
 180mm x 240mm (8" x 10")

 Dimensions (b x a):
 97mm dia. x 77.5mm (3.8" x 3")

380-700nm

Weight: 860g (30.1 oz)

Front mount size (c): 82mm diameter (p = 1.0mm)

Attachment size (d): 77mm diameter (p = 0.75mm)

Rear mount size (e): 82mm diameter (p = 1.0mm)

Mounting flange: provided; 108mm diameter







# EL-Nikkor 300mm f/5.6 A

Product number:

256 300 mm

Focal length: Maximum aperture ratio:

1:5.6

Covering power:

52°

Optical construction:

6 elements in 4 groups

Standard magnification: Usable magnification range: 2x 1x-8x

Aperture range:

f/5.6-f/45

Correction wavelength range:

380-700nm

Original size:

410mm diameter

Original format size: Dimensions (b x a):

270mm x 330mm (10" x 12")

117mm dia. x 97mm (4.6" x 3.8")

Weight:

Mounting flange:

1190g (41.7 oz)

Front mount size (c): Attachment size (d): Rear mount size (e):

90mm diameter (p = 1.0mm) 86mm diameter (p = 1.0mm) 90mm diameter (p = 1.0mm)

provided; 121mm diameter

# **EL NIKKOR ACCESSORIES**



# **Reversing Adapters**

Nikon Consumer PRODUCTS DEALER

Product Number

Reversing adapter for El-Nikkor (40.5mm dia):

2641

40mm f/4N, 50mm, f/2.8N, 63mm f/2.8N, 75mm f/4N, 80mm f/5.6N, 105mm f/5.6N lenses

Product Number:

Reversing ring for earlier El-Nikkor (34.5mm dia.):

2640

For 75mm f/4 lens

Product Number:

Reverse mounting ring for El-Nikkor:

2654

for 135mm f/5.6, 150mm f/5.6 lenses

**Product Number:** 

Lens mounting adaptor:

2655

for 50mm El-Nikkor

# **Lens Caps**



Product number Lens cap, (40.5 mm dia.): 577

For 40mm f/4N, 50mm f/2.8N, 63mm f/2.8N, 75mm f/4N, 80mm f/5.6N, 105mm f/5.6N lenses

Product Number: Lens cap, (52mm dia.): 581

For 135mm f/5.6A, 150mm f/5.6A lenses

Product Number: Lens cap for earlier

576

For 135mm f/5.6 lens

El-Nikkor (43mm dia.):

**Product Number:** 

57

Lens casp (34.5mm dia.):

for El Nikkor (Repl.)

# **Extension Ring**



Product number Extension ring for El-Nikkor:

Product number

2642

50mm—135mm

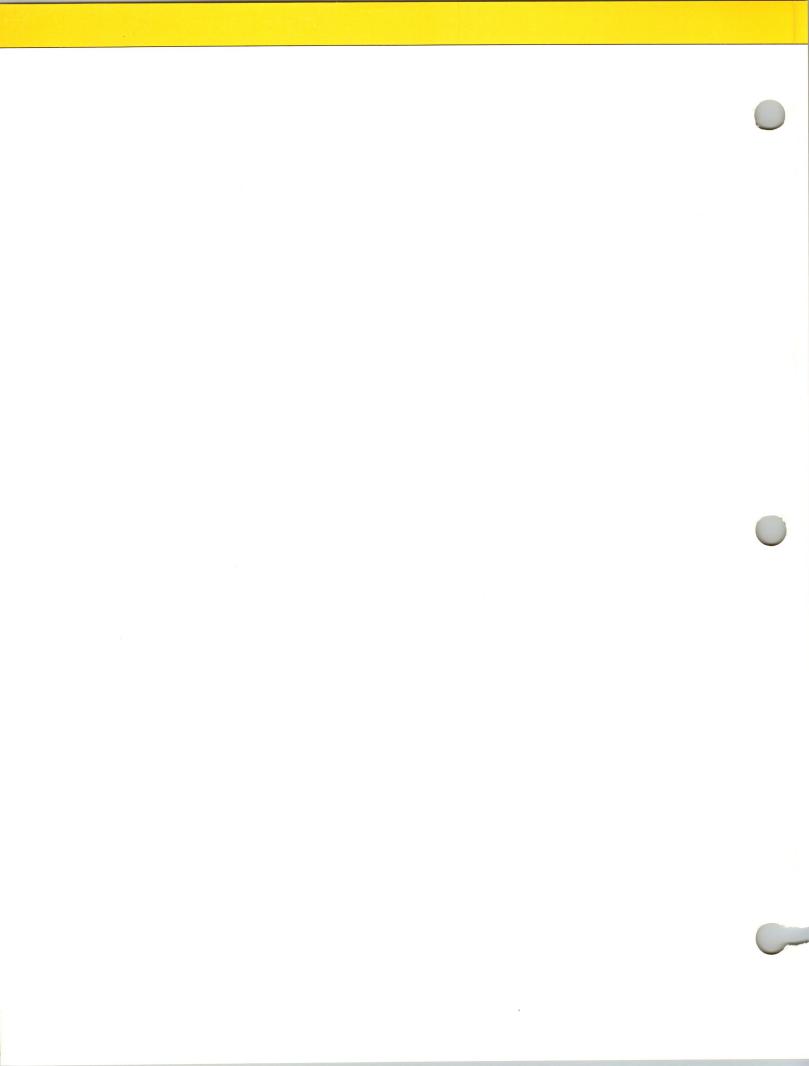
Case (Not Pictured)

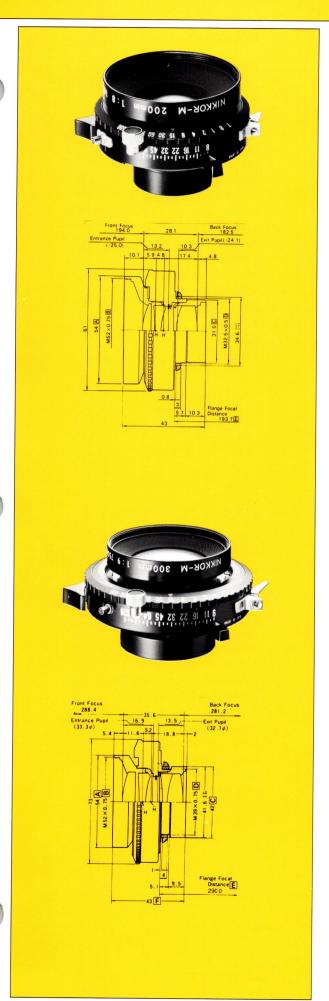
461

Plastic Case f/50mm El-Nikkor (Repl.)



# Large Format Lenses





#### Nikkor-M 200mm f/8

Product number: 1322 Focal length: 200mm Maximum aperture: f/8

Optical construction: 4 elements in 3 groups

Aperture range: f/8-f/64 Covering power (f/8): 45° Covering power (f/22): 55°

Image circle (f/8): 166mm diameter Image circle (f/22): 210mm diameter (5"x7")

Shutter: Copal no. 0, designed exclusively for Nikon

Shutter speeds: 1-1/500 sec., T, B Flash sync socket: X contact Front mount size (A): 54mm diameter

Attachment size (B): 52mm dia. x 0.75mm (P) Rear mount size (C): 31.5mm diameter Flange attachment size (D): 32.5mm dia. x 0.5mm (P)

Flange focal distance (E): 193.7mm Overall length (F): 43mm (1.7") Weight: 180g (6.3 oz.)

#### Nikkor-M 300mm f/9

Product number: 1321 Focal length: 300mm Maximum aperture: f/9

Optical construction: 4 elements in 3 groups

Aperture range: f/9-f/128 Covering power (f/9): 55° Covering power (f/22): 57°

Image circle (f/9): 312mm diameter

Image circle (f/22): 325mm diameter (8"x10") Shutter:

Copal no. 1, designed exclusively for Nikon Shutter speeds:

1-1/400 sec., T, B

Flash sync socket: X contact Front mount size (A): 54mm diameter Attachment size (B): 52mm dia. x 0.75mm (P)

Rear mount size (C): 42mm diameter

Flange attachment size (D): 39mm dia. x 0.75mm (P)

Flange focal distance (E): 290.0mm Overall length (F): 43mm (1.7") Weight: 290g (10.2 oz.)





#### Nikkor-M 450mm f/9

Product number: 1323 450mm Focal length:

Maximum aperture: f/9

4 elements in 3 groups Optical construction:

Aperture range: f/9-f/128 50° Covering power (f/9): Covering power (f/22): 52°

Image circle (f/9): 420mm diameter

Image circle (f/22): 440mm diameter (10"x12")

Copal no. 3, designed exclusively for Nikon Shutter: 1-1/125 sec., T, B Shutter speeds:

X contact Flash sync socket:

Front mount size (A): 70mm diameter

67mm dia. x 0.75mm (P) Attachment size (B): 60mm diameter Rear mount size (C):

62mm dia. x 0.75mm (P) Flange attachment size (D):

428.4mm Flange focal distance (E): Overall length (F): 55mm (2.2')

640g (22.6 oz.) Weight:

#### Nikkor-SW 65mm f/4

Product number: 1341 65mm Focal length:

Maximum aperture: f/4

7 elements in 4 groups Optical construction:

Aperture range: f/4-f/45 80° Covering power (f/4): Covering power (f/16): 105°

110mm diameter Image circle (f/4):

170mm diameter (4"x5") Image circle (f/16):

Copal no. 0, designed exclusively for Nikon Shutter:

1-1/500 sec., T, B Shutter speeds: X contact Flash sync socket: Front mount size (A): 70mm diameter

67mm dia. x 0.75mm (P) Attachment size (B):

54mm diameter Rear mount size (C):

Flange attachment size (D): 32.5mm dia. x 0.5mm (P)

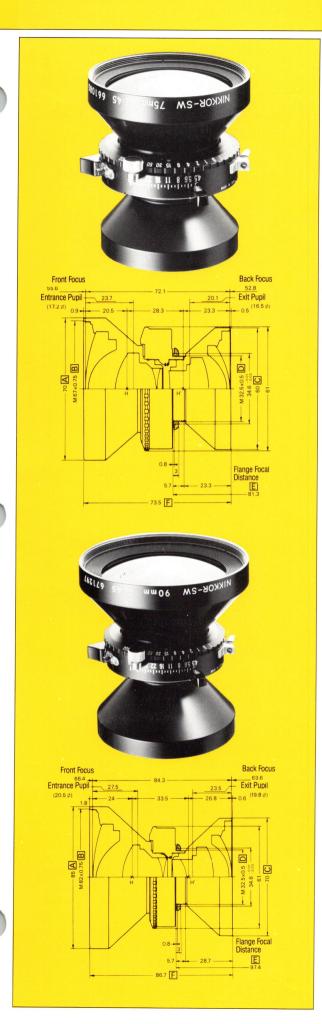
Flange focal distance (E): Overall length (F):

Weight:

70.8mm 67mm (2.6") 370g (13.1 oz.)







#### Nikkor-SW 75mm f/4.5

Product number:1343Focal length:75mmMaximum aperture:f/4.5Optical construction:7 element

7 elements in 4 groups

 Aperture range:
 f/4-f/45

 Covering power (f/4.5):
 80°

 Covering power (f/16):
 106°

Image circle (f/4.5): 126mm diameter

Image circle (f/16):200mm diameter (120mm x 165mm)Shutter:Copal no. 0, designed exclusively for Nikon

Shutter speeds: 1-1/500 sec., T, B
Flash sync socket: X contact
Front mount size (A): 70mm diameter

Attachment size (B): 67mm dia. x 0.75mm (P)

Rear mount size (C): 60mm diameter
Flange attachment size (D): 32.5mm dia. x 0.5mm (P)

 Flange focal distance (E):
 81.3mm

 Overall length (F):
 73.5mm (2.9'')

 Weight:
 420g (14.8 oz.)

#### Nikkor-SW 90mm f/4.5

Product number: 1345
Focal length: 90mm
Maximum aperture: f/4.5

Optical construction: 7 elements in 4 groups

 Aperture range:
 f/4.5-f/64

 Covering power (f/4.5):
 80°

 Covering power (f/16):
 105°

Image circle (f/4.5): 154mm diameter
Image circle (f/16): 235mm diameter (5"x7")

Shutter: Copal no. 0, designed exclusively for Nikon

Shutter speeds:1-1/500 sec., T, BFlash sync socket:X contactFront mount size (A):85mm diameter

Attachment size (B): 82mm dia. x 0.75mm (P)

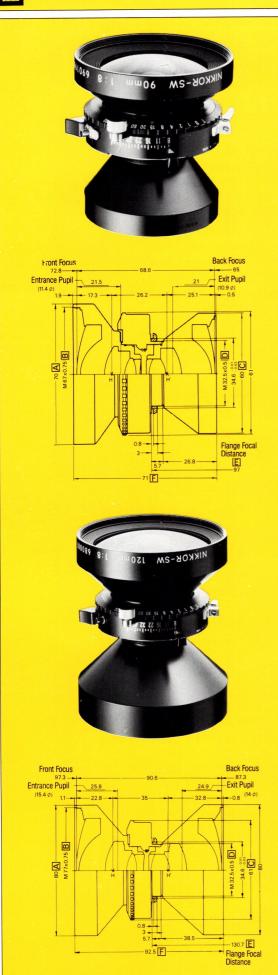
Rear mount size (C): 70mm diameter

Flange attachment size (D): 32.5mm dia. x 0.5mm (P)
Flange focal distance (E): 97.4mm

 Overall length (F):
 86.7mm (3.4'')

 Weight:
 600g (21.2 oz.)





#### Nikkor-SW 90mm f/8

1344 Product name: Focal length: 90mm f/8

Maximum aperture:

Shutter speeds:

8 elements in 4 groups Optical construction:

f/8-f/64 Aperture range: 80° Covering power (f/8): Covering power (f/22): 105°

Image circle (f/8): 154mm diameter

235mm diameter (5"x7") Image circle (f/22):

Shutter: Copal no. 0, designed exclusively for Nikon

Flash sync socket: X contact 70mm diameter Front mount size (A):

67mm dia. x 0.75mm (P) Attachment size (B):

60mm diameter Rear mount size (C):

Flange attachment size (D): 32.5mm dia. x 0.5mm (P)

Flange focal distance (E): 97.0mm 71mm (2.8") Overall length (F): Weight: 360g (12.7 oz.)

1-1/500 sec., T, B

#### Nikkor-SW 120mm f/8

Product number: 1346 Focal length: 120mm Maximum aperture: f/8

8 elements in 4 groups Optical construction:

f/8-f/64 Aperture range: 80° Covering power (f/8): Covering power (f/22): 105°

Image circle (f/8): 200mm diameter

312mm diameter (8"x 10") Image circle (f/22): Copal no. 0, designed exclusively for Nikon Shutter:

1-1/500 sec., T, B Shutter speeds: Flash sync socket: X contact

Front mount size (A): 80mm diameter

77mm dia. x 0.75mm (P) Attachment size (B):

Rear mount size (C): 80mm diameter

Flange attachment size (D):

Flange focal distance (E):

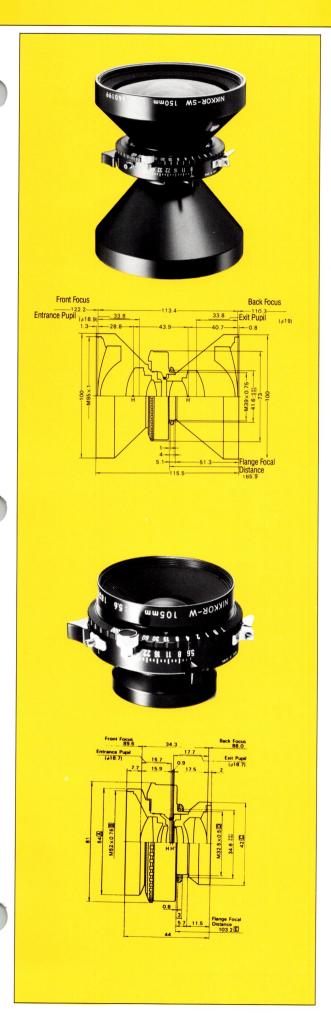
Overall length (F): 92.5mm (3.6")

Weight:

32.5mm dia. x 0.5mm (P) 130.7mm

610g (21.5 oz.)





#### Nikkor-SW 150mm f/8

Product number: 1351
Focal length: 150mm
Maximum aperture: f/8

 Maximum aperture:
 t/8

 Optical construction:
 8 elements in 4 groups

 Aperture range:
 f/8-f/64

 Covering power (f/8):
 80°

 Covering power (f/22):
 106°

Image circle (f/8): 253mm diameter

Image circle (f/22): 400mm diameter (10"x12")

Shutter: Copal no. 1, designed exclusively for Nikon

Shutter speeds: 1-1/400 sec., T, B
Flash sync socket: X contact

Front mount size (A): 100mm diameter

Attachment size (B): 95mm dia. x 1mm (P)

Rear mount size (C): 100mm diameter

Flange attachment size (D): 39mm dia. x 0.75mm (P)

 Flange focal distance (E):
 165.9mm

 Overall length (F):
 115.5mm (4.5")

 Weight:
 1,050g (37.0 oz.)

#### Nikkor-W 105mm f/5.6

Product name:1309Focal length:105mmMaximum aperture:f/5.6

Optical construction: 6 elements in 4 groups

 Aperture range:
 f/5.6-f/45

 Covering power (f/5.6):
 60°

 Covering power (f/22):
 73°

Image circle (f/5.6): 121mm diameter

Image circle (f/22): 155mm diameter (4''x5'')

Shutter: Copal no. 0, designed exclusively for Nikon

Shutter speeds: 1-1/500 sec., T, B
Flash sync socket: X contact

Front mount size (A): 54mm diameter
Attachment size (B): 52mm dia. x 0.75

Attachment size (B): 52mm dia. x 0.75mm (P)
Rear mount size (C): 42mm diameter

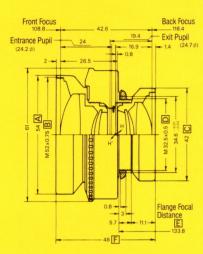
Flange attachment size (D): 32.5mm dia. x 0.5mm (P)

Flange focal distance (E): 103.2mm

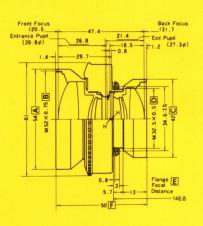
 Plange local distance (E):
 103.2mm

 Overall length (F):
 44mm (1.7")

 Weight:
 185g (6.6 oz.)







#### Nikkor-W 135mm f/5.6

Copal no. 0, designed exclusively for Nikon

Product number: 1312 135mm Focal length: Maximum aperture: f/5.6

6 elements in 4 groups Optical construction:

f/5.6-f/64 Aperture range: 60° Covering power (f/5.6): Covering power (f/22): 73°

Image circle (f/5.6): 156mm diameter

Image circle (f/22): 200mm diameter (120mm x 165mm)

Shutter:

Shutter speeds: 1-1/500 sec., T, B X contact Flash sync socket:

Front mount size (A): 54mm diameter

Attachment size (B): 52mm dia. x 0.75mm (P)

Rear mount size (C):

Flange attachment size (D): Flange focal distance (E):

Overall length (F):

Weight:

42mm diameter

32.5mm dia. x 0.5mm (P)

133.8mm 46mm (1.8") 200g (7.1 oz.)

#### Nikkor-W 150mm f/5.6

Product number: Focal length:

Maximum aperture: Optical construction:

Aperture range: 60° Covering power (f/5.6): 70° Covering power (f/22):

Image circle (f/5.6): 210mm diameter (5"x7") Image circle (f/22):

Shutter:

Shutter speeds: Flash sync socket: Front mount size (A): Attachment size (B):

Rear mount size (C):

Flange attachment size (D): Flange focal distance (E):

Overall length (F):

Weight:

1314 150mm 1:5.6

6 elements in 4 groups

f/5.6-f/64

174mm diameter

Copal no. 0, designed exclusively for Nikon

1-1/500 sec., T, B X contact

54mm diameter

52mm dia. x 0.75mm (P)

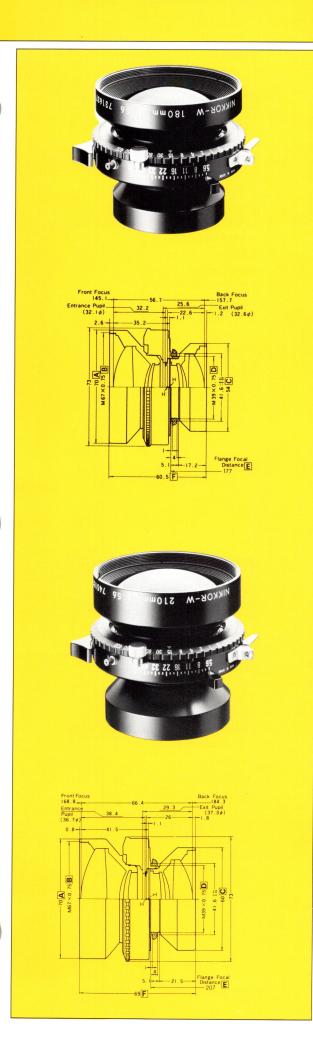
42mm diameter

32.5mm dia. x 0.5mm (P)

146.8mm 50mm (2.0'') 230g (8.1 oz.)







#### Nikkor-W 180mm f/5.6

Product name: 1316 180mm Focal length: Maximum aperture: f/5.6

Optical construction: 6 elements in 4 groups

Aperture range: f/5.6-f/64 Covering power (f/5.6): 60° Covering power (f/22): 70°

Image circle (f/5.6): 208mm diameter

Image circle (f/22): 253mm diameter (5"x7")

Copal no. 1, designed exclusively for Nikon Shutter:

Shutter speeds: 1-1/400 sec., T, B

Flash sync socket: X contact Front mount size (A): 70mm diameter

Attachment size (B): 67mm dia. x 0.75mm (P)

Rear mount size (C): 54mm diameter

Flange attachment size (D): 39mm dia. x 0.75mm (P) Flange focal distance (E):

177.0mm Overall length (F): 60.5mm (2.4") Weight: 380g (13.4 oz.)

#### Nikkor-W 210mm f/5.6

Product number: 1318 Focal length: 210mm Maximum aperture: f/5.6

Optical construction: 6 elements in 4 groups

Aperture range: f/5.6-f/64 Covering power (f/5.6): 60° 70° Covering power (f/22):

Shutter:

Image circle (f/5.6): 243mm diameter

Image circle (f/22): 295mm diameter (61/2" x 81/2)

Copal no. 1, designed exclusively for Nikon Shutter speeds: 1-1/400 sec., T, B

Flash sync socket: X contact Front mount size (A): 70mm diameter

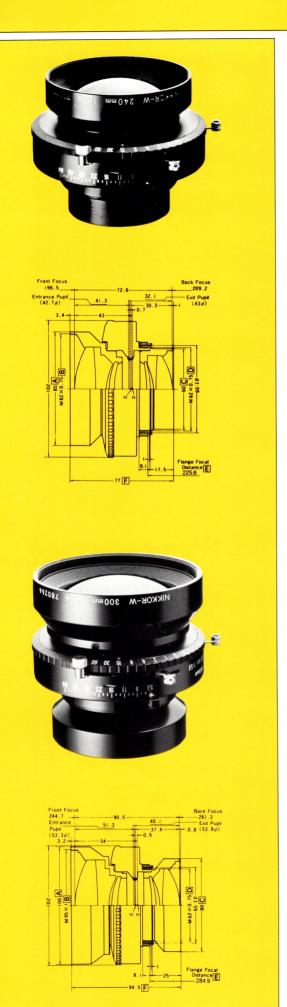
Attachment size (B): 67mm dia. x 0.75mm (P)

Rear mount size (C): 60mm diameter

Flange attachment size (D): 39mm dia. x 0.75mm (P) Flange focal distance (E):

207.0mm Overall length (F): 69mm (2.7'') Weight: 460g (16.2 oz.)





#### Nikkor-W 240mm f/5.6

1319 Product number: 240mm Focal length: f/5.6 Maximum aperture:

6 elements in 4 groups Optical construction:

f/5.6-f/64 Aperture range: Covering power (f/5.6): 60° Covering power (f/22): 70°

Image circle (f/5.6): 278mm diameter

336mm diameter (8"x10") Image circle (f/22):

Shutter: Copal no. 3, designed exclusively for Nikon

60mm diameter

1-1/125 sec., T, B Shutter speeds: X contact Flash sync socket: 85mm diameter Front mount size (A): 82mm dia. x 0.75mm (P) Attachment size (B):

Flange attachment size (D): 62mm dia. x 0.75mm (P)

Flange focal distance (E): 225.6mm Overall length (F): 77mm (3.0'') 820g (28.9 oz.) Weight:

Rear mount size (C):

#### Nikkor-W 300mm f/5.6

Product name: 1320 300mm Focal length: Maximum aperture: f/5.6

Optical construction: 6 elements in 4 groups

Aperture range: f/5.6-f/64 60° Covering power (f/5.6): Covering power (f/22): 70°

Shutter:

Image circle (f/5.6): 346mm diameter

Image circle (f/22): 420mm diameter (10"x12") Copal no. 3, designed exclusively for Nikon

Shutter speeds: 1-1/125 sec., T, B

X contact Flash sync socket:

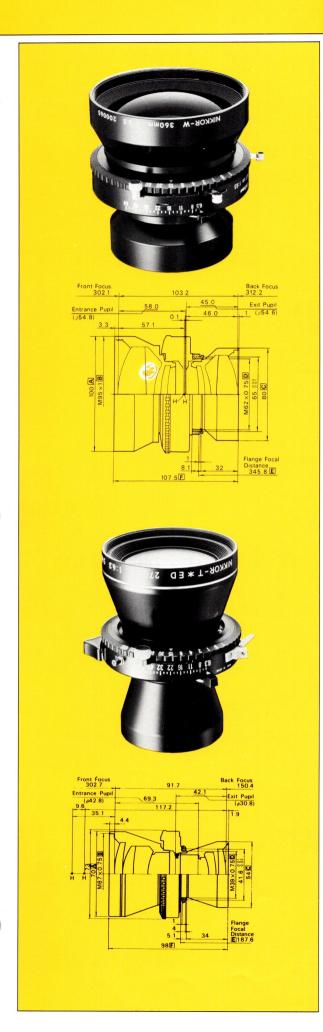
100mm diameter Front mount size (A): Attachment size (B): 95mm dia. x 1mm (P) Rear mount size (C): 80mm diameter

62mm dia. x 0.75mm (P) Flange attachment size (D):

Flange focal distance (E): Overall length (F): 94.5mm (3.7") Weight: 1250g (44.1 oz.)

284.9mm





#### Nikkor-W 360mm f/6.5

Product number: 1327 360mm Focal length: Maximum aperture: f/6.5

Optical construction: 6 elements in 4 groups

Aperture range: f/6.5-f/64 Covering power (f/6.5): 60° Covering power (f/22): 69°

Image circle (f/6.5): 415mm diameter

Image circle (f/22): 494mm diameter (11" x 14")

Copal no. 3, designed exclusively for Nikon Shutter: Shutter speeds: 1-1/125 sec., T, B

X contact Flash sync socket:

Front mount size (A): 100mm diameter 95mm dia. x 1mm (P) Attachment size (B): Rear mount size (C): 80mm diameter 62mm dia. x 0.75mm (P) Flange attachment size (D):

Flange focal distance (E): 345.8mm Overall length (F): 107.5mm (4.2") Weight: 1420g (50.1 oz.)

#### Nikkor-T ED 270mm f/6.3

Product number: 1352 270mm Focal length: Maximum aperture: f/6.3

Optical construction: 5 elements in 4 groups

Aperture range: f/6.3-f/64 Covering power (f/6.3): 24° Covering power (f/22): 33°

Image circle (f/6.3): 114mm diameter

Image circle (f/22): 160mm diameter (4"x5")

Shutter: Copal no. 1, designed exclusively for Nikon

Shutter speeds: 1-1/400 sec., T, B Flash sync socket: X contact Front mount size (A): 70mm diameter Attachment size (B):

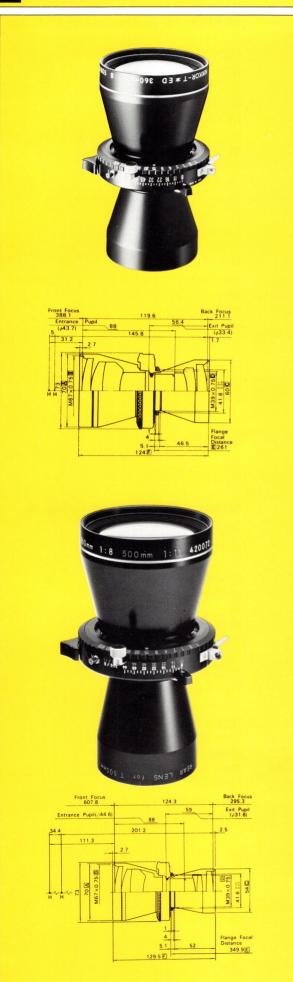
67mm dia. x 0.75mm (P)

Rear mount size (C): 42mm diameter

Flange attachment size (D): 39mm dia. x 0.75mm (P)

Flange focal distance (E): 187.6mm Overall length (F): 98mm (3.9") Weight: 590g (20.8 oz.)





#### Nikkor-T ED 360mm f/8

Product name: 1353 Focal length: 360mm

Maximum aperture:

Optical construction:

Aperture range: Covering power (f/8): Covering power (f/22):

Image circle (f/8):

Image circle (f/22):

Shutter:

Shutter speeds: Flash sync socket: Front mount size (A):

Attachment size (B): Rear mount size (C):

Flange focal distance (E): Overall length (F):

Flange attachment size (D):

Weight:

f/8 5 elements in 4 groups

f/8-f/64 24°

33°

154mm diameter

210mm diameter (5"x7")

Copal no. 1, designed exclusively for Nikon

1-1/400 sec., T, B

X contact

70mm diameter 67mm dia. x 0.75mm (P)

60mm diameter

39mm dia. x 0.75mm (P)

261.0mm 124mm (4.9") 800g (28.2 oz.)

#### Nikkor-T ED 500mm f/11

Product number:

Focal length:

Maximum aperture:

Optical construction:

Aperture range: Covering power (f/11):

Covering power (f/22):

Image circle (f/11):

Image circle (f/22):

Shutter:

Shutter speeds:

Flash sync socket: Front mount size (A):

Attachment size (B):

Rear mount size (C):

Flange attachment size (D):

Flange focal distance (E):

Overall length (F):

Weight:

1354

500mm

f/11

6 elements in 4 groups

f/11-f/64

17°

24°

154mm diameter

210mm diameter (5" x 7")

Copal no. 1, designed exclusively for Nikon

1-1/400 sec., T, B

X contact

70mm diameter

67mm dia. x 0.75mm (P)

54mm diameter

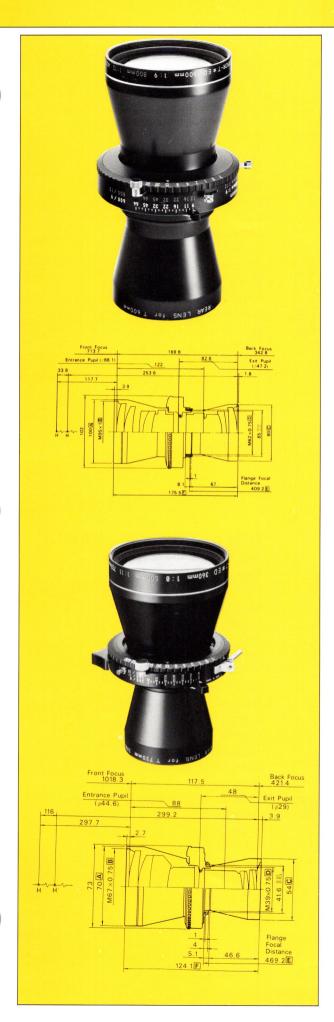
39mm dia. x 0.75mm (P)

349.9mm

129.5mm (5.1")

760g (26.8 oz.)





#### Nikkor-T ED 600mm f/9

Product number: 1355
Focal length: 600mm

 Maximum aperture:
 f/9

 Optical construction:
 6 elements in 5 groups

 Aperture range:
 f/9-f/64

 Covering power (f/9):
 19°

 Covering power (f/22):
 29°

Image circle (f/9): 200mm diameter

Image circle (f/22): 310mm diameter (8''x10'')

Shutter: Copal no. 3, designed exclusively for Nikon

Shutter speeds: 1-1/125 sec., T, B

Flash sync socket: X contact
Front mount size (A): 100mm diameter
Attachment size (B): 95mm dia. x 1mm (P)

Rear mount size (C):

Flange attachment size (D): 62mm dia. x 0.75mm (P)

80mm diameter

 Flange focal distance (E):
 409.6mm

 Overall length (F):
 175.5mm (6.9'')

 Weight:
 1650g (58.2 oz.)

#### Nikkor-T ED 720mm f/16

Product name: 1357
Focal length: 720mm
Maximum aperture: f/16

Optical construction: 7 elements in 4 groups

 Aperture range:
 f/16-f/64

 Covering power (f/16):
 12°

 Covering power (f/22):
 17°

Image circle (f/16): 154mm diameter

Image circle (f/22): 210mm diameter (5"x7")

Shutter: Copal no. 1, designed exc

hutter: Copal no. 1, designed exclusively for Nikon

Shutter speeds:1-1/400 sec., T, BFlash sync socket:X contactFront mount size (A):70mm diameter

Attachment size (B): 67mm dia. x 0.75mm (P)

Rear mount size (C): 54mm diameter

Flange attachment size (D): 39mm dia. x 0.75mm (P)

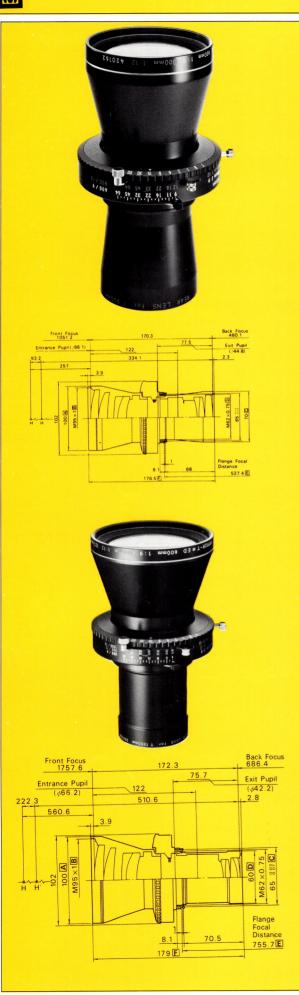
Flange focal distance (E):
Overall length (F):

Maiaht:

Weight:

469.2mm 124.1mm (4.9'')

780g (27.5 oz.)



#### Nikkor-T ED 800mm f/12

1356 Product number: Focal length: 800mm f/12

Maximum aperture:

Optical construction: 7 elements in 5 groups Aperture range: f/12-f/64

Covering power (f/12): 14° 22° Covering power (f/22):

Shutter:

Image circle (f/12): 200mm diameter

Image circle (f/22): 310mm diameter (8" x 10")

Copal no. 3, designed exclusively for Nikon Shutter speeds: 1-1/125 sec., T, B

Flash sync socket: X contact

Front mount size (A): 100mm diameter Attachment size (B): 95mm dia. x 1mm (P) Rear mount size (C): 70mm diameter

Flange attachment size (D): 62mm dia. x 0.75mm (P)

527.4mm Flange focal distance (E): Overall length (F): 176.5mm (6.9")

Weight: 1600g (56.4 oz.)

#### Nikkor-T ED 1200mm f/18

Product number: 1364 1200mm Focal length:

Maximum aperture: f/18

8 elements in 5 groups Optical construction:

Aperture range: f/18-f/64 Covering power (f/18): 10° 15° Covering power (f/22):

Image circle (f/18): 200mm diameter

310mm diameter (8" x 10") Image circle (f/22): Copal no. 3, designed exclusively for Nikon Shutter:

Shutter speeds: 1-1/125 sec., T, B

X contact Flash sync socket:

Front mount size (A): 100mm diameter Attachment size (B): 95mm dia. x 1mm (P) Rear mount size (C): 60mm diameter

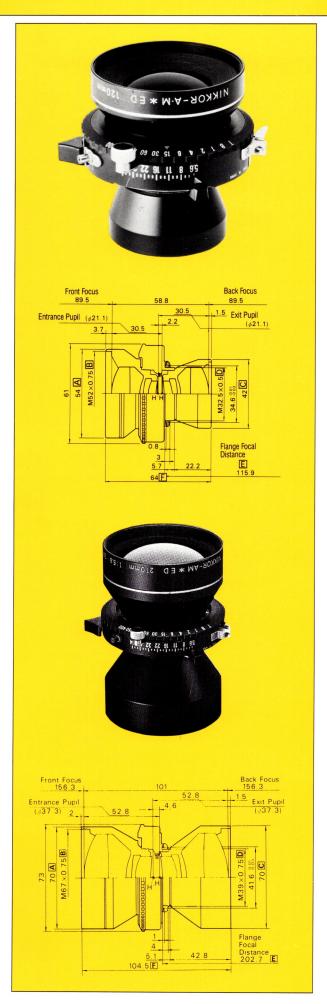
62mm dia. x 0.75mm (P) Flange attachment size (D): Flange focal distance (E): 755.7mm

179mm (7.0'') Overall length (F): 1480g (52.2 oz.) Weight:









#### Nikkor-AM ED 120mm f/5.6

Product number:1325Focal length:120mmMaximum aperture:f/5.6

Optical construction: 8 elements in 4 groups

 Aperture range:
 f/5.6-f/45

 Covering power (f/5.6):
 47°

 Covering power (f/22):
 55°

Image circle (f/5.6): 210mm diameter, M = 1:1

Image circle (f/22): 250mm diameter (5" x 7"), M = 1:1

Shutter: Copal no. 0, designed exclusively for Nikon

Shutter speeds: 1-1/500 sec., T, B

Flash sync socket: X contact
Front mount size (A): 54mm diameter

Attachment size (B): 52mm dia. x 0.75mm (P)

Rear mount size (C): 42mm diameter

Flange attachment size (D): 32.5mm dia. x 0.5mm (P)

 Flange focal distance (E):
 115.9mm

 Overall length (F):
 64mm (2.5")

 Weight:
 295g (10.4 oz.)

#### Nikkor-AM ED 210mm f/5.6

Product number:1326Focal length:210mmMaximum aperture:F/5.6

Optical construction: 8 elements in 4 groups

 Covering power (f/5.6):
 41°

 Covering power (f/22):
 51°

Image circle (f/5.6): 310mm diameter, M = 1:1

Image circle (f/22):400mm distance (10" x 12"), M 1:1Shutter:Copal No. 1, designed exclusively for Nikon

Shutter speeds:1-1/400 sec. T, BFlash sync socket:X-contactFront mount size (A):70mm diameter

Attachment size (B): 67mm diameter x 0.75 mm(P)

Rear mount size (C): 70mm diameter

Flange attachment size (D): 39mm diameter x 0.75mm(P)

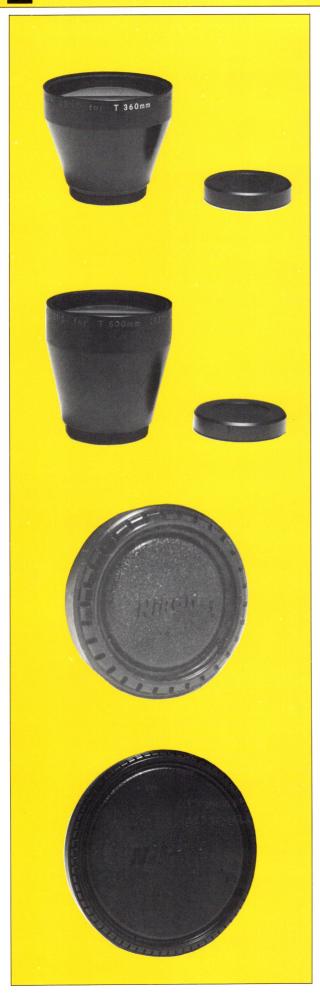
 Flange focal distance (E):
 202.7mm

 Overall length (F):
 104.5mm (4.1")

 Weight:
 850g (30.0 oz.)







#### Nikon Accessories for Large-Format Lenses

#### **Rear Lens Units**

**Product Number** 

Rear Lens Unit for 360mm ED Nikkor-T

**Product Number:** 

Rear Lens Unit for 500mm ED Nikkor-T

Product Number:

Rear Lens Unit for 600mm ED Nikkor-T

Product Number:

Rear Lens Unit for 720mm ED Nikkor-T

Product Number:

Rear Lens Unit for 800mm ED Nikkor-T

Product Number: 1363

Rear Lens Unit for 1200mm ED Nikkor-T

Product Number:

36mm Screw-on Cap for Rear Lens Unit (repl.)

**Product Number:** 

58mm Screw-on Cap for Rear Lens Unit (repl.)

#### **Lens Caps**

**Product Number:** 

31.5mm Slip-on Lens Cap (repl.)

**Product Number:** 

42mm Slip-on Lens Cap (repl.)

Product Number:

54mm Slip-on Lens Cap (repl.)

**Product Number:** 

60mm Slip-on Lens Cap (repl.)

Product Number:

1333 70mm Slip-on Lens Cap (repl.)

**Product Number:** 

80mm Slip-on Lens Cap (repl.)

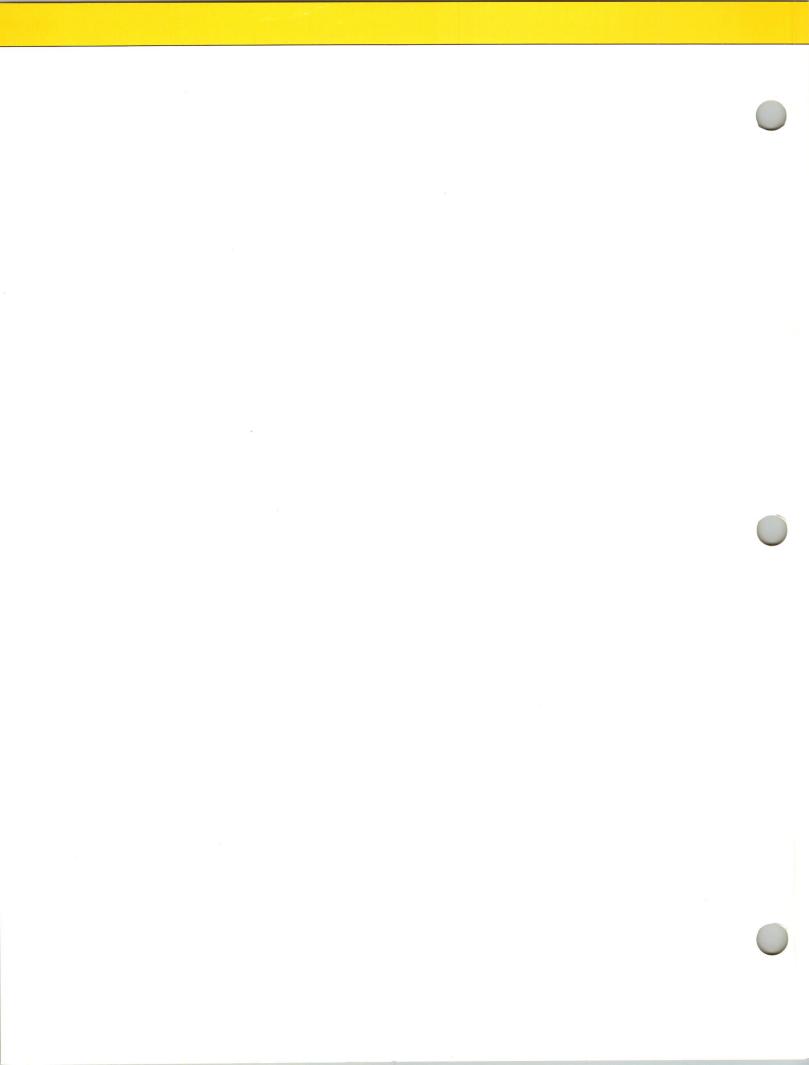
**Product Number:** 

85mm Slip-on Lens Cap (repl.)

Product Number:

100mm Slip-on Lens Cap (repl.)

# Special Application Lenses







#### Nikkor Lenses for Special Optics Application



Product Number	Description
96972	240mm f/9 APO-Nikkor
96971	305mm f/9 APO-Nikkor
96980	350mm f/9 APO-Nikkor
96987	420mm f/9 APO-Nikkor
96981	480mm f/9 APO-Nikkor
96985	610mm f/9 APO-Nikkor
96986	760mm f/11 APO-Nikkor
96989	890mm f/11 APO-Nikkor
96990	1210mm f/12.5 APO-Nikkor
96968	105mm f/5.6 APO-EL-Nikkor
96969	210mm f/5.6 APO-EL-Nikkor





# Nikkor Lens Accessories for Special Optics Application



#### **Mounting Rings**

Product Number

**Product Number** 

96925 2360 2628

96950

96952

96954 96955 Description

39mm Lens Mounting Flange F-to-C Lens Mounting Adapter EL-to-F Lens Mounting Adapter

#### **Filter Holders**



Filter Holder for 180, 240mm APO Filter Holder for 305, 360mm APO Filter Holder for 420, 480mm APO Filter Holder for 610, 760mm APO

#### **Mirrors**

**Product Number** 96915

96915

#### Description

Type S Mirror Type M Mirror

#### **Prisms**

#### Product number

#### Description

Type S Roof Prism
Type M Roof Prism
Type L Roof Prism

Type S Right-Angle Prism for 180, 240mm Type S Right-Angle Prism for 305, 360mm Type L Right-Angle Prism for 420, 480mm

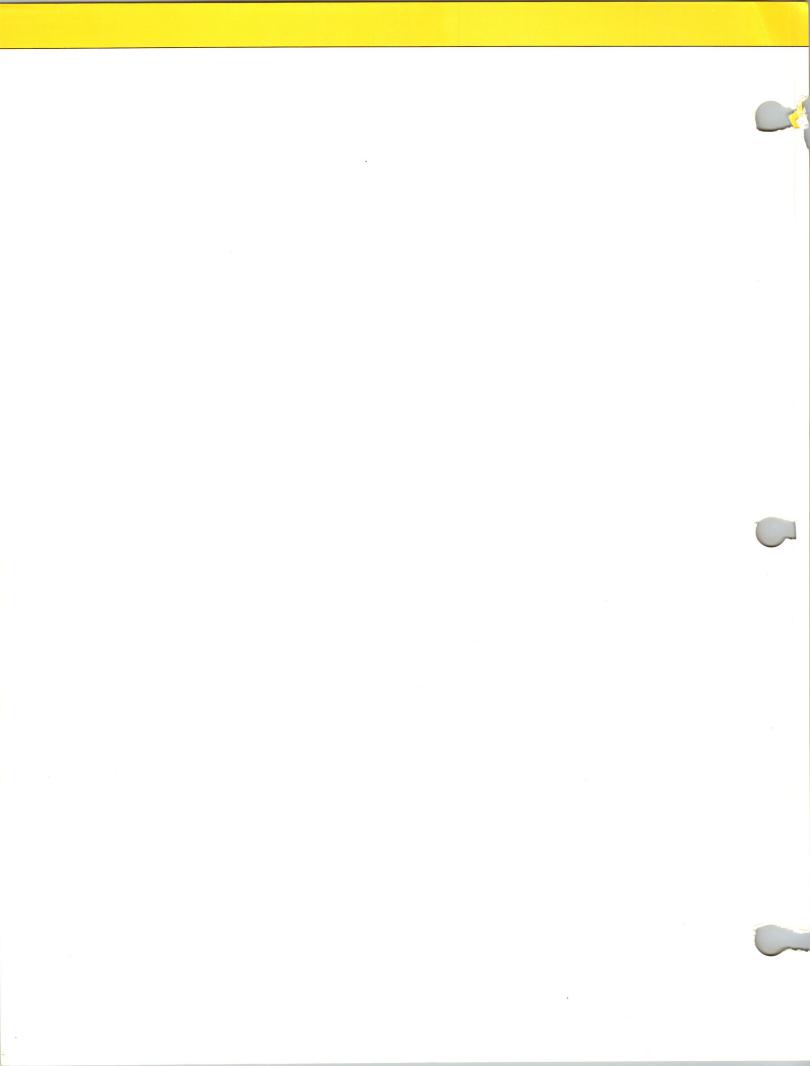








# SLR Finder







Product number: Application:

## DP-20 Multi-Meter Finder for Nikon F4 (repl.)

2500

Standard meter with the Nikon F4 camera, providing Nikon's exclusive Matrix metering plus traditional 60/40 center-weighted metering; design incorporates a high-eyepoint optical system featuring approx. 22mm eye relief for comfortable viewing even while wearing eyeglasses or goggles; equipped with dial for viewing system adjustment over the range of from –3 to +1 diopter; 3-position dial provides for selection of each of the three meter functions available (i.e., "Spot," "C/W" and "Matrix"); focusing screen compensation adjustment and eyepiece shutter also provided; top-mount hot shoe accepts all Nikon Speedlights equipped with standard ISO-type mounting foot; hot shoe equipped with supplemental contacts for TTL automatic flash exposure control with Nikon-dedicated Speedlights

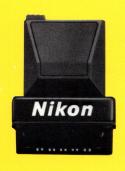


Product number: Application:



2503

Provides extra-long eye relief to permit the photographer to use the camera in a housing, etc.; fitting with circuitry to provide 60/40 centerweighted exposure measurement; selector dial enables switchcover from "Center-weighted" to "Spot" metering as required; usable with all F4-series cameras; fitted with ISO-type flash hotshoe for TTL automatic flash operation with Nikondedicated Speedlights



Product number: Application: DW-20 Waist-Level Finder for Nikon F4

2501

Equipped with pop-up type viewing hood for use when shooting from a low position, or when the camera is mounted vertically on a copy stand, etc.; fitted with flip-up magnifier for precise focusing and viewing; operates with camera's built-in spot meter.







#### **DW-21 High-Magnification** Finder for Nikon F4

Product number:

Application:

2502

Provides high magnification for critical focusing necessary for such special shooting requirements as photomicrography, etc.; usable with all F4-series

Special characteristics:

Suitable for very fine focusing; fitted with an adjustable (and lockable) eyepiece having a range of from +3 to -5 diopters; the rubber eyecup enhances viewer comfort, the eyepiece cover prevents entry of stray light that might otherwise affect meter readings; exposure measurement via the camera's built-in spot meter; excellent for parallax focusing with Type M focusing screen



### **Viewfinder Prism Cover** (Not Pictured)

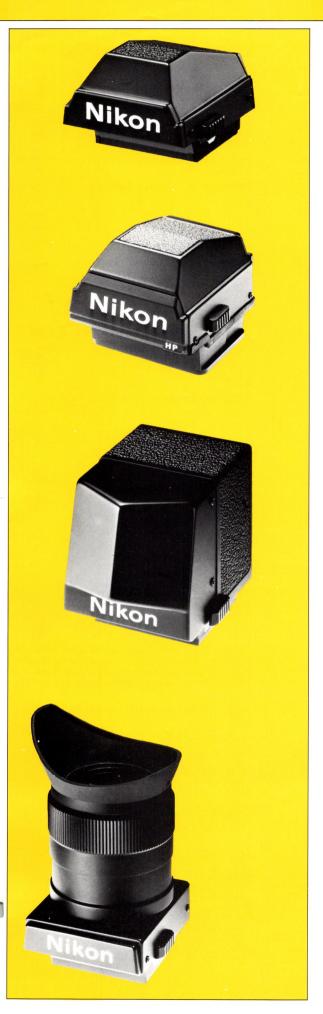
Product number:

Application:

2327

Provides protection for finders and finder prisms





#### **Eyelevel Finder DE-2** for F3HP



Product number: Application:

Dimensions: Weight:

Provides erect image, with eye-level viewing comfort; usable with all Nikon F3-Series cameras

39mm(H) x 59mm(W) x 66mm(D)

120g

#### **High-Eyepoint Finder DE-3** for F3HP

Product number: Application:

Special characteristics:

Dimensions: Weight:

2386

Provide erect image with eye-level viewing comfort: usable with all Nikon F3-series cameras: supplied with Nikon F3HP camera

The entire frame is visible with the eye up to 2.5cm (1 inch) away from the eyepiece

52.5mm(H) x 43.5mm(W) x 69mm(D)

#### **Action Finder DA-2** for F3HP



Product number: Application:

Special characteristics:

Dimensions: Weight:

2385

Provides extra-long eye relief to permit the photographer to use the camera in a housing, etc.; usable with all Nikon F3-series cameras

The entire frame is visible with the eye up to 8cm (3.3 inches) away from the eyepiece

59.5mm(H) x 52.9mm(W) x 73.2mm(D)

300g

#### 6x High-Magnification Finder for F3HP



Product number:

Special characteristics:

Application:

Dimensions:

Weight:

2384

Provides high magnification for critical focusing of photomicrography, etc.; usable with all Nikon F3-series cameras

This finder is suitable for obtaining very fine focusing; the DW-4 is fitted with a -5 to +3 diopter adjustment and a rubber eyecup equipped with eyepiece cover for accurate auto-exposure

54.2mm(H) x 26.5mm(W) x 59.6mm(D)

220g





## Waist-Level Finder DW-3 for F3HP

Product number:

Application:

Special characteristics:

Dimensions: Weight: 2383

Provides compact finder with pop-up design for waist-level or low-angle shooting; viewed image is laterally reversed; usable on all Nikon F3-series cameras

Built-in, flip-up magnifier provides 5x magnification for accurate focusing

73mm(H) x 54.2mm(W) x 59mm(D)

90a

## Viewfinder Bottom Cover for F3

Product number: Application: 2389

Provides protection for finders and finder prisms

# Autofocus Finder DX-1 for F3HP

Product number: Application:

Focusing screen:

Viewfinder field: Power source: Dimensions:

Weight:

2381

Provided with Nikon F3AF; can be used as a focusing aid also in conjunction with a standard Nikon F3 and with about 40 Nikkor and Nikon Series E lenses with a maximum aperture of f/3.5 and brighter

Fixed, built-in Fresnel/matte screen and focusing field

Approximately 92%

Two 1.5v, type-AAA (penlight) alkaline batteries 55.5mm(W) x 62.5mm(H) x 90mm(D)

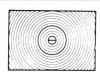
365g (with batteries)

# Anti-cold Battery Pack DB-4 for F3

2032

For use with Autofocus Finder DX-1 on Nikon F3AF to provide protection against the ill effects of cold temperature on the batteries powering the autofocus system

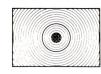




Product number: 2552

Description:

Focusing Screen A Focusing screen with matte Fresnel field; 12mm center reference circle and splitimage rangefinder



Product number: 2565

Description:

Focusing Screen J Focusing screen with matter Fresnel field, 4mm microprisms in 12mm center reference circle; excellent for

general photography



Product number:

Description:

2553

Focusing Screen B/U Focusing screen with matte Fresnel field and 12mm center reference circle; for macro photography and use with telephoto lenses

U screen designed for lenses of 100mm or longer



Product number:

2554 Description:

Focusing Screen C Fine matte focusing screen with clear center circle,

crosshairs in 4mm center circle; for high magnifications

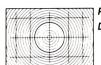


Product number: 2555

Description:

Focusing Screen D Fine matte focusing screen, particularly suitable for long telephoto lenses and for close-

up photography



Product number: 2556

Description:

Focusing Screen E Focusing screen with matte Fresnel field, 12mm center reference circle with vertical and horizontal grid lines; excellent for architectural photography in conjunction with the PC-Nikkor lens



Product number:

2557 (G1) 2558 (G2)

Description:

Focusing Screens G1, 2, 3 and 4

Clear Fresnel focusing screens with 12mm microprism collar; excellent for focusing under poor lighting conditions; available in 4 models for various lens maximum apertures



Product number:

2561 (H1) 2563 (H3)

2564 (H4)



Description:

Focusing Screens H1, 2, 3 and 4

Clear Fresnel focusing screen with microprisms over the entire field; recommended for photography in poor lighting conditions; available in 4 models for various lens maximum apertures



Product number: 2551

Description:

Focusing Screen K Combination of types A and J; excellent for general photography; provided as standard with Nikon F3HP



Product number: 2566

Description:

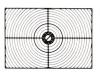
Focusing Screen D Corresponds to type A, but with diagonal (45°) split-image rangefinder; facilitates focusing on horizontal lines



Product number: 2567

Description:

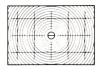
Focusing Screen M Clear glass with double crosshairs and millimetre scales; excellent for photomicrography with 6x High Magnification Finder DW-4



Product number: 2568

Description:

Focusing Screen P Focusing screen with matte Fresnel field, diagonal splitimage, microprisms and 12mm center reference circle; also provided with vertical and horizontal central lines



Product number: 2569

Description:

Focusing Screen R Focusing screen with matte Fresnel field and split-image rangefinder which does not darken when slow lenses are used; with vertical and

horizontal grid lines; excellent for architectural photography



Product number: 2570

Description:

Focusing Screen T Focusing screen with matte Fresnel field and TV screen

frame lines

2572



Product number:

Description:

Focusing Screen S Similar to Type K except provides area on the left side of frame for date imprinting when used with Nikon 250 exp. Data Back



#### **Combination Table for Lenses & Focusing Screens**

Fully compatible
The image is bright over the entire focusing screen but the microprism center or center of the crosshairs is dark. Excellent: Possible:

△ Possible:

For lenses with an aperture of 2.8 and larger; this focusing screen is inaccurate since the focus in the center of the screen does not correspond to that on the film; focusing must be performed outside the 12mm center reference circle.

Full-aperture metering:

Can only be used with the aperture stopped-down

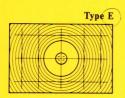
Slight vignetting is visible on the focusing screen; however, this has no effect on the image quality. 0 Possible:

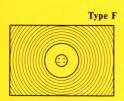
ens ype	Focal Length	A/L	B/E	С	D	G1	G2	G3	G4	H1	H2	Н3	H4	J	K/P/S	М	R	T	ι
	6mm f/2.8	0	0	•	0	0	0			0	0			0	0		Δ	0	
isheye	8mm f/2.8	0	0	•	0	0	0			0	0	0		0	0		Δ	0	
•	16mm f/2.8	0	_0			0				0				0	0		Δ	0	_
	13mm f/5.6	•	0				0_				0			0	•		0	•	
	15mm f/3.5	0	0				0_				0			0	0		0	0	
	18mm f/3.5	0	0								0			0	0		0	0	
	20mm f/2.8	0	0							0				0	0		0	.0.	
Vide Angle	24mm f/2	0	0				0			0	0			0	0		Δ	0	
vido / liigio	24mm f/2.8	0	0				0			0	0			0	0		Δ	0	
	28mm f/2	0	0			0	0			0	0			0	0		Δ	0	
	28mm f/2.8	0	0			0				0				0	0		Δ	0	
	35mm f/1.4	0	0				0			0	0			0	0		Δ	0	
	35mm f/2	0	0			0	0			0	0			0	0		Δ	0	
	50mm f/1.2	0	0				0				0			0	0		Δ	0	(
Iormal	50mm f/1.4	0	0			1	0				0			0	0		Δ	0	(
	85mm f/1.4	0	0			0	0	1		0	0	<u> </u>			0	9	Δ	0	
		0	0			-	0	+		ŏ	0				0		Δ	0	
	85mm f/2	0	0			<u> </u>	0	-	,	0	0			_	0			0	
	105mm f/1.8	0	0	-		-	0	-		0	0	-			0		Δ	0	
	105mm f/2.5	_				-	_	<del>                                     </del>				-			0			0	
	135mm f/2	0	0	0	0	-	0	-		-	. 0	-			_		Δ	-	
	135mm f/2.8	0	0	0	0	-	0	-	-	-	0	-			0		Δ_	0	(
	200mm f/2N ED-IF	0	0	0	0	-	0	-	-	-	+	-		-	_	-	Δ	_	(
elephoto	200mm f/4	0	0	0	0	-	0	-		-	-	-	-		0		0	0	-
	300mm f/4.5 ED-IF	0	0	0	0	-		0			0	0	0	0	0		0	0	(
	300mm f/4.5	0	0	0	0			0			0	0	0	0	0		0	0	(
	400mm f/2.8 ED-IF	0		0	0			0	0			0	0	0	0		Δ	0	(
	400mm f/3.5 ED-IF	0	0	0	0			0	0			0	0	0	0		0	0	
	400mm f/5.6 ED-IF	•	0	0	0			0	0			0	0	0	•		0	•	
	500mm f/4P ED-IF	0	0	0	0							0	0	0	0		0	0	(
	600mm f/4 ED-IF	0	0	0	0			0	0			0	0	0	0			0	
	600mm f/5.6 ED-IF	•	0	0	0				0				0	0	•			•	
	800mm f/5.6 ED-IF	•	0	0	0				0				0	0			0	•	(
	35–105mm f/3.5–4.5	0	0											0	0		0	0	(
	35–135mm f/3.5–4.5	0	0											0	0		0	0	
Zoom	35–200mm f/3.5–4.5	0	0		0			0				0		0			0	0	
200111	50–300mm f/4.5 ED	0	0		Ť		0	0			1	0						0	$\vdash$
	80–200mm f/4	0	0	<del>                                     </del>			<u> </u>	0				0						0	$\vdash$
	100–300mm f/5.6	•	0	<u> </u>		1		<u> </u>										0	$\vdash$
	180–600mm f/8 ED	•	0		0			0				0						•	$\vdash$
	20mm f/2.8 AF	0	0	<u> </u>	-	<u> </u>		<u> </u>		0		<u> </u>		0	0		0	0	$\vdash$
	24mm f/2.8 AF	0	0	_		_	0			0	0			0	0		Δ	0	$\vdash$
		0	0	_		0		<u> </u>		0				0	0		Δ	0	+
	28mm f/2.8 AF	0	0	+		0	0	1		0	0			0	0		Δ	0	+
	35mm f/2 AF		0	-	-	_		_		0	0	-	-	0				0	$\vdash$
	50mm f/1.4 AF	0		-		0	0	-	-	-0	0	-	-	_	0		Δ	0	╁
	50mm f/1.8 AF	0	0	-		-	0	+				-	-	0	0		Δ	_	╁
	55mm f/2.8 AF-MICRO	0	0	-		-	0	-	-	0	0		-	0	0		Δ	0	$\vdash$
	60mm f/2.8 AF-MICRO					-	-				-	-					-	-	╀
	85mm f/1.8 AF	0	0				0			-	0	.0	_	0	0		Δ	0	╄
	180mm f/2.8N AF ED-IF	0	0	0	0		0	0			0	-	-	0	0		Δ	0	_
Autofocus	300mm f/2.8N AF ED-IF	0	0	0	0			0	0		0	0	0	0	0		0	0	_
	300mm f/4 AF ED-IF	0	0	Ö	0			0			0	0	0	0	0		0	0	1
	24-50mm f/3.3-4.5 AF	0	0				0				0			•	•		•	0	1
	28-85mm f/3.5-4.5 AF	0	0											0	0		0	0	1
	35-70mm f/2.8 AF	0	0				0				0			0	0		0	0	
	35–70mm f/3.3–4.5 AF	0	0											0	0		0	0	Ĺ
	35–105mm f/3.5–4.5 AF	0	0											0	0			0	
	35–135mm f/3.5–4.5N AF	0	0											0	0	0	0	0	
	70–210mm f/4–5.6 AF	0	0								0			•	•		•	0	Г
	75–300mm f/4.5–5.6 AF	0	0					0						0	0		•	0	$\Box$
	80–200mm f/2.8 AF ED	0	0			+	_	0			0			0	0		Δ	0	$\vdash$
		•	0	+		+	_		<u> </u>	_	1	<u> </u>		0	0		0	0	T
C	28mm f/3.5	_	0	+		+	+	+	<del>                                     </del>	+	1	_		0	0		0	0	+
	35mm f/2.8	<u> </u>	_	-	-	+	0	-	-	+	0	+	-	0	_ <u> </u>	-	Δ	0	+
Voct	58mm f/1.2 NOCT	0	0	-	-	-		+	-	-	0	-	+	0		-	Δ	0	+
	55mm f/2.8	0	0	-	-	0	0	-	-	0	-	+	-	-	0	-	_	0	+,
∕licro	105mm f/2.8	0	0	-		-	0	-		0	0	-	<u></u>	0	0		0	_	-
	200mm f/4 IF	0	0	0	0	1	_	0		-	-	0	0	0	0		0	0	1
Medical	120mm f/4 IF	0	0	0	0			0			0	0		0	0		0	0	1
JV	105mm f/4.5 UV	0	0		0			0	0			0	0	0	0		0	0	1
	500mm f/8	•	0	0	0									•	•		•	•	-
Reflex	1000mm f/11	0	0	0	0									•	•		•	•	
	1000111111 1/ 1 1	•	0	0	0		1	0	0				0	0	•		•	•	T

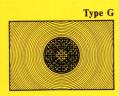












#### **Focusing Screens for** Nikon F4S

Product number: Description:

Type B BriteView Focusing Screen (repl.): Focusing screen with advanced BriteView matte/Fresnel field equipped with central reference marks denoting AF field (brackets), Spot meter area (5mm circle) and Center-weighted meter area (12mm circle); texture of matte field suited for general photogrpahy

Product number: Description:

2511

Type C BriteView Focusing Screen: Focusing screen with advanced BriteView matte field; equipped with central cross-hair and 5mm clear spot for parallax focusing of aerial image with DW-21 High-Magnification Finder; outer diameter of clear spot denotes area of Spot metering with camera meter

Product number: Description:

2512

Type E BriteView Focusing Screen: Focusing screen with advanced BriteView matte/Fresnel field; equipped with central reference marks denoting AF field (brackets), Spot meter area (5mm circle) and Center-weighted meter area (12mm circle); also provided with horizontal/vertical grid for reference alignment when shooting; texture of matte field suited for general photography; grid ideal for architectural work, as well as when shooting with camera on copy stand

Product number: Description:

2513

Type F BriteView Focusing Screen: Focusing screen with advanced BriteView matte/Fresnel field; equipped with central reference marks denoting AF field (brackets), Spot meter area (5mm circle) and Center-weighted meter area (12mm circle); texture of matte field also suited for use with Reflex

lenses

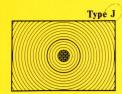
Product numbers:

2514 (Type G1) 2516 (Type G3)

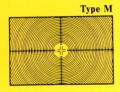
Description:

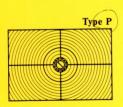
Type G1/G2/G3/G4 Focusing Screens: Focusing screens with overall clear/Fresnel field and central 12mm-diameter microprism focusing area; equipped with Spot meter (5mm) and Center-weighted meter (12mm) reference circles; four models for use with lenses of various focal lengths; Type G screens provide bright viewing but do not allow visualiza-tion of subject depth-of-field

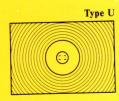












#### **Focusing Screens for** Nikon F4S

Product number: Description:

2518

Type J BriteView Focusing Screen: Focusing screen with advanced BriteView matte/Fresnel field and clear 5mm-diameter microprism focusing area; equipped with Center-weighted meter (12mm) reference circle; outer diameter of microprism circle denotes area of Spot metering with camera meter; overall performance good for general photography

Product number: Description:

2519

Type K BriteView Focusing Screen: Focusing screen with advanced BriteView matte/Fresnel field and clear split-image rangefinder with surrounding clear microprism collar; 5mm diameter of central rangefinder microprism area denotes Spot meter field; also fitted with 12mm Center-weighted meter reference circle; suitable for general photography; provides for rapid and accurate manual focusing with subjects having both straight lines and illdefined contours

Product number: Description:

2520

Type M Focusing Screen: Focusing screen with fine-ground Fresnel field with 5mm-diameter clear spot and focusing reticle for parallax focusing of aerial image; millimeter reference scales facilitate calculation of reproduction ratio and/or magnification factors; brilliant image in dim light; suited for photomicrography, astrophotography and other high-magnification applications

Product number: Description:

2521

Type F BriteView Focusing Screen: Focusing screen with advanced BriteView matte/Fresnel field and clear split-image rangefinder with surrounding clear microprism collar; identical to Type K screen except that rangefinder is positioned at 45° angle and composition reference lines are provided on vertical and horizontal axes

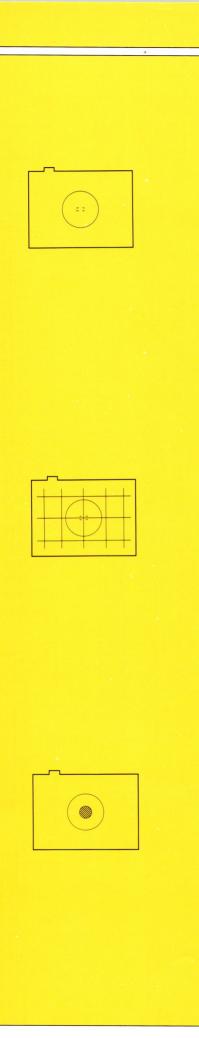
Product numbers:

2522

Description:

Type U BriteView Focusing Screens: Focusing screens with advanced BriteView matte/Fresnel field; identical to Type B screen except that texture of matte field is specified for bright operation with lenses of 200mm focal length and longer





#### **Focusing Screens for** Nikon N8008

Product number: Description:

2426

Type B BriteView Focusing Screen (repl.): Focusing screen with Nikon BriteView matte/Fresnel field, 12mm central reference circle, and focusing brackets; for general photography; provided as standard with Nikkon N8008 camera

Product number: Description:

Type C BriteView Focusing Screen: Focusing screen with Nikon BriteView matte/Fresnel field, 12mm central reference circle, vertical and horizontal grid lines, and focusing brackets; excellent for architectural photography, copy work or as an aid for composing in general photography

Product number: Description:

2428

Type J BriteView Focusing Screen: Focusing screen with Nikon BriteView matte/Fresnel field, 12mm central reference circle, 4mm central microprism area, and focusing brackets; excellent for general photography using manual focus mode, or for special applications such as photomicrography and repro-copy work

**Focusing Screens for** Nikon FM2 **Cameras** 

Product number:

2420

Description:

Focusing Screen K2

Focusing screen with matte Fresnel field with splitimage rangefinder and microprism collar; 12mm center reference circle; for general photography;

provided as standard with camera

Product number: Description:

2421

Focusing Screen B2

Focusing screen with matte Fresnel field with 12mm center reference circle; excellent for macro photography and use with telephoto lenses

Product number: Description:

2422

Focusing Screen E2 Focusing screen with matte Fresnel field, 12mm

center reference circle, with vertical and horizontal grid lines; excellent for architectural photography in conjunction with the PC-Nikkor lens

**Note:** The focusing screens for FM2 (focusing screens K2, B2/E2) are brighter than those for earlier FM2 (flash

synchronization X200); for this reason, a correction for proper exposure metering should be made in the following cases: If the focusing

screens for FM2 (flash synchronization X200) the exposure must be corrected by -1/3 aperture.









#### Nikon F4S

Product number:	Correction
2951	+1.0 diopter
2952	+2.0 diopter
2953	—2.0 diopter
2954	—3.0 diopter
2928	Replacement
Nilson FO FO/T	Eyepiece

#### Nikon F3, F3/T

Product number:	Correction
2918	— 5 diopter
2917	— 4 diopter
2916	— 3 diopter
2915	— 2 diopter
2914	0 diopter
2922	+ 0.5 diopter
2919	+ 1 diopter
2920	+ 2 diopter
2921	+ 3 diopter
2923	Replacement
Nikon N8008	Eyepiece

Product number:	Correction
2960	Neutral (0 diopter)
2961	+0.5 diopter
2962	+1.0 diopter
2963	+2.0 diopter
2964	+3.0 diopter
2965	—2.0 diopter
2966	—3.0 diopter
2967	-4.0 diopter
2968	—5.0 diopter
2927	Finder Eyepiece (repl.)

#### Nikon N2000

Product number:	Correction
2948	— 5 diopter
2947	<ul><li>4 diopter</li></ul>
2946	— 3 diopter
2945	— 2 diopter
2940	0 diopter
2941	+ 0.5 diopter
2942	+ 1 diopter
2943	+ 2 diopter
2944	+ 3 diopter

#### Nikon FM2

Product number:	Correction
2938	— 5 diopter
2937	<ul><li>4 diopter</li></ul>
2936	— 3 diopter
2935	— 2 diopter
2930	0 diopter
2931	+ 0.5 diopter
2932	+ 1 diopter
2933	+ 2 diopter
2934	+ 3 diopter
2925	Replacement
	Eyepiece





#### **DK-6 Rubber Eyecup** for Nikon N8008

Product number: Application:

Product number:

Application:

2939

Shields against entry of stray light into viewfinder

#### **DK-7 Eyepiece Mounting** Adapter for Nikon N8008

(Not Pictured)

2394

For attaching all standard-sized eyepiece accessories (e.g., Eyepiece Magnifier DG-2) to the larger sized thread mounts of the high-eyepoint finder of the Nikon N8008 camera

Product number: Application:

**DK-8 Eyepiece Cap** for Nikon N8008 (repl.)

Prevent stray light from entering the camera's finder; excellent for unmanned/remote shooting; supplied with camera



**Rubber Eyecup for** 

Shields against entry of stray light into viewfinder

Product number:

Application:





Rubber Eyecup DK-4 for Nikon F3, F3/T

Product number:

2379

Rubber Eyecup DK-2 for Nikon F3HP, F3IT, F4S

Product number:

2406

Eyepiece Adapter for Nikon N2000

Product number: Application:

2370

For attaching all eyepiece accessories (e.g., Eyepiece Magnifier DG-2) to Nikon N2000

Eyepiece Adapter DK-1 for Nikon F3HP, F3/T

Product number: Application: 2388

For attaching all standard-sized eyepiece accessories (e.g., Eyepiece Magnifier DG-2) to the larger sized thread mounts of the finder eyepieces of the Nikon F3HP and F3/T cameras

Rubber Eyecup DK-3 for Nikon FM2

Product number:

2362

**Eyepiece Magnifier DG-2** 

Product number:

Special characteristics:

Description:

2355

2x magnification of the central portion of the finder image; diopter adjustment of from -5 to +1 provided; rubber eyecup built-in

The magnifier is provided with a hinge so that it can be flipped upwards to expose the entire finder image to allow accurate composition of the picture. Eyepiece Adapter DK-1 for mounting to Nikon F3HP and F3/T cameras; requires mounting adapter for Nikon N2000

Right-angle Viewing Attachment DR-3

Product number:

Description:

2326

Provides 100% of the camera viewfinder image, viewed at 90° to eyepiece to facilitate low-level viewing, or operation of camera via copy stand; equipped with diopter adjustments of from -5 to +3; fitted with rubber eyecup

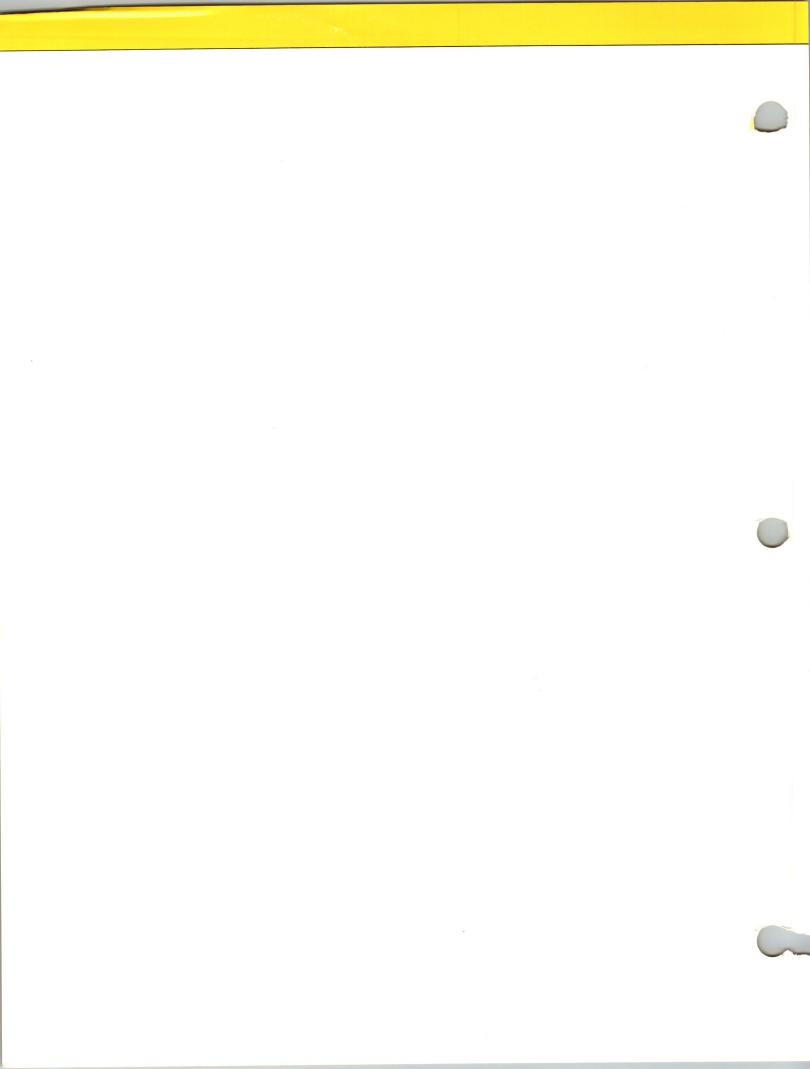
Special characteristics:

Fitted with roof prism to maintain image erect and lateral correct; requires Eyepiece Adapter DK-1 for mounting to Nikon F3HP and F3/T cameras; requires mounting adapter for Nikon N2000 and N2020

Weight:

100g

# Data Back Motor Drives



# Multi-Control Data Back Compatibility Chart

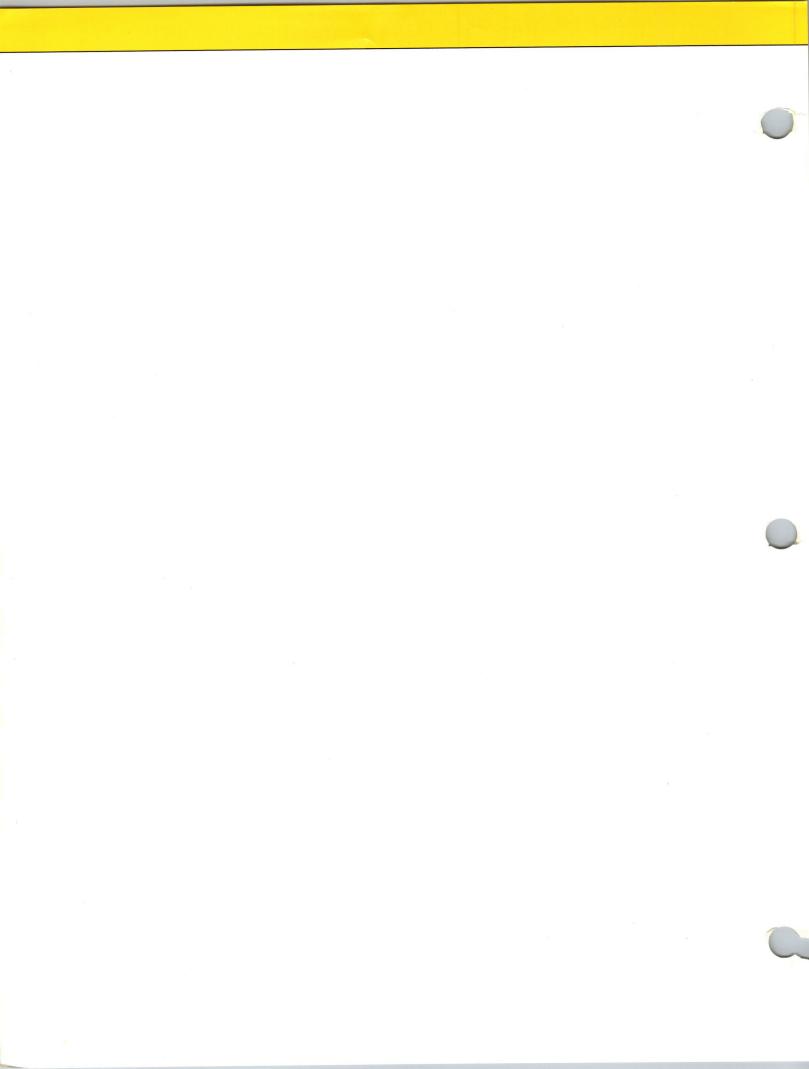




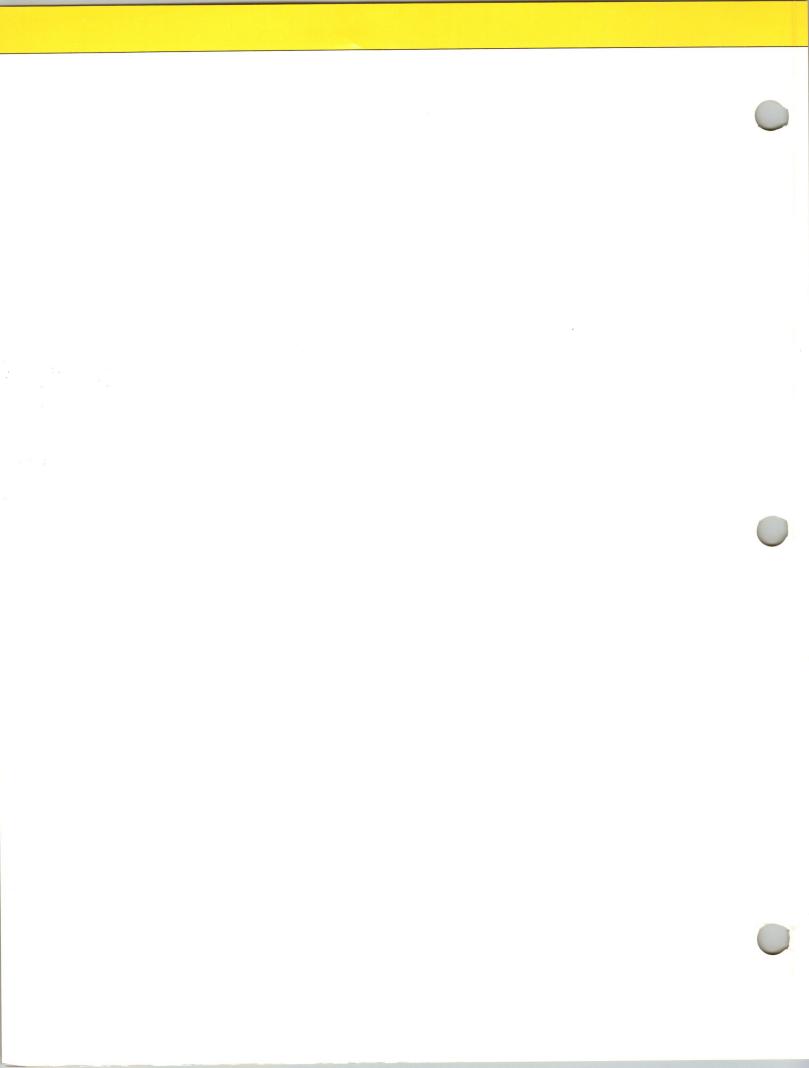
# DATA BACK

# **CAMERA BODY**

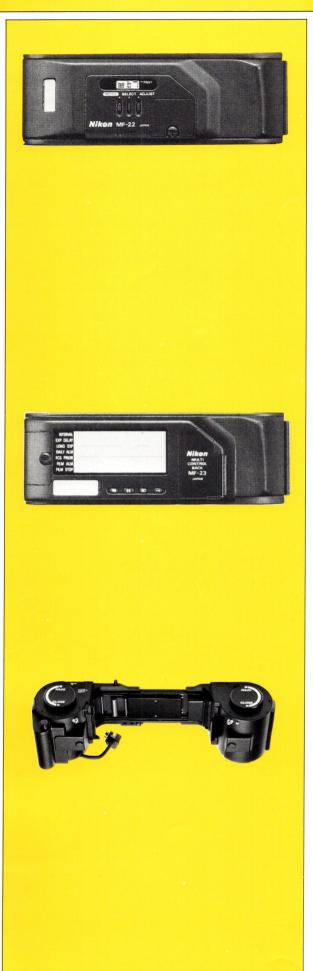
MF-14	F3
MF-16	FM2, FE2, FA
MF-17	F3
MF-18	F3
MF-19	N2000, N2020
MF-20	N8008(s)
MF-21	N8008(s)
MF-22	F4S
MF-23	F4S
MF-24	F4S



# Motor Drives







#### MF-22 Data Back for Nikon F4S

Product number:

Usable camera: Nikon F4 camera

Application:

Provides for conventional data imprinting on film; data imprinted within the picture frame area; equipped with SELECT button to turn on/off; either

time or date imprinting is possible

Usable film speed: ISO 32-3200

Power source: One CR2050 battery (supplied) **Dimensions:** 160 x 56 x 22 (6.3 x 2.2 x 0.9 in.) Weight: Approx. 100 g (3.5 oz.), without battery

#### MF-23 Multi-Control **Back for Nikon F4S**

Product number:

Usable camera: Nikon F4 camera

Application: Provides for data imprinting on film and other special control functions in combination with the Nikon F4 camera

Data imprint: Imprinting of data, time, sequence #, frame number, shutter/aperture information or fixed number possible via selection; data imprinted

within the picture frame and/or between frames via

Interval/timer, automatic exposure bracketing, long-time exposure control and "Freeze" focus Other functions:

operation

Bracketing steps: Up to 19 consecutive exposures (min. three frames); 1/3 EV to 2 EV steps via selector

Long exposure control:

Setting provided for selection of exposure times up to 99 hr., 59 min., 59 sec.

ISO 25-3200

Power source: Two CR2050 batteries (supplied)

## 250 Exposure Magazine Back MF-24

Product number:

Usable film speed:

Power supply:

Dimensions:

Weight:

Compatible camera: All Nikon F4S/F4 Series camera bodies without

modification

Film cassette: Film cassette MZ-1 (2 each)

Shooting mode: Single frame(s) or continuous (CH, CL)

Continuous (CH), approx. 5 frames per second: Continuous (CL), approx. 2.5 frames per second Shooting speed:

Automatic film stop: Film advance stops automatically when film reaches the end of the spool. Camera senses the

film tension and stops automatically

Battery check:

If both LED's light up, full battery power is available; if only on LED lights up drop in power is indicated; no LED lights up indicates batteries

should be replaced immediately

6 AA-type batteries or 6 NiCd batteries via MB-21 high power battery pack; AC power via AC/DC converter MA-4 with MB-22

Remote control: suitable for operation with remote control cords MC-12 or MC-12A, with wireless remote control

MW-2 and other remote control sets

329.5mm (W) x 98.5mm (H) x 87mm (D)

about 1.3 kg (Body Only)







Product number: Application:

Possible data:

Data imprinting: Data display: Power source: Dimensions: Weight:

4568

Provides for data imprinting between frames for all Nikon F3-Series cameras; enables auto film stop operation with optional Motor Drive MD-4

Three options only one of which is selectable at time: Year/month/day/hours/minutes/seconds or reference numbers to 2000

Via six red LEDs

Via LCD at rear of unit

Two 1.5v silver-oxide button-cell type batteries 148.5mm(W) x 68.5mm(H) x 30.2mm(D)

100g (without batteries)



#### MF-20 Data Back for Nikon N8008

Product number: Application:

Usable film speed: Power source: Dimensions:

Weight:

4620

Provides for conventional data imprinting on film; data imprinted within the picture frame area; equipped with SELECT button to turn on/off; provides for either time or date imprinting

ISO 32-3200

One CR2025 battery (supplied) 5.5" x 2.4" x 1.0" (WxHxD)





#### Product number: Application:

Other functions:

Bracketing steps:

Long exposure control:

Usable film speed:

Power source:

**Dimensions:** Weight:

Data imprint:

Provides for data imprinting on film and other special control functions in combination with the Nikon N8008 camera

Imprinting of data, time, sequence #, frame number, shutter/aperture information or fixed number possible via selection; data imprinted within the picture frame

MF-21 Multi-Control Back for Nikon N8008

Interval/timer, automatic exposure bracketing, long-time exposure control and "Freeze" focus operation

Up to 19 consecutive exposures (min. three frames); 1/3 EV to 2 EV steps via selector

Setting provided for selection of exposure times up to 99 hr., 59 min., 59 sec.

ISO 25-3200

Two CR2025 batteries (supplied) 5.5" x 2.4" x 1.1" (WxHxD) 3.2 oz. (without batteries)



#### Data Back MF-14

Product number:

Description:

Possible data:

Data imprinting: Data display:

Audible warning: Power source:

Dimensions: Weight:

Optional accessories:

4411

Data Back MF-14

Three options only one of which is selectable at time: Year/month/day/hour/minute or reference numbers to 2000

Via six red LEDs

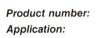
Via LCD at rear of unit

Provided; sounds for 20 sec. at the time set Two 1.5v silver-oxide button-cell type batteries

148.5mm(W) x 53.5mm(H) x 26mm(D)

85g (without batteries) Case Base Portion CF-23D

Set MF-17



Possible data:

Dimensions: Weight:

Number of flashes:

Power source:

140 (Includes P/N 134 and 4419)

299mm(W) x 69mm(H) x 78mm(D)

Provides for superimposing data on film with up to 250 sequential shots via operation with Magazine Back MF-4 (included) and optional Motor Drive MD-4; Operates with all Nikon F3-Series Cameras

Three possible, simultaneously: Year/month/day/hour/minute/second and handwritten data display

250-Exposure Data Back

Four 1.5v AA-type penlight alkaline batteries Flash recycling time: 1 per second, 6 per second.

Alkaline batteries: About 3000 flashes, About 500

690g (MF-17 only)









Product number:

Possible data:

Interval function:

Timeswitch function:

Data display on back:

Power source:

Dimensions:

Weight:

Five possible, only one of which is selectable at time: year/month/day/hour/minute or reference numbers to 999999

Makes it possible to set time intervals between successive shots and the number of shots per interval; maximum time interval equals 99:59:59; maximum of 99 shots per interval; maximum of 99 intervals

Maximum 99 shots daily at the time set, for up to 99 days, or monthly on a fixed day for up to 99

Alarm function: Provided; can be set to operate daily, if desired Data imprinting: Via six red LEDs (seven-segment type)

Via LCD panel

Two 1.5v silver-oxide button-cell type batteries 147.4mm(W) x 53.2mm(H) x 24.5mm(D)  $(5.7" \times 2.1" \times 1.0")$ 

90g (3.2 oz.) (without batteries)



#### Data Back MF-16 for FM2 Cameras

Product number: Possible data:

Data imprinting: Data display: Audible warning: Power source: Dimensions: Weight:

Optional accessories:

4526

Three options only one of which is selectable at time: Year/month/day/hour/minute or reference numbers to 2000

Via six red LEDs Via LCD at rear of unit

Provided; sounds for 20 sec. at the time set Two 1.5v silver-oxide button-cell type batteries 142.7mm(W) x 53.2mm(H) x 26.5mm(D)

90g (without batteries) Case Base Portion CF-27D



# **F4S Power Supplies**

Weight:

Weight:

Weight:





#### MB-20 AA-Type Battery Pack

Product number:
Application:

4031

4-AA Battery Pack for F4S

Approx. 120g

MB-21 High-Speed Battery Pack (repl.)

Product number:

Application:

Product number: Application:

4632 6-AA B

6-AA Battery Pack for F4S

Approx. 295g

MB-22 External Power Regulator

4633

Enables MA-4 converter to be connected to F4S

Approx. 250g (8.8 oz.)

MB-23 Multi Power High-Speed Battery Pack

Product number:
Application:

4634

Alternative accessory pack for Nikon F4S; accepts AA (holder for standard) or NiCad Pack MN 20 as

accessory

Approx.  $168.5 \text{mm}(W) \times 107.5 \text{mm}(H) \times 69.0 \text{mm}(D)$ 

Weight: Approx. 380g (without batteries)

MN-20 NiCad Battery Pack

Product number:

Application:

NiCad Battery Pack for MB-23

Dimensions: Weight:

Dimensions:

Approx. 117.5mm(L) x 31.5mm(H) x 50.5mm(D)

Approx 240g

MH-20 NiCad Battery Charger

112

Product number:

Application:

Dimensions:

Weight:

NiCad Battery Charger for MN-20 (can charge two

batteries at one time)

80mm(W) x 43mm(H) x 160mm(D)

450g





# Motor Drive MD-4 for Nikon F3 Series

Product number:

Compatible cameras:

Shooting speeds:

120

Nikon F3 Series

Eight AA-type 1.5V alkaline batteries, Normal: 3.8,

Mirror up: 4

MN-2 NiCd battery unit, Normal: 5.5, Mirror up: 6 MA-4 AC/DC Converter, Normal: 5, Mirror up: 5.5

The firing rates decreases at shutter slower than 1/125 sec.

Shooting modes:

Exposure meter power:

Single frame (S) continuous (C) via S-C mode selector; lock (L) position provided

By electromagnetic trigger button; also switches on camera meter when depresses halfway: meter remains on for 16 seconds after finger is lifted

from button

Weight:

Dimensions:

16.9 oz (480g)

155mm (W) x 146.5mm (H) x 71mm (H)

#### **AA Battery Holder MS-3**

Product number:

Application:

127

Holder for eight AA-type (penlight) batteries used to power the Motor Drive MD-4

# Motor Drive MD-12 for Nikon FM2

Product number:

Compatible cameras:

Shooting speeds:

Shooting modes:

Usable shutter speeds:

Pilot light:

Motor power switch:

Exposure meter power:

Remote control:

Power source:

Weight:

Dimensions:

Other accessories:

Product number: Application: 102

Nikon FM2

Up to about 3.5 fps (at shutter speeds of 1/123

sec. faster)

Single frame (S), continuous (C) via selector dial at top of grip on motor drive

With "S" setting, 1-4000 sec. With "C" setting,

1/2-1/4000 sec.

LED lights up during each film advance operation

On/Off switch provided at rear of MD-12

The motor release button also serves as camera On/Off switch; power switches off automatically after approximately 50 seconds

Possible via integral 3-pin jack at front of motor drive

AA-type (penlight) batteries (8 x 1.5VDC) via battery holder

410g (without batteries)

144mm(W) x 109.5mm(H) x 68.5mm(D)

Miscellaneous Remote Control Cords MC-4A, MC-10, MC-12A

AA Battery Holder (for MD-12)

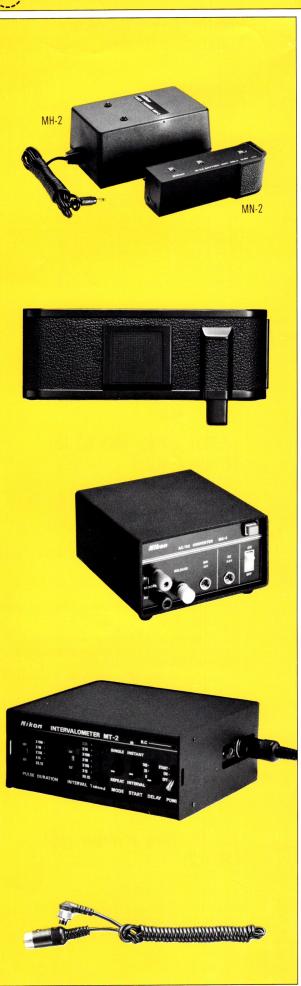
(Not Pictured)

104

Holder for eight AA-type (penlight) batteries used to power the Motor Drive MD-12

153





# NiCd Battery Charger MH-2

126

Product number: Application:

Product number: Application:

Recharging time:

Product number:

Other accessories:

Product number:

Application:

Dimensions: Weight:

Application:

Dimensions: Weight:

Dimensions:

Weight:

Quick-charge unit for NiCd Battery MN-2 127mm(W) x 78mm(H) x 57mm(D) 560g

#### NiCd Battery Unit MN-2

125

Rechargeable power source for Motor Drive MD-4 3½ hours continuous charging 114mm(W) x 43mm(H) x 37mm(D) 250g

# Auto-Rewind-Stop Camera Back MF-6B

136

Used in conjunction with Nikon F3-Series camera and Motor Drive MD-4 to provide for cessation of rewind operation with the film leader protruding from the film cassette

AC/DC Converter Misc. Remote Control Cords MC-4A, MC-10, MC-12A

#### **AC/DC Converter MA-4**

42

Provides for continuous electrical power source to power Motor Drive MD-4; Power connecting Cord MC-11 required for operation with Motor Drive MD-4; MC-2 cord required for operation with earlier MD-1/2/3 motor for F2-Series cameras

 $70mm(H) \times 135mm(W) \times 140mm(D)$  2400g

#### Intervalometer MT-2

128

Provide precisely timed firing of motorized SLR cameras for technical applications such as timelapse and work-sampling photography; Motor Connecting Cord MC-16A provided

0.1 sec to 30 min 0.1 sec to 27 hours

Four 1.5V AA-type (penlight) batteries

Provided Possible

60mm(H) x 150mm(W) x 130mm(D)

730g

# Motor Connecting Cord MC-16A (replacement)

4587

For connecting Intervalometer MT-2 to motorized camera

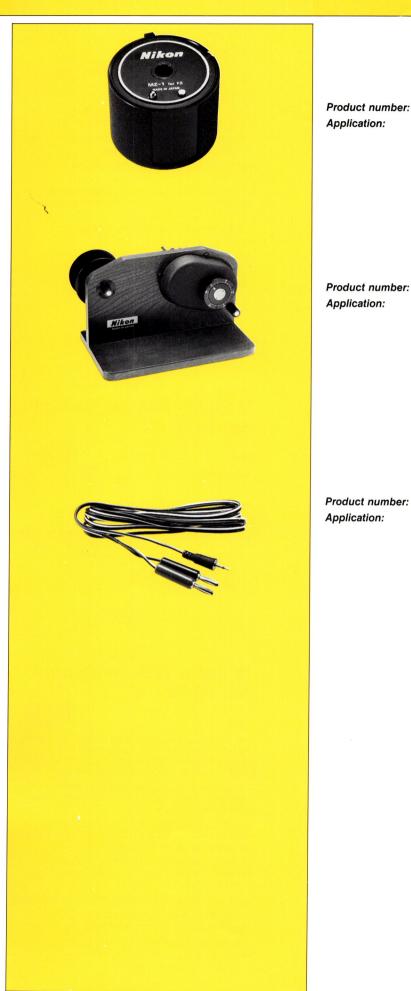
Product number:

Product number: Application:

Pulse duration: Shooting interval: Power source: Battery tester: Remote trigger: Dimensions: Weight:

Product number: Application:





# 250-Exposure Film Cassette MZ-1

Operation with 250-Exposure Magazine Back MF-4

#### **Bulk Film Loader**

Product number: Application:

2080

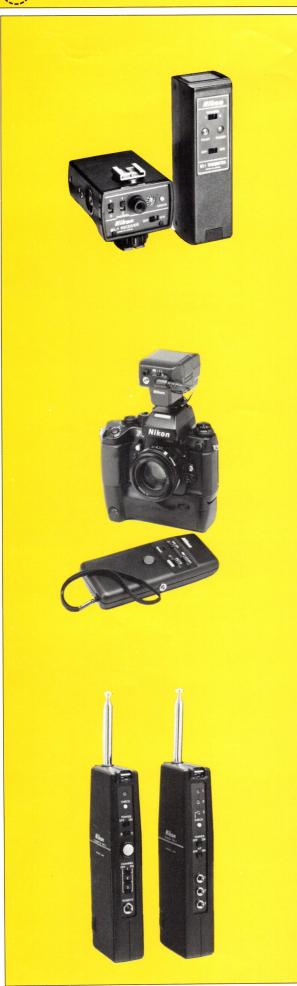
For use loading 250-Exposure Film Cassette MZ-1 with up to 250 frames

Product number: Application:

#### **External Signal** Connecting Cord MC-14

For remote operation with Magazine Back MF-4, it may be useful to know when the film is at an end or when the desired number given by the frame counter has been reached; the External signal connecting cord MC-14 is used for this purpose; One end of this cord fitted with the mini-plug is connected to the frame counter signal jack of the MF-4, and a suitable display system is connected to the other end; If desired, it is also possible to read off from a distance when the subtractive frame counter has reached the "0" setting





#### Modulite Remote Control Set ML-1

Product number: Operating range: Operating modes:

Power source:

Operation life:

Camera connection:

Dimensions:

Weight:

Up to 60m (100 ft) maximum

Single-frame (S) and continuous (C), as well as either of two channels (1 and 2) via selector

Transmitter, four 1.5V AA-type (penlight) batteries; Receiver, one 9V alkaline battery

Approximately 750 firing cycles per set of fresh

batteries

Via MC-8A Motor Connection Cord (supplied) connected to remote control terminal provided on motor drive

Transmitter, 40mm x 40mm x 130mm; Receiver, 50mm x 62mm x 80mm

Transmitter, 130g (without batteries); Receiver, 170g (without battery)

Note: Receiver and transmitter units are also available separately.

## **Modulite Remote Control** Set ML-2

Product number:

Operating range: Operating modes:

Power source:

Operation life:

Dimensions:

Weight:

4641

100 meters

Transmitter: 4 AA-Type batteries, Receiver: 4 AA-Type Batteries

Approximately 4,500 firing cycles per set of fresh alkaline maganese batteries, 2,400 with NiCd, 1,800 with standard manganese batteries

To Be Determined

To Be Determined

#### Wireless Remote Control Set MW-2

Product number:

Application:

For long-distance remote triggering of motorized Nikon SLR camera via connection to motor drive (except MD-E/14); hand-held transmitter activates camera-mounted receiver via radio signal

Operating range:

Up to approximately 700m-2,200 ft. under optimum conditions; up to approximately 150m (500 ft.) in city areas

Operating modes:

Any of seven combined settings of three channel selectors (CH-1, CH-2, CH-3) for control of multiple cameras via transmitter setting

Operation life:

In ready state, about 40 hours with alkaline batteries; for continuous operation, about 1 hour total operation time

Four 1.5V AA-type (penlight) batteries for each unit

Power source:

Transmitter, 36mm x 70mm x 203mm Receiver, 36mm x 70mm x 203mm

Dimensions:

Transmitter, 364g (without batteries); Receiver, 354g (without batteries)

Weight:





Product number: Application: 458

For connecting Modulite Remote Control Set ML-1 to motor drive remote terminal

Motor Connecting Cord MC-8A (replacement)

Motor Remote Trigger Cord MC-10

Product number: Application: 131

For use with Motor Drives MD-2/3/4/12/15 for firing camera at distances to 10 ft; With the MC-10, the exposure meter of the Nikon FE2/FM2 cameras remain switched on until the motor drive power is switched off; with the Nikon F3/FA cameras, the finder display is not functional

Power Connecting Cord MC-11

Product number: Application: 132

For connecting AC/DC converter MA-4 and Motor Drive MD-4

Motor Remote Triggering Cord MC-12A

Product number: Application: 4586

For use with Motor Drives MD-4/12/15 to provide triggering at distances to 10 ft; the display in the Nikon F3/FA/N2020/N2000 viewfinder becomes visible when the release button of the MC-12A cord is gently depressed; the exposure meter of the Nikon FE2/FM2 remains switched on until the motor drive power is switched off

Motor Terminal Release MR-3

Product number: Application: 4563

For mounting on the standard remote control terminal of Nikon motor drives and motorized cameras to provide an alternate shutter release; fitted with tappered thread for connection of standard ISO-type cable release

Multi-Motor Connecting Cord MC-17

Product number: Application: 137

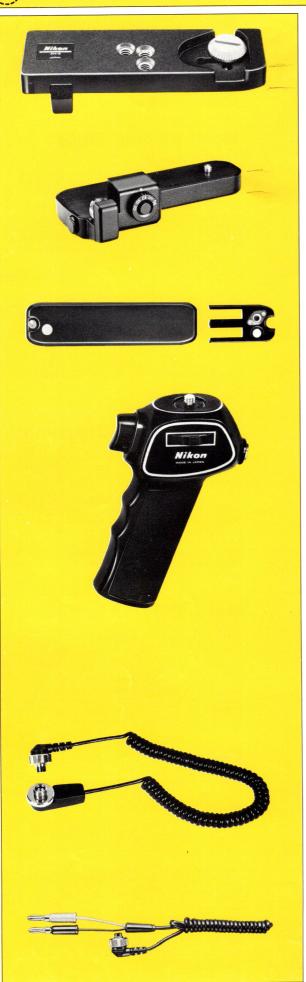
Simultaneous triggering of two motorized SLR cameras; cord length 3m (10 ft.)

Multi-Motor Connecting Cord MC-17S

Product number: Application: 138

Simultaneous triggering of two motorized SLR cameras; cord length 0.4m (15 in.)





Tripod Mounting Adapter AH-3

4580

For attaching Nikon Motor Drives MD-4/12/14/15 and camera bodies N2020/N2000 to a tripod or to Repro-copy Outfit PF-4

## Firing Rate Converter MK-1

121

Enable the selection of specific firing rates for operation of Motor Drie MD-4

Selector provides firing choice of 1fps (C1), 2fps, (C2), 3fps (C3) or unrestricted speed as determined by motor operation (C/S)

146.5mm x 33.5mm x 75mm

150g

**AA Battery Holder MB-3** 

Product number: Application:

Product number

Application:

Product number:

Product number: Application:

Shooting speeds:

Dimensions: Weight:

Application:

4570

Accepts four 1.5V AA-type (penlight) batteries for heavy-duty shooting with motorized SLR cameras N2020/N2000; extends shooting with fresh set of batteries over that afforded with standard battery holder

## Pistol Grip Model II

45

Screws into tripod socket and on camera or lenses tht have tripod collars. It provides a handgrip with trigger release when used with MC3A coiled cord.

Product number:

Application:

4582

**Pistol Grip** 

Enables electrical connection of Pistol Grip to Motor Drives MD-2/3/4/12/15 and motorized cameras N2020/N2000; when Pistol Grip is triggered, the camera is fired

Coiled Cord MC-3A for

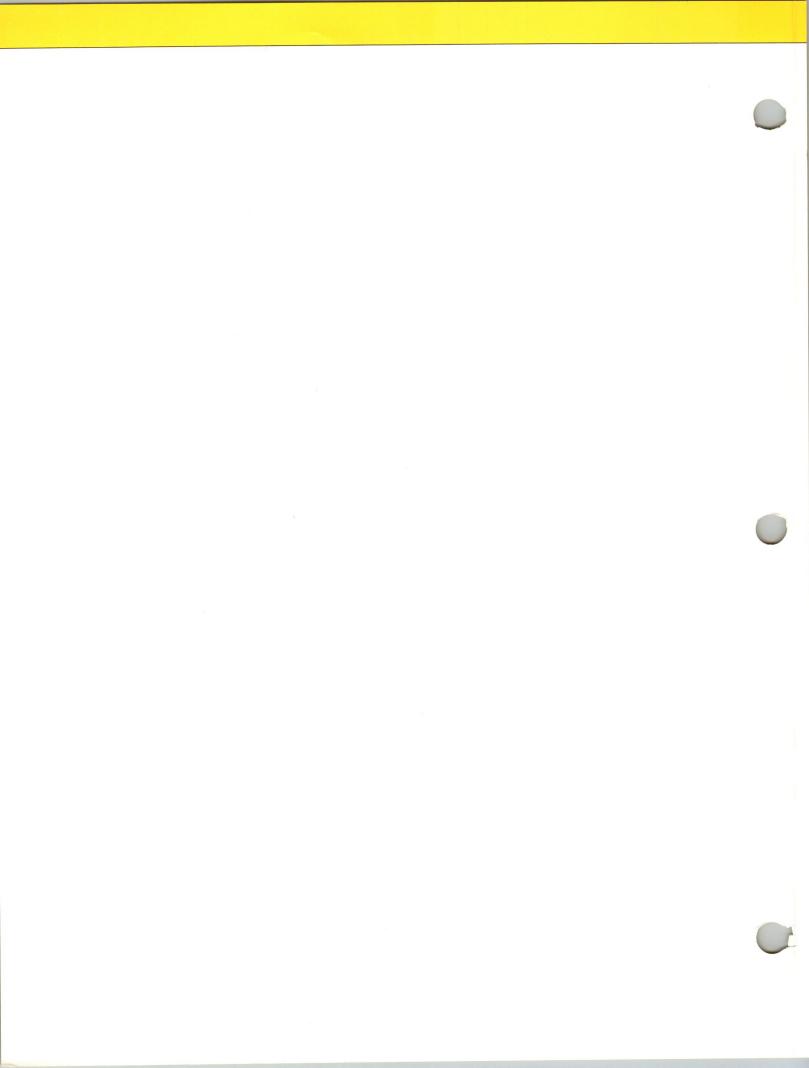
#### **Motor Remote Cord MC-4A**

Product number:
Application:

4583

Provides for remote trigger connection with Motor Drives MD-2/3/4/12/15 and motorized cameras N2020/N2000; cord terminated in "banana plugs" for easy connection to miscellaneous electrical remote control devices

# Speedlights



Camera	F4S	F3 Series	N8008(s)	N6006	N6000	N4004(s)/N5005	N2000	FM2
Flash		Nikon				NIKOWI STATE OF THE STATE OF TH		Nikon Pina Pina Pina Pina Pina Pina Pina Pin
	Via SC-23	Via SC-23						
SB-11	Via SC-13		Via SC-13	Via SC-13	Via SC-13	Via SC-13	Via SC-13	Via SC-13
			w/sync cord & AS-15					
	Via SC-23	Via SC-23						
SB-14	Via SC-13		Via SC-13	Via SC-13	Via SC-13	Via SC-13	Via SC-13	Via SC-13
	VIII 00 00			w/sync cord & AS-15				
CD 440	Via SC-23	Via SC-23						
SB-140	Via SC-13		Via SC-13	Via SC-13	Via SC-13	Via SC-13	Via SC-13	Via SC-13
		D: 1 1/2 00 11	w/sync cord & AS-15					
SB-16A	Via Cavalan AC C	Direct or Via SC-14	10.0					
	Via Coupler AS-6		Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6 or 9	•	Via Coupler AS-6
SB-16B	Direct or Via SC-17	Vi- 0	Direct or Via SC-17	Direct or Via SC-17				
		Via Coupler AS-4/7						Direct or Via SC-17
SB-17	Via Coupler AS-6	Direct or Via SC-14	16. 0 1 10.0	1				
	via Couplet A5-6		Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6
SB-20/22		Via Caustas AC A/7			Direct or Via SC-17		Direct or Via SC-17	
2B-20/22	Direct or Via SC-17	Via Coupler AS-4/7	Direct on Via CO 17	Di		B		Direct or Via SC-17
	Direct of yla 50-17	Direct	Direct or Via SC-17	Direct or Via SC-17		Direct or Via SC-17		
SB-21A	Via Coupler AS-6	Direct	Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6	Via Causias AC C	V:- 0 1 40-0
	Direct or Via SC-17		Direct or Via SC-17	Via Coupler AS-6 Direct or Via SC-17	Via Coupler AS-6			
SB-21B		Via Coupler AS-4/7	Direct of Via CO 17	Direct of Via oo 17	Direct of Via 30-17	Direct of via 30-17	Direct of Via SC-17	Direct or Via CC 17
SB-23		The Couple NO III		and the second	Direct or Via SC-17		Direct or Via SC-17	Direct or Via SC-17
		Via Coupler AS-4/7			Birott of Via CO 17		Director via 30-17	Direct or Via SC-17
	Direct or Via SC-17		Direct or Via SC-17	Direct or Via SC-17	-	Direct or Via SC-17		Director via 20-17
					Direct or Via SC-17		Direct or Via SC-17	_
SB-24		Via Coupler AS-4/7					5.100t 01 VIQ 00 17	Direct or Via SC-17
	Direct or Via SC-17		Direct or Via SC-17	Direct or Via SC-17		Direct or Via SC-17		Director via ou 17
SB-6	Via SC-9	Via SC-9	Via AS-15 & SC-9	Via AS-15 & SC-9	Via AS-15 & SC-9		Via SC-9	Via SC-9
	-							tation is not included

TTL Automatic Control

Sensored Automatic Control Manual Control

TTL Automatic Control and AF Illumination Note: Box not applicable if notation is not included.









Product number: Light output control:

Silicon thyristor-controlled rectifier and series circuitry; automatic TTL flash output control with Nikon F3-series (via cord SC-12) and Nikon FA/ FE2/N2020/N2000 (via cord SC-23); non-TTL

automatic exposure control with other Nikon SLR

cameras, via SU-2 Sensor Unit

GN 36, or GN 25 with SW-3 Wide-Flash Adapter Guide number:

(ISO 100 and meters)

56° horizontal and 40° vertical as normal; 67° Angle of coverage: horizontal and 48° vertical with diffusion; SW-3

Wide-Flash Adapter provided

Approximately 150 full-power (M) bursts with fresh Number of flashes:

alkaline batteries; more in automatic modes of

Recycling time: Approximately 8 sec. in manual (M) mode; faster in

automatic modes of operation

Via flash "ready-light" at rear of flash unit and in Flash ready indicator:

camera viewfinder via accessory cords

Three-step automatic exposure control via SU-2 Automatic operation:

Sensor Unit; aperture settings (ISO 100) of f/4 at 0.6-9m, f/5.6 at 0.6-6.4m and f/8 at 0.6-4.5m

Eight 1.5V AA-type (penlight) batteries Power source: Camera mounting:

Via accessory SK-4 Flash Mounting Bracket

276mm(H) x 104mm(W) x 118mm(D), without SK-4

860g (31 oz.), flash unit only





# SW-3 Wide-Flash Adapter (repl.)

Product number:

Application:

Dimensions:

Weight:

Provide diffusion for operation with lenses to 28mm

wide angle coverage; operable with SB-11

Speedlight

## AA Battery Holder (repl.)

Product number:

3064

Application:

Provide mounting for eight AA-type batteries to power flash unit; operable with SB-11 Speedlight





#### SB-14 Speedlight Set with SD-7 Battery Pack

Product number: Light output control: 4525

Silicon thyristor-controlled rectifier and series circuitry; automatic TTL flash output control with Nikon F3-series (via cord SC-12) and Nikon FA/FE2/N2020/N2000/N4004 (via cord SC-23); non-TTL automatic exposure control with other Nikon SLR cameras, via sensor unit SU-2

Guide number:

GN 32, or GN 22 with SW-5 Wide-Flash Adapter

(ISO 100 and meters)

Angle of coverage:

67° horizontal and 48° vertical, as normal; 77° horizontal and 56° vertical with diffusion; SW-5

Wide-Flash Adapter provided

Number of flashes:

Approximately 270 full-power (M) bursts with fresh alkaline batteries; more in automatic modes of

operation

Recycling time:

Approximately 8 sec. in manual (M) mode; faster in

automatic modes of operation

Automatic operation:

Three-step automatic exposure control via SU-2 Sensor Unit; aperture settings (ISO 100) of f/4 at 0.6m-8m, f/5.6 at 0.6-5.6m and f/8 at 0.6-4m

Power source:

Six 1.5V C-type batteries via accessory SD-7

Battery Pack

Camera mounting:

Via accessory SK-5 Flash Mounting Bracket

Dimensions:

 $217mm(H)\,x\,94mm(W)\,x\,91mm(D),$  without SK-5;  $95mm(H)\,x\,200mm(W)\,x\,45mm(D),$  SD-7

Weight:

515g (18 oz.), flash unit only; 440g (15 oz.), SD-7

without batteries

SD-7 Battery Pack (repl.)

Product number:

4520

Application:

Provides power for operation of SB-14/140 speedlight; alternate power source for SB-11/20/22

**Dimensions:** Weight:

95mm x 200mm x 45mm 440g (15 oz.), without batteries

Product number: Application:

#### SW-5 Wide-Flash Adapter (repl.)

Provide diffusion for operation with lenses to 24mm wide angle coverage; operable with SB-14 Speedlight





#### SB-140 UV-IR Speedlight Set (For ultraviolet, visible and infrared photography)

Product number:

4512

Light output control:

Silicon thyristor-controlled rectifier and series circuitry; automatic TTL flash output control with Nikon F3-series (via cord SC-12); and Nikon FA/FE2/N2020/N2000 (via cord SC-23); TTL flash output control only for visible light; non-TTL automatic exposure control with other Nikon SLR cameras, via SU-2 Sensor Unit

Photographic filters/bands:

SW-5V Filter, 400-1100nm (for visible light); SW-5UV Filter, 300-400nm and above 650nm (for UV light); and SW-5IR Filter, 750-1100nm (for IR

Guide number:

GN 32 as normal with SW-5V for visible light (ISO 100 and meters); GN 22 with SW-5IR for infrared light; GN 16 with SW-5UV for ultra-violet light

Angle of coverage:

70° horizontal and 53° vertical, as normal for 28mm

Number of flashes:

Approximately 270 full-power (M) bursts with fresh alkaline batteries; more in automatic modes of

Recycling time:

Approximately 9.5 sec. in manual (M) mode; faster

in automatic modes of operation

Automatic operation:

Three-step automatic exposure control via SU-3 Sensor unit; aperture settings (ISO 100, visible light) of f/4 at 0.6-8m, f/5.6 at 0..6-5.6m and f/8 at

Power source:

Six 1.5V C-type batteries via accessory SD-7 Battery Pack

Camera mounting: Dimensions:

Via accessory SK-5 Flash Mounting Bracket 217mm(H) x 94mm(W) x 91mm(D), without SK-5

Weight:

515g (18 oz.), flash unit only

# **SD-7 Battery Pack**

Product number:

Application:

4520

Provide diffusion for operation with lenses to 24mm wide angle coverage; operable with SB-14

Automatic operation:

Three-step automatic exposure control via SU-1 Sensor Unit; aperture settings (ISO 100) of f/4 at 1m-11m, f/5.6 at 1-8m and f/8 at 1-5.5m 190mm x 128mm dia.

**SD-8 High Performance Battery Pack** 

Product number Application:

Designed for use with the Nikon SB-24, SB-22, SB-20 & SB-11 Speedlights. Increases flash recycling time by approximately 60–75%, and more than doubles flash capacity.





#### SB-16 TTL Speedlight

Product number:

4542 (SB-16A for F3-series cameras) 4543 (SB-16B for other models)

Light output control:

Silicon thyristor-controlled rectifier and series circuitry; automatic TTL flash output control with Nikon F3-series (SB-16A) or Nikon FA/FE2/N2020/N2000/N4004 (SB-16B); non-TTL automatic exposure control with other Nikon SLR cameras

Guide number:

GN 32 with zoom head set at N or GN 19 at W1 with SW-7 Wide-Flash Adapter (ISO 100 and meters); GN 8 for secondary flash (ISO 100 and meters)

Angle of coverage:

60° horizontal and 45° vertical as normal; 78° horizontal and 68° vertical with diffusion; SW-7 Wide-Flash Adapter provided

Main flash head positioning:

Rotatable and tiltable; pull-out condenser (plus diffuser) for various focal lengths: Head position T for 85mm focal length Head position S for 50mm focal length Head position N for 35mm focal length Head position W1 for 28mm focal length Head position W1 (plus SW-7) for 24mm focal length

Secondary flash head positioning:

Rigid built-in; for illuminating shadows (or providing catch-light for the eyes in portraiture) whenever the main flash head is used for bounce-flash operation

TTL automatic exposure operation:

With applicable Nikon dedicated camera; film speed of ISO 25 to 400; usable aperture range of f/2 to f/22

Non-TTL automatic (A) operation:

Automatic exposure control via built-in light sensor; film speeds of ISO 25 to 1000; two aperture settings provided

Manual full power (M) operation:

Via "M" setting at rear of flash; full power output provided regardless of working distance

Manual low power (MD) operation:

Via "MD" setting at rear of flash; output reduced from GN 32 to GN 8 (ISO 100) to enable flash operation with motorized cameras to firing rate of 4 fps; up to maximum eight successive flashes

Dimensions (WxHxD):

possible at one time 82mm(W) x 166.5mm(H) x 100mm(D) (SB-16A) 82mm(W) x 144mm(H) x 100mm(D) (SB-16B)

Weight:

510g (18 oz.) (SB-16A, without batteries) 470g (17 oz.), SB-16B, without batteries)

# SW-7 Wide Flash Adapter (repl.)

Product number: Application: 4550

Provides diffusion sufficient to enable use of speedlight unit with 24mm lens when main head set to W1 position; operable with SB-16A/B Speedlights

#### MS-5 AA Battery Holder (repl.)

Product number: Application:

4552

Provides mounting for batteries used to power

SB-16

#### **AS-8 Flash Unit Coupler**

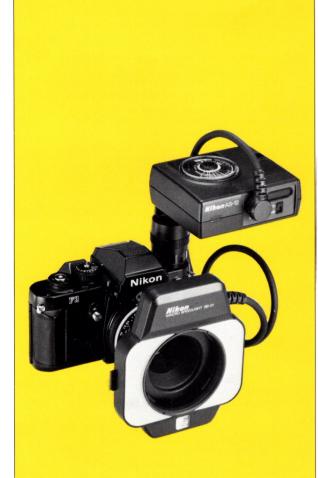
Product number: Application:

4544

Provides for mounting of SB-16 Speedlight head to F3-series camera hot shoe; provides all necessary inteface for full TTL flash-operation with these cameras; provided as standard equipment with SB-16A; optional for SB-16B

Nikor





AS-9 Flash Unit Coupler

(Not Pictured)

4545

Provides for mounting of SB-16 Speedlight head to Nikon SLR cameras equipped with ISO-type hot shoe; provides all necessary interface for full TTL flash operation with these cameras; provided as standard equipment with SB-16B; optional for

SB-21 TTL Macro Speedlight

Product number:

Product number:

Application:

Light output control:

Guide number:

Number of flashes:

Recycling time:

Flash ready indicator:

TTL film speed range:

Power source:

Dimensions:

Weight:

4701 (SB-21A for F3-series cameras) 4702 (SB-21B for other models)

Silicon thyristor-controlled rectifier and series circuitry; automatic TTL flash output control with Nikon F3-series (SB-21A) or Nikon FA/FE2/N2020/N2000 (SB-21B); manual exposure control with other Nikon SLR cameras

GN 13 (ISO 100 and meters)

Approximately 200 full-power (M) bursts with fresh alkaline batteries via holder in AS-12/14 Controller; approximately 300 full-power (M) bursts via optional LD-2 Battery Pack; more in automatic modes of operation

Approximately 8-sec. in manual (M) mode via controller-mounted batteries; approximately 4 sec. in manual (M) mode via LD-2 Battery Pack; faster in automatic modes of operation

Via flash "ready-light" at rear of flash unit and in camera viewfinder; contact provided for coupling to finder display in dedicated cameras

ISO 25-1000 with Nikon N2000/N2020; ISO 25-400 with Nikon F3/FA/FE2

Four 1.5V AA-type (penlight) batteries via AS-12/14 Controller or eight 1.5V AA-type (penlight) batteries via LD-2 Battery Pack

130mm(W) x 120mm(H) x 21mm(D), SB-21 flash head; 100mm(W) x 90mm(H) x 41.6mm(D), AS-12/14

Controller Unit

145g (5 oz.), SB-21 flash head; (9.8 oz.), AS-12 without batteries; 250g (8.8 oz.), AS-14 without batteries





#### SB-17 TTL Speedlight

Product number:

Light output control:

4547

Silicon thyristor-controlled rectifier and series circuitry; automatic TTL flash output control with Nikon F3-series cameras; non-TTL automatic exposure control with other Nikon SLR cameras

GN 25 or GN 18 with SW-6 wide-flash adapter (ISO 100 and meters)

60° horizontal and 45° vertical as normal; 70° horizontal and 53° vertical with diffusion; SW-6 Wide-Flash Adapter provided

Approximately 160 full-power (M) bursts with fresh alkaline batteries; more in automatic modes of

Recycling time:

Guide number:

Angle of coverage:

Number of flashes:

Approximately 8 sec. in manual (M) mode; faster in

automatic modes of operation

Via flash "ready-light" at rear of flash unit and in camera viewfinder; contact provided for coupling to finder display in dedicated cameras

TTL automatic exposure operation:

With Nikon F3-Series cameras, film speeds of ISO 25 to 400; usable aperture range from f/2 to f/22 (ISO 100)

Manual full power (M) operation:

Flash ready indicator:

Via "M" at rear of flash; full power output provided regardless of working distance

Manual low power (MD) operation:

Via "MD" setting at rear of flash; output reduced from GN 25 to GN 7 (ISO 100) to enable flash operation with motorized cameras to firing rate of 3.5 fps; up to maximum four successive flashes possible at one time

Non-TTL automatic (A) operation:

Automatic exposure control via built-in light sensor; film speeds of ISO 25 to 800; aperture settings (ISO 100) of f/4 at 0.6 - 6.2m and f/8 at 0.6-3.1m

Power source: Other features: Four 1.5V AA-type (penlight) batteries

Open-flash button; sync flash terminal; TTL multiflash terminal; bounce head pivots to 90°; supplied with SS-17 Pouch Case, MS-6 Battery Holder and SW-6 Wide-Flash Adapter

Dimensions: Weight:

101mm x 90mm x 42.5mm 300g (11 oz.), without batteries

SW-6 Wide Flash Adapter (repl.)

Product number: Application:

4521

Provides diffusion sufficient to enable use of speedlight unit with 28mm lens; operable with SB-15/17 Speedlights

**MS-6 AA Battery** Holder (repl.)

Product number: Application:

4553

Provides mounting for four AA-type penlight batteries; operable with SB-15/17 Speedlights







#### SB-20 AF TTL Speedlight

Product number:

Guide number:

Number of flashes:

Special features:

Power source:

Dimensions:

Weight:

Autofocus illuminator:

Type of unit:

4700

consumer PRODUCTS DEALER ash unit equipped

High-power dedicated electronic flash unit equipped with AF Illuminator and capable of TTL automatic flash operation with most Nikon SLR cameras

72 to 118 (28mm to 85mm lens coverage) via rotatable flashtube mechanism (ISO 100, feet)

Approximately 150 full-power flashes with one set of fresh alkaline-manganese batteries

Equipped with rotatable flashtube mechanism for multiple angles of coverage and for bounce operation; manual flash settings to 1/16 power level via

built-in selector

Provided for low-light AF operation with Nikon N2020, N4004 and N8008 autofocus SLR cameras

Four AA-type (penlight) batteries; external power usable via special socket connection provided

2.8" x 4.3" x 2.7" (WxHxD) 9.2 oz (without batteries)

# **AS-15 Sync Terminal Adapter**

(Not Pictured)

Product number: Application: 3066

Provides means to connect flash sync cords fitted with standard PC-type connector to the camera body via the built-in hot shoe; suitable for use with Nikon SLR cameras not fitted with PC-type sync terminal



Nikon



SB-22 AF TTL Speedlight

Product number:

Light output control:

Silicon thyristor-controlled rectifier and series circuitry; automatic TTL flash output control with Nikon FA/FE2/N2020/N2000/N4004; non-TTL automatic exposure control with other Nikon SLR

cameras

AF illuminator: LED illuminator provided to project pattern

4703

whenever there is insufficient light for automatic focusing when using the N2020/N4004 autofocus cameras; this function works only with single-servo

autofocus operation

Guide number: GN 25, or GN 18 with wide-flash diffuser (ISO 100

Angle of coverage: 60° horizontal and 45° vertical, as normal; 70°

horizontal and 53° vertical with diffusion; wide-flash

diffuser built-in

Bounce flash: Flash head pivots for settings from -7° (7° downward) to +90° (vertical flash)

Approximately 200 full power (M) bursts with fresh

alkaline batteries; more in automatic modes of

operation

Recycling time: Approximately 4 sec. in manual (M) mode; faster in

automatic modes of operation

Flash ready indicator: Via flash "ready-light" at rear of flash unit and in

camera viewfinder; contact provided for coupling to

finder display in dedicated cameras

TTL automatic operation:

With Nikon dedicated cameras; film speeds of ISO 25-400 (FA/FE2) or ISO 25-1000 (N2020/N2000); programmed TTL automatic flash mode only with Nikon N2020/N2000; usable aperture range from

f/2 to f/22 (ISO 100)

Manual full power (M)

Number of flashes:

operation:

Via "M" setting at rear of flash; full power output provided regardless of working distance

Manual low power (MD) operation:

Via "MD" setting at rear of flash; output reduced from GN 25 to GN 7 (ISO 100) to enable flash operation with motorized cameras to firing rate of 3.5 fps; up to maximum four successive flashes possible at one time; with SD-7 Battery Pack, up to

40 successive flashes possible

Non-TTL automatic (A)

operation:

Power switch:

Automatic exposure control via built-in light sensor;

film speeds of ISO 25-800; aperture settings (ISO 100) of f/4 at 0.6m-6.2m and f/8 at 0.6m-3.1m

Three position switch provided with "ON" "OFF" and "STBY" settings; at "STBY" with Nikon FA/FE2/N2020/N2000, switches off automatically within 1 to 2 minutes when not in use; the SB-22 can

be switched on again by activating the camera's

exposure meter

1.5V AA-type (penlight) batteries or rechargeable NiCd batteries; optional SD-7 Battery Pack Power source:

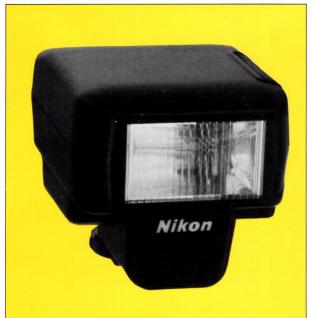
available as an accessory external battery power source; SD-7 uses six 1.5V C-type batteries

Dimensions: 68mm(W) x 105mm(H) x 80mm(D)

Weight: 250g (9 oz.), without batteries

169





# SB-23 AF TTL Speedlight

Product number:

4704

Type of unit:

Ultra-compact dedicated electronic flash unit equipped with AF Illuminator and capable of TTL automatic flash operation with most Nikon SLR cameras

Guide number:

66 (35mm lens coverage) via fixed flash head (ISO 100, feet)

Number of flashes:

Approximately 400 full-power flashes with one set

of fresh alkaline-manganese batteries

Special features:

Equipped with automatic power off function and

manual flash (full power) setting

Autofocus illuminator:

Provided for low-light AF operation with Nikon N2020, N4004 and N8008 autofocus SLR cameras

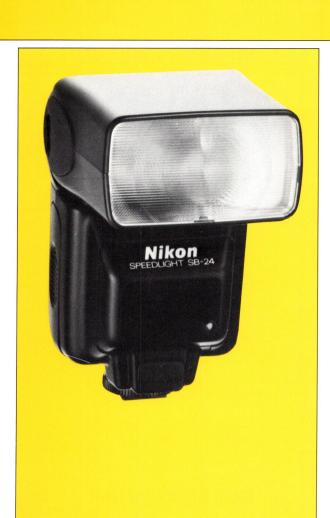
Power source: Dimensions:

Four AA-type (penlight) batteries 2.5" x 2.6" x 3.3" (WxHxD)

4.9 oz (without batteries)

Weight:





# SB-24 AF TTL Speedlight

Product number:

Type of unit:

Guide number:

Number of flashes:

Special features:

Autofocus illuminator:

Power source:

Dimensions:

Weight:

4705

High-power dedicated electronic flash unit equipped with AF Illuminator and capable of TTL automatic flash operation with most Nikon SLR cameras

98 to 164 (24mm to 85mm lens coverage) via power zoom head mechanism (ISO 100, feet)

Approximately 100 full-power flashes with one set of fresh alkaline-manganese batteries

Equipped with zoom/bounce flash head, rearcurtain sync (N8008), manual flash settings to 1/16 power level and stroboscopic operation

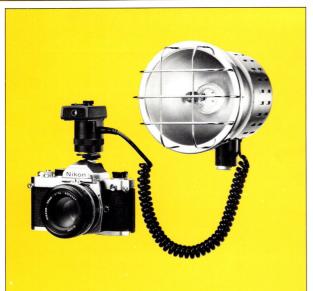
Provided for low-light AF operation with Nikon N2020, N4004 and N8008 autofocus SLR cameras

Four AA-type (penlight) batteries; external power usable via special socket connection provided

3.1" x 5.2" x 3.9" (WxHxD)

13.8 oz (without batteries)







#### SB-6 Repeating Flash

Product number:

Light output control:

Guide number:

Angle of coverage: Automatic operation:

Dimensions: Manual operation:

Weight:

290

Silicon thyristor-controlled rectifier and series circuitry; non-TTL automatic via SU-1 Sensor Unit and SC-9 Sensor Remote Cord

GN 45 as normal at manual full power setting (ISO 100 and meters); variable to GN 8 via power output level selector (ISO 100 and meters)

56° horizontal and 40° vertical

Three-step automatic exposure control via SU-1 Sensor Unit; aperture settings (ISO 100) of f/4 at 1m-11 f/5.6 at 1-8m and f/8 at 1-5.5,

190mm x 128mm dia.

Six-step manual exposure control from "FULL" to "1/32" power levels; firing rate of 5-40 flashes/ second with SA-3 AC Power Unit; can synchronize at motor drive speeds to 3.8 fps 1100g (39 oz.), flash head only

#### **SA-3 AC Power Unit**

Product number: Application:

Dimensions (HxWxD):

Weight:

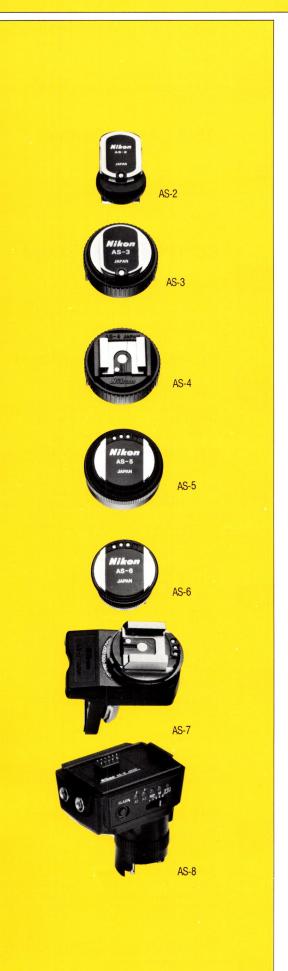
Provide electric power for operation of SB-6 Repeating Flash

191mm x 211mm x 116mm, without case; 218mm x 284mm x 125mm, with case

About 10kg (22 lbs.)







#### AS-1 Flash Unit Coupler

(Not Pictured)

Couples Speedlights with ISO-type mounting foot to hot shoe of Nikon F/F2-series cameras

## AS-2 Flash Unit Coupler

Product number: Application:

Product number:

Application:

Couples Nikon F/F2-dedicated Speedlights to ISOtype hot shoe of Nikon FA/FE/FM/FG/N2020/ N2000/N4004/cameras

# AS-3 Flash Unit Coupler

Product number: Application:

Couples Nikon F/F2-dedicated Speedlights to hot shoe of Nikon F3-series cameras

#### AS-4 Flash Unit Coupler

Product number: Application:

Couples Speedlights with ISO-type mounting foot to hot shoe of Nikon F3-series cameras; TTL coupling is not possible

## **AS-5 Flash Unit Coupler**

Product number: Application:

Couples Nikon F3-dedicated speedlights to hot shoe of Nikon F/F2-series cameras

# AS-6 Flash Unit Coupler

Product number: Application:

Couples Nikon F3-dedicated Speedlights to ISO-type hot shoe of Nikon FA/FF/FM/FG/N2020/ N2000/N4004 cameras; TTL coupling is not possible

# **AS-7 Extension Coupler**

Product number: Application:

Provides offset mounting of speedlights for Nikon F3-series cameras to facilitate film rewind operation; maintain full coupling for F3-dedicated

#### **AS-8 Flash Coupler**

Product number:

Application:

Product number:

Application:

4544

Provides for mounting of SB-16 speedlight head to F3-series camera hot shoe; provides all necessary interface for full TTL flash operation with these

#### **AS-9 Flash Coupler**

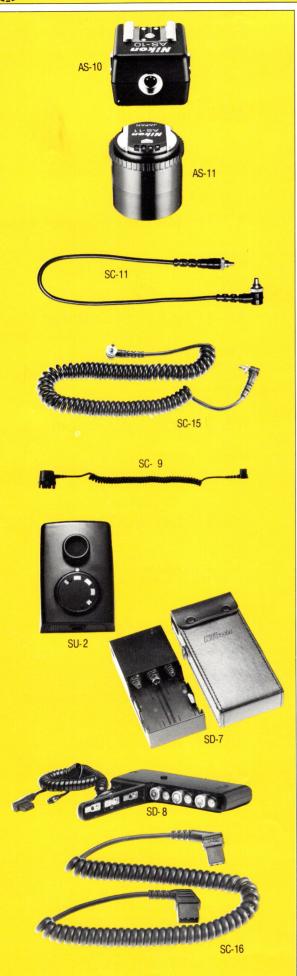
(Not Pictured)

4545

Provides for mounting of SB-16 speedlight head to Nikon SLR cameras equipped with ISO-type hot shoe; provides all necessary interface for full TTL flash operation with these cameras







#### **AS-10 TTL Multiflash Adapter**

Product number: Application:



4560

Provides convenient connection point for TTL flash system components such as speedlight and multi-flash cords.

#### **AS-11 Tripod Adapter**

Product number: Application:



4561

Provides means to connect F3-dedicated speedlights to tripod; provides mechanism to set ISO film speed to enable proper TTL speedlight operation free of ready light warning flashes

# SC-11 Flash Sync Cord

Product number: Application:



3056

General-purpose flash sync cord; fitted with PCtype connector at both ends; connectors threaded for secure mounting; 15 inch length

#### SC-15 Coiled Sync Cord

Product number: Application:



1524

General-purpose flash sync cord providing identical function as SC-11; 3 ft. length (coiled cord)

#### **SC-9 Sensor Remote Cord**

Product number: Application:



307

Enables positioning of SU-1 sensor unit at camera hot shoe for more accurate flash exposures; operated in non-TTL automatic and manual exposure modes; 3 ft. length

Product number: Application:



#### **SU-2 Sensor Unit**

3055

Provide non-TTL automatic exposure control with SB-11/14 speedlight units

Product number: Application:



#### SD-7 Battery Pack

4520

Provide power for operation of SB-14/140 speedlights; alternate power source for SB-11/20/22

Dimensions: Weight:

95mm x 200mm x 45mm

440g (15 oz.), without batteries

Note: When the SD-7 is used to power SB-11/20/22, the batteries of the flash unit must be removed.



# SD-8 High Performance Battery Pack

Product number: Application:

4720

Designed for use with the Nikon SB-24, SB-22, SB-20 & SB-11 Speedlights. Increases flash recycling time by approximately 60–75%, and more than doubles flash capacity.

doubles hash capacity.



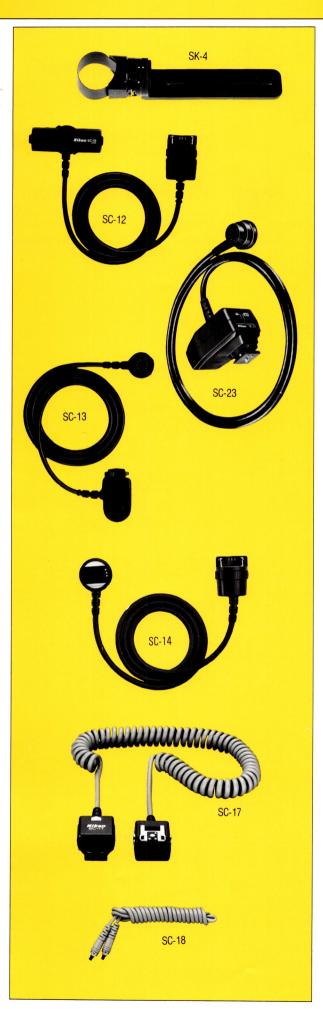
4523

Provide connection for SD-7 to speedlight unit

Product number:
Application:









#### **SK-4 Flash Mounting Bracket**

Product number:

# **SK-5 Flash Mounting Bracket**

Product number:



4539



#### SC-12 TTL Connecting Cord

Product number: Application:

Product number: Application:

356

Enables TTL automatic flash operation of SB-11/14/140 speedlights with Nikon F3-series cameras



#### **SC-23 TTL Connecting** Cord

Enables TTL automatic flash operation of SB-11/ 14/140 speedlights with Nikon FA/FE2/N2020/ N2000 cameras



#### SC-13 Sensor Remote Cord

Product number: Application:



313

Enables positioning of SU-2/3 sensor units at camera hot shoe for more accurate flash exposures; operates in non-TTL automatic and manual exposure modes; for general-purpose operation with SB-11/14/140 Speedlights



#### SC-14 TTL Sync Extension Cord

Product number: Application:

3061

Provides for off-camera positioning of F3-dedicated speedlights; provides full TTL flash coupling for operation with F3-series cameras



#### SC-17 TTL Sync Extension Cord

Product number: Application:

Product number:

Application:

4557

Provides for off-camera positioning of speedlights fitted with ISO-type hot shoe; provides full TTL flash

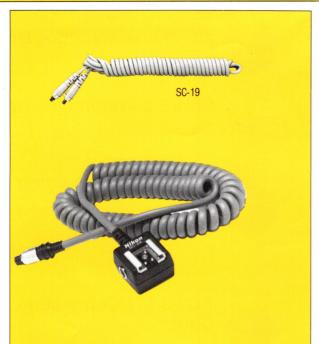


#### SC-18 TTL Multi-Flash Connecting Cord

Provides for off-camera positioning of speedlights fitted with ISO-type hot shoe; provides full TTL flash coupling









# SC-19 TTL Multi-Flash Connecting Cord

Product number: Application:

4559

Provides identical function as SC-18 cord; 10 ft. length



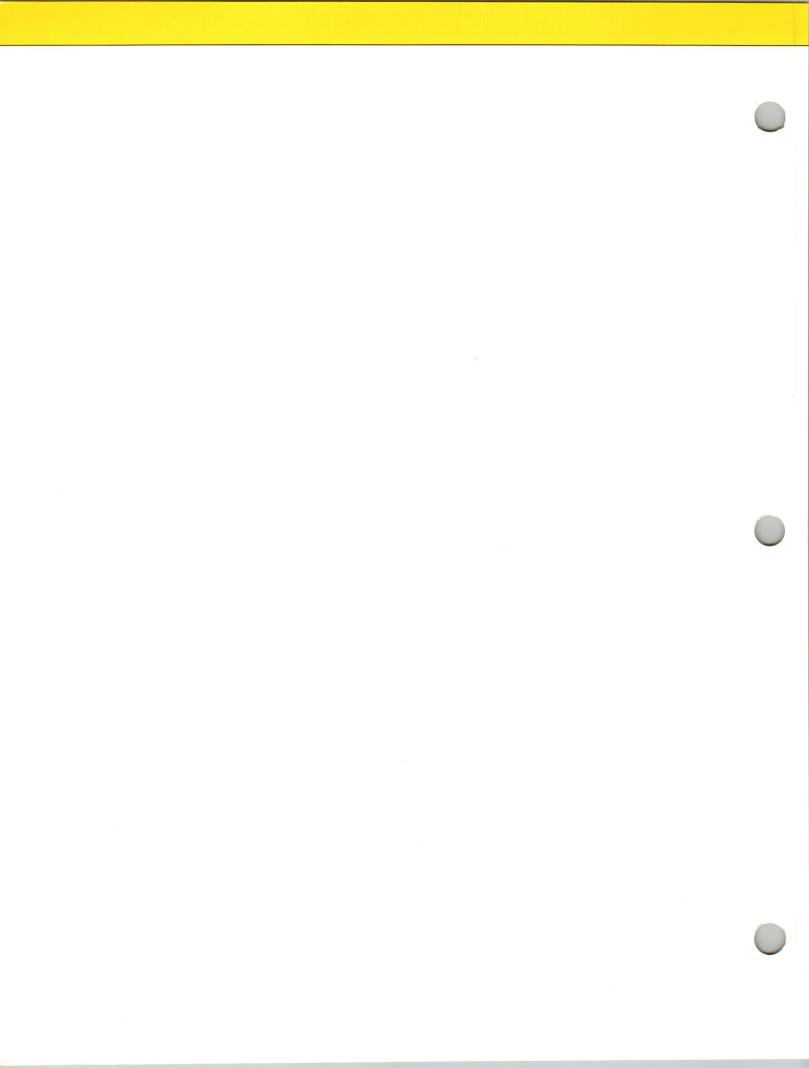
# SC-24 TTL Flash Cord

Product number: Application:

3067

For use with DW-20 and DW-21 finders only

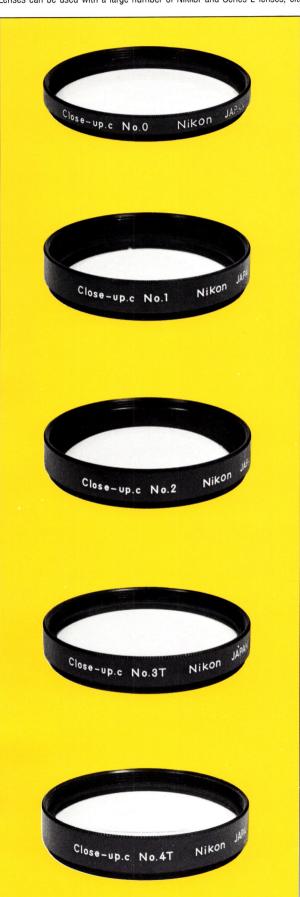
# Close-Up Equipment





Close-up Attachment Lenses

Nikon close-up attachment lenses occupy little space and are easy to carry along. They screw directly into the front thread of the lens (52/62mm diameter), providing a simple and convenient way of increasing magnification. The lenses have no effect on automatic exposure control and TTL metering. Nikon Integrated Coating (NIC) is applied for improving image contrast and reducing flare. Close-up attachment lenses no. 0, 1 and 2 are recommended for use with lenses having a focal length of up to 55mm. Lenses no. 31 and 41 are two-element achromat lenses providing high image quality, and are intended primarily for 85mm to 200mm lenses. The greater the diopter value of the attachment lenses, the closer the subject can be approached. The longer the focal length of the lens used, the greater the magnification which can be achieved. Nikon Close-up Attachment Lenses can be used with a large number of Nikkor and Series E lenses, either singly or in combination, and are an attractive option for beginners in close-up photography.



## Close-up Attachment Lens no. 0

Product number 2732

Mounts to front of lens for general-purpose close-up Application:

photography; recommended for lenses to 55mm

focal length

Mounting thread:  $52mm \, dia. \, (P = 0.75mm)$ 

Refractive power: 0.7 diopter

# Close-up Attachment Lens no. 1

Product number:

Application: Mounts to front of lens for general-purpose close-up

photography; may be used in combination with no. 2 lens for even greater effects; recommended for

lenses to 55mm focal length

Mounting thread: 52mm(P = 0.75mm)

Refractive power: 1.5 diopters

## Close-up Attachment Lens no. 2

Product number: 2734

Mounting thread: 52mm(P = 0.75mm)

3.0 diopters Refractive power:

## Close-up Attachment Lens no. 3T

Product number: 2736

Application: Close-up photography with telephoto lenses;

maybe used in combination with no. 4T lens for

even greater effects

Mounting thread: 52mm (P = 0.75mm)

Refractive power: 1.5 diopters

# Close-up Attachment Lens no. 4T

Product number:

Application: Close-up photography with telephoto lenses; may

be used in combination with no. 3T lens for even

greater effects

Mounting thread: 52mm (P = 0.75mm)

2.9 diopters Refractive power:

# Close-up Attachment Lens no. 5T

(Not Pictured)

Product number:

Close-up photography with telephoto lenses; may Application:

be used in combination with no. 6T lens for even greater effects

62mm (P = 0.75mm)Mounting thread:

Refractive power: 1.5 diopters

## Close-up Attachment Lens no. 6T

(Not Pictured) 4537

Product number:

Application: Close-up photography with telephoto lenses; may

be used in combination with no. 5T lens for even

greater effects

Mounting thread: 62mm (P = 0.75mm)

Refractive power: 2.9 diopters



# **Reproduction Ratio Tables**

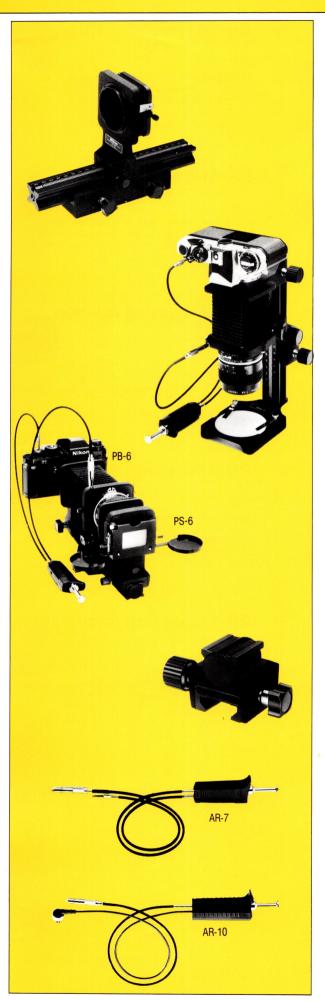
				Hoproduction
	Lens	Lens-to-Subject Distance	Reproduction Ratio	Subject Area
_	50mm f/1.4	46 -147	7,1–27	26 ×17 -97 ×65
	50mm f/1.8	38,1-150	5,4-27,4	19,3×12,9–98,5×65,7
	50mm f/1.2	41,6-151	6,2-27,4	22,2×14,8-98,5×65,6
	85mm f/2.0	60 -152	5,3-16,6	19,1×12,7-59,8×39,9
0	105mm f/2.5	70 -153	5,0-13	18 ×12 -48 ×32
	135mm f/2.8	85 -156	4,6-10	17 ×11 -38 ×25
	135mm f/3.5	85 -155	4,6-10	17 ×11 -36 ×24
	200mm f/4.0	102 –162	3,2- 7,1	11,4× 7,6-25,4×16,9
	50mm f/1.8E	46,1-149	7,0-27	25,2×16,8-98,5×65,7
	100mm f/2.8E	65,9—151	4,8-14	17,4×11,6-50,8×33,9
	50mm f/1.4	40 -78	5,7-13	20 ×14 -47 ×31
	50mm f/1.8	33,3-76,9	4,4-13	15,9×10,6–47 ×31,3
	50mm f/1.2	35,9-77,9	5,0-13	18 ×12 -46,9×31,3
	85mm f/2.0	47,2-78,4	3,9- 7,9	13,9× 9,3-28,5×19
Nr.1	105mm f/2.5	53 -80	3,5- 6,4	13 × 8,4–23 ×15
_	135mm f/2.8	62 -82	3,0- 5,0	11 × 7,3-18 ×12
	135mm f/3.5	61 -81	3,0- 5,0	11 × 7,2–18 ×12
	50mm f/1.8E	37,8-75,6	5,4-13	19,6×13 -47 ×31,3
	100mm f/2.8E	50,2-78,1	3,4- 6,7	12,3× 8,2-24,2×16,2
	50mm f/1.4	31 -44	4,0- 6,5	14 × 9 -23 ×16
	50mm f/1.8	27,3-43,2	3,3- 6,6	11,9× 7,9-23,6×15,7
	50mm f/1.2	29,2-44,3	3,7- 6,6	13,2× 8,8-23,6×15,7
	85mm f/2.0	35,1-44,8	2,6- 4,0	9,2× 6,1-14,3× 9,6
Nr. 2	105mm f/2.5	39 -46	2,2- 3,2	8,0× 5,3-12 × 8
2	135mm f/2.8	44 -49	1,8- 2,5	6,6× 4,4- 9 × 6
	135mm f/3.5	43 -48	1,8- 2,5	6,5× 4,3- 9 × 6
	50mm f/1.8E	29 -41,9	3,8- 6,6	13,7× 9,1-23,6×15,7
	100mm f/2.8E	36,3-44,5	2,2- 3,4	7,9× 5,2-12,2× 8,1

	Lens	Lens-to-Subject Distance	Reproduction Ratio	Subject Area
	85mm f/2	46 -77	3,8 -7,8	13,7× 9 -28 ×18,6
	100mm f/2.8 E	49,4-76,6	3,4 -6,7	12,2× 8,1-23,9×16,0
	105mm f/2.5	51 -78	3,3 -6,3	12 × 8 -22,7×15
	135mm f/2.8	57 —80	2,7 -4,9	10 × 6,6–17,6×11,7
31	135mm f/3.5	57 —80	2,7 -4,9	10 × 6,5–17,6×11,7
	200mm f/4	64 -83	2,0 -3,3	7,2× 4,8–12 × 8
	75-150mm f/3.5 (75mm) E	54,9-83,2	4,2 -8,7	15,2×10,2-31,8×21,1
	75–150mm f/3.5 (100mm) E	54,9-83,2	3,2 -6,7	11,5× 7,7-23,9×15,9
	75–150mm f/3.5 (150mm) E	54,9-83,2	2,2 -4,6	7,8× 5,3-16,1×10,9
	85mm f/2	35 -44	2,5 -4,0	9 × 6 -14,2× 9,5
	100mm f/2.8 E	36,1-44,2	2,2 -3,4	7,9× 5,3-12,3× 8,2
	105mm f/2.5	38 -46	2,2 -3,2	7,8× 5,2-11,6× 7,7
	135mm f/2.8	41 —47	1,7 -2,5	6,1× 4,1- 9 × 6
41	135mm f/3.5	41 —47	1,7 -2,5	6,1× 4,1- 9 × 6
	200mm f/4	48 -51	1,2 -1,7	4,2× 2,8- 6,1× 4,1
	75–150mm f/3.5 (75mm) E	42,2-50,8	2,8 -4,5	9,9× 6,7-16,2×10,8
	75–150mm f/3.5 (100mm) E	42,2-50,8	2,1 -3,4	7,5× 5,1–12,2× 8,2
	75–150mm f/3.5 (150mm) E	42,2-50,8	1,5 -2,3	5,1× 3,5- 8,3× 5,6
	85mm f/2	29,2-33,5	1,9 -2,7	6,8× 4,6- 9,4× 6,2
	100mm f/2.8 E	29,8-33,1	1,6 -2,3	5,8× 3,9- 8,2× 5,4
4.	105mm f/2.5	31,8-35,1	1,6 -2,2	5,8× 3,8- 7,7× 5,1
31+	135mm f/2.8	34,6-36,6	1,2 -1,7	4,4× 2,9- 6 × 4
	135mm f/3.5	34,7-36,5	1,3 -1,7	4,6× 3,1- 6 × 4
	200mm f/4	40 -40	0,38-1,1	$3 \times 2 - 4 \times 2.7$

	Lens	Lens-to-Subject Distance	Reproduction Ratio	Subject Area
-	35–70mm f/3.5 (35mm)	45 -81	9,4–18,5	34 ×23 -67 ×44
	35–70mm f/3.5 (50mm)	45 -81	6,9-13,5	25 ×17 -47 ×31
	35–70mm f/3.5 (70mm)	45 -81	4,9- 9,7	18 ×12 -35 ×23
	105mm f/1.8	52 -79	3,3- 6,3	12 × 8 -23 ×15
	80–200mm f/4 (80mm)	62 -87	4,4- 8,3	16 ×11 -30 ×19
	80-200mm f/4 (105mm	) 62 -87	3,3- 6,3	12 × 8 -23 ×15
1	80–200mm f/4 (135mm	) 62 -87	2,6- 4,9	9,4× 6,2-18 ×12
	80-200mm f/4 (200mm	) 62 -87	1,8- 3,4	6,5× 4,3–12 × 8,2
	70–210mm f/4 (70mm)	E 61,5–83	5,6- 9,3	20 ×13 -34 ×22
	70–210mm f/4 (105mm)	E 61,5–83	3,8- 6,3	14 × 9 -23 ×15
	70–210mm f/4 (135mm)	E 61,5–83	3,0- 4,9	11 × 7 -18 ×12
	70–210mm f/4 (210mm)	E 61,5–83	2,0- 3,3	7 × 4,8–12 × 8
	35-70mm f/3.5 (35mm)	36 -49	6,6- 9,5	24 ×16 -23 ×34
	35-70mm f/3.5 (50mm)	36 -49	4,8- 6,9	17 ×12 -25 ×17
	35-70mm f/3.5 (70mm)	36 - 49	3,4- 5	12 × 8,2–18 ×12
	105mm f/1.8	38 -47	2,2- 3,3	8 × 5,3–12 × 8
	80-200mm f/4 (80mm)	47 —54	2,8- 4,3	10 × 6,7-15 ×10
	80–200mm f/4 (105mm	<b>)</b> 47 –54	2,1- 3,2	$7.6 \times 5 -12 \times 7.7$
, T	80–200mm f/4 (135mm	<b>)</b> 47 –54	1,7- 2,5	$6 \times 4 - 9 \times 6$
	80-200mm f/4 (200mm	<b>)</b> 47 –54	1,1- 1,8	4 × 2,6- 6,5× 4,3
	70–210mm f/4 (70mm)	E 44,5–51	3,5- 4,8	13 × 8,4–17 ×11,5
	70–210mm f/4 (105mm)	E 44,5–51	2,4- 3,3	8,6× 5,8–12 × 8
	70–210mm f/4 (135mm)	E 44,5–51	1,8- 2,5	6,5× 4,3- 9 × 6
	70-210mm f/4 (210mm)	E 44,5-51	1,2- 1,7	4,3× 2,9- 6 × 4

	Lens	Lens-to-Subject Distance	Reproduction Ratio	Subject Area
	35-70mm f/3.5 (35mm)	31 –38	5,0 -6,3	18 ×12 -23 ×15
	35-70mm f/3.5 (50mm)	31 –38	3,7 -4,6	13 × 9 −17 ×11
	35-70mm f/3.5 (70mm)	31 –38	2,6 -3,3	9,4× 6,2-12 × 7,9
	105mm f/1.8	32 –36	1,6 -2,2	5,8× 3,8- 8 × 5,3
	80-200mm f/4 (80mm)	41 —43	2,1 -2,8	$7.6 \times 5 -10 \times 6.7$
. 6T	80-200mm f/4 (105mm	) 41 -43	1,5 -2,2	$5.4 \times 3.6 - 8 \times 5.3$
51+	80-200mm f/4 (135mm	) 41 -43	1,2 -1,7	4,3× 2,9- 6,1× 4
"	80-200mm f/4 (200mm	) 41 -43	0,84-1,2	$3 \times 2 - 4.3 \times 2.9$
	70–210mm f/4 (70mm)	E 37,5—40	2,5 -3,2	9 × 6 -11,5× 7,7
	70–210mm f/4 (105mm)	E 37,5—40	1,7 -2,2	$6 \times 4 - 8 \times 5,3$
	70–210mm f/4 (135mm)	E 37,5—40	1,3 -1,7	$4.7 \times 3.1 - 6 \times 4$
(*	70–210mm f/4 (210mm)	E 37,5—40	0,9 -1,1	$3.2 \times 2.2 - 4 \times 2.6$





**PB-6E Extension Bellows** 

83mm-438mm (PB-6/PB-6E combined)

See accompanying table

82mm(W) x 155mm(H) x 230mm(L)

800g (1.8 lbs.)

**PB-6M Macro Copy Stand** 

Product number: 2662

Product number:

Magnification:

Dimensions: Weight:

Bellows extension:

See accompanying table Magnification:

Dimensions: 90mm(W) x 144mm(D) x 27mm(H)

Weight: 177g (6.2 oz.)

**PB-6 Bellows Focusing Unit** 

Product number: 2660

48mm-208mm Bellows extension:

Example Magnification:

50mm f/1.4 Normal: 1/1.1x-4x Reverse: 1.1x-3.9x See accompanying table

98mm(W) x 155mm(H) x 238mm(L) Dimensions:

1000g (2.23 lbs.) Weight:

**PS-6 Slide Copying Adapter** 

Product number:

Originals copied: 35mm mounted transparencies (up to 4mm thickness) or unmounted in strips or rolls

Suitable lenses: 20mm-55mm

Reproduction ratio: See accompanying table Holder adjustments: 6mm upwards and downwards;

9mm to each side

Bellows extension: 60mm

Dimensions: 88mm(H) x 118mm(W) x 42mm(D)

Weight: 300g (11 oz.)

PB-6D Bellows/Rail Spacer

Product number:

Application:

Mounts between bellows standard and rail to provide sufficient clearance to enable motorized cameras to operate with bellows system; two

AR-4 Double Cable Release

Product number:

Application: For use with cameras equipped with Nikon-type

shutter release button mounting thread

AR-7 Double Cable Release

Product number:

Application:

For use with cameras equipped with ISO-type

tappered shutter release button mounting thread

**AR-10 Double Cable Release** 

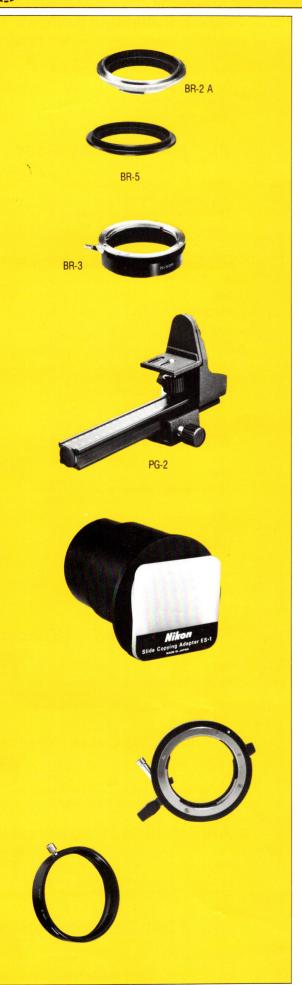
Product number: 2670

Application:

For use with motorized cameras fitted with a remote

control release terminal





Product number:

Application:

Product number:

Application:

**BR-2A Reversing Ring** 

2657

2631

Enables reverse mounting of lenses with 52mm attachment thread; provides for direct connection to camera or bellows lens mount

**BR-5 Reversing Ring** 

Enables reverse mounting of lenses with 62mm attachment thread; must be used in combination with BR-2/2A for connection to camera or bellows

**BR-3 Mounting Adapter** Ring

Product number: Application:

Product number:

Application:

2629

Converts the bayonet mount of reverse-mounted lenses to the 52mm thread for accessories such as filters and hoods

**PG-2 Focusing Stage** 

2756

Permits precise fine focusing by shifting the camera body; can be mounted either vertically or horizontally; equipped with tripod mount

**ES-1 Slide Copying Adapter** 

Product number: Application:

Dimensions: Weight:

Enables slide duplication with Micro-Nikkor 55mm and PK-13 extension tube

72mm dia. x 80mm 150g (5 oz.)

**BR-6 Auto Diaphragm Ring** 

Product number: Application:

Product number: Application:

2658

For use with bellows (PB-6)

**UR-3 Adapter Ring** 

2396

Used to mount SB-21 Macrolight on 60mm f2.8 AF Micro-Nikkor

182



# Reproduction Ratios Obtainable with PB-6/6E

Lens		Subject Area	x ∞	360 x 240	180 x 120	. X	108 x 72	x	x	X	12 x 8	9 7. x 3	x	6 x 4	5.1 x 3.4	4.5 x 3	4 x 2.7	3.6 x 2.4	3.3 x 2.2	3 x 2	2.6 x 1.7	2.3 x 1.5	2 x 1.3	1.8 x 1.2	1.6 x 1.1
		production Ratio	1/∞χ	1/1 OX	1/5x	1/4X	1/3x	1/2X	1x	2x 3	3x	4x 5		6x		8x	9x	10x	11x	12x	14x	16x	18x	20x	22x
20mm f/2.8	① Reverse	Extension										72	_	03	123	44	164	185	208	225	266	307	348	389	429 438
		Work. Dis.										38	36	5,9	36,4 3	36, 1	35.8	35, 5	35,3	35,2	35	34,8	34,6	34,5	34,4 34,
24mm f/2	0	Extension									83	11	1 13	35	160	84	208	233	257	282	330	379	428	438	
24mm f/2.8	Reverse	Work. Dis.									39.8	38	,4 37	7.6	37 3	6,6	36,2	35,9	35.7	35.5	35,2	35	34.9	34.8	
28mm f/2	2	Extension							48	8	4											$\top$			
28mm f/2.8	Normal	Work. Dis.							7,3																
28mm f/3.5	1	Extension							1		83 I	05 13	33 16	62	191 208	219	248	276	305	334	391	438	+	+	_
	Reverse	Work. Dis.									•	7 20	2 20	•	• •	•	•	9	•	9	•	•			
	3	Extension		+	+	+	+	+	48	_	42.3 4	154	.2 38	1,3	37.6 37.3	5/,1 .	36,1	36,4	36,1	35,9	35,5	35,3	+		
35mm f/1.4	Normal								•	• •		•													
	0	Work. Dis.	-	+	+		+	+-	18,6 9	89	_	0 41 17	7 208		249 2	85 3	321	357	393	438	+	+	+		
35mm f/2	Reverse	Extension								•		•	•		<b>•</b>	•	•	•	•	1					
		Work. Dis.		+	_		-	-	40	47,6		-	.7 39.6	+	+	+	+	37, 1	36.8	36.4	_	_	_	_	
35mm f/2.8	③ Normal	Extension							48	72 10	1 80	44 18	0 20	08	252 2	88	324	360	396	438					41
	- I TOTTING	Work. Dis.							24.2 1	+	-	2 4.	-	-	_	-	1,1	0.8	0,4	0.1					
35mm f/2.8 PC	0	Extension								83 10	5 1	41 1.7	7 208	8 7	249 2	85	321	357	393	438					
3311111 1/2.0 1 0	Reverse	Work. Dis.							4	8,5 45	,5 42	,5 40	.7 39.6	6 3	18.6	38 3	37,5	37, 1	36,, 8	36.4					
50 (4.0	3	Extension						48	+	03 15	5 2	08 25	8 3	io :	361	413 43	8								
50mm f/1.2	Normal	Work. Dis.						64	+	4,3 25	7 2	.3 18	.8 17		5.9	15 14.	6								
50mm f/1.4	①	Extension						1	78		_	08 26		-	+	416 43	$\rightarrow$	$\top$	+	+	+	+			
50mm f/1.8	Reverse	Work. Dis.							69 5	9 5		, 5 43	0 42		•	40.20									
	4	Extension		+	+	+		48	_	+	5 20	+		-		40 39 38	Ť	+	+	+	+	+	+	+	+
55mm f/2.8	Normal	Work. Dis.						•		•	•	•			•	•									
Micro			-	+	+	+		65	92	_	, <b>9</b> 16,			-	8,5 8 895 43	.5	+	+	+	+	+	+	+	-	
	Reverse	Extension							•		•	•			• •	-									
	6	Work. Dis.	-	+	+	-	-	48	716	16 17	2 48,8 4	232 29	_		1,4 40	-	+	+	_	-	+	+	+	-	_
	Normal	Extension						•			4 (0	• •	0 34		• •										
58mm f/1.2 Noct		Work. Dis.		_	-	_	_	74	-	.1 2		18.2 15.			12 11.	4		1					$\perp$		
	® Reverse	Extension							88 1	25 18	3 208 2	1 29	9 35		415 438										
	HEVEISE	Work. Dis.							76 6	1	3 50 4	-	-	.2	11,8 41.3										
	3	Extension						48 8	35	70 208 25	5 34	0 4	38												
85mm f/1.4	Normal	Work. Dis.					;	210 1	40 9	7 90 8	3 7	6 7	71												
85mm f/2	•	Extension				9	0 1	03 1	46 20	8 31	6 4	1 438													
	Reverse	Work. Dis.				2	90 2	00 1	20 83	6	2 5	5 53													
105mm f/1.8	3	Extension					48	+ -	05 20	3 3 1	5	438							+	+	$\top$	$\top$	$\top$	+	+
105mm f/2.5	Normal	Work. Dis.					300	-	+	20 10	JE 90 (5 / 1)	92													
105mm f/2.8	6	Extension		133	3 1	42 1	_	68 208 2	1	-	438	J.	-	_			+	+	+	+	+	+	+	+	+
Micro	Reverse	Work. Dis.		677	+	+	-	• •	10000 Zep. 10	1.0000000000000000000000000000000000000															
THIO O	3		-	670	0 4	+		40 150 1	40 <b>8</b> 35 208 2	-	6 <b>8</b> 5 <b>4</b> 38	-	$\dashv$		-	-	-		-	+	+	+	+	_	+
135mm f/2	Normal	Extension						•	1	40.7															
135mm f/2.8	®	Work. Dis.	180	194	208 2	-	25 2		80 230 2 15 <b>43</b> 8	-	0 190	_					-	+	+	+	+	+	+	-	+
	® Reverse	Extension	•	•	200 2		23 2	-	15 438																
		Work. Dis.	00	1400	680 5			00 I	70 10																
180mm f/2.8 ED	③ Normal	Extension				48 6	+	0	208 3	50 438															
100mm 1/2.0 ED	Normal	Work. Dis.			-	830 69	90 5	0	310 24	0 230															
200mm 4/4	3	Extension			48	6	-	00 21		0 438 TTRE															
200mm f/4	Normal	Work. Dis.			1200	+	-	20 5		0 420															

#### Working distance:

bistance between subject (in sharp focus) and the front edge of the lens barrel. If the lens is reverse-mounted, this distance is the distance between the subject and the rear edge of the lens.

#### Notes:

Notes:

1) Magnification at Infinity setting.

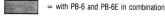
2) If there are several lenses, the magnification data applies only to the first lens (e.g. for 24mm t/2.8 and F/2, it applies to 24mm t/2.8).

3) The 135mm t/2 and PC-Nikkor 28mm t/3.5 lenses cannot be reverse-mounted since the diameters of the front

rings are too large.

4) For close-up and macrophotography, we particularly recommend the following lenses: Micro-Nikkor 55mm f/2.8 and Micro-Nikkor 105mm f/2.8.

#### = only with PB-6



#### Notes:

1) Optimum picture quality with f/8

3) The smaller the aperture the better the picture quality; unsuitable for reproduction.

3) The smaller the aperture the better the picture quality.

4) Optimum picture quality with f/8; the quality deteriorates with smaller apertures; The 50mm f/1.2 lens is not suitable for reproduction.

5) Unsuitable for reproduction.

6) The picture quality in the corners becomes poorer with low magnification.



# **Reproduction Ratios with PS-6**

Lens		Subject Area	∞	360 x 240	180 x 120	144 x 96	108 x 72	72 x 48	36 x 24	18 x 12	12 x 8	9 x 6	7.2 x 4.8	6 x 4	5.1 x 3.4	4.5 x 3	4 x 2.7	3.6 x 2.4	3.3 x 2.2	3 x 2	2.6 x 1.7	2.3 x 1.5	2 x 1.3	1.8 x 1.2	1.6 x 1.1	1.5 x 1
	F	Reproduction Ratio	1/∞χ	√10X	1/5x	1/4X	1/3x	1/2x	1x	2x	3x	4x	5x	6x	7x	8x	9x	10x	11x	12x	14x	16x	18x	20x	22x	24x
20 mm f/2.8	Reverse	Extension											72 83	103	123	144	16	6								
20 11111 1/ 2.0		Work. Dis.											38 38	37	36	36	36									
24mm f/2	Reverse	Extension									8	B3	111	135	160	70										
24mm f/2.8	HOVEISC	Work. Dis.										40	38	38	37 3	37						~				
28mm f/2	Reverse	Extension									83	105	133	162	170											
f/2.8, f/3.5	neverse	Work. Dis.									42	2 41	39	38 :	38											
35mm f/1.4, f/2	Reverse	Extension								8	9 105	141	165													
f/2.8, f/2.8 PC	Heverse	Work. Dis.								4	8 46	43	41													
50mm f/1.2	Normal	Extension							48	103	153															
50mm f/1.4	rtorma	Work. Dis.							64	34	26															
	Reverse	Extension							78	106	156															
50111111 1/1.6	INGVEISE	Work. Dis.							69	59	51															
	Normal	Extension							48 55	12	29															
55 mm f/2.8	140111Idi	Work. Dis.							65 57	2	5															
Micro	Reverse	Extension							92	120 1	52															
	11040130	Work. Dis.							71	61 5	55															

# Reproduction Ratios Obtainable with PB-6M

Lens		Subject Area	∞	360 x 240	180 x 120	144 x 96	108 x 72	72 x 48	36 x 24	18 x 12	12 x 8	9 x 6	7.2 x 4.8	6 x 4	5.1 x 3.4	4.5 x 3	4 x 2.7	3.6 x 2.4		.3 x .2	3 x 2	2.6 x 1.7	2.3 x 1.5	2 x 1.3	1.8 x 1.2	1.6 x 1.1	1.5 x 1
	Re	production Ratio	1/∞χ	1/1 ox	1/5 X	1/4X	1/3x	1/2 X	1x	2x	3x	4x	5x	6x	7x	8x	9x	101	1	1x	12x	14x	16x	18x	20x	22x	24x
20mm f/2.8	Reverse	Extension											72 83	103	123	144	164	169									
2011111 1/2.0	TIEVEI3C	Work. Dis.											38 38	37	36	36	36	36									
24mm f/2	Davis	Extension										83	111	135	160	173											
24mm f/2.8	Reverse	Work. Dis.										40	3,8	38	3,7	37											
28mm f/2	Normal	Extension							48	57	88																
28mm f/2.8	Normal	Work. Dis.							8	5	0																
28mm f/3.5		Extension									83	105	133	162	172												
	Reverse	Work. Dis.									42	41	39	38	38												
0F	Namel	Extension							48	72	108	144	154														
35mm f/1.4 35mm f/2	Normal	Work. Dis.							19	10	4	1 0															
35mm f/2.8		Extension			$\top$					8	39 105	141	163														
35mm F/2.8 PC	Reverse	Work. Dis.								1	18 46	43	41														
	Narmal	Extension			$\top$		$\top$		48	103	156											T					
50mm f/1.2	Normal	Work. Dis.							64	34	26																
50mm f/1.4		Extension							78	106	159			$\top$								T					
50mm f/1.8	Reverse	Work. Dis.							69	59	51																
	Name	Extension		$\top$	$\top$		1		48	110	144	$\top$													$\top$	1	
55mm f/2.8	Normal	Work. Dis.							65	29	23																
Micro		Extension		+					_	121	_	$\top$									T	$^{\dagger}$					
	Reverse	Work. Dis.							71	61	54																

#### Working distance:

Distance between subject (in sharp focus) and the front edge of the lens barrel. If the lens is reverse-mounted, this distance is the distance between the subject and the rear edge of the lens.

#### Notes:

1) Magnification at infinity setting.

2) If there are several lenses, the magnification data applies only to the first lens (e.g. for 24mm 1/2.8 and F/2, it applies to 24mm 1/2.8).

3) The 135mm 1/2 and PC-Nikkor 28mm 1/3.5 lenses cannot be reverse-mounted since the diameters of the front

rings are too large.
4) For close-up and macrophotography, we particularly recommend the following lenses: Micro-Nikkor 55mm 1/2.8 and Micro-Nikkor 105mm 1/2.8.





#### **PK-11A Extension Tube**

Product number: Extension:

Dimensions:

Weight:

2656

8mm

64.4mm dia. x 17.8mm

50g (2 oz.)



#### **PK-12 Extension Tube**

Product number:

Extension:

Dimensions:

Weight:

2652

14mm

64.4mm dia. x 23.6mm

75g (2 oz.)



#### **PK-13 Extension Tube**

Product number:

Extension:

Dimensions:

Weight:

2653

27.5mm (for Micro-Nikkor 55mm)

64.4mm dia. x 30.5mm

3 oz.



#### **PN-11 Extension Tube**

Product number:

Extension:

Dimensions:

Weight:

2647

52.2mm (for Micro-Nikkor 105mm)

70.5mm dia. x 67mm

245g (9 oz.)

Extension Tube (combination)	Total
Extension Tube (combination)	Extension
PK-11A	8mm
PK-12	14mm
PK-11A (+ PK-12)	22mm
PK-13	27.5mm
PK-11A (+ PK-13)	35.5mm
PK-12 (+ PK-13)	41.5mm



#### **Auto Extension Tubes**

The Nikon auto extension tubes can be attached to your camera bayonet with a simple action and permit a large number of different magnifications. These four tubes (PK-11, 12 and 13 and the PN-11) can be used either singly or in combination between camera and lens and retain the automatic function and meter coupling of the Nikkor and Series E lenses. In other words, the picture composition, focusing and metering can be carried out at the bright, full-aperture position without having to stop down the lens manually before shooting. These extension tubes have no effect on automatic exposure control of the corresponding Nikon cameras.

#### Nikkor 20mm f/2.8

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
_	1/∞-1/10,8	∞×∞-10,2×15,3 ∞×∞-25,9×38,9	∞ -11,8 ∞ -30,0	1-1,1
PK-11	1/2,6—1/2,1	2,4×3,6–2,0×2,9 6,1×9,2–5,0×7,4	5,3-5,0 13,4×12,6	1,4-1,4
PK-12	1/1,5–1/1,3	1,4×2,1-1,2×1,8 3,5×5,2-3,1×4,6	4,6–4,6 11,7–11,6	1,7–1,8
PK-11 + PK-12	1,1-1,2	0,88×1,3-0,81×1,2 2,2×3,3-2,1×3,1	4,5–4,5 11,5–11,5	2,1–2,2
PK-13	1,4-1,4	0,10×1,1-0,66×0,98 1,8×2,7-1,7×2,5	4,6–4,6 11,6–11,7	2,5–2,6
PK-11 + PK-13	1,7-1,8	0,54×0,81-0,52×0,77 1,4×2,1-1,3×2,0	4,8–4,8 12,1–12,2	3,0-3,1
PK-12 + PK-13	2,0-2,1	0,46×0,70-0,44×0,67 1,2×1,8-1,1×1,7	4,9–5,0 12,5–12,7	3,4–3,6

#### Nikkor 24mm f/2.8

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
_	1/∞-1/8,8	∞×∞-8,4×12,5 ∞×∞-21,2×31,8	∞-11,8 ∞-30,0	1-1,1
PK-11 ·	1/3,0-1/2,3	2,9×4,3–2,1×3,2 7,3×11,0–5,4×8,2	6,5–5,8 16,4×14,8	1,3-1,4
PK-12	1/1,7–1/1,5	1,6×2,5–1,4×2,1 4,2×6,3–3,5×5,2	5,4–5,3 13,8–13,4	1,5—1,7
PK-11 + PK-12	1/1,1–1,0	1,0×1,6-0,93×1,4 2,7×4,0-2,4×3,5	5,2–5,1 13,1–13,1	1,9-2,0
PK-13	1,1-1,2	0,84×1,3-0,76×1,1 2,1×3,2-1,9×2,9	5,2–5,2 13,1–13,2	2,2-2,3
PK-11 + PK-13	1,5—1,6	0,65×0,97-0,6×0,9 1,6×2,5-1,5×2,3	5,3–5,3 13,4–13,6	2,6-2,8
PK-12 + PK-13	1,7-1,8	0,56×0,83-0,52×0,78 1,4×2,1-1,3×2,0	5,4–5,5 13,8–14,0	2,9-3,1
PK-11 + PK-12 + PK-13	2.0-2.1	0,4×0,70-0,44×0,66 1,2×1,8-1,1×1,7	5,6–5,7	3,4–3,6

#### Nikkor 24mm f/2

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
_	1/∞-1/8,7	∞×∞-8,2×12,3 ∞×∞-20,8×31,2	∞-11,9 ∞-30,2	1–1,1
PK-11	1/3,1–1/2,3	2,9×4,3-2,1×3,2 7,3×11,0-5,5×8,2	6,0-6,0 16,9×15,2	1,2-1,3
PK-12	1/1,7–1/1,5	1,7×2,5-1,4×2,1 4,2×6,3-3,5×5,3	5,6–5,4 14,2–13,8	1,4-1,6
PK-11 + PK-12`	1/1,1–1,0	1,1×1,6-0,94×1,4 2,7×4,0-2,4×3,6	5,3–5,3 13,5–13,5	1,7—1,9
PK-13	1,1–1,2	0,84×1,3-0,77×1,2 2,1×3,2-1,9×2,9	5,3–5,3 13,5–13,6	1,9–2,1
PK-11 + PK-13	1,4—1,6	0,65×0,98-0,61×0,91 1,7×2,5-1,5×2,3	5,4–5,5 13,8–14,0	2,3-2,4
PK-12 + PK-13	1,7—1,8	0,56×0,84-0,53×0,79 1,4×2,1-1,3×2,0	5,6–5,6 14,2–14,3	2,5–2,7

#### Nikkor 28mm f/2, 28mm f/2.8, 28mm f/3.5

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
-	1/∞-1/7	∞×∞-6,6×9,9 ∞×∞-16,8×25,2	∞-11,9 ∞-30,1	1-1,1
PK-11	1/3,6-1/2,4	3,4×5,1-2,2×3,4 8,6×12,9-5,7×8,5	8,2-7,0 20,7×17,7	1,2-1,4
PK-12	1/2,1-1/1,6	1,9×2,9-1,5×2,3 4,9×7,4-3,8×5,7	6,7 <b>–</b> 6,3 16,9 <b>–</b> 16,0	1,5—1,6
PK-11 + PK-12	1/1,3–1/1,1	1,2×1,9-1,0×1,6 3,1×4,7-2,6×4,0	6,1–6,1 15,6–15,4	1,7—1,9
PK-13	1,0-1,1	0,99×1,5-0,86×1,3 2,5×3,8-2,2×3,3	6,1–6,1 15,4–15,4	2,0-2,1
PK-11 + PK-13	1,2-1,4	0,76×1,2-0,68×1,0 1,9×2,9-1,7×2,6	6,1–6,2 15,5–15,7	2,3–2,5
PK-12 + PK-13	1,5—1,6	0,65×0,98-0,59×0,89 1,7×2,5-1,5×2,3	6,2–6,3 15,8–16,0	2,6-2,8
PK-11 + PK-12 + PK-13	1.7-1.9	0,55×0,82-0,51×0,76 1,4×2,1-1,3×1,9	6,4–6,5 16,3–16,5	3,0-3,2



# Nikkor 35mm f/1.4, 35mm f/2, 35mm f/2.8

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
-	1/∞-1/5,5	∞×∞-5,2×7,9 ∞×∞-13,3×19,9	∞-11,8 ∞-29,9	1-1,3
PK-11	1/4,5—1/2,5	4,3×6,4-2,4×3,5 10,8×16,2-6,0×8,9	10,4-7,8 26,3×19,7	1,3-1,7
PK-12	1/2,6—1/1,8	2,4×3,6-1,7×2,5 6,2×9,3-4,2×6,3	7,9–7,0 20,0–17,7	1,6-2,0
PK-11 + PK-12	1/1,6–1/1,3	1,6×2,3-1,2×1,8 3,9×5,9-3,0×4,5	6,9–6,6 17,4–16,7	2,1-2,4
PK-13	1/1,3–1/1,1	1,2×1,9-1,0×1,5 3,1×4,7-2,5×3,8	6,6–6,5 16,8–16,5	2,4-2,8
PK-11 + PK-13	1,0-1,2	0,96×1,4-0,81×1,2 2,4×3,7-2,1×3,1	6,5–6,5 16,5–16,6	2,9-3,3
PK-12 + PK-13	1,2-1,3	0,82×1,2-0,71×1,1 2,1×3,1-1,8×2,7	6,5–6,6 16,6–16,8	3,3-3,8
PK-11 + PK-12 + PK-13	1,4-1,6	0,69×1,0-0,61×0,91 1,7×2,6-1,5×2,3	6,7—6,8 16,9—17,2	3,9-4,4

#### Micro-Nikkor 55mm f/2.8

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
_	1/∞-1/1,9	∞×∞-1,8×2,7 ∞×∞-4,6×6,9	∞ -8,8 ∞ -25,0	1-1,1
PK-11	1/6,9–1,15	6,5×9,7-1,4×2,2 16,5×24,8-3,6×5,5	23,5-9,2 49,7-19,6	1,0-1,1
PK-12	1/3,9–1/1,3	3,1×4,7-1,2×1,9 9,4×14,1-3,7×5,6	13,4-9,0 34,1-22,9	1,0-1,2
PK-11 + PK-12	1/2,5—1/1,1	2,4×3,5–1,0×1,6 6,0×9,0–2,7×4,0	10,6-8,9 27,1-22,5	1,1-1,2
PK-13	1/2,0-1,0	1,9×2,8-0,94×1,4 4,8×7,2-2,4×3,6	9,8–8,8 24,9–22,5	1,1-1,2
PK-11 + PK-13	1/1,5–1,1	1,5×2,2-0,83×1,2 3,7×5,6-2,1×3,2	9,1-8,9 23,2-22,6	1,1-1,2
PK-12 + PK-13	1/1,3–1,2	1,3×1,9-0,76×1,1 3,2×4,8-1,9×2,9	8,9–9,0 22,5–22,7	1,2-1,3
PK-11 + PK-12 + PK-13	1/1,1–1,4	1,0×1,6-0,68×1.0 2,7×4,0-1,7×2,6	8,7–9,1 22,2–23,1	1,2-1,3

#### Nikkor 105mm f/2.5

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
_	1/∞-1/8,3	∞×∞-7,9×11,9 ∞×∞-20,0×30,0	∞-42 ∞-107	1-1,3
PK-11	1/13,1–1/5,1	12,4×18,6-4,8×7,2 31,5×47,3-12,2×18,3	61,6-28,9 157×73,5	1,2-1,5
PK-12	1/7,5–1/3,9	7,1×10,6-3,7×5,6 18,0×27,0-9,5×14,2	38,6-24,2 98,1-62,0	1,3-1,6
PK-11 + PK-12	1/4,8-1/3,0	4,5×6,8-2,9×4,3 11,5×17,2-7,3×10,9	27,7—21,0 70,2—53,2	1,5–1,8
PK-13	1/3,8-1/2,6	3,6×5,4-2,5×3,7 9,2×13,7-6,3×9,4	23,9-19,5 60,8-49,4	1,6-2,0
PK-11 + PK-13	1/3,0-1/2,2	2,8×4,2-2,1×3,1 7,1×10,6-5,2×7,9	20,1–18,0 5 <b>2</b> ,5–45,6	1,8-2,2
PK-12 + PK-13	1/2,5-1/1,9	2,4×3,6-1,8×2,8 6,1×9,1-4,7×7,0	19,1–17,2 48,6–43,7	2,0-2,4
PK-11 + PK-12 + PK-13	1/2.1–1/1.7	2,0×3,0-1,6×2,4 5,1×7,6-4,1×6,1	17,8–16,5 45,1–41,9	2,2-2,6

# Nikkor 50mm f/1.2, 50mm f/1.4, 50mm f/1.8

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
-	1/∞-1/6,7	∞×∞-6,3×9,5 ∞×∞-16,1×24,1	∞-17,7 ∞-44,9	1–1,3
PK-11	1/6,4-1/3,3	6,1×9,1-3,1×4,6 15,5×23,2-7,9×11,8	17,2-11,1 43,8×28,2	1,3-1,6
PK-12	1/3,7-1/2,4	3,5×5,2-2,3×3,4 8,8×13,3-5,7×8,6	11,8–9,5 30,0–24,0	1,5—1,9
PK-11 + PK-12	1/2,3-1/1,7	2,2×3,3–1,6×2,5 5,6×8,4–4,2×6,3	9,4–8,5 23,9–21,5	1,9-2,2
PK-13	1/1,9–1/1,5	1,8×2,7-1,4×2,1 4,5×6,8-3,5×5,3	8,7—8,1 22,0—20,7	2,1–2,5
PK-11 + PK-13	1/1,5–1/1,2	1,4×2,1-1,1×1,7 3,5×5,2-2,9×4,3	8,1-7,9 20,7-20,1	2,5-3,0
PK-12 + PK-13	1/1,2-1,0	1,2×1,8-0,99×1,5 3,0×4,5-2,5×3,8	7,9–7,9 20,2–19,9	2,9–3,3
PK-11 + PK-12 + PK-13	1,0-1,1	0,98×1,5-0,85×1,3 2,5×3,8-2,2×3,2	7,9—7,9 19,9—20,0	3,3-3,8

# Nikkor 85mm f/2

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
-	1/∞-1/8,1	∞×∞-7,6×11,4 ∞×∞-19,4×29,0	∞-33,5 ∞-85,0	1-1,3
PK-11	1/10,6–1/4,6	10,0×15,1-4,3×6,5 25,5×38,2-11,0×16,5	41,9–22,1 106–56,2	1,2-1,6
PK-12	1/6,1–1/3,5	5,7×8,6-3,3×4,9 14,6×21,9-8,3×12,5	26,9–18,6 68,4–47,3	1,4-1,8
PK-11 + PK-12	1/3,9–1/2,6	3,7×5,5–2,5×3,7 9,3×13,9–6,3×9,4	19,9–16,1 50,4–40,8	1,7-2,1
PK-13	1/3,1–1/2,2	2,9×4,4-2,1×3,2 7,4×11,1-5,4×8,0	17,5—15,0 44,4—38,2	1,9-2,3
PK-11 + PK-13	1/2,4-1/1,8	2,3×3,4-1,7×2,6 5,7×8,6-4,4×6,6	15,5—14,0 39,3—35,7	2,2-2,7
PK-12 + PK-13	1/2,0-1/1,6	1,9×2,9-1,5×2,3 4,9×7,4-3,9×5,9	14,5—13,6 36,9—34,5	2,5-2,9
PK-11 + PK-12 + PK-13	1/1,7–1/1,4	1,6×2,4-1,3×2,0 4,1×6,2-3,5×5,1	13,8–13,2 34,9–33,4	2,8-3,3

#### Micro-Nikkor 105mm f/2.8

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
-	1/∞-1/2,0	∞×∞-1,9×2,8 ∞×∞-4,8×7,2	∞-18,6 ∞-47,1	1–2,2
PK-11	1/13,1–1/1,7	12,4×18,6-1,6×2,5 31,5×47,2-4,2×6,2	62,8-17,8 159-45,2	1,2-2,5
PK-12	1/7,5—1/1,6	7,1×10,6–1,5×2,2 18,0×27,0–3,8×5,7	28,8-17,0 101-44,1	1,3-2,7
PK-11 + PK-12	1/4,8-1/1,4	4,5×6,8–1,3×2,0 11,5×17,2–3,4×5,1	20,3–16,5 73,2–43,1	1,5-2,9
PK-13	1/3,8–1/1,3	3,6×5,4-1,2×1,9 9,2×13,7-3,2×4,7	25,1–16,8 63,7–42,7	1,6-3,1
PK-11 + PK-13	1/3,0-1/1,2	2,8×4,2-1,1×1,7 7,1×10,6-2,9×4,3	21,8–16,6 55,5–42,2	1,8-3,4
PK-12 + PK-13	1/2,5-1/1,1	2,4×3,6-1,1×1,6 6,1×9,1-2,7×4,0	20,3–16,5 51,6–42,0	1,9-3,6
PK-11 + PK-12 + PK-13	1/2.1–1.0	2,0×3,0-0,97×1,5 5,1×7,6-2,5×3,7	18,9–16,5 48,1–41,9	2,2-3,9



# Nikkor 135mm f/2, 135mm f/2.8, 135mm f/3.5

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
-	1/∞-1/7,5	$\infty \times \infty -7,1 \times 10,6$ $\infty \times \infty -18,0 \times 27,0$	∞-51,3 ∞-130	1-1,5
PK-11	1/16,9–1/5,2	15,9×23,9-4,9×7,4 40,5×60,7-12,5×18,7	101–39,3 256–99,8	1,2-1,7
PK-12	1/9,6-1/4,2	9,1×13,7-4,0×6,0 23,1×34,7-10,1×15,2	62,5-34,4 159-87,3	1,4-1,9
PK-11 + PK-12	1/6,1–1/3,4	5,8×8,7-3,2×4,8 14,7×22,1-8,1×12,2	44,2-30,2 112-76,7	1,6-2,2
PK-13	1/4,9-1/3,0	4,6×7,0-2,8×4,2 11,8×17,7-7,1×10,7	37,9–28,2 96,2–71,7	1,8-2,4
PK-11 + PK-13	1/3,8-1/2,5	3,6×5,4-2,4×3,6 9,1×13,7-6,1×9,1	32,3–26,2 82,0–66,6	2,0-2,7
PK-12 + PK-13	1/3,3-1/2,3	3,1×4,6-2,1×3,2 7,8×11,7-5,4×8,2	29,6–25,1 75,2–63,7	2,2-2,9
PK-11 + PK-12 + PK-13	1/2,7-1/2,0	2,6×3,9-1,9×2,8 6,5×9,8-4,8×7,2	27,1-24,0 68,9-60,9	2,3-3,2

#### Nikkor 180mm f/2.8 ED

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
_	1/∞-1/8,2	∞×∞-7,8×11,7 ∞×∞-19,7×29,6	∞-72,1 ∞-183	1-1,4
PK-11	1/22,5—1/6,0	21,3×31,9-5,7×8,5 54,0×81,0-14,4×21,7	173-56,9 439×144	1,1-1,6
PK-12	1/12,9—1/5,0	12,2×18,2-4,7×7,1 30,9×46,3-12,0×18,1	105–50,0 266–127	1,3–1,7
PK-11 + PK-12	1/8,2-1/4,1	7,7×11,6-3,9×5,8 19,6×29,5-9,8×14,8	71,9–43,8 183–111	1,4-1,9
PK-13	1/6,5–1/3,6	6,2×9,3-3,4×5,2 15,7×23,6-8,7×13,1	60,5–40,8 154–104	1,6-2,1
PK-11 + PK-13	1/5,1–1/3,1	4,8×7,2-3,0×4,4 12,2×18,3-7,5×11,3	50,3–37,5 128–95,2	1,7-2,3
PK-12 + PK-13	1/4,3-1/2,8	4,1×6,2-2,7×4,0 10,4×15,6-6,8×10,2	45,4—35,6 115—90,5	1,9–2,5
PK-11 + PK-12 + PK-13	1/3,6-1/2,5	3,4×5,2-2,4×3,6 8,7×13,1-6,1×9,1	40,7–33,7 103–85,6	2,1-2,7

#### Nikkor 200mm f/4

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
_	1/∞-1/7,4	$\infty \times \infty -7,0 \times 10,5$ $\infty \times \infty -17,8 \times 26,7$	∞-78,6 ∞-200	1-1,7
PK-11	1/25,0—1/5,7	23,6×35,4-5,4×8,1 60,0×90,0-13,7×20,6	216-65,6 550×167	1,2-1,9
PK-12	1/14,3-1/4,9	13,5×20,2-4,6×6,9 34,3×51,4-11,7×7,6	132-59,2 336-150	1,3-2,1
PK-11 + PK-12	1/9,1–1/4,1	8,6×12,9-3,9×5,8 21,8×32,7-9,8×14,7	91,7–53,3 233–135	1,5-2,3
PK-13	1/7,3–1/3,7	6,9×10,3-3,5×5,2 17,5×26,2-8,8×13,2	77,6–50,3 197–128	1,7-2,5
PK-11 + PK-13	1/5,6–1/3,2	5,3×8,0-3,0×4,5 13,5×20,3-7,7×11,5	65,0-46,9 165-119	1,9-2,8
PK-12 + PK-13	1/4,8-1/2,9	4,6×6,8-2,8×4,1 11,6×17,3-7,0×10,5	58,8-44,9 149-114	2,1-3,0
PK-11 + PK-12 + PK-13	1/4.0-1/2.6	3,8×5,7-2,5×3,7 9,7×14,5-6,3×9,4	53,0-42,8 135-109	2,3-3,3

#### Micro-Nikkor 200mm f/4 IF

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor	
-	1/∞-1/2,0	∞×∞-1,9×2,8 ∞×∞-4,8×7,2	∞-28,0 ∞-71,1	1–7,6	
PK-11	1/25,01/1,8	23,6×35,4-1,7×2,6 60,0×90,0-4,3×6,5	212–27,2 538–69,0	1,1-8,6	
PK-12	1/14,3-1/1,7	13,5×20,2-1,6×2,4 34,3×51,4-4,0×6,1	128–26,7 325–67,8	1,3–9,5	
PK-11 + PK-12	1/9,1–1/1,5	8,6×12,9-1,5×2,2 21,8×32,7-3,7×5,6	87,2–26,2 222–66,5	1,4—10,6	
PK-13	1/7,3–1/1,5	6,9×10,3-1,4×2,1 17,5×26,2-3,5×5,3	73,1–25,9 186–65,8	1,5—11,5	
PK-11 + PK-13	1/5,6–1/1,4	5,3×8,0-1,3×1,9 13,5×20,3-3,3×4,9	60,5–25,6 154–65,1	1,7—12,8	
PK-12 + PK-13	1/4,8-1/1,3	4,6×6,8-1,2×1,8 11,6×17,3-3,1×4,6	54,5–25,4 138–65,6	1,8-13,8	
PK-11 + PK-12 + PK-13	1/4,0-1/1,2	3,8×5,7-1,1×1,7 9,7×14,5-2,9×4,3	48,5×25,3 123×64,2	2,0-15,2	

# Nikkor ED 300mm f/4.5, Nikkor 300mm f/4.5

Extension Tube	Reproduction Ratio	Subject Area	Film-Plane-to- Subject Distance	Exposure Factor
_	1/∞-1/10,3	$\infty \times \infty -9.8 \times 14.7$ $\infty \times \infty -24.8 \times 37.2$	∞-156 ∞-396	1-1,5
PK-11	1/37,5–1/8,1	35,4×53,2-7,7×11,5 90,0×135-19,5×29,2	476–130 1210–330	1,1-1,7
PK-12	1/21,4–1/7,0	20,3×30,4-6,6×9,9 51,4×77,1-16,7×25,1	286—117 727—297	1,2-1,8
PK-11 + PK-12	1/13,6–1/5,9	12,9×19,3-5,6×8,3 32,7×49,1-14,1×21,2	195—104 494—265	1,4-2,0
PK-13	1/10,9–1/5,3	10,3×15,5-5,0×7,5 26,2×39,3-12,7×19,1	163–97,7 413–248	1,5–2,1
PK-11 + PK-13	1/8,5—1/4,7	8,0×12,0-4,4×6,6 20,3×30,4-11,2×16,7	134–90,2 340–229	1,7-2,3
PK-12 + PK-13	1/7,2-1/4,3	6,8×10,3-4,0×6,0 17,3×26,0-10,2×15,3	120-85,8 304-218	1,8–2,5
PK-11 + PK-12 + PK-13	1/6,1–1/3,8	5,7×8,6–3,6×5,4 14,5×21,8–9,2×13,8	106–80,9 270–206	2,0-2,7



#### Nikkor NOCT. 58mm f/1.2

#### Photographic Ranges with Close-up Attachments

	L	ens in normal positio	n	Lens in reverse position		
Close-up attachment	Repro. ratio	Subject field	Focused distance	Repro. ratio	Subject field	Focused distance
E2 Ring	1/4.1-1/2.6	3.9 × 5.9- 2.4 × 3.6	14.0-10.7			
K Ring Set	1/10-1/1.1	9.4 x 14.2- 0.99 x 1.5	27.1-8.6			
PK-Series Rings	1/7.2-1.0	6.9 x 10.3- 0.94 x 1.4	20.9-8.6			
Bellows PB-4, PB-5	1/1.3-3.2	1.3 × 1.9- 0.30 × 0.44	8.8-12.0	1.6-4.0	0.61 × 0.91- 0.24 × 0.35	9.0-13.7
Slide-Copying Adapter PS-4, PS-5	1/1.3-2.0	1.3 × 1.9- 0.48 × 0.72	8.8-9.7	1.6-4.0	0.61 × 0.91- 0.24 × 0.35	9.0-13.7
Close-Up Lens No. 0	1/24.3-1/5.3	23.0 × 34.5- 5.0 × 7.5	59.7-16.4			
Close-Up Lens No. 1	1/11.6-1/4.3	11.0 × 16.4- 4.0 × 6.1	30.8-14.3			
Close-Up Lens No. 2	1/5,8-1/3,1	5.5 × 8.3- 3.0 × 4.5	17.6-11.7			
Repro-Copy Outfit PF-2, PF-3	1/13-1/6.7	12.2 x 18.2- 6.4 x 9.5	33.6-19.7			

#### Nikkor 85mm f/1.4

#### Photographic Ranges with Close-Up Attachments

(in.)

	2		Lens in normal position						
	Close-up attachment	Reproduction ratio	Subject field	Focused distance					
	E2 Ring	1/6.1-1/3.5	5.7 × 8.6-3.3 × 4.9	27.0-19.0					
*	K Ring Set	1/15—1/1.5	13.8 × 20.8-1.4 × 2.1	55.4-13.6					
**	PK-Series Rings	1/11-1/1.4	10.0 × 15.1-1.4 × 2.0	42.0-13.4					
	PN-Series Rings	1/1.6-1/1.4	1.5 x 2.3-1.3 x 1.9	13.6-13.3					
	Bellows PB-4 or PB-5	1/2.0-2.2	1.9 × 2.8-0.43 × 0.65	14.4-15.0					
	Bellows PB-6	1/1.8 × 2.4	1.7 × 2.5-0.39 × 0.58	14.0-15.7					
	Extension Bellows PB-6E	1/1.8-5.2	1.7 × 2.5-0.18 × 0.28	14.0-24.0					
**	Repro-Copy Outfit PF-2, PF-3 or PF-4	1/7.9—1/7.9	7.5 × 11.2–7.4 × 11.2	33.6–33.5					

The first values are for the K1 ring used alone and the second ones for all five rings used together.
 The first values are for the PK-11A or PK-1 ring used alone and the second ones for three rings (PK-11A ~ PK-13 or PK-1 ~ PK-3) used together.
 The figures shown here represent the ranges obtained with the subject on the baseplate, using the lens without any close-up attachment.

#### Nikkor 105mm f/1.8

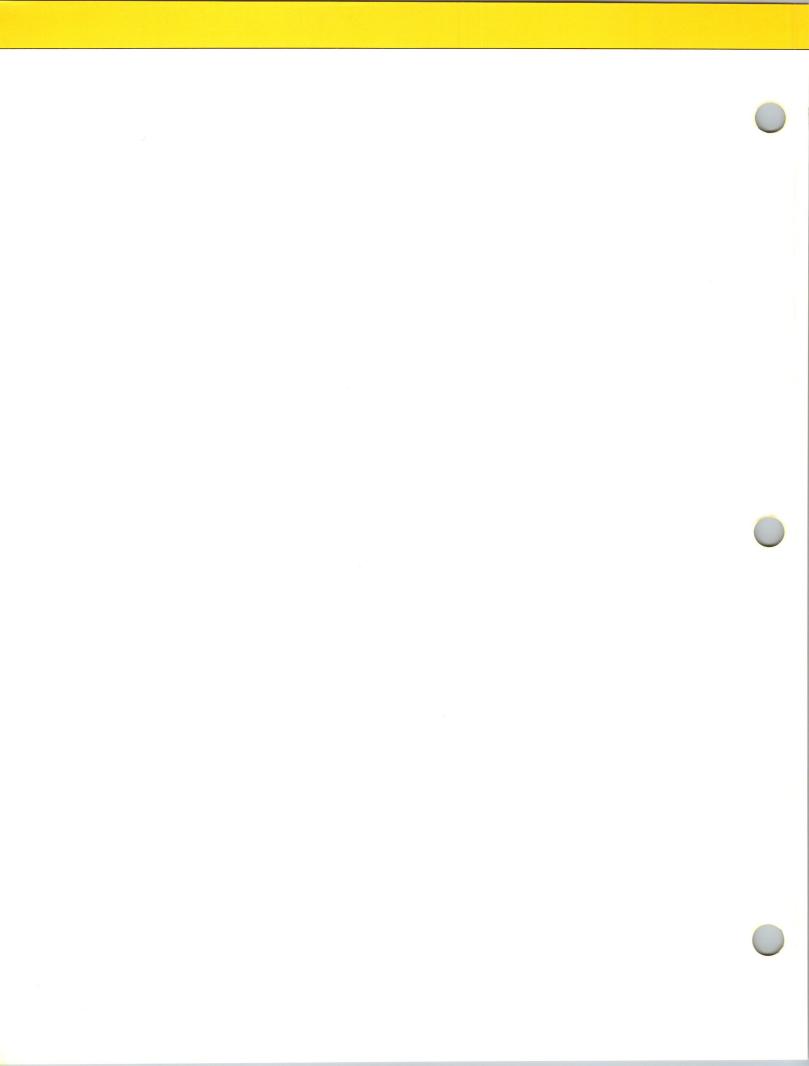
#### Photographic Range with Close-Up Attachments

(in.)

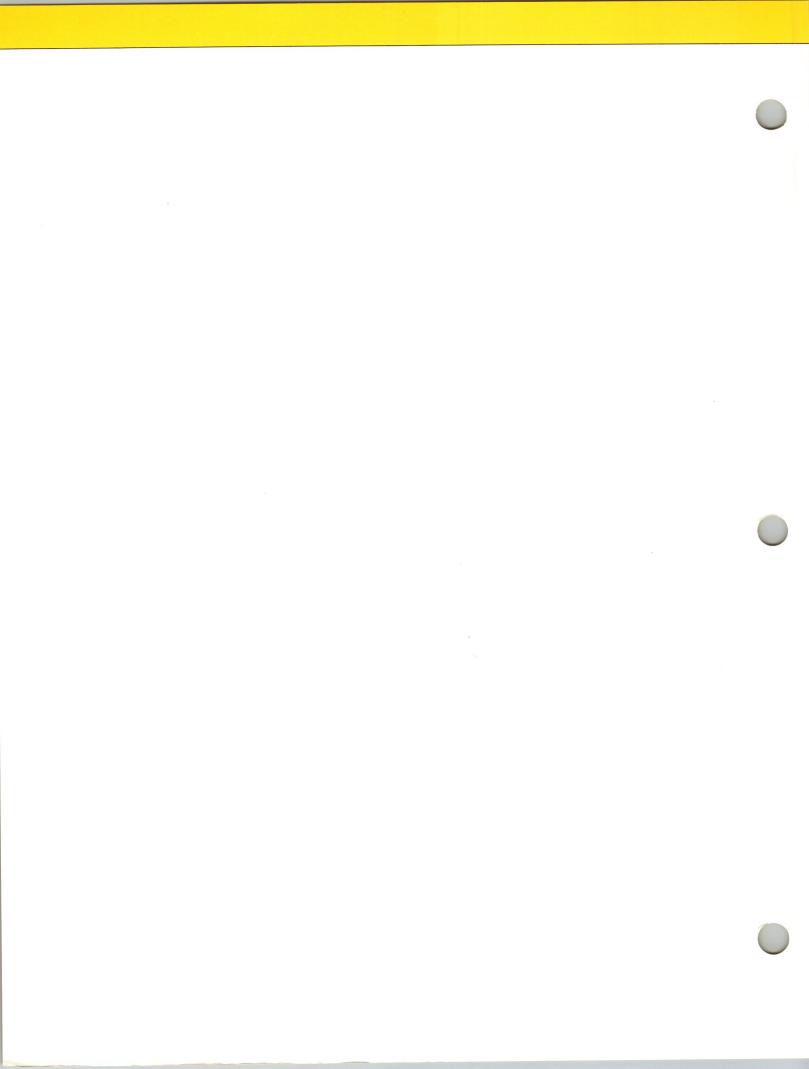
Close-up attachment	Lens in normal position						
Close-up attachment	Reproduction ratio	Subject field	Focused distance				
E2 Ring	1/7.5-1/3.8	7.1 × 10.6–3.6 × 5.4	39.0-24.1				
K Ring Set	1/18-1/1.7	17.1 × 25.7-1.6 × 2.5	82.5-17.0				
PK-Series Rings	1/13-1/1.7	12.4 × 18.6-1.6 × 2.4	62.0-16.7				
PN-Series Rings	1/2-1/1.6	1.9 x 2.8-1.5 x 2.2	17.7-16.6				
Bellows PB-4 or PB-5	1/2.4-1.8	2.3 × 3.5-0.54 × 0.80	19.2-17.0				
Bellows PB-6	1/2.2-2.0	2.1 x 3.1-0.48 x 0.72	18.3-17.7				
Extension Bellows PB-6E	1/2.2-4.2	2.1 × 3.1-0.23 × 0.34	18.3-25.6				

\*The first values are for the K1 ring used alone and the second ones for all five rings used together.

\*\*The first values are for the PK-11A or PK-1 ring used alone and the second ones for three rings (PK-11A ~ PK-13 or PK-1 ~ PK-3) used together.



# General Camera Accessories



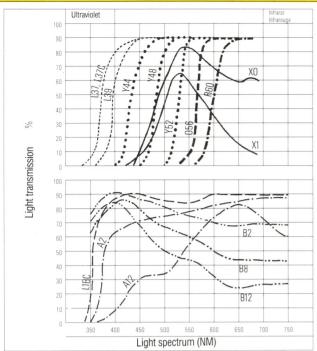
# **Filter Selector Chart**



Film	Filter Type Description		Filter Factor											
				Daylight Artificial light Threaded mounting (By Filter		lter Diameter)					Bayonet mounting			
						39mm	46mm	52mm	62mm	72mm	95mm	122mm	160mm	
All	Skylight		L1BC		1	2238		2402	2371	2413				2366
	Ultraviolet		L37		1		2403							
	L370		L37C		1	2237		2399	2372	2415	2494	2440	2441	
B/W	Yellow	Light	Y44	1,5	1			2295						
		Medium	Y48	1,7	1,2	2248		2229	2373	2270	2284	2280		2367
		Dark	Y52	2	1,4	2251		2296						
	Orange		056	3,5	2	2253		2231	2374	2274	2274	2281		2363
	Red		R60	6	5	2259		2249	2375	2273	2286	2282		2368
	Green	Light	XO	2	1,7			2297						
		Dark	X1	5	3,5			2230						
All	Polarizing		Polar	2-4	2-4			2250	2376	2300				
	Neutral		ND4		4	2258		2243		2410				
			ND8		8	2319		2244						
			ND400		400			2409						
Color	Amber	Light	A2		1,2	2239		2266	2430	2416				2364
		Dark	A12		2	2256		2264	2431					
	Blue	Light	B2		1,2	2240		2235	2432	2417				2365
		Medium	B8		1,6	2241		2267						
		Dark	B12		2,2	2242		2268	2433					
All	Soft Focus N	lo. 1						2407	2434	2418				
	Soft Focus N	lo. 2						2408	2435	2419				

Filter Size	
39mm	500/8, 1000/11, 300/2.8 IF-ED, 400/3.5 IF-ED, 600/4 IF-ED, 600/5.6 IF-ED, 800/8 IF-ED, 1200/11 IF-ED
46mm	L35AF (ONE-TOUCH)
52mm	20/3.5, 24/2, 24/2.8, 28/2, 28/2.8, 28/3.5, 35/1.4, 35/2, 35/2.8, 50/1.2, 50/1.4, 50/1.8, 85/2, 105/2.5, 135/3.5, 200/4, 400/2.8 IF-ED, 35-70/3.3-4.5, 35-105/3.5-4.5, Micro Nikkor 55/2.8, 105/2.8, 105/4, 200/4, Noct 55/1.2, 35/2.8 PC, Series E: 28/2.8 E, 35/2.5 E, 50/1.8 E, 100/2.8 E, 135/2.8 E, 36-72/3.5 E, 75-150/3.5 E, Autofocus: AF 80/2.8, AF 24/2.8, AF 28/2.8, AF 35/2, AF 50/1.4, AF 50/1.8, AF Zoom 35-105/3.5-4.5
62mm	20/2.8, 105/1.8, 35-70/3.5, 35-135/3.5-4.5, 50-135/3.5, 80-200/4, 100-300/5.6, Series E: 70-210/4, Autofocus: AF 200/3.5 IF-ED, AF 20/2.8, AF 85/1.8, AF Micro 55/2.8, AF Micro 60/2.8, AF Zoom 24-50/3.3-4.5, AF Zoom 28-85/3.5-4.5, AF Zoom 35-70/2.8, AF Zoom 35-135/3.5-4.5, AF Zoom 70-210/4, AF Zoom 70-210/4-5.6, AF Zoom 75-300/4.5-5.6
72mm	28/3.5 PC, 18/3.5, 135/2, 180/2.8 ED, 300/4.5, 300/4.5 IF-ED, 400/5.6 IF-ED, Zoom 25-50/4
77mm	AF Zoom 80-200/2.8
82mm	AF 300/4 ED
95mm	Zoom 50–300/4.5 ED, 800–200/2.8 ED, 180–600/8 ED
122mm	200/2 IF-ED, 400/3.5 IF-ED, 600/5.6 IF-ED, 800/8 IF-ED, 1200/11 IF-ED, Zoom: 200-400/4 ED
160mm	600/4 IF-ED
Bayonet	13/5.6, 15/3.5, 16/2.8





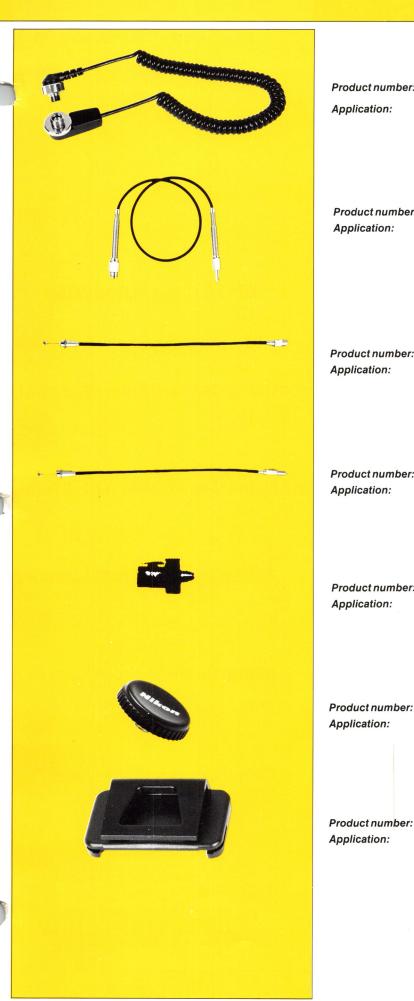
Filters for Black-and-White Film
The spectral sensitivity of black-and-white films differs from that of the human eye. For example, these films are much more sensitive to blue and to the invisible ultraviolet range. It is for this reason that blue sky appears light in a black-and-white print. On the other hand, yellow shades are reproduced darker than we normally perceive them. This helps to explain why many black-and-white photographs shot without filtration are leaking in contract. without filtration are lacking in contrast.

#### Filters for Color Film

Nikon filters for color film allow the photographer to balance and/or correct the available lighting to meet the needs of the film in use; color imbalance occurs whenever the color temperature of the light does not correspond to the film sensitization. Daylight film, for example, is calibrated for correct color reproduction with illumination having a color temperature of 5500%; this corresponds to sunlight illumination in clear weather at about midday. If the ambient illumination differs from this, deviations in color reproduction will occur. Such deviations can be substantially compensated by using Nikon filters.







#### MC-3A Coiled Cord for Pistol Grip

Product number:

Application:



4582

Provides for triggering of motor drive equipped camera from Pistol Grip Model II; Usable with MD -1/2/3/4/12/15 and N2000/N2020 cameras

#### **AR-6 Cable Release for Pistol Grip**

Product number: Application:



667

Provides for triggering of camera from Pistol Grip Model II; fitted with ISO-type tappered thread for connection to F3/FA/FE2/FM2/FG/FG-20/EM cameras



#### **AR-2 Cable Release**

Product number: Application:



660

Provides for vibration-free triggering of shutter release button; fitted with Nikon-type thread connection for operation with F/F2/FE/FM



#### AR-3 Cable Release

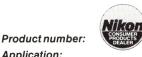
Product number:

Application:

Application:



Provides for vibration-free triggering of shutter release button; fitted with ISO-type tappered thread for connection to F3/FA/FE2/FM2/FG/FG-20/EM cameras



#### **AR-8 Cable Release Adapter**

Adapts cable release connectors fitted with the Nikon-type mount for operation with cameras having ISO-type tappered thread; for use with AR-2/4 release



#### **AR-9 Soft Shutter Release**

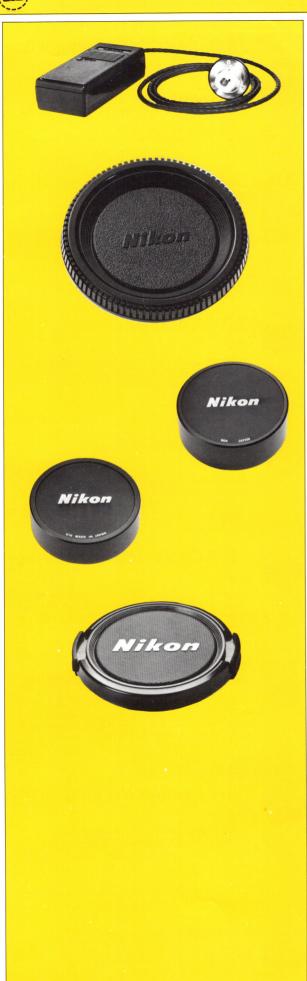
Soft shutter release for mounting on shutter buttons fitted with ISO-type tappered thread; for operation with F3/FA/FE2/FM2/FG/FG-20/EM cameras



#### **DK-5 Eyepiece Shield**

Provides eyepiece shielding for unmanned photography with N4004/N2020/N2000





# **DB-2 Anti-Cold Battery Pack**

Product number: Application:

3062

Provides cold-weather protection for camera batteries; for use with F3/FA/FE2/FM4/FG/FG-20/FM cameras

**BF-1A Camera Body Cap** 

Product number:

612

Front Lens Cap for 15mm f/3.5 (repl.)

Product number:

584

Front Lens Cap for 16mm f/2.8 (repl.)

Product number:

597

52mm Snap-on Front Lens Cap

Product number:

581

62mm Snap-on Front Lens Cap

Product number:

600

72mm Snap-on Front Lens Cap

Product number:

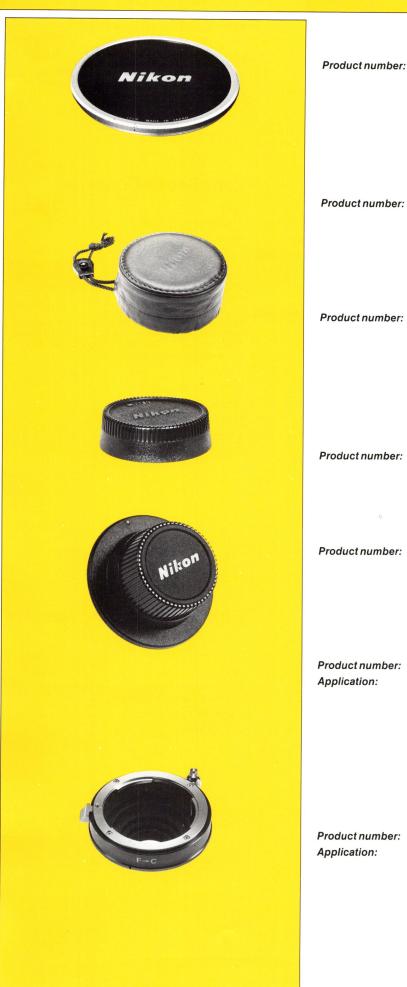
601

MB-3 AA Battery Holder
(Not Pictured)
4570

Product number: Application:

Enables use of AA-type batteries with N2020/ N2000 camera for extended service life with one set of batteries; operates as substitute for AAA Battery Holder MB-4 supplied with these cameras





95mm Screw-on Front Lens Cap

626

88mm Front Lens Cap for 500mm f/8 (repl.)

**Lens Cap** 

**Front Lens Cover for** 300mm f/2.8 (repl.)

570

LF-1 Rear Lens Cap

607

**BF-2 Front Mount Cap** (repl.)

Protects the front optical elements of TC-2/300/301

teleconverters

F-to-C Lens Mounting **Adapter** 

Adapts Nikon F-bayonet mount lenses for use on video or cine cameras fitted with C-type threaded

mount

122mm Screw-on Front



Product number:

Product number: Application:







#### AP-2 Panorama head

Product number: Application:

2028

Provides for panoramic shooting with 28mm to 105mm lenses; fitted with built-in bubble level for

precise tripod setup

**Lens Scope Converter** 

Product number:

Optical construction:

5 elements in 3 groups

Eyepiece focal length:

10mm

Total magnification when used as telescope:

1/10x the focal length of the prime lens; for example, a 200mm telephoto lens provides magnification of 20x, while a 70-210mm zoom lens provides a

magnification is 7x-21x

Total magnification when used as a magnifier:

25x the magnification of the prime lens or macro attachment (e.g., bellows) used; for a  $55\,\text{mm}$  Micro-Nikkor lens with 1/2x magnification, the resulting loupe magnification is 12.5x

2.5mm

Exit pupil: Eyepoint:

11mm from the eyepiece

Eyepiece adjustment:

-5 to ± 3 diopter

Folding rubber eyecup provided Eyecup:

Dimensions:

65.4mm dia. x 56mm

Weight:

200g (7 oz.)

# **ES-1 Slide Copying Adapter**

Product number:

Application:

Enables side copying with 55mm Micro-Nikkor lens

and PK-13 Extension Tube

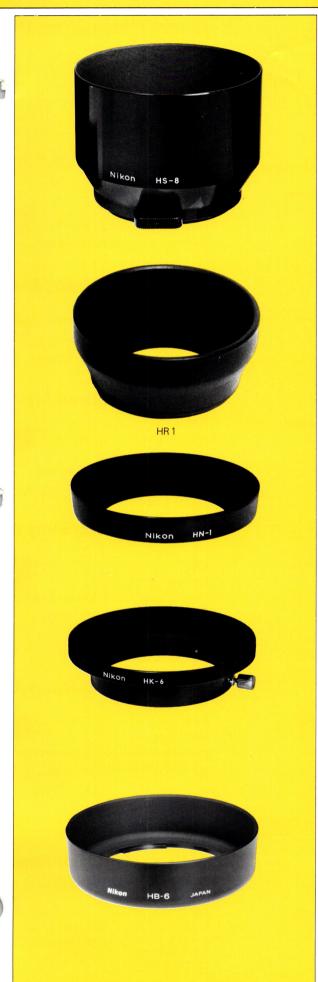
Dimensions:

72mm dia. x 80mm

Weight:

150g (5.4 oz.)





# **Lens Hoods**

Lens	Lens Hood/Product Number
13mm f/5.6 15mm f/3.5	Built-in Built-in
18mm f/3.5 20mm f/2.8	<b>HK-9</b> (P/N 563) <b>HK-14</b> (P/N 559)
24mm f/2	HK-2 (P/N 551)
24mm f/2.8 + AF	HN-1 (P/N 508)
28mm f/2	HN-1 (P/N 508)
28mm f/2.8 + AF	HN-2 (P/N 509)
35mm f/1.4	HN-3 (P/N 510)
35mm f/2 + AF	HN-3 (P/N 510)
50mm f/1.2	HR-2 (P/N 538)
50mm f/1.4	HS-12 (P/N 547)
30111111 1/1.4	HR-1 (P/N 537) HS-9 (P/N 543)
50mm f/1.4 AF	HR-2 (P/N 538)
50mm f/1.8	HR-4 (P/N 548)
50mm f/1.8 AF	HR-2 (P/N 538)
80mm f/2.8 AF	<b>HS-7</b> (P/N 541)
85mm f/1.4	HN-20 (P/N 562)
85mm f/1.8 AF	HN-23 (P/N 565)
85mm f/2	<b>HS-10</b> (P/N 545)
105mm f/1.8 105mm f/2.5	Built-in
135mm f/2	Built-in Built-in
135mm f/2.8	Built-in
180mm f/2.8N-AF	Built-in
200mm f/2N	Built-in + <b>HE-4</b> Extension
	(P/N 6A)
200mm f/3.5 AF-ED-IF	Built-in
200mm f/4	Built-in Built-in + <b>HE-1</b> Extension
300mm f/2 ED-IF	(P/N 605)
300mm f/2.8 AF-ED-IF	Built-in <b>HE-6</b> + Extension
000111111 1/2.0 / (1 20 11	(P/N 614)
300mm f/4.5	Built-in
400mm f/2.8 ED-IF	Built-in + <b>HE-3</b> Extension
400mm f/3.5 ED-IF	Built-in
400mm f/5.6 ED-IF	Built-in
600mm f/4 ED-IF 600mm f/5.6 ED-IF	Built-in + <b>HE-5</b> Extension Built-in + <b>HE-4</b> Extension
00011111 1/3.0 ED-1F	(P/N 614)
800mm f/5.6 ED-IF	Built-in + <b>HE-3</b> Extension
500mm f/8N	HN-27 (P/N 558)
1000mm f/11	Built-in
2000mm f/11	Built-in
28-85mm f/3.4-4.5	HK-16 (P/N 4601)
28-85mm f/3.5-4.5 AF 35-70mm f/3.5	HB-1 (P/N 4602) HN-22 (P/N 566)
35-70mm f/3.3-4.5 + AF	HN-2 (P/N 509)
35–105mm f/3.5–4.5	HK-11 (P/N 553)
35–105mm f/3.5–4.5 AF	HB-2 (P/N 4603)
35-135mm f/3.5-4.5	HN-22 (P/N 566)
35-135mm f/3.5-4.5 AF	<b>HB-1</b> (P/N 4602)
35-200mm f/3.5-4.5	<b>HK-15</b> (P/N 4600)
70-210mm f/4-5.6 AF	HN-24 (P/N 567)
100–300mm f/5.6 80–200mm f/4	HN-24 (P/N 567) HN-23 (P/N 565)
50–200mm f/4.5 ED	HK-5 (P/N 554)
200–400mm f/4 ED	Built-in + <b>HE-2</b> Extension
	(P/N 606)
6mm f/2.8	Built-in
8mm f/2.8	Built-in
16mm f/2.8	Built-in
28mm f/3.5 PC	HN-9 (P/N 523)
35mm f/2.8 PC	HN-1 (P/N 508)
58mm f/1.2 Noct	HR-2 (P/N 538) HS-7 (P/N 541)
55mm f/2.8 Micro	HN-3 (P/N 510)
105mm f/2.8 Micro	HS-14 (P/N 555)
200mm f/4.0 Micro	Built-in
52mm Polar Filter	HN-12 (P/N 518)
62mm Polar Filter	HN-26 (P/N 568)
72mm Polar Filter	HN-13 (P/N 539)
Gelatine Filter Holder AF-1	HN-12 (P/N 518)
1	l

Lens	Metal Snap-on Mount/Product Number
58/1.2 Noct	HS-7 (P/N 541)
50/1.4	HS-9 (P/N 543)
85/2.0	HS-10 (P/N 545)
50/1.2	HS-12 (P/N 547)
105/2.8 Micro	HS-14 (P/N 555)

Lens	Rubber Screw Mount/Product Number
50/1.4 50/1.2, 58/1.2 Noct 50/1.4 AF. 50/1.8 AF	HR-1 (P/N 537) HR-2 (P/N 538)
50/1.8 E, 50/1.8N	<b>HR-4</b> (P/N 548)

Lens	Metal Screw Mount/Product Number
24/2.8, 28/2	<b>HN-1</b> (P/N 508)
35/2.8 PC, 24/2.8 AF 28/2.8, 28/2.8 AF	HN-2 (P/N 509)
35-70/3.3-4.5 + AF 35/1.4, 35/2 + AF, 35/2.8	HN-3 (P/N 510)
55/2.8 Micro 28/3.5 PC	<b>HN-9</b> (P/N 523)
52mm Polar Filter 72mm Polar Filter	HN-12 (P/N 518) HN-13 (P/N 539)
85/1.4	HN-20 (P/N 562)
35-70/3.5, 35-135/3.5-4.5	HN-22 (P/N 566)
800-200 f/2.8 AF 80-200/4	HN-28 (P/N 572) HN-23 (P/N 565)
70-210/4-5.6	HN-24 (P/N 567)
100-300/5.6 62mm Polar Filter	HN-26 (P/N 568)
500/8N	HN-27 (P/N 558)

Lens	Metal Slip-on Mount (Product Number)
24/2 50-300/4.5 ED 18/3.5 50-135/3.5 35-105/3.5-4.5 28-50/3.5 20/2.8 35-200/3.5-4.5 28-85/3.5-4.5	HK-2 (P/N 551) HK-5 (P/N 554) HK-9 (P/N 563) HK-10 (P/N 544) HK-11 (P/N 553) HK-12 (P/N 556) HK-14 (P/N 559) HK-15 (P/N 4600) HK-16 (P/N 4601)
Lens	Metal Bayonet

Lens	Metal Bayonet Mount/Product Number
28-85/3.5-4.5 AF 35-70/2.8 AF 35-135/3.5-4.5 AF	<b>HB-1</b> (P/N 4602)
24-50/3.3-4.5 AF	HB-3 (P/N 4604)
35-105/3.5-4.5 AF	HB-5 (P/N 4611) NEW
28-70/3.5-4.5 AF	<b>HB-6</b> (P/N 4612)

Lens	Extension/Product Number
300/2 ED-IF 200-400/4 ED 200/2N ED-IF 600/5.6N ED-IF	HE-1 (P/N 605) HE-2 (P/N 606) HE-4 (P/N 614)





# **Leather Neck Strap AN-1**

635

10mm/25mm

Black

Leather with removeable rubber neck pad

# N2000 Nylon Neck Strap

(not pictured)

683

12mm/30mm

Black with embroidered "N2000"

Woven nylon fabric with non-slip pad

# Nylon Neck Strap AN-4B

Product number:

Product number:

Product number:

Width:

Color:

Width: Color:

Material:

Material:

Width:

Color:

Material:

Product number:

Width: Color:

Material:

639

12mm/25mm

Black

Woven nylon fabric with non-slip pad

# **Nylon Neck Strap AN-4Y**

638

12mm/25mm

Yellow with black stripes

Woven nylon fabric with non-slip pad

# Nylon Wide Neck Strap AN-6Y

Product number:

Width:

Color:

Material:

4507

Yellow with black stripes and embroidered "Nikon"

Woven nylon fabric with non-slip pad

# Nylon Wide Neck Strap AN-6W

Product number:

Width: Color:

Material:

4508

12mm/50mm

Wine with yellow stripes and embroidered "Nikon"

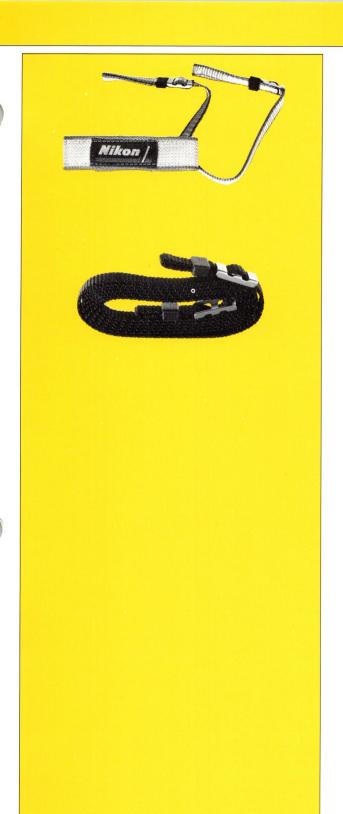
Woven nylon fabric with non-slip pad



Product number Application:

Secures the N8008 comfortably in your hand for a firm grip. Particularly useful when using zoom and telephoto lenses





# Nylon Wide Neck Strap AN-8 for Action-Touch (replacement)

Product number:

Width:

Color:
Material:

648

10mm/25mm Grey with embroidered "Nikon"

Woven nylon fabric with non-slip pad

# Neck Strap for One-Touch, Action-Touch, Tele-Touch

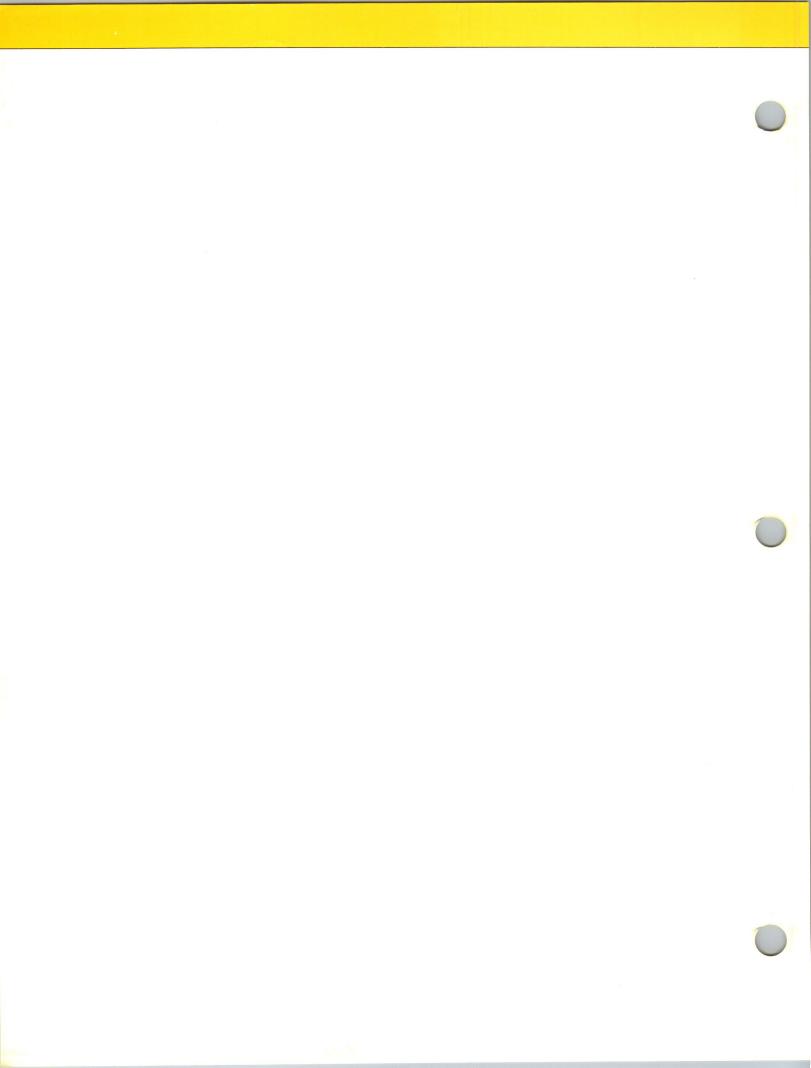
Product number:

Width: Color: Material: 647 7mm

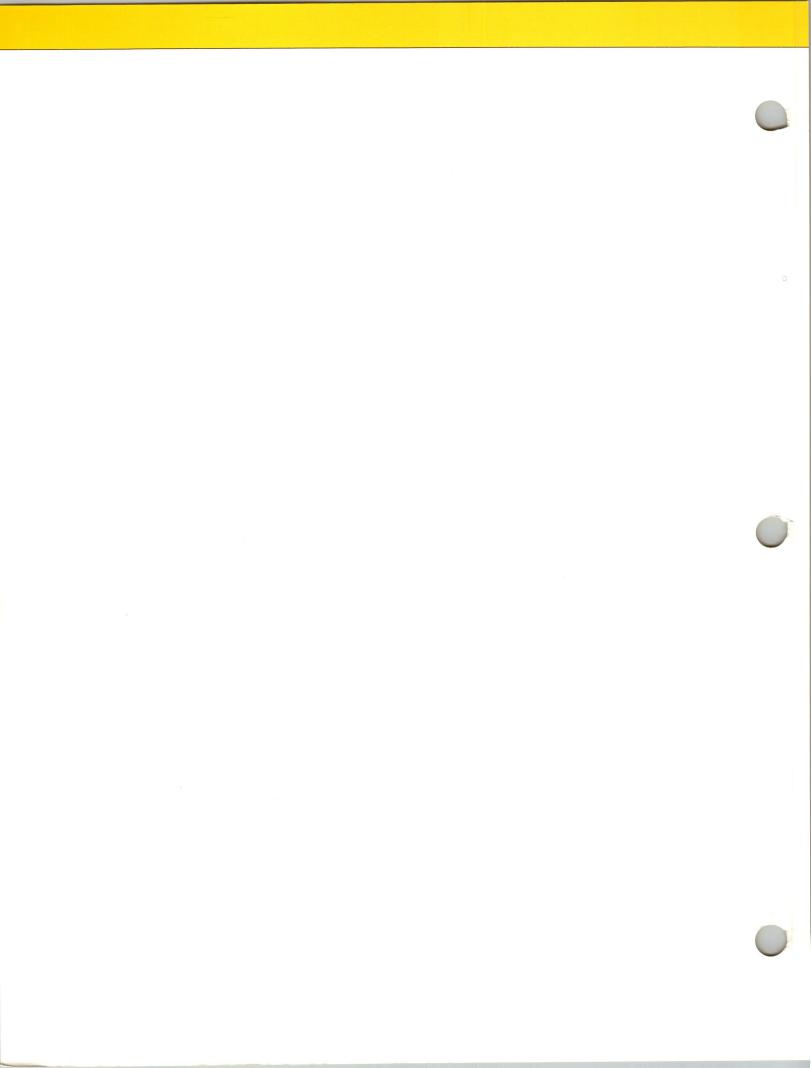
Black

Woven nylon fabric





# **Eveready Camera Cases**







# **CF-21 Eveready Camera Case**

Product number: Storage for:

Finish:

Finish:



Camera with most lenses from wide angle to short telephoto, plus 35-70/3.3-4.5 zoom lens

Wine leather with brown nylon fabric neck strap

# **CF-21A Front Flap for Eveready Case**

Product number: Storage for:



Camera with lens as big as 25-50/4 or 35-135/3.5-4.5 zoom lens; for use with CF-20/21/22/23D/24 case

Wine leather

# **CF-22 Eveready Camera Case**

Product number: Storage for:



Camera with most lenses from wideangle to 85/2 telephoto

Wine leather with brown nylon fabric neck strap

#### CF-23D Case Base for Data Back

Product number: Storage for:



Finish:



4538

Camera with Data Back MF-14; for use with CF-20/21/21A/22/24 case front flaps

Wine leather

# **CF-24 Eveready Camera Case**

Product number: Storage for:



Nikon F3AF with 80mm autofocus lens Wine leather with brown nylon fabric neck strap

# **CF-30 Eveready Camera Case**

Product name: Storage for:

Finish:



Camera with normal lens

Black leatherette with black Nylon Fabric Neck Strap

# CF-30D Case Base for Data Back

Product number: Storage for:

Finish:



4439

Camera with Data Back MF-16; for use with CF-30/31 case front flaps

Black leatherette

# **CF-31 Eveready Camera Case**

Product number: Storage for:

Finish:

Finish:



Camera with most lenses from wideangle to short telephoto, plus 35-70/3.3-4.5 zoom lens

Black leatherette with black Nylon Fabric Neck Strap

# **CF-28A Front Flap for Eveready Case**

Product number: Storage for:



Camera with lens as big as 25-50/4 or 35-135/3.5/-4.5 zoom lens; for use with CF-30/30D/31 case base sections

Black leatherette





# **CF-27 Eveready Camera Case**

Product number: Storage for:

Finish:

Camera with normal lens

Black leatherette with black Nylon Fabric Neck

#### CF-27D Case Base for Data Back

Product number:

Storage for:

Finish:



Camera with Data Back MF-16; for use with CF-27/28/28A case front flaps

Black leatherette

# **CF-28 Eveready Camera Case**

Product number:

Storage for:

Finish:



4428

Camera with most lenses from wideangle to short telephoto, plus 35-70/3.3-4.5 zoom lens

Black leatherette with black Nylon Fabric Neck Strap AN-7

# **CF-28A Front Flap for Eveready Case**

Product number:

Storage for:

Finish:

Camera with lens as big as 25-50/4 or 35-135/3.5-4.5 zoom lens; for use with CF-27/27D/28 case base sections

Black leatherette

# **CF-29 Eveready Camera Case**

Product number:

Storage for:

Finish:



4429

Camera with Motor Drive MD-12 and most lenses from wide angle to short telephoto, plus 28-85/3.5-

Black leatherette with black Nylon Fabric Neck Strap AN-7

# **CF-35 Eveready Camera Case**

Product number:

Storage for:

Finish:



Camera with most lenses from wideangle to short telephoto, plus 35-70/3.3-4.5 zoom lens

Black leatherette with black Nylon Fabric Neck

# CF-35D Case Base for Data Back

Product name:

Finish:

Storage for:

Camera with Multi Data Back MF-19; for use with CF-35/36/36A case front flaps

Black leatherette

# **CF-36 Eveready Camera Case**

Product number:

Storage for:

Finish:



Camera with most lenses from wideangle to medium telephoto, plus 35-105/3.5-4.5 zoom lens

Black leatherette with black Nylon Fabric Neck

# **CF-36A Front Flap for Eveready Case**

Product number: Storage for:

Finish:



Camera with lens as big as 35-135/3.5-4.5 zoom lens; for use with CF-35/36 case base sections

Black leatherette





# **CF-32 Eveready Camera Case**

Product number: Storage for:

Finish:

4432

FG-20 with normal lens

Black leatherette with black Nylon Fabric Neck

Strap AN-7

**CF-33 Eveready Camera Case** 

Product number:

4433

Storage for:

Finish:

FG-20 with most lenses from wide angle to short

telephoto, plus 35-70/3-4.5 zoom lens

Black leatherette with black Nylon Fabric Neck

Strap AN-7

#### Camera Pouch Case for Tele-Touch Deluxe/ One-Touch/Fun-Touch

Product number:

690

Finish:

Black leatherette

# Camera Pouch Case with Strap for Action-Touch

Product number:

691

Finish:

Black leatherette

#### CS-L35TW Semi-Soft Case for Tele-Touch

Product number:

4572

Finish:

Black leatherette



# **CF-39 Eveready Camera Case**

Product number:

4590

Storage for:

Finish:

N8008(s) with normal lens

Black leatherette



# **CF-40 Eveready Camera Case**

Product number:

Storage for:

N8008(s) with most lenses from wideangle to short

telephoto

Finish:

Black leatherette

# **CF-43 Eveready Camera Case**

Product number:

4595

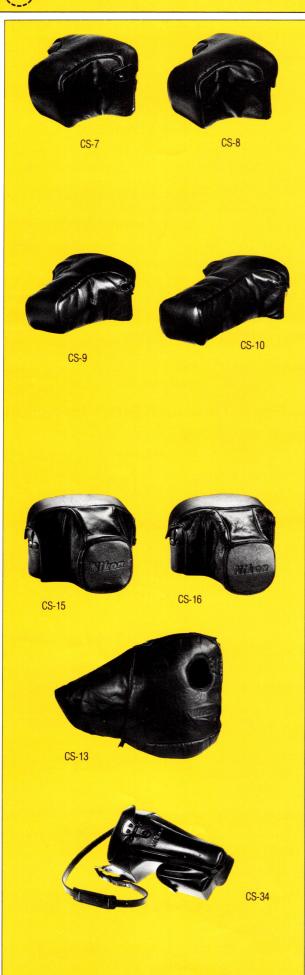
Storage for:

F4S with Data Back MF-22, MF-23

Finish: Black leatherette







#### CS-7 Camera/Lens Pouch Case

Product number: Storage for: Finish:



Camera (except F3-Series) with normal lens Black leatherette, one-piece construction; case must be removed completely before shooting

#### CS-8 Camera/Lens Pouch Case

Product name: Storage for: Finish:



Camera (except F3AF) with normal lens Black leatherette, one-piece construction, case must be removed completely before snuoting

#### CS-9 Camera/Lens Pouch Case

Product number: Storage for:





Camera (except F3AF) with lens as big as 35-135/ 3.5-4.5 zoom lens

Black leatherette, one-piece construction; case must be removed completely before shooting

#### **CF-10 Camera/Lens Pouch Case**

Product number: Storage for:



Finish:



Camera (except F3AF) with lens as big as 80-200/4 zoom lens

Black leatherette, one-piece construction; case must be removed completely before shooting

#### CS-15 Camera/Lens Pouch Case

Product number: Storage for: Finish:



F3-series cameras (except F3AF) with normal

Black leather, two-piece (flap and base)

## CS-16 Camera/Lens Pouch Case

Product number: Storage for:





FE/FM-series cameras with normal lens Black leather, two-piece (flap and base)

# **CS-13 Camera Blimp Case**

Product number: Storage for:

Finish:



4484

Camera with motor drive and any lens mounted; case dampens camera and motor noise during shooting

Black leatherette

#### **CF-34 Camera/Lens Utility** Case

Product number: Storage for: Finish:



Camera with lens as big as 100-300/5.6 zoom lens Black leatherette in semi-rigid construction; belt or shoulder use possible

320mm(L) x 180mm(W) x 130mm (D)

Dimensions:













#### \*CS-17 Soft Leather Case

Product number: Storage for:

Finish:



FM2, FE/FE2, FA and Nikkormats with lenses up to 35-70mm f/3.3-4.5

Black leather

#### \*CS-18 Soft Leather Case

Product number: Storage for:

Finish:



4137

FM2, FE/FE2, FA and Nikkormats with lenses up

to 35-135mm

Black leather

#### \*CS-19 Soft Leather Case

Product number: Storage for:

Finish:



F3HP, F3/T, F2, N8008(s), N6006, N4004s, N2020, N2000 with lenses up to 35-70mm

f/3.3-4.5

Black leather

#### \*CS-20 Soft Leather Case

Product number: Storage for:

Finish:



4139

F3HP, F3(T, F2, N8008(s), N6006, N4004s, N2020, N2090 with lenses up to 35-135mm

Black leather

\*Available beginning July 1991.





#### **Compartment Case FB-8**

Product number:

Storage for:

Dimensions:

Finish: Weight:



One camera body with normal lens, one camera body without lens, and three bayonet mounts for one telephoto lens up to 300mm and two addition lenses up to 85mm; pocket for incidentals

Black leatherette

2 kg (4 lbs. 6 oz.)

280mm(W) x 210mm(H) x 150mm(D) (11'' x 8.3'' x 5.9'')

# Compartment Case FB-11A

Product number:

Storage for:

Dimensions:

Finish:

Weight:



500

496

Large quantity of cameras, lenses, and accessories; lower level storage area provided. supplied with Filter Case CA-1

Brown leather

3.2 kg (7 lbs.)

355mm(W) x 255mm(H) x 200(D) (14" x 10" x 7.9")

## Compartment Case FB-14

Product number:

Storage for:



Finish: Weight:

Dimensions:

One camera body with normal lens and two additional lenses, one up to 300mm; supplied with interior dividers

Black leather 0.9 kg (2 lbs.)

280mm(W) x 230mm(H) x 110mm(D) (11" x 9.1" x 4.3")

# **Compartment Case FB-15**

One camera body with motor and lens up to

Product number:

Storage for:



135mm, one camera body with lens up 135mm, and several addition lenses (or accessories); lower level storage area provide; supplied with pouch for bulky

Brown leather

2.1 kg (4 lbs. 10 oz.)

305mm(W) x 210mm(H) x 175mm(D) (12" x 8.3" x 6.9")

# **FB-16 Compartment Case**

Product number:

Storage for:



Finish: Weight:

Finish:

Weight:

Dimensions:

Dimensions:



492

One camera body with motor and normal lens, one additional lens to 200mm, and one speedlight

Brown leatherette with adjustable strap

0.9 kg (2 lbs.)

190mm(W) x 175mm(H) x 150mm(D) (7.5" x 6.9" x 5.9")

# **FB-17 Compartment Case**

Product number: Storage for:

Finish:

Weight:

Dimensions:



4498

One camera body with normal lens, two additional lenses up to 135mm and one compact speedlight; supplied with interior dividers

Dark brown leatherette with adjustable strap

0.9 kg (2 lbs.)

280mm(W) x 155mm(H) x 110mm(D) (11" x 6.1" x 4.3")



# **SLR Pro Case**



Product number:

Storage for:

Finish:

Weight:

Dimensions:

#### 600

Up to two SLR bodies, six lenses, electronic flash, filters, cords and accessories. Each case can be customized with velcro dividers provided. Front pocket holds personal items.

All black heavy duty nylon with extra wide, padded, adjustable strap.

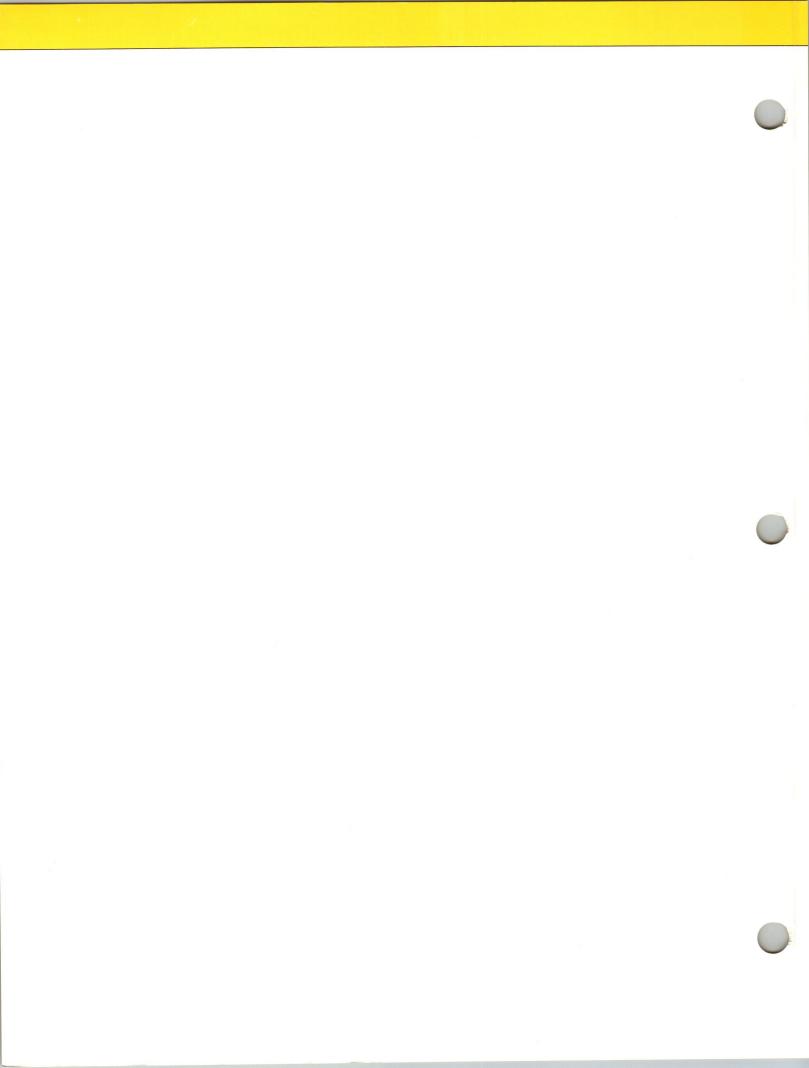
1.36 kg (2 lbs. 8 oz.)

9.5(H) x 18(W) x 8"(D)

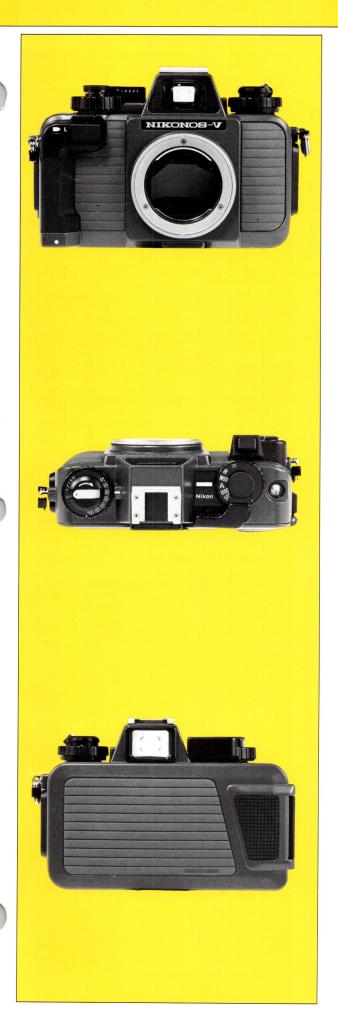
# **Battery Selector Chart**



ITEM	QUANTITY	TYPE	ITEM	QUANTITY	TYPE
SLR Cameras			EE Control		
F4S	6	1.5v AA Alkaline	EE Aperture Control	1	NiCad Battery DN-1
F3HP, F3, F2, F2S, F2SB,	2	1.5v Silver Oxide or			(#48)
F2A, F2AS Photomics, FM2, FE2, FM, FE, FG, FG-20, EM,		one 3V Lithium	DB-1 Battery Pack f/EE	4	C Cell
Nikonos-V			Flash Units		
N8008	4	1.5v AA Alkaline (MS-7)	120mm Medical Nikkor	8	AA Alkaline
N4004S, N4004	4°	AA Alkaline	Battery Pack (LD-2), SB-21		7 0 1 7 mamio
N2000, N2020	4	AA Alkaline (MB-4) or	Macro Speedlight External Power Pack)		
	4	AA Alkaline (MB-3)	200mm Medical Nikkor I	4	D Alkaline
Nikonos IV-A	2	1.5V Silver Oxide	Battery Pack	1	240V Battery
Nikkormat FT2, FT3	2	1.5V Silver Oxide	200mm Medical Nikkor II	8	D Alkaline
Nikkormat FT, FTN	1	1.3V Mercury	Battery Pack		
EL, ELW, EL2	1	6V Silver Oxide	Battery Pack f/SB-1	6	D Alkaline
Autofocus Compacts			High Voltage Pack f/SB-1	1	510V Battery
Zoom-Touch 500, Tele-Touch 300	1	6V Lithium	Repeating Flash Battery		
Tele-Touch Deluxe	1	6V Lithium (DL-223A)	Pack	8	NiCad Battery
One-Touch 100	1	3V Lithium	(f/SB-6) BC-7 Flash		SN-3 (#294)
Action-Touch, L35AF &	2	AA Alkaline		1	15V Battery
LI35AF, One-Touch,			SB-2 Speedlight	4	AA Alkaline
Fun-Touch, Tele-Touch			SB-3 Speedlight	4	AA Alkaline
Super 5X, 8X (Motor) (Meter)	4 2	AA Alkaline 1.3V Mercury	SB-4 Speedlight	2	AA Alkaline
R-8 Super Zoom (Motor)	6		SB-5 Speedlight	1	NiCad SN-2 (#309)
(Meter)	2	AA Alkaline 1.3V Mercury	SB-5 Battery Pack, SD4	1 or 2	480V Battery 240V Batteries
R-10 Super Zoom (Motor)	6	AA Alkaline	SB-7E Speedlight	4	AA Alkaline
DL-1 Photomic Illuminator	1	1.3V Mercury	SB-8E Speedlight	4	
DB-2 Anti-Cold Battery Pack	2	AA Alkaline	SB-9 Speedlight		AA Alkaline
DB-3 External Battery Pack	2	AAA Alkaline	SB-10 Speedlight	2	AA Alkaline
f/MF-12	-	ATA AINAIIITE		4	AA Alkaline
Motor Drives			SB-11 Speedlight	8	AA Alkaline
F36 Motor (Cordless)	8	AA Alkaline	SB-12 Speedlight	4	AA Alkaline
F250, F36 Motors with	8	C Alkaline	SB-14, 140 Battery Pack, SD-7	6	C Cell
Standard Pack	U	O Alkalille	SB-15, 17	4	AA Alkaline
F3 MD-4	8	AA Alkaline or MN-2	SB-16A, 16B	4	AA Alkaline
		NiCad (#125)	SB-19	4	AA Alkaline
F2MB-1 Battery Pack	10	AA Alkaline or MN-1	SB-20, 22 Speedlight	4	AA Alkaline
50 MB 0 B B		NiCad Battery Pair (#38)	SB-23 Speedlight	4	AA Alkaline
F2 MB-2 Battery Pack	8	AA Alkaline	SB-E Speedlight	4	AAA Alkaline
MD-11 & MD-12 Motor	8	AA Alkaline	SB-21A, SB-21B Macro Speedlight	4	AA Alkaline
MD-E	6	AAA Alkaline	SB-24 AF TTL Speedlight	,	A A Allertin -
MD-14 & MD-15 Motor	8	AA Alkaline	DC Power Supply For Ring	8	AA Alkaline
luto Winder			Lights SR-2, SM-2	0	D Alkaline
Auto-Winder AW-1	6	AA Alkaline			
Remote Controls			Note: AA Zinc Carbon Batteries (1.5V the above listing.	each) may be us	ed instead of AA Alkaline in
Modulite Transmitter	4	OV Standard Batter			
Modulite Receiver	1	9V Standard Battery	Note: While both Silver Oxide and lith	ium cells will ope	rate some camera models,
Wireless Remote Control	4	AA Alkaline	there is some difference in the performance types. We suggest that you check with	mance characteris	stics of thes two hatteny
Transmitter	8	AA Alkaline	mation about the battery you intend to	o use.	philet to der specific infor-
Wireless Remote Control	8	AA Alkaline	, you mushing to		
Receiver	Ü	7 VI AINGIIIIU			
Intervalometer MT-1	4	AA Alkaline			
Intervalometer MT-2	4	AA Alkaline			
ata Backs					
MF-23	2	CR2050			
MF-23					
MF-22 MF-21		CR2050			
MF-20		CR2050			
		CR2050			
MF-19		1.5V Silver Oxide			
MF-18		1.5V Silver Oxide			
MF-17		AA Alkaline			
MF-16		1.5V Silver Oxide			
MF-14	2	1.5V Silver Oxide			







#### Nikonos-V

10070 (orange) 10071 (green) Product number:

Camera viewfinder:

Electronically-controlled 35mm underwater and Type of camera: all-weather camera with focal plane shutter

Construction: Body made of cast aluminum alloy partially covered

with rubber; water-proof sealing via O-ring

Can be used down to a pressure of approximately Operation range: 6kg/cm3 (depth of approx. 50m or 160 ft.)

Picture format: 24mm x 36mm (standard 35mm format)

Lens mount: Nikonos spring-loaded bayonet

Lenses: W-Nikkor 35mm f/2.5 as normal lens; 4 alternative

lenses from super wideangle to short telephoto Inverted-Galilean, Albada finder built into camera

for use with standard 35mm lens; film frame marks show about 85% picture coverage at infinity; 0.55x magnification; 0.9 diopter; exit pupil lying well back permits viewing with eye up to 40mm away from finder; parallax correction marks provided; optical viewfinder or frame finders available as accessories

for other Nikonos lenses

Camera viewfinder display: LED shutter speed indicators; LED arrows (◀ ▶)

indicate overexposure and underexposure; lightening-bolt symbol provided as flash ready-light

Shutter: Electronically-controlled, vertical travel metal focal

plane shutter

Shutter speeds:

At "A" (Auto), electronically-controlled, stepless speeds from 1/30 sec. to 1/1000 sec.; at manually-selected setting (30-1000), quartz-controlled speeds from 1/30 sec. to 1/1000 sec., at "M90", mechanically controlled 1/90 sec. speed; at "B" (Bulb), mechanically controlled for long exposures; "R" setting provided for rewinding film

Shutter release: Via button atop anatomically-shaped grip; gentle pressure on button switches metering system on;

meter remains on for 16 sec. after finger is removed;

shutter release lock incorporated

Via selector dial which provided for both manual Exposure control:

and automatic exposure control for general and

flash photography

Through-the-lens (TTL), centerweighted metering Exposure metering:

with two silicon photodiodes (SPDs); one of the SPDs for TTL flash control with SB-102, SB-103 and

EV8 to EV19 at ASA/ISO 100 with f/2.8 lens (1/30 sec at f/2.8 to 1/1000 sec at f/22) Metering range:

Film speed range: ISO 25 to 1600





Built into top of viewfinder Accessory shoe:

X-synchronication only, via flash socket in camera base; synchronizes at 1/90 sec. or slower; Nikonos Flash synchronication: electronic flash unit SB-102 or SB-103 switches camera automatically to 1/90 sec. when shutter speed selector dial is at "A" or at manual speed of 1/125 sec. or higher; at manual speeds of 1/60 sec.

or slower, shutter fires at speed set

Lightening symbol in viewfinder lights up when SB-102, SB-103 or another flash unit has recycled; Flash ready-light:

flashes to warn of full power output from flash which may result in insufficient subject illumination, incorrect setting of shutter speed selector dial or film speed setting higher than ISO 400

Film advance lever: Wound in single stroke or series of strokes; 144°

winding angle; hinged for compactness; when shutter speed selector dial is at "A", shutter releases at about 1/1500 sec. until film frame

counter reaches frame one

Additive type; resets automatically when camera Frame counter:

back is opend

Manually via film rewind crank after shutter speed Film rewind:

selector dial has been set to "R"; shutter release button remains locked during rewinding

Hinged type with camera back locking pin; opened

and locked via camera back lock/release latch and

camera back release button

Pressure plate: Hinged type, attached to camera body; locking

catch provided

Tripod socket: Incorporated in camera baseplate; 1/4-inch thread

(JIS)

Power source: Two 1.5v silver-oxide (button-cell) batteries or one

3V Lithium battery

Battery check:

Possible when shutter speed selector dial is at any setting except M90, B or R, and frame counter is at or beyond "I"; when shutter release button is depressed, viewfinder display lights up to confirm sufficient battery power; when batteries are exhausted, mechanical operation provided at either

M90 or B settings

 $146 mm(W) \times 99 mm(H) \times 58 mm (D) \\ (5.7'' \times 3.9'' \ 2.3_0), body only$ **Dimensions:** 

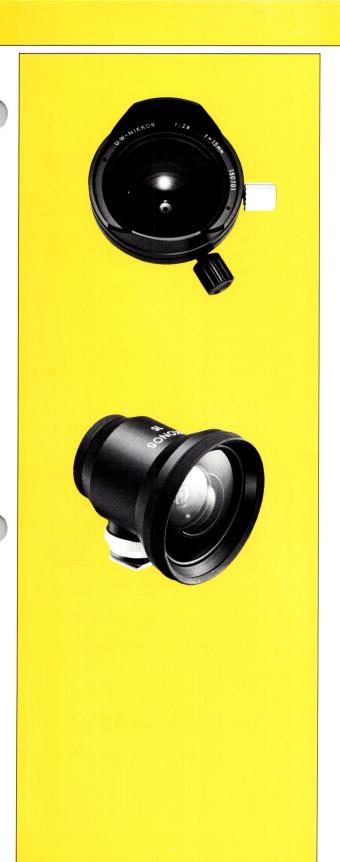
Weight: 700g (24.6 oz.), body only

Camera back:

Optional accessories: Custom Shoulder Case

O-ring Set with (Grease replacement)





#### UW-Nikkor 15mm f/2.8

This lens is intended exclusively for underwater photography

Product number: 10315 Focal length: 15mm

Maximum aperture: f/2.8

Picture angle: 94° (underwater)

Optical construction: 12 elements in 9 groups (including front protective

port glass)

Minimum focusing distance: 0.3m (1 ft.)

Aperture:

Lens mount:

Manual aperture diaphragm

f/2.8-f/22 Aperture scale:

Depth of field display:

Via mechanism coupled with aperture setting for direct reading from distance scale

Nikonos spring-loaded bayonet

Attachment size: 87mm diameter

93mm dia. x 90.6mm (3.7" x 3.6") Dimensions:

Weight: 665g (23 oz.)

#### **DF-11 Viewfinder for** UW- Nikkor 15mm f/2.8

Product number:

Inverted Galilean telescope; usable only Optical system:

underwater

Optical construction: 3 elements in 3 groups

Magnification: 0.24x

Field of view: 90/picture coverage

Parallax compensation: Built-in parallax correction marks for 1.5m, 0.6m or

0.3m (5 ft., 2 ft. or 1 ft.)

Mounting: With clamping screw in camera accessory shoe

Dimensions: 68mm dia. x 71mm

Weight: 280g









#### UW-Nikkor 20mm f/2.8

This lens is intended exclusively for underwater photography

Product number: 10314 20mm Focal length: Maximum aperture:

f/2.8

78° (underwater) Picture angle:

Optical construction: 9 elements in 7 groups (including front protective glass port)

Minimum focusing distance: 0.4m (16 in.)

Manual aperture diaphragm Aperture:

Aperture scale: f/2.8-f/22

Depth of field display: Via indicators on aperture selector knob; settings

marked in yellow, orange and red for apertures f/4,

Lens mount: Nikonos spring-loaded bayonet

Attachment size: 67mm diameter

70mm dia. x 74mm (2.7" x 2.9") **Dimensions:** 

Weight: 350g (12 oz.)

> **DF-12 Viewfinder for** UW-Nikkor 20mm f/2.8 and 28mm f/3.5

10759 Product number:

Optical system: Inverted Galilean telescope; usable only

underwater

Optical construction: 3 elements in 3 groups

Magnification: 0.35x

Field of view: 85/picture coverage

20mm, fixed setting at estimated distance 1.5m (4.5 Parallax compenstion marks: ft.); 28mm, fixed setting at estimated distance 2.0m

(6 ft.)

20mm, focusing distance 40cm (16 in.); 28mm, Close-up parallax marks:

focusing distance 60cm (24 in.)

Mounting: With clamping screw in camera accessory shoe

61.5mm dia. x 71mm **Dimensions:** 

160g Weight:

#### UW-Nikkor 28mm f/3.5

This lens is intended exclusively for underwater photography

10310 Product number:

Focal length: 28mm

Maximum aperture: f/3.5

59° (underwater) Picture angle:

6 elements in 5 groups (including front protective Optical construction:

glass plate)

Minimum focusing distance: 0.6m (24 in.)

Aperture:

f/3.5-f/22 Aperture scale:

Via mechanism coupled with aperture setting for Depth of field display:

direct reading from distance scale

Manual aperture diaphragm

Lens mount: Nikonos spring-loaded bayonet

Attachment size: 58mm diameter

62mm dia. x 43.8mm (2.4" x 1.7") **Dimensions:** 

175g (6 oz.) Weight:





#### W-Nikkor 35mm f/2.5

For use on Land & Underwater (Amphibious)

Product number: 10311 Focal length: 35mm

f/2.5 Maximum aperture:

Picture angle:

Optical construction: 6 elements in 4 groups (including front protective

glass plate)

Minimum focusing distance: 0.8m (2.75') (33") (.84m)

Aperture: Manual aperture diaphragm

Aperture scale: f/2.5-f/22

Depth of field display: Via mechanism coupled with aperture setting for

direct reading from distance scale

62° on land, 46° 30' underwater

Attachment size: 58mm diameter

Dimensions: 62mm dia. x 39.5mm (2.4" x 1.5")

Weight: 160g (6 oz.)

#### W-Nikkor 80mm f/4

For use on Land & Underwater (Amphibious)

Product number: 10312 Focal length: 80mm Maximum aperture: f/4

Optical construction: 4 elements in 4 groups (plus front protective glass

plate)

Picture angle: 30° 20' on land, 22° 45' underwater

Minimum focusing distance: 1m (3ft.)

Aperture: Manual aperture diaphragm

Aperture scale: f/4-f/22

Depth of field display: Via mechanism coupled with aperture setting for

direct reading from distance scale

Lens mount: Nikonos spring-loaded bayonet Attachment size:

58mm diameter

Dimensions: 62mm dia. x 66mm (2.4" x 2.6")

Weight: 275g (10 oz.)

> **DF-10 Viewfinder for** Nikkor 80mm f/4

Product number: 10756

Optical system: Inverted Galilean, Alboda finder for use on land only

Parallax compensation:

The focusing ring on the finder shifts the bright frame to adjust the view for parallax compensation

Weight:







#### TTL UW Speedlight Set SB-102

Product number:

10102

High-powered electronic underwater TTL flash unit; automatic TTL flash output control with Nikonos-V; auto flash control via optional Flash Sensor Unit SU-101; manual power levels of "Full", "1/4" and "1/16" with Nikonos III and IVA and V

Electronics:

Application:

High-performance thyristor in series circuit controlled via internal camera TTL sensor or optional Flash Sensor Unit SU-101

Full output 32 meters on land (16 underwater), 1/4 Guide number: output 16 on land (8 underwater), 1/16 output 8 on land (4 underwater) with ISO 100 film inmeters.

Guide No./Land

(ft. @ ISO 100 / U/W)

• Full=106 • 1/4=53 • 1/16=26

(26)(13)

Operating range:

Operating distance:

TTL, ISO 25=400; f/2.8-f/22 at ISO 100 Non-TTL

0.3m-11m on land, 0.3m-5.5m underwater, with TTL control, ISO 100; with sensor unit SU-101 (no TTL metering, ISO 100), 0.6m-8m on land at f/4 (0.6m-4m underwater) or 0.6m-4m on land at f/8 (0.6m-2m underwater)

Angle of coverage:

79° (sufficient for 28mm lens) as normal; 94° (sufficient for 15mm lens) via Wide Flash Adapter SW-102

Recycling time/number of flashes:

With C-cell rechargeable NiCd batteries, minimum of 70 flashes with about 5 sec. charging time (depending on the recharge level of the batteries); with Alkaline-manganese batteries; minimum of 120 flashes with about 14 sec. charging time

Power source:

Six 1.5v C-cell type batteries; NiCd rechargeable batteries usable

Target light:

Light fitted at center of flash illuminates along flash

axis to facilitate positioning

Slave flash function:

When set for slave triggering, can be triggered via operation of another flash unit

Multiple flash function:

With double bracket and double sync cord accessories, two SB-102 speedlight or one SB-102 and one SB-103 can be used simultaneously for TTL-controlled flash operation

Flash ready-light:

Visible in the camera viewfinder (Nikonos IV-A/V

only), and on top of flash head

Mounting:

Via flash bracket (supplied)

Dimensions: Weight:

139mm (W) x 152.5mm (H) x 212mm (D), head only

1670g (59 oz.), head only without batteries

#### Wide Flash Adapter SW-102 for SB-102 (replacement)



Product number Application:

10207

Wide flash adapter. Use to widen angle of coverage of SB-102







#### TTL UW Speedlight Set **SB-103**

Product number: Application:

10103

Electronic underwater TTL flash unit; Automatic TTL flash output control with Nikonos-V; manual power levels of ''Full'', ''1/4'', and ''1/16'' output with Nikonos III, IVA and V

Electronics:

High-performance thyristor in series circuit controlled via internal camera TTL sensor with

Guide number:

Full output 20 meters on land (14 underwater), 1/4 output 10 meters on land (7 underwater), 1/16 output 5 meters on land (3.5 underwater), with ISO 100 film in meters

Guide No./Land

(ft. @ ISO 100 / U/W)

Full=661/4=33 • 1/16=16

Angle of coverage:

79° (sufficient for 28mm lens) as normal; 94° (sufficient for 15mm lens) via Wide Flash Adapter SW-103

Batteries:

Four 1.5v AA-type (penlight) batteries; NiCd

rechargeable batteries usable

Number of flashes:

Approximately 50 flashes with NiCd rechargeable batteries; approximately 130 flashes with alkaline-

manganese batteries

Recycling time:

Approximately 6 sec. with NiCd rechargeable batteries; approximately 9 sec. with fresh alkalinemanganese batteries

Operating range: Operating distance:

TTL, ISO 25-400; f/2.8-f/22 at ISO 100, non-TTL

0.3m-7m on land, 0.3m-3.5m underwater, with TTL

control, ISO 100

Multiple flash function:

With double bracket and double sync cord, two SB-103 speedlights or one SB-102 and one SB-103 can -be used simultaneously for TTL-controlled flash operation

Dimensions: Weight:

175mm (W) x 130mm (H) x 99mm (D), head only

780g (27 oz.), head only without batteries

#### Wide Flash Adapter SW-103 for SB-103 (replacement)

Product number: Application:

Wide flash adapter. Use to widen angle of coverage of SB-103 to 94°.





#### **Extension Arm Set**

**Product Number:** Application:

10203

For extending the bracket arm of TTL UW Speedlights SB-102/SB-103



### **TTL UW Double Sync Cord**

Product number:

Application:

Product number:

Application:

For Nikonos V to provide underwater TTL operation with two TTL UW Speedlights SB-102/103

#### **Double Flash Bracket**

For mounting two TTL UW speedlights SB-102/103 on the Nikonos V



10202



### Flash Sensor Unit SU-101

Product number: Application:

Product number:

To provide non-TTL automatic flash operation with UW Speedlights SB-101/102

# Speedlight Carrying Case SS-101 (replacement)

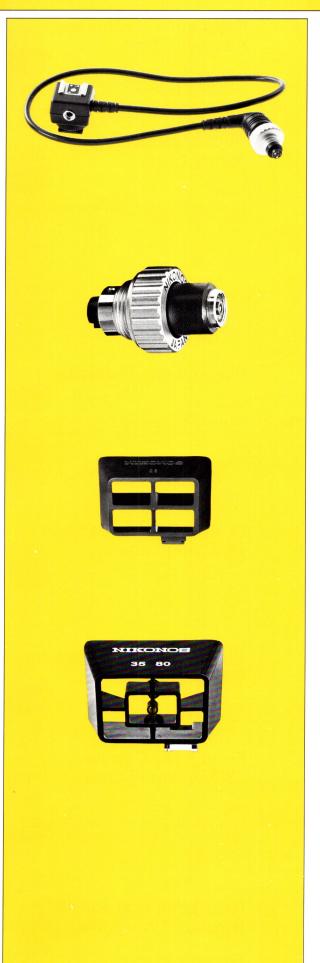
Product number: Application:

Spacious carrying case to transport complete speedlight with camera; inside pockets provided for film, O-rings, etc.

Beige-patterned leatherette with dark brown and black decorative panels

Construction:





Non-UW TTL Sync Cord for Nikonos-V

10205

Provides a means to use Speedlights equipped with ISO-type hot shoe (speedlights SB-15/16B/18/20/22, with Nikonos-V; full TTL operation provided via dedicated contacts on shoe; cannot be used underwater; 60cm (8 in.) cord length

Weight:

Product number:

Application:

65g

Non-UW Flash Adapter for Nikonos IV-A

Product number: Application:

10729

Provides a means to use conventional speedlights with Nikonos IV-A via sync connecting cord; cannot be used underwater

Underwater Frame Finder for 28mm Lens

Product number:

10751

Underwater Frame Finder for 35mm/80mm Lenses

Product number:

10753







Rigid Lens Hood/Filter Adapter 52mm

10625

Product number: Application:

Product number: Application:

Product number:

Product number:

Product number:

Product number:

Product number:

Application:

Application:

Enables mounting of 52mm diameter threaded filters on 35mm and 80mm lenses

Rubber Lens Hood for 35mm Lens

0626

Slip-over design protects entire lens; for W-Nikkor 35mm f/2.5 lens only

**Plastic Lens Protector** 

10620

Mounts on 58mm thread of 28/35/80mm Nikonos lenses; protects the lens front from stones, etc.

CL-50A Hard Lens Case for 28/35mm Lenses

10418

CL-51 Hard Lens Case for 80mm Lens

10419

Front Lens Cap for 28/35/80mm Lenses

10804

60mm diameter slip-on design for the Nikonos lenses with 58mm attachment size (28/35, 35/2.5, 80/4)

Rear Lens Cap for all Nikonos Underwater Lenses

107

10730







Custom Shoulder Case for Nikonos IV-A, V

Product Number: Application:

Construction:

10420

Shoulder carrying case for camera with 35mm lens; zippered pocket provides space to store incidentals

Beige-patterned leatherette with dark brown and black decorative panels

Neck Strap for Nikonos IV-A, V (replacement)

Product number:

10422

O-ring Set for Nikonos V (replacement)

Product number: Consisting of: 10713

Four rubber O-rings (camera back, flash terminal cap, battery compartment and lens) and one tube of silicone grease; one spare set is provided with the camera at time of purchase

O-ring Set for TTL UW Speedlight SB-102 (replacement)

Product number: Consisting of:

10712

Three rubber O-ring (battery compartment, flash contact plug) and one tube of silicone grease; one spare set is provided with the speedlight at time of purchase

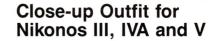
O-ring Set for TTL UW Speedlight SB-103 (replacement)

Product number: Consisting of: 0711

Three rubber O-rings (battery compartment, flash contact plug) and one tube of silicone grease; one spare set is provided with the speedlight at the time of purchase







Product number: Consisting of:

Working distance: Focus setting:

Exposure control:

Weight:

Magnification:



Close-up attachment lens (can be mounted and removed underwater); three field frames for 28mm, 35mm and 80mm lenses; frame support bracket for precise camera-to-subject distances; holder for close-up attachment lens; and carrying case for close-up outfit and camera

Optical construction: 2 elements in 2 groups

235mm from front of lens to field frame

At infinity focus on the lens

TTL auto exposure control or manual with Nikonos-V w/SB 102 or 103 speedlights; non TTL auto exposure control or manual with Nikonos-IVA w/SB 101 or 102 speedlights; manual only with Nikonos III w/SB 101, 102 or 103 speedlights

570g (with 28mm field frame)

With 28mm lens underwater, M = 1:6 (field 144mm x 216m); with 35mm lens underwater, M = 1:4.5 (field 109mm x 164mm); with 80mm lens underwater, M = 1:2.2 (field 53mm x 79mm); with 35mm lens on land (and using 28mm field frame), M = 1:6.5 (field 155mm x 233mm); with 80mm lens on land (and using 35mm field frame), M = 1:3 (field 71mm x 106mm)

### Case for Close-up Outfit

Product number:
Application:



10706

Fitted foam-lined case with pre-cut space for complete close-up outfit with camera



# **Companion Series**





#### 7x20 CF Travelite II

Product number:7840Magnification:7xObjective diameter:20mm

Angular field of view:
Field of view:

Exit pupil: Relative brightness: Twilight factor:

Weight:

Dimensions:

Nikol CONSUMER CONSUMER CONSUMER

Real, 7.1°; Apparent 50° 373 feet at 1000 yards

2.9mm 8.4 11.8

212.6g (7.5 oz.)

83.9mm (L) x 110mm (W) (3.3" x 4.3")

#### 9x25 CF Travelite II

Product number: 7841
Magnification: 9x
Objective diameter: 25mm

Angular field of view: Real, 5.6°; Apparent, 50°
Field of view: 294 feet at 1000 yards

Exit pupil: 2.8mm
Relative brightness: 7.8
Twilight factor: 15

**Weight:** 297.7g (10.5 oz.)

**Dimensions:** 110mm(H) x 113(W) (4.3" x 4.45")

#### 8x23 CF Venturer II

Product number: 7842 Magnification: 8x

Objective diameter: 23mm

Angular field of view: Real, 6.3°; A

Field of view: Exit pupil:

Relative brightness:
Twilight factor:

Twilight factor:
Weight:
Dimensions:

Niko GONSUME POALES

Real, 6.3°; Apparent, 50.4° 331 feet at 1000 yds

2.9mm 8.4 13.6 260g (8.9 oz.)

2009 (0.002.)

101mm (L) x 104mm (W) (3.6" x 3.7")

### 10x25 CF Venturer II

Product number:7843Magnification:10xObjective diameter:25mr

Angular field of view:

Field of view: Exit pupil: Relative brightness:

Relative brightnes: Twilight factor:

Weight: Dimensions: 10x 25mm Real, 5°;

Real, 5°; Apparent 50.0° 263 feet at 1000 yards

2.5mm 6.25

15.8 290g (9.8 oz.)

111mm (L) x 104mm (W) (4.0" x 3.7")

# **Companion Deluxe Series**







#### 8x20D CF LeTour

7827 Product number: 8x Magnification:

20mm Objective diameter:

Real, 6.5°; Apparent, 52° Angular field of view: Field of view: 341 feet at 1000 yards 25mm Exit pupil:

Relative brightness: 6.3 12.6 Twilight factor:

195g (6.9 oz.) Weight:

97mm (L) x 100mm (W) (3.8" x 3.9") Dimensions:

#### 10x25D CF LeTour

7828 Product number: 10x Magnification: Objective diameter: 25mm

Real, 5.2°; Apparent, 52° Angular field of view: 273 feet at 1000 yards Field of view:

2.5mm Exit pupil: Relative brightness: 6.3 Twilight factor: 15.8 Weight:

240g (8.5 oz.)

117mm (L) x 106mm (W) (4.6" x 4.2") Dimensions:

### 6-12x24D CF Le Tour Zoom Binocular

Product number: Magnification:

6x-12x Objective Diameter: 24mm

Angular field of view:

Real, 6.9° (at 6x); Apparent 41.4°

7861

Field of view: 363 (at 6x) at 1000 yards

Exit pupil: 4mm (at 6x) Relative brightness: 16 (at 6x) Twilight factor: 15.5mm

Weight: 595g (21 ounces)

147mm (L) x 114mm (w) (5.8" x 4.5") Dimensions:



# **Gold Sentinel Series**





# 7x35 CF Sporter

Product number:7855Magnification:7xObjective diameter:35mm

Angular field of view:Real, 9.3°; Apparent 65.0°Field of view:488 feet at 1000 yards

Exit pupil: 5mm
Relative brightness: 25
Twilight factor: 15.8

Weight: 670g (23.6 oz.)

**Dimensions:** 133mm(L) x 184mm(W) (5.2" x 7.2")

#### 8x35 CF Eaglescout

Product number:7856Magnification:8xObjective diameter:35mm

Angular field of view: Real, 8.2°; Apparent, 65.6°
Field of view: 431 feet at 1000 yards

Exit pupil:4.4mmRelative brightness:19.4Twilight factor:16.7

Weight: 660g (23.6 oz.)

**Dimensions:** 127mm(L) x 184mm(W) (5" x 7.2")

#### 7x50 CF Starvue

Product number: 7857
Magnification: 7x
Objective diameter: 50mm

Angular field of view: Real, 7.2°; Apparent, 50.4°
Field of view: 378 feet at 1000 yards

Exit pupil: 7.1mm
Relative brightness: 50.4
Twilight factor: 18.7

Weight: 1040g (36.7 oz.)

**Dimensions:** 192mm(L) x 211mm(W) (7.6" x 8.4")

#### 10x50 CF Sentinel

Product number:7858Magnification:10xObjective diameter:50mm

Angular field of view: Real, 6.5°; Apparent, 65°
Field of view: 341 feet at 1000 yards

Exit pupil:5mmRelative brightness:25Twilight factor:22.4

Weight: 1030g (36.4 oz.)

**Dimensions:** 183mm(L) x 211mm(W) (7.2" x 8.3")

**Note:** The products on this page are listed for information purposes only—No longer available.





#### 9x30D CF Execulite

Product number:
Magnification:

Objective diameter:

Angular field of view: Field of view:

Exit pupil:

Relative brightness:

Twilight factor:

Weight:

Dimensions:

711 9x

30mm

Real, 6.7°; Apparent, 60.3° 352 feet at 1000 yards

3.3mm 10.9

16.4

445g (15.7 oz.)

119mm(L) x 113mm(W) (4.7" x 4.4")

#### 12x36D CF Execulite

Product number:

Magnification:

Objective diameter:

Angular field of view:

Field of view: Exit pupil:

Relative brightness:

Twilight factor:

Weight:

Dimensions:

714 12x

36mm

Real, 5°; Apparent, 60° 263 feet at 1000 yards

3mm

9

20.8

580g (20.5 oz.)

160mm(L) x 120mm(W) (6.3" x 4.7")

# 7x50 IF SP Prostar (Special Performance)

Product number:

Magnification:

Objective diameter:

Angular field of view:

Field of view:

Exit pupil:

Relative brightness:

Twilight factor:

Weight:

Dimensions:

7789

7x

50mm

Real, 7.3°; Apparent, 51.1°

383 feet at 1000 yards

7.1mm

50.4

18.7

1470g (51.5 oz.)

216mm(L) x 210mm(W) (8.5" x 8.46")

#### 10x70 II IF Astroluxe

Product number:

Magnification:

Objective diameter:

Angular field of view:

Field of view:

Exit pupil:

Relative brightness:

Twilight factor: Weight:

Dimensions:

7788

10x

70mm

Real, 5.1°; Apparent, 51° 268 feet at 1000 yards

7mm

49

00 -

2500g (88 oz.)

158mm(L) x 258mm(W) (10.2" x 10.2")



# **Criterion Series**









# 8x40D CF Classic Eagle (waterproof/fogproof)

Product number: 7826 Magnification: 8x Objective diameter: 40mm

Angular field of view: Real, 7°; Apparent, 56° Field of view: 368 feet at 1000 yards

Exit pupil: 5mm Relative brightness: 25 Twilight factor: 17.9 Weight: 840g (39.7 oz.)

Dimensions: 169mm(L) x 124mm(W) (6.7" x 4.9")

#### 8-16x40 CF Zoom XL

Product number: 7860 Magnification: 8-16x (zoom) Objective diameter: 40mm

Angular field of view: Real, 5.2° (at 8x); Apparent, 41.6° (at 8x)

Field of view: 273 feet at 1000 yards (at 8x) Exit pupil: 5mm (at 8x)-2.5 (at 16x) Relative brightness: 25 (at 8x)—6.3 (at 16x) Twilight factor: 17.9 (at 8x)-25.3 (at 16x)

Weight: 875g (30.9 oz.)

Dimensions: 171mm(L) x 198mm(W) (6.74" x 7.8")

#### 8x30E CF

Product number: 782 Magnification: 8x Objective Diameter: 30mm

Angular field of view: Real, 8.3°; Apparent, 66.4°

Field of view: 436 ft. at 1000 yds.

Exit pupil: 3.8mm Relative brightness: 14.4 Twilight factor: 15.5

Weight: 575g (20.3 oz.)

Dimensions: 99mm (L) x 178mm (W) (3.9" x 7.0")

Also available:

Product number:

780 7X35E CF

Product number:

784 10x35E CF



# Sea 'N Sport Series Binoculars

Product number:

Magnification:



#### 8x30D IF RC Trailblazer (camouflage, rubber-armored, waterproof/fogproof)

7782 (camo)

8x

Objective diameter: 30mm

Real, 7.5°; Apparent, 60° Angular field of view: 394 feet at 1000 yards Field of view:

3.8mm Exit pupil: Relative brightness: 15.5 Twilight factor:

680g (23.9 oz.) Weight:

130mm(L) x 124mm(W) (5.1" x 4.9") Dimensions:



#### **7x50 IF RC** (rubber-armored, waterproof/fogproof)

7794 (orange, Yachtsman) Product number:

Magnification: 7x Objective diameter: 50mm

Real, 7.3°; Apparent, 51.1° Angular field of view: Field of view: 383 feet at 1000 yards

7.1mm Exit pupil: 50.4 Relative brightness: 18.7 Twilight factor:

Weight: 1360g (48 oz.)

190mm(L) x 210mm(W) (7.5" x 8.3") Dimensions:



#### 10x25 CF RC Mountaineer (gray, rubber-armored, waterproof/fogproof)

Product number: 7845 10x Magnification: Objectve Diameter: 25mm

Angular field of view: Real, 5°; Apparent, 50° Field of view: 263 feet at 1000 yds.

Exit pupil: 2.5mm Relative Brightness: 6.3 Twilight factor: 15.8 Weight: 485g (17 oz.)

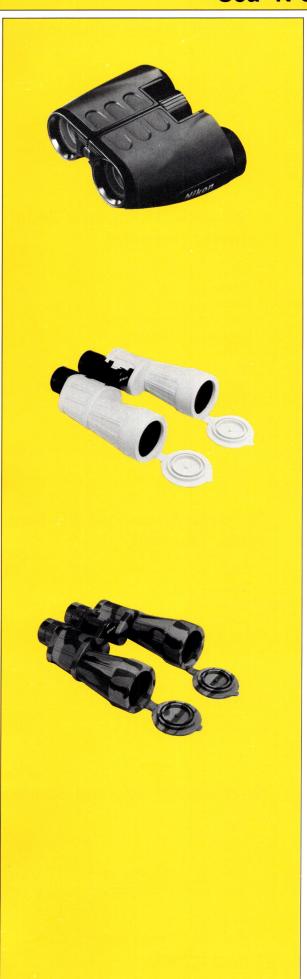
**Dimensions:** 

111mm(L) x 114(W) (4.4" x 4.5")



# **Sea 'N Sport Series**





8x23 CF RC Mountaineer (gray, rubber-armored, waterproof/fogproof)

Product number: Magnification: Effective objective diameter: 23mm

Angular field of view: Field of view:

Exit pupil: Relative brightness: Twilight factor:

Weight: Dimensions: Real, 6.3°; Apparent, 50.0° 329 ft. at 1000 yards

2.9mm 8.4 13.6 385g (13.6 oz.)

103mm(L) x 114mm(W) (4.1" x 4.5")

7x50 IF RC Seasider (yellow, rubber-armored, waterproof/fogproof)

7866 Product number: Magnification: 7x Objective diameter: 50mm

Angular field of view:

Field of view: Exit pupil:

Relative brightness: Twilight factor:

Weight: Dimensions:

801g (28.3 ounces)

7.1mm

50.4

18.7

206mm(L) x 198mm(W) (8.1" x 7.8")

Real, 6.2°; Apparent, 43.4°

326 ft. at 1000 yards

7x50 IF RC Naturalist XL (camouflage, rubber-armored, waterproof/fogproof)

7867 Product number: Magnification: 7x Objective diameter: 50mm Angular field of view: 6.2°

Field of view: 326 ft. at 1000 yards

Exit pupil: 7.1mm Relative brightness: 50.4 Twilight factor: 18.7

Weight: Dimensions:

801g (28.3 ounces)

206mm(L) x 198mm(W) (8.1" x 7.8")

# **Sea 'N Sport Series**



**Special Photo Attachment** 

Product number:

7770

Application:

converts Fieldscope and Fieldscope ED to 800mm f/13.3 lens for quality photography

via Nikon SLR camera

Weight:

330g (11.6)

Dimensions:

59mm dia. x 140mm

\* unlike most camera adapters which are just metal tubes, this attachment is a metal encased lens

grouping of fine Nikon optics.

20-45x60 Fieldscope Zoom (water resistant)

Product number:

7832

Magnification:

20x-45x

Effective objective diameter:

60mm

Angular field of view:

Real, 2 (20x); Apparent, 40 (20x)

Field of view:

105 ft. (20x) at 1000 yards

Exit pupil:

3mm

Relative brightness: Twilight factor:

36.4

Weight:

980g (34.6 oz.)

Dimensions:

326mm(L) x 72mm(W) (12.8" x 2.83")

20-45x60 Fieldscope ED Zoom (water resistant)

Product number:

7833

Magnification:

20x-45x

Effective objective diameter:

60mm

Angular field of view:

Real, 2; Apparent, 40

Field of view:

105 ft. at 1000 yards

Exit pupil:

3mm

Relative brightness:

9

Twilight factor:

36.4

Weight:

995g (35 oz.)

Dimensions:

326mm(L) x 72mm(W) (12.8" x 2.83")

### 15-45x60 RC Spotting Scope Zoom

Product number

7835

Magnification:

15-45x

Objective diameter:

60mm

Angular field of view:

Real, 2.54 (15x); Apparent, 38.1 (15x) 145.34 ft. (15x) at 1000 yards

Field of view: Exit pupil:

4–1.33mm

Exit pupii.

1.0011111

Relative brightness: Dimensions: 16–1.77

321mm (L) x 80mm (W) (12.52"x3.12")

Note: The above Spotting Scope is also available in a fixed 20x version.

# Sea 'N Sport Series







**Eyepieces for Spotting** Scope 15x Eyepiece

Product number: 7772

20x Eyepiece (repl.)

7775 Product number:

30x Eyepiece

7773 Product number:

40x Eyepiece

Product number:

60x Eyepiece (for ED model)

Product number: 7811

**Lens Hood for Spotting** 

Scope

7783 Product number:





















# **StayFocus Plus Series**



7x35 StayFocus Plus

Product number:7873Focusing system:CentralMagnification:7

Objective diameter: 35mm

Angular field of view:Real, 8.6°; Apparent, 60.2°Field of view:451.5 ft at 1000 yardsExit pupil:5mm

Relative brightness:25Eye relief:9.0mmTwilight factor:15.7

Weight: Length: Width:

698g (20.1 ounces)

133mm 181mm

7x50 StayFocus Plus

Product number: 7874
Focusing system: Central
Magnification: 7

Objective diameter:50mmAngular field of view:Real, 6.2°; Apparent, 43.4°Field of view:325.5 ft. at 1000 yards

Exit pupil:7.1mmRelative brightness:50.4Eye relief:16.4mmTwilight factor:18.7

 Weight:
 855g (29.8 ounces)

 Dimensions:
 20.8mm(L) x 195mm(W)

10x50 StayFocus Plus

Product number: 7875
Focusing system: Central Magnification: 10
Objective diameter: 50mm

Angular field of view: Real, 6.0°; Apparent, 60° Field of view: 315.0 ft. at 1000 yards

Exit pupil: 5mm
Relative brightness: 25
Eye relief: 9.0mm
Twilight factor: 22.4

 Weight:
 810g (28.2 ounces)

 Length:
 190mm

Length: 190mm Width: 195mm









#### 7-15x35 CF Scoutmaster Zoom

Product number:7863Magnification:7x-15xObjective diameter:35mm

Angular field of view: Real, 5.8°; Apparent, 60.2

Field of view: 305 ft. (at 7x) at 1000 yards Exit pupil: 5mm (at 7x)

Relative brightness: 25 (at 7x)

Twilight factor: 15.7 (at 7x)

Weight: 698g (24.2 ounces)

**Dimensions:** 144.8mm(L) x 178mm(W) (5.7" x 7.0")

#### 7x35 CF Naturalist II

Product number: 7870
Magnification: 7x
Objective diameter: 35mm

Angular field of view: Real, 8.6°; Apparent, 60.2°
Field of view: 451 ft. at 1000 yards

Exit pupil:5.0mmRelative brightness:25Twilight factor:15.7

Weight: 580g (20.1 ounces)

**Dimensions:** 122mm(L)  $\times$  170mm(W) (4.8"  $\times$  6.7")

#### 10x50 CF Lookout II

Product number: 7872

Magnification: 10x

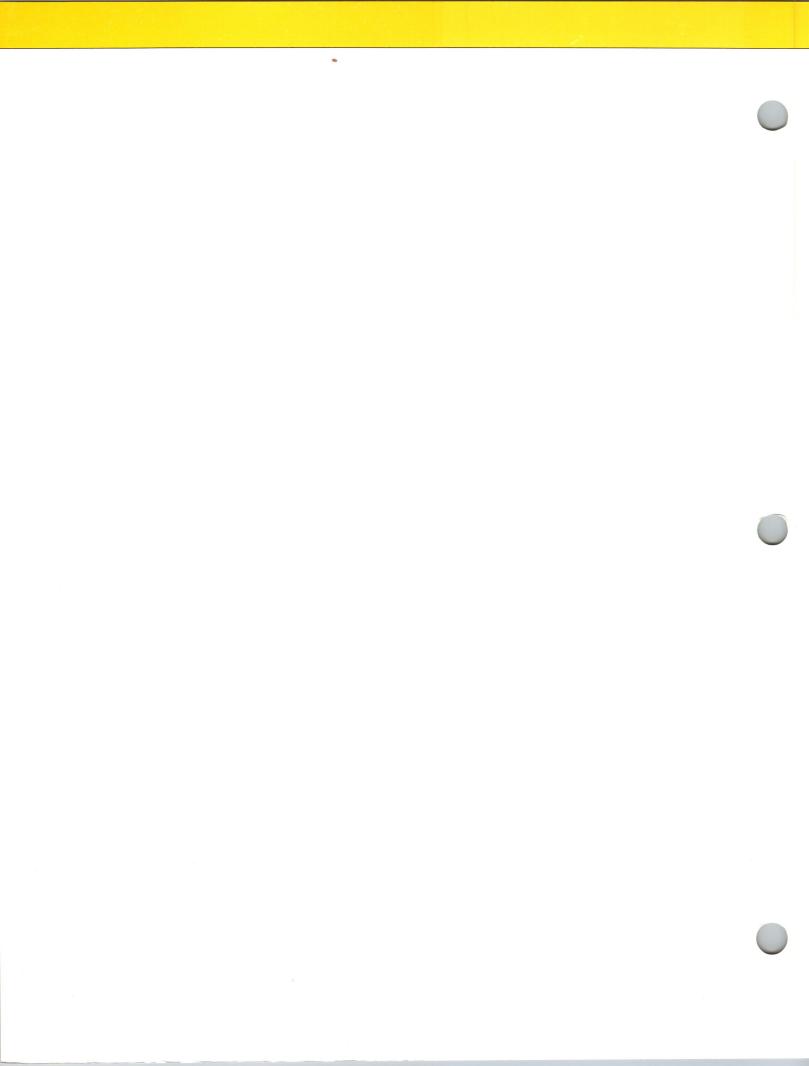
Objective diameter: 50mm

Angular field of view: Real, 6.0°; Apparent, 60° Field of view: 315 ft. at 1000 yards

Exit pupil: 5mm
Relative brightness: 25
Twilight factor: 22.4

Weight: 810g (28.2 ounces)

**Dimensions:** 180mm(L) x 185mm(W) (7.1" x 7.3")







# Capture all those great family moments with the new Nikon VN-860.

You'll have alot of fun with the VN-860's powerful 8X zoom lens. You can shoot everything from the wide open space of the great outdoors or large get-togethers to zoom-ins of faraway scenes and faces. And with the macro autofocus function, you can get as close as a half-inch from your subject. You just point and shoot... even in candlelight! The VN-860 enables you to capture the scene's every detail.

#### SPECIFICATIONS -

Product number Video recording system

Audio recording system Video signal Usable cassette Tape speed

Recording time Playback time

Fast forward/rewind time Image device Viewfinder Lens

Autofocus system Color temperature

Minimum illumination Illumination range Recommended illumination Aperture correction

Input and Output Connectors: Video input/output\*

Audio input/output\*

8180 Rotary two-head. helical scanning FM system Rotary head, FM system NTSC color, EIA standards 8mm video format cassette SP: Approx. 1.43cm/sec. (19/32 in./sec.) LP: Approx. 0.72cm/sec. (5/16 in./sec.) (playback only)

SP mode: 2 hours (E6/P6-120) SP mode: 2 hours (E6/P6-120) LP mode: 4 hours (E6/P6-120) Approx. 6.5 min. (E6/P6-120) CCD (Charged Coupled Device) Electronic viewfinder (black and white)

Combined 8x power zoom lens f-8.5-68mm (11/32-2-3/4 in.) f1.6 with macro Filter diameter: 46mm (1-13/16 in.)

Automatic, HOLD

INDOOR 3,200 K, OUTDOOR 5,800K

2 lux-100,000 lux (0.2 to 9,294 footcandles) More than 100 lux (9 footcandles)

Automatic, with backlight adjustment

Phono jack, 1 Vp-p, 75 ohms unbalanced sync negative

less than 1 kilohm

Phono jack, Input: -7.5dBs, input impedance more than 47 kilohms Output: -7.5dBs, at output impedance

RFU DC OUT Special mini jack, 5V DC Earphone jack Mini jack, 8 ohm impedance Remote jack Stereo mini-mini jack \* Video/audio input and output is switched with the IN/OUT selector.

Installation

Power requirements On battery mounting surface

6.0V (battery pack) 7.5V (AC power adaptor) 9.0V (alkaline batteries) Power consumption 6.2W (camera recording) including the viewfinder Vertically, horizontally Operating temperature 0°C to 40°C (32°F to 104°F) Storage temperature -20°C to 60°C (-4°F to 140°F) Dimensions (WxHxD) Approx. 111 x 139 x 321mm

(4-3/8 x 5-1/2 x 12-3/4 in.) including

the lens hood

Weight Approx. 1.1kg (2 lb. 3 oz.) excluding the battery and cassette

Microphone Electret condenser microphone, unidirectional, monaural type

Wireless Remote Commander RMT-506N

Remote control system Infrared control Command mode VTR 2

Power requirements 3V DC, 2 size AA batteries Dimentions (WxHxD) Approx 60 x 25 x 123mm (2-3/8 x 1 x 4-7/8 in.)







# The power of full-size models in the compact, high-fidelity stereo VN-700!

You'll find all the power and extra features of full-size camcorders in Nikon's amazingly compact "Hi8" camcorder. From high-fidelity stereo recording to versatile editing, the compact new VN-700 will take your breath away with sound and images that recreate memories you'll want to relive—and share with family and friends—time and again. Nikon high technology makes this handsomely designed unit so sophisticated it's actually point-and-shoot easy-to-use.

#### **SPECIFICATIONS**

Product number Video recording system

Audio recording system Video signal Usable cassette Tape speed

Recording time Playback time

Fast forward/rewind time Image device Viewfinder Lens

Autofocus system Color temperature

Minimum illumination Illumination range Recommended illumination

Input and Output Connectors: Video input/output

S Video input/output

8120

Four rotary heads, helical scanning FM system Rotary head, FM system NTSC color, EIA standards 8mm video format cassette

SP: Approx. 1.43cm/sec. (19/32 in./sec.) LP: Approx. 0.72cm/sec.

(5/16 in./sec.) (playback only)

SP mode: 2 hours (E6/P6-120) SP mode: 2 hours (E6/P6-120) LP mode: 4 hours (E6/P6-120)

Approx. 8 min. (E6/P6-120) CCD (Charged Coupled Device) Electronic viewfinder (black and white)

Combined 8x power zoom lens f-7.8-62.4mm (5/16–2-1/2 in.) f1.6 to 2.2 with macro Filter diameter: 37mm (1-1/2 in.)

TIL

Automatic, HOLD INDOOR 3,200 K, OUTDOOR 5,800K

2 lux (f1.6) 2 lux-100,000 lux More than 100 lux

Phono jack, 1 Vp-p, 75 ohms, unbalance

75 ohms, unbalanced, sync negative 4-pin mini DIN

Luminance signal: 1 VP-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.286 Vp-p,

75 ohms, unbalanced

Audio input/output

RFU DC OUT Headphone jack Remote jack

Mic jack

General:

Power requirements

Power consumption

Installation
Operating temperature
Storage temperature
Dimensions (WxHxD)

Weight

Microphone Wireless Remote Phono jack, (2; stereo L and R) Input: -7.5dBs, input impedance more

than 47 kilohms

Output: -7.5dBs, at output impedance

less than 2.2 kilohms Special mini-jack, 5V DC Stereo mini-jack (Ø3.5) Stereo mini-jack (Ø2.5)

Stereo mini-jack, -66 dBs, low impedance, with 2.5 to 3V DC, output impedance 6.8

kilohms (ø3.5)

On battery mounting surface 6.0V (battery pack)

7.5V (AC power adaptor)
5.5W (camera recording)
including the viewfinder

Vertically, horizontally 0°C to 40°C (32°F to 104°F) -20°C to 60°C (-4°F to 140°F) Approx. 109 x 105 x 178mm

 $(4-3/8 \times 4-1/4 \times 7-1/8 \text{ in.})$  including the lens hood

Approx. 790g (1 lb. 12 oz.) excluding the battery and cassette

Electret condenser microphone, stereo ype

RM-152KN

Design and specifications subject to change without notice. © Nikon Inc. 1991







## What a great way to go places!

Whatever the destination, be sure to take the Nikon VN-310 camcorder along with you. Incredibly compact and ultra-light, the VN-310 fits comfortably in one hand. Yet for its size, it boasts all the features that ensure you great video images and rich Hi-Fi stereo sound at the touch of a button. The Nikon VN-310. Never has it been easier or more fun to make movies of all your favorite places and faces. Try it, and you'll know it's the only way to go.

#### **SPECIFICATIONS**

Product number Video recording system

Audio recording system Video signal Usable cassette Tape speed

Recording time Playback time

Fast forward/rewind time Image device Viewfinder

Autofocus system Color temperature

Minimum illumination Illumination range Recommended illumination

Input and Output Connectors: Video input/output

Audio input/output

8152 Four rotary heads helical scanning FM system Rotary head, FM system NTSC color, EIA standards 8mm video format cassette SP: Approx. 1.43cm/sec. (19/32 in./sec.)

LP: Approx. 0.72cm/sec.

(5/16 in./sec.) (playback only) SP mode: 2 hours (E6/P6-120) SP mode: 2 hours (E6/P6-120) LP mode: 4 hours (E6/P6-120) Approx. 8 min. (E6/P6-120) CCD (Charged Coupled Device) Electronic viewfinder (black and white)

Combined 6x power zoom lens f-5.8-35mm (1/4-7/16 in.) f1.8 with macro Filter diameter: 37mm (1-1/2 in.)

Automatic

INDOOR 3,200 K, OUTDOOR 5,800K

3 lux (f1.8)

3 lux-100,000 lux (0.X to 9,294 footcandles) More than 100 lux (9 footcandles)

Phono jack, 1 Vp-p, 75 ohms unbalanced sync negative Phono jack, (2; stereo L and R) Input: -7.5dBs, input impedance more than 47 kilohms Output: -7.5dBs, at output impedance

less than 2.2 kilohms

REU DC OUT Remote jack Mic jack

Stereo mini-jack, -66 dBs, low impedance, with 2.5 to 3V DC, output impedance 6.8

General:

Power requirements

Power consumption

Installation Operating temperature Storage temperature Dimensions (WxHxD)

Weight

Microphone Wireless Remote

Special mini jack, 5V DC Stereo mini-mini jack (Ø3.5)

kilohms (ø3.5)

On battery mounting surface 6.0V (battery pack)

7.5V (AC power adaptor) 5.6W (camera recording) including the viewfinder Vertically, horizontally 0°C to 40°C (32°F to 104°F)

-20°C to 60°C (-4°F to 140°F) Approx. 105 x 99 x 166mm (4-1/4 x 4 x 6-5/8 in.) including

the lens hood

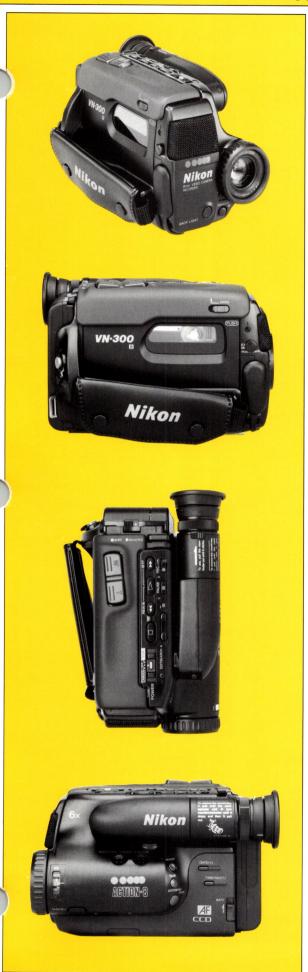
Approx. 590g (1 lb. 4 oz.) excluding the battery and cassette

Electret condenser microphone, stereo type

RM-152KN







Nikon VN-300

Product number 8150

Video recording system
Four rotary heads
Helical scanning FM system

Audio recording system

Video signal

Usable cassette

Tape speed

Rotary head, FM system

NTSC color, EIA standards
8mm video format cassette
SP: Approx. 1.43cm/sec.

(1/16 in./sec.) LP: Approx. 0.72cm/sec. (1/32 in./sec.) (playback only)

Recording timeSP mode: 2 hours (P6-120)Playback timeSP mode: 2 hours (P6-120)

LP mode: 4 hours (P6-120)

Fast forward/rewind time Approx. 8 min. (P6-120)

Image device CCD (Charged Coupled Device)

Viewfinder Electronic viewfinder

(black and white)

Combined 6x power zoom lens f=7-42mm, (9/32 to 1-11/16 ins.), f2.0 with macro filter diameter:

37mm (1-1/2 ins.)

Autofocus system Minimum illumination Illumination range

5 lux (f2.0) 5 lux-100,000 lux (0.5 to 9,290 footcandles)

Recommended illumination Aperture control More than 150 lux (14 footcandles)

Automatic

TTL

Input and Output Connectors:

Video input/output Selectable with the

INPUT/OUTPUT selector Phono jack (1), 1 Vp-p,

75 ohms unbalanced sync negative **Audio input**Selectable with the INPUT/OUTPUT

selector, Phono jack (1), -7.5dBs, input impedance more

than 47 kilohms

Audio output -7.5dBs, (at output impedence 47

kilohms)

impedance less than 2.2 kilohms

RFU DC OUT
Special mini jack, 5V DC
Remote jack
Stereo mini-mini jack

Microphone jack
Minijack, -66dBs, low impedance
with 2.5-3V DC output, impedance

at 6.8 kilohms

General:

Installation

Microphone

**Power requirements** On battery mounting surface

6.0V (battery pack)
7.5V (AC power adapter)
9.0V (alkaline batteries)
4.8W (camera recording)

Power consumption 4.8W (camera recording

including the viewfinder Vertically, horizontally 0°C to 40°C (32°F to +104°F)

Operating temperature Storage temperature Dimensions

-20°C to +60°C (14°F to +140°F) Approx. 108 x 104 x 163mm (w/h/d)

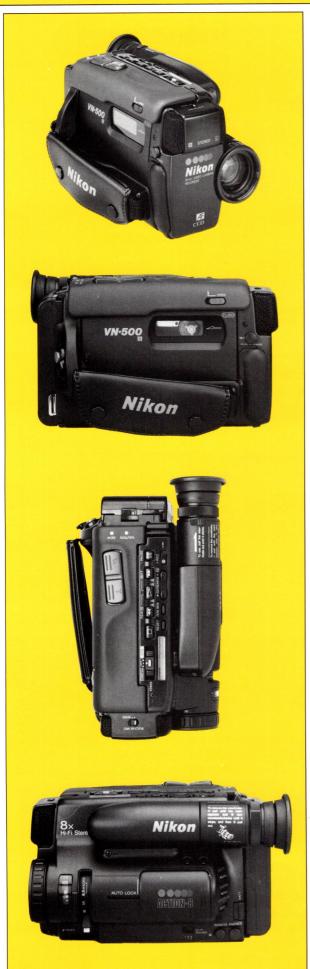
Approx. 108 x 104 x 163mm (w/ (4-3/8 x 4-1/8 x 6-5/8 in.)

Weight Approx. 700g (1 lb. 9 oz.)

excluding the battery and cassette Electret condenser microphone,

Design and specifications subject to change without notice.

Note: Nikon VN-300 is listed for information purposes only - no longer available.



#### Nikon VN-500 Niko

Product number Video recording system

Audio recording system Video signal Usable cassette Tape speed

Recording time Playback time

Fast forward/rewind time Image device Viewfinder

Lens

Autofocus system Color temperature

Minimum illumination Illumination range

Recommended illumination Aperture control

Input and Output Connectors: Video input/output

Audio input

Audio output

RFU DC OUT Headphones jack Remote jack Microphone jack

General: Power requirements

Power consumption

Installation Operating temperature Storage temperature

**Dimensions** 

Microphone

Weight

8151

Four rotary heads Helical scanning FM system Rotary head, FM system NTSC color, EIA standards 8mm video format cassette SP: Approx. 1.43cm/sec. (1/16 in./sec.)

LP: Approx. 0.72cm/sec. (1/32 in./sec.) (playback only)

SP mode: 2 hours (P6-120) SP mode: 2 hours (P6-120) LP mode: 4 hours (P6-120) Approx. 8 min. (P6-120) CCD (Charged Coupled Device)

Electronic viewfinder (black and white)

Combined 8x power zoom lens f=8.5-68mm, (11/32 to 2-3/4 ins.), f2.0 with macro filter diameter: 37mm (1-1/2 ins.)

TTL

Automatic, HOLD, **INDOOR 3,200 K** OUTDOOR 5,800 K

4 lux (f2.0) 4 lux-100,000 lux

(0.4 to 9,290 footcandles) More than 100 lux (9.3 footcandles)

Automatic

Phono jack, 1 Vp-p, 75 ohms unbalanced sync negative

-7.5dBs, input impedance more than 47 kilohms

-7.5dBs, (at output impedence 47 kilohms)

impedance less than 2.2 kilohms Special mini jack, 5V DC

Stereo mini jack Stereo mini-mini jack

Minijack, -66dBs, low impedance with 2.5-3V DC output, impedance

at 6.8 kilohms

On battery mounting surface

6.0V (battery pack) 7.5V (AC power adapter) 9.0V (alkaline batteries) 5.3W (camera recording)

including the viewfinder Vertically, horizontally  $0^{\circ}$ C to  $40^{\circ}$ C (32°F to +104°F)

-20°C to +60°C (14°F to +140°F) Approx. 109 x 106 x 183mm (w/h/d)  $(4-3/8 \times 4-1/4 \times 7-1/4 \text{ in.})$ 

Approx. 780g (1 lb. 12 oz.) excluding the battery and cassette

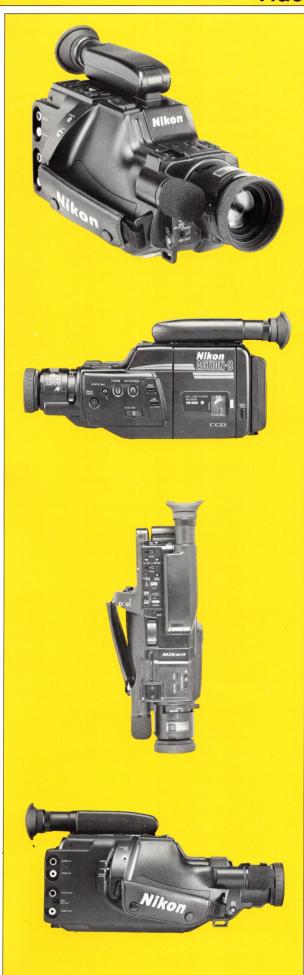
Electret condenser microphone,

stereo type

Design and specifications subject to change without notice.

Note: Nikon VN-500 is listed for information purposes only no longer available.





#### Nikon VN-830

Product number Video recording system Audio recording system

Video signal Usable cassette Tape speed

Recording time Playback time

Fast forward/rewind time Image device

**Pixels** Viewfinder Lens

Variable Shutter Speeds Auto focus system Color temperature

Minimum illumination Illumination range Recommended illumination Aperture correction

Video output

Audio output

RFU DC OUT Video input

Audio input

Earphone jack Remote jack

MIC jack

Microphone power output jack

Power requirements

Power consumption

Installation Operating temperature Storage temperature

**Dimensions** 

Weight

Microphone

8004

Rotary two heads. Helical scanning FM system

Rotary head, FM system NTSC color, EIA standards 8mm video format cassette SP: Approx. 1.43cm/sec.

LP: Approx. 0.72cm/sec. (playback only)

SP mode: 2 hours (P6-120)

SP mode: 2 hours

LP mode: 4 hours (P6-120) Approx. 6.5 min. (P6-120)

1/2" CCD (Charged Coupled Device)

Electronic viewfinder (black and white)

Combined 6x power zoom lens f-9-54mm, f1.4 with macro Filter diameter: 46mm

1/60, 1/100, 1/250, 1/1000, 1/2000, 1/4000

TTL

Auto: Hold

**INDOOR 3,200 K** OUTDOOR 5,800 K

4 lux

4 lux-100,000 lux

More than 300 lux (28 footcandles) Automatic, Backlight adjustment

Phono jack, 1 Vp-p,

75 ohms unbalanced sync negative

Phono jack, -7.5dBs,

at output impedance less than 2.2 kilohms

Special minijack, 5V DC

Miniphono jack, 1 Vp-p, 75 ohms unbalanced,

sync negative

Miniphono jack, -7.5dBs,

input impedance more than 47 kilohms

Minijack, 8 ohm impedance Stereo mini-minijack

Minijack, -66dBs, low impedance

With 2.5-3V DC output, impedance 6.8 kilohms

Special minijack, 5V DC

Battery compartment 6.0V (battery pack)/ 7.5V (AC power adaptor)/9.0V (EBP-55N)

6.9W (camera recording) including the

viewfinder

Vertically, horizontally 0°C to 40°C (32°F to +104°F)

-20°C to +60°C (-4°F to +140°F) Approx. 122 x 153 x 312mm (w/h/d)

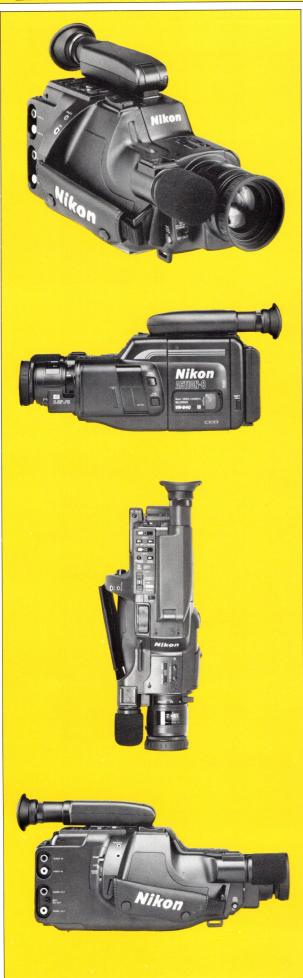
(4-7/8 x 6-1/8 x 12-3/8 in.) including lens hood

Approx. 1.2kg (2 lb. 10 oz.) excluding the battery and cassette Electret condenser microphone,

omni-directional monaural type

Note: Nikon VN-830 listed for information purposes only-No Longer Available.





#### Nikon VN-840

NIKO CONSUMER PROSUMER DEALER

Video recording system
Audio recording system

Video signal Usable cassette Tape speed

Product number

Recording time
Playback time

Fast forward/rewind time

Image device Pixels Viewfinder Lens

Variable Shutter Speeds Auto focus system Color temperature

Minimum illumination Illumination range Recommended illumination

Aperture correction

Video output

Audio output

RFU DC OUT Video input

Audio input

Earphone jack Remote jack

MIC jack

Microphone power output jack

Power requirements

Power consumption

Installation
Operating temperature
Storage temperature
Dimensions

Dimensions

Weight

Microphone

8006

Rotary two heads. Helical scanning FM system

Rotary head, FM system NTSC color, EIA standards 8mm video format cassette SP: Approx. 1.43cm/sec.

LP: Approx. 0.72cm/sec. (playback only)

SP mode: 2 hours (P6-120) SP mode: 2 hours

LP mode: 4 hours (P6-120) Approx. 6.5 min. (P6-120)

1/2" CCD (Charged Coupled Device)

270,000

Electronic viewfinder (black and white) Combined 8x power zoom lens f-8.5-68mm, f1.6 with macro Filter diameter: 46mm

 $1/60,\ 1/100,\ 1/250,\ 1/1000,\ 1/2000,\ 1/4000$ 

TTL Auto: Hold

INDOOR 3,200 K OUTDOOR 5,800 K

3 lux

3 lux-100,000 lux (0.4–9,294 footcandles) More than 300 lux (28 footcandles) Automatic, Backlight adjustment

Phono jack, 1 Vp-p,

75 ohms unbalanced sync negative

Phono jack, -7.5dBs,

at output impedance, less than 2.2 kilohms

Special minijack, 5V DC

Phono jack, 1 Vp-p, 75 ohms unbalanced,

sync negative

Phono jack, -7.5dBs,

input impedance more than 47 kilohms

Minijack, 8 ohm impedance Stereo mini-minijack

Minijack, -66dBs, low impedance With 2.5-3V DC output,

impedance 6.8 kilohms

Special minijack, 5V DC

Battery compartment 6.0V (battery pack)/7.5V (AC power adaptor)/9.0V (alkaline

patteries)

6.9W (camera recording) including the

viewfinder

Vertically, horizontally 0°C to 40°C (32°F to +104°F)

-20°C to +60°C (-4°F to +140°F)

Approx. 122 x 153 x 314mm (w/h/d) (4-7/8 x 6-1/8 x 12-3/8 in.) including lens hood

Approx. 1.2kg (2 lb. 10 oz.) excluding the battery and cassette Electret condenser microphone, uni-directional monaural type

Note: Nikon VN-840 listed for information purposes only— No Longer Available.





Product number Video recording system Audio recording system Video signal Usable cassette Tape speed

Recording time Playback time

Fast forward/rewind time Image device Pixels Viewfinder Lens

Variable Shutter Speeds Auto focus system Color temperature

Minimum illumination Illumination range Recommended illumination Aperture correction Video output

Audio output

RFU DC OUT Video input

Audio input

Earphone jack Remote jack MIC jack

Microphone power output jack Power requirements

Power consumption

Installation Operating temperature Storage temperature Dimensions

Weight

Microphone

Product number Remote control system Power requirements **Dimensions** 

Weight

# Nikon VN-850 Nikon

Rotary two heads. Helical scanning FM system

Rotary head, FM system NTSC color, EIA standards 8mm video format cassette SP: Approx. 1.43cm/sec.

LP: Approx. 0.72cm/sec. (playback only)

SP mode: 2 hours (P6-120) SP mode: 2 hours LP mode: 4 hours (P6-120) Approx. 6.5 min. (P6-120)

CCD (Charged Coupled Device)

270,000

Electronic viewfinder (black and white) Combined 8x power zoom lens f-8.5-68mm, f1.6 with macro Filter diameter: 46mm

1/60, 1/100, 1/250, 1/1000, 1/2000, 1/4000

TTL

Auto: Hold **INDOOR 3,200 K** OUTDOOR 5,800 K

2 lux

2 lux-100,000 lux

More than 100 lux (9 footcandles) Automatic, Backlight adjustment Phono jack, 1 Vp-p,

75 ohms unbalanced sync negative

Phono jack, -7.5dBs,

at output impedance less than 1 kilohms

Special minijack, 5V DC

Phono jack, 1 Vp-p, 75 ohms unbalanced.

sync negative

Phono jack, -7.5dBs,

input impedance more than 47 kilohms

Minijack, 8 ohm impedance Stereo mini-minijack

Minijack, -66dBs, low impedance With 2.5-3V DC output,

impedance 6.8 kilohms

Special minijack, 5V DC On battery mounting surface 6.0V (battery pack) 7.5V (AC power adaptor) 9.0V (alkaline batteries)

6.2W (camera recording) including the

viewfinder

Vertically, horizontally 0°C to 40°C (32°F to +104°F) -20°C to +60°C (-4°F to +140°F)

Approx. 111 x 139 x 319mm (w/h/d)

(4-3/8 x 5-1/2 x 12-5/8 in.) including lens hood

Approx. 1.1kg (2 lb. 3 oz.) excluding the battery and cassette Electret condenser microphone.

omni-directional monaural type

**VN-850 Wireless Remote** Comander (repl.)

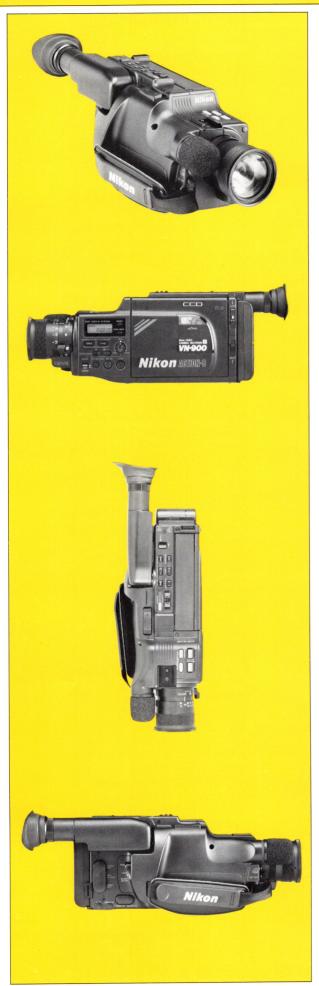
8066

Infrared control

3V DC; 2 size AA batteries

Approx. 57 x 20 x 120mm (w/h/d) (2-1/4 x 13/16 x 4-3/4 in.)

Approx. 62g (2 oz.) excluding batteries



#### Nikon VN-900

Product number Video recording system Audio recording system

Video signal Usable cassette Tape speed

Recording time Playback time

Fast forward/rewind time Image device Pixels Viewfinder

Lens

Variable Shutter Speeds Auto focus system Color temperature

Minimum illumination
Illumination range
Recommended illumination

Aperture correction

Video output

Audio output

RFU DC OUT Video input

Audio input

Earphone jack Remote jack MIC jack

MIC jack

Microphone power output jack

Power requirements
Power consumption

Installation
Operating temperature
Storage temperature

Dimensions

Weight

Microphone

8003

Rotary four heads. Helical scanning FM system

Rotary head, FM system NTSC color, EIA standards 8mm video format cassette SP: Approx. 1.43cm/sec.

LP: Approx. 0.72cm/sec. (playback only)

SP mode: 2 hours (P6-120) SP mode: 2 hours

LP mode: 4 hours (P6-120) Approx. 8 min. (P6-120)

2/3" CCD (Charged Coupled Device)

420,000

Electronic viewfinder (black and white)
Combined 6x power zoom lens

f-12-72mm, f1.6 with macro Filter diameter: 46mm

1/60, 1/100, 1/250, 1/1000, 1/2000, 1/4000

TTL

Auto: Hold

INDOOR 3,200 K OUTDOOR 5,800 K

5 lux

5 lux-100,000 lux (0.5–9,294 footcandles) More than 300 lux (28 footcandles)

Automatic, manual (variable)

Phono jack, 1 Vp-p, 75 ohms unbalanced

sync negative

Phono jack, -10dBs, at output impedance

less than 2.2 kilohms Special minijack, 5V DC

Miniphono jack, 1 Vp-p, 75 ohms unbalanced, sync negative

Miniphono jack, –10dBs, input impedance more than 47 kilohms

Minijack, 8 ohm impedance Stereo mini-minijack

Minijack, -66dBs, low impedance With 2.5-3V DC output, impedance

6.8 kilohms

Special minijack, 5V DC

Battery compartment 6.0V/7.5V 5.8W (camera recording) including the

viewfinder

Vertically, horizontally

0°C to 40°C (32°F to +104°F) -20°C to +60°C (-4°F to +140°F)

Approx. 106 x 112 x 300mm (w/h/d) (4-1/4 x 4-1/2 x 11-7/8 in.)

Approx. 0.9kg (2 lb.) excluding the battery and cassette

and casselle

Electret condenser microphone, omni-

directional monaural type

Note: Nikon VN-900 listed for information purposes only— No Longer Available.

Tape speed

Video input/output

MIC jack





#### Nikon VN-910

Product number

8007

Video recording system Rotary four heads. Helical scanning FM system Audio recording system Rotary head. FM system Video signal NTSC color, EIA standards Usable cassette 8mm video format cassette

SP: Approx. 1.43cm/sec. LP: Approx. 0.72cm/sec. (playback only)

Recording time SP mode: 2 hours (P6-120) Playback time SP mode: 2 hours

LP mode: 4 hours (P6-120) Approx. 8 min. (P6-120) Fast forward/rewind time

Image device 1/2" CCD (Charged Coupled Device)

**Pixels** 270,000

Viewfinder Electronic viewfinder (black and white) Lens Combined 6x power zoom lens

f-11-66mm, f2.0 with macro Filter diameter: 37mm

Variable Shutter Speeds 1/60, 1/100, 1/250, 1,1000, 1/2000, 1/4000 Auto focus system TTL

Color temperature Auto: Hold

**INDOOR 3,200 K** OUTDOOR 5,800 K

Minimum illumination 4 lux (f2.0) Illumination range 4 lux-100,000 lux Recommended illumination More than 300 lux Aperture correction Automatic

Phono jack, 1 Vp-p, 75 ohms unbalanced sync negative

Audio input/output Input: Phono jack, -7.5dBs, input impedance

more than 47 kilohms

Output: -7.5dBs, (at output impedance 47 kilohms) impedance less than 2.2 kilohms

RFU DC OUT Special minijack, 5V DC Earphone jack Minijack, 8 ohm impedance

Remote jack Stereo mini-minijack

> Minijack, -66dBs, low impedance With 2.5-3V DC output, impedance 6.8 kilohms

Microphone power output jack Special minijack, 5V DC

Power requirements Battery compartment 6.0V (battery pack)/

7.5V (AC power adaptor)/9V (alkaline

batteries)

Power consumption 5.2W (camera recording) including the

viewfinder

Installation Vertically, horizontally

Operating temperature 0°C to 40°C (32°F to +104°F) Storage temperature  $-20^{\circ}$ C to  $+40^{\circ}$ C ( $-4^{\circ}$ F to  $+104^{\circ}$ F) Dimensions Approx. 106 x 107 x 176mm (w/h/d)

(4-1/4 x 4-1/4 x 7 in.)

Weight Approx. 790g (1 lb. 12 oz.) excluding the

battery and cassette

Microphone Electret condenser microphone, omni-

directional monaural type

Note: Nikon VN-910 listed for information purposes only-

No Longer Available.



Product number Video recording system

Video signal

Tape speed

Usable cassette

Recording time

Playback time

Image device

Viewfinder

Pixels

Lens

Audio recording system

Fast forward/rewind time

Variable Shutter Speeds

Auto focus system Color temperature

Minimum illumination

Recommended illumination

Illumination range

Aperture correction

Video output

S-video output

Audio output

RFU DC OUT

Remote jack

Microphone power

Power consumption

Operating temperature

Storage temperature

output jack
Power requirements

MIC jack



Nikon VN-950

8100

on VN-950

Rotary two heads. Helical scanning FM system Rotary head, FM system

NTSC color, EIA standards 8mm video format cassette SP: Approx. 1.43cm/sec.

LP: Approx. 0.72cm/sec. (playback only)

SP mode: 2 hours (E6/P6-120)

SP mode: 2 hours LP mode: 4 hours (E6/P6-120) Approx. 7 min. (E6/P6-120)

2/3" CCD (Charged Coupled Device)

420,000

Electronic viewfinder (black and white) Combined 8x power zoom lens f-11-88mm, f1.4 with macro Filter diameter: 52mm

1/60, 1/100, 1/250, 1/1000, 1/2000, 1/4000,

1/10,000

Auto/One push white balance INDOOR 3,200 K, OUTDOOR 5,800 K

4 lux (f1.4) 4 lux-100,000 lux

More than 300 lux (28 footcandles) Automatic, manual (variable)

Phono jack, 1 Vp-p,

75 ohms unbalanced sync negative

4-pin mini-DIN

Luminance signal: 1 Vp-p, 75 ohms

unbalanced, sync negative

Chrominance signal: 0.286 Vp-p, 75 ohms

unbalanced

Phono jack, -7.5dBs,

at output impedance less than 2.2 kilohms

Special minijack, 5V DC

Video input Miniphono jack, 1 Vp-p, 75 ohms unbalanced,

sync negative

S-video input 4-pin mini-DIN

Luminance signal: 1 Vp-p, 75 ohms

unbalanced, sync negative

Chrominance signal: 0.286 Vp-p, 75 ohms

unbalanced

Audio input Miniphono jack, -7.5dBs,

input impedance more than 47 kilohms

\*\*Earphone jack\*\*

Minijack, 8 ohm impedance

Minijack, 8 ohm impedance Stereo mini-minijack

Minijack, -66dBs, low impedance

With 2.5-3V DC output, impedance 6.8 kilohms

Special minijack, 5V DC

Battery compartment 6.0V (battery pack)/ 7.5V (AC power adaptor)/9.0V (EBP-55N) 7.6W (camera recording) including the viewfinder

Vertically, horizontally

0°C to 40°C (32°F to +104°F) -20°C to +60°C (-4°F to +140°F) Approx. 126 x 136 x 352mm (w/h/d)

(5 x 5-3/8 x 13-7/8 in.) including lens hood

Approx. 1.5kg (3 lb. 5 oz.) excluding the battery and cassette Electret condenser microphone

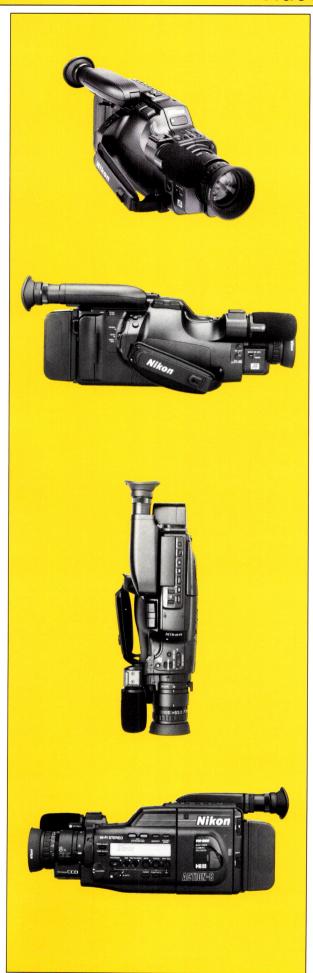
Weight

Microphone

**Dimensions** 

Product number





Nikon VN-960

011

Video recording system Two rotary heads

Helical scanning FM system

Audio recording system Rotary head, FM system (2 channels)

Video signal
Usable cassette
Tape speed

NTSC color, EIA standards
8mm video format cassette
SP: Approx. 1.43cm/sec.
(1/16 in./sec.)

(1/16 in./sec.) LP: Approx. 0.72cm/sec.

(1/32 in./sec.) (playback only)

 Recording time
 SP mode: 2 hours (E6/P6-120)

 Playback time
 SP mode: 2 hours (E6/P6-120)

LP mode: 4 hours (E6/P6-120)

Fast forward/rewind time
Image device
Viewfinder
Lens

LP mode: 4 hours (E6/P6-120)

Approx. 7 min. (E6/P6-120)

CCD (Charged Coupled Device)

Electronic viewfinder (black and white)

Combined 8x power zoom lens

f–8.5-68mm, f1.4 with macro Filter diameter: 46mm

Autofocus system TT

Color temperature Auto, one push white balance,

INDOOR 3,200 K, OUTDOOR 5,800 K

Minimum illumination 3 lux (f1.4)

Illumination range3 lux-100,000 lux (0.3 to 9,294 lux)Recommended illuminationMore than 100 lux (9 footcandles)Shutter speed control1/60 to 1/10,000 (27 steps)Aperture controlAuto/manual (16 steps)Gain controlAuto/manual (8 steps)

Input and Output Connectors:

Video input/output Phono jack, 1 Vp-p,

75 ohms unbalanced sync negative
4-pin mini-DIN, Luminance signal: 1 Vp-p.

75 ohms, unbalanced, sync negative Chrominance signal: 0.286 Vp-p.

75 ohms, unbalanced

Audio input Phono jacks (2: stereo L and R),

-7.5dBs, input impedance more

than 47 kilohms

**Audio output** Phono jacks (2: stereo L and R),

-7.5dBs, at 47 kilohms input

impedance, impedance less than 1 kilohm

RFU DC OUT Special mini jack, 5V DC

Headphones jack Stereo mini jack, 8 ohm impedance

Remote jack Stereo mini-mini jack

Microphone jack External stereo microphone jack:

minijack, -66dBs, low impedance

with 2.5-3V DC, output impedance 6.8 kilohms

Microphone power

output jack Special minijack, 5V DC

General:

Power requirements On battery mounting surface

6.0V (battery pack)
7.5V (AC power adaptor)
9.0V (alkaline batteries)
6.7W (camera recording)

**Power consumption** 6.7W (camera recording including the viewfinder

Installation Vertically, horizontally

Operating temperature $0^{\circ}$ C to  $40^{\circ}$ C ( $32^{\circ}$ F to  $+104^{\circ}$ F)Storage temperature $-20^{\circ}$ C to  $+60^{\circ}$ C ( $-4^{\circ}$ F to  $+140^{\circ}$ F)DimensionsApprox.  $105 \times 137 \times 341$ mm (w/h/d)

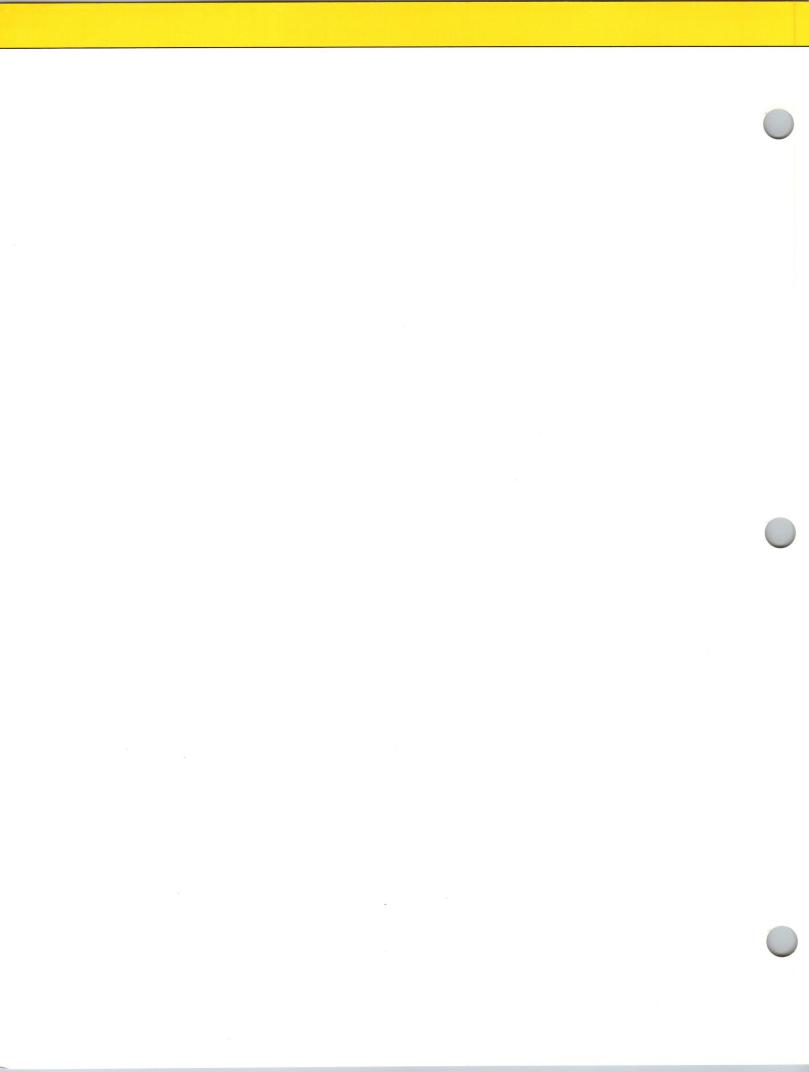
(4-1/4 x 5-1/2 x 13-1/2 in.)

Uni-directional, stereo type

Weight
Approx. 1.2kg (2 lb. 10 oz.)
excluding the battery and cassette
Microphone
Electret condenser microphone,

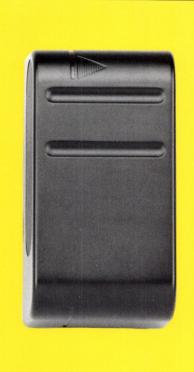
Design and specifications subject to change without notice.

Note: Nikon VN-960 is listed for information purposes only No longer available.



### Video Accessories







**NP-77H** NP-55 Product number: 8034 8030 Battery: Nicad Nicad Output: 6V DC 6V DC Capacity: 2.4 Ah 1.0 Ah Operating temp: 0°C to 40°C 0°C to 40°C (32°F to 104°F) (32°F to 104\*F)

Dimensions: 48x36x89.5mm (w/h/d) 46x18.5x89.5mm (w/h/d) (1-15/16x1-7/16x3-5/8") (1-13/16x3/4x3-5/8")

Weight: 300g (11 oz.) 150g (5.3 oz.) Charging time: Two hours 20 minutes One hour with AC-10

with AC-10

Note: Battery Packs NP-77H and NP-55 should be charged completely before using.

N-66H

Product number: 8045 Battery: Nicad Output: 6V DC Capacity: 1800 mAh

Operating temp: 0°C to 40°C (32°F to 104°F) Dimensions: 48x42x89.5mm (w/h/d)

(1-7/8x1-5/8x3-5/8")

Weiaht: 280g (8.9 oz.) Charging time: One hour 40 minutes

with AC-V55N/V35N/V60N AC Adaptor Note: Battery Pack N-66H should be charged completely before using.





Nikon "AA" Battery Case **EBP-N55** 

Product number: 8053

Special features: - Enables you to use 6 "AA" batteries to power

Nikon 8mm camcorders

- Operates VN-820, VN-830, VN-900, VN-950, HVL-10 DN Video Light

- Batteries not included

#### Nikon DC-V30N Video **Battery Automobile** Charger

Product number:

8059

Special features: The DC-V30N charger plugs into the cigarette lighter socket of a car to:

- Charge an NP-55 or NP-77H battery pack

- Power Nikon Camcorder directly using AC battery adaptor

- Charges an NP-55 in one hour or NP-77H in two hours

Power consumption: 20w

Power requirements: 12/24 v DC

Output voltage:

DC out; 7.5V, 1.6A in operating mode Battery

charge terminal; 10V, 1.3A in charge mode

Battery: Operating temp: NP-55, NP-77H or similar 0°C to 40°C (32°F to 104°F)

Storage temp: Dimensions:

-20°C to 60°C (-4°F to 140°F) 67x39x138mm (w/h/d) (2-3/4x1-1/2x5-1/2")

Weight:

310g (11.1 oz.)







#### **Nikon Video Light HVL-10DN**



#### 8056

- Attaches to camcorder accessory shoe
- Operates with NP-55: 30 min., NP-77H: 60 min.
- 10W Halogen lamp (XB-10D)
- 3000°K





Lens power: Lens structure: Screw thread for video camera recorder lens: Screw thread for filter: Dimensions:

Weight: Accessories supplied:

#### Nikon Video Tele-**Conversion Lens VCL-1446BN**



- Increases focal length of zoom lens by 1.4X
- 46mm Ø, case supplied Fits VN-820, VN-830, VN-900
- 1.4
- 2 groups, 2 elements
- 46mm Ø
- 58mm Ø
- 61mm dia. x 28.5mm
- 132.5g (6.7 oz.) excluding the caps
- Carrying case (1)



#### Nikon Video Wide-**Conversion Lens VCL-0746BN**



Product number: Special features:

Lens power: Lens structure: Screw thread for video

camera recorder lens: Screw thread for filter: Dimensions:

Weight:

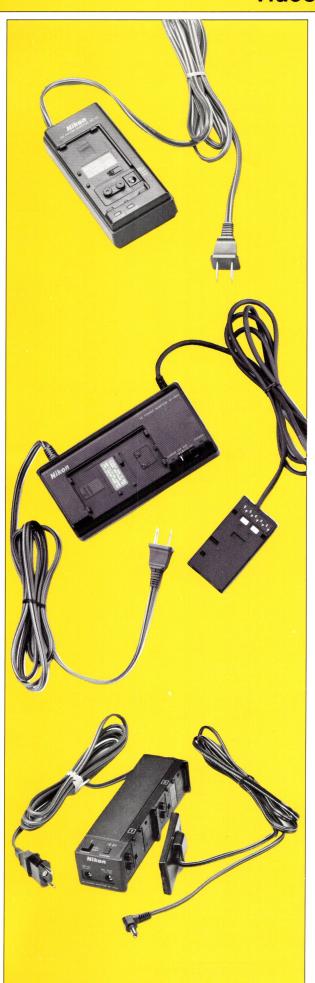
Accessories supplied:

#### - Widens focal length of zoom lens by .7X

- 46mm Ø, case supplied Fits VN-820, VN-830, VN-900
- 0.7
- 2 groups, 2 elements
- 46mm Ø
- 58mm Ø
- 61mm dia. x 39mm
- 117.5g excluding the caps
- Carrying case (1)

#### **Video Accessories**





**Nikon AC10 Power Adaptor** (repl.)

Product number: Special features:

8032

Charges an NP-55 battery pack in one hour or NP-77H battery pack in two hours

- Supplies power to camcorder via AC connecting cord

Power consumption:

Power requirements: Output voltage:

Application:

Operating temp:

Storage temp: Dimensions:

Weiaht:

- 100-240V AC; 50/60 Hz

- DC OUT 7.5V, 1.6A in operating mode

- Battery charge terminal; 10V, 1.3A in charge mode

- Nikon battery pack NP-55 or NP-77H

- 0°C to 40°C(32°F to 104°F)

- -20°C to 60°C (-4°F to 140°F)

- 67x39x138mm (w/h/d) (2-3/4x1-1/8x5-1/2")

- Including projecting parts and controls

- 310g (11 oz.)

- 1-Connecting cord

#### Nikon AC Power Adaptor AC-V60N (repl.)

Product number: Power consumption: Power requirements: Output voltage:

RFU DC OUT:

Application:

Dimensions:

Weight:

Charging time:

Operating temp: Storage temp:

Output connectors:

Supplied accessories:

8067

- 20w

- 100-240V AC; 50/60 Hz

- DC OUT 7.5V, 1.6A in operating mode

- Battery charge terminal; 10V, 1.3A in charge mode

Special minijack, 5V DC

- Video; Phono jack, 1Vp-p, 75 ohm unbalanced, sync negative

Audio; Phono jack, -7.5 dBs. Output impedance: less than 1k ohm

- Nikon battery pack NP-55, N-66H or NP-77/77H

- 0°C to 40°C(32°F to 104°F)

-20°C to 60°C (-4°F to 140°F)

- 170x41.6x82mm (w/h/d) (6-3/4x1-11/16x3-1/4")

- Including projecting parts and controls

Approximate time (in minutes):

NP-66H: 100 NP-77H: 140 NP-77: 120 NP-55: 60

- 750g (20 oz.)

#### **Nikon AC Power Adaptor** AC-V55N

Product number: Special features:

Application:

Operating temp:

Storage temp:

Dimensions:

Weight:

8052

Charges an NP-55 battery pack in one hour or NP-77H battery pack in two hours Can charge both batteries simultaneously

Adapts camcorder to AC usage via AC plug adaptor (included)

Batteries not included

Power consumption: - 26w

Power requirements: 100-240V AC: 50/60 Hz

DC IN 12/24V

Output voltage: - DC OUT 7.5V, 1.6A

- Battery charge terminal; 10V, 1.3A - Nikon battery pack NP-55 or NP-77H

0°C to 40°C(32°F to 104°F) -20°C to 60°C (-4°F to 140°F)

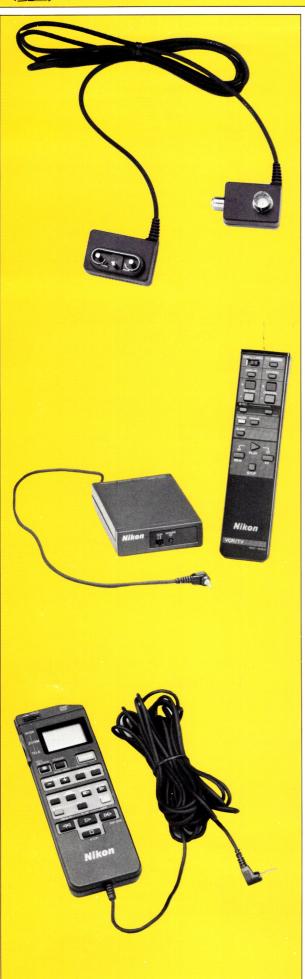
60x47x195mm (w/h/d) (2-3/8x1-7/8x7-3/4") Including projecting parts and controls

600g (1 lb. 5 oz.)

Supplied accessories: 1-AC plug adaptor (with U.S.A. model only)

- 1-Connecting cord





Product number: Special features:

#### Nikon RF10 Adaptor (repl.)

8069

- Facilitates connection to playback of camcorder to TV without audio/video connectors



Product number: Special features:

Product number:

Special features:

# Wireless Remote Control Unit RM-152KN

8054

- Consists of RMR-152N receiver and Rmt-151AN remote commander
- Controls "VCR" function of Nikon camcorders up to 23 feet
- Requires 2 "AA" batteries (included)
- Operates VN-820, VN-830, VN-900, VN-950

#### Nikon Remote Commander, Wired RM-95N

8055

- Operates either camera (VN-900, VN-950), or VCR function including: zoom, focus, record, edit search, data screen, counter reset, rewind, fast forward, play, pause, slow motion, frame by frame playback
- Cable length 5m (16 ft. 4-7/8")
- Operates VCR functions of VN-820, VN-830

# **Video Accessories**

Product number:

Special features:





Nikon AS-10 Antenna Switch (repl.)

- Facilitates playback to TV without audio/video input connectors



8062

- 46mm Ø

- For VN-820, VN-830, VN-840, VN-850, VN-900

Product number: Special features:



8063

- Audio/video cable (miniphones to 2 phono)

Product number: Special features:



- Supplied with VN-820, VN-800, VN-950
- Holds titles and slides

Product number: Special features:

Nikon

# **Video Accessories**





# Nikon Video **Compartment Case**



- Lightweight and rugged designWide shoulder strap padded for protection
- Multi compartments
- For VN-820, VN-830, VN-840, VN-850, VN-900



# Nikon VN-950 Video **Compartment Case**



- Lightweight and rugged designWide shoulder strap padded for protection
- Multi compartments
- For VN-950



Product number: Special features:

#### Nikon NS-1 Strap



- Wide comfortable strap for easy carrying of Nikon camcorder or cameras