Nikon®

Dealer Catalogue

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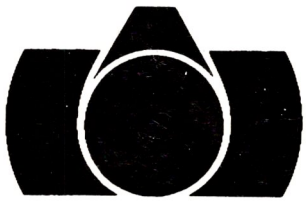

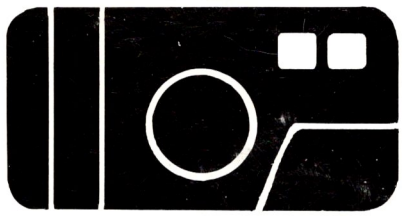

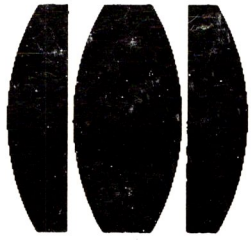

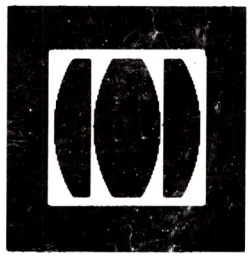

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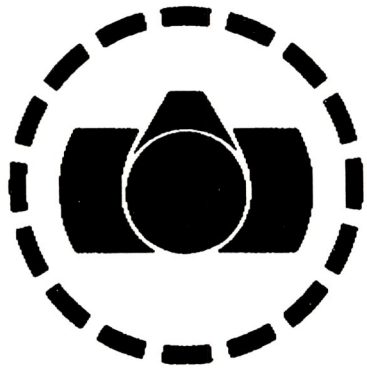
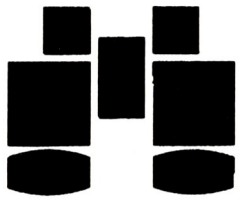




Nikon®

F4

Nikon has been at the service of professional photographers for more than thirty years. The F4 puts this heritage in your hands. A heritage embracing traditional Nikon high quality standards, sure and easy handling and reliability. Your passion for great photography and ours for great cameras have kept the Nikon image alive and growing. Now, that image lives in the Nikon F4.

Nikon®

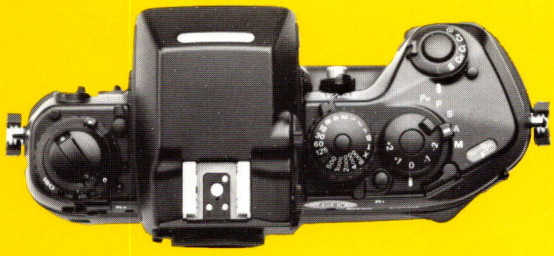
Zoom•Touch 500

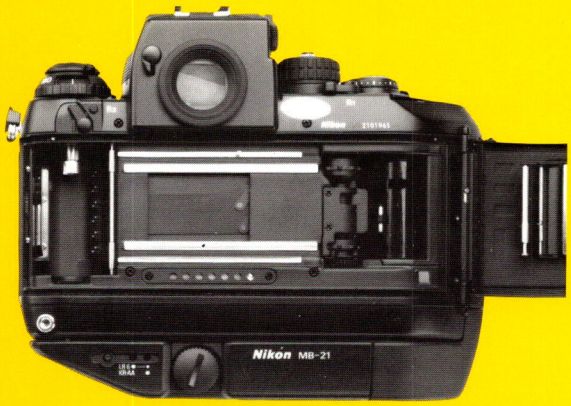
Zoom In, Zoom Out. The world moves at your command. Just touch the zoom botton with your thumb, and you can control the scene from 35mm wideangle to 80mm telephoto and everything in between.

Nikon®

One•Touch® 100

The perfect blend of shooting ease and photo excellence. The camera that says it all with perfect style. Good looks, fully automatic, easy to hold, point and shoot.

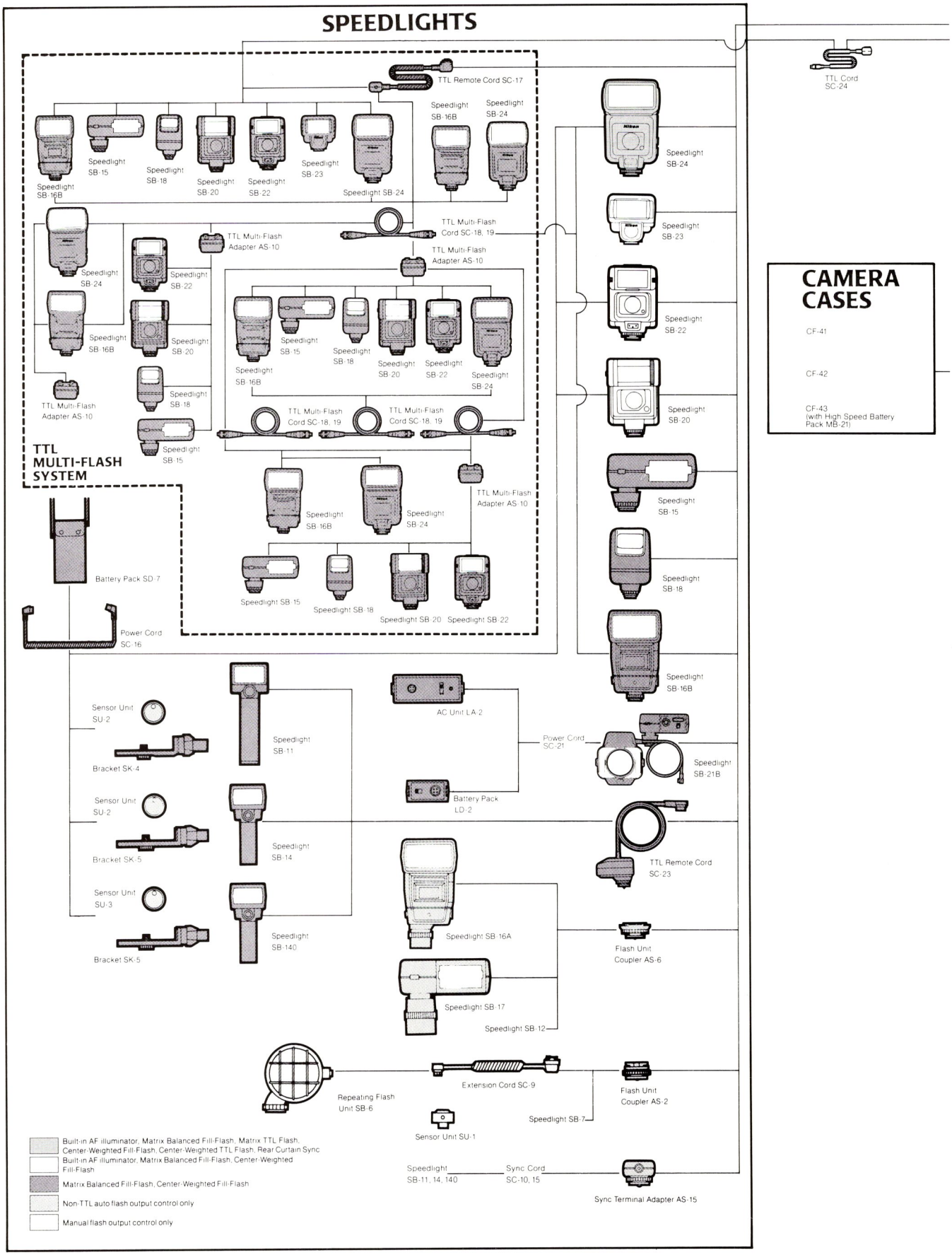


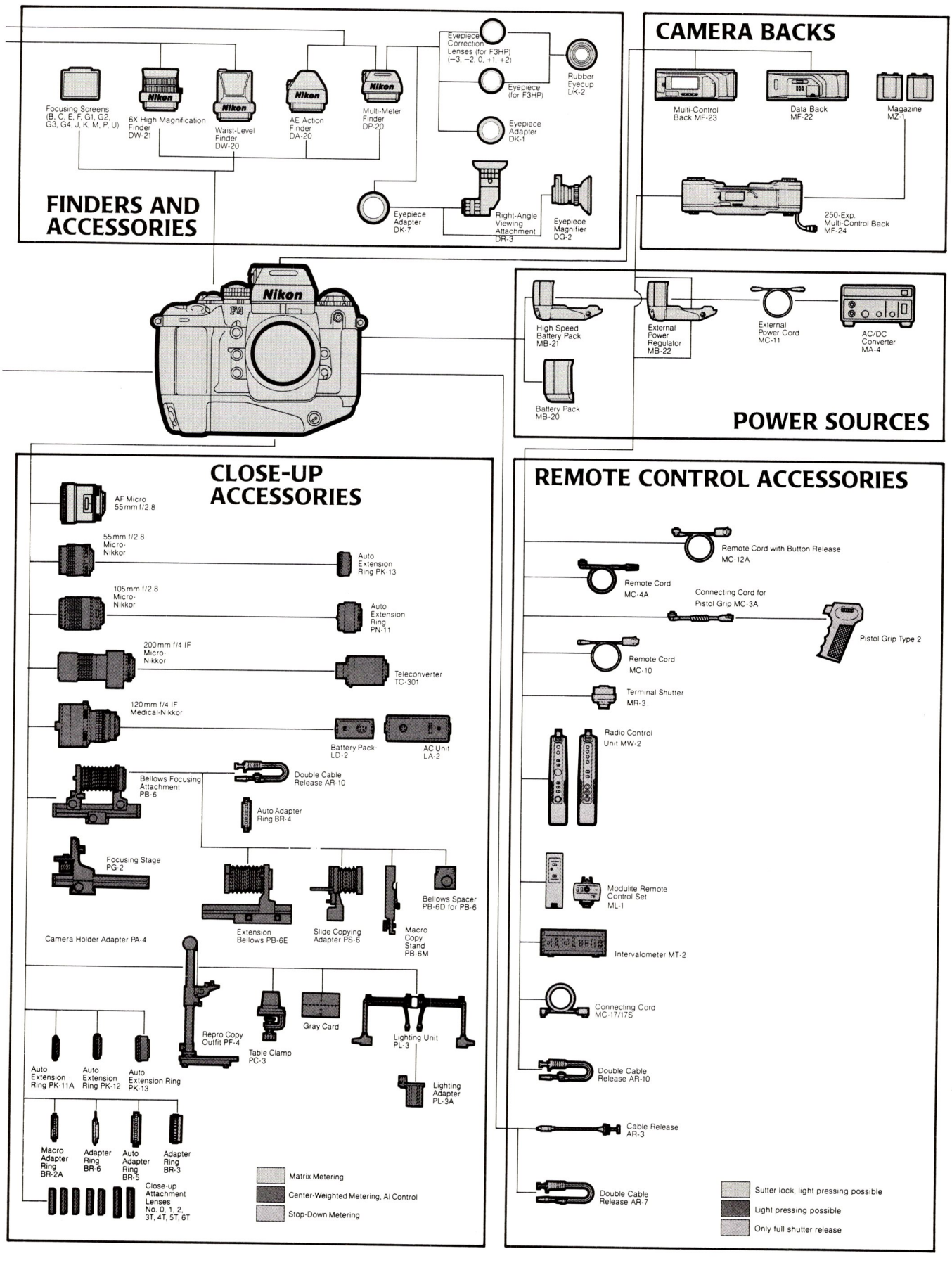


Nikon F4

Product number:	1791 (With MB-21 High Speed Battery Pack)
Type of camera:	Electronically-controlled, professional 35mm single-lens-reflex camera with autofocus and built-in high-speed motor drive
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet with autofocus contacts
Lenses:	More than 80 Nikkor and Series E SLR lenses in all; more than 15 AF Nikkor lenses for full automatic focus and exposure operation; more than 70 non-autofocus AI lenses for "A" mode automatic and "M" mode manual exposure operation
Focus modes:	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
Autofocus detection:	TTL phase-detection system using Nikon advanced AM200 autofocus module; system equipped with 200-segment CCD sensor unit
AF detection range:	EV minus 1 to EV 18 (ISO 100)
Autofocus lock:	Via shutter release button in "S" focus mode or AF lock button (AF-L) in "C" focus mode
Exposure metering:	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 AE Action Finder (optional); Nikon-exclusive Matrix metering for automatic control of difficult lighting conditions via standard DP-20 finder using multi-segment 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
Exposure control:	Automatic exposure modes of "A" (aperture-priority), "S" (shutter-priority), "P" (normal programmed exposure), and "P_{HI}" (high-speed-weighted programmed exposure) via mode selector; full manual exposure control of camera provided at "M" mode setting
Metering range:	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)
Shutter:	Electromagnetically-controlled, vertical-travel high-speed 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

ACCESSORY COMPATIBILITY




FINDERS AND ACCESSORIES
Focusing Screens (B, C, E, F, G1, G2, G3, G4, J, K, M, P, U)
6X High Magnification Finder DW-21
Waist-Level Finder DW-20
AE Action Finder DA-20
Multi-Meter Finder DP-20
Eyepiece Correction Lenses (for F3HP) (−3, −2, 0, +1, +2)
Eyepiece (for F3HP)
Rubber Eyecup DK-2
Eyepiece Adapter DK-1
Eyepiece Adapter DK-7
Right-Angle Viewing Attachment DR-3
Eyepiece Magnifier DG-2
CAMERA BACKS
Multi-Control Back MF-23
Data Back MF-22
Magazine MZ-1
250-Exp. Multi-Control Back MF-24
Nikon
F4
POWER SOURCES
High Speed Battery Pack MB-21
External Power Regulator MB-22
External Power Cord MC-11
AC/DC Converter MA-4
Battery Pack MB-20
CLOSE-UP ACCESSORIES
AF Micro 55mm f/2.8
55mm f/2.8 Micro-Nikkor
Auto Extension Ring PK-13
105mm f/2.8 Micro-Nikkor
Auto Extension Ring PN-11
200mm f/4 IF Micro-Nikkor
Teleconverter TC-301
120mm f/4 IF Medical-Nikkor
Battery Pack LD-2
AC Unit LA-2
Bellows Focusing Attachment PB-6
Double Cable Release AR-10
Auto Adapter Ring BR-4
Focusing Stage PG-2
Extension Bellows PB-6E
Slide Copying Adapter PS-6
Bellows Spacer PB-6D for PB-6
Macro Copy Stand PB-6M
Camera Holder Adapter PA-4
Repro Copy Outfit PF-4
Table Clamp PC-3
Gray Card
Lighting Unit PL-3
Lighting Adapter PL-3A
Auto Extension Ring PK-11A
Auto Extension Ring PK-12
Auto Extension Ring PK-13
Macro Adapter Ring BR-2A
Adapter Ring BR-6
Auto Adapter Ring BR-5
Adapter Ring BR-3
Close-up Attachment Lenses No. 0, 1, 2, 3T, 4T, 5T, 6T
Matrix Metering
Center-Weighted Metering, AI Control
Stop-Down Metering
REMOTE CONTROL ACCESSORIES
Remote Cord with Button Release MC-12A
Remote Cord MC-4A
Connecting Cord for Pistol Grip MC-3A
Pistol Grip Type 2
Remote Cord MC-10
Terminal Shutter MR-3
Radio Control Unit MW-2
Modulite Remote Control Set ML-1
Intervalometer MT-2
Connecting Cord MC-17/17S
Double Cable Release AR-10
Cable Release AR-3
Double Cable Release AR-7
Sutter lock, light pressing possible
Light pressing possible
Only full shutter release

Shutter control: Speed control via lithium niobate oscillator; 16 shutter speed setting in 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_{HI}" (high-speed-weighted program) and "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

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

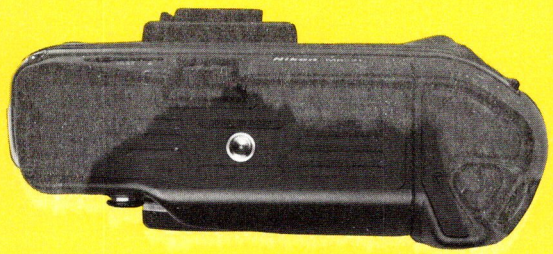
Viewfinder display: Camera body equipped with large LCD and LED panels for miscellaneous information display with any camera finder; additional LCD panel provided with standard DP-20 finder; finder display of all exposure information in all modes, compensation values, focusing indicators, flash ready-light 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 F4-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_H"), Continuous-Lo-speed ("C_L") and Continuous-"Silent" ("C_S") 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 at 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 synchronization 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

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 Pack

Weight: 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)

MB-20 Battery Pack for Nikon F4

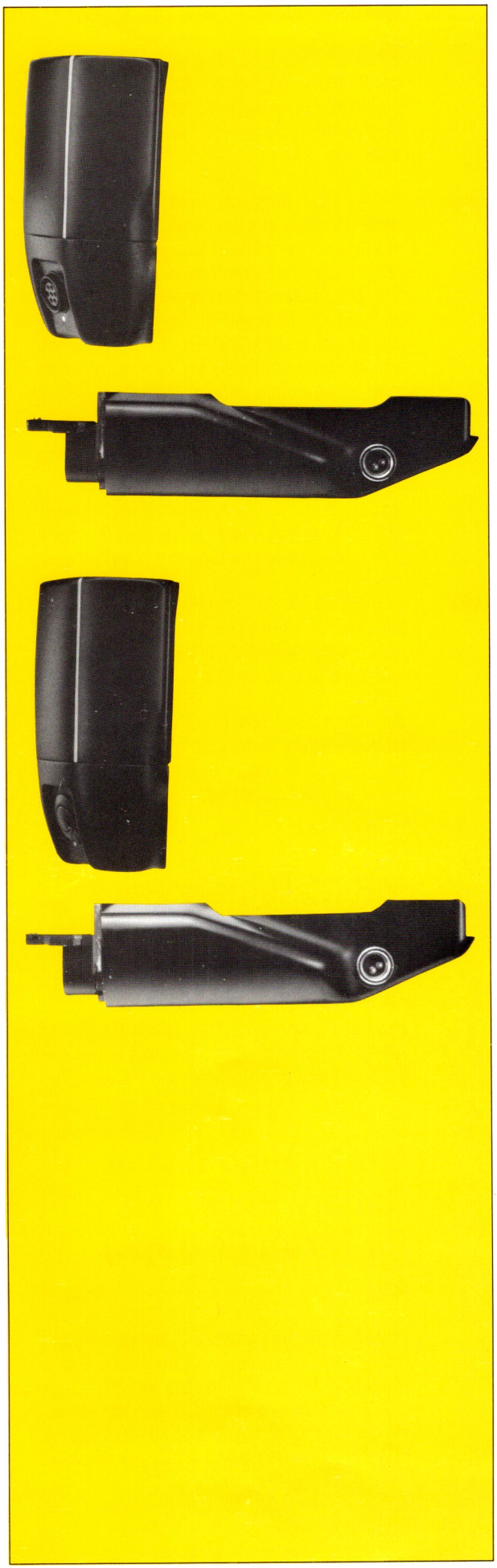
Product number: 4631

Application: Provides for powering the Nikon F4 with four AA-type (penlight) batteries; this is the most compact power source for the F4 camera

MB-21 High Speed Battery Pack for Nikon F4 (repl.)

Product number: 4632

Application: Provides for the fastest battery-powered motor drive operation with the Nikon F4; maximum firing rate with the MB-21 is approx. 5.7 fps; comes as standard with the Nikon F4 camera; unit consists of MB-21G (grip), MB-21B (base) and MS-21 Battery Holder



MB-22 External Voltage Regulator for Nikon F4

Product number: 4633

Application: Provides for operation of the Nikon F4 via external power; connects to the base of the camera in place of MB-21 High Speed Battery Pack for operation with the Nikon MA-4 AC/DC Converter; connection to the MB-22 is via optional MC-11 Power Connecting Cord; MB-22 External Voltage Regulator consists of MB-21G (grip) and MB-22B (base)

MS-21 Battery Holder for Nikon F4 (repl.)

Product number: 4637

Application: Provides for the mounting of three AA-type (penlight) batteries within the MB-21B base portion of the MB-21 Hi-Speed Battery Pack

DP-20 Multi-Meter Finder for Nikon F4 (repl.)

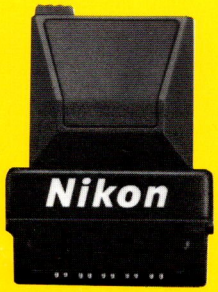
Product number: **2500**

Application: **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**

DA-20 AE Action Finder for Nikon F4

Product number: 2503

Application: Provides extra-long eye relief to permit the photographer to use the camera in a housing, etc.; fitted with circuitry to provide 60/40 center-weighted exposure measurement; selector dial enables switchover from "Center-weighted" to "Spot" metering as required; usable with all F4-series cameras; fitted with ISO-type flash hot-shoe for TTL automatic flash operation with Nikon-dedicated Speedlights



DW-20 Waist-Level Finder for Nikon F4

Product number: **2501**

Application: 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

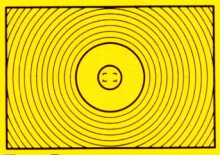
DW-21 High-Magnification Finder for Nikon F4

Product number: 2502

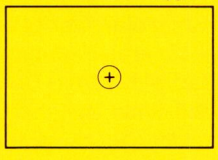
Application: Provides high magnification for critical focusing necessary for such special shooting requirements as photomicrography, etc; usable with all F4-series cameras

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

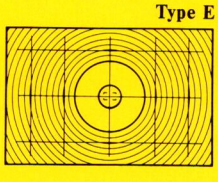
Focusing Screens for Nikon F4



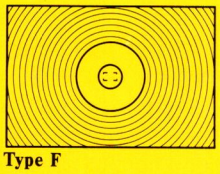
Type B



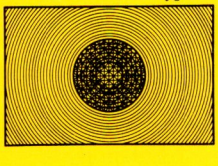
Type C



Type E



Type F



Type G

Product number: 2510

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 photography**

Product number: 2511

Description: 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: 2512

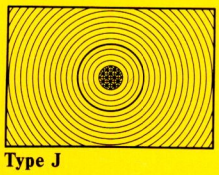
Description: Type E BriteView Focusing Screen: Focusing screen with advanced BriteView matte/Fresnel field; equipped with central reference marks denoting AF field (brackets), Spot meter area (5mm circle) and Center-weighted meter area (12mm circle); also provided with horizontal/vertical grid for reference 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: 2513

Description: 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) 2515 (Type G2)
2516 (Type G3) 2517 (type G4)

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 visualization of subject depth-of-field**

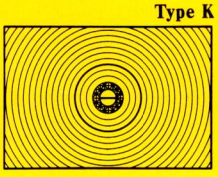


Type J

Product number: 2518

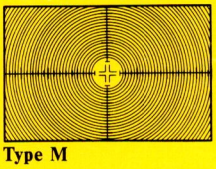
Description: Type J BriteView Focusing Screen:
Focusing screen with advanced BriteView matte/Fresnel field and clear central 5mm-diameter microprism focusing area; equipped with Center-weighted meter (12mm) reference circle; outer diameter of microprism circle denotes area of Spot metering with camera meter; overall performance good for general photography

Type K



Product number: 2519

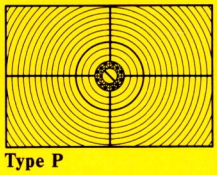
Description: Type K BriteView Focusing Screen:
Focusing screen with advanced BriteView matte/Fresnel field and clear split-image rangefinder with surrounding clear microprism collar; 5mm diameter of central rangefinder/microprism area denotes Spot meter field; also fitted with 12mm Center-weighted meter reference circle; suitable for general photography; provides for rapid and accurate manual focusing with subjects having both straight lines and ill-defined contours



Type M

Product number: 2520

Description: 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



Type P

Product number: 2521

Description: Type P 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

Type U

Product number: 2522

Description: Type U BriteView Focusing Screen:
Focusing screen 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

MF-22 Data Back

Product number: 4622

Usable camera: Nikon F4 camera

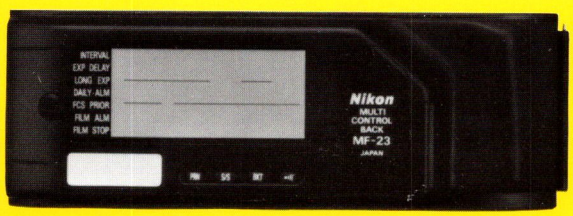
Application: Provides for conventional data imprinting on film; data imprinted within the picture frame area; equipped with SELECT button to turn on/off; either time or date imprinting is possible

Usable film speed: ISO 32-3200

Power source: One CR2050 battery (supplied)

Dimensions: 160 x 56 x 22mm (6.3 x 2.2 x 0.9 in.)

Weight: Approx. 100g (3.5 oz.), without battery



MF-23 Multi-Control Back for Nikon F4

Product number: 4623

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 date, time, sequence #, frame number, shutter/aperture information or fixed number possible via selection; data imprinted within the picture frame and/or between frames via selector

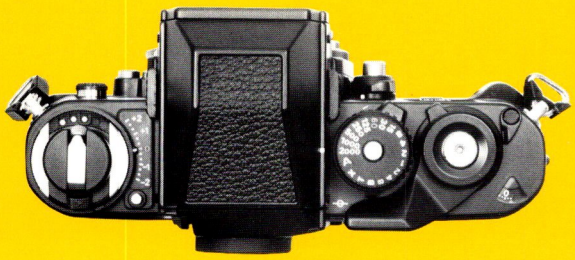
Other functions: Interval/timer, automatic exposure bracketing, long-time exposure control and "Freeze" focus operation

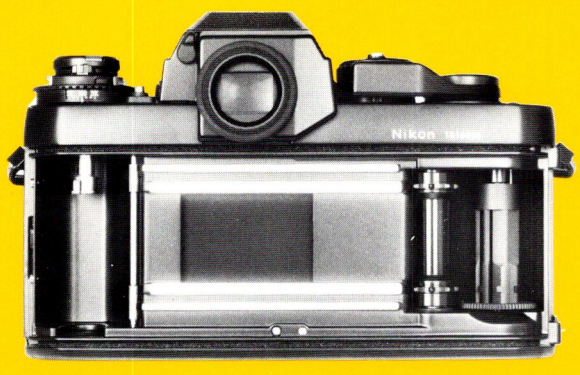
Bracketing steps: Up to 19 consecutive exposures (min. three frames); 1/3 EV to 2 EV steps via selector

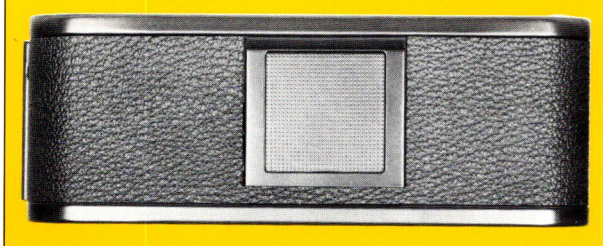
Long exposure control: Setting provided for selection of exposure times up to 99 hr., 59 min., 59 sec.

Usable film speed: ISO 25-3200

Power source: Two CR2050 batteries (supplied)

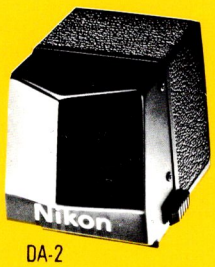






Nikon F3HP

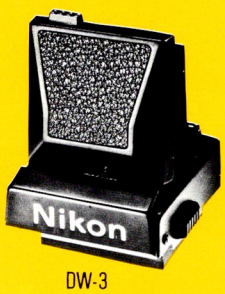
Product number:	1691
Type of camera:	Electronically-controlled, single-lens-reflex camera
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet
Lenses:	Nikkor 50mm f/1.2, 50mm f/1.4 or 50mm f/1.8 as standard lenses, and more than 60 Nikkor and Nikon Series E lenses
Shutter:	Horizontal-travel, titanium foil, focal-plane 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 when battery power is exhausted, or to conserve battery power for T (Time) exposures
Automatic exposure control:	Aperture-priority, automatic exposure control with 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 setting
Viewfinder:	High-eyepoint Eyelevel Finder DE-3 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 conditions
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
Flash synchronization:	All speeds of from 8 sec. to 1/60 sec., plus X (1/80 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. or above; 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 Nikkor lenses
Exposure compensation:	Provided; from +2 to -2 in one-third step increments
Exposure memory:	Possible via front-mounted lock button



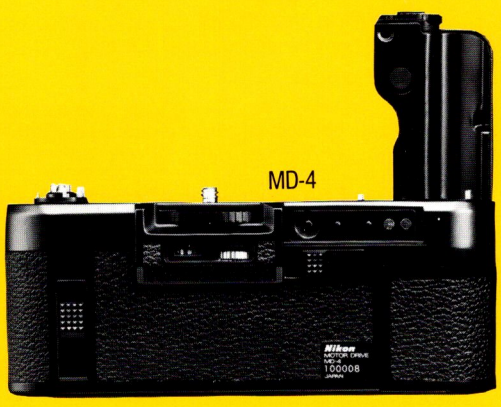
DA-2

DE-3

DW-4



DW-3



MD-4

Multiple exposure: Possible via top-mounted lever

Self timer: 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.

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

Depth-of-field preview: Possible via button fitted coaxial with the mirror lock-up lever

Film advance lever: 30° stand-off angle and 140° winding angle; wound in single stroke or series of smaller strokes

Frame counter: Additive type; automatically reset when camera back is opened

Film rewind: Via rewind crank after depressing film rewind button; automatic film rewind possible with Motor Drive MD-4

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

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

Dimensions: Approx. 101.5mm (H) x 148.5mm (W) x 69.0mm (D) (4″ x 5.8″ x 2.7″)

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

Optional accessories:
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/MF-17/MF-18
250-ex Magazine Back MF-4
Auto Rewind-Stop Back MF-6B
Eyepiece Adapter Ring DK-3

Nikon F3/T

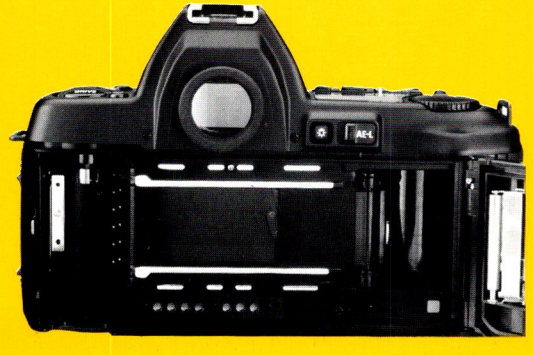
Product number: 1694

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.

Nikon N8008

Ultra High Speed Performance

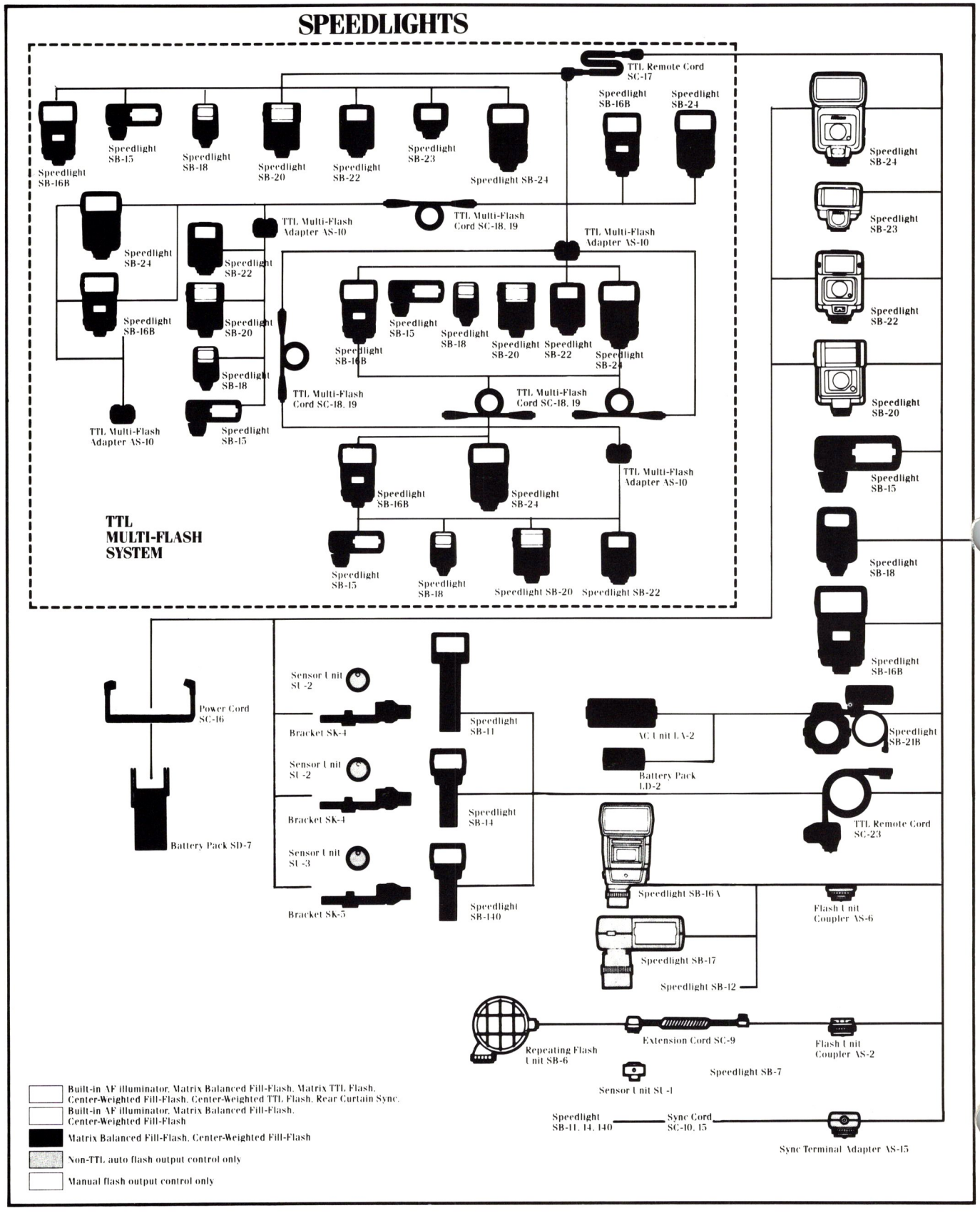
The Nikon N8008 is the high performance autofocus SLR camera designed for serious photographers and advanced amateurs, who like to be involved closely with both the science and art of picture-taking. With its unparalleled array of technological breakthroughs, the N8008 is certain to stimulate the user into taking and *making* pictures just as he or she envisions them. It becomes the tool of the photographer's imagination.



Nikon N8008

Product number:	1760
Type of camera:	Electronically-controlled, advanced autofocus single lens reflex camera with built-in motor drive
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet with autofocus contacts
Lenses:	AF Nikkor lenses for all operation modes; more than 70 non-AF Nikkor and Series E lenses (with limitation) usable
Focus modes:	Single-servo (S) autofocus, continuous-servo (C) autofocus and manual (M) focus with electronic rangefinder; electronic rangefinder operation with lens of maximum aperture f/5.6 or brighter
Autofocus detection:	TTL phase detection system using Nikon advanced AM200 autofocus module; system equipped with 200-segment CCD sensor unit
AF detection range:	EV minus 1 to EV 19 (ISO 100)
Autofocus lock:	Via shutter release button in S focus mode or autofocus lock button (AF-L) in C focus mode
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 Speedlight SB-24
Exposure control:	Automatic exposure modes of "A" (aperture-priority), "S" (shutter-priority), "P" (normal programmed exposure), "P_{HI}" (hi-speed program), and "P_D" (dual program) via mode selection; flexible program operation via operation of the Command Input Control Dial; full manual exposure control of camera provided 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 seconds to 1/8000 second provided in "M" exposure mode; stepless operation in automatic modes
Viewfinder:	Fixed eyelevel pentaprism type; long eye relief provided via high-eyepoint design; 0.75x magnification; 92% frame coverage

ACCESSORY COMPATIBILITY



DATA BACKS

Multi-Control Back MF-21

Data Back MF-20

REMOTE CONTROL ACCESSORIES

Remote Cord with Button Release MC-12A

Remote Cord MC-14A

Connecting Cord for Pistol Grip MC-3A

Pistol Grip Type 2

Remote Cord MC-10

Terminal Shutter MR-3

Radio Control Unit MW-2

Intervalometer MT-2

Modulite Remote Control Set ML-1

Release lock, and lightly pressing possible

Lightly pressing possible

No lightly pressing

CLOSE-UP ACCESSORIES

55mm f/2.8 Micro-Nikkor

Auto Extension Ring PK-13

105mm f/2.8 Micro-Nikkor

Auto Extension Ring PN-11

200mm f/4 IF Micro-Nikkor

Teleconverter TC-301

120mm f/4 IF Medical-Nikkor

Battery Pack LD-2

AC Unit LA-2

Bellows Focusing Attachment PB-6

Double Cable Release AR-10

Auto Adapter Ring BR-4

Focusing Stage PG-2

Camera Holder Adapter PA-4

Extension Bellows PB-6E

Slide Copying Adapter PS-6

Bellows Spacer PB-6D for PB-6

Macro Copy Stand PB-6M

Camera Cradle PH-4

Repro Copy Outfit PF-4

Table Clamp PG-3

Gray Card

Lighting Unit PL-3

Lighting Adapter PL-3A

Auto Extension Ring PK-11A

Auto Extension Ring PK-12

Auto Extension Ring PK-13

Macro Adapter Ring BR-2A

Adapter Ring BR-6

Auto Adapter Ring BR-5

Adapter Ring BR-3

Close-up Attachment Lenses No. 0, 1, 2, 3T, 4T, 5T, 6T

Matrix Metering

Center-Weighted Metering, AI Control

Stop-Down Metering

CAMERA CASES: CF-39, CF-40, CF-39D, CF-39 Front Flap, CF-40 Front Flap

FINDER ACCESSORIES

BriteView Screens

Type B

Type E

Type J

Eyepiece Correction Lenses (−5, −4, −3, −2, 0, +0.5, +1, +2, +3)

Eyepiece

Eyepiece Adapter DK-7

Right-Angle Viewing Attachment DR-3

Rubber Eyecup DK-6

Eyepiece Magnifier DG-2

Focusing screen:	Nikon advanced type B BriteView 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 BriteView screens
Viewfinder display:	LCD viewfinder display provided directly below the image field; display panel provides for virtually all information to be visible within viewfinder; equipped with illuminator for operation under low-light shooting conditions
Usable film speed range:	ISO 25 to 5000 for DX-coded film; ISO 6 to 6400 for manual film speed setting
Film advance:	Single-frame motor advance at "S" motor setting; 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 EV to -5 EV provided
Depth-of-field preview:	Via front-mount button
Flash hot shoe:	Standard ISO-type shoe with supplemental contacts for operation with Nikon-dedicated electronic Speedlights; maximum flash sync setting of 1/250 sec. provided
Power source:	Four AA-type (penlight) batteries
Dimensions:	6.0" x 4.0" x 2.6" (WxHxD)
Weight:	24.5 oz. (body only, without batteries)

MS-7 AA Battery Holder for Nikon N8008 (repl.)

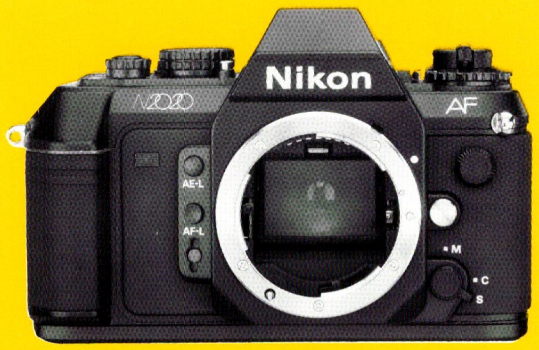
Product number:	4630
Application:	Provides for mounting of four AA-type (penlight) batteries in Nikon N8008 camera; supplied with camera

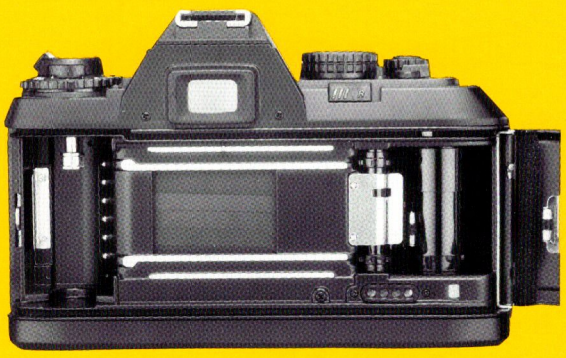
Eveready Cases for Nikon N8008

Product number:	Model:
4590	CF-39 Evrdy Case (camera w/normal lens)
4592	CF-39D Eveready Case Base f/CF-39,40 (camera w/data back)
4591	CF-40 Evrdy Case (camera w/tele lens)

Nikon N4004

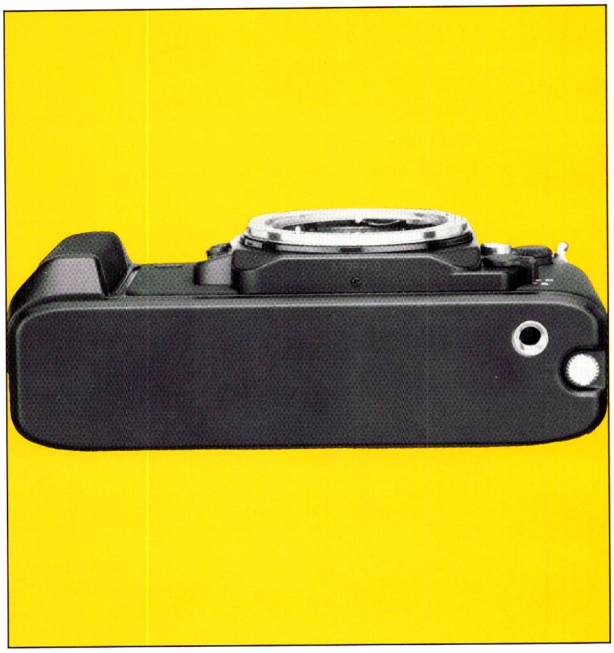
Product number:	1750
Type of camera:	Electronically-controlled, autofocus single-lens-reflex camera with built-in motor drive and TTL flash unit
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet with autofocus contacts
Lenses:	Autofocus Nikkor lenses and more than 70 non-AF Nikkor and Series E lenses (with limitation)
Autofocus selector:	A mode: autofocus priority with shutter release possible only after the green focusing LED lights up; M mode: manual focusing
Focus memory:	Via shutter release button
Viewfinder:	Fixed pentaprism viewfinder with about 92% frame coverage
Viewfinder information:	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
Focusing screen:	Type B with central focus brackets for autofocus operation; 12mm diameter reference circle denotes centerweighted metering area
Exposure metering:	Thru-the-lens (TTL) full aperture exposure measurement with segmented silicon photodiode (SPD)
Exposure control:	Triple-sensor metering for automatic exposure correction for difficult lighting conditions; dual program, shutter speed and aperture are set automatically, taking into account the focal length of the lens; in shutter-priority, aperture is set automatically, for pre-selected shutter speed; in aperture-priority, shutter speed is set automatically for preselected aperture; in manual, aperture and shutter speed are set manually
Exposure memory:	Via front-mounted AE-lock control
Film speed settings:	ISO 25-5000 automatic setting for DX-coded films
Shutter:	Electronically-controlled, vertical-travel, focal plane shutter
Shutter speeds:	Stepless, automatic settings between 1 sec and 1/2000 when set for program "A" (aperture-priority) or "S" (shutter-priority) operation; 12 electronically-timed fixed speeds from 1 sec. to 1/2000 sec. for manual setting; long exposures at B setting.
Film advance:	Automatic loading check system; film automatically advanced to frame "1" after shutter release is depressed once; film advance indicator provided on camera back
Frame counter:	Additive-type with automatically reset to "S" when the camera back is opened
Film rewind:	Motorized, automatic after depressing rewind button
Self-timer:	Electronically-controlled, 10 sec. shutter release delay; visual display via LED at front of camera
Accessory shoe:	Standard ISO hot shoe with additional contacts for TTL metering and flash ready indication
Built-in TTL flash:	GN 12 (ISO 100 film) with angle of coverage sufficient for use with lenses to 35mm focal length; TTL automatic flash control via built-in sensor; operation integrated with standard triple-sensor metering to enable proper exposure control even under difficult subject lighting conditions
Flash synchronization:	1/100 sec. for automatic modes; 1/100 sec. or slower in manual mode, including B
Flash ready-light:	Flash symbol visible as soon as the Nikon Speedlight is ready; blinks to indicate when flash is required or when light output of flash was inadequate for correct exposure
AF-assist flash photography:	Possible with optional Nikon Speedlights SB-20/22
Power source:	Four 1.5 V AA-type (penlight) batteries via battery chamber at base plate of camera
Dimensions:	154mm (W) x 102mm (H) x 65.6mm (D) (6.0″ x 4.0″ x 2.6″)
Weight:	Approximately 645g (22.6 oz.), body only
Optional accessories:	Body Cap BF-1A Speedlights SB-15/18/20/22



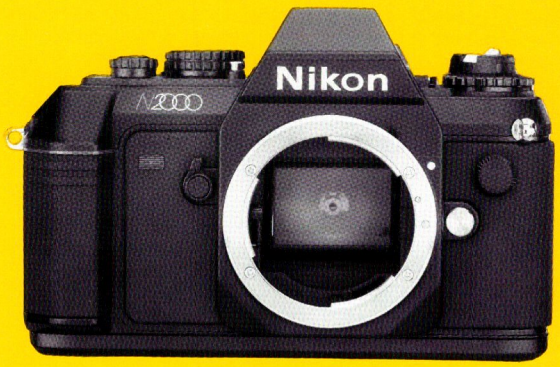


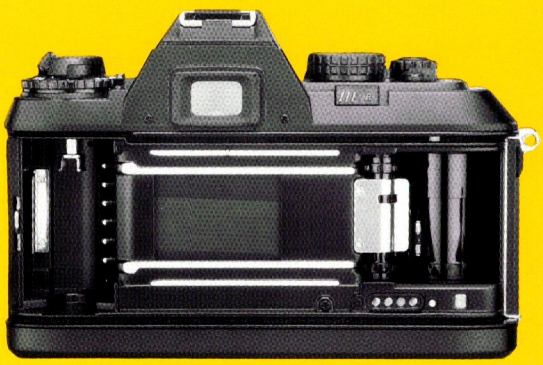
Nikon N2020

Product number:	1740
Type of camera:	Electronically-controlled, single-lens-reflex camera with built-in motor drive and dual autofocus
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet with autofocus contacts
Lenses:	More than 12 autofocus Nikkor lenses and more than 70 non-AF Nikkor and Series E lenses; With Autofocus Converter TC-16A, more than 30 Nikkor lenses can be used in the autofocus mode
Autofocus selector:	S mode, autofocus priority with shutter release possible only after the green focusing LED lights up; C mode, shutter release priority, the shutter can be released at any time; C mode particularly suitable for photographing moving objects; M mode, manual focusing
Focus memory:	Via shutter release button in single-serve autofocus and via AF-lock button in continuous-serve autofocus
Viewfinder:	Fixed pentaprism viewfinder with about 92% frame coverage
Viewfinder information:	LED providing information on focusing: — Focusing not possible (X) — Correctly focused (0) Arrow indicates direction of rotation of lens as a focusing aid; LEDs indicate shutter speed, warning of overexposure and underexposure, and flash recycling
Focusing screen:	Type B with central focus brackets for autofocus operation; 12mm diameter reference circle denotes centerweighted metering area; interchangeable with types E and J focusing screens
Exposure metering:	Thru-the-lens (TTL) full aperture centerweighted exposure measurement with silicon photodiode (SPD)
Exposure control:	In dual program, shutter speed and aperture are set automatically, taking into account the focal length of the lens; standard program, shutter speed and aperture are set automatically; high-speed program, shutter speed and aperture are set automatically for preselected aperture; manual, 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 AE-lock control
Exposure compensation:	+2 to -2 steps in one-third increments via dial
Film speed settings:	Automatic setting for DX-coded films (ISO 25-5000); manual setting for films without DX code (ISO 12-3200)
Shutter:	Electronically-controlled, vertical-travel, focal plane shutter
Shutter speeds:	Stepless, automatic settings between 1 sec and 1/2000 sec. on P Dual, P, P Hi, and A; 12 quartz-controlled, fixed speeds from 1 sec. to 1/2000 sec. for manual setting; long exposures at B setting.
Film advance:	Automatic loading check system; with simultaneous film advance to frame 1; modes of operation, single-frame advance (S), continuous advance to 2.5 frames/sec. (C) or shutter locked (L)
Frame counter:	Automatically resets to S when the camera back is opened
Film rewind:	Via manual rewind crank after actuating rewind lever
Audible warning alarm:	Sounds in the following cases: DX setting but no DX-coded film, DX contact dirty, over- or under-exposure and possible blur in autoexposure modes, and at end of film roll
Self-timer:	Electronically-controlled, 10 sec. shutter release delay; audible and visual display
Accessory shoe:	Standard ISO hot shoe with additional contacts for TTL metering and flash ready indication with N2020-dedicated speedlights



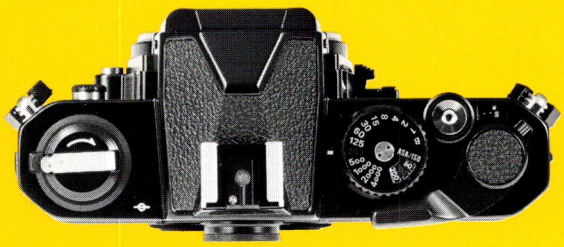
Flash synchronization:	1/125 sec. for automatic modes; 1/125 sec or slower (plus B) in manual
Flash ready-light:	Flash symbol visible as soon as the N2020-dedicated Speedlight is ready; blinks after exposure when light intensity is inadequate
Autofocus-assist flash photography:	Possible with optional Nikon AF Speedlights SB-20/22 with camera in single-servo (S) mode
Power source:	Four 1.5V AAA-type (penlight) batteries; with optional Battery Holder MB-3, four 1.5V AA-type batteries can be used
Dimensions:	148.5mm (W) x 97.5mm (H) x 54.5mm (D) (5.8″ x 3.8″ x 2.1″)
Weight:	Approximately 610g (22.1 oz.), body only
Optional accessories:	Body Cap BF-1A Battery Holder MB-3 (for AA-type batteries) Multi Data Back MF-19 Autofocus Converter TC-16A Remote Trigger Cord MC-12A Tripod Adapter AH-3 Speedlights SB-15/16B/18/20/21B/22

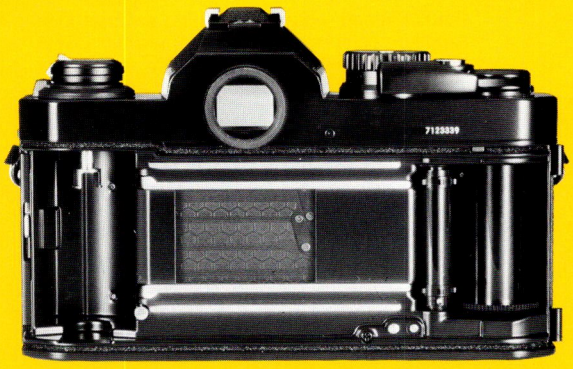




Nikon N2000

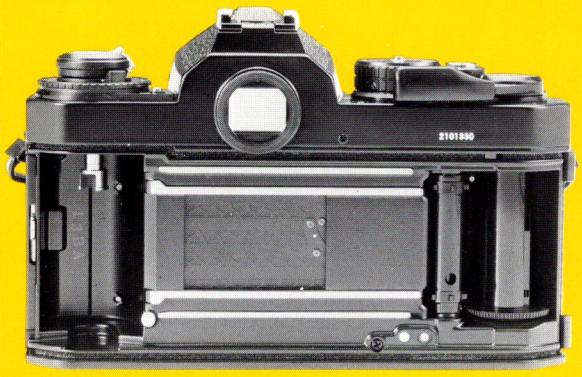
Product number:	1720
Type of camera:	Electronically-controlled, single-lens-reflex camera with built-in motor drive
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet
Lenses:	More than 60 Nikkor and Nikon Series E lenses
Viewfinder:	Fixed pentaprism viewfinder with approximately 92% frame coverage
Viewfinder information:	Via LEDs, shutter speed, warning of overexposure or underexposure and recycling of flash
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)
Exposure control:	Standard program, shutter speed and aperture are set automatically; high-speed program, shutter 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
Exposure compensation:	+2EV to -2EV in one-third increments via 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 Hi, and A; 12 stepped, electronically-controlled fixed speeds from 1 sec. to 1/2000 sec, plus B (Bulb) in manual mode
Film advance:	Automatic loading check system; with simultaneous film advance to frame 1; Mode of operation, single-frame mode (S), Continuous-frame mode with 2.5 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
Audible warning alarm:	Sounds in the following cases: DX setting but no DX-coded film, DX contact dirty, over- or under-exposure and possible picture blur in autoexposure modes, and at end of film roll
Self-timer:	Electronically-controlled, 10 sec. delay; audible and 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 sec in auto modes; 1/125 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:	148.5mm (W) x 97.5mm (H) x 54.5mm (D) (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

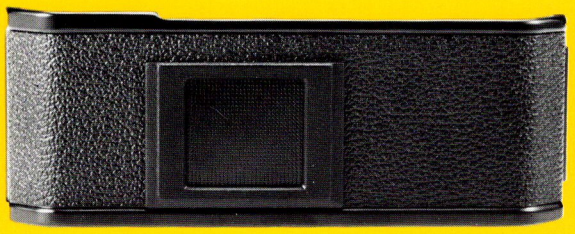




Nikon FM2

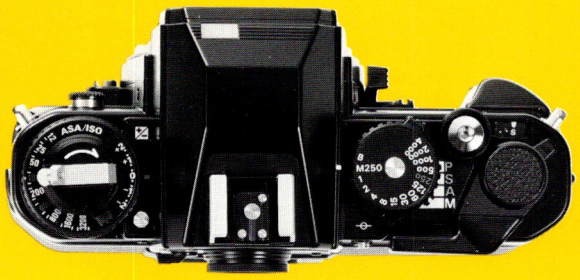
Product number:	1683 (chrome) 1684 (black)
Type of camera:	Mechanically-controlled, single-lens-reflex camera
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet
Lenses:	More than 60 Nikkor and Nikon Series E lenses
Shutter:	Mechanically-controlled, vertical-travel, metal focal plane shutter with titanium curtains
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
Shutter speeds:	Mechanically governed speeds of 1 sec. to 1/4000 sec., plus B (Bulb)
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 about 93% frame coverage
Viewfinder display:	Shutter speed, f-number in use via aperture-direct-readout scale on lens and 3 LEDs (+, 0, -) for 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; screens can also be used with the Nikon FE2
Mirror:	Rapid-return mirror with special control and braking to reduce vibrations and operating noise; depth-of-field preview lever provided at front of camera
Motor drive coupling:	Electrical contact and mechanical coupling for optional Motor Drive MD-12
Multiple exposure lever:	Provided; couples with frame counter to stop count 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
Accessory shoe:	Standard ISO-type; contact for ready light provided
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
Power 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:	Pops open when the film rewind knob is pulled up; can be removed to insert Data Back MF-16; memo holder provided
Dimensions:	142.5mm (W) x 90mm (H) x 60mm (D) (5.6″ x 3.5″ x 2.4″)
Weight:	Approx. 540g (19 oz.), body only
Optional Accessories:	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





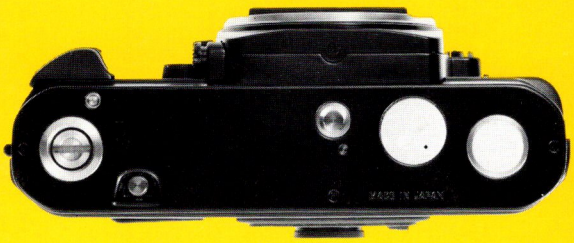
Nikon FE2

Product number:	1631 (black)
Type of camera:	Electronically-controlled, single-lens-reflex camera
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet
Lenses:	More than 60 Nikkor and Nikon Series E lenses
Shutter:	Electronically-controlled, vertical-travel, metal focal plane shutter with titanium curtains
Shutter release:	Electromechanical
Exposure meter:	Thru-the-Lens (TTL) light metering; pressing shutter release button halfway switches meter on, provided that the frame counter is at 1 or a higher number; the exposure meter switches off automatically 16 seconds after the shutter release button is released; meter switches off automatically at M250 and B settings
Shutter speed:	19 settings provided; A (automatic), manually selected, electronically-timed shutter-speed settings from 8 sec. to 1/4000 sec., plus mechanical 1/250 sec. (M250) and B (Bulb)
Exposure metering:	Through-the-lens (TTL), centerweighted metering system using a pair of silicon diodes; full aperture and stopped-down metering possible
Metering range:	EV1 to EV18 (f/1.4 at 1 sec to f/8 at 1/4000 sec) with 50mm f/1.4 lens and ISO 100 film
Exposure compensation:	-2 EV to +2 EV in one-third increments via selector dial
Film speed range:	ISO 12-4000
Shutter speeds:	Automatic, stepless speeds from 8 to 1/4000 sec; 16 quartz-controlled, manually-selected from 8 to 1/4000 sec; mechanical 1/250 sec. (M250) and B (Bulb)
Film advance lever:	Single-stroke-type; 30° stand-off angle and 135° winding angle
Motor drive coupling:	Provided at base for optional Motor Drive MD-12
Shutter release lock:	When film advance lever is flush with camera body
Viewfinder:	Fixed pentaprism viewfinder with about 93% frame coverage
Viewfinder display:	Shutter speed, f-number, warning symbols for exposure compensation, warning symbols for overexposure and underexposure
Focusing screen:	Standard K2 matte screen with Fresnel lens, split-image rangefinder spot and microprism collar; interchangeable with two additional focusing screens (B2 and E2)
Self-timer:	Mechanical-type; approx. 10 sec exposure delay; reset facility provided
Exposure memory lock:	Via self-timer lever provided
Multiple exposure:	Via multiple exposure lever provided
Accessory shoe:	Standard ISO hot shoe with additional contacts for TTL metering and flash ready-light for Nikon FE2-dedicated speedlights
Flash sync:	At "A", 1/250 sec.; on manual, 1/250 sec and all slower speeds, including B (Bulb)
Flash ready-light:	Via LED in viewfinder
Frame counter:	Additive-type; automatically resets to S when the camera back is opened
Power source:	One 3V lithium battery or two 1.5V silver oxide (button-cell) batteries
Camera back:	Interchangeable with optional Data Back MF-16
Dimensions:	142.5mm (W) x 90mm (H) x 57.5mm (D) (5.6″ x 3.5″ x 2.3″)
Weight:	Approximately 550g (19.4 oz.), body only
Optional accessories:	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



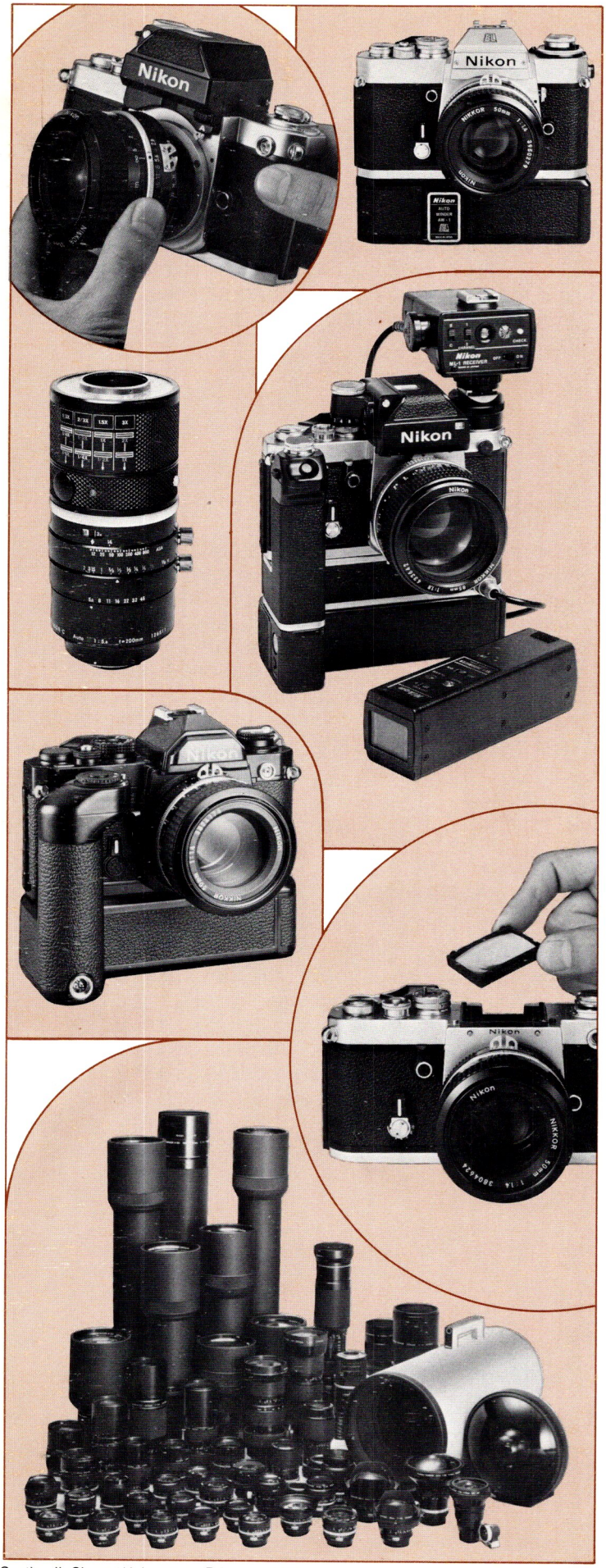
Nikon FA

Product number:	1730 (chrome) 1731 (black)
Type of camera:	Electronically-controlled, single-lens-reflex camera
Picture format:	24mm x 36mm (standard 35mm format)
Lens mount:	Nikon F bayonet
Lenses:	More than 60 Nikkor and Nikon Series E lenses
Shutter:	Electronically-controlled, vertical-travel, metal focal plane shutter with titanium curtains
Shutter speeds:	Stepless speeds of from 1 sec. to 1/4000 sec. in "P" (Program) and "A" (Aperture Priority) automatic exposure modes; 16 manually-selected speeds of from 1 sec. to 1/4000 sec. provided for operation in "S" (Shutter-Priority) and "M" (Manual) exposure modes; manual speed setting controlled via ceramic oscillator; mechanically-controlled 1/250 sec. (at "M250") and long exposure (at "B") settings provided
Viewfinder:	Fixed pentaprism viewfinder with approximately 93% frame coverage; eyepiece shutter provided for operation when eye is away from eyepiece
Focusing screen:	Matte screen with Fresnel lens and central split-image rangefinder spot surrounded by microprism collar (Nikon Type K2 screen)
Exposure metering:	TTL full-aperture automatic multi-pattern metering or centerweighted metering via silicon photodiode (SPD); metering method selected via changeover switch; Automatic Multi-Pattern metering (AMP) provides for light measurement in five areas of the focusing screen to enable automatic exposure correction for difficult light conditions; centerweighted metering provides for approximately 60% of the light reading to be concentrated in the 12mm circle in the center of the viewfinder
Exposure meter switch:	Built in exposure meter commences measurement when the shutter release button is half depressed; meter switches off about 16 sec. after the button is released
Light metering range:	EV1 to EV20 (f/1.4 at 1 sec. to f/16 at 1/4000 sec.) with 50mm f/1.4 lens and ISO 100 film
Exposure control range:	EV1 to EV16-⅓ with 50mm f/1.4 lens and ISO 100 film (AMP metering)
Exposure control:	Three automatic exposure modes, "P" (programmed), "S" (shutter-priority) and "A" (aperture-priority), plus "M" (manual) exposure mode provided; In "P" mode, shutter speed and aperture both set automatically and steplessly; dual program operation at "P" provides for automatic selection of "normal" program for lens focal lengths shorter than 135mm and "Hi-speed" program for focal lengths of 135mm and longer; In "S" mode, speed manually preselected and aperture set automatically and steplessly via camera; automatic correction ("cybernetic" override) of shutter speed if preselected speed does not give satisfactory exposure; In "A" mode, aperture manually preselected and shutter speed set automatically and steplessly via camera; In "M" mode, both shutter speed and aperture are set manually
Exposure information:	In "P" mode, the LCD above the viewfinder displays the fixed speed closest to the automatically selected speed; "HI" or "LO" in the LCD give warnings of over-exposure or under-exposure, respectively; "FEE" indicates that the aperture has not been properly set; In "S" mode, the LCD displays the integral aperture number closest to the automatically selected aperture, or the fixed speed closest to the automatically selected speed if the set speed does not give satisfactory exposure; the LCD gives a warning of overexposure or underexposure with "HI" or "LO", respectively; the fixed speed manually selected is always displayed separately; In "A" mode the LCD displays the fixed speed closest to the automatically selected speed and warns of overexposure or underexposure with "HI" or "LO", respectively; the f-number set is always displayed separately; In "M" mode, the LCD displays the manually selected shutter speed preceded by "M";



	"-+" simultaneously illuminated means correct exposure, "+" or "-" individually illuminated means overexposure or underexposure, respectively; the f number set is always displayed
Exposure compensation:	-2 EV to +2 EV in one-third increments via selector dial; a red warning LED with a +/- symbol is visible inside the viewfinder when the meter is on and compensation has been selected
Film advance:	Wound in single stroke with 30° lever stand-off angle and 135° winding angle; film advance lever doubles as shutter release button lock when set flush to camera body
Automatic film advance:	Possible via optional Motor Drive MD-15 or MD-12
Frame counter:	Additive-type, with automatic resetting to "S" when camera back is opened; shutter fires at 1/250 sec. (unless shutter speed dial is set at B) until counter reaches frame "1"
Film rewind:	Manually via folding crank after rewind button in baseplate is depressed
Self-timer:	Mechanical type; 10 sec. exposure delay
Depth-of-field preview lever:	Provided for visual review of depth-of-field on the focusing screen
Multiple exposures:	Possible via lever fitted coaxially to film advance lever
Camera back:	Interchangeable with optional Data Back MF-16
Data back contacts:	Two internal electrical contacts provided for camera operation with Data Back MF-16
Handgrip:	Detachable; must be removed when attaching motor drive
Accessory shoe:	Standard ISO hot shoe with additional contacts for TTL metering and flash ready-light for Nikon FA-dedicated speedlights; accepts SB-15/16B/18/20/21B/22 for TTL direct flash control
Flash synchronization:	1/250 sec. or slower with electronic flash; with Nikon-dedicated speedlights sync automatically set to 1/250 when flash is mounted and camera and flash are turned on; with "M" mode, flash sync provided at speeds of from 1 to 1/250 sec.; threaded PC-type terminal provided for off-camera flash operation
Flash ready-light:	Viewfinder LED lights up as soon as the Nikon flash unit is ready; LED blinks to warn of insufficient light output or incorrect shutter speed setting or film speed setting
Power source:	One 3V lithium battery or two 1.5V silver-oxide (button-cell) batteries
Dimensions:	142.5mm (W) x 92mm (H) x 64.5mm (D) (5.6″ x 3.6″ x 2.5″)
Weight:	Approximately 625g (22.3 oz.), body only
Optional accessories:	Focusing Screen Type B2/E2 Motor Drive MD-15 Data Back MF-16 Body Cap BF-1A Speedlights SB-15/16B/18/20/21B/22

The Nikon System for 35mm Photography



The system approach—the concept of extending the advantages of the 35mm slr camera to all areas of photography—has been the cornerstone of Nikon slr design from the very beginning. It is on this principle that the Nikon system has evolved with singular success through the years and continues to evolve. Today, the Nikon system has as its nucleus three basic slr cameras:

Nikon F2 • Nikon FM • Nikon EL2

Each offers specific advantages, depending on the photographer's individual needs and preferences and on the type of photography to be accomplished. Yet, all three share the unmistakable stamp of Nikon system design unity. This is a purposeful unity, intended not only to permit the interchange among all the cameras of hundreds of Nikon system lenses and accessories but also to enable the photographer to move from one Nikon camera to another with the reassurance of an essential similarity of major controls and operating patterns. Features shared by all Nikon F2-series, FM, and EL2 cameras include:

- **Interchangeability of Nikon System Lenses** ... more than 55, from 6mm to 2000mm.
- **Interchangeability of Nikon Accessories** for close-up, macro and micro work, viewfinder attachments, flash units and systems—even, in many instances, carrying cases ... an array of more than three hundred precision aids freely interchangeable between Nikon cameras.
- **Center-Weighted, Through-the-Lens Metering,** proven through literally millions of exposures as the most consistently accurate for through-the-lens exposure control.
- **High-Performance Automatic Firepower Capability,** through photography's largest system of Motor Drives and Auto Winders, each built for use with specific camera models.
- **All-Metal, Focal-Plane Shutters,** assuring accuracy and durability unattainable in other shutter types.
- **Uniquely Smooth, Responsive Handling** with the convenient 'Apollo' film transport lever, which also activates the exposure meter, and the famed Nikon 'K'-Type finder screen with 3-way focusing accuracy ... features patterned after Nikon cameras built for the U.S. space program.
- **Rugged, All-Metal Construction** to uniform standards of precision so exacting that Nikon cameras have been used successfully under conditions ranging from tropic heat to arctic cold, from outer space to the ocean floor. This ruggedness of construction has made Nikon cameras so reliable that they are overwhelmingly the choice of professional photographers worldwide; it may truly be said that the history of our time is being recorded through Nikon cameras and Nikkor lenses.

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The Nikon System for 35mm Photography

Nikon F2A Photomic

is the most advanced and most versatile of all Nikon cameras—indeed, of all 35mm cameras. It offers ready interchangeability of all components: viewfinders (including meter/finder systems), finder screens, motor drives, and camera backs, in addition to all lenses and countless accessories from the Nikon system.

Nikon EL2

assures correct exposures automatically, electronically, through any reflex-viewing Nikkor lens, accessory, or image-forming attachment. Equipped with the compact, cordless Nikon Auto Winder, it also provides automatic film and shutter winding at rates to 2 frames per second. Its dual Silicon Photo Diode meter complements the fast-handling characteristics of this uniquely easy-to-use, high-performance Nikon.

Nikon FM

is the smallest and lightest of all Nikon-system cameras—yet an instrument of formidable capabilities, including high-speed motorized operation at rates to 3.5 frames per second. It offers an advanced dual Gallium Photo Diode meter with brilliant LED exposure readout, precise multiple-exposure capability, and many other, advanced features.

All specifications subject to change without notice.

Nikon, Inc., Garden City, N.Y. 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. Other offices in Niles, Ill., and San Francisco, Calif.

Nikon F2 Cameras: An Introduction

The Nikon F2 is more than the finest of all 35mm cameras; it is the foundation of the entire Nikon System of 35mm photography—the world's largest. Through its uniquely modular concept and construction, it not only challenges but successfully defies obsolescence, permitting interchangeability of all basic components:

- **Interchangeable Nikkor and AI-Nikkor Lenses** ... more than 55 available, from 6mm to 2000mm.
- **Interchangeable Viewfinders** ... including Standard Prism; Photomic through-the-lens meter/finders, with expanded sensitivity and automatic-exposure capability; Action Prism Finder; Waist-Level Finder, and 6X Focusing Finder.
- **Interchangeable Finder Screens** ... 20 precision screens for every need.
- **Interchangeable Nikon Motor Drive System** ... giving up to 5 exposures per second, requiring no modification, not even removal of camera back.
- **Interchangeable Backs** ... including 250- and 750-Exposure Magazines plus Speed Magny Attachments for Polaroid® and other large-format films.
- **Hundreds of Nikon accessories** for every requirement.

Through this ingenious, modular design, the Nikon photographer can, in effect, create an infinite number of picture-taking instruments attuned precisely to his specific needs—today *and* tomorrow.

There are three basic types of Nikon F2 camera/finder combinations:

- **Nikon F2 with Pentaprism Finder DE-1,** first choice of photographers employing separate exposure meters.
- **Nikon F2 Photomic and F2SB Photomic,** supplied with Photomic meter/finders DP-1 and DP-3, respectively, these offer full-aperture, center-weighted metering with all Nikkor lenses with meter-coupling shoe, including all AI-Nikkor lenses; the maximum aperture of the selected lens is indexed with a quick turn of the aperture ring.
- **Nikon F2A Photomic and F2AS Photomic,** supplied with Photomic DP-11 and DP-12 meter/finders (respectively), provide center-weighted, full-aperture exposure control, automatic aperture indexing (AI), and through-the-finder Aperture Direct Reading (ADR) with all AI-Nikkor lenses. These most advanced F2 models also permit stop-down metering with non-AI lenses and, like other F2 models, accept all Nikkor slr lenses from 6mm to 2000mm.

Significantly, any Nikon F2 camera can be converted to any other F2 model by simply substituting the appropriate finder—an example of true modular versatility unrivalled in all photography.

Section II, Sheet 2/July 1977—Printed in U.S.A.

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Nikon F2

Ultimate Precision and Versatility

Nucleus of the Nikon system, the Nikon F2 camera permits the photographer to choose the lens, viewfinder, finder screen, film magazine, even film transport and exposure control system appropriate to any assignment. Its fast-handling, responsive controls simplify every aspect of the picture-taking process. Each of its 1506 individual parts is engineered to quality standards that have made the name Nikon a universal symbol of optical and mechanical excellence.

Interchangeable Pentaprism Viewfinder

The DE-1 eye-level pentaprism finder supplied with the standard Nikon F2 is silver-coated for maximum brightness and contrast. It gives an upright, laterally-correct image at eye-level and incorporates a built-in ready light for connection with Nikon electronic flash units. Weighing only 3.2 ounces, this compact viewfinder is interchangeable with all other Nikon F2 cameras and accepts all Nikon Eyepiece Correction Lenses and other Nikon eyepiece attachments. Virtually 100% of the film image appears within any F2 viewfinder, for the most accurate image control of any 35mm slr camera.

Titanium-Foil Focal-Plane Shutter

Exceptionally accurate, resistant to heat and humidity,the Titanium-foil, horizontal-travel shutter is specially "quilted" for extra strength. Basic shutter speed range is 1 second—1/2000th second plus "B", with stepless, continuously variable speed selection from 1/80th second to 1/2000th. Additional shutter speeds of 2, 4, 6, 8, and 10 seconds (or any intermediate interval) are obtained via the built-in self timer. The shutter movement is ball-bearing mounted for ultimate accuracy and repeatability. Shutter curtains "scan" the film plane in just 10 milli-seconds. The shutter is built to take the action of motor drive at up to 5 fps.

Oversize Instant-Return Mirror

Enlarged mirror eliminates finder image cut-off even with long telephoto lenses. Sophisticated damping mechanism virtually eliminates impact shock. Mirror may be locked up for special applications. Entire mirror chamber is effectively baffled and finished in matte material to prevent internal reflections.

Automatic Flash-Synch Adjustment

Setting shutter speed automatically adjusts for flash type in use. Electronic flash synch at all speeds to 1/80th second; FP synch from "B" and 1 to 1/30th and 1/125 to 1/2000th second. Special hot shoe provides cordless synch with Nikon-System flash units; automatic safety switch in shoe prevents electrical shock when unit is not in place. Single PC outlet accepts either Nikon screw-in or conventional PC cords.

Interchangeable Finder Screens

Standard Nikon Type K screen incorporates central split-image range-finder with microprism circle and overall matte/Fresnel groundglass for edge-to-edge brightness. Interchangeable with 20 optional Nikon screens.

Nikon F2

Short-Stroke Transport Lever

Large, plastic-tipped lever requires only 120° stroke, or any equivalent number of shorter strokes, to advance film, wind shutter, and count exposure. Lever pivots on ball bearings for smoothest operation. Integral locking device prevents accidental shutter release before transport lever has completed its cycle.

Accurately-Registered Multiple Exposures

Simply by depressing the rewind button, then operating the film transport lever, the shutter may be recocked, producing multiple exposures in precise registration. As many exposures as desired may be made on a single frame.

Multi-Function Self-Timer

Calibrated for delays of 2, 4, 6, 8, and 10 seconds. Alternatively, with shutter set at "B" and shutter release fingerguard turned to "T", the self-timer produces accurate slow shutter speeds of these durations, or any intermediate times.

Easy Film Loading

The hinged back and multi-slotted take-up spool aid fast, error-free loading. Exposure counter automatically resets to "0" when camera back is opened. Rapid-rewind crank rises 6mm above camera top for unobstructed operation. A Film Memo Holder on the camera back accepts the film carton end tab for a practical reminder of film in use. A unique safety lock makes inadvertent back opening virtually impossible.

Superior Film Flatness

Film winds onto take-up spool emulsion-side-out for greatest tension. The large pressure plate, polished guide rails, and cassette stabilizer combine to assure exceptional film flatness for edge-to-edge sharpness.

Other Features

The fingerguard (around shutter release button) locks/unlocks shutter release, permits time exposures in the absence of a locking cable release, and also allows accurately-timed exposures of 2, 4, 6, 8, and 10 seconds (in conjunction with the self timer) according to the position selected. Depth-of-field preview is provided for focus check (or stop-down exposure measurement with Photomic meter/finder). Neckstrap eyelets are reinforced with stainless steel, and the camera lensmount is made of chromed steel for maximum durability and strength. The Nikon F2 camera accepts all Nikkor and AI-Nikkor lenses from 6mm to 2000mm. It is supplied in satin chrome (Product No. 1600) or professional black finish (Product No. 1605).

Technical Specifications

Camera Type: 35mm slr with interchangeable lenses, viewfinders, finder screens, film magazines and backs, and motor drives.

Lensmount: Chromed-steel Nikon bayonet accepts all Nikkor lenses 6mm-2000mm and all Nikon-mount accessories. Flange/film distance: 46.5mm. Automatic diaphragm coupling.

Exposure Control: Accepts optional Nikon Photomic meter/finder for through-the-lens metering.

Shutter: Titanium foil, horizontal-travel focal plane; speeds B, 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000th second via shutter speed dial and 2, 4, 6, 8, and 10 seconds at 'B' position, via self-timer. Speeds continuously variable from 2-10 seconds and 1/80-1/2000th second.

Flash Synchronization: "X" synch at "B" and 1-1/80th second; "FP" synch at B, 1-1/30th, and 1/125-1/2000th second; automatic synch adjustment as shutter speed is set.

Flash Contacts: Built-in Nikon F2 hot shoe with automatic safety switch; single PC outlet accepting Nikon screw-in or conventional PC cords.

Viewfinder: Interchangeable eye-level Pentaprism Finder DE-1 (supplied) with -1.0 diopter eyepiece and built-in ready light for Nikon electronic flash units. Virtually 100% finder coverage.

Focusing Screen: Nikon Type K Screen (supplied) with 3mm-diameter split-image rangefinder, 1mm microprism circle plus overall matte/Fresnel area, interchangeable with 19 other Nikon screens.

Reflex Mirror: Oversize instant-return type with independent locking control.

Film Loading: Multi-slotted take-up spool, hinged back and additive automatic-reset exposure counter for fast loading.

Film Transport: Ratchet-action lever advances film, winds shutter and counts exposures in 120° action, may be left at "ready" position 20° from camera body or folded flush for storage.

Film Rewind: Rewind-release button on camera baseplate; fold-out rewind crank may be elevated up to 6mm for convenient access.

Multiple Exposure Control: By depressing rewind button while operating transport lever, also operates with Nikon Motor Drive attached.

Battery Type: None required, camera accepts two 1.5v silver oxide batteries (Eveready S76 or equivalent) to power flash ready light or optional meter/finder.

Other Features: Depth-of-field preview; stainless steel reinforced neckstrap eyelets; built-in self timer with calibrated delays of 2, 4, 6, 8, and 10 seconds, also provides slow shutter speeds; fingerguard around shutter release button adjustable to lock or unlock shutter, permits time exposures 2-10 seconds with self timer; film memo holder on camera back stores film carton end tab or other data.

Dimensions: Camera body with Pentaprism Finder DE-1, 6.0″ x 3.9″ x 2.2″ (152.5mm x 98mm x 56mm).

Weight: 25.8 oz. (730g).

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Nikon F2A Photomic

• Optimum Handling Speed and Convenience

• Total Nikon System Versatility

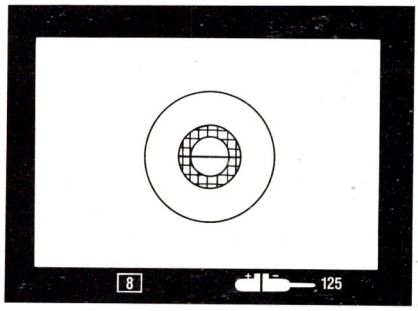
The Nikon F2A Photomic combines the proven reliability of the essential F2 camera with the advanced F2A Photomic Meter/Finder DP-11 for a new level of professional operating speed attuned to today's most challenging requirements. It permits the fullest utilization of the newest AI-Nikkor lenses, while accepting all other Nikkor lenses as well. The latest model of the camera selected by an overwhelming majority of professional photographers, the Nikon F2A Photomic again validates the Nikon premise of excellence through innovation...

Split-Second Lens Interchange...

With the Nikon F2A Photomic, the photographer need only attach the selected AI-Nikkor lens with a quick quarter turn, and the meter/finder is *automatically* programmed for maximum-aperture operation. This Automatic Indexing (AI) feature makes lens interchangeability faster and error-free with all AI-Nikkor lenses from 6mm to 600mm.

...With Direct Aperture Reading

With any AI-Nikkor lens, the selected aperture is reflected from the lens barrel directly into the viewfinder of the F2A Photomic through the ingenious Aperture Direct Reading (ADR) system. In addition, all other exposure information appears in the F2A finder, including the precise shutter speed in use, meter needle, and over/under-exposure indicators. Exposure can also be checked in a window on the finder top showing meter needle and reference marks.



Center-Weighted, Full-Aperture Metering

The sensitive CdS meter of the Nikon F2A Photomic provides full-aperture metering with all AI-Nikkor lenses. Stop-down exposure measurement (equally accurate) is used with non-AI lenses, specialized optics such as Reflex and PC-Nikkors, and accessories such as bellows units, microscopes, and telescopes. (Most non-AI Auto-Nikkor lenses can be converted for full-aperture AI operation; please see "Nikkor Lens AI-Conversion" page in *Nikkor Lens* catalog section for complete details.) Through the Nikon center-weighted system, the meter's CdS cells observe the entire image area, while concentrating more than half of their sensitivity on a central 12mm area, clearly defined by a circle in the finder, to provide consistently excellent exposures under the broadest range of lighting conditions. The meter, powered by two 1.5v silver oxide batteries in the camera baseplate, is activated by moving the film transport lever to "ready" position 20° from the camera body.

Nikon F2A Photomic

Fast, Error-Free Operation

For a correctly-exposed photograph with the Nikon F2A Photomic and AI-Nikkor lens, the photographer need only activate the meter via the film transport lever, adjust lens aperture or shutter speed until the meter needle is centered, and press the shutter release! Both shutter and aperture are cross-coupled to the meter system, and the full information display—shutter speed and selected aperture—in the finder makes it unnecessary for the photographer to remove his eye to check settings... an invaluable advantage in news, action, and candid photography.

Plus, All Other Nikon F2 Features:

- *Titanium-foil-curtain focal-plane shutter* with speeds 10 seconds–1/2000th second.
- *Automatic flash synch adjustment* with "X" synch at "B," 1–1/80th second; "FP" synch at "B," 1–1/30 and 1/125–1/2000th second.
- *Oversize, instant-return mirror* with independent lock.
- *Short-stroke film transport* with plastic-tipped, ratchet-action lever.
- *Precise multiple-exposure control* by depressing rewind button while operating film-transport lever; also operates with Nikon Motor Drive attached.
- *Fast loading and unloading* with hinged, detachable back and multi-slot take-up spool.
- *Superior film flatness* via 5-point flattening system with extra-large pressure plate and cassette stabilizer. Film winds emulsion-side-out for optimum tension.
- *Built-in self-timer* for either timed delays or long exposures of 2, 4, 6, 8, and 10 seconds or any intermediate time.
- *Plus, depth-of-field preview, fingerguard* for shutter lock and time exposures, *stainless-steel* reinforced neckstrap eyelets, *chromed steel* lensmount, film *memo holder.*
- *Accepts all Nikon F2 interchangeable* finders, finder screens, motor drive systems, and film backs without modification.

The Nikon F2A Photomic camera body is supplied in satin chrome (Product No. 1670) or professional black finish (Product No. 1673).

Technical Specifications

Camera Type: 35mm slr with through-the-lens CdS metering via Photomic Meter/Finder DP-11 (supplied), interchangeable lenses, viewfinders, finder screens, film magazines and backs, and motor drives.

Lensmount: Chromed-steel, Nikon bayonet accepts all Nikkor lenses 6mm–2000mm and all Nikon-mount accessories. Flange/film distance: 46.5mm. Automatic diaphragm coupling.

Exposure Control: Through-the-lens, match-needle readout with aperture or shutter priority, with Nikon F2A Photomic DP-11 Meter/Finder (supplied).

Meter System: CdS cells concentrate 60% of sensitivity on central 12mm area shown by circle in finder; operates at full aperture with all AI-Nikkor lenses; stop-down measurement with non-AI lenses, attachments, or instruments. Automatic maximum aperture indexing with all AI-Nikkor lenses.

Meter Ranges: ASA 6–6400; EV 1 to 17 (with ASA 100 film and f1.4 lens). Full-aperture coupling range: f1.2–f32.

Shutter: Titanium foil, horizontal-travel, focal plane; speeds "B," 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, and 1/2000th second via shutter speed dial and 2, 4, 6, 8, and 10 seconds at "B" position, via self-timer. Speeds continuously variable from 2–10 seconds and 1/80–1/2000th second.

Flash Synchronization: "X" synch at "B" and 1–1/80th second; "FP" synch at "B," 1–1/30th and 1/125–1/2000th second; automatic synch adjustment as shutter speed is set.

Flash Contacts: Built-in Nikon F2 hot shoe with automatic safety switch; single PC outlet accepting Nikon screw-in or conventional PC cords.

Viewfinder: Interchangeable eye-level pentaprism Photomic Meter/Finder DP-11 supplied with –1.0 diopter eyepiece and built-in ready light for Nikon electronic flash units; information display includes meter needle, under/over-exposure indicators, shutter speed in use, and selected lens aperture with all AI-Nikkor lenses through Nikon Direct Reading (ADR) system. Window on finder top shows meter needle and reference mark, permits exposure check from above. Virtually 100% finder coverage.

Focusing Screen: Nikon Type K Screen (supplied) with 3mm-diameter split-image rangefinder, 1mm microprism circle plus overall matte Fresnel area, interchangeable with 19 other Nikon screens.

Reflex Mirror: Oversize instant-return type with independent locking control.

Film Loading: Multi-slotted take-up spool, hinged back and additive automatic-reset exposure counter for fast loading.

Film Transport: Ratchet-action lever advances film, winds shutter, switches meter on, and counts exposures in 120° action, may be left at "ready" position 20° from camera body to activate meter; when folded flush, lever turns meter off.

Film Rewind: Rewind-release button on camera baseplate; fold-out rewind crank may be elevated up to 6mm for convenient access.

Multiple-Exposure Control: By depressing rewind button while operating transport lever; also operates with Nikon Motor Drive attached.

Battery Type: Two 1.5v silver oxide batteries (Eveready S76 or equivalent) power meter. Battery tester built into Photomic finder.

Other Features: Depth-of-field preview; stainless steel reinforced neckstrap eyelets; built-in self timer with calibrated delays of 2, 4, 6, 8, and 10 seconds, also provides slow shutter speeds; fingerguard around shutter release button adjustable to lock or unlock shutter, permit time exposures or exposures 2–10 seconds with self timer; memo holder on camera back stores film carton tab or other data.

Dimensions: Camera body with F2A Photomic Finder DP-11, 6.0″ x 4.0″ x 2.6″ (152.5mm x 102mm x 65.5mm)

Weight: 29.3 oz. (830g)

All specifications subject to change without notice.

Nikon, Inc., Garden City, N.Y. 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. Other offices in Niles, Ill., and San Francisco, Calif.

Nikon F2AS Photomic

- **Ultra-Sensitive Silicon Photo Diode Meter**
- **Quick, Comfortable Handling**
- **Automatic Exposure Provision**
- **Total System Capabilities**

Every element of the Nikon F2AS Photomic blends together towards one goal: photographs of a range, diversity, and excellence unrivalled in all photography. It combines the legendary Nikon F2 camera—overwhelmingly selected by professionals everywhere—with the latest F2AS Photomic Meter/Finder DP-12 for unprecedented response speed and wide-ranging accuracy. And, with its seemingly endless array of instantly-interchangeable accessories—finders, finder screens, film backs, and motor drive systems—the Nikon F2AS lets you master any challenge, explore any dimension, in all the world of photography.

State-Of-The-Art Advances

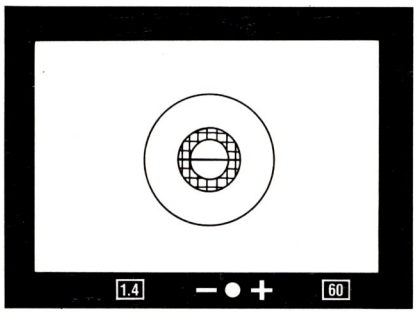
This most sophisticated of Nikon F2 cameras embodies many innovative features for ultimate handling ease and highly accurate operation. The maximum aperture of any AI-Nikkor lens is automatically indexed as you attach the lens with a quick quarter turn. The F2AS Photomic meter operates with the AI-Nikkor lens at its full aperture, so the finder image is always at its brightest; stop-down exposure measurement is also provided for through-the-lens metering with non-AI lenses, non-coupled or special-purpose lenses such as Reflex and PC-Nikkors, and attachments such as Nikon bellows units, telescopes, or microscopes. (Most non-AI Auto-Nikkor lenses can be converted for full-aperture, AI-compatible operation as detailed in the catalog page "Nikkor Lens AI-Conversion" in *Nikkor Lens* catalog section.) And, the selected aperture of all AI-Nikkor lenses is reflected into the viewfinder via the Nikon Aperture Direct Reading (ADR) system for full visual control at eye-level.

SPD Meter System with LED Readout

The Silicon Photo Diode meter (DP-12) provides center-weighted exposure measurement of remarkable sensitivity: EV −2 to +17, from *eight seconds* at f1.4 to 1/2000th second at f8 with ASA 100 film. A brilliant sequential LED display indicates optimum exposure, *plus* four levels of under-and-over-exposure in these gradations:

− ● +	Overexposure by more than 1 f-stop
− ● +	Overexposure by 1/5 to 1 f-stop
− ● +	Correct Exposure
− ● +	Underexposure by 1/5 to 1 f-stop
− ● +	Underexposure by more than 1 f-stop

This advanced meter readout system simplifies such professional exposure techniques as "bracketing" without removing the camera from the eye or adjusting the ASA film speed. And, the solid-state meter mechanism is extremely durable and shock-resistant—a vital consideration in motor-drive photography. In addition to the lens aperture, the selected shutter speed (from 1/2000th sec. to 10 seconds) is shown. An external LED readout on the finder top permits exposure check or adjustment without looking through the finder, and an eyepiece shutter is built in to shield the meter from stray light when the external LED readout is used or when the camera is used in automated, remote operation.



Nikon F2AS Photomic

Shutter-Priority Automatic Exposure Control

To transform the Nikon F2AS into a completely automatic exposure camera, you need only slide on the cordless, self-powered EE Aperture Control DS-12; this compact servo unit automatically sets any AI-Nikkor lens to the lens aperture signalled by the camera's meter. By adding a Nikon motor drive, 250-exposure or 750-exposure film back, Intervalometer, and Modulite remote control unit, the photographer can enjoy completely automated, unmanned photography for extended periods, without adjustment. The EE Aperture Control module powers its self-contained servo motor by an interchangeable nicad battery DN-1 or, with the accessory AC/DC Converter MA-4, can operate on standard household AC. Also DB-1 Cell Pack which accepts 4-C-cells.

Plus, All Other Nikon F2 Features:

- *Titanium-foil-curtain, focal-plane shutter* with speeds 10 seconds—1/2000th second.
- *Automatic flash synch adjustment* with "X" synch at "B," 1—1/80th second; "FP" synch at "B," 1—1/30 and 1/125—1/2000th second.
- *Oversize, instant-return mirror* with independent lock.
- *Short-stroke film transport* with plastic-tipped, ratchet-action lever.
- *Precise multiple-exposure control* by depressing rewind button while operating transport lever; also operates with Nikon Motor Drive attached.
- *Fast loading and unloading* with hinged, detachable back and multi-slot take-up spool.
- *Superior film flatness* via 5-point flattening system with extra-large pressure plate and cassette stabilizer. Film winds emulsion-side-out for optimum tension.
- *Built-in self timer* for either timed delays or long exposures of 2, 4, 6, 8, and 10 seconds or any intermediate time.
- *Plus, depth-of-field preview, fingerguard* for shutter lock and time exposures, *stainless-steel* reinforced neckstrap eyelets, *chromed steel* lensmount, film *memo holder.*
- *Accepts all Nikon F2 interchangeable* finders, finder screens, motor drive systems, and film backs without modification.

The Nikon F2AS Photomic camera body is supplied in satin chrome (Product No. 1675) or professional black finish (Product No. 1678).

Technical Specifications

Camera Type: 35mm slr with through-the-lens Silicon Photo Diode metering, interchangeable lenses, viewfinders, finder screens, film magazines and backs, and motor drives.

Lensmount: Chromed-steel Nikon bayonet accepts all Nikkor lenses 6mm—2000mm and all Nikon-mount accessories. Flange/film distance 46.5mm. Automatic diaphram coupling.

Exposure Control: Through-the-lens, LED-readout with aperture or shutter priority, with Nikon F2AS Photomic DP-12 Meter/Finder (supplied).

Meter System: Silicon Photo Diode (SPD) cells concentrate more than half of their sensitivity on central 12mm area shown by circle in finder; operates at full aperture with all AI-Nikkor lenses; stopdown measurement with non-AI lenses, attachments, or instruments. Automatic maximum-aperture indexing with all AI-Nikkor lenses.

Meter Ranges: ASA 12—6400; EV −2 to +17 (with ASA 100 film and f1.4 lens). Full-aperture coupling range: f1.2—f32.

Shutter: Titanium foil, horizontal-travel, focal plane; speeds "B," 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, and 1/2000th second via shutter speed dial and 2, 4, 6, 8, and 10 seconds at "B" position, via self-timer. Speeds continuously variable from 2—10 seconds and 1/80—1/2000th second.

Flash Synchronization: "X" synch at "B," and 1—1/80th second; "FP" synch at "B," 1—1/30th and 1/125—1/2000th second; automatic synch adjustment as shutter speed is set.

Flash Contacts: Built-in Nikon F2 hot shoe with automatic safety switch; single PC outlet acepting Nikon screw-in or conventional PC cords.

Viewfinder: Interchangeable eye-level pentaprism Photomic Meter/Finder DP-12 (supplied) with −1.0 diopter eyepiece and built-in ready-light for Nikon electronic flash units; information display includes 5-stage LED readout with under/over-exposure indicators, shutter speed in use, and selected lens aperture with all AI-Nikkor lenses through Nikon Direct Reading (ADR) system.LED window on finder top permits exposure check from above. Virtually 100% finder coverage.

Focusing Screen: Nikon Type K Screen (supplied) with 3mm-diameter split-image rangefinder, 1mm microprism circle plus overall matte Fresnel area, interchangeable with 19 other Nikon screens.

Reflex Mirror: Oversize instant-return type with independent locking control.

Film Loading: Multi-slotted take-up spool, hinged back and additive automatic-reset exposure counter for fast loading.

Film Transport: Ratchet-action lever advances film, winds shutter, switches meter on, and counts exposures in 120° action, may be left at "ready" position 20° from camera body, to activate meter; when folded flush, lever turns meter off.

Film Rewind: Rewind-release button on camera baseplate; fold-out rewind crank may be elevated up to 6mm for convenient access.

Multiple Exposure Control: By depressing rewind button while operating transport lever; also operates with Nikon Motor Drive attached.

Battery Type: Two 1.5v silver oxide batteries (Eveready S76 or equivalent) power meter. Battery tester built into Photomic finder.

Other Features: Depth-of-field preview; stainless steel reinforced neckstrap eyelets; built-in self-timer with calibrated delays of 2, 4, 6, 8, and 10 seconds, also provides slow shutter speeds; fingerguard around shutter release button adjustable to lock or unlock shutter, permit time exposure or exposures 2—10 seconds with self-timer; memo holder on camera back stores film carton tab or other data.

Dimensions: Camera body with F2AS Photomic Finder DP-12, 6.0″ x 4.0″ x 2.5″ (152.5mm x 102mm x 64.5mm).

Weight: 29.6 oz. (840g)

All specifications subject to change without notice.

Nikon, Inc., Garden City, N.Y. 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. Other offices in Niles, Ill., and San Francisco, Calif.

Nikon F2 Photomic

Center-Weighted Through-The-Lens Metering Broadens Nikon System Capability

The Nikon F2 Photomic adds an important dimension to the capabilities of the basic Nikon F2 camera: accurate, one-step, through-the-lens exposure metering. Aperture and shutter speed information are displayed in the bright silver-coated prism viewfinder. And, all the versatility of the essential camera is retained, including ready interchangeability of viewfinders, finder screens, lenses, camera backs and motor drives.

Center-Weighted Metering

The CdS sensor cells within the Photomic DP-1 finder cover the full image area but concentrate more than half of their sensitivity on the central 12mm-diameter area shown by a circle on the focusing screen. This system, designed by Nikon, is acknowledged to be the most consistently reliable for through-the-lens exposure control under the widest variety of lighting conditions. It operates accurately with camera in vertical or horizontal position, and regardless of the type of lens used.

...At Full Aperture

Metering is done at full aperture with all Nikkor lenses with meter-coupling shoe, including all AI-Nikkors. Stop-down metering (equally accurate) is used with non-coupled lenses or accessories such as extension rings, bellows units, microscopes and telescopes.

...Activated by Transport Lever

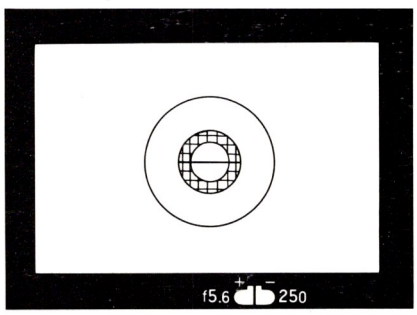
Bringing the film transport lever to "ready" position 20° from the camera body automatically activates the meter; when the transport lever is folded flush with the camera body, the meter is turned off. Power is supplied by two 1.5v silver-oxide batteries housed in the camera baseplate. By pressing the test button on the finder, battery condition can be checked at any time, using either the needle in the finder or that in the external window as a reference.

Wide Sensitivity Range

The specially selected dual CdS cell system gives accurate measurement over a range from EV 1 to 17 (1 sec. at f1.4—1/2000th sec. at f8) with ASA 100 film. ASA range is 6—6400.

Complete Exposure Information in Finder

Within the Photomic Meter/Finder DP-1, the photographer sees the meter needle and reference mark as well as the lens aperture and shutter speed in use. Meter needle and reference also are shown in a window on the finder top—a valuable aid in low-angle or candid photography, or when the camera is held overhead (upside down) or mounted on a copystand.



Nikon F2 Photomic

Shutter or Aperture Priority

The F2 Photomic is cross-coupled to both aperture and shutter speed controls; either may be adjusted to center the needle for correct exposure. The continuously variable shutter speeds from 1/80th to 1/2000th second are particularly helpful in obtaining accurate exposure settings, especially with Reflex Nikkor lenses, microscopes, or other instruments without lens diaphragms.

Built-In Flash Ready-Light

Activated by accessory Ready Light Adapter SC-4, which connects to compatible Nikon electronic flash units.

Plus, All Other Nikon F2 Features:

- **Titanium-foil-curtain focal plane shutter** with speeds 10 seconds—1/2000th second.
- **Automatic flash synch adjustment** with "X" synch at "B", 1—1/80th second; "FP" synch at "B", 1—1/30 and 1/125—1/2000th second.
- **Oversize, instant-return mirror** with independent lock.
- **Short-stroke film transport** with plastic-tip-cushioned, ratchet-action lever.
- **Precise multiple-exposure control** by depressing rewind button while operating transport lever; also operates with Nikon Motor Drive attached.
- **Fast loading and unloading** with hinged, detachable back and multi-slot take-up spool.
- **Superior film flatness** via 5-point flattening system with extra-large pressure plate, long guide rails, anti-bellying roller, emulsion-side-out winding onto take-up spool, and cassette stabilizer.
- **Dual-function self-timer** for either delayed shutter release after 2, 4, 6, 8, or 10 seconds or long exposures of same durations.

Plus depth-of-field preview, fingerguard for shutter lock and time exposures, stainless-steel reinforced neckstrap eyelets, chromed steel lensmount, film memo holder.

Accepts all Nikon F2 interchangeable finders, finder screens, motor drive systems, and film backs without modification.

Nikon F2 Photomic camera body is supplied in either satin chrome (Product No. 1650) or professional black finish (Product No. 1653).

Technical Specifications

Camera Type: 35mm slr with through-the-lens CdS metering, interchangeable lenses, viewfinders, finder screens, film magazines and backs, and motor drives.

Lensmount: Chromed-steel Nikon bayonet accepts all Nikkor lenses 6mm—2000mm and all Nikon-mount accessories. Flange/film distance: 46.5mm. Automatic diaphragm coupling.

Exposure Control: Through-the-lens, match-needle readout with aperture or shutter priority, with Nikon F2 Photomic DP-1 Meter/Finder (supplied).

Meter System: Center-weighted CdS meter concentrates more than half of its sensitivity on central 12mm area shown by circle in finder; operates at full aperture with all Nikkor lenses with meter-coupling shoe (including all AI-Nikkors); stop-down measurement with non-coupled lenses, attachments, or instruments.

Meter Ranges: ASA 6—6400; EV 1 to 17 (with ASA 100 film and f1.4 lens). Full-aperture coupling range: f1.2—f32.

Shutter: Titanium foil curtain, horizontal-travel, focal plane; speeds "B", 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/500, 1/1000, and 1/2000th second via shutter speed dial, and 2, 4, 6, 8, and 10 seconds via self-timer, with dial at "B" position. Speeds continuously variable from 2—10 seconds and 1/80—1/2000th second.

Flash Synchronization: "X" synch at "B" and 1—1/80th second; "FP" synch at "B", 1—1/30th and 1/125—1/2000th second; automatic synch adjustment as shutter speed is set.

Flash Contacts: Built-in Nikon F2 hot shoe with automatic safety switch; single PC outlet accepting Nikon screw-on or conventional PC cords.

Viewfinder: Interchangeable eye-level pentaprism DP-1 Photomic Meter/Finder supplied with –1.0 diopter eyepiece and built-in ready light for Nikon electronic flash units; information display includes meter needle, under/over-exposure indicators, shutter speed in use, and selected lens aperture. Window on finder top shows needle and reference mark, permitting exposure check from above. Virtually 100% finder coverage.

Focusing Screen: Nikon Type K Screen (supplied) with 3mm-diameter split-image rangefinder, 1mm microprism circle plus overall matte Fresnel area; interchangeable with 20 other Nikon screens.

Reflex Mirror: Oversize, instant-return type with independent locking control.

Film Loading: Multi-slotted take-up spool, hinged back and additive automatic-reset exposure counter for fast loading.

Film Transport: Ratchet-action lever advances film, winds shutter, switches meter on, and counts exposures in 120° action, may be left at "ready" position 20° from camera body to activate meter; when folded flush, lever turns meter off.

Film Rewind: Rewind-release button on camera baseplate; fold-out rewind crank may be elevated up to 6mm for convenient access.

Multiple Exposure Control: By depressing rewind button while operating transport lever; also operates with Nikon Motor Drive attached.

Battery Type: Two 1.5v silver oxide batteries (Eveready S76 or equivalent) power meter. Battery tester built into Photomic finder.

Other Features: Depth-of-field preview; stainless steel reinforced neckstrap eyelets; built-in self-timer with calibrated delays of 2, 4, 6, 8, and 10 seconds, also provides slow shutter speeds; fingerguard around shutter release button adjustable to lock or unlock shutter, permit time exposures or 2 to 10 second exposures with self timer; film memo holder on camera back stores film carton tab or other data.

Dimensions: Camera body with Photomic F2 Finder DP-1, 6.0″ x 4.0″ x 2.6″ (152.5mm x 102mm x 65mm).

Weight: 29.6 oz. (840g)

All specifications subject to change without notice.

Nikon, Inc., Garden City, N.Y. 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. Other offices in Niles, Ill., and San Francisco, Calif.

Nikon F2SB Photomic

- **Extended Sensitivity in Through-The-Lens Metering**
- **Automatic Exposure Control Capability**
- **Total Nikon System Versatility**

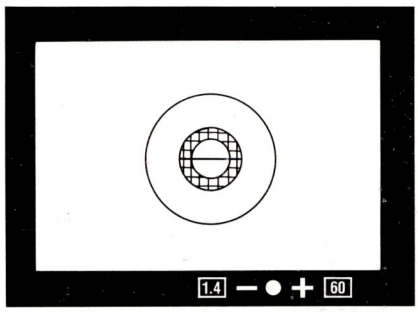
The Nikon F2SB Photomic combines the basic F2 camera body with the Silicon Photo Diode DP-3 Photomic Meter/Finder, which offers an exceptionally wide sensitivity range: EV −2 to +17 (more than 500,000:1, without any booster accessory!). Brilliant LED meter readout plus illuminated shutter and aperture displays are easily visible in viewfinder in even the dimmest light—including accurate time exposures from 2 to 10 seconds, obtained by means of the Nikon F2 dual-purpose self-timer. In addition to this, the Nikon F2SB adds exciting new capabilities in conjunction with the accessory EE Aperture Control DS-2 which provides fully automatic exposure control with all Auto-Nikkor lenses with meter-coupling shoe (including all AI-Nikkor lenses).

Solid-State LED Readout

The Nikon F2SB Photomic incorporates an always-bright LED exposure readout system in place of the conventional needle and index mark. Either the shutter speed dial or aperture ring can be adjusted until the desired exposure setting is reached, according to this sequence:

− ● +	Overexposure by more than 1 f-stop
− ● +	Overexposure by 1/5 to 1 f-stop
− ● +	Correct Exposure
− ● +	Underexposure by 1/5 to 1 f-stop
− ● +	Underexposure by more than 1 f-stop

Through this unique system, exposure techniques such as "bracketing" are immensely simplified, without any need to remove the camera from the eye or re-set film speeds. The solid-state meter circuitry is exceptionally shock-resistant and stable despite wide variations in temperature, humidity, or other factors.



Exposure Check Through Finder and From Above

The complete information display in the F2SB Photomic finder includes 5-stage meter readout, plus lens aperture and shutter speed in use. A built-in illuminator makes aperture and shutter settings easy to read, even in low light. Exposure also can be checked in an LED window on top of the finder; this valuable secondary readout facilitates operation when the camera is on a copystand or at a low level, or held overhead (upside down). An eyepiece shutter is built in, shielding the meter cells from extraneous light when the photographer's eye is not at the finder eyepiece; this feature also insures excellent metering accuracy in unmanned and remote-control applications with the accessory EE Aperture Control Unit or when stop-down metering is used for bellows or other applications.

Center-Weighted Full-Aperture Measurement

Nikon F2SB uses the Nikon center-weighted metering system, in which the meter responds to the entire image area but concentrates more than half of its sensitivity on the central 12mm area, outlined by a circle on the finder screen. Measurement is made at full aperture with all Auto-Nikkor lenses (including all AI-Nikkor lenses). Stop-down measurement is used with non-coupled lenses or accessories including

Nikon F2SB Photomic

bellows units, extension rings, microscopes and telescopes; in these applications the greatly expanded sensitivity of the F2SB Silicon Photo Diode meter is a welcome aid. The meter switch is activated by the film transport lever; no separate operation is required.

EE Aperture Control Unit

The accessory EE Aperture Control Unit DS-2 slides easily onto the Nikon F2SB and transforms it into a fully-automatic-exposure camera. It contains a powerful servo-motor which receives exposure information from the meter and adjusts the lens aperture ring *automatically* for correct exposure. No connecting cords are involved, and no modification of lens, camera, or finder is necessary. The EE Aperture Control Unit couples for automatic operation with any Nikkor lens with meter-coupling shoe. Powered by a self-contained, rechargeable nickel-cadmium battery DN-1, the Aperture Control unit can also operate on household current, using the accessory AC/DC Converter MA-4.

Equipped with EE Aperture Control Unit and Motor Drive, the Nikon F2SB Photomic offers unparalleled facilities for in-hand and remote-control photography. To this may be added a 250- or 750-Exposure Magazine Back and Intervalometer, providing accurate, fully automatic sequence photography at intervals of up to 8 minutes between exposures .... even completely unmanned operation for periods of several hours!

Plus, All Other Nikon F2 Features:

- *Titanium-foil-curtain focal-plane shutter* with speeds 10 seconds—1/2000th second.
- *Automatic flash synch adjustment* with "X" synch at "B" and 1—1/80th second; "FP" synch at "B", 1—1/30 and 1/125—1/2000th second.
- *Oversize, instant-return mirror* with independent lock.
- *Short-stroke film transport* with plastic-tipped, ratchet-action lever; also activates meter switch.
- *Precise multiple-exposure control* by depressing rewind button while operating transport lever; also operates with Nikon Motor Drive attached.
- *Fast loading and unloading* with hinged, detachable back and multi-slot take-up spool.
- *Superior film flatness* via 5-point flattening system with cassette stabilizer, oversize pressure plate, extra long guide rails, anti-bellying roller, and emulsion-side-out winding on take-up spool.
- *Dual-function self-timer* for delayed shutter release after 2, 4, 6, 8, or 10 seconds, and for long exposures of same durations.
- *Plus* depth-of-field preview, fingerguard for shutter lock and time exposures, stainless-steel reinforced neckstrap eyelets, chromed-steel lensmount, film memo holder.
- *Accepts all Nikon F2 interchangeable* finders, finder screens, motor drive systems, and film backs without modification.

Nikon F2SB Photomic camera body is supplied in satin chrome (Product No. 1655) or professional black finish (Product No. 1656).

Technical Specifications

Camera Type: 35mm slr with through-the-lens dual Silicon Photo Diode metering, interchangeable lenses, viewfinders, finder screens, film magazines and backs, and motor drives.

Lensmount: Chromed-steel Nikon bayonet accepts all Nikkor and AI-Nikkor lenses 6mm—2000mm and all Nikon-mount accessories. Flange/film distance: 46.5mm. Automatic diaphragm coupling.

Exposure Control: Through-the-lens, LED-readout with aperture or shutter priority, with Nikon F2SB Photomic DP-3 Meter/Finder (supplied).

Meter System: Silicon Photo Diode (SPD) cells concentrate more than half of their sensitivity on central 12mm area shown by circle in finder; operates at full aperture with all Nikkor lenses with meter-coupling shoe (including all AI-Nikkors); stop-down measurement with non-coupled lenses, attachments, or instruments.

Meter Ranges: ASA 12—6400; EV −2 to +17 (with ASA 100 film and f1.4 lens). Full-aperture coupling range: f1.2—f32.

Shutter: Titanium-foil curtain, horizontal-travel, focal plane; speeds "B", 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, and 1/2000th second via shutter speed dial and 2, 4, 6, 8, and 10 seconds at "B" position, via self-timer. Speeds continuously variable from 2—10 seconds and 1/80—1/2000th second.

Flash Synchronization: "X" synch at "B" and 1—1/80th second; "FP" synch at "B", 1—1/30th and 1/125—1/2000th second; automatic synch adjustment as shutter speed is set.

Flash Contacts: Built-in Nikon F2 hot shoe with automatic safety switch; single PC outlet accepting Nikon screw-on or conventional PC cords.

Viewfinder: Interchangeable eye-level pentaprism Meter/Finder DP-3 with −1.0 diopter eyepiece and built-in ready-light for Nikon electronic flash units; information display includes 5-stage LED readout with under/over-exposure indicators, shutter speed in use, and selected lens aperture. Window on finder top shows meter LED, permits exposure check from above; built-in aperture/shutter illuminator and eyepiece shutter. Virtually 100% finder coverage.

Focusing Screen: Nikon Type K Screen (supplied) with 3mm-diameter split-image rangefinder, 1mm microprism circle plus overall matte Fresnel area; interchangeable with 20 other Nikon screens.

Reflex Mirror: Oversize, instant-return type with independent locking control.

Film Loading: Multi-slotted take-up spool, hinged back and additive automatic-reset exposure counter for fast loading.

Film Transport: Ratchet-action lever advances film, winds shutter, switches meter on, and counts exposures in 120° action, may be left at "ready" position 20° from camera body to activate meter; when folded flush, lever turns meter off.

Film Rewind: Rewind-release button on camera baseplate; fold-out rewind crank may be elevated up to 6mm for convenient access.

Multiple Exposure Control: by depressing rewind button while operating transport lever; also operates with Nikon Motor Drive attached.

Battery Type: Two 1.5v silver oxide batteries (Eveready S76 or equivalent) power meter. Battery tester built into Photomic finder.

Other Features: Depth-of-field preview; stainless steel reinforced neckstrap eyelets; built-in self timer with calibrated delays of 2, 4, 6, 8, and 10 seconds, also provides slow shutter speeds; fingerguard around shutter release button adjustable to lock or unlock shutter, permit time exposures or exposures 2—10 seconds with self-timer; memo holder on camera back stores film carton tab or other data.

Dimensions: Camera body with F2SB Photomic Finder DP-3, 6.0″ x 4.0″ x 2.6″ (152.5mm x 102mm x 65mm).

Weight: 30.0 oz. (850g).

All specifications subject to change without notice.

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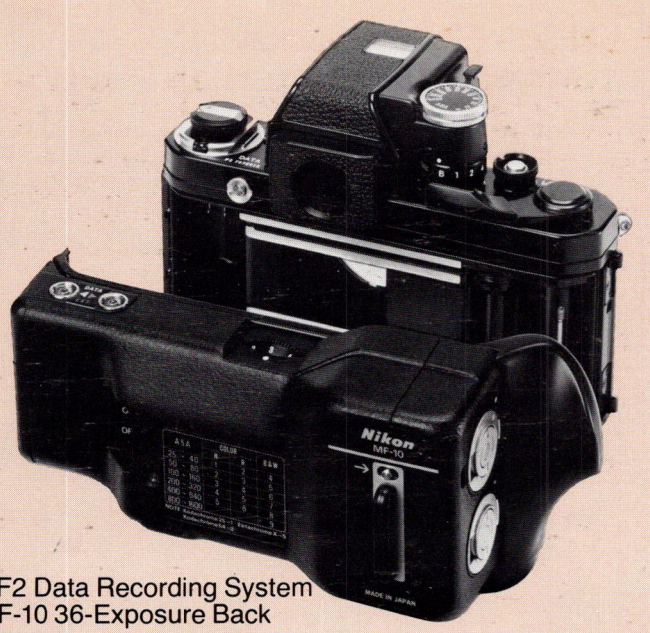
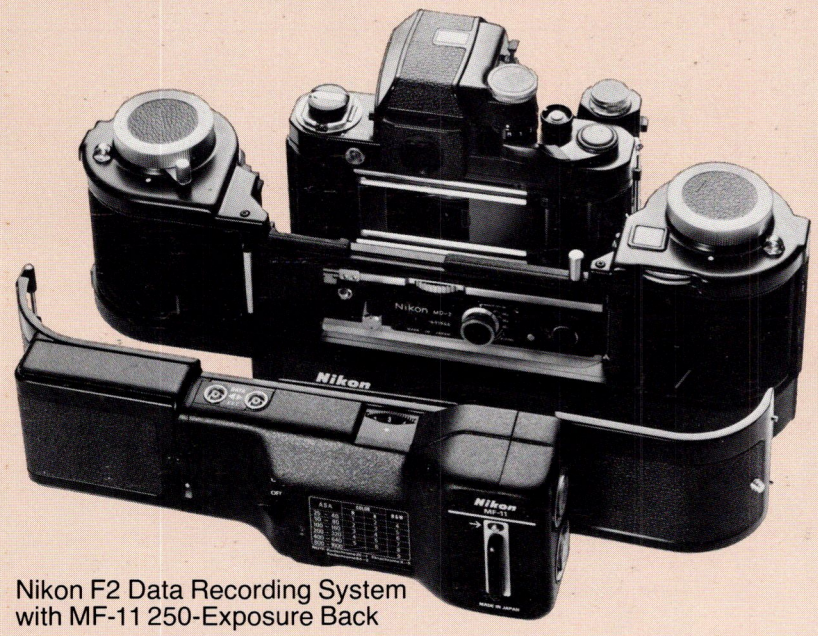
Nikon F2 Data Recording Systems



Nikon F2 Data Recording System with MF-10 36-Exposure Back

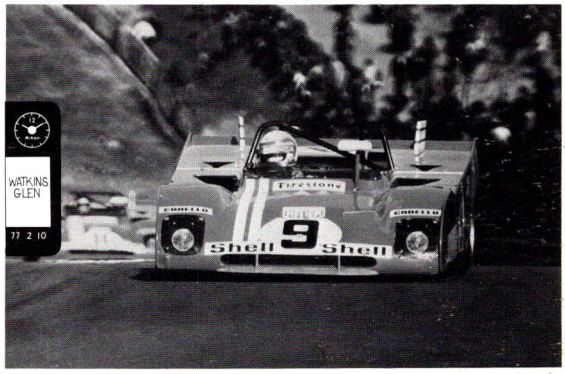


Nikon F2 Data Recording System with MF-11 250-Exposure Back

These uniquely versatile Nikons provide unprecedented information capability for scientific, industrial, and forensic applications. A special, matched Data Back photographically imprints the time, date, and other information written on interchangeable memo plates. The information is exposed by a built-in electronic flash unit which assures consistent clarity and legibility, regardless of ambient lighting conditions or subject matter. Nikon F2 Data Recording Systems accept virtually all Nikon accessories including Motor Drive MD-2, EE Aperture Control Unit DS-12 for F2AS Photomic Finder DP-12, all Nikon F2 interchangeable viewfinders and finder screens, and all Nikkor lenses 6mm—2000mm for totally flexible picture-taking versatility.

Each Nikon F2 Data Recording System consists of two basic components:

- Special black Nikon F2 camera body with removable film plane mask, and selected Nikon F2 Photomic or Prism Finder;
- Either of two *Nikon Data Backs,* each containing adjustable 12-hour timepiece (displays hours, minutes, and seconds), dating unit (year, month, and date), and memo plate slot (for insertion of written matter in 12x21mm area), as well as the built-in, battery-powered electronic data flash. Data Back MF-10 accepts standard 36-exposure film cassettes; Data Back MF-11 uses 250-exposure film loads in conjunction with a specially-matched 250-exposure film magazine MF-1 supplied with the Data Back. The 250-exposure Data System requires the MD-2 motor drive (purchased separately). Use of the MD-2 is optional when using the 36-exposure system.



Fast, Error-Free Operation

Film loading, lens mounting, exposure control, and shutter operation are performed exactly as with any Nikon F2. The photographer need only set the timepiece and dating unit, insert the memo plate with written information (if desired), and switch on the built-in electronic data flash, adjusting its intensity for the film speed in use. When the shutter is released, the Data Camera automatically imprints the time, date, and written notation on a 3.5mm x 10mm area at the left side of the 24mm x 36mm film frame. The special Type S focusing screen, included with each Data System, shows the imprinted area and offers the same 3-way focusing accuracy as the Type K screen: central 3mm split-image rangefinder, 1mm microprism circle, and overall matte Fresnel groundglass (as well as 12mm circle denoting center-weighted meter area).

Other Features

Data Systems with MF-10 36-exposure Back may be operated via the camera's film transport lever or the optional accessory Motor Drive MD-2; systems with MF-11 250-exposure Back are designed exclusively for use with MD-2. The MF-10 electronic data flash is powered by 2 AA alkaline batteries, Eveready Type E91 or equivalent; the MF-11 flash uses 4 cells (same type). Both flash units may be powered alternatively by an optional auxiliary 300-330v DC source, via their external power sockets. With alkaline cells, the flash units recycle in approx. 1 second at normal temperature; a special safety circuit activates the flash only when at full power to insure consistent data legibility. And, by removing the film plane mask and substituting a standard Nikon F2 camera back, any Nikon F2 Data Camera can be used as a normal F2 at any time.

Nikon F2 Data Recording Systems

Nikon F2 Data Recording Systems with MF-10 36-Exposure Back

- Following systems consist of a special black Nikon F2 camera body with viewfinder as indicated, matched MF-10 Data Back, MC-6 Synch Cord, AH-1 Hand Strap, and 10 Memo Plates.
- MD-2 motor drive with power supply may be purchased separately. Its use is optional.
- Uses most Nikon F2 accessories.

Product No.	1612	1642	1646
Description	F2 Data Camera	F2A Photomic Data Camera	F2AS Photomic Data Camera
Viewfinder	Pentaprism DE-1	F2A Photomic DP-11	F2AS Photomic DP-12
Meter System	None	CdS Center-Weighted	SPD Center-Weighted

Information Area	3mm x 10mm on left side
Time Input	Built-in 12-hour timepiece shows hours, minutes, seconds
Date Input	Adjustable dial shows year, month, date
Other Input	Interchangeable 12mm x 21mm Memo Plate for written data
Finder Screen	Type S Data
Flash Batteries	1.5v AA alkaline, 2 required (not included)
Number of Flashes	250 (approx.)
Recycling Time	1 second (approx.)
Usable B & W Films	ASA 25—1600
Usable Color Films	ASA 25—640
Dimensions, Back	2.7″ x 6.9″ x 2.4″ (69mm x 176.5mm x 60mm)
Weight, Back	14.1 oz. (400g)

Nikon F2 Data Recording Systems with MF-11 250-Exposure Back

- Following systems consist of a special black Nikon F2 camera body with viewfinder as indicated, matched MF-11 Data Back, matched MF-1 250-Exposure Film Magazine, MC-6 Synch Cord, and 10 Memo Plates.
- Requires MD-2 motor drive and power supply (purchased separately).

Product No.	1613	1643	1647
Description	F2 Data Camera	F2A Photomic Data Camera	F2AS Photomic Data Camera
Viewfinder	Pentaprism DE-1	F2A Photomic DP-11	F2AS Photomic DP-12
Meter System	None	CdS Center-Weighted	SPD Center-Weighted

Information Area	3mm x 10mm on left side
Time Input	Built-in 12-hour timepiece shows hours, minutes, seconds
Date Input	Adjustable dial shows year, month, date
Other Input	Interchangeable 12mm x 21mm Memo Plate for written data
Finder Screen	Type S Data
Flash Batteries	1.5v AA alkaline, 4 required (not included)
Number of Flashes	1000 (approx.)
Recycling Time	1 second (approx.)
Usable B & W Films	ASA 25—1600
Usable Color Films	ASA 25—640
Accessories required	MD-2 Motor, Power Supply, 2 #2077 Cassettes
Dimensions, Back	2.7″ x 11.8″ x 3.0″ (69mm x 299mm x 76mm)
Weight, Back	22.9 oz. (650g)

All specifications subject to change without notice.

Nikon, Inc., Garden City, N.Y. 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. Other offices in Niles, Ill., and San Francisco, Calif.

Nikon F2 Interchangeable Viewfinders

The unmatched viewing accuracy—essential for critical composition and framing—of the Nikon F2 camera is complemented by an array of viewfinders and meter/finders ranging from simple waist-level type to sophisticated Silicon Photo Diode models with provision for completely automatic, cordless exposure control. Any finder listed may be used on any Nikon F2 camera without modification... thus, in effect, permitting the Nikon F2 photographer to create an infinite variety of cameras, each custom-equipped to meet his photographic requirements precisely.

Pentaprism Finder DE-1

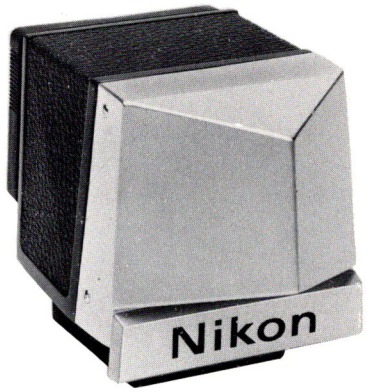
Provides upright, laterally-correct image at eye-level; silver-coated prism for optimum brilliance and contrast. Excellent for photographers employing separate exposure meters. Accepts screw-in Nikon eyepiece accessories. Built-in ready-light for Nikon electronic-flash units. Provides 0.8x apparent image magnification with 50mm lens; −1 diopter correction. Weight 3.5 oz. (100g). Chrome finish, Product No. 2323; black, 2324; Carrying Case for DE-I, Product No. 405.

Waist-Level Finder DW-1

Compact, folding viewfinder with flip-up 5X magnifier, ideal for low-angle viewing or when camera is mounted on copy stand, tripod, etc. Provides 0.9X apparent image magnification with 50mm lens. Folds flat when not in use. Weight 3.2 oz. (90g). Product No. 2325. Carrying Case, Product No. 2302.

6X Focusing Finder DW-2

Magnifies entire image area six times for ultra-critical focusing; particularly helpful in photomicrography and macrography. Permits aerial-image focusing in conjunction with Type C or M Focusing Screens. Lens-quality 5-element, 3-group optics with continuous eyepiece adjustment from −5 to +3 diopters. Also serves as an excellent slide magnifier. With rubber eyecup. Weight 8.1 oz. (230g). Product No. 2317.



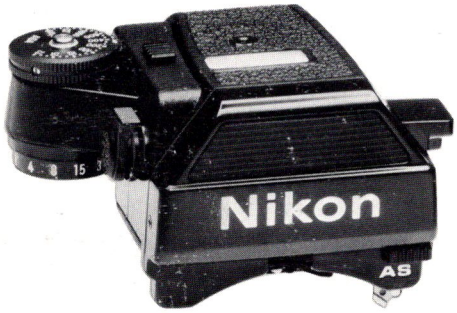
Action Finder DA-1

Pentaprism with extra-large, rectangular eyepiece allows full-image viewing at distances to 2.4" (60mm) from eyepiece. Widely preferred for sports photography as well as conditions where it is impossible to place eye close to finder—for example, when camera is in underwater housing or photographer must wear special goggles or eyeglasses. −1 diopter eyepiece; 0.7x apparent image magnification with 50mm lens. Weight 10.9 oz. (310g). Chrome, Product No. 2308; black, 2309.

Nikon F2 Interchangeable Viewfinders

F2A Photomic Finder DP-11

Silver-coated pentaprism finder with built-in CdS meter, with automatic maximum aperture indexing (AI), aperture direct reading (ADR), and full-aperture coupling with all AI-Nikkor lenses. (Note: most previous Auto-Nikkor lenses can be converted to AI operation; please refer to *Nikkor Lens AI-Conversion* page in *Nikkor Lenses* catalog section for details.) Provides stop-down meter operation with non-AI lenses, attachments and instruments. Shows upright, laterally-correct image with selected shutter speed and lens aperture below image area. Meter needle and reference mark visible both in finder and in window on top of finder. Built-in ready-light for Nikon electronic flash units. Accepts all Nikon screw-in eyepiece accessories. Meter ranges: ASA 6 to 6400; EV 1 to 17 (with ASA 100 film and f1.4 lens). Built-in battery check. Provides 0.8x apparent image magnification with 50mm lens and standard –1 diopter eyepiece (supplied). Powered by two S-76 1.5v silver-oxide batteries housed in camera baseplate. Weight 7.8 oz. (200g). Product No. 66. Delivery to be announced.



F2AS Photomic Finder DP-12

Combines ultra-sensitive Silicon Photo Diode (SPD) sensors with 5-stage LED exposure readout; gives automatic aperture indexing (AI), aperture direct reading (ADR), and full-aperture measurement with all AI-Nikkor lenses, stop-down measurement with non-AI lenses or attachments. (Note: most previous Auto-Nikkor lenses can be converted to AI operation; for details, please refer to *Nikkor Lens AI-Conversion* page in *Nikkor Lenses* catalog section.) 5-stage LED symbols permits over- or underexposure adjustment within 1/5th f-stop (±0.2EV), by means of shutter speed dial or lens aperture ring. Visible in any light, the LEDs make precise "bracketing" or special exposure compensation unusually easy. (A single, top-mounted LED window also permits exposure check from above.) Finder shows selected shutter speed and AI-Nikkor lens aperture below image area; shutter speed scale extends to 10 seconds for extra-long exposures using the F2AS' extended measuring range (EV −2 to +17 with ASA 100 film and f1.4 lens). ASA range 12—6400; same center-weighted measurement and optics as F2A Photomic Finder DP-11. Built-in battery test and eyepiece shutter. Accepts accessory cordless EE Aperture Control unit DS-12 for fully automatic, shutter-priority operation with all AI-Nikkor lenses 6mm—600mm. Weight 9.5 oz. (270g). Product No. 67. Delivery to be announced.

F2 Photomic Finder DP-1

Combines silver-coated pentaprism with center-weighted, through-the-lens CdS metering at full aperture with Nikkor lenses with meter-coupling shoe (including all AI-Nikkor lenses). Also permits stop-down readings with non-coupled lenses and accessories. Shows upright, laterally-correct image with selected shutter speed and lens aperture below image area. Meter needle and reference mark visible both through finder and in window on top of housing. Front window displays maximum aperture of Nikkor lens on camera. Built-in ready light for Nikon electronic-flash units. Accepts screw-in Nikon eyepiece accessories. Meter ranges: ASA 6—6400; EV 1 to 17 with ASA 100 film and f1.4 lens. Built-in battery tester. Provides 0.8x apparent image magnification with 50mm lens, and standard −1 diopter eyepiece (supplied). Powered by 2 S-76 1.5v silver-oxide batteries housed in camera base. Weight 7.8 oz. (220g). Product No. 62.

F2SB Photomic Finder DP-3

Pentaprism finder with built-in Silicon Photo Diode meter providing extra-wide sensitivity range—from EV −2 (8 sec. at f1.4) to +17 (1/2000th sec. at f8) with ASA 100 film—for full-aperture operation with all Auto-Nikkor lenses with meter-coupling shoe (includes all AI-Nikkor lenses). Meter has shock-resistant, 5-stage LED readout; photographer adjusts aperture or shutter speed until central LED glows; additional LEDs denote under- and over-exposure, valuable for "bracketing" and special applications. Another LED readout is visible in window on finder top. Finder shows selected shutter speed and aperture under image area; also shows maximum aperture of lens in front window. Special scale displays exposure times of 2, 4, 6, 8, and 10 seconds for long exposures with Nikon F2 self timer. ASA range 12—6400; same center-weighted measurement and optics as standard F2 Photomic DP-1 finder. Built-in battery tester, eyepiece shutter, and speed/aperture illuminator. Accepts accessory EE Aperture Control unit DS-2 for automatic shutter-priority exposure control with all Nikkor lenses with meter-coupling shoe (including all AI-Nikkors), particularly valuable in unmanned, motorized applications. Weight 9.5 oz. (270g). Product No. 64.

All specifications subject to change without notice.

Nikon, Inc., Garden City, N.Y. 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. Other offices in Niles, Ill., and San Francisco, Calif. EPI

Accessories for F2 Photomic Viewfinders

EE Aperture Control Units DS-2 and DS-12

Two compact, completely cordless servo-motor modules provide fully automatic, shutter-priority exposure control with designated F2S-series finders. The DS-12 model, designed exclusively for the F2AS Photomic Finder DP-12, gives this function with all AI-Nikkor lenses. The DS-2 model provides automatic exposure control with all Nikkor lenses with meter-coupling shoe (including all AI-Nikkor lenses), and may be used with the Nikon F2S and F2SB Photomic Finders DP-2 and DP-3. Both allow manual aperture control or "memorizing" specific aperture for selective exposure control, without removal of any components. Rechargeable, self-contained NC battery (not included) gives approx. 3 hours' continuous automatic-exposure operation, recharges in 3 hrs. Units may also be used with heavy-duty 'C'-cell powerpack, AC, or other power sources with accessories listed.

EE Aperture Control Components

Product No.	Description
53*	EE Aperture Control Unit DS-12 for F2AS Photomic Finder DP-12.
50	EE Aperture Control Unit DS-2 for F2S Photomic Finder DP-2 and F2SB Photomic Finder DP-3.
48	NC Battery DN-1 for all EE Aperture Control Units.
49	Charger DH-1 for NC Battery DN-1; adjustable for 100—117v and 220—240v AC.
87	DB-1 C-Cell Powerpak for all EE Aperture Control Units, for use in place of NC Battery DN-1. Requires 4—1.5v 'C' alkaline batteries.
42	AC/DC Converter MA-4 for all EE Aperture Control Units (individually or in conjunction with Motor Drive MD-2). Voltage stabilized.
86	Connecting Cord DM-1, links EE Aperture Control Unit to MA-4 AC/DC Converter.

*Delivery to be announced.

General Accessories for Photomic Viewfinders

Product No.	Description
405	Carrying Case for F2, F2S, F2SB, F2A, and F2AS Photomic
2316	DL-1 Illuminator for meter readouts for F2 and F2A Photomics
83	1.3v mercury battery for DL-1 (1 required)
84	1.5v silver oxide batteries for all F2-series Photomics (2 required)

Note: All Nikon Photomic Viewfinders and DE-1 Pentaprism Finder accept all Nikon 19mm screw-in eyepiece accessories. Please refer to *Nikon and Nikkormat Viewfinder Accessories* catalog section for details.

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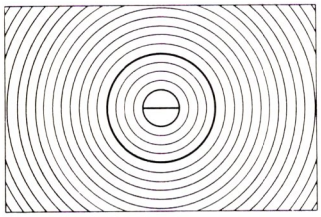
Nikon, Inc., Garden City, N.Y. 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. Other offices in Niles, Ill., and San Francisco, Calif.

Nikon Interchangeable Focusing Screens

Twenty precision focusing screens allow the Nikon owner unparalleled viewing comfort and focusing accuracy with any lens, while providing viewing accuracy superior to all other 35mm cameras. Nikon screens are mounted in sturdy metal frames and easy to handle. Except as noted, all are usable with any Nikon F2 finder or eyepiece attachment.

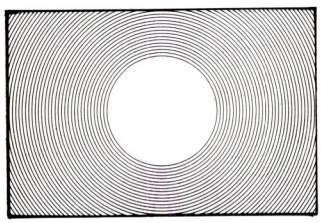
TYPE A



Matte Fresnel field with 3mm split-image rangefinder spot and 12mm reference circle. For general photography with lenses to 400mm telephoto, f4.5 or faster.

Product No. 2331.

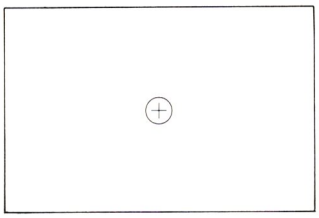
TYPE B



Matte Fresnel field and 12mm fine groundglass center. For general photography; especially suited for use with long-focus lenses and lenses of small maximum aperture (f5.6-f11).

Product No. 2332.

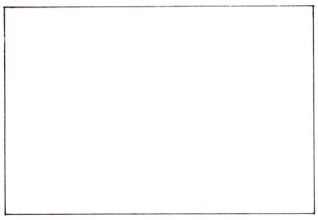
TYPE C



Fine-ground matte field with 4mm clear spot and cross-hair reticle. Especially suitable for photomicrography and other applications involving high magnification where aerial image and parallax focusing can be used with 6X magnifying finder DW-2 or 2X eyepiece magnifier.

Product No. 2333.

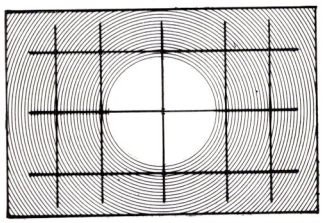
TYPE D



All-matte, fine-ground surface. For use with long focal-length lenses.

Product No. 2334.

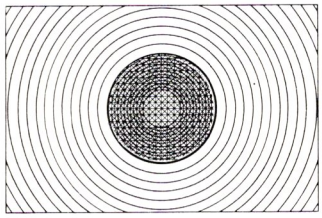
TYPE E



Matte Fresnel field with multiple vertical and horizontal references lines, 12mm reference circle, and fine-ground matte spot. For architectural photography and other applications requiring accurate image placement or alignment.

Product No. 2335.

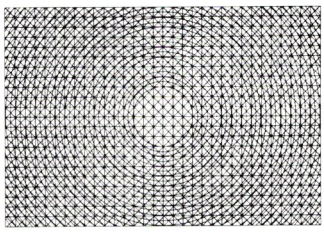
TYPE G SERIES



Clear Fresnel field with 12mm diameter microprism focusing spot. Provides extremely brilliant image for viewing and focusing in poor light. Available in 4 models with individual Fresnel patterns to match specific lenses, as shown on lens/screen selector chart.

G1, Product No. 2337;
G2, Product No. 2338;
G3, Product No. 2339;
G4, Product No. 2340.

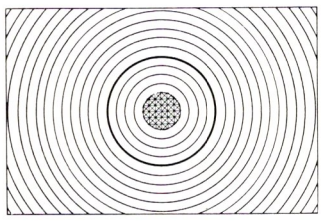
TYPE H SERIES



Clear Fresnel field with microprism pattern over entire screen area. Permits rapid focusing on any part of screen image, with optimum edge-to-edge brightness. Excellent for use in poor light and with moving subjects. Available in 4 models for specific Nikkor lens types (see selector chart).

H1, Product No. 2341;
H2, Product No. 2342;
H3, Product No. 2343;
H4, Product No. 2344.

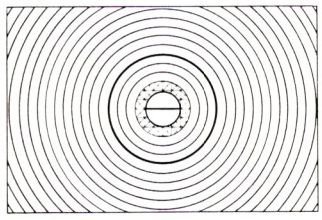
TYPE J



Matte Fresnel field with 4mm microprism focusing spot and 12mm reference circle. For general photography with any Nikkor lens.

Product No. 2345.

TYPE K

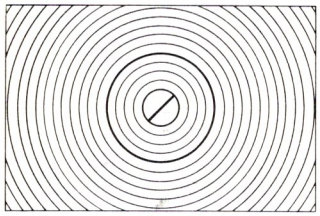


Matte Fresnel field with 3mm central split-image rangefinder spot surrounded by 1mm-wide microprism ring and 12mm reference circle. For general photography with any lens, supplied as standard with all Nikon and Nikkormat cameras.

Product No. 2346.

Nikon Interchangeable Focusing Screens

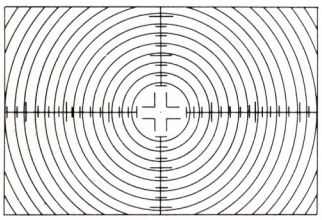
TYPE L



Similar to Type A but with split-image spot set at 45° angle. Facilitates focusing on horizontal line.

Product No. 2347.

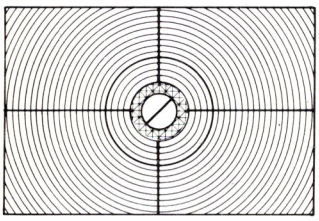
TYPE M



Clear field with double cross-hair reticle and scales in 1mm increments. For aerial-image focusing in photomicrography and other high-magnification work with 6X focusing finder or 2X eyepiece magnifier.

Product No. 2348.

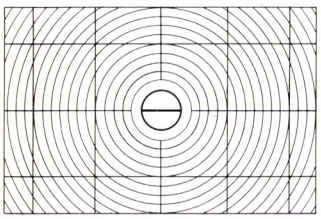
TYPE P



Matte Fresnel field with split-image spot at 45° angle surrounded by 1mm-wide microprism ring plus vertical and horizontal lines and 12mm reference circle. For general photography with all Nikkor lenses.

Product No. 2349.

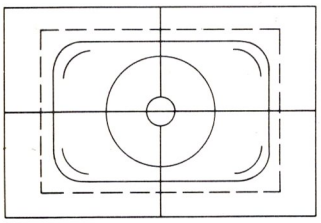
TYPE R



Combines features of Types A and E. 3mm-diameter rangefinder spot works best with lenses having maximum apertures f3.5 to f5.6. Excellent for architectural and multi-exposure photography, where precise image placement is vital.

Product No. 2353.

TV-FORMAT SCREEN



Has central 3mm split-image rangefinder and overall matte Fresnel field. Special, engraved lines show standard TV frame plus 'safe action' and 'safe title' areas, insure that entire image recorded will be visible in commercial or closed-circuit TV broadcasts.

Product No. 2351.

Focusing Screen Selector Chart

Nikkor Lens	Recommended	Acceptable
6mm f2.8 Fisheye	A,B,D,E,G-1,G-2,H-1,H-2, J,K,L,P,TV	C,R
8mm f2.8 Fisheye	A,B,D,E,G-1,G-2,H-1,H-2,H-3, J,K,L,P,TV	C,R
15mm f5.6	B,E,H-2,J,R	A,G-2,K,L,P,TV
16mm f3.5 Fisheye	A,B,E,G-1,H-1,J,K,L,P,R,TV	
18mm f4	A,B,E,G-1,H-1,K,L,P,R,TV	
20mm f4	A,B,E,G-1,H-1,J,K,P,R,TV	
24mm f2.8	A,B,E,G-2,H-1,J,K,L,P,TV	R
28mm f2	A,B,E,G-1,G-2,H-2,J,K,L,P,TV	H-1,R
28mm f2.8	A,B,E,G-1,H-1,J,K,L,P,TV	R
28mm f3.5	A,B,E,G-1,H-1,J,K,L,P,R,TV	
28mm f4 PC	B,E	A,J,K,L,P,R,TV
35mm f2	A,B,E,G-2,H-2,J,K,L,P,TV	G-1,H-1,R
35mm f2.8	A,B,E,G-1,H-1,J,K,L,P,TV	H-2,R
35mm f2.8 PC	B,E	A,J,K,L,P,R,TV
45mm f2.8 GN	A,B,E,G-1,H-1,J,K,L,P,TV	R
50mm f1.4	A,B,E,G-2,H-2,J,K,L,P,TV	R
50mm f2	A,B,E,G-1,G-2,H-1,H-2,J,K,L, P,TV	R
55mm f1.2	A,B,E,G-2,H-2,J,K,L,P,TV	R
55mm f3.5 Micro	B,E	A,G-2,H-2,J,K,L, TV
85mm f2	A,B,E,G-2,H-2,J,K,L,P,TV	H-1,R
105mm f2.5	A,B,E,G-2,H-2,J,K,L,P,TV	H-1,R
105mm f4 Micro	B,D,E,J,M	A,C,G-3,H-4,K,L, TV
135mm f2.8, f2.0	A,B,E,G-2,H-2,J,K,L,P,TV	C,D,G-3,R
135mm f3.5	A,B,E,G-2,H-2,J,K,L,P,R,TV	C,D
180mm f2.8	A,B,E,G-3,J,K,L,P,TV	C,D,H-2,H-3,H-4, R
200mm f4	A,B,E,G-2,H-2,J,K,L,P,R,TV	C,D
200mm f5.6 Medical	B,E,H-2	A,H-3,K,L,P,R,TV
300mm f4.5 & ED	A,B,E,G-3,H-3,J,K,L,P,R,TV	C,D,H-2,H-4
400mm f4.5, f3.5	A,B,E,G-3,H-3,J,K,L,P,R,TV	C,D,G-4,H-4
400mm f5.6	B,E,G-3,H-3,J,R	A,C,D,G-4,H-4,K, L,P,TV
500mm f8 Reflex	A,B,E,J,K,L,TV	C,D,P,R
600mm f5.6 & ED	B,D,E,G-3,G-4,H-4,J,R,TV	A,C,H-3,K,L,P
800mm f8 & ED	B,D,E,G-3,G-4,H-4	A,C,H-3,J,K,L, P,R,TV
1000mm f11 Reflex	A,B,E,J,K,L,TV	C,D,H-3,H-4,P, R
1200mm f11 & ED	B,C,D,E,H-4	A,G-4,H-3,J,K, L,P,R,TV
2000mm f11 Reflex	A,B,D,E,G-4,H-4,J,K,L,TV	C,G-3,P,R
28-45mm f4.5 Zoom	A,B,E,J,K,L,P,R,TV	H-1
35-70mm f3.5 Zoom, 43-86mm f3.5 Zoom	A,B,E,H-2,J,K,L,P,R,TV	G-2
50-300mm f4.5 Zoom	A,B,E,G-3,G-4,H-4,J,K,L,P,R,TV	H-3
80-200mm f4.5 Zoom	A,B,E,H-2,H-3,J,K,L,P,R,TV	G-3
200-600mm f9.5 Zoom	B,D,E,G-4,H-4	A,C,G-3,H-3,J, K,L,P,R,TV

All specifications subject to change without notice.

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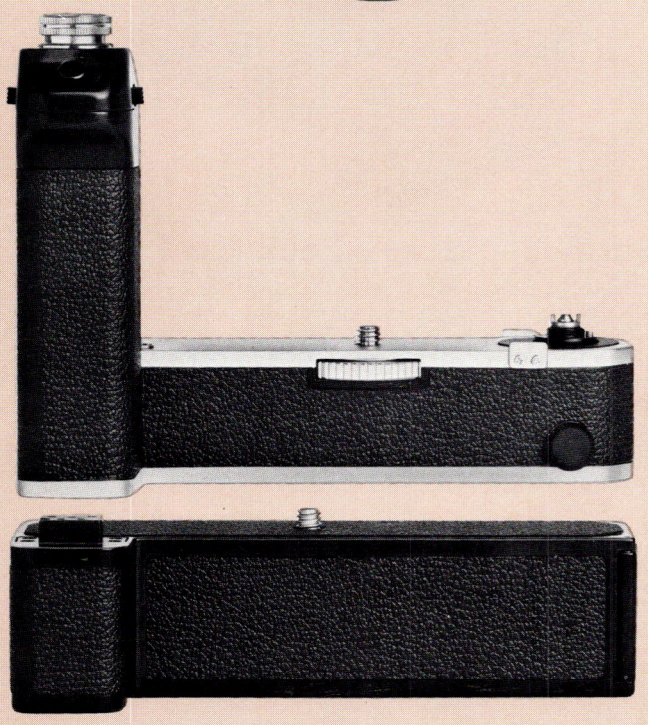
Nikon F2 Motor Drive System



Paramount to the Nikon concept of high-performance photography is this: photography's largest array of automatic fire-power equipment. Each component is crafted to the standards of reliable precision that have made Nikon motor drives an essential element in sports, news, aerospace, industrial, scientific, and investigative photography throughout our world. Either of the two basic motor drive units attaches directly to the baseplate of any Nikon F2 camera, without modification; to the motor is added the desired power pack or supply, remote-control system, intervalometer —even, with MD-2, film magazine—or other accessories to provide the photographer with the ultimate in automatic capabilities.

Motor Drive MD-2

Compact, cordless motor fits directly on any Nikon F2 camera, without removing baseplate or even camera back —simply remove Open/Close key and screw on motor. Powered by the Cordless Battery Pack MB-1 or AC/DC converters MA-2 or MA-4, the motor is adjustable for either single-frame or continuous-burst operation, plus a special Lock position to prevent inadvertent firing. The 5-position speed selector permits rapid sequence operation from one to 4.3 frames per second with through-the-lens viewing, or 1 to 5 f.p.s. with the Nikon F2 mirror locked up. These high operating speeds may be obtained over a broad range of shutter speeds—from 1/125th second to 1/2000th second in continuous operation! Other shutter speeds to 1/4th second may be employed at slower motor speeds in continuous operation, and from B and 10-1/2000th second in single-shot mode. After the last exposure, the motor permits automatic film rewinding, requiring just 7 seconds for a 36-exposure roll. (With the accessory Camera Back MF-3, rewinding stops automatically while the film leader is outside the cassette—a valuable advantage with daylight-loading or automated processing systems.)

The MD-2 Motor Drive contains a built-in, subtractive exposure counter which may be pre-set to shut motor off automatically after a specific number of frames have been exposed, as well as a convenient hand grip with electrically-powered shutter-release button; the grip head (with Single/Continuous selector switch) is detachable for remote-control applications. The multiple exposure feature of the Nikon F2 camera may be employed at any time with the Motor Drive, by pressing the film rewind slide on the back of the motor while activating the shutter. A built-in relay permits radio, electrical, or modulated-light-signal remote operation with the appropriate Nikon accessories. LED signal lamp glows each time the motor completes an advance cycle—particularly valuable to confirm correct operation in remote control operation—and when the film has been automatically rewound. The motor measures 5.8″ x 4.3″ x 3.0″ (147mm x110mm x 77mm) and weighs 16.6 oz. (470g). Supplied with Cordless Battery Pack MB-1 and two MS-1 Battery Holders, each accepting 5 AA alkaline batteries; Product No.7. Also available without Battery Pack and Holders, Product No. 2. The first Nikon Motor Drive for the F2, Model MD-1 (which is no longer available), was similar to the MD-2 but did not have the auto-stop mechanism on rewind, LED indicator or safety locks.

Note: With the exception of the MF-3 back, all accessories for the MD-2 will operate with the MD-1 Motor Drive.

Nikon F2 Motor Drive System

Motor Drive MD-3

A rugged, lightweight, economical motor drive incorporating all the engineering precision which has made Nikon motor drive systems the acknowledged standard in 35mm photography. Attaches directly to any Nikon F2 body after Open/Close key is removed; anatomical hand grip contains shutter button and single/continuous-burst selector. The MD-3 motor drive may be powered by the same MB-1 Cordless Battery Pack or MA-4 AC/DC Converter as the Nikon MD-2 Motor Drive, or by the special MB-2 Cordless Battery Pack (to be available soon). Firing speed in continuous mode is set automatically according to the shutter speed and power source in use:

MD-3 Power Supply	Power Source	Maximum Firing Rate	Capacity: (Approx. No. of 36-Exposure Rolls)
MB-1 Cordless Battery Pack w/ MN-1 Nicad Battery Units (2)	Interch. Nicad Cells	4.0 f.p.s.	120 per charge
MA-4 AC/DC Converter	100-120v AC, 50/60 Hz.	4.0 f.p.s.	Unlimited
MB-1 Cordless Battery Pack w/AA Penlight Batteries	10 AA Alkaline Cells	3.5 f.p.s.	160
MB-2 Cordless Battery Pack	8 AA Alkaline Cells	2.5 f.p.s.	80

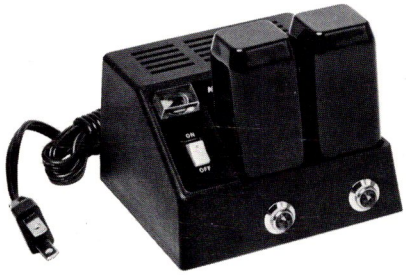
The MD-3 motor permits continuous operation at speeds from 1/80 to 1/2000th second, with the firing rate determined automatically by the power source and shutter speed in use. All speeds, including "B", are usable in single-frame mode. Built-in, manually-reset (subtractive) exposure counter turns motor off at "'0", enabling the photographer to expose any desired number of frames with automatic shutoff provision. For added versatility, MD-3 may be used with Nikon Modulite ML-1 remote system, Nikon Wireless Remote Control MW-1, Pistol Grip Model 2, and Nikon Intervalometers MT-1 and NC-2. (MD-3 does not accept SC-series extension cords or Nikon Cord System components.) The MD-3 with its built-in anatomical hand grip measures 4.2" x 5.8" x 2.4" (106mm x 147mm x 62mm) and weighs 13.2 ounces (375g) less batteries. Product Numbers for MD-3 Motor Drive and MB-2 Cordless Battery Pack will be announced soon.

Cordless Battery Pack MB-1

For Motor Drives MD-1, MD-2 and MD-3; accepts two MS-1 Battery Holders (supplied), each holding 5 1.5v AA alkaline batteries, Eveready Type E91 or equivalent, which power approx. 80 rolls of 36-exposure film with MD-2, 160 with MD-3. Also accepts accessory MN-1 Nicad Battery Units, powering approx. 60 36-exposure film rolls per charge with MD-2, 120 with MD-3. MB-1 Cordless Battery Pack with two MS-1 Battery Holders, Product No. 18.

Nicad Battery Unit MN-1

For use with Cordless Battery Pack MB-1; set of two (required) powers approximately 60 36-exposure film rolls or equivalent on one charge with MD-1 and MD-2, 120 with MD-3; recharges in accessory MH-1 Nicad Battery Charger. Set of two, Product No. 38.



Nicad Battery Charger MH-1

Recharges two MN-1 Nicad Battery units, up to 80% capacity, in approximately three hours; 100% capacity in six hours. For 100, 117, 220, or 240v AC, 50-60 Hz. Product No. 39.

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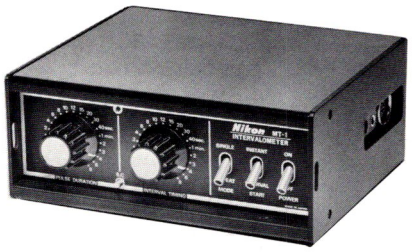
Nikon F2 Motor Drive System

Nikon Timing and Remote Control Systems for Motor Drives and Nikon Super-8 Movie Cameras

Following accessories are compatible with all Nikon MD-1, MD-2, MD-3, and MD-11 Motor Drives unless otherwise indicated.



Intervalometer MT-1

Activates motorized camera for automatic, unmanned photography. May be programmed for single frame sequences (including time exposures) or multi-exposure bursts at regular intervals of up to 8 minutes. All solid-state temperature compensation circuit insures consistent accuracy from 14° to 122°F (– 10°C to 50°C). Can be remotely operated electrically or by Nikon Modulite or wireless remote control; also works with Nikon R8 and R10 movie cameras. Measures 2.4″ x 5.9″ x 5.1″ (60mm x 150mm x 130mm), weighs 34.2 oz. (970g). Powered by four 1.5v AA batteries (Mallory MN-1500 or equivalent). Supplied with MC-5 connecting cord to attach to Motor Drives and R8/R10 Movie Cameras. Product No. 71.

Intervalometer NC-2

For single frame sequences at intervals from 0.5 seconds to eight minutes. 15 timed intervals and 2X, 4X and 10X time extensions. Powered by eight 1.5v AA alkaline batteries. Automatic cycle may be overiden at will. Accuracy ± 3% of selected interval. Measures 4.5″ x 4.5″ x 6.0″ (114mm x 114mm x 152mm), weighs 24.0 oz. (680g). Accepts Nikon Remote Control Accessories. Product No. 37.

3.3′ Remote Cord MC-4

For use with electrical or mechanical timers, switches, or other triggering instruments, and Nikon cord system components. Product No. 29.

Modulite Remote Control System ML-1

Unique cordless, electronic remote-control system activates motor-drive-equipped Nikon slr or R8/R10 Super Zoom cameras at distances to 200 feet. Compact transmitter (powered by 4 AA alkaline batteries) emits special modulated light signals over 30° x 40° field; receiver (powered by 1 9v cell) mounts on camera accessory shoe and responds to the special modulated light signals within 100° x 100° angle. Dual channel selectors permit simultaneous, individual control of two cameras situated in close proximity with one transmitter. Cannot be triggered inadvertently by other light sources. Operates reliably even in off-axis or bounce mode. Transmitter provides approximately 750 light signals per battery set; receiver gives approximately 10 hours operation, in temperatures from 32°F to 113°F (0°C-45°C). Transmitter measures 1.57″ x 1.57″ x 5.1″ (40mm x 40mm x 130mm), weighs 4.59 oz. (130g); Receiver measures 1.57″ x 2.44″ x 3.15″ (40mm x 62mm x 80mm), weighs 6.0 oz. (170g), each less batteries. Supplied with receiver hood, MC-8 connecting cord for Nikon MD-1, MD-2, MD-3 and MD-11 motor drives, EA-4 connecting cord for R8/R10 movie cameras, and locking accessory shoe coupler. Product No. 72. Optional connecting solenoid for ELW and EL2, Product No. and Delivery to be announced.

Nikon F2 Motor Drive System

Wireless Remote Control Set MW-1

Compact, solid-state radio control unit for remote operation of up to 3 Nikon motor drive or R8/R10 Super Zoom cameras; delivers 80 MW output on CB wave lengths—no license required. Transmitter activates receiver at distances up to 2300 feet (700m). Transmitter and receiver are each powered by 8 AA alkaline batteries; each has built-in battery tester. Five operating modes: individual or simultaneous operation of up to 3 compatible Nikon cameras. Permits single exposures or, in conjunction with Nikon Intervalometer, time-lapse photography at distances to approx. ½ mile. Transmitter measures 1.61″ x 2.99″ x 7.48″ (41mm x 76mm x 190mm), weighs 20.1 oz (570g); receiver measures 1.61″ x 2.99″ x 9.84″ (41mm x 76mm x 250mm) weighs 25.8 oz. (730g); both less batteries. Supplied with connecting cords MC-5 for all motorized Nikon F2 and FM cameras and EA-3 for R8/R10 Super Zoom. Product No. 59.

Note: MW-1 will resist interference of CB radio transmissions.

Nikon Cord System for MD-1 and MD-2 Motor Drives and Accessories

All-purpose system of cords and plugs for operating motor drive units by remote control or with electrical or electronic timers or other instruments. Heavy-duty construction; provides low-voltage electrical triggering of motor/shutter release for single exposure or sequence operation. For MD-1 and MD-2 exclusively; not for use with AC. All cords require AE-2 Alligator Clips (Product No. 91) and MC-4 3.3′ Remote Cord (Product No. 29) for use with Motor Drive MD-2.

Product No.	Description
20	3′ Basic Remote Cord ME-3 (household/household)
21	6′ Basic Remote Cord ME-6 (household/household)
22	15′ Basic Remote Cord ME-15 (household/household)
23	30′ Basic Remote Cord ME-30 (household/household)
90	Tripping Button AE-1 for any Basic Cord 3′—30′, permits use of 2 or more cords for greater extensions.
91	Alligator Clips AE-2 for attachment of Basic Remote Cords to Nikon MC-4 3′ Remote Cord ('Banana Plug' fitting).
92	Twin Lugs AE-3, for attaching Basic Cords to Relay Box or similar devices.
93	Mini Plug AE-4, for attaching Basic Cords to 'mini' type audio terminal.
94	Banana Plugs AE-5, for attaching Basic Cords to Relay Box or DIN-type audio terminal.

SC Remote Cords for MD-1 and MD-2

Connect removed Grip Head (SC Unit) with MD-1/2 motor grip for remote control operation. Not for use with 750-exposure film magazine. 10′ SC Remote Cord MC-1, Product No. 24. 33′ SC Remote Cord, Product No. 88. 66′ SC Remote Cord, Product No. 89.

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Nikon F2 Motor Drive System

Connecting Cord MC-7

For operation of Nikon Motor Drives with MB-1 Battery Pack detached from motor; an aid in special applications such as extreme cold-weather photography, where the photographer can carry the battery pack inside coat or pocket to insure peak battery response. 5 ft. (1.5m) long. Product No. to be announced.

MA-2 AC/DC Converter

For operation of Motor Drive MD-1, MD-2, or MD-3 on 100, 117, 220, or 240v AC power; provides smooth, ripple-free current (400ma). Built-in voltage stabilization, overload protection, remote outlet, and shutter release button. Requires 10′ Connecting Cord MC-2. Product No. 32.

MA-4 AC/DC Converter

For operation of Motor Drives MD-1, MD-2, MD-3 and EE Aperture Control Unit, individually or together, from 100, 117, 220, or 240v AC current. Voltage stabilized. Same ripple-free operation and safety features as MA-2. With remote-control circuit and shutter-release button. Requires 10′ connecting cord MC-2. Product No. 42.

10′ Connecting Cord MC-2 for AC/DC Converters

Connects AC/DC Converter MA-2 or MA-4 with MD-1, MD-2, or MD-3 Motor Drive or MA-4 with MD-3 motor, permits placing converter at most convenient location. Product No. 25.

Motor Release MR-1

Screws into remote terminal of motor drives, provides secondary shutter release button for left-hand operation or situations in which the standard motor release button is not conveniently accessible. Accepts Nikon AR-2 cable release. MR-1 Motor Release, Product No. 659.

Pistol Grip Model 2

Aids in holding camera/motor system steady, particularly with long tele and zoom lenses. Attaches to tripod socket on motor, camera or lens; gives electrical shutter-release triggering with accessory cord MC-3. Product No. 45.

Coiled Connecting Cord MC-3 for Pistol Grip 2

Connects pistol grip trigger to motor's electrical shutter release contact. Insures smooth, responsive triggering. Product No. 28.

Camera Back MF-3

For optional use with Motor Drive MD-2 (only) in place of standard F2 back. Automatically shuts off film rewind with leader outside film cassette—valuable with daylight-load or automatic processing systems. Provides a more comfortable anatomical grip. Product No. 14.

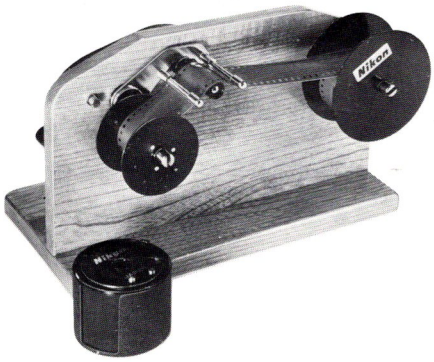
Nikon F2 Motor Drive System

250-Exposure Film Magazine MF-1

For use with Motor Drives MD-1 and MD-2. Holds 33′ (10m) exposure lengths of 35mm bulk film in special Nikon cassette. Film feeds from cassette to cassette; no rewinding necessary. Additive and subtractive exposure counters; latter may be pre-set to shut motor off after desired number of frames have been exposed. Built-in micromotor draws on Motor Drive power source. Integral shutter-release button with lock. May be combined with EE Aperture Control, Intervalometer, or other accessories. Less Cassettes (2 required). Product No. 13.

250-Exposure Film Cassette

For use with 250-exposure Magazine MF-1 (2 required). Holds up to 33′ (10.0m) of 35mm bulk film; reloadable. Unique design opens cassettes inside Film Magazine for advance, closes light trap prior to unloading, permits mid-roll film interchange. With leather case. Product No. 2077.



Bulk Film Loader

Mounted on sturdy, wooden stand for rapid loading of 250-exposure cassettes in darkroom. Stops automatically at preset film length. Fluorescent frame number markings. Large, rotating crank. Product No. 2080.

750-Exposure Film Magazine MF-2

For use with Nikon Motor Drives MD-1, MD-2 and MA-2 or MA-4 AC/DC Converter, or in conjunction with Nikon EE Aperture Control unit, Intervalometer, or other accessories. Accepts standard 100′ (30.5m) bulk-film rolls in Nikon MZ-2 cassettes (2 required); permits firing rates to approx. 4 frames per second with all shutter speeds from 1/80th to 1/2000th second usable in continuous-burst operation, at speeds from 1 to 1/2000th second in continuous operation at slower intervals, with intervalometer MT-1, or at all speeds from "B" and 1 to 1/2000th second in single-shot use. A built-in film trimmer provides advantages in short-run applications. Automatically shuts off motor at end of film roll. Built in subtractive exposure counter may be pre-set for automatic shutoff after desired number of frames have been exposed. Five built-in tripod sockets for optimum mounting stability. 750-Exposure Film Magazine Back MF-2, less cassettes, Product No. 19.

750-Exposure Film Cassette MZ-2

Accomodates 100′ (30.5m) bulk film roll for use with 750-exposure magazine; 2 required. Magazines may be removed in mid-roll without danger to exposed film. Product No. 2076.

NOTE: The Nikon SB-5 Thyristor flash is ideally suited for high-speed photography with Nikon motor drives and Auto Winder. Please refer to description in Nikon Thyristor Flash catalog pages for complete data.

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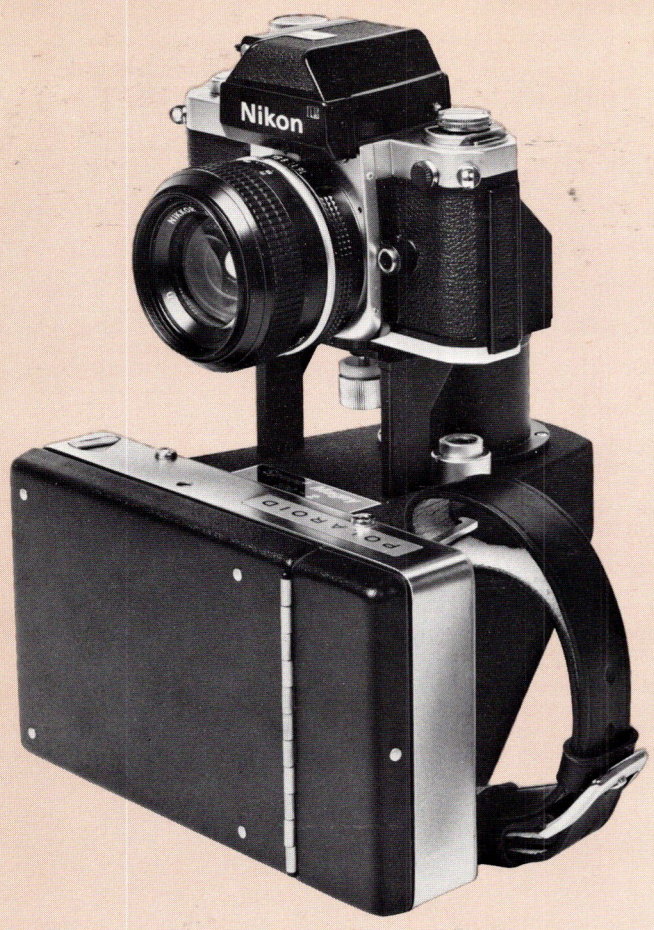
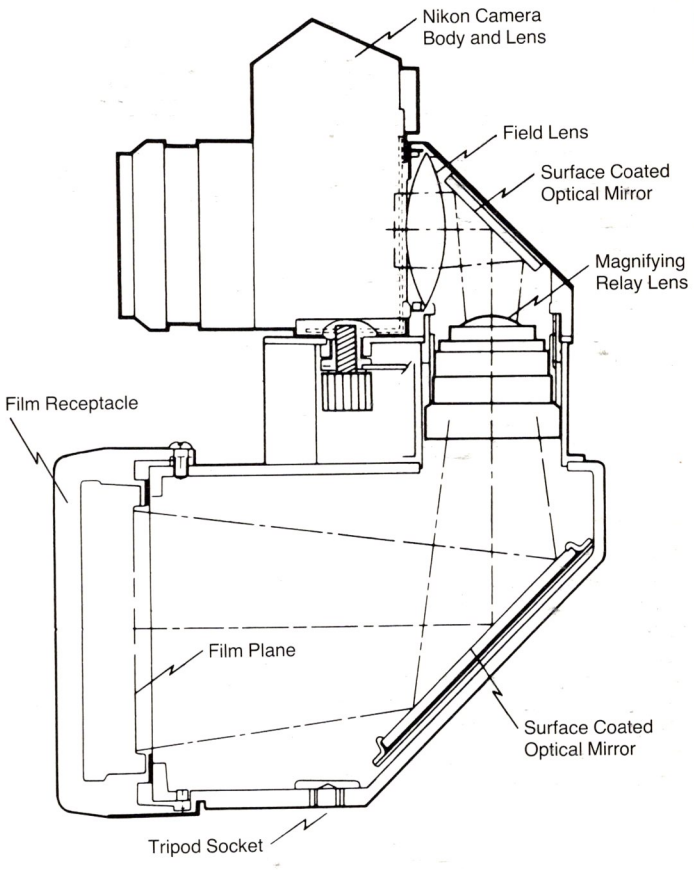
Speed Magny Backs for Nikon F2



Perhaps the most unique accessories in the Nikon F2 system, Speed Magny backs transform any F2 into a large-format "instant picture" camera for use with Polaroid® film packs, or a second model which uses standard 4x5 film holders. The Speed Magny replaces the regular, detachable camera back. All essential camera functions not related to the 35mm film—reflex viewing/focusing, through-the-lens metering, shutter speed control, flash synch, etc.—are retained, as is the superior picture quality and versatility of interchangeable Nikkor lenses.



Precision Optical System

The Speed Magny optical system utilizes a magnifying relay lens in combination with a coated field lens and 2 optically flat, surface-coated mirrors. With Model 100-2 the system increases the size of the picture 3.2 times to fill the 3¼x4¼ Polaroid format. Image size is the same as if taken with a lens 3.2 times longer than the one used. With Model 45-2, the increase is 4.1 times.

Because of the difference in proportions between the 35mm and 3¼x4¼ or 4x5 formats, slightly less picture length is recorded on the film than is shown in the Nikon finder.

Use of Speed Magny units requires increases in exposure over those normally indicated by the emulsion speed: an 18-time increase with Model 100-2 and a 20-time increase with Model 45-2. Photomic meter systems can be programmed accordingly via ASA setting.

Film Holders

Speed Magny 100-2 has built-in holder for Polaroid 3¼x4¼ film packets. Speed Magny 45-2 accepts standard holders for 4x5 Polaroid and regular sheet film.

Speed Magny Backs for Nikon F2

Technical Data

	Speed Magny 45-2	Speed Magny 100-2
Film format	4 x 5	3¼ x 4¼
Magnification	4.1x	3.2x
Exposure increase factor	20	18
Effective rating of ASA 3000 film	ASA 150	ASA 170
Film holder	extra	built in
Dimensions: Depth	7.48″ (190mm)	6.69″ (170mm)
Width	8.66″ (220mm)	7.48″ (190mm)
Height (to top of Standard Prism Finder)	9.84″ (250mm)	9.65″ (245mm)
Weight (less camera)	4 lbs. 3 oz. (1.9 kg)	4 lbs. 3 oz. (1.9 kg)
Product No.	3053	3054

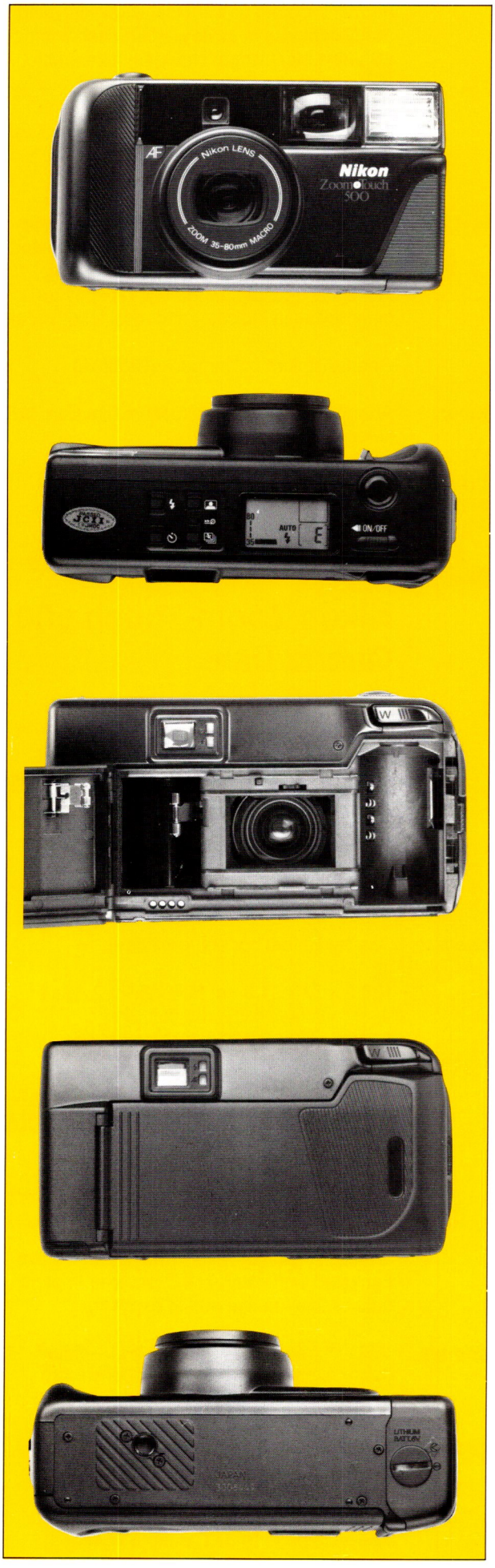
All specifications subject to change without notice.

Lens Chart

Nikkor Lens	Effective focal length with Speed Magny	
	Model 45-2	Model 100-2
105mm f2.5	431mm	336mm
135mm f3.5	554mm	432mm
200mm f4	820mm	640mm
300mm f4.5	1230mm	960mm
400mm f4.5	1640mm	1280mm
600mm f5.6	2460mm	1920mm
800mm f8	3280mm	2560mm
1200mm f11	4920mm	3840mm
80mm-200mm f4.5	328mm-830mm	256mm-640mm
50mm-300mm f4.5	205mm-1230mm	160mm-960mm
200mm-600mm f9.5	820mm-2460mm	640mm-1920mm
Medical-Nikkor 200mm f5.6 (Mag. Ratio)	0.27X-12.3X	0.21X-9.6X

Note: Lenses other than those listed may be used. In each case, the effective focal length is increased proportionately. With some lenses shorter than 200mm, there is the possibility of slight vignetting and image degradation around the edges of the print.

Nikon, Inc., Garden City, N.Y. 11530. Subsidiary of Ehrenreich Photo-Optical Industries, Inc. Other offices in Niles, Ill., and San Francisco, Calif.



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
Focusing:	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-exposure roll; auto film stop when end of roll is reached; mid-roll rewind button provided
Film counter:	Additive-type via LCD 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 countdown; two-shot self timer function provided; focus/exposure lock during timer operation
Built-in electronic flash:	Equipped with Advanced Smart Flash; fires automatically if existing light is insufficient for

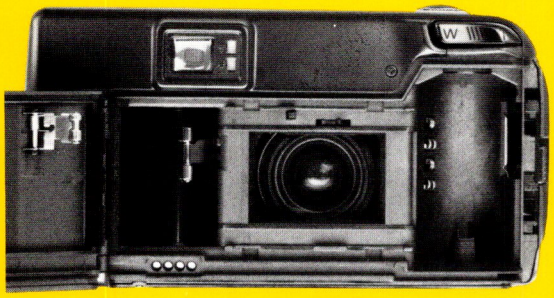
	normal shooting or if subject is backlit; flash ready-light visible at viewfinder; flash zooms with lens focal length changes; auto shutter lock during charging; power rating of approx. GN 41 to 46 (in feet, ISO 100) across the 35mm to 80mm zoom range; flash recycling time approx. 3 sec.
LCD panel:	Display 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 (W x H x D):	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 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):	136.8 x 73 x 61.3mm (5.4 x 2.9 x 2.4 in.)
Weight:	Approx. 370g (13 oz.), without batteries

Nikon Tele-Touch Deluxe Quartz Date

Product number:	1811
Type of camera:	Special version of Nikon Tele-Touch Deluxe 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):	136 x 72 x 49.8mm (5.3 x 2.8 x 1.9 in.)
Weight:	Approx. 290g (10 oz.), without batteries



Nikon One-Touch 100

Product number: 1808

Type of camera: 35mm autofocus, compact camera

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

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

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

Viewfinder: Reverse-Galilean, Albada-type viewfinder; 0.46X finder magnification; approx. 83% 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

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

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

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

Self timer: Selected via button and started with shutter release; 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

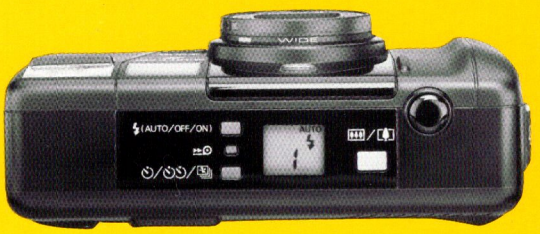
Built-in electronic flash: Flash fires automatically if existing light is

	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 24exposure film with 50% flash operation using lithium power pack
Dimensions (W x H x D):	133 x 71.3 x 48.7mm (5.2 x 2.8 x 1.9 in.)
Weight:	Approx. 250g (8.8 oz.), without batteries
Camera case:	Nikon Soft Camera Case (P/N 690), optional

DISC.

Nikon One-Touch

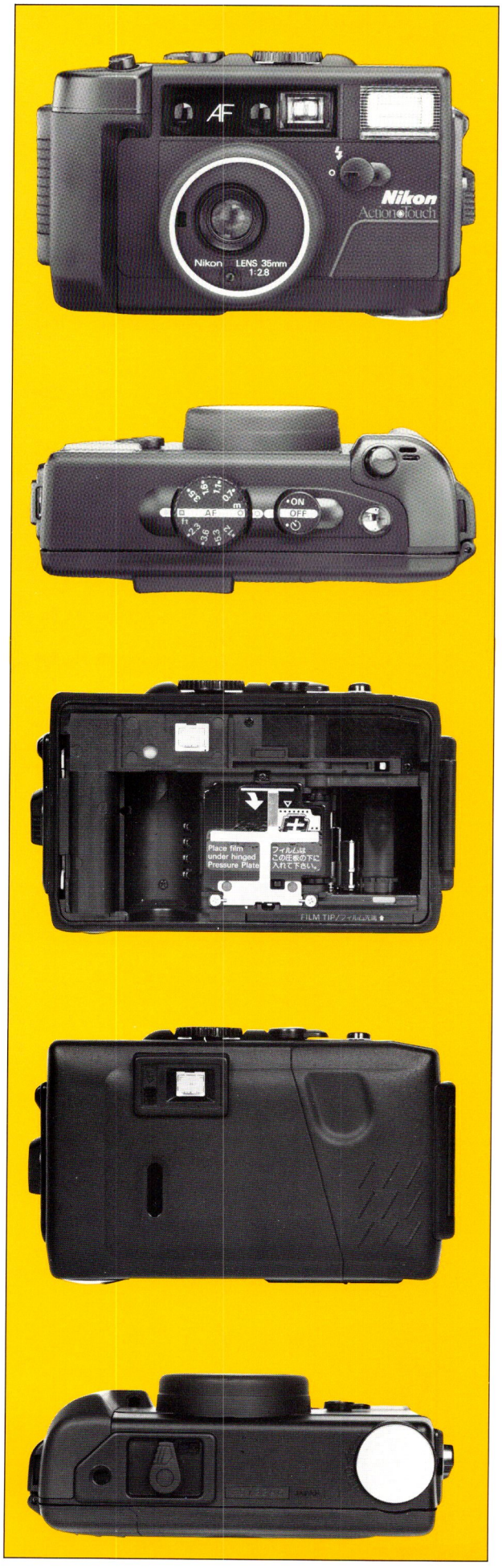
Product number:	1805
Type of camera:	Autofocus, compact camera with macro focus range and automatic flash backlight compensation (smart flash)
Picture format:	24mm x 36mm (standard 35mm format)
Lens:	Nikon 35mm f/2.8 lens; 4 elements in 3 groups
Filter:	46mm dia. threaded mount provided at front of lens
Shutter:	Programmed, electronic in-lens shutter
Viewfinder:	Bright-frame viewfinder; magnification 0.5x
Field of view:	Approximately 85% frame coverage at infinity
Viewfinder information:	Bright frame with parallax compensation marks, autofocus frame marks, display for correct focusing (green LED), flash-ready indicator (red LED); battery check and "too-near-subject" warning also provided
Focusing:	16-step, infrared, active autofocus system; 0.5m 17″ to infinity
Focus memory:	By pressing the shutter release
Exposure metering:	Two CdS cells; one for the programmed, automatic exposure system and one for automatic flash backlight compensation (smart flash)
Metering range:	EV6.4 to EV17 (f/2.8 at 1/11 sec. to f/16 at 1/500 sec.) with ISO 100 film
Film speed setting:	Automatic for DX-coded films; set to ISO 100 for non-DX
Film speed range:	ISO 64 to 1600
Film loading/advance:	Auto film loading with film automatically advanced to first frame
Frame counter:	Additive type; resets when camera back is opened; counts backwards as film is being rewound
Film rewind:	Automatically at end of film roll; film rewind stop automatic as film leader leaves sprockets
Electronic flash:	Automatic functions are available, as follows: * Flash in case of insufficient light * Flash dimmer for distances less than 0.7m (2.3 ft.) * Flash backlight compensation * Shutter locks until flash is fully charged * Flash cancel button for photographs without flash Charging time about 3 sec.
Flash range:	0.45-4m (1.5-14.8 ft.), ISO 100 film
Self-timer:	Via self-timer; 10 sec. shutter release delay with indicator light
Battery check:	Approximately 5 years (ten 24-exposure rolls per year with 30% flash usage); shutter release locks when battery is exhausted
Power source:	Lithium battery pack (Duracell DL223A 6V or Panasonic BR-P2 6V)
Dimensions:	135.8mm (W) x 71.5 (H) x 48mm (D) (5.3″x2.8″x1.9″)
Optional accessories:	Pouch Case for Tele-Touch Deluxe/ One-Touch/Fun-Touch



Nikon Tele-Touch Deluxe

Product number:	1810
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)
Lens:	Wide—Nikon lens 35mm f/3.5; 4 elements in 3 groups Tele—Nikon lens 70mm f/6.8; 8 elements in 6 groups
Lens cover:	Opens or closes automatically with the power switch
Filter:	Built-in soft-effect filter; 1 element in 1 group
Shooting distance:	0.69m to infinity (2.3 ft. to infinity)
Film speed setting:	Automatically set to ISO 64, 100, 200, 400, 1000, 1600 for DX-coded film; Non-DX-coded films are automatically set at ISO 100
Shutter:	Programmed electronic shutter; also serves as 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 dioptry
Viewfinder information:	Picture frame marks, autofocus frame marks, parallax compensation frame marks, focus indicator LED (green), flash ready-light indicator LED (red)
Focusing:	Active autofocus system; lightly pressing shutter release button locks focus
Exposure metering:	Programmed auto exposure control: EV6 to EV16 on "W" EV7.9 to EV16 on "T" (at ISO 100)
Film loading:	Film automatically advances to first frame when camera back is closed
Film advance:	Automatic, at 0.7 second per frame in continuous shooting mode
Film rewinding:	Automatic rewinding when end of film roll is reached; approx. 18 sec. per 24-exposure roll; stops 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; cancelable
Built-in flash:	Fire automatically if existing light is insufficient for normal shooting; ready-light; shutter locks if flash is 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
Battery life:	Approx. 25 rolls* of 24-exposure film w/50% flash
Power source:	Lithium battery pack (Duracell DL223A 6V or Panasonic BR-P2 6V)
Dimensions:	136mm (W) x 72mm (H) x 46.6mm (D) (5.4″ x 2.8″ x 1.8″)
Weight:	Approx. 310g (10.9 oz.) without batteries
Optional accessories:	Pouch Case for Tele-Touch Deluxe/ One-Touch/Fun-Touch

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



Nikon Action-Touch

Product number:	1840
Type of camera:	All weather, autofocus, compact camera, watertight to a depth of 3m (10 ft.)
Picture format:	24mm x 36mm (standard 35mm format)
Lens:	Nikon 35mm f/2.8 lens, 4 elements in 3 groups
Shutter:	Programmed, electronic in-lens shutter
Viewfinder:	Bright-frame viewfinder; 0.5x magnification
Field of view:	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
Focusing:	Infrared, active autofocus system; 0.7m (2.2 ft) to infinity; four-step manual focusing via stepped selector
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
Self-timer:	Electronic with 10 sec. exposure delay and 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:	134mm (W) x 81mmmm (H) x 48mm (D) (5.2″x3.2″x1.9″)
Optional accessories:	CS-L35AW Semi-Soft Camera Case Pouch Case with Strap for Action-Touch

Nikon Fun-Touch

Product number:	1807
Type of camera:	Autofocus, compact camera
Picture format:	24mm x 36mm (standard 35mm format)
Lens:	Nikon 35mm f/3.5 lens; 4 elements in 3 groups
Shutter:	Programmed, electronic in-lens shutter
Viewfinder:	Bright-frame viewfinder; 0.46x magnification
Field of view:	About 85% frame coverage at infinity
Viewfinder information:	Bright frame with parallax compensation marks, autofocus frame marks, display for correct focusing (green LED), flash-ready indicator (red LED); battery check
Focusing:	Infrared, active autofocus system; 0.96m (2.7 ft.) to infinity
Focus memory:	By pressing the shutter release
Exposure metering:	CdS cells; programmed automatic exposure control
Metering range:	EV9 to EV16 (with ISO 100 film)
Film speed setting:	Automatic for DX-coded films; set to ISO 100 for non-DX film
Film speed range:	ISO 64 to 1600
Film loading/advance:	Auto film loading with film automatically advanced to first frame
Frame counter:	Additive type; automatically resets when camera back is opened; counts backward during film rewind
Film rewind:	Automatically at end of film roll; film rewind stop as film leader leaves sprockets
Electronic flash:	Automatic flash when light is insufficient; shutter locks until flash is fully charged
Flash range:	0.96-3.6m (2.7 to 10.7 ft.) (with ISO 100 film)
Self-timer:	Via self-timer lever; 10 sec. shutter release delay with indicator light
Battery check:	By LED in viewfinder
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 usable)
Dimensions:	131mm (W) x 71mm (H) x 47mm (D) (5.1″x2.8″x1.9″)
Optional accessories:	Pouch Case for Tele-Touch Deluxe/ One-Touch/Fun-Touch

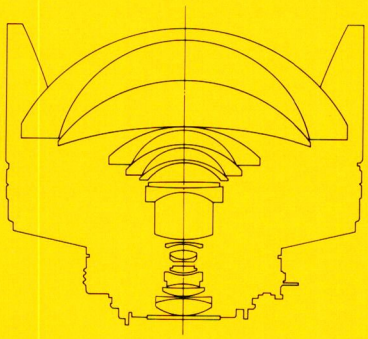
Nikon Tele-Touch

Product number:	1803
Type of camera:	Autofocus compact camera with wide-angle, telephoto and macro function
Picture format:	24mm x 36mm (standard 35mm format)
Lens:	Wide-angle, Nikon 38mm f/3.5, 4 lenses in 6 groups; telephoto, Nikon 65mm f/5.6, 8 lenses in 6 groups
Shutter:	Programmed, electronic in-lens shutter
Viewfinder:	Bright-frame viewfinder; 0.45x magnification at W; 0.72x magnification at T
Field of view:	Approximately 83% frame coverage at infinity
Viewfinder information:	Bright frame with parallax compensation frame marks, autofocus frame marks, focus symbols and focus distance indicator needle
LCD monitor:	Indicates status of battery, film advance and film load check, frame counter and automatic flash
Focusing:	Stepless, infrared, active autofocus system; 0.4m (1.3 ft) to infinity at W, 1.3m (4.3 ft) to infinity at T
Focus memory:	By pressing the shutter release button
Audible warning signal:	Sounds in the following cases: shooting distance too close; film rewind complete; film improperly loaded; lens blocked on changing to T setting
Exposure metering:	Lens-mounted CdS cell coupled to programmed, automatic exposure system
Metering range:	EV6 to EV17 at W, EV7.4 to EV18.4 at T (with ISO 100 film)
Film speed setting:	Automatic for DX-coded films; set to ISO 100 for non-DX films
Film loading advance:	Auto film loading with film automatically advanced to first frame
Frame counter:	Additive type; resets when the camera back is opened; counts backward as film is rewound
Film rewind:	Automatically at end of roll
Electronic flash:	Built-in flash automatically pops up into the ready position when required; Shutter release blocked until flash is fully charged and ready to fire
Film rewind:	With rewind crank after rewind button is depressed
Flash range:	0.4-5m (1.3-16 ft.) at W; 1.3-3m (4.3-9 ft.) at T (for ISO 100)
Self-timer:	Electronic with 10 sec. exposure delay and audible signal
Battery check:	Via LCD monitor panel
Battery capacity:	Approximately 80 rolls of 24-exposure film without flash; approximately 8 rolls of 24-exposure film with flash
Power source:	Two 1.5V AA-type (penlight) alkaline-manganese batteries and one lithium battery for LCD monitor panel
Dimensions:	137mm (W) x 78mm (H) x 58mm (D) (5.3″x3.0″x2.3″)
Weight:	Approximately 355g (12.4 oz.) without AA-type batteries mounted
Optional accessories:	CS-L35TW Semi-Soft Camera Case

Nikkor Lens Table

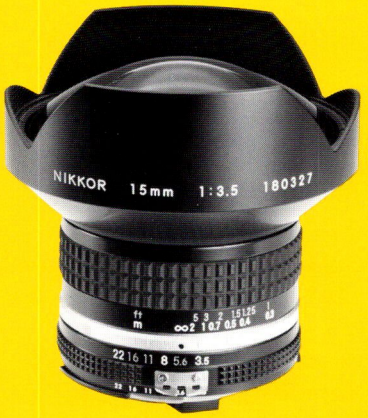
Description	Optical Construction	Picture Angle	Minimum f-stop	Closest Focusing Distance	Filter Size	Lens Hood	Lens Case	Weight	Dimensions	TC 201	TC 301	TC 14A	TC 14B
Wide-angle													
13 mm f/5.6 Nikkor	16–12	118°	f/22	0.3 m (1 ft)	4 Filters Supplied	built-in	CL-14	1200	115 × 99 (88.5)	○	x	○	x
15 mm f/3.5 Nikkor	14–11	110°	f/22	0.3 m (1 ft)	4 Filters Supplied	built-in	CL-17	630	90 × 94 (83.5)	○	x	○	x
18 mm f/3.5 Nikkor	11–10	100°	f/22	0.25 m (0.9 ft)	72 mm	HK-9	CL-37	350	75 × 72.5 (61.5)	○	x	△	x
20 mm f/2.8 Nikkor	12– 9	94°	f/22	0.25 m (0.85 ft)	62 mm	HK-14	CL-30S, No. 61	260	65 × 54 (42.5)	○	x	○	x
24 mm f/2 Nikkor	11–10	84°	f/22	0.3 m (1 ft)	52 mm	HK-2	CL-31S, No. 61	300	63 × 63 (51.5)	○	x	○	x
24 mm f/2.8 Nikkor	9–9	84°	f/22	0.3 m (1 ft)	52 mm	HN-1	CL-30S, No. 61	250	63 × 57 (46)	○	x	○	x
28 mm f/2 Nikkor	9–8	74°	f/22	0.25 m (0.9 ft)	52 mm	HN-1	CP-31S, No. 61	360	63 × 68.5 (58.5)	○	x	○	x
28 mm f/2.8 Nikkor	8–8	74°	f/22	0.2 m (0.7 ft)	52 mm	HN-2	CL-30S, No. 61	250	63 × 53 (44.5)	○	x	○	x
35 mm f/1.4 Nikkor	9–7	62°	f/16	0.3 m (1 ft)	52 mm	HN-3	CL-31S, No. 61	400	67.5 × 74 (62)	○*	x	○	x
35 mm f/2 Nikkor	8–6	62°	f/22	0.3 m (1 ft)	52 mm	HN-3	CL-30S, No. 61	280	63 × 59.5 (51.5)	○	x	○	x
Normal													
50 mm f/1.2 Nikkor	7–6	46°	f/16	0.5 m (1.7ft)	52 mm	HS-12, HR-2	CL-34A, No. 61	380	68.5 × 59 (47.5)	○	x	△	x
50 mm f/1.4 Nikkor	7–6	46°	f/16	0.45 m (1.5 ft)	52 mm	HS-9, HR-1	CL-34A, No. 61	250	63 × 50.5 (40)	○	x	○	x
50 mm f/1.8 Nikkor	6–5	46°	f/22	0.45 m (1.5 ft)	52 mm	HS-11, HR-1	CL-30S, No. 61	220	63.5 × 48 (37)	○	x	○	x
Telephoto													
85 mm f/1.4 Nikkor	7–5	28°30′	f/16	0.85 m (3 ft)	72 mm	HN-20	CL-17, No. 62	620	80.5 × 72.5 (64.5)	○*	x	○	x
85 mm f/2 Nikkor	5–5	28°30′	f/22	0.85 m (3 ft)	52 mm	HS-10	CL-31S, No. 61	310	63 × 60.5 (52.5)	○	x	○	x
105 mm f/1.8 Nikkor	5–5	23°20′	f/22	1 m (3.5 ft)	62 mm	built-in	CL-15S, No. 62	580	78.5 × 88.5 (80.5)	○*	x	○	x
105 mm f/2.5 Nikkor	5–4	23°20′	f/22	1 m (3.5 ft)	52 mm	built-in	CL-32S, No. 62	435	64 × 77.5 (69.5)	○	x	△	x
135 mm f/2 Nikkor	6–4	18°	f/22	1.3 m (4.5 ft)	72 mm	built-in	CL-15S, No. 62	860	80.5 × 103 (93.5)	○*	x	○	x
135 mm f/2.8 Nikkor	5–4	18°	f/32	1.3 m (4.5 ft)	52 mm	built-in	CL-32S, No. 62	435	64 × 91.5 (83.5)	△	x	○	○
180 mm f/2.8 Nikkor ED	5–5	13°40′	f/32	1.8 m (6 ft)	72 mm	built-in	CL-35A	800	78.5 × 138 (130)	○*	x	○	x
200 mm f/2 Nikkor IF-ED	10–8	12°20′	f/22	2.5 m (10 ft)	122 mm	built-in	CL-63	2400	138 × 222 (214)	○	x	△	○
200 mm f/4 Nikkor	5–5	12°20′	f/32	2 m (7 ft)	52 mm	built-in	CL-13, No. 63	510	65 × 124 (116)	△	x	○	x
300 mm f/2 Nikkor IF-ED	11–8	8°10′	f/16	4 m (13 ft)	52 mm	built-in	CT-300	7100	195 × 346.5 (338.5)	△	○	△	○
300 mm f/2.8 Nikkor IF-ED	8–6	8°10′	f/22	4 m (13 ft)	122/39°	built-in	CL-63	2500	138 × 249 (241)	x	○	△	○
300 mm f/4.5 Nikkor	6–5	8°10′	f/32	3.5 m (11.5 ft)	72 mm	built-in	CL-20A	1200	78.5 × 202 (194)	x	○	△	○
300 mm f/4.5 Nikkor IF-ED	7–6	8°10′	f/32	2.5 m (10 ft)	72 mm	built-in	CL-36	990	80 × 200 (192)	x	○	x	○
400 mm f/2.8 Nikkor IF-ED	11–9	6°10′	f/22	4 m (13 ft)	52 mm	built-in	CT-400	6050	172 × 342 (333.5)	△	○	△	○
400 mm f/3.5 Nikkor IF-ED	8–6	6°10′	f/22	4.5 m (15 ft)	122/39°	built-in	CL-61A, No. 57	2800	134 × 304 (296)	x	○	△	○
400 mm f/5.6 Nikkor IF-ED	7–6	6°10′	f/32	4 m (13 ft)	72 mm	built-in	CL-27 A	1200	85 × 262 (254)	x	○	x	○
600 mm f/4 Nikkor IF-ED	8–6	4°10′	f/22	6.5 m (24 ft)	160/39°	built-in	CT-601	6300	177 × 460 (452)	x	○	x	○
600 mm f/5.6 Nikkor IF-ED	7–6	4°10′	f/32	5.5 m (20 ft)	122/39°	built-in	CL-62A, No. 57	2700	134 × 382 (374)	x	○	x	○
800 mm f/8 Nikkor IF-ED	9–7	3°	f/32	10 m (35 ft)	122/39°	built-in	CT-1203	3300	134 × 460 (452)	x	○	x	○
1200 mm f/11 Nikkor IF-ED	9–8	2°	f/32	14 m (45 ft)	122/39°	built-in	CT-1203	3900	134 × 577 (569)	x	○	x	○
Reflex													
500 mm f/8 Reflex-Nikkor	6–6	5°	–	1.5 m (5.25 ft)	39 mm	HN-27 Supplied	CL-39	840	89 × 116 (104.5)	○	x	○	x
1000 mm f/11 Reflex-Nikkor	5–5	2°30′	–	8 m (25 ft)	39 mm	built-in	CL-29	1900	119 × 241 (233.5)	△	□	△	□
2000 mm f/11 Reflex-Nikkor	5–5	1°10′	–	18 m (60 ft)	built-in	–	Hard Case	17500	262 × 598 (593.5)	△	○	x	○
Zoom													
35–70 mm f/3.3–3.5 Zoom-Nikkor	8–7	62°–34°20′	f/22	0.35 m (1 ft)	52 mm	HN-2	CL-31S, No. 61	255	63 × 69 (61)	○	x	○	x
35–105 mm f/3.5–4.5 Zoom-Nikkor	16–12	62°–23°20′	f/22	0.27 m	52 mm	HK-11	CL-33S, No. 63	510	64 × 95 (86.5)	○	x	○	x
35–135 mm f/3.5–4.5 Zoom-Nikkor	15–14	62°–18°	f/22	0.4 m (1.3 ft)	62 mm	HN-22	CL-33S, No. 62	600	68 × 112 (104)	○	x	○	x
80–200 mm f/4 Zoom-Nikkor	13–9	30°10′–12°20′	f/32	1.2 m (4 ft)	62 mm	HN-23	CL-35A, No. 63	810	73 × 162 (154)	○	x	△	x
50–300 mm f/4.5 Zoom-Nikkor ED	15–11	46°–8°10′	f/32	2.5 m (8.5 ft)	95 mm	HK-5	CL-64, CE-2	1950	98 × 247 (239)	○	x	○	x
100–300 mm f/5.6 Zoom-Nikkor	14–10	24°20′–8°10′	f/32	0.7 m	62 mm	HK-24	CL-40	930	74 × 207 (199)	○	x	○	x
180–600 mm f/8 Zoom-Nikkor ED	18–11	13°40′–4°10′	f/32	2.5 m (8.5 ft)	95 mm	HN-16	CZ-1860	3600	105 × 402 (395)	x	○	x	○
Fisheye													
6 mm f/2.8 Fisheye-Nikkor	12–9	220°	f/22	0.25 m (0.9 ft)	built-in	–	Hard Case	5200	236 × 171 (160)	○	x	○	x
8 mm f/2.8 Fisheye-Nikkor	10–8	180°	f/22	0.3 m (1 ft)	built-in	–	CL-11	1100	123 × 139 (128)	○	x	○	x
16 mm f/2.8 Fisheye-Nikkor	8–5	180°	f/22	0.3 m (1 ft)	4 Filters Supplied	–	CL-30S, Nr. 61	330	63 × 66 (55.5)	○	x	○	x

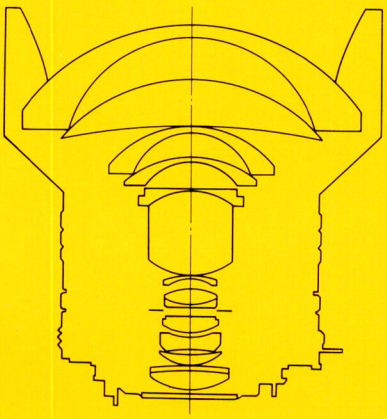
Description	Optical Construction	Picture Angle	Minimum f-stop	Closest Focusing Distance	Filter Size	Lens Hood	Lens Case	Weight	Dimensions	TC 201	TC 301	TC 14A	TC 14B
Special													
28 mm f/3.5 PC-Nikkor	9–8	74°	f/22	0,3 m (1 ft)	72 mm	HN-9	CL-34A, No. 62	380	78 × 69 (64,5)		×		×
35 mm f/2.8 PC-Nikkor	7–7	62°	f/32	0,3 m (1 ft)	52 mm	HN-1	CL-34A, No. 61	320	62 × 66 (61,5)		×		×
58 mm f/1.2 Noct Nikkor	7–6	40°50′	f/16	0,5 m (1,7 ft)	52 mm	HS-7, HR-2	CL-34A, No. 61	465	74 × 63 (51,5)	○	x	○	x
55 mm f/2.8 Micro-Nikkor	6–5	43°	f/32	0,25 m (0,9 ft)	52 mm	HN-3	CL-31S, No. 61 CL-33S, No. 62	290	63,5 × 70 (62)	○	x	○	x
105 mm f/2.8 Micro-Nikkor	10–9	23°20′	f/32	0,41 m (1,34 ft)	52 mm	built-in	CL-33S, No. 63	515	66,5 × 91,5 (83,5)	○	x	○	x
200 mm f/4 Micro-Nikkor IF	9–6	12°20′	f/32	0,71 m (2,34 ft)	52 mm	built-in	CL-36	800	66 × 180 (172)	x	○	△	○
Teleconverter													
TC-14A	5–5	–	–	–	–	–	CL-30S, No. 61	145	65 × 25,5	–	–	–	–
TC-14B	5–5	–	–	–	–	–	CL-30S, No. 61	165	65 × 34	–	–	–	–
TC-201	7–5	–	–	–	–	–	CL-30S, No. 61	230	64,5 × 52,5 (44)	x	x	x	
TC-301	5–5	–	–	–	–	–	CL-33S, No. 62	280	64,5 × 115 (83)	x	x	x	



Nikkor 13mm f/5.6

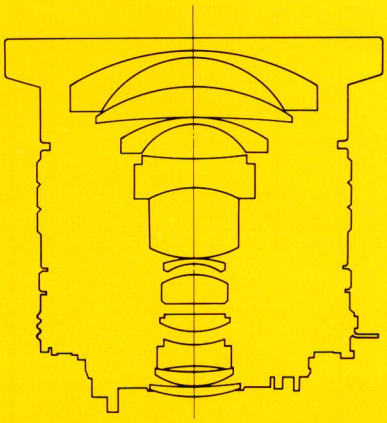
Product Number:	1410
Focal length:	13mm
Maximum aperture:	f/5.6
Picture angle:	118°
Optical construction:	16 elements in 12 groups
Special characteristics:	Close-range correction (CRC) system
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/5.6 — f/22
Lens aperture:	Via automatic diaphragm
Filter size:	Bayonet mount; 4 filters (L1B, 056, A2 and B2) supplied
Lens hood:	Built-in
Lens case:	Supplied (CL-14)
Dimensions:	115mm dia. x 101mm (4.5″ x 3.9″)
Weight:	1200g (42.4 oz.)
Optional accessories:	Miscellaneous Bayonet Mount Filters





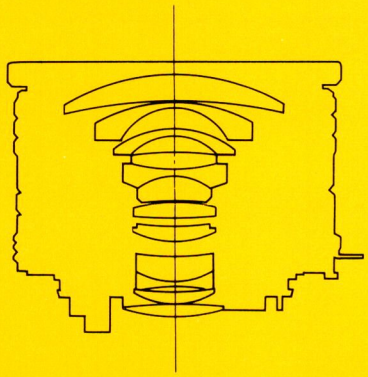
Nikkor 15mm f/3.5

Product number:	1412
Focal length:	15mm
Maximum aperture:	f/3.5
Picture angle:	110°
Optical construction:	14 elements in 11 groups
Special characteristics:	Close-range correction (CRC) system
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/3.5 — f/22
Lens aperture:	Via automatic diaphragm
Filter size:	Bayonet mount; 4 filters (L1B, 056, A2 and B2) supplied
Lens hood:	Built-in
Lens case:	Supplied (CL-17)
Dimensions:	90mm dia. x 94mm (3.5″ x 3.7″)
Weight:	630g (22.3 oz.)
Optional accessories:	Miscellaneous Bayonet Mount Filters



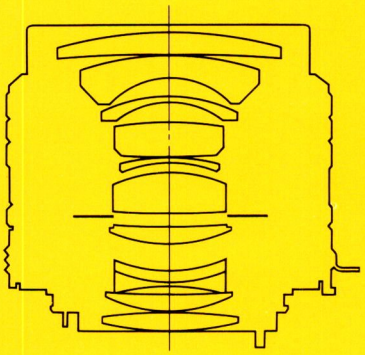
Nikkor 18mm f/3.5

Product number:	1413
Focal length:	18mm
Maximum aperture:	f/3.5
Picture 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 diameter
Lens 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 Miscellaneous 72mm Filters Gelatine Filter Holder AF-2



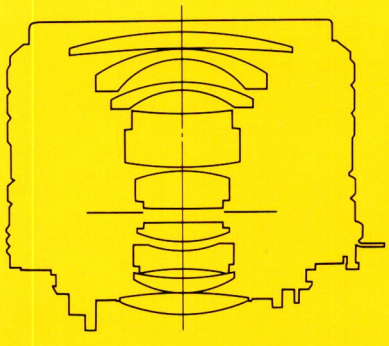
Nikkor 20mm f/2.8

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



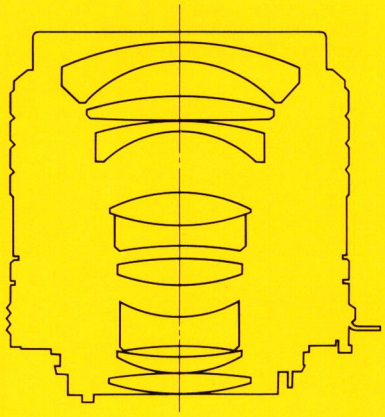
Nikkor 24mm f/2

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
Dimensions:	63mm dia. x 63mm (2.5″ x 2.5″)
Weight:	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



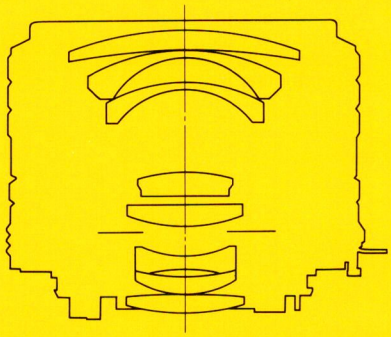
Nikkor 24mm f/2.8

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



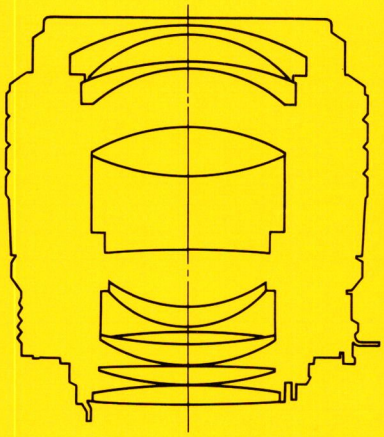
Nikkor 28mm f/2

Product number:	1419
Focal length:	28mm
Maximum aperture:	f/2
Picture 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/22
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter
Dimensions:	63mm dia. x 68.5mm (2.5″ x 2.7″)
Weight:	350g (12.1 oz.)
Optional accessories:	Lens Hood HN-1 Hard Lens Case CL-31S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1



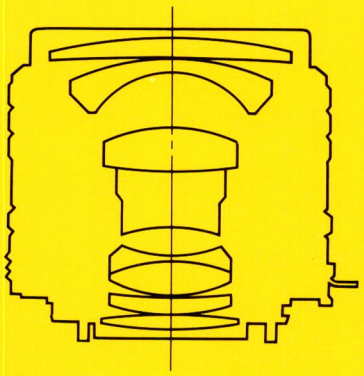
Nikkor 28mm f/2.8

Product number:	1420
Focal length:	28mm
Maximum aperture:	f/2.8
Picture 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



Nikkor 35mm f/1.4

Product number:	1429
Focal length:	35mm
Maximum aperture:	f/1.4
Picture 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
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter
Dimensions:	67.5mm dia. x 74mm (2.7″ x 2.9″)
Weight:	400g (14.1 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



Nikkor 35mm f/2

Product number:	1428
Focal length:	35mm
Maximum aperture:	f/2
Picture angle:	62°
Optical construction:	8 elements in 6 groups
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/2 — f/22
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter
Dimensions:	63.5mm 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

Depth-of field Tables (Wide-angle Lenses)

Nikkor 13mm f/5.6

Focusing distance	Depth of Field								Reproduction ratio
				f/5.6	f/8	f/11	f/16	f/22	
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 of Field								Reproduction ratio
		f/3.5	f/4	f/5.6	f/8	f/11	f/16	f/22	
0,3		0,280–0,325	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		0,359–0,457	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		0,431–0,606	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		0,558–0,967	0,543–1,03	0,501–1,28	0,451–2,11	0,404–16,7	0,348–∞	0,302–∞	1/39,3
1		0,717–1,76	0,691–1,98	0,619–3,42	0,539–∞	0,468–∞	0,389–∞	0,330–∞	1/58,9
2		1,07–38,4	1,01–∞	0,851–∞	0,696–∞	0,573–∞	0,452–∞	0,369–∞	1/124
∞		2,12–∞	1,86–∞	1,36–∞	0,979–∞	0,738–∞	0,538–∞	0,417–∞	1/∞

Nikkor 18mm f/3.5

Focusing distance	Depth of Field								Reproduction ratio
		f/3.5	f/4	f/5.6	f/8	f/11	f/16	f/22	
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								Reproduction ratio
		f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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/∞

(Units = Meters)

Nikkor 24mm f/2

Focusing distance	Depth of Field								Reproduction ratio
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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	Depth of Field								Reproduction ratio
		f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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

Focusing distance	Depth of Field								Reproduction ratio
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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	Depth of Field								Reproduction ratio
		f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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/∞

(Units = Meters)

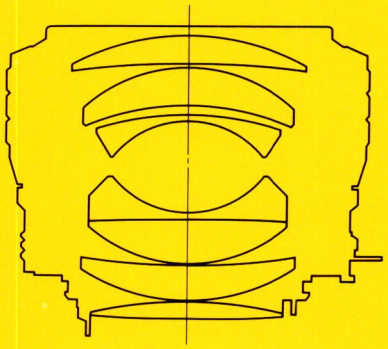
Nikkor 35mm f/1.4

Focusing distance	Depth of Field								Reproduction ratio
	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	
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

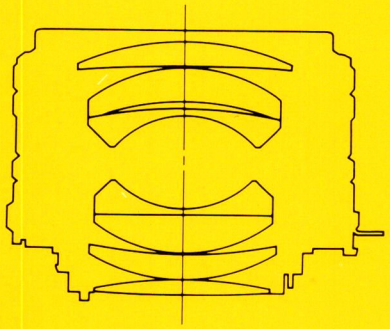
Focusing distance	Depth of Field								Reproduction ratio
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
0,3	0,298–0,303	0,297–0,304	0,295–0,305	0,293–0,307	0,290–0,311	0,287–0,315	0,282–0,322	0,276–0,322	1/5,67
0,35	0,346–0,354	0,345–0,355	0,343–0,358	0,340–0,361	0,336–0,366	0,331–0,373	0,323–0,385	0,314–0,400	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/∞

(Units = Meters)



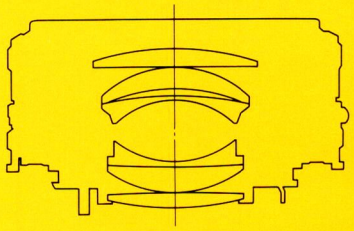
Nikkor 50mm f/1.2

Product number:	1435
Focal length:	50mm
Maximum aperture:	f/1.2
Picture 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



Nikkor 50mm f/1.4

Product number:	1433
Focal length:	50mm
Maximum aperture:	f/1.4
Picture 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 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



Nikkor 50mm f/1.8

Product number:	1436
Focal length:	50mm
Maximum aperture:	f/1.8
Picture angle:	46°
Optical construction:	6 elements in 5 groups
Minimum focusing distance:	0.6m (2 ft.)
Aperture range:	f/1.8 — f/22
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter
Dimensions:	63.5mm dia. x 36.5mm (2.5″ x 1.4″)
Weight:	145g (5.1 oz.)
Optional accessories:	Rubber Lens Hood HR-4 Hard Lens Case CL-30S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Depth-of-field Tables (Normal Lenses)

Nikkor 50mm f/1.2

Focusing distance	Depth of Field									Reproduction ratio
	f/1.2	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	
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/∞

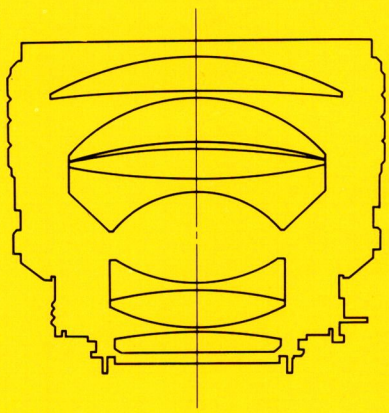
Nikkor 50mm f/1.4

Focusing distance	Depth of Field									Reproduction ratio
		f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	
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/∞

Nikkor 50mm f/1.8

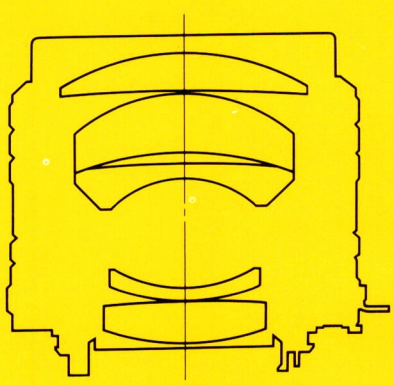
Focusing distance	Depth of Field									Reproduction ratio
	f/1.8	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
0,45	0,448–0,452	0,447–0,453	0,446–0,454	0,445–0,455	0,443–0,458	0,440–0,461	0,436–0,465	0,436–0,473	0,423–0,482	1/6,70
0,5	0,497–0,503	0,496–0,504	0,495–0,505	0,493–0,507	0,490–0,510	0,486–0,515	0,481–0,521	0,474–0,531	0,464–0,543	1/7,69
0,6	0,595–0,605	0,594–0,606	0,592–0,608	0,589–0,612	0,585–0,616	0,578–0,624	0,571–0,633	0,558–0,650	0,544–0,672	1/9,65
0,7	0,693–0,708	0,692–0,708	0,689–0,712	0,684–0,717	0,677–0,724	0,668–0,735	0,657–0,750	0,640–0,775	0,620–0,809	1/11,61
0,8	0,790–0,811	0,789–0,812	0,784–0,816	0,778–0,824	0,769–0,834	0,757–0,849	0,742–0,870	0,719–0,906	0,693–0,955	1/13,56
1	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	1/27,2
2	1,92–2,08	1,92–2,09	1,88–2,13	1,84–2,19	1,78–2,28	1,70–2,43	1,61–2,65	1,48–3,13	1,36–3,99	1/36,9
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	2,18–4,88	1,94–6,88	1,72–13,71	1/56,2
5	4,52–5,60	4,47–5,68	4,29–6,01	4,04–6,58	3,75–7,53	3,40–9,64	3,04–14,90	2,58–180,17	2,19–∞	1/95,0
∞	44,0–∞	40,0–∞	29,0–∞	20,0–∞	14,0–∞	10,0–∞	7,0–∞	5,0–∞	4,0–∞	1/∞

(Units = Meters)



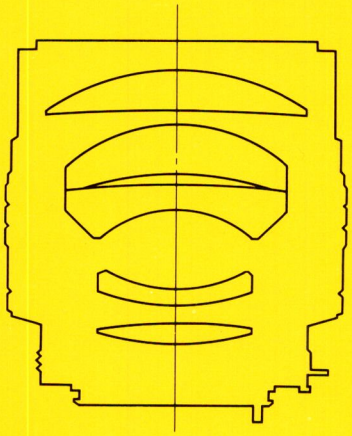
Nikkor 85mm f/1.4

Product number:	1450
Focal length:	85mm
Maximum aperture:	f/1.4
Picture angle:	20° 30′
Optical construction:	7 elements in 5 groups
Minimum focusing distance:	0.85m (3 ft.)
Aperture range:	f/1.4 — f/16
Lens aperture:	Via automatic diaphragm
Filter size:	72mm diameter
Lens hood:	Supplied (HN-20)
Dimensions:	80.5mm dia. x 72.5mm (3.2″ x 2.9″)
Weight:	620g (21.9 oz.)
Optional accessories:	Hard Lens Case CL-17 Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 Miscellaneous 72mm Filters Gelatine Filter Holder AF-2



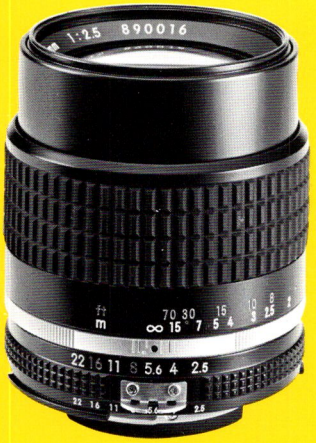
Nikkor 85mm f/2

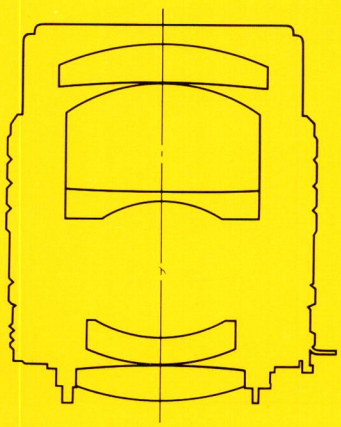
Product number:	1451
Focal length:	85mm
Maximum aperture:	f/2
Picture angle:	28° 30′
Optical construction:	5 elements in 5 groups
Minimum focusing distance:	0.85m (3 ft.)
Aperture range:	f/2 — f/22
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter
Lens hood:	Supplied (HS-10)
Dimensions:	63.5mm dia. x 61mm (2.5″ x 2.4″)
Weight:	310g (10.9 oz.)
Optional accessories:	Hard Lens Case CL-31S Soft Leather Lens Pouch #61 Plastic Lens Case CP-8 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1



Nikkor 105mm f/1.8

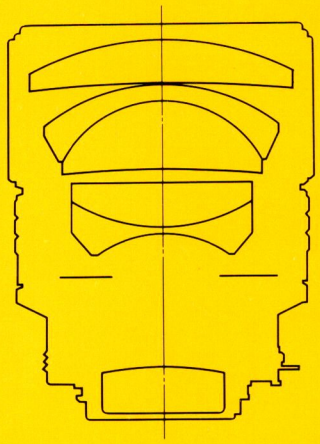
Product number:	1457
Focal length:	105mm
Maximum aperture:	f/1.8
Picture angle:	23° 20′
Optical construction:	5 elements in 5 groups
Minimum focusing distance:	1m (3.5 ft.)
Aperture range:	f/1.8 — f/22
Lens aperture:	Via automatic diaphragm
Filter size:	62mm diameter
Lens hood:	Built-in
Dimensions:	78.5mm dia. x 88.5mm (3.1″ x 3.5″)
Weight:	580g (20.5 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 Gelatine Filter Holder AF-2





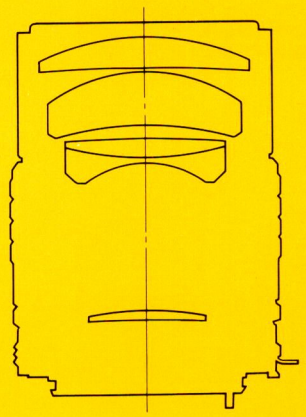
Nikkor 105mm f/2.5

Product number:	1456
Focal length:	105mm
Maximum aperture:	f/2.5
Picture angle:	23° 20′
Optical construction:	5 elements in 4 groups
Minimum focusing distance:	1m (3.5 ft.)
Aperture range:	f/2.5 — f/22
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter
Lens hood:	Built-in
Dimensions:	64mm dia. x 77.5mm (2.5″ x 3.1″)
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



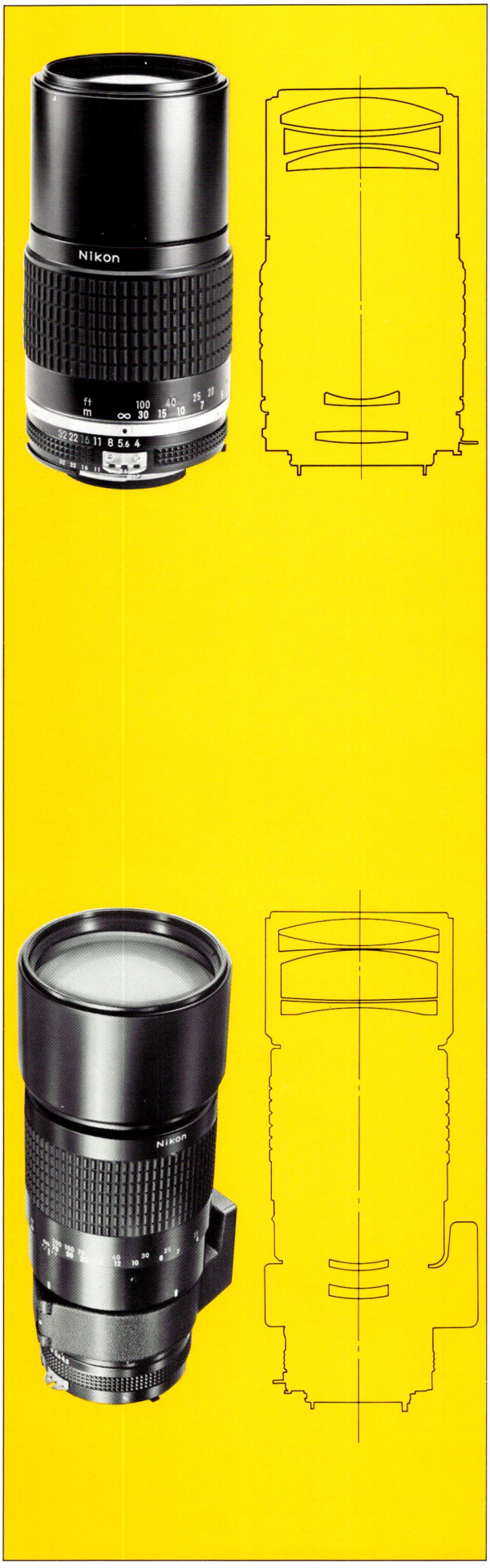
Nikkor 135mm f/2

Product number:	1459
Focal length:	135mm
Maximum aperture:	f/2
Picture angle:	18°
Optical construction:	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:	81mm dia. x 103mm (3.2″ x 4.1″)
Weight:	860g (30.4 oz.)
Optional accessories:	Hard Lens Case CL-15S Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 Miscellaneous 72mm Filters Gelatine Filter Holder AF-2



Nikkor 135mm f/2.8

Product number:	1462
Focal length:	135mm
Maximum aperture:	f/2.8
Picture angle:	18°
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:	64.5mm dia. x 91.5mm (2.5″ x 3.6″)
Weight:	430g (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



Nikkor 200mm f/4

Product number:	1467
Focal length:	200mm
Maximum aperture:	f/4
Picture angle:	12° 20′
Optical construction:	5 elements in 5 groups
Minimum focusing distance:	2m (7 ft.)
Aperture range:	f/4 — f/32
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter
Lens hood:	Built-in
Dimensions:	65mm dia. x 124mm (2.6″ x 4.9″)
Weight:	510g (18 oz.)
Optional accessories:	Hard Lens Case CL-13 Soft Leather Lens Pouch #63 Plastic Lens Case CP-9 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1

Nikkor 300mm f/4.5

Product number:	1470
Focal length:	300mm
Maximum aperture:	f/4.5
Picture angle:	8° 10′
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
Lens hood:	Built-in
Tripod mount:	Via built-in, rotatable collar
Dimensions:	78.5mm dia. x 203mm (3.1″ x 8.0″)
Weight:	1200g (42.4 oz.)
Optional accessories:	Hard Lens Case CL-20A Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

Depth-of-field Tables (Telephoto Lenses)

Nikkor 85mm f/1.4

Focusing distance	Depth of Field									Reproduction ratio
	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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	1.71–2.43	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

Focusing distance	Depth of Field								Reproduction ratio
		f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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

Focusing distance	Depth of Field									Reproduction ratio
	f/1.8	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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/∞

(Units = Meters)

Nikkor 105mm f/2.5

Focusing distance	Depth of Field								Reproduction ratio
	f/2.5	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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/∞

Nikkor 135mm f/2

Focusing distance	Depth of Field								Reproduction ratio
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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/∞

Nikkor 135mm f/2.8

Focusing distance	Depth of Field								Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	
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/∞

(Units = Meters)

Nikkor 200mm f/4

Focusing distance		Depth of Field							Reproduction ratio
		f/4	f/5.6	f/8	f/11	f/16	f/22	32	
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/∞

Nikkor 300mm f/4.5

Focusing distance		Depth of Field							Reproduction ratio
		f/4 5	f/5.6	f/8	f/11	f/16	f/22	f/32	
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/∞

(Units = Meters)

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 below. 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 unusually compact and free from any change in the centre 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!

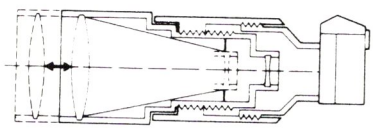


Fig. 1

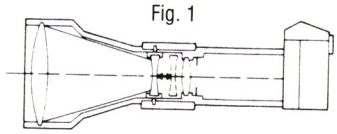
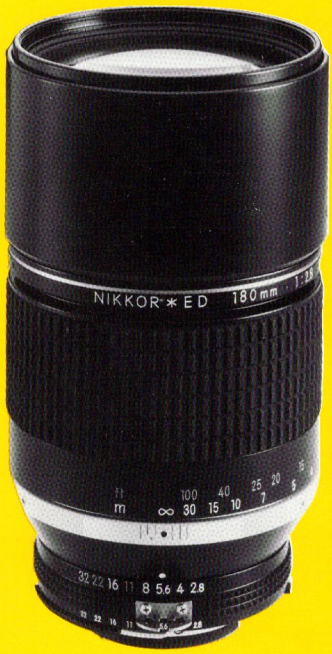
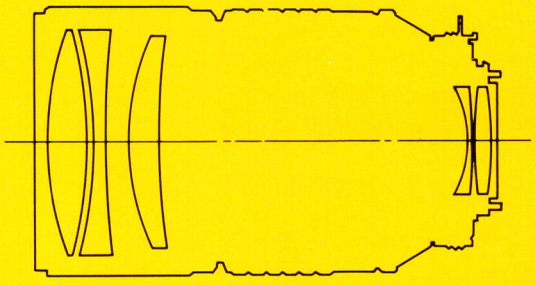


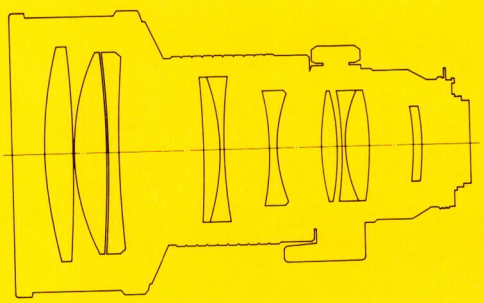
Fig. 2





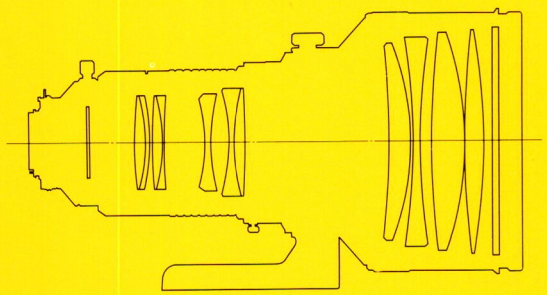
Nikkor ED 180mm f/2.8

Product number:	1464
Focal length:	180mm
Maximum aperture:	f/2.8
Picture angle:	13° 40′
Optical construction:	5 elements in 5 groups
Minimum focusing distance:	1.8m (6 ft.)
Aperture range:	f/2.8-f/32
Lens aperture:	Via automatic diaphragm
Filter size:	72mm diameter (P=0.75mm)
Lens hood:	Built-in
Dimensions:	78.5mm dia. x 138mm (3″ x 5.2″)
Weight:	800g (28.3 oz.)
Optional accessories:	Hard Lens Case CL-35A Soft Leather Lens Pouch #63 Miscellaneous 72mm Filters Gelatine Filter Holder AF-2



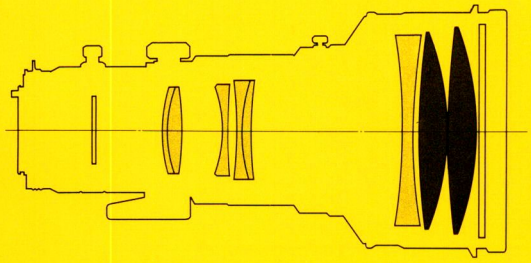
Nikkor ED 200mm f/2 IF

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 provided
Tripod 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.)
Optional accessories:	Fabric Lens Pouch #57



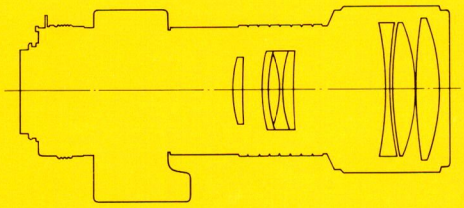
Nikkor ED 300mm f/2 IF

Product number:	1472
Focal length:	300mm
Maximum aperture:	f/2
Picture angle:	8° 10′
Optical construction:	11 elements in 8 groups
Minimum focusing distance:	4m (13 ft.)
Aperture range:	f/2-f/16
Lens aperture:	Via automatic diaphragm
Filter size:	52mm filter via slip-in holder; gelatine filters via special holder provided; front end of lens has built-in protective glass
Lens hood:	Built-in, with Extension Hood HE-1 provided
Tripod mount:	Via built-in, rotatable tripod collar
Lens case:	Supplied (CT-300)
Dimensions:	195mm dia. x 346.5mm (7.2″ x 13.3″)
Weight:	7100g (250.8 oz.)
Also supplied:	1.4x Teleconverter TC-14C; matched specifically to this lens
Optional accessories:	Miscellaneous 52mm Filters



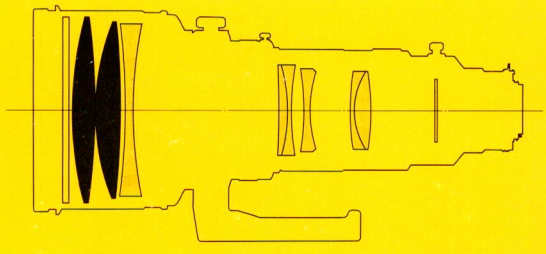
Nikkor ED 300mm f/2.8 IF

Product number:	1469
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
Lens aperture:	Via automatic diaphragm
Filter size:	39mm filter via ship-in holder; gelatine filters via special holder provided; front end of lens has built-in protective glass
Lens hood:	Built-in, with Extension Hood HE-4 provided
Tripod mount:	Via built-in, rotatable tripod collar
Lens case:	Supplied (CT-302)
Dimensions:	132mm dia. x 263mm (5.4″ x 9.8″)
Weight:	2400g (88 oz.)
Optional accessories:	Fabric Lens Pouch #57 Miscellaneous 39mm Filters



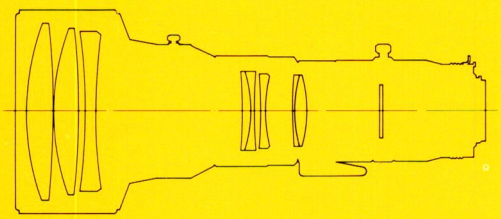
Nikkor ED 300mm f/4.5 IF

Product number:	1488
Focal length:	300mm
Maximum aperture:	f/4.5
Picture angle:	8° 10′
Optical construction:	7 elements in 6 groups
Minimum focusing distance:	2.5m (10 ft.)
Aperture range:	f/4.5-f/22
Lens aperture:	Via automatic diaphragm
Filter size:	72mm diameter (P=0.75mm)
Lens hood:	Built-in
Tripod mount:	Via built-in, rotatable tripod collar
Dimensions:	80mm dia. x 200mm (3.1″ x 7.9″)
Weight:	1060g (35 oz.)
Optional accessories:	Hard Lens Case CL-20A Miscellaneous 72mm Filters Gelatine Filter Holder AF-2



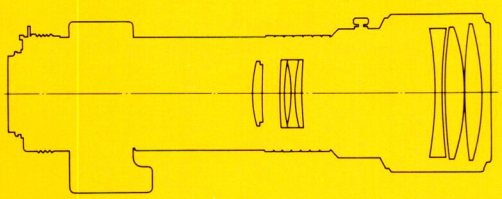
Nikkor ED 400mm f/2.8 IF

Product number:	1499
Focal length:	400mm
Maximum aperture:	f/2.8
Picture angle:	6° 10′
Optical construction:	8 elements in 6 groups
Minimum focusing distance:	4m (15 ft.)
Aperture range:	f/2.8-f/22
Lens aperture:	Via automatic diaphragm
Filter size:	52mm filters via slip-in holder; gelatine filters via special holder provided; front end 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-400)
Dimensions:	172mm dia. x 432mm (6.4″ x 15.2″)
Weight:	5150g (180.3 oz.)
Optional accessories:	Miscellaneous 52mm Filters



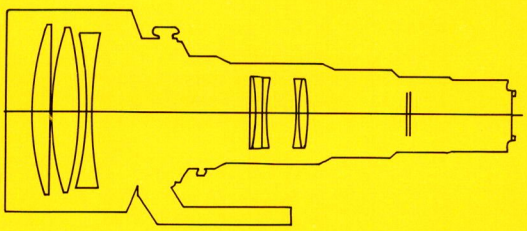
Nikkor ED 400mm f/3.5 IF

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:	f/3.5-f/22
Lens aperture:	Via automatic diaphragm
Filter size:	122mm filters via front thread; 39mm filters via slip-in holder; gelatine filters via special 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:	Fabric Lens Pouch #57 Miscellaneous 39mm Filters Miscellaneous 122mm Filters



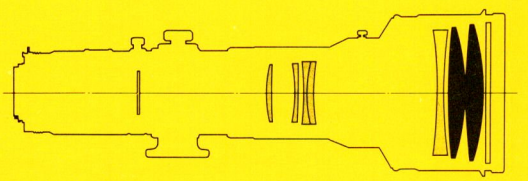
Nikkor ED 400mm f/5.6 IF

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:	Built-in
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.)
Optional accessories:	Miscellaneous 72mm Filters Gelatine Filter Holder AF-2



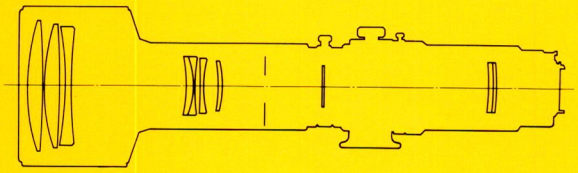
Nikkor ED 600mm f/4 IF

Product number:	1492
Focal length:	600mm
Maximum aperture:	f/4
Picture angle:	4° 10′
Optical construction:	8 elements in 6 groups
Minimum focusing distance:	6.5m (25 ft.)
Aperture range:	f/4-f/22
Lens aperture:	Via automatic diaphragm
Filter size:	39mm filters via slip-in holder; gelatine filters via special holder provided; front end of lens has built-in protective glass
Lens hood:	Built-in, with Extension Hood HE-5 provided
Tripod mount:	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:	Miscellaneous 39mm Filters



Nikkor ED 600mm f/5.6 IF

Product number:	1494
Focal length:	600mm
Maximum aperture:	f/5.6
Picture angle:	4° 10′
Optical construction:	7 elements in 6 groups
Minimum focusing distance:	5m (20 ft.)
Aperture range:	f/5.6-f/32
Lens aperture:	Via automatic diaphragm
Filter size:	39mm filters via slip-in holder; gelatine filters via special holder provided; front end of lens has built-in protective glass
Lens hood:	Built-in, with Extension Hood HE-4 provided
Tripod mount:	Via built-in, rotatable tripod collar
Lens case:	Supplied (CT-603)
Dimensions:	132mm dia. x 395.5mm (5.3″ x 15″)
Weight:	2800g (95.4 oz.)
Optional accessories:	Fabric Lens Pouch #57 Miscellaneous 39mm Filters



Nikkor ED 800mm f/5.6 IF

Product number:	1446
Focal length:	800mm
Maximum aperture:	f/5.6
Picture angle:	3°
Optical construction:	8 elements in 6 groups
Minimum focusing distance:	8m (30 ft.)
Aperture range:	f/5.6-f/32
Lens aperture:	Via automatic diaphragm
Filter size:	52mm filters via slip-in holder; gelatine filters via special holder provided; front end 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)
Dimensions:	163mm dia. x 554mm (6.4″ x 21.8″)
Weight:	5450g (190.8 oz.)
Optional accessories:	Miscellaneous 52mm Filters

Nikkor ED 180mm f/2.8 IF

Focusing distance	Depth of Field								Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	
1.8	1.80–1.80	1.79–1.81	1.79–1.81	1.79–1.81	1.78–1.82	1.78–1.82	1.77–1.83	1.76–1.85	1/7.5
2	1.99–2.01	1.99–2.01	1.99–2.01	1.98–2.02	1.98–2.02	1.97–2.03	1.96–2.04	1.94–2.06	1/8.6
2.5	2.49–2.51	2.49–2.51	2.48–2.52	2.47–2.53	2.46–2.54	2.45–2.56	2.43–2.58	2.39–2.62	1/11.4
3	2.98–3.02	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	1/14.2
4	3.97–4.03	3.95–4.05	3.94–4.07	3.91–4.09	3.88–4.13	3.83–4.19	3.77–4.27	3.67–4.41	1/19.8
5	4.95–5.05	4.92–5.08	4.89–5.11	4.85–5.16	4.80–5.22	4.71–5.33	4.61–5.47	4.46–5.71	1/25.3
7	6.89–7.12	6.84–7.17	6.78–7.24	6.69–7.35	6.58–7.49	6.40–7.73	6.21–8.05	5.90–8.64	1/36.4
10	9.76–10.3	9.66–10.4	9.52–10.5	9.34–10.8	9.11–11.1	8.76–11.7	8.37–12.5	7.80–14.1	1/53.1
15	14.4–15.6	14.2–15.9	13.9–16.3	13.5–16.9	13.0–17.8	12.3–19.4	11.5–21.8	10.4–27.5	1/80.9
30	27.7–32.7	26.8–34.0	25.8–35.9	24.3–39.3	22.7–44.5	20.4–57.1	18.3–86.7	15.5–673.8	1/164.2
∞	348.0–∞	244.0–∞	174.0–∞	122.0–∞	89.0–∞	61.0–∞	45.0–∞	31.0–∞	1/∞

Nikkor ED 200mm f/2 IF

Focusing distance	Depth of field								Reproduction ratio
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
2.5	2.493–2.507	2.490–2.510	2.486–2.514	2.480–2.520	2.472–2.529	2.461–2.540	2.444–2.559	2.424–2.582	1/10.4
3	2.989–3.011	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
4	3.979–4.021	3.970–4.030	3.958–4.043	3.941–4.061	3.917–4.087	3.887–4.121	3.837–4.179	3.780–4.251	1/17.9
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	4.737–5.297	4.646–5.419	1/22.9
6	5.949–6.052	5.928–6.073	5.898–6.106	5.859–6.149	5.800–6.215	5.729–6.300	5.614–6.448	5.483–6.635	1/27.9
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	7.305–8.851	7.076–9.222	1/37.9
12	11.781–12.228	11.696–12.321	11.570–12.464	11.407–12.661	11.171–12.968	10.890–13.374	10.453–14.112	9.974–15.118	1/57.9
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
∞	600.425–∞	428.997–∞	300.425–∞	241.711–∞	150.425–∞	109.516–∞	75.425–∞	54.971–∞	1/∞

Nikkor ED 300mm f/2.0 IF

Focusing distance	Depth of field							Reproduction ratio
	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	
4	3.99–4.01	3.99–4.01	3.98–4.02	3.97–4.03	3.96–4.04	3.95–4.05	3.93–4.07	1/11.2
5	4.98–5.02	4.98–5.02	4.97–5.03	4.96–5.04	4.94–5.06	4.92–5.08	4.88–5.12	1/14.6
6	5.98–6.02	5.97–6.03	5.96–6.05	5.94–6.06	5.91–6.09	5.88–6.13	5.83–6.19	1/17.9
7	6.97–7.03	6.96–7.04	6.94–7.06	6.91–7.09	6.88–7.13	6.83–7.18	6.76–7.26	1/21.2
8	7.96–8.04	7.94–8.06	7.92–8.08	7.88–8.12	7.84–8.17	7.78–8.24	7.68–8.35	1/24.6
10	9.93–10.1	9.91–10.1	9.87–10.1	9.82–10.2	9.74–10.3	9.65–10.4	9.49–10.6	1/31.2
12	11.9–12.1	11.9–12.1	11.8–12.2	11.7–12.3	11.6–12.4	11.5–12.6	11.3–12.8	1/37.9
15	14.8–15.2	14.8–15.2	14.7–15.3	14.6–15.5	14.4–15.7	14.2–15.9	13.9–16.4	1/47.9
20	19.7–20.3	19.6–20.4	19.5–20.6	19.2–20.8	18.9–21.2	18.6–21.7	18.0–22.5	1/64.6
30	29.4–30.7	29.1–30.9	28.8–31.3	28.3–31.9	27.6–32.8	26.8–34.0	25.6–36.3	1/97.9
70	66.6–73.8	65.3–75.4	63.5–78.0	61.2–81.7	58.1–88.0	54.7–97.5	49.7–118.7	1/231.2
∞	1350.0–∞	965.0–∞	675.0–∞	483.0–∞	338.0–∞	246.0–∞	169.0–∞	1/∞

(Units = Meters)

Nikkor ED 300mm f/2.8 IF

Focusing distance	Depth of field							Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
4	3,99–4,01	3,98–4,02	3,97–4,03	3,96–4,04	3,95–4,05	3,93–4,07	3,9–4,1	1/11,71
5	4,98–5,02	4,97–5,03	4,96–5,04	4,94–5,06	4,92–5,08	4,88–5,12	4,84–5,17	1/15,04
6	5,97–6,03	5,96–6,05	5,94–6,06	5,91–6,09	5,88–6,13	5,83–6,19	5,76–6,26	1/18,37
7	6,96–7,04	6,94–7,06	6,91–7,09	6,88–7,13	6,83–7,18	6,76–7,26	6,67–7,37	1/21,71
8	7,94–8,06	7,92–8,08	7,88–8,12	7,84–8,17	7,78–8,24	7,68–8,35	7,57–8,49	1/25,04
10	9,91–10,09	9,87–10,14	9,82–10,19	9,74–10,28	9,65–10,38	9,49–10,57	9,32–10,8	1/31,71
12	11,86–12,14	11,81–12,2	11,73–12,28	11,62–12,41	11,48–12,57	11,27–12,84	11,01–13,19	1/38,37
15	14,78–15,22	14,69–15,32	14,58–15,45	14,40–15,65	14,19–15,91	13,85–16,37	13,47–16,95	1/48,37
20	19,61–20,4	19,45–20,58	19,24–20,82	18,93–21,2	18,56–21,69	17,98–22,55	17,33–23,69	1/65,04
30	29,12–30,93	28,76–31,35	28,3–31,92	27,63–32,83	26,83–34,04	25,61–36,26	24,28–39,35	1/98,37
70	65,33–75,4	63,51–77,98	61,24–81,71	58,13–88,04	54,66–97,48	49,73–118,74	44,88–160,98	1/231,71
∞	964,87–∞	675,59–∞	482,73–∞	338,09–∞	246,04–∞	169,34–∞	123,31–∞	1/∞

Nikkor ED 300mm f/4.5 IF

Focusing distance	Depth of field							Reproduction ratio
		f/4.5	f/5.6	f/8	f/11	f/16	f/22	
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

Focusing distance	Depth of Field							Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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

Focusing distance	Depth of field							Reproduction ratio
	f/3.5	f/4	f/5.6	f/8	f/11	f/16	f/22	
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/∞

(Units = Meters)

Nikkor ED 400mm f/5.6 IF

Focusing distance	Depth of field							Reproduction ratio
			f/5.6	f/8	f/11	f/16	f/22	f/32	
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/∞

Nikkor ED 600mm f/4 IF

Focusing distance	Depth of field							Reproduction ratio
			f/4	f/5.6	f/8	f/11	f/16	f/22	
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
20			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
30			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
50			49.12–50.91	48.78–51.29	48.27–51.86	47.65–52.59	46.66–53.87	45.52–55.48	1/82.0
100			96.49–103.78	95.15–105.38	93.21–108.87	90.90–111.15	87.29–117.09	83.33–125.12	1/165.0
∞			2700.81–∞	1929.38–∞	1350.81–∞	982.63–∞	675.81–∞	491.72–∞	1/∞

Nikkor ED 600mm f/5.6 IF

Focusing distance	Depth of field							Reproduction ratio
			f/5.6	f/8	f/11	f/16	f/22	f/32	
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 500mm f/4 P IF

Product number: 1447

Focal length: 500mm

Maximum aperture: f/4

Picture angle: 5°

Optical construction: 9 elements in 7 groups

Minimum focus distance: 5m (20 ft.); preset lock ring fitted coaxial with focus ring for rapid refocus operation at preselected focus distance

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

Lens aperture: Via automatic diaphragm

Filter size: 39mm filters via slip-in holder; gelatine filters via special holder provided; front end of lens has built-in protective glass

Lens hood: Supplied (Slip-on Hood HK-17)

Tripod mount: Via built-in, rotatable tripod collar

Lens case: Supplied (Fitted Trunk Case CT-500)

Special characteristics: Equipped with electronic circuitry including CPU to enable use of all exposure operation modes with Nikon N2020, N4004, N8008 autofocus cameras; compatible with other Nikon SLR cameras via normal mechanical interface provided at lens mount

Dimensions: 138mm dia. x 384mm extension from mounting flange (5.4" x 15.1"); 393mm (15.5") overall length

Weight: 3,000g (6.6 lbs.)

Usable teleconverters: Nikon Teleconverter TC-14B, TC-301

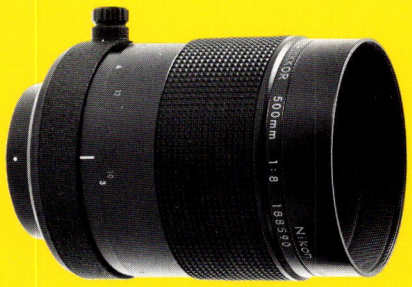
Optional accessories: Miscellaneous 39mm Filters

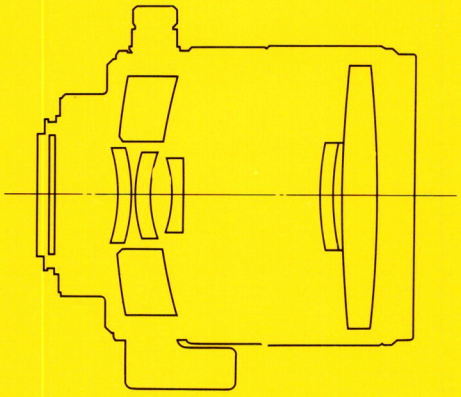
P Nikkor ED 500mm f/4 IF

(ft)

Focusing distance	Depth of Field						Reproduction ratio
	f/4	f/5.6	f/8	f/11	f/16	f/22	
20	19'11"—20'	19'11"—20'	19'10"—20'1"	19'10"—20'1"	19'9"—20'2"	19'8"—20'3"	1/10.9
25	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
30	29'10"—30'1"	29'9"—30'2"	29'8"—30'3"	29'7"—30'4"	29'5"—30'6"	29'3"—30'8"	1/17.1
40	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
50	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
70	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
100	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/∞

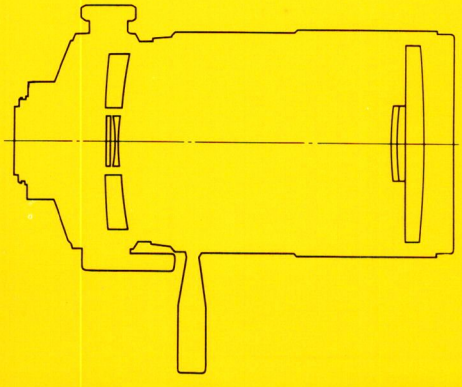
*By using Internal Focusing (IF), the closest focusing distance of this lens is shorter than previous models at the same focal length, which utilized traditional helicoid focusing.





Reflex-Nikkor 500mm f/8

Product number:	953
Focal length:	500mm
Maximum aperture:	f/8
Picture 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
Filter size:	39mm filter; 5 filters (L37c, 056, A2, B2 and ND-4) supplied; a filter must always be mounted
Lens hood:	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



Reflex-Nikkor 1000mm f/11

Product number:	952
Focal length:	1000mm
Maximum aperture:	f/11
Picture angle:	2° 30′
Optical construction:	5 elements in 5 groups
Minimum focusing distance:	8m (25 ft.)
Lens aperture:	Fixed aperture
Filter size:	39mm filter; 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 (CT-29)
Dimensions:	119mm dia. x 241mm (4.7″ x 9.5″)
Weight:	1900g (67.1 oz.)
Optional accessories:	Miscellaneous 39mm Filters

Depth-of-field Tables (Reflex Lenses)

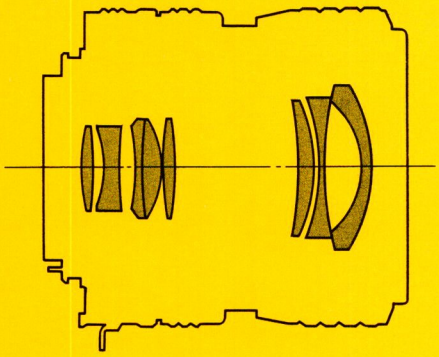
Reflex-Nikkor 500mm f/8

Focusing distance	Depth of field								Reproduction ratio
								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
10								9.92–10.1	1/19.0
20								19.7–20.3	1/36.0
50								48.1–52.1	1/96.0
∞								1119.0–∞	1/∞

Reflex-Nikkor 1000mm f/11

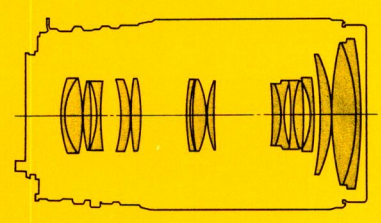
Focusing distance	Depth of field								Reproduction ratio
								f/11	
8								7.98–8.02	1/7.4
10								9.97–10.0	1/9.4
12								11.96–12.04	1/11.0
15								14.9–15.1	1/14.0
20								19.9–20.1	1/19.0
30								29.7–30.3	1/29.0
50								49.3–50.7	1/49.0
100								97.1–103.0	1/99.0
∞								3000.0–∞	1/∞

(Units = Meters)



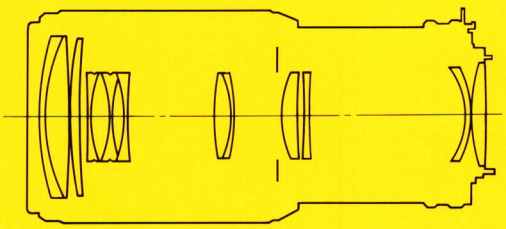
Zoom-Nikkor 35-70mm f/3.3-4.5

Product number:	1474
Focal length:	35-70mm
Maximum aperture:	f/3.3-f/4.5
Picture angle:	62°-34° 24′
Optical construction:	8 elements in 7 groups
Special characteristics:	Two-ring operation for zooming and focusing; macro range focusing at all focal lengths
Minimum focusing distance:	0.5m (1.7 ft.) as normal; 0.35m (1.2 ft) at macro
Aperture range:	f/3.3-f/22
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Dimensions:	63mm dia. x 69mm (2.5″ x 2.7″)
Weight:	255g (9 oz.)
Optional accessories:	Lens Hood HN-2 Hard Lens Case CL-31S Soft Leather Lens Pouch #61 Plastic Lens Case CP-9 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1



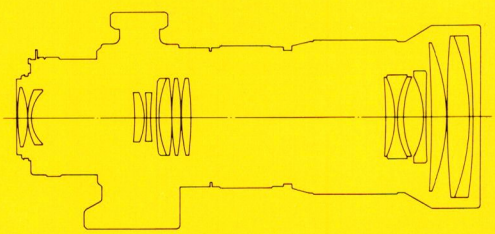
Zoom-Nikkor 35-200mm f/3.5-4.5

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:	1.3m (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 (P=0.75mm)
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 72mm Filters Gelatine Filter Holder AF-2



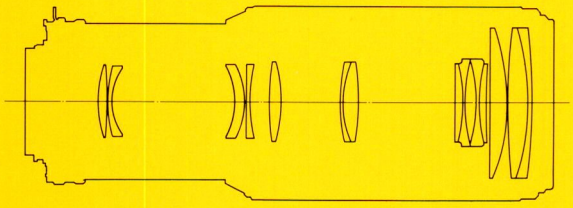
Zoom-Nikkor 80-200mm f/4

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
Lens aperture:	Via automatic diaphragm
Filter 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-23 Hard Lens Case CL-35A Soft Leather Lens Pouch #63 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2



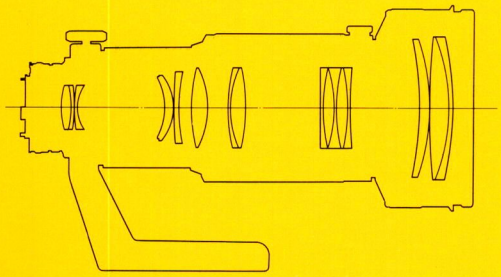
Zoom-Nikkor ED 50-300mm f/4.5

Product number:	1483
Focal length:	50-300mm
Maximum aperture:	f/4.5
Picture angle:	46° -8′ 10°
Optical construction:	15 elements in 11 groups
Special characteristics:	Two-ring operation for zooming and focusing
Minimum focusing distance:	2.5m (8.5 ft.)
Aperture range:	f/4.5-f/32
Lens aperture:	Via automatic diaphragm
Filter size:	95mm diameter (P=1mm)
Tripod mount:	Via built-in rotatable tripod collar
Lens case:	Supplied (CL-64)
Dimensions:	98mm dia. x 247mm (3.9″ x 9.7″)
Weight:	1950g (68.9 oz.)
Optional accessories:	Lens Hood HK-5 Miscellaneous 95mm Filters



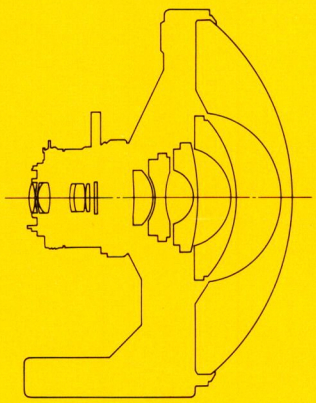
Zoom-Nikkor 100-300mm f/5.6

Product number:	1481
Focal length:	100-300mm
Maximum aperture:	f/5.6
Picture angle:	24°-8°
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 setting
Minimum focusing distance:	2m (7 ft.) as normal; 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)
Dimensions:	74mm dia. x 199mm (2.9″ x 8.1″)
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



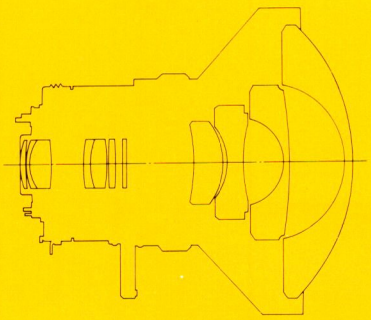
Zoom-Nikkor ED 200-400mm f/4

Product number:	1482
Focal length:	200-400mm
Maximum aperture:	f/4
Picture angle:	12°-6°
Optical construction:	15 elements in 10 groups
Special characteristics:	One-touch operation for zooming and focusing
Minimum focusing distance:	4m (13 ft.)
Aperture range:	f/4-f/32
Lens aperture:	Via automatic diaphragm
Filter size:	122mm diameter (P=1mm)
Lens hood:	Built-in, with Extension Lens Hood HE-2 provided
Tripod mount:	Via built-in, rotatable tripod collar
Lens case:	Supplied (Fabric Lens Pouch #58)
Dimensions:	134mm dia. x 332mm (5.7″ x 13.3″)
Weight:	3600g (128.9 oz.)
Optional accessories:	Miscellaneous 122m Filters



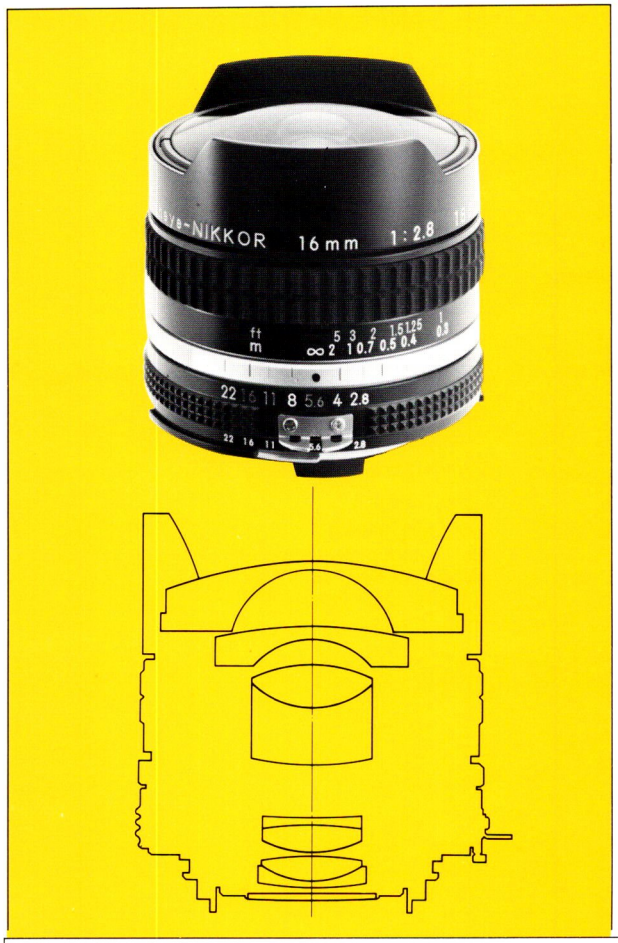
Fisheye-Nikkor 6mm f/2.8

Product number:	1405
Focal length:	6mm
Maximum aperture:	f/2.8
Picture angle:	220°
Projection formula:	Equidistant
Image diameter:	23mm
Optical construction:	12 elements in 9 groups
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.)



Fisheye-Nikkor 8mm f/2.8

Product number:	1402
Focal length:	8mm
Maximum aperture:	f/2.8
Picture angle:	180°
Projection formula:	Equidistant
Image diameter:	23mm
Optical construction:	10 elements in 8 groups
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/2.8-f/22
Lens aperture:	Via automatic diaphragm
Filters:	5 built-in filters (L1B, Y48, Y52, 056 and R60)
Lens case:	Supplied (CL-11)
Dimensions:	123mm dia. x 139mm (4.8″ x 5.5″)
Weight:	1100g (38.9 oz.)



Fisheye-Nikkor 16mm f/2.8

Product number:	1408
Focal length:	16mm
Maximum aperture:	f/2.8
Picture angle:	180°
Optical construction:	8 elements in 5 groups
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/2.8-f/22
Lens aperture:	Via automatic diaphragm
Filter size:	Bayonet mount; 4 filters supplied (L1B, 056, A2 and B2)
Lens hood:	Built-in
Dimensions:	63mm dia. x 66mm (2.5″ x 2.6″)
Weight:	330g (11.7 oz.)
Optional accessories:	Hard Lens Case CL-30S Soft Leather Lens Pouch #61

Depth-of-field Tables (Fisheye Lenses)

Fisheye-Nikkor 6mm f/2.8

Focusing distance	Depth of field							Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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
0.4	0.327–0.553	0.306–0.684	0.283–1.09	0.260–∞	0.234–∞	0.211–∞	0.191–∞	1/45.6
0.5	0.377–0.842	0.346–1.29	0.313–8.43	0.280–∞	0.249–∞	0.221–∞	0.197–∞	1/61.7
1	0.542–∞	0.465–∞	0.395–∞	0.333–∞	0.282–∞	0.240–∞	0.208–∞	1/142
∞	0.941–∞	0.694–∞	0.525–∞	0.405–∞	0.321–∞	0.261–∞	0.219–∞	1/∞

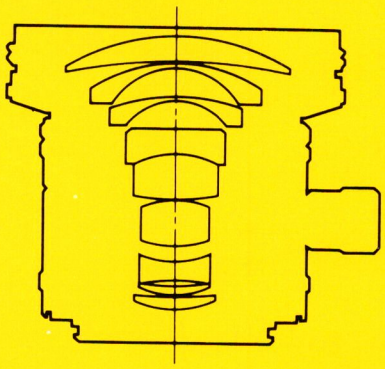
Fisheye-Nikkor 8mm f/2.8

Focusing distance	Depth of field							Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
0.3	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
1	0.668–2.473	0.593–8.945	0.521–∞	0.448–∞	0.389–∞	0.328–∞	0.286–∞	1/107.3
∞	1.513–∞	1.102–∞	0.828–∞	0.622–∞	0.491–∞	0.382–∞	0.317–∞	1/∞

Fisheye-Nikkor 16mm f/2.8

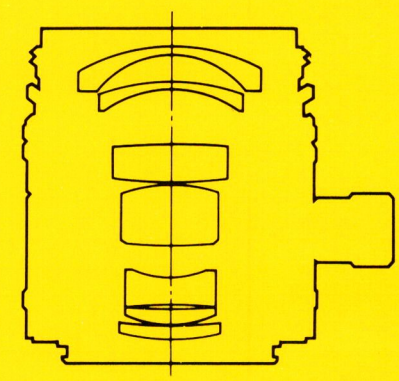
Focusing distance	Depth of field							Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
0.3	0.283–0.320	0.277–0.329	0.269–0.344	0.259–0.368	0.247–0.407	0.231–0.502	0.215–0.735	1/13.4
0.4	0.366–0.444	0.353–0.467	0.338–0.502	0.319–0.570	0.298–0.695	0.271–1.15	0.247–11.8	1/19.8
0.5	0.443–0.579	0.423–0.624	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/∞

(Units = Meters)



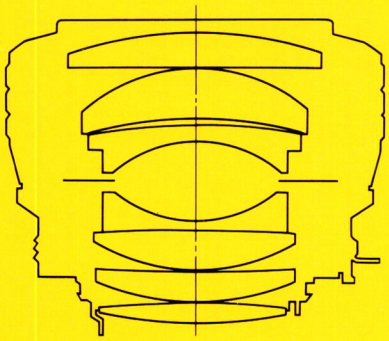
PC-Nikkor 28mm f/3.5

Product number:	1024
Focal length:	28mm
Maximum aperture:	f/3.5
Picture angle:	74°
Covering power:	92°
Optical construction:	9 elements in 8 groups
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/3.5-f/22
Lens aperture:	Manually preset diaphragm
Maximum lateral shift:	Up to 11mm, depending on format positioning
Filter size:	72mm diameter (P=0.75mm)
Lens case:	Supplied (CL-34A)
Dimensions:	78mm dia. x 69mm (3.1″ x 2.7″)
Weight:	380g (13.4 oz.)
Optional accessories:	Lens Hood HN-9 Soft Leather Lens Pouch #62 Miscellaneous 72mm filters Gelatine Filter Holder AF-2



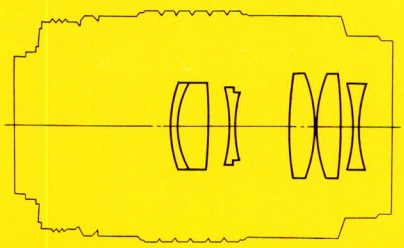
PC-Nikkor 35mm f/2.8

Product number:	1025
Focal length:	35mm
Maximum aperture:	f/2.8
Picture angle:	62°
Covering power:	78°
Optical construction:	7 elements in 7 groups
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/2.8-f/32
Lens aperture:	Manually preset diaphragm
Maximum lateral shift:	Up to 11mm, depending on format positioning
Filter size:	52mm diameter (P=0.75mm)
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-1 Soft Leather Lens Pouch #61 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1



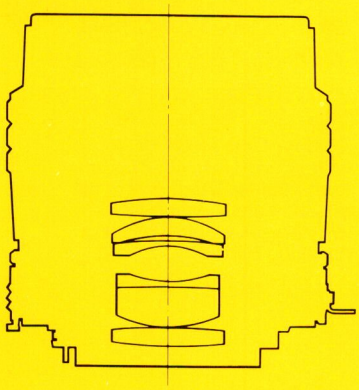
Noct-Nikkor 58mm f/1.2

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 bright 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 (P=0.75mm)
Dimensions:	74mm dia. x 63mm (2.9″ x 2.5″)
Weight:	465g (16.4 g)
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



UV-Nikkor 105mm f/4.5

Product number:	1453
Focal length:	105mm
Maximum aperture:	f/4.5
Picture angle:	23° 20′
Optical construction:	6 elements in 6 groups (fluorite and quartz elements)
Minimum focusing distance:	0.48m (1.57 ft.)
Aperture range:	f/4.5-f/32
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Lens hood:	Built-in
Dimensions:	68.5mm dia. x 116.5mm (2.7″ x 4.6″)
Weight:	525g (18 oz.)
Optional accessories:	Hard Lens Case CL-15S Soft Leather Lens Pouch #62 Plastic Lens Case CP-9 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1 Auto Extension Tube PN-11

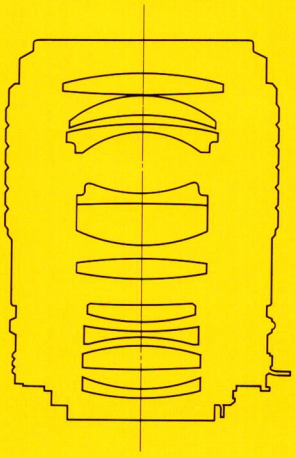


Micro-Nikkor 55mm f/2.8

Product number:	1442
Focal length:	55mm
Maximum aperture:	f/2.8
Picture angle:	43°
Optical construction:	6 elements in 5 groups
Minimum focusing distance:	0.25m (0.9 ft.)
Aperture range:	f/2.8-f/32
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Dimensions:	63.5mm 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

Auto Extension Tube PK-13

Product number:	2653
Extension from flange:	27.5mm; provides reproduction ratio of 1:1 with Micro-Nikkor 55mm f/2.8 lens
Dimensions:	64.4mm dia. x 30.5mm (2.7″ x 1.3″)
Weight:	100g (3.5 oz.)
Optional accessories:	Body Cap BF-1A Rear Lens Cap LF-1 Hard Lens Case CL-30S Soft Leather Lens Pouch #61

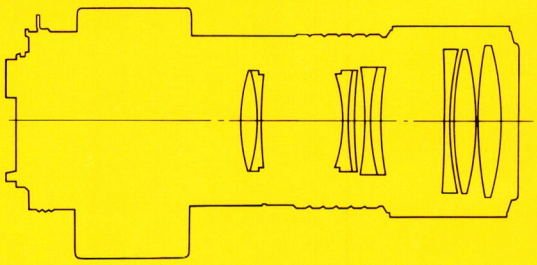


Micro-Nikkor 105mm f/2.8

Product number:	1455
Focal length:	105mm
Maximum aperture:	f/2.8
Picture angle:	23°
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 (P=0.75mm)
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

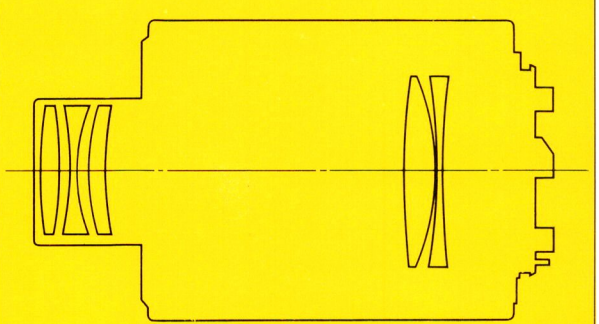
Auto Extension Tube PN-11

Product number:	2647
Extension from flange:	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
Dimensions:	70.5mm dia. x 67mm (2.8 x 2.7″)
Weight:	245g (8.6 oz.)
Tripod mount:	Via built-in, rotatable tripod collar
Optional accessories:	Body Cap BF-1A Rear Lens Cap LF-1 Soft Leather Lens Pouch #61



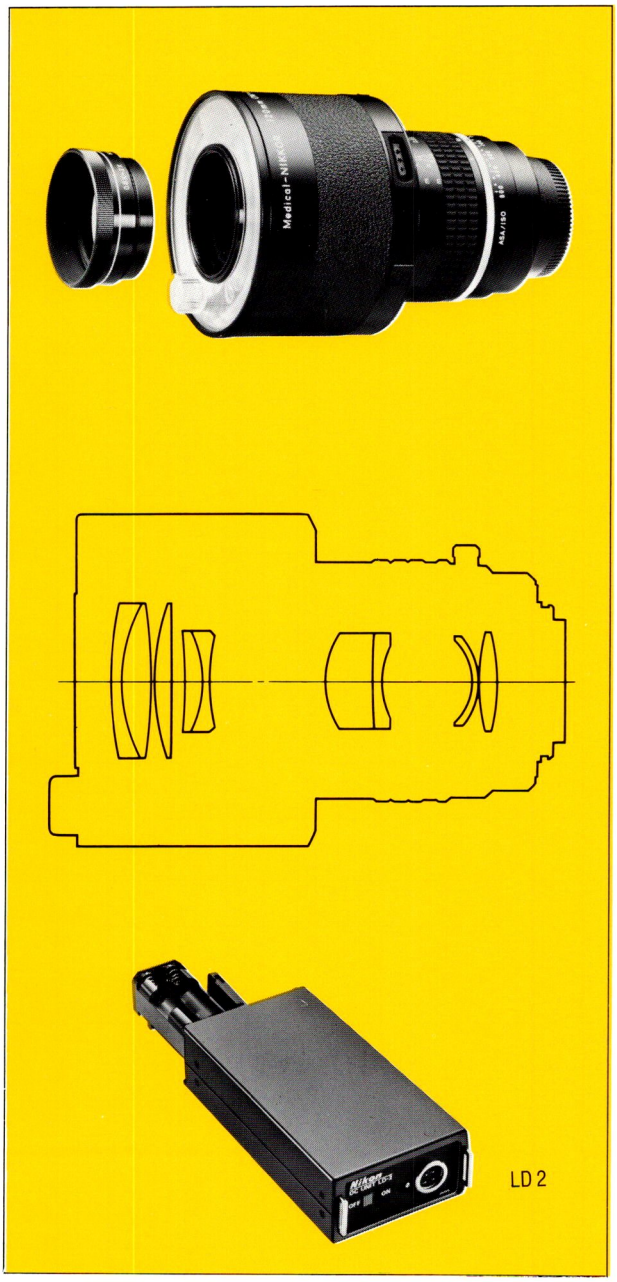
Micro-Nikkor 200mm f/4 IF

Product number:	1468
Focal length:	200mm
Maximum aperture:	f/4
Picture angle:	12° 20′
Optical construction:	9 elements in 6 groups
Minimum focusing distance:	0.71m (2.34 ft.); provides reproduction ratio of 1:2
Aperture range:	f/4-f/32
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Lens hood:	Built-in
Tripod mount:	Via built-in, rotatable tripod collar
Dimensions:	67mm 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



2x Teleconverter TC-301

Product number:	1404
Focal length:	Twice that of the mounted prime lens
Optical construction:	5 elements in 5 groups
Aperture coupling range:	f/2.8 to f/32
Effective aperture range:	f/5.6 to f/64
Diaphragm coupling:	Via built-in automatic mechanism
Reproduction ratio:	Double that of mounted prime lens
Depth of field:	Half that of mounted prime lens
Closest focusing distance:	Same as that of mounted prime lens
Extension from flange:	83mm (3.4″)
Dimensions:	64.5mm dia. x 115mm (2.5″ x 4.5″)
Weight:	300g (9.9 oz.)
Optional accessories:	Hard Lens Case CL-33S Soft Leather Lens Pouch #61



Medical-Nikkor 120mm f/4 IF

Product number:	983
Focal length:	120mm
Maximum aperture:	f/4
Picture angle:	20° 30′
Optical construction:	9 elements in 6 groups
Focusing distance range:	0.26m-1.6m; provides stepless operation with reproduc-tion 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 AA-type 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″ 0.2″), Battery Pack LD-2
Weight:	890g (31.4 oz.), lens only; 490g (17.2 oz.), Battery Pack

Film speed	Recycling time		Number of flash	
	Mangan-ese batteries	Alkaline-mangan ese batteries	Mangan-ese batteries	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

• With 2x close-up attachment lens

Reproduction ratio	Focusing distance	Depth of field	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

Notes:
+ denotes background
– denotes foreground
The focusing distance is always relative to the plane of the film

Depth-of-field Tables (Special Lenses)

PC-Nikkor 28mm f/3.5

Focusing distance	Depth of field									Reproduction ratio
			f/3.5	f/4	f/5.6	f/8	f/11	f/16	f/22	
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 distance	Depth of field									Reproduction ratio
		f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	
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
∞		14–∞	10–∞	7–∞	5–∞	4–∞	3–∞	2–∞	1–∞	1/∞

Noct-Nikkor 58mm f/1.2

Focusing distance	Depth of field									Reproduction ratio
	f/1.2	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	
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/∞

(Units = Meters)

Micro-Nikkor 55mm f/2.8

Focusing distance	Depth of field								Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	
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/∞

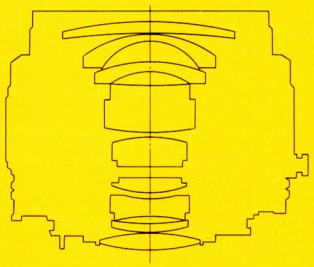
Micro-Nikkor 105mm f/2.8

Focusing distance	Depth of field								Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	
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
0,8	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
1,5	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
2	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
3	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
7	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
∞	117–∞	83–∞	59–∞	42–∞	29–∞	21–∞	15–∞	11–∞	1/∞

Micro-Nikkor 200mm f/4 IF

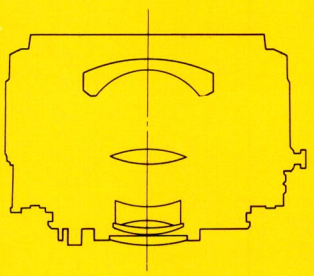
Focusing distance	Depth of field								Reproduction ratio
		f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	
0,71		0,709–0,711	0,709–0,711	0,709–0,711	0,708–0,712	0,707–0,713	0,706–0,714	0,705–0,715	1/1,99
0,8		0,799–0,801	0,799–0,801	0,798–0,802	0,797–0,803	0,796–0,804	0,795–0,805	0,792–0,808	1/2,44
0,9		0,899–0,901	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		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
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
6		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
12		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
∞		300–∞	215–∞	150–∞	109–∞	75–∞	55–∞	38–∞	1/∞

(Units = Meters)



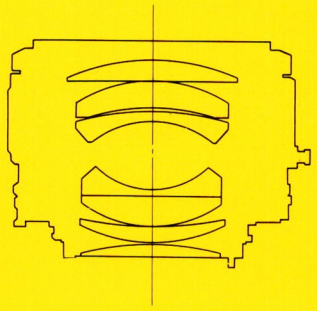
AF Nikkor 24mm f/2.8

Product number:	1914
Focal length:	24mm
Maximum aperture:	f/2.8
Picture angle:	84°
Optical construction:	9 elements in 9 groups
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/2.8-f/22; minimum aperture lock provided
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	65mm dia. x 55.5mm (2.5″ x 1.8″)
Weight:	260g (8.9 oz.)
Optional accessories:	Lens Hood HN-1 Hard Lens Case CL-30S Soft Leather Lens Pouch #61 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1



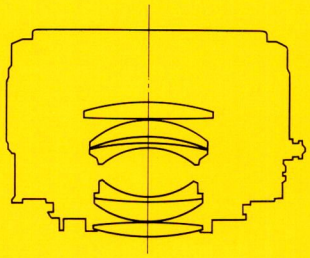
AF Nikkor 28mm f/2.8

Product number:	1916
Focal length:	28mm
Maximum aperture:	f/2.8
Picture angle:	74°
Optical construction:	5 elements in 5 groups
Minimum focusing distance:	0.3m (1 ft.)
Aperture range:	f/2.8-f/22; minimum aperture lock provided
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	65mm dia. x 48.7mm (2.5″ x 1.5″)
Weight:	195g (6.8 oz.)
Optional accessories:	Lens Hood HN-2 Hard Lens Case CL-30S Soft Leather Lens Pouch #61 Miscellaneous 52mm Filter Gelatine Filter Holder AF-1



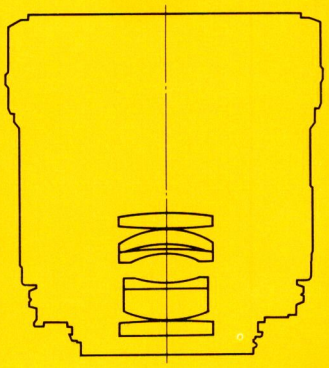
AF Nikkor 50mm f/1.4

Product number:	1903
Focal length:	50mm
Maximum aperture:	f/1.4
Picture angle:	46°
Optical construction:	7 elements in 6 groups
Minimum focusing distance:	0.45m (1.5 ft.)
Aperture range:	f/1.4-f/16; minimum aperture lock provided
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	65mm dia. x 52.5mm (2.5″ x 1.6″)
Weight:	255g (7.4 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



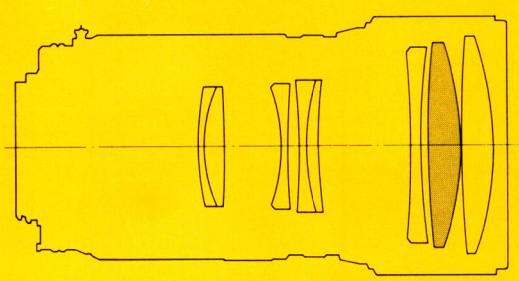
AF Nikkor 50mm f/1.8

Product number:	1905
Focal length:	50mm
Maximum aperture:	f/1.8
Picture angle:	46°
Optical construction:	6 elements in 5 groups
Minimum focusing distance:	0.45m (1.5 ft.)
Aperture range:	f/1.8-f/22; minimum aperture lock provided
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	65mm dia. x 48mm (2.5 x 1.5″)
Weight:	210g (7.4 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



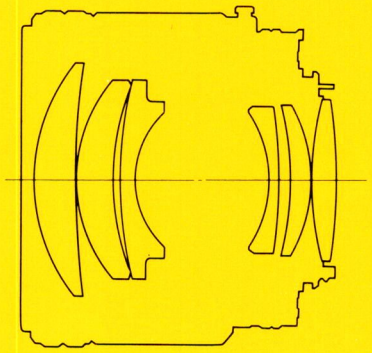
AF Micro-Nikkor 55mm f/2.8

Product number:	1990
Focal length:	55mm
Maximum aperture:	f/2.8
Picture angle:	43°
Optical construction:	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 (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual 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



AF Nikkor ED 180mm f/2.8 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 (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Lens hood:	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 Gelatine Filter Holder AF-2



AF Nikkor 85mm f/1.8

Product number: 1930

Focal length: 85mm

Maximum aperture: f/1.8

Picture angle: 28° 30'

Optical construction: 6 elements in 6 groups

Minimum focus distance: 0.85m (3 ft.)

Aperture range: f/1.8-f/16; minimum aperture lock provided

Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter (P=0.75mm)

Special characteristics: Autofocus with Nikon N2020, N4004, N8008; compatible with other Nikon SLR cameras in manual focus mode

Dimensions: 71mm dia. x 58.5mm extension from mounting flange (2.8" x 2.3"); 69mm (2.7") overall length

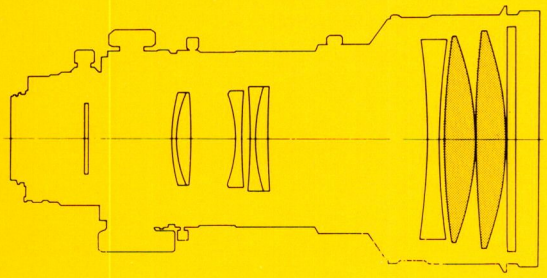
Weight: 415g (14.6 oz.)

Usable teleconverters: Nikon Teleconverter TC-14A, TC-201; Nikon Autofocus Converter TC-16A

Optional accessories: Screw-in Lens Hood HN-23
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

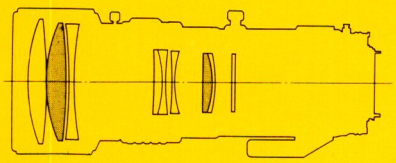
AF Nikkor 85mm f/1.8 (ft)

Focusing distance	Depth of Field								Reproduction ratio
	f/1.8	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	
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/ ∞



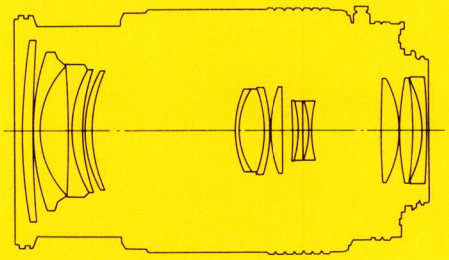
AF Nikkor 300mm f/2.8 ED-IF

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 filters via slip-in holder; gelatine filters via special 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; compatible with all cameras in manual mode
Dimensions:	133mm dia. x 263mm (5.4″ x 9.8″)
Weight:	2700g (89 oz.)
Optional accessories:	Fabric Lens Pouch #57 Miscellaneous 39mm Filters



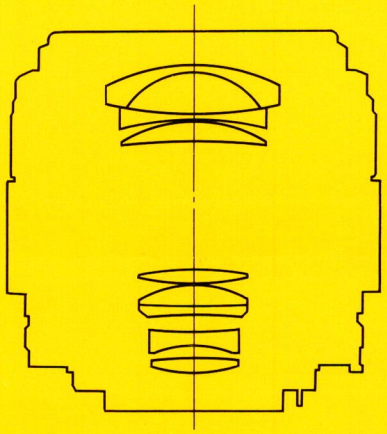
AF Nikkor 300mm f/4 ED-IF

Product number:	1946
Focal length:	300mm
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
Filter size:	39mm filters via slip-in holder; gelatine filters via special holder provided; 82mm via thread mount a front end of lens
Lens hood:	Built-in
Tripod mount:	Via built-in, rotatable tripod collar
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	89mm dia. x 219mm (4.1″ x 10″)
Weight:	1330g (46.6 oz.)
Optional accessories:	Hard Lens Case CL-42 Miscellaneous 39mm Filters Miscellaneous 82mm Filters



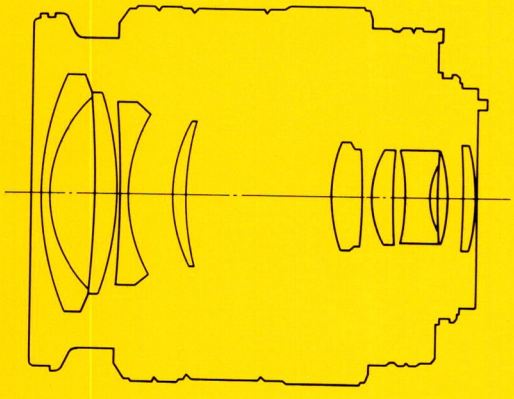
AF Zoom-Nikkor 28-85mm f/3.5-4.5

Product number:	1958
Focal length:	28-85mm
Maximum aperture:	f/3.5-f/4.5
Picture angle:	74°-28° 30′
Optical construction:	15 elements in 11 groups
Minimum focusing distance:	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 (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	71mm dia. x 97.5mm (2.8 x 3.5″)
Weight:	540g (18.9 oz.)
Optional accessories:	Lens Hood HB-1 Hard Lens Case CL-33S Soft Leather Lens Pouch #62 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2



AF Zoom-Nikkor 35-70mm f/3.3-4.5

Product number:	1964
Focal length:	35-70mm
Maximum aperture:	f/3.5-f/4.5
Picture angle:	62°-34° 20′
Optical construction:	8 elements in 7 groups
Minimum focusing distance:	0.5m (1.5 ft.) as normal; 0.35m (1 ft.) via macro 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 (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	70.5mm dia. x 69mm (2.7″ x 2.4″)
Weight:	275g (9.6 oz.)
Optional accessories:	Lens Hood HN-2 Hard Lens Case CL-32S Soft Leather Lens Pouch #62 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1



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: 9 elements in 9 groups

Minimum focus distance: 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

Lens aperture: Via automatic diaphragm

Filter size: 62mm diameter (P=0.75mm)

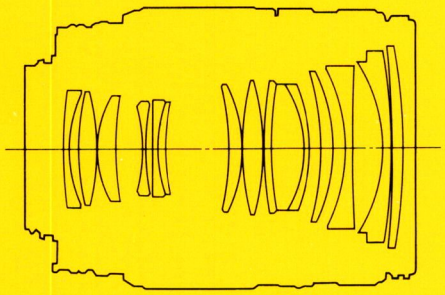
Special characteristics: Autofocus with Nikon N2020, N4004, N8008; compatible with other Nikon SLR cameras in manual focus mode

Dimensions: 70.5mm dia. x 73.5mm extension from mounting flange (2.8" x 2.9"); 82.5mm (3.2") overall length

Weight: 375g (13.2 oz.)

Usable teleconverters: Nikon Teleconverter TC-14A, TC-201

Optional accessories: Bayonet Lens Hood HB-3
Hard Lens Case CL-32S
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



AF Zoom-Nikkor 35-70mm f/2.8

Product number: 1962

Focal length: 35-70mm

Maximum aperature: f/2.8

Picture angle: 62°-34° 20'

Optical construction: 15 elements in 12 groups

Minimum focus distance: 0.6m (2 ft.) as normal; 0.28m (0.9 ft.) via macro mode at 35mm zoom setting; maximum reproduction 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 (P=0.75mm)

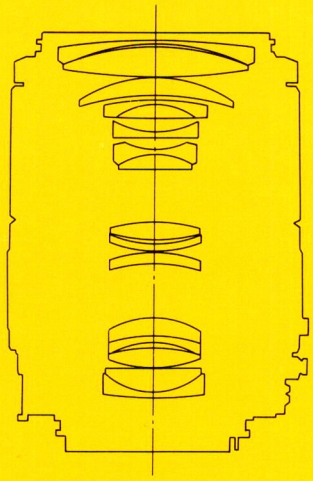
Special characteristics: Autofocus with Nikon N2020, N4004, N8008; compatible with other Nikon SLR cameras in manual focus mode

Dimensions: 72mm dia. x 95mm extension from mounting flange (2.8" x 3.7"); 105mm (4.1") overall length

Weight: 665g (23.5 oz.)

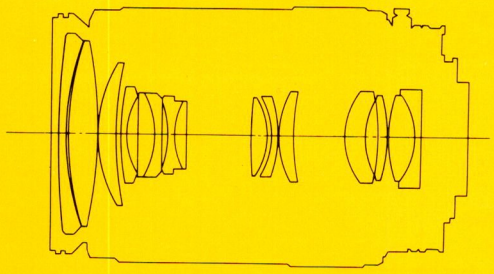
Usable teleconverters: Nikon Teleconverter TC-14A, TC-201

Optional accessories: Bayonet Lens Hood HB-1
Hard Lens Case CL-33S
Soft Leather Lens Pouch #63
Plastic Lens Case CP-9
62-72mm Filter Adapter Ring UR-1
Miscellaneous 62mm Filters
Miscellaneous 72mm Filters
Gelatine Filter Holder AF-2



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

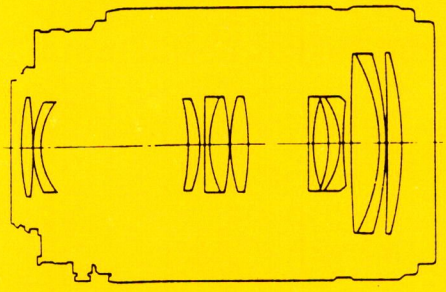
Product number:	1966
Focal length:	35-105mm
Maximum aperture:	f/3.5-f/4.5
Picture angle:	62° -23° 20′
Optical construction:	16 elements in 12 groups
Minimum focusing distance:	1.4m (4.5 ft.) as normal; 0.38m (1.3 ft.) via macro setting; reproduction ratio of 1:3.5 provided
Aperture range:	f/3.5-f/22; minimum aperture lock provided
Lens aperture:	Via automatic diaphragm
Filter size:	52mm diameter (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	69mm dia. x 95.5mm (2.7″ x 3.4″)
Weight:	460g (16.1 oz.)
Optional accessories:	Lens Hood HB-2 Hard Lens Case CL-33S Soft Leather Lens Pouch #62 Miscellaneous 52mm Filters Gelatine Filter Holder AF-1



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

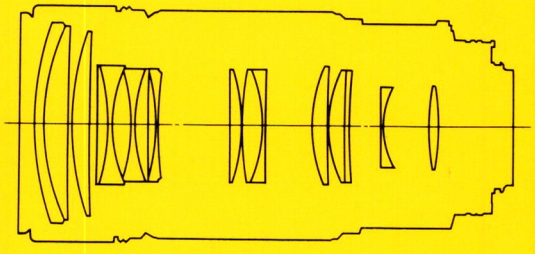
Product number:	1968
Focal length:	35-135mm
Maximum aperture:	f/3.5-4.5
Picture angle:	62° -18°
Optical construction:	15 elements in 12 groups
Minimum focusing distance:	1.5 (5 ft.) as normal; 0.4m (1.4 ft.) via macro setting; reproduction ratio of 1:3.5 provided
Aperture range:	f/3.5-f/22; minimum aperture lock provided
Lens aperture:	Via automatic diaphragm
Filter size:	62mm diameter (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	72mm dia. x 117mm (2.7″ x 4.4″)
Weight:	630g (21 oz.)
Optional accessories:	Lens Hood HB-1 Hard Lens Case CL-41S Soft Leather Lens Pouch #62 62-72mm Filter Adapter Ring UR-1 Miscellaneous 62mm Filters Miscellaneous 72mm Filters Gelatine Filter Holder AF-2

AF Zoom-Nikkor 70-210mm F/4-5.6



Product number:	1981
Focal length:	70-210mm
Maximum aperture:	f/4-f/5.6
Picture angle:	34°-20′-11° 50′
Optical construction:	12 elements in 9 groups
Minimum focusing distance:	1.5m (5 ft.) as normal; 1.2m (4 ft.) via macro setting; reproduction ratio of 1:4.5 provided
Aperture range:	f/4-f/32; minimum aperture lock provided
Lens aperture:	Via automatic diaphragm
Filter size:	62mm diameter (P=0.75mm)
Special characteristics:	Autofocus with Nikon N2020, N4004; compatible with all cameras in manual mode
Dimensions:	73.5mm dia. x 108mm (2.8″ x 4.3″)
Weight:	590g (20.6 oz.)
Optional accessories:	Lens Hood HN-24 Hard Lens Case CL-35A Soft Leather Lens Pouch #63

AF Zoom-Nikkor ED 80-200mm f/2.8



Product number:	1984
Focal length:	80-200mm
Maximum aperture:	f/2.8
Picture angle:	30° 10'-12° 20'
Optical construction:	16 elements in 11 groups
Minimum focus distance:	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 (200mm zoom setting)
Aperture range:	f/2.8-f/22; minimum aperture lock provided
Lens aperture:	Via automatic diaphragm
Filter size:	77mm diameter (P=0.75mm)
Lens case:	Supplied (Hard Lens Case CL-43)
Special characteristics:	Autofocus with Nikon N2020, N4004, N8008; compatible with other Nikon SLR cameras in manual focus mode
Dimensions:	85.5mm dia. x 176.5mm extension from mounting flange (3.4" x 6.9"); 184.5mm (7.3") overall length
Weight:	1,200g (42.3 oz.)
Usable teleconverters:	Nikon Teleconverter TC-14A, TC-201
Optional accessories:	Screw-in Lens Hood HN-28 77mm UV Haze (L-37C) Filter

Depth-of-field Tables (Autofocus Lenses)

AF Nikkor 24mm f/2.8

Focusing distance	Depth of field								Reproduction ratio
			f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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

Focusing distance	Depth of field								Reproduction ratio
			f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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 50mm f/1.4

Focusing distance	Depth of field								Reproduction ratio
		f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	
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 distance	Depth of field									Reproduction ratio
	f/1.8	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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/∞

(Units = Meters)

AF Micro Nikkor 55mm f/2.8

Focusing distance	Depth of field								Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	
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 Nikkor 180mm f/2.8 ED-IF

Focusing distance	Depth of field							Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
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/∞

AF Nikkor 300mm f/2.8 ED-IF

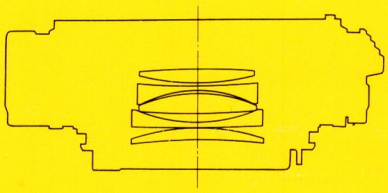
Focusing distance	Depth of field							Reproduction ratio
	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	
3	2,99–3,01	2,99–3,01	2,99–3,01	2,98–3,02	2,97–3,03	2,96–3,04	2,95–3,06	1/8,4
4	3,99–4,01	3,98–4,02	3,97–4,03	3,96–4,04	3,95–4,05	3,92–4,08	3,90–4,11	1/11,7
5	4,98–5,02	4,97–5,03	4,96–5,04	4,94–5,06	4,92–5,09	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/∞

(Units = Meters)

AF Nikkor 300mm f/4 ED-IF

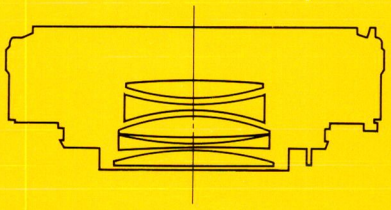
Focusing distance	Depth of field								Reproduction ratio
		f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	
2.5		2.49-2.51	2.49-2.51	2.49-2.51	2.48-2.52	2.47-2.53	2.46-2.54	2.45-2.56	1/7.0
3		2.99-3.01	2.99-3.01	2.98-3.02	2.97-3.03	2.96-3.04	2.94-3.06	2.92-3.09	1/8.6
3.5		3.49-3.51	3.48-3.52	3.47-3.53	3.46-3.54	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/∞

(Units = Meters)



Autofocus Converter TC-16A

Product Number:	1999
Focal length:	1.6x that of the mounted prime lens
Optical construction:	5 elements in 5 groups
Aperture coupling range:	f/1.8 — f/32
Effective aperture range:	f/2.9 to f/51
Diaphragm coupling:	Via built-in automatic mechanism
Special characteristic:	Provides autofocus operation of Nikkor lenses with f/2.8 and brighter maximum aperture and N2020 camera.
Focusing drive:	Via focus drive motor in N2020, N4004
Dimensions:	69mm dia. x 30mm (2.7″ x 1.2″)
Weight:	150g (5.0 oz.)
Optional Accessories:	Soft Leather Lens Pouch #61

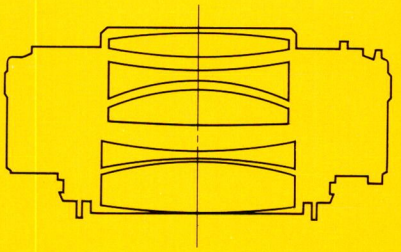


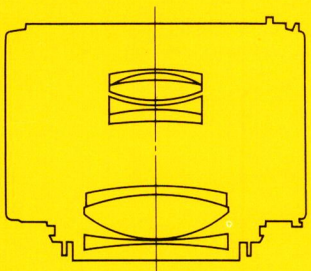
1.4X Teleconverter TC-14A

Product Number:	1400
Focal length:	1.4x that of the mounted prime lens
Optical construction:	5 elements in 5 groups
Aperture coupling range:	1.8 to f/32
Effective aperture range:	f/2.8—f/45
Diaphragm coupling:	Via built-in automatic mechanism
Reproduction ratio:	1.4x that of mounted prime lens
Depth of field:	About 70% that of mounted prime lens
Closest focusing distance:	Same as that of mounted prime lens
Extension from flange:	Mount-to-mount length 22mm (0.9″)
Dimensions:	65mm dia. x 25.5mm (2.6″ x 1.0″)
Weight:	145g (5.1 oz.)
	Information on the use of the TC-14A is given in the Table of Nikkor Lenses (see pages 16/17).
Optional Accessories:	Hard Lens Case CL-30S Soft Leather Lens Pouch #61

1.4X Teleconverter TC-14B

Product Number:	1401
Focal length:	1.4x that of the mounted prime lens
Optical construction:	5 elements in 5 groups
Aperture coupling range:	f/2 to f/45
Effective aperture range:	f/2.8 to f/45
Diaphragm coupling:	Via built-in automatic mechanism
Reproduction ratio:	1.4X that of mounted prime lens
Depth of field:	About 70% that of mounted prime lens
Closest focusing distance:	Same as that of mounted prime lens
Extension from flange:	22m (0.9″)
Dimensions:	65mm dia. x 34mm (2.6″ x 1.3″)
Weight:	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



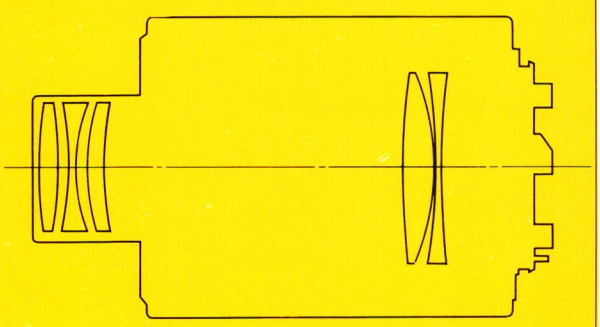


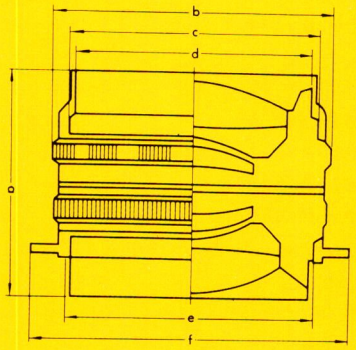
2X Teleconverter TC-201

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/32
Effective 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 on 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:	1404
Focal length:	Double that of the mounted prime lens
Optical construction:	5 elements in 5 groups
Aperture coupling range:	f/2.8 to f/32
Effective aperture range:	f/5.6—f/64
Diaphragm coupling:	Via built-in automatic mechanism
Reproduction ratio:	Double that of mounted the 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:	Mount-to-mount length 22mm (0.9″)
Dimensions:	64.5mm dia. x 115mm (2.5″ x 4.5″)
Weight:	300g (9.9 oz.)
	Information on the use of the TC-301 is given in the Table of Nikkor Lenses (see pages 43/44).
Optional Accessories:	Hard Lens Case CL-33S Soft Leather Lens Pouch #62





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:	209
Focal length:	40.1mm
Maximum aperature ratio	1:4
Covering 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

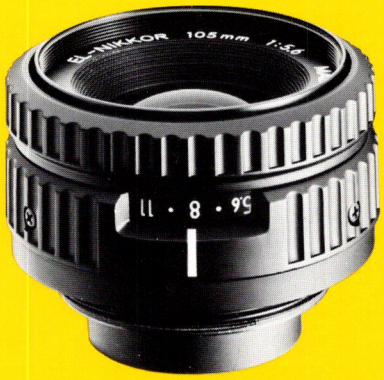
Product Number:	211
Focal length:	62.9mm
Maximum aperture ratio:	1:2.8
Covering power:	43°
Optical construction:	6 elements in 4 groups
Standard magnification:	8x
Usable magnification range:	2x-20x
Aperture range:	f/2.8 - f/16
Correction wavelength range:	380-700nm
Original size:	55.2mm diameter
Original format size:	32mm x 45mm
Dimensions:	51mm dia. x 42.5mm (2.0″ x 1.7″)
Weight:	120g (4.2 oz.)
Attachment size:	(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°
Optical construction:	4 elements in 3 groups
Standard magnification:	5x
Usable magnification range:	2x-10x
Aperture range:	f/4-f/22
Correction wavelength range:	380-700nm
Original size:	80mm diameter
Original format size:	60mm x 60mm
Dimensions:	51mm dia. x 33mm (2.0″ x 1.3″)
Weight:	90g (3.2 oz.)
Attachment size (d):	40.5mm diameter (p = 0.5mm)
Rear mount size (e):	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:	53°
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
Original size:	95mm diameter
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:	213
Focal length:	105.5mm
Maximum aperture ratio:	1:5.6
Covering 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:	251
Focal length:	135mm
Maximum aperture ratio:	1:5.6
Covering 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:	252
Focal length:	149.6mm
Maximum aperture ratio:	1:5.6
Covering power:	51°
Optical construction:	6 elements in 4 groups
Standard magnification:	4x
Usable magnification range:	2x-8x
Aperture range:	f/5.6-f/45
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:	253
Focal length:	179.6mm
Maximum aperture ratio:	1:5.6
Covering power:	54°
Optical construction:	6 elements in 4 groups
Standard magnification:	4x
Usable magnification range:	2x-8x
Aperture range:	f/5.6-f/45
Correction wavelength range:	380-700nm
Original size:	230mm diameter
Original format size:	130mm x 180mm (5″ x 7″)
Dimensions (b x a):	77mm dia. x 62mm (3.0″ x 2.4″)
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
Covering power:	54°
Optical construction:	6 elements in 4 groups
Standard magnification:	4x
Usable magnification range:	2x-8x
Aperture range:	f/5.6-f/45
Correction 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 = 1.0mm)
Mounting Flange:	provided; 98mm diameter

EL-Nikkor 240mm F/5.6A

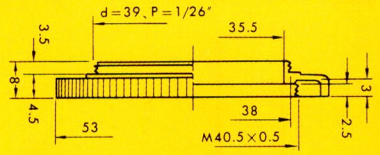
Product number:	255
Focal length:	241.8 mm
Maximum aperture ratio:	1:5.6
Covering power:	57°
Optical construction:	6 elements in 4 groups
Standard magnification:	4x
Usable magnification range:	1x-8x
Aperture range:	f/5.6-f/45
Correction wavelength range:	380-700mm
Original size:	330mm diameter
Original format size:	180mm x 240mm (8″ x 10″)
Dimensions (b x a):	97mm dia. x 77.5mm (3.8″ x 3″)
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

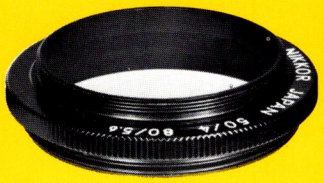
EL-Nikkor 300mm f/5.6 A

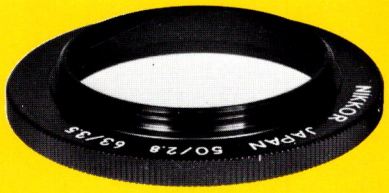
Product number:	256
Focal length:	300 mm
Maximum aperture ratio:	1:5.6
Covering power:	52°
Optical construction:	6 elements in 4 groups
Standard magnification:	2x
Usable magnification range:	1x-8x
Aperture range:	f/5.6-f/45
Correction wavelength range:	380-700mm
Original size:	410mm diameter
Original format size:	270mm x 330mm (10″ x 12″)
Dimensions (b x a):	117mm dia. x 97mm (4.6″ x 3.8″)
Weight:	1190g (41.7 oz)
Front mount size (c):	90mm diameter (p = 1.0mm)
Attachment size (d):	86mm diameter (p = 1.0mm)
Rear mount size (e):	90mm diameter (p = 1.0mm)
Mounting flange:	provided; 121mm diameter

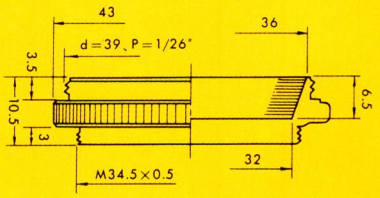
EL-Nikkor 360mm f/5.6

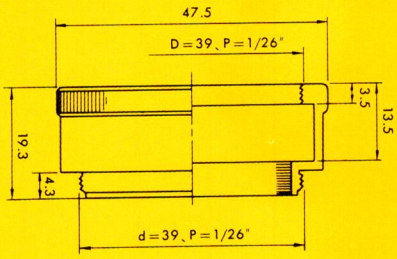
Product number:	95104
Focal length:	360mm
Maximum aperture ratio:	1:5.6
Covering power:	50°
Optical construction:	6 elements in 4 groups
Standard magnification:	2x
Usable magnification range:	1x-4x
Aperture range:	f/5.6-f/45
Correction wavelength range:	380-700nm
Original size:	500mm diameter
Original format size:	300mm x 400mm (11″ x 14″)
Dimensions (b x a):	143mm dia. x 119mm (5.6″ x 4.7″)
Weight:	2700g (95.2 oz.)
Front mount size (c):	130mm diameter (p = 1.5mm)
Attachment size (d):	120mm diameter (p = 1.0mm)
Rear mount size (e):	130mm diameter (p = 1.5mm)
Mounting flange:	provided; 165mm diameter











Reversing adapters

Product number: 2641

Reversing adapter for El-Nikkor (40.5mm dia.): 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: 2640

Reversing ring for earlier El-Nikkor (34.5mm dia.): For 75mm f/4 lens

Lens Caps

Product number: 577

Lens cap, (40.5mm dia.): 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: 581

Lens cap, (52mm dia.): For 135mm f/5.6A, 150mm f/5.6A lenses

Product number: 576

Lens cap for earlier El-Nikkor (43mm dia.): For 135mm f/5.6 lens

Extension ring

Extension ring for El-Nikkor: 50mm—135mm

Product number: 2642

Nikkor lenses that can be modified to AI and ADR

COST OF LENS MODIFICATION PER CATEGORY		$18.50	$33.50	$43.00
LENS	**SERIAL NUMBERS**	**CATEGORY 1**	**CATEGORY 2**	**CATEGORY 3**
13mm f5.6	175021 – and higher			x
15mm f5.6	321001 – and higher			x
18mm f4	173111 – and higher		x	
20mm f3.5	421241 – and higher	x		
20mm f4	103001 – and higher	x		
24mm f2.8	242821 – and higher	x		
28mm f2	280001 – and higher	x		
28mm f2.8	382011 – and higher	x		
28mm f3.5	195531 – 301010 625611 – and higher	x		
35mm f1.4	350001 – and higher		x	
35mm f2	717011 – and higher	x		
35mm f2.8	255311 – 920110	x		
50mm f1.4	532011 – and higher	x		
50mm f2	741111 – and higher	x		
55mm f1.2	184711 – 970110	x		
85mm f1.8	219901 – and higher	x		
105mm f2.5	234011 – and higher	x		
135mm f2	175011 – and higher	x		
135mm f2.8	189311 – and higher	x		
135mm f3.5	111111 – 720100 831211 – 904080	x		
180mm f2.8	312011 – and higher		x	
200mm f4	304411 – and higher	x		
300mm f4.5	326511 – and higher	x		
300mm f4.5 ED	173101 – and higher		x	
400mm f5.6	256031 – 260000		x	
400mm f5.6 ED	260001 – and higher		x	
6mm f2.8	628001 – and higher			x
8mm f2.8	230011 – and higher			x
16mm f3.5	272281 – and higher			x
45mm f2.8 GN	710101 – and higher		x	
† 55mm f3.5 Micro	238011 – and higher	x		
†105mm f4 Micro	174011 – and higher		x	
28-45mm Zoom f4.5	174011 – and higher		x	
43-86mm Zoom f3.5	438611 – and higher		x	
50-300mm Zoom f4.5	740101 – and higher		x	
80-200mm Zoom f4.5	101911 – and higher		x	
85-250mm Zoom f4	184711 – and higher		x	

†New AI extension rings (PK-13 for 55mm Micro Nikkor lens. PN-11 for 105mm Micro Nikkor lens), available as accessories must be used for full aperture meter operation in 1:2-1:1 range. Original rings may be used with stopdown metering. *Modification of previous PK and PN-series extension rings is not available.*

CURRENT NIKON CAMERAS FEATURING "AI"

Nikon F3

Nikon FM

Nikon FE

Nikon FM2

Nikon FG

Nikon EM

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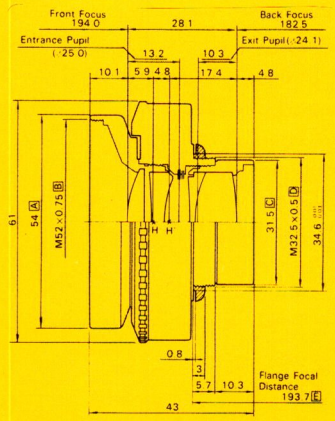
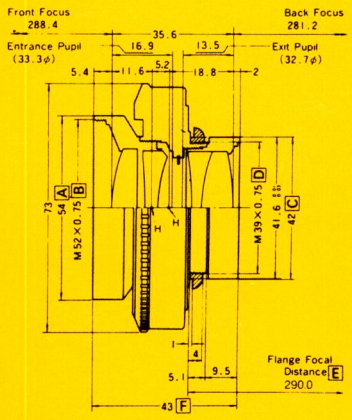


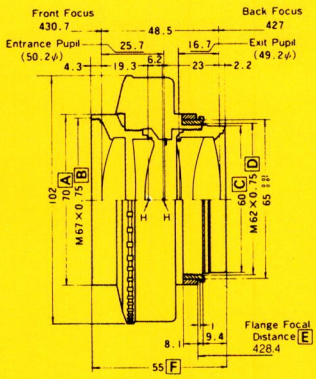
Nikkor-M 200mm f/8

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.)



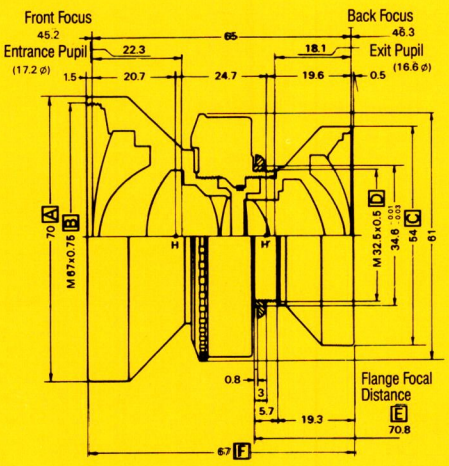
Nikkor-M 300mm f/9

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.)



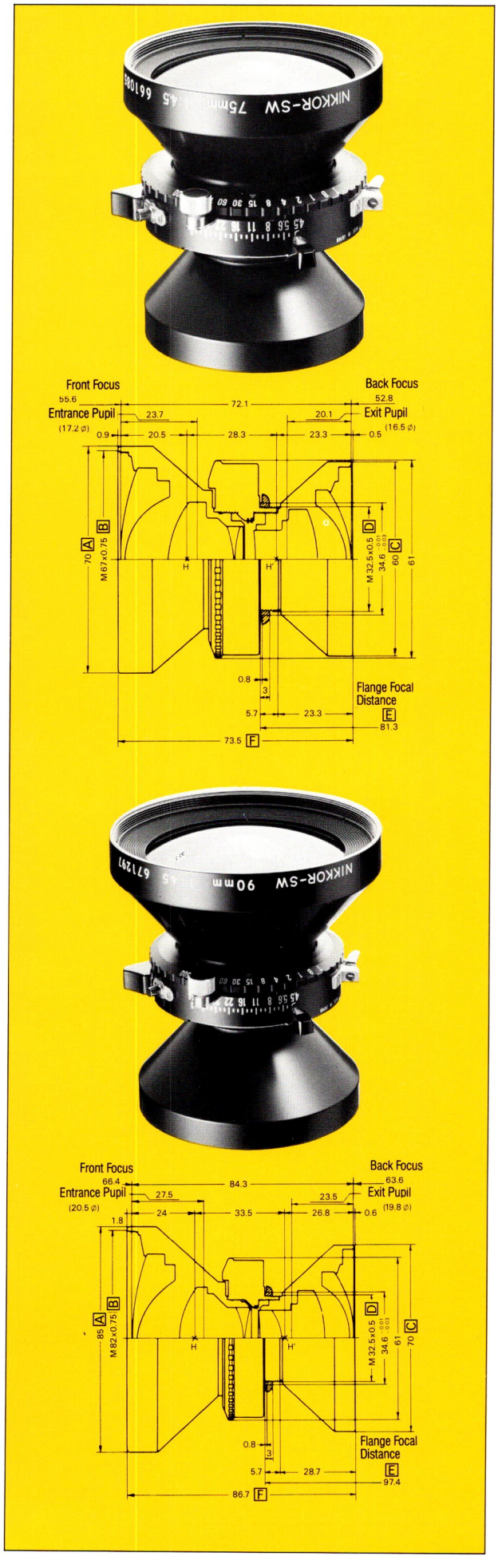
Nikkor-M 450mm f/9

Product number:	1323
Focal length:	450mm
Maximum aperture:	f/9
Optical construction:	4 elements in 3 groups
Aperture range:	f/9-f/128
Covering power (f/9):	50°
Covering power (f/22):	52°
Image circle (f/9):	420mm diameter
Image circle (f/22):	440mm diameter (10''x12'')
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):	70mm diameter
Attachment size (B):	67mm dia. x 0.75mm (P)
Rear mount size (C):	60mm diameter
Flange attachment size (D):	62mm dia. x 0.75mm (P)
Flange focal distance (E):	428.4mm
Overall length (F):	55mm (2.2')
Weight:	640g (22.6 oz.)



Nikkor-SW 65mm f/4

Product number:	1341
Focal length:	65mm
Maximum aperture:	f/4
Optical construction:	7 elements in 4 groups
Aperture range:	f/4-f/45
Covering power (f/4):	80°
Covering power (f/16):	105°
Image circle (f/4):	110mm diameter
Image circle (f/16):	170mm 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):	70mm diameter
Attachment size (B):	67mm dia. x 0.75mm (P)
Rear mount size (C):	54mm diameter
Flange attachment size (D):	32.5mm dia. x 0.5mm (P)
Flange focal distance (E):	70.8mm
Overall length (F):	67mm (2.6'')
Weight:	370g (13.1 oz.)

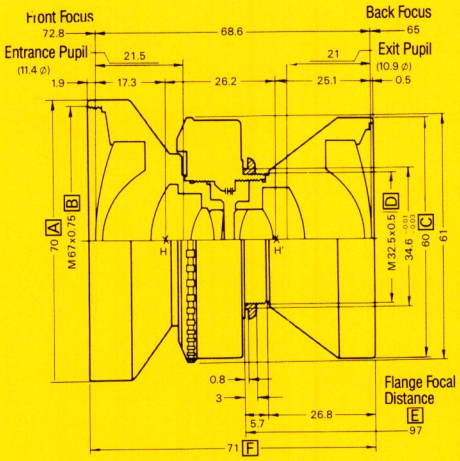


Nikkor-SW 75mm f/4.5

Product number:	1343
Focal length:	75mm
Maximum aperture:	f/4.5
Optical construction:	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.)

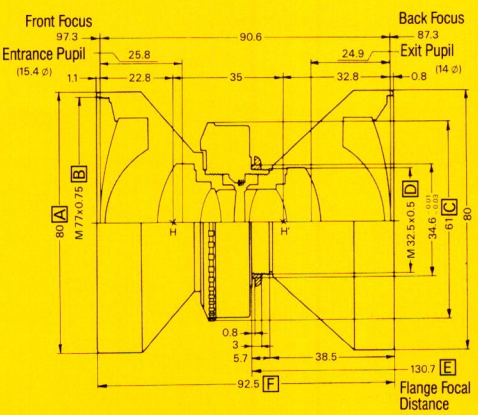
Nikkor-SW 90mm f/4.5

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, B
Flash sync socket:	X contact
Front 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.)



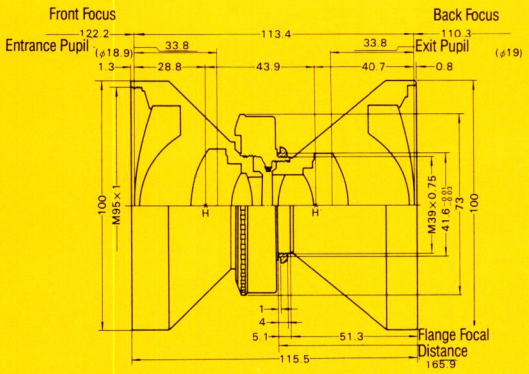
Nikkor-SW 90mm f/8

Product name:	1344
Focal length:	90mm
Maximum aperture:	f/8
Optical construction:	8 elements in 4 groups
Aperture range:	f/8-f/64
Covering power (f/8):	80°
Covering power (f/22):	105°
Image circle (f/8):	154mm diameter
Image circle (f/22):	235mm 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):	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):	97.0mm
Overall length (F):	71mm (2.8")
Weight:	360g (12.7 oz.)



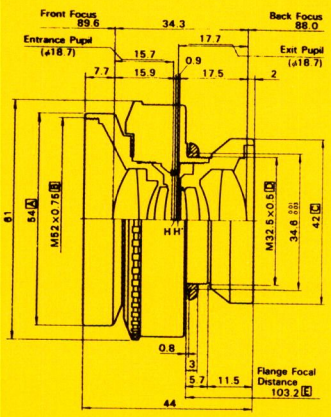
Nikkor-SW 120mm f/8

Product number:	1346
Focal length:	120mm
Maximum aperture:	f/8
Optical construction:	8 elements in 4 groups
Aperture range:	f/8-f/64
Covering power (f/8):	80°
Covering power (f/22):	105°
Image circle (f/8):	200mm diameter
Image circle (f/22):	312mm diameter (8"x 10")
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):	80mm diameter
Attachment size (B):	77mm dia. x 0.75mm (P)
Rear mount size (C):	80mm diameter
Flange attachment size (D):	32.5mm dia. x 0.5mm (P)
Flange focal distance (E):	130.7mm
Overall length (F):	92.5mm (3.6")
Weight:	610g (21.5 oz.)



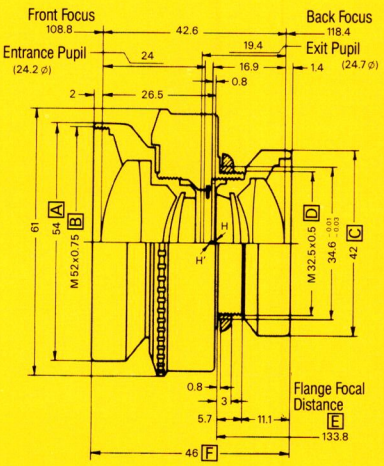
Nikkor-SW 150mm f/8

Product number:	1351
Focal length:	150mm
Maximum aperture:	f/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.)



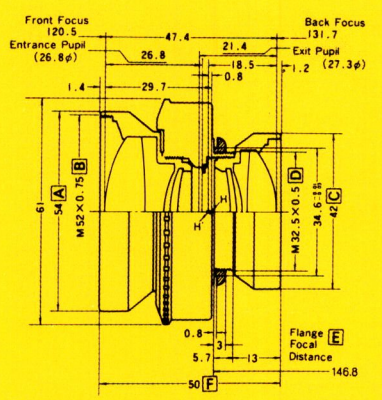
Nikkor-W 105mm f/5.6

Product name:	1309
Focal length:	105mm
Maximum 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 0.75mm (P)
Rear mount size (C):	42mm diameter
Flange attachment size (D):	32.5mm dia. x 0.5mm (P)
Flange focal distance (E):	103.2mm
Overall length (F):	44mm (1.7'')
Weight:	185g (6.6 oz.)



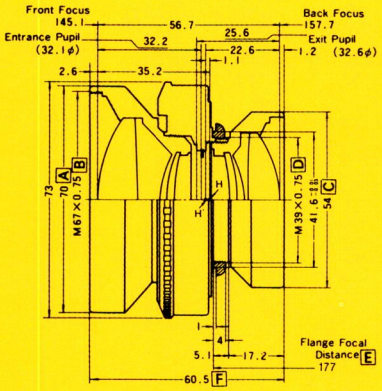
Nikkor-W 135mm f/5.6

Product number:	1312
Focal length:	135mm
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):	73°
Image circle (f/5.6):	156mm diameter
Image circle (f/22):	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):	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):	133.8mm
Overall length (F):	46mm (1.8")
Weight:	200g (7.1 oz.)



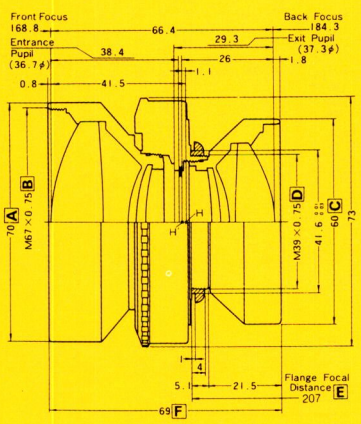
Nikkor-W 150mm f/5.6

Product number:	1314
Focal length:	150mm
Maximum aperture:	1:5.6
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):	174mm 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):	42mm diameter
Flange attachment size (D):	32.5mm dia. x 0.5mm (P)
Flange focal distance (E):	146.8mm
Overall length (F):	50mm (2.0")
Weight:	230g (8.1 oz.)



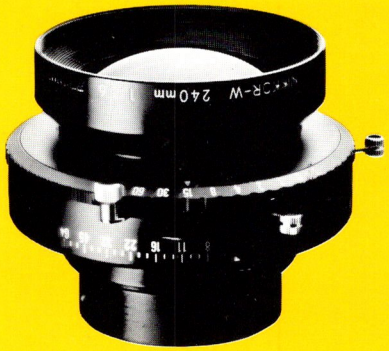
Nikkor-W 180mm f/5.6

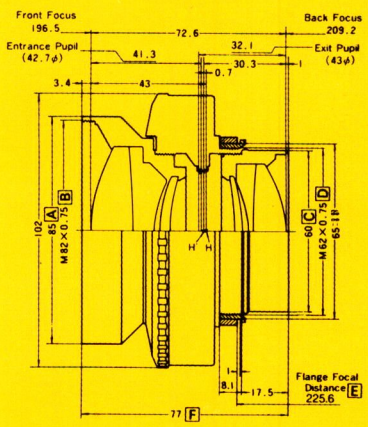
Product name:	1316
Focal length:	180mm
Maximum aperture:	f/5.6
Optical construction:	6 elements in 4 groups
Aperture range:	f/5.6-f/64
Covering power (f/5.6):	60°
Covering power (f/22):	70°
Image circle (f/5.6):	208mm diameter
Image circle (f/22):	253mm diameter (5''x7'')
Shutter:	Copal no. 1, designed 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):	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

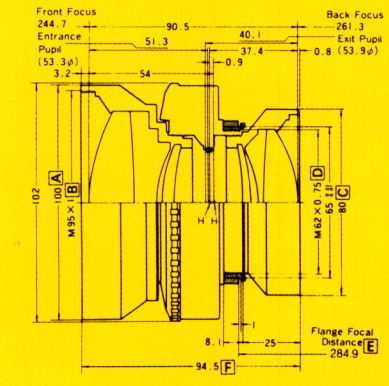
Product number:	1318
Focal length:	210mm
Maximum aperture:	f/5.6
Optical construction:	6 elements in 4 groups
Aperture range:	f/5.6-f/64
Covering power (f/5.6):	60°
Covering power (f/22):	70°
Image circle (f/5.6):	243mm diameter
Image circle (f/22):	295mm diameter (6½''x 8½)
Shutter:	Copal no. 1, designed 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):	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.)





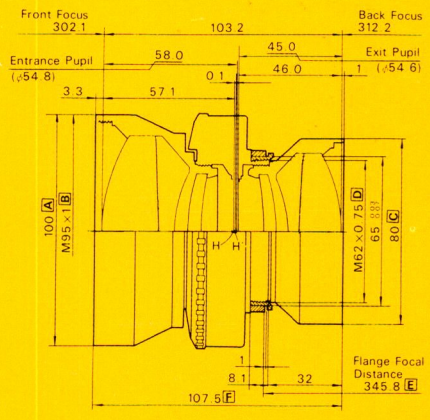
Nikkor-W 240mm f/5.6

Product number:	1319
Focal length:	240mm
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):	278mm diameter
Image circle (f/22):	336mm 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):	85mm diameter
Attachment size (B):	82mm dia. x 0.75mm (P)
Rear mount size (C):	60mm diameter
Flange attachment size (D):	62mm dia. x 0.75mm (P)
Flange focal distance (E):	225.6mm
Overall length (F):	77mm (3.0'')
Weight:	820g (28.9 oz.)



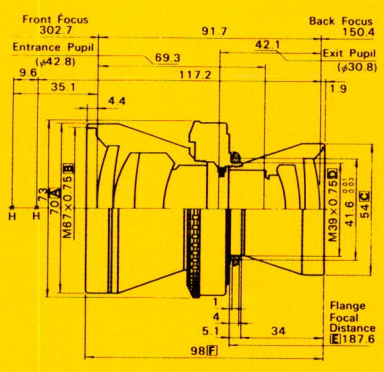
Nikkor-W 300mm f/5.6

Product name:	1320
Focal length:	300mm
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):	346mm diameter
Image circle (f/22):	420mm diameter (10''x12'')
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):	80mm diameter
Flange attachment size (D):	62mm dia. x 0.75mm (P)
Flange focal distance (E):	284.9mm
Overall length (F):	94.5mm (3.7'')
Weight:	1250g (44.1 oz.)



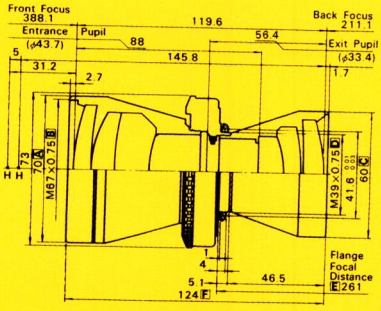
Nikkor-W 360mm f/6.5

Product number:	1327
Focal length:	360mm
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")
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):	80mm diameter
Flange attachment size (D):	62mm dia. x 0.75mm (P)
Flange focal distance (E):	345.8mm
Overall length (F):	107.5mm (4.2")
Weight:	1420g (50.1 oz.)



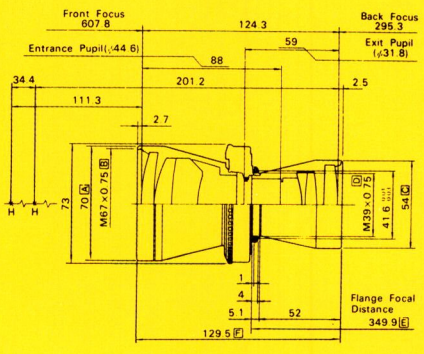
Nikkor-T ED 270mm f/6.3

Product number:	1352
Focal length:	270mm
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.)



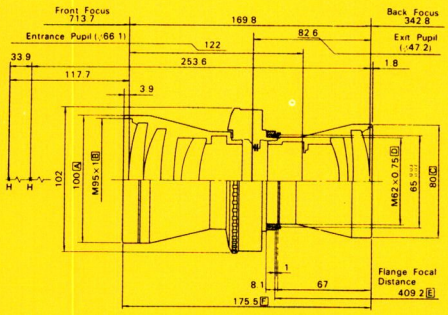
Nikkor-T ED 360mm f/8

Product name:	1353
Focal length:	360mm
Maximum aperture:	f/8
Optical construction:	5 elements in 4 groups
Aperture range:	f/8-f/64
Covering power (f/8):	24°
Covering power (f/22):	33°
Image circle (f/8):	154mm diameter
Image circle (f/22):	210mm diameter (5"x7")
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):	60mm diameter
Flange attachment size (D):	39mm dia. x 0.75mm (P)
Flange focal distance (E):	261.0mm
Overall length (F):	124mm (4.9")
Weight:	800g (28.2 oz.)



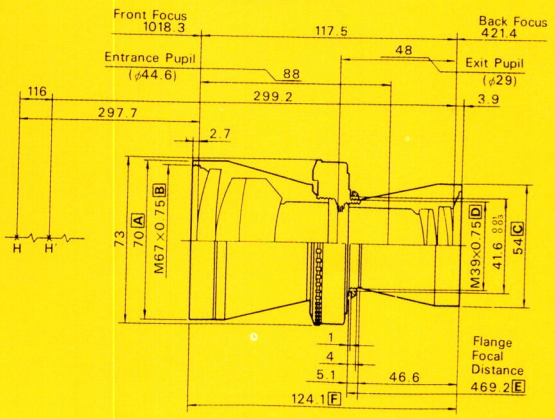
Nikkor-T ED 500mm f/11

Product number:	1354
Focal length:	500mm
Maximum aperture:	f/11
Optical construction:	6 elements in 4 groups
Aperture range:	f/11-f/64
Covering power (f/11):	17°
Covering power (f/22):	24°
Image circle (f/11):	154mm diameter
Image circle (f/22):	210mm diameter (5" x 7")
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):	54mm diameter
Flange attachment size (D):	39mm dia. x 0.75mm (P)
Flange focal distance (E):	349.9mm
Overall length (F):	129.5mm (5.1")
Weight:	760g (26.8 oz.)



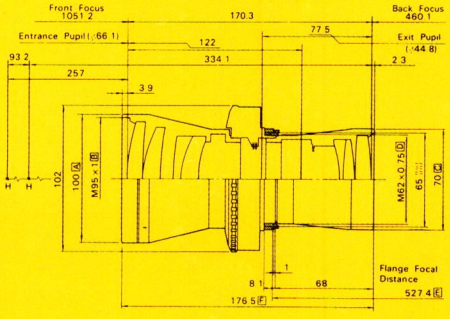
Nikkor-T ED 600mm f/9

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):	80mm diameter
Flange attachment size (D):	62mm dia. x 0.75mm (P)
Flange focal distance (E):	409.6mm
Overall length (F):	175.5mm (6.9'')
Weight:	1650g (58.2 oz.)



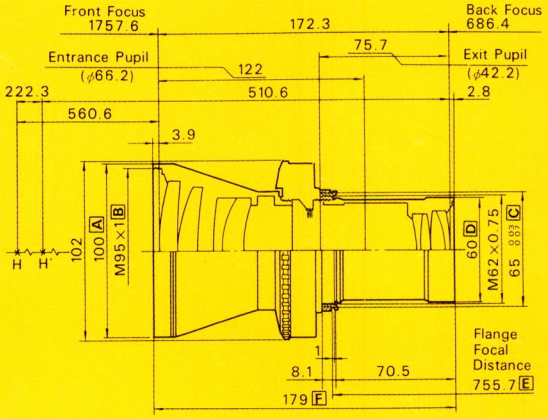
Nikkor-T ED 720mm f/16

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 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):	54mm diameter
Flange attachment size (D):	39mm dia. x 0.75mm (P)
Flange focal distance (E):	469.2mm
Overall length (F):	124.1mm (4.9'')
Weight:	780g (27.5 oz.)



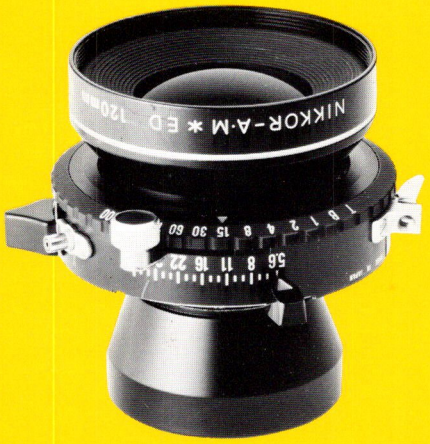
Nikkor-T ED 800mm f/12

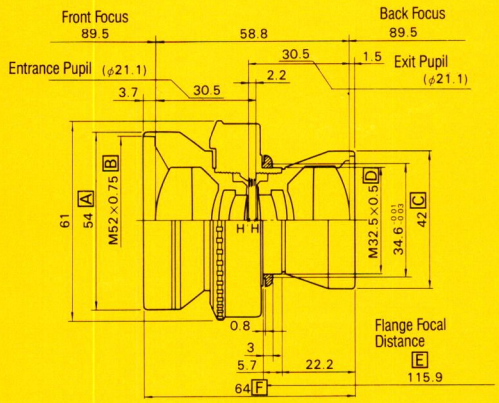
Product number:	1356
Focal length:	800mm
Maximum aperture:	f/12
Optical construction:	7 elements in 5 groups
Aperture range:	f/12-f/64
Covering power (f/12):	14°
Covering power (f/22):	22°
Image circle (f/12):	200mm diameter
Image circle (f/22):	310mm diameter (8" x 10")
Shutter:	Copal no. 3, designed 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):	70mm diameter
Flange attachment size (D):	62mm dia. x 0.75mm (P)
Flange focal distance (E):	527.4mm
Overall length (F):	176.5mm (6.9")
Weight:	1600g (56.4 oz.)



Nikkor-T ED 1200mm f/18

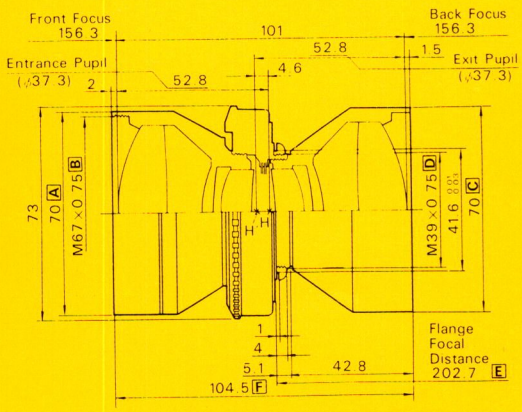
Product number:	1364
Focal length:	1200mm
Maximum aperture:	f/18
Optical construction:	8 elements in 5 groups
Aperture range:	f/18-f/64
Covering power (f/18):	10°
Covering power (f/22):	15°
Image circle (f/18):	200mm diameter
Image circle (f/22):	310mm diameter (8" x 10")
Shutter:	Copal no. 3, designed 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):	60mm diameter
Flange attachment size (D):	62mm dia. x 0.75mm (P)
Flange focal distance (E):	755.7mm
Overall length (F):	179mm (7.0")
Weight:	1480g (52.2 oz.)





Nikkor-AM ED 120mm f/5.6

Product number:	1325
Focal length:	120mm
Maximum 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:	1326
Focal length:	210mm
Maximum 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 '1:1
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 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.)

EL-Nikkor Enlarging Lenses

50mm f2.8N EL-Nikkor
50mm f4 EL-Nikkor
63mm f2.8N EL-Nikkor
75mm f4N EL-Nikkor
80mm f5.6N EL-Nikkor
105mm f5.6N EL-Nikkor
135mm f5.6 EL-Nikkor
150mm f5.6 EL-Nikkor
180mm f5.6 EL-Nikkor
210mm f5.6 EL-Nikkor
240mm f5.6 EL-Nikkor
300mm f5.6 EL-Nikkor
360mm f5.6 EL-Nikkor

Nikon's EL-Nikkor enlarging lenses are designed to handle virtually any printing job from the home darkroom to industrial laboratory. EL-Nikkor enlarging lenses are specifically computed for optimum performance at the most widely preferred enlargement sizes, according to focal length. Resolving power, contrast, evenness of illumination and flatness of field far exceed the capabilities of conventional optics. This ensures that every detail on the negative is transmitted clearly to the print.

Like all Nikon optics, EL-Nikkor enlarging lenses are constructed of our own optical glass—the first step in lens manufacturing to guarantee optimum performance. Their design is corrected for chromatic aberration beyond the visible spectrum into near-ultraviolet wavelengths to which photographic papers are particularly sensitive. This helps ensure against focus shift at every aperture and magnification. And, because of their near apochromatic color correction and exceptional contrast, EL-Nikkor lenses are especially prized by professional color printers.

The latest EL-Nikkors (denoted with an "N") feature transilluminated f/numbers and an adjustable aperture window to position the scale towards the user for convenience of operation. Others have dual, large-numeral aperture scales for easy visibility. All EL-Nikkor enlarging lenses are front-threaded to accept screw-in accessories for special effects work. Lenses from 50mm to 135mm are supplied in the universal (35mm) "Leica" thread mount.

EL-Nikkor Accessories

There are two kinds of accessory rings for mounting EL-Nikkor lenses onto process cameras of either the vertical (i.e., enlarger-type) or horizontal configuration. One side of the ring fits the attachment thread of the lens; the other side fits the screw mount thread (d=39mm, P=1/26″). The ring facilitates reverse mounting on a process camera by simple connection of the front filter attachment thread with the screw mount thread.

Reverse Adapter for 50mm f2.8N, 63mm f2.8N, 80mm f5.6N and 105mm f5.6N
Product Number 2641

Reverse Adapter for 50mm f4 and 75mm f4—**Product Number 2640**

EL-Extension Ring (15mm)

Some enlargers employ a slide-in mounting system which will accommodate a lens to which a base plate has been attached. This extension ring is designed for use with several EL-Nikkor lenses in which the rear lens element protrudes beyond the lens mount thread making regular mounting impossible.

Product Number 2642

Technical Specifications

Technical Specifications: EL-Nikkor Enlarging Lenses

	50mm f2.8N	50mm f4	63mm f2.8N	75mm f4N	80mm f5.6N	105mm f5.6N	135mm f5.6	150mm f5.6	180mm f5.6	210mm f5.6	240mm f5.6	300mm f5.6	360mm f5.6
Focal Length:	52.1mm	51.6mm	62.9mm	75mm	80.1mm	105.5mm	135mm	150mm	180mm	210mm	240mm	300mm	360mm
Aperture Range:	f2.8-16	f4-16	f2.8-16	f4-45	f5.6-32	f5.6-32	f5.6-45	f5.6-45	f5.6-45	f5.6-45	f5.6-45	f5.6-45	f5.6-45
Construction: (elements/ groups)	6/4	4/3	6/4	4/3	6/4	6/4	6/4	6/4	6/4	6/4	6/4	6/4	6/4
Standard Magnification:	8X	8X	8X	5X	5X	5X	5X	4X	4X	4X	3X	2X	2X
Usable Magnification Range:	2X-20X	2X-20X	2X-20X	2X-10X	2X-15X	2X-10X	2X-10X	2X-8X	2X-8X	2X-8X	1X-6X	1X-4X	1X-4X
Covering Power:	46°	46°	46°	52°	56°	51°	54°	54°	54°	54°	54°	52°	52°
Correction Wavelength Range:	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu	380-700mu
Original Size:	43.2mmϕ	43.2mmϕ	55.2mmϕ	80mmϕ	95mmϕ	120mmϕ	160mmϕ	190mmϕ	230mmϕ	270mmϕ	330mmϕ	440mmϕ	500mmϕ
Format Size:	24x 36mm	24x 36mm	32x 45mm	60x 60mm (2-1/4sq)	60x 70mm	60x 90mm	90x 120mm (4x5″)	100x 130mm (4x5″)	130x 180mm (5x7″)	130x 210mm (5x7″)	180x 240mm (8x10″)	270x 330mm (10x12″)	300x 400mm (11x14″)
Front Mount Size: (diam. x pitch)	—	—	—	—	—	—	46mmϕ x 0.5mm	53mmϕ x .75mm	62mmϕ x 1mm	72mmϕ x 1mm	82mmϕ x 1mm	100mmϕ x 1mm	130mmϕ x 1.5mm
Attachment Size: (diam. x pitch)	40.5mmϕ x 0.5mm	34.5mmϕ x 0.5mm	40.5mmϕ x 0.5mm	40.5mmϕ x 0.5mm	40.5mmϕ x 0.5mm	40.5mmϕ x 0.5mm	43mmϕ x 0.5mm	47mmϕ x 0.5mm	58mmϕ x 0.75mm	68mmϕ x 0.75mm	77mmϕ x 0.75mm	95mmϕ x 1mm	120mmϕ x 1mm
Rear Mount Size: (diam. x pitch)	39mmϕ x 1/26″	39mmϕ x 1/26″	39mmϕ x 1/26″	39mmϕ x 1/26″	39mmϕ x 1/26″	39mmϕ x 1/26″	39mmϕ x 1/26″ 45mmϕ x 1/26″	53mmϕ x 0.75mm	62mmϕ x 1mm	72mmϕ x 1mm	82mmϕ x 1mm	100mmϕ x 1mm	130mmϕ x 1.5mm
Flange Diameter:	—	—	—	—	—	—	—	74mm	88mm	98mm	108mm	131mm	165mm
Dimensions: (length x diam.)	1.5 x 2 in. (39 x 51mm)	1.1 x 1.8 in. (28 x 44.5mm)	1.7 x 2 in. (42.5 x 51mm)	1.3 x 1.8 in. (32 x 44.5mm)	1.5 x 2 in. (38.5 x 51mm)	1.6 x 2 in. (40 x 51mm)	1.9 x 2.2 in. (47.2 x 57mm)	2.2 x 2.4 in. (55.5 x 62mm)	2.5 x 2.9 in. (62.6 x 76mm)	3 x 3.2 in. (77 x 82mm)	3.2 x 3.8 in. (81.7 x 96mm)	3.8 x 4.6 in. (97 x 117mm)	4.7 x 5.6 in. (119 x 143mm)
Weight:	3.7 oz. (105g)	3.5 oz. (100g)	4.2 oz. (120g)	2.8 oz. (80g)	3.5 oz. (100g)	3.9 oz. (110g)	9.2 oz. (260g)	10.6 oz. (300g)	15.2 oz. (430g)	21.2 oz. (600g)	32.1 oz. (910g)	54.7 oz. (1550g)	95.2 oz. (2700g)
Product Number:	210	214	211	224	212	213	219	220	95101	222	95102	95103	95104

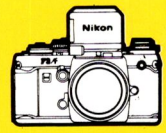
Specifications subject to change without notice.

Finder Accessories/Data Backs

Nikon F3

Nikon F3HP

Nikon F3/T



Nikon F3AF

DE-2
Eyelevel Finder

DX-1
Autofocus Finder

DE-3
High-eyepoint Finder

DW-3
Waist-level Finder

DW-4
6X High magnification Finder

DA-2
Action Finder

Focusing Screens

Replacement Eyepiece (standard size)

Eyepiece Correction Lenses (standard size)

DK-4
Rubber Eyecup

DB-4
Anti-cold Battery Holder

DK-1
Eyepiece Adapter (for Nikon F3HP, F3/T)

Eyepiece Correction Lenses (Large size)

Replacement Eyepiece (Large size)

DK-2
Rubber Eyecup

DG-2
Eyepiece Magnifier

DR-3
Right-angle Viewing Attachment

Focusing Screens

Eyepiece Correction Lenses

Replacement Eyepiece

DK-3
Rubber Eyecup

Nikon FA

Nikon FE2

Nikon FM2

Eyepiece Adapter

Eyepiece Correction Lenses

Rubber Eyecup

DK-5
Eyepiece Shield

Nikon N2020

Nikon N2000

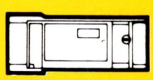
Nikon FG-20

Focusing Screens

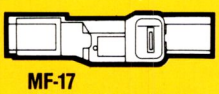
Nikon N4004

Data Backs

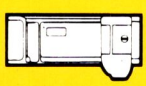
MF-14
Data Back (for F3-Series)



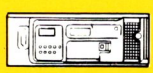
MF-16
Data Back (for FA, FE2, FM2)



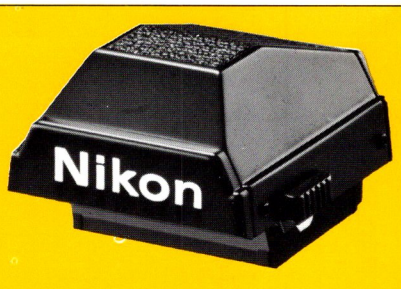
MF-17
Data Back (for F3 with MF-4 250-ex Magazine Back)



MF-18
Data Back (for F3-Series with MD-4 Motor Drive)

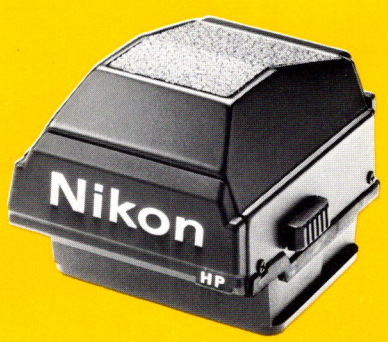


Inter-frame MF-19
Multi Data Back (for N2000, N2020)



Eyelevel Finder DE-2

Product number:	2382
Application:	Provides erect image, with eye-level viewing comfort; usable with all Nikon F3-Series cameras
Dimensions:	39mm(H) x 59mm(W) x 66mm(D)
Weight:	120g



High-Eyepoint Finder DE-3

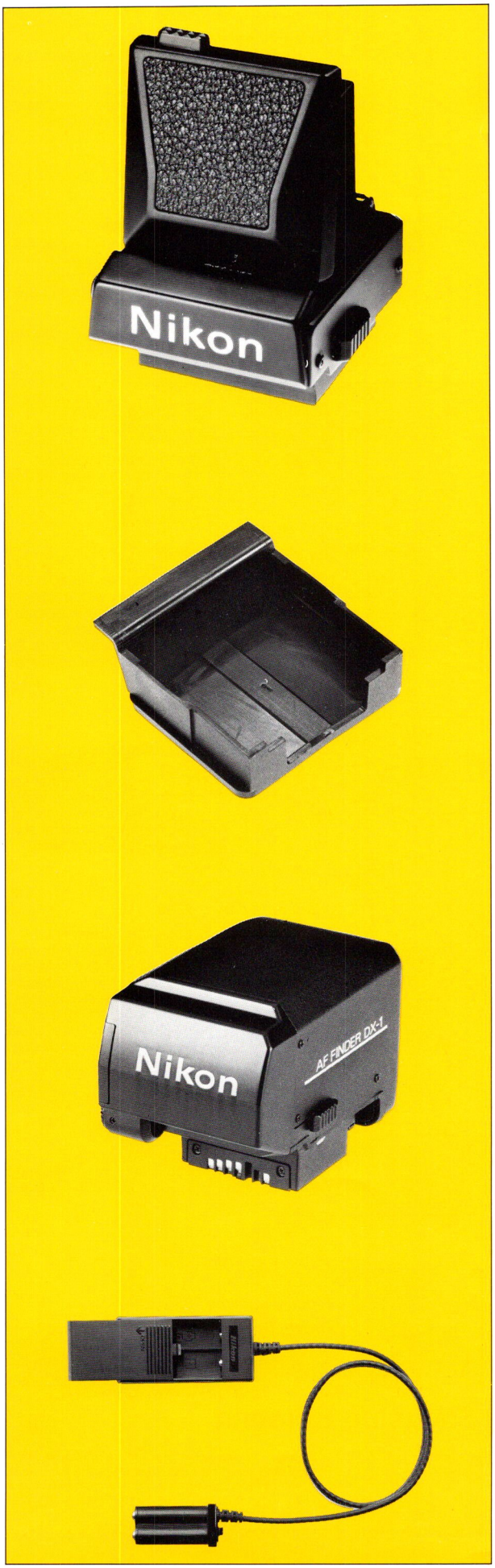
Product number:	2386
Application:	Provide erect image with eye-level viewing comfort; usable with all Nikon F3-series cameras; supplied with Nikon F3HP camera
Special characteristics:	The entire frame is visible with the eye up to 2.5cm (1 inch) away from the eyepiece
Dimensions:	52.5mm(H) x 43.5mm(W) x 69mm(D)
Weight:	165g

Action Finder DA-2

Product number:	2385
Application:	Provides extra-long eye relief to permit the photographer to use the camera in a housing, etc.; usable with all Nikon F3-series cameras
Special characteristics:	The entire frame is visible with the eye up to 8cm (3.3 inches) away from the eyepiece
Dimensions:	59.5mm(H) x 52.9mm(W) x 73.2mm(D)
Weight:	300g

6x High-Magnification Finder

Product number:	2384
Application:	Provides high magnification for critical focusing of photomicrography, etc.; usable with all Nikon F3-series cameras
Special characteristics:	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 operation
Dimensions:	54.2mm(H) x 26.5mm(W) x 59.6mm(D)
Weight:	220g



Waist-Level Finder DW-3

Product number: 2383

Application: 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

Special characteristics: Built-in, flip-up magnifier provides 5x magnification for accurate focusing

Dimensions: 73mm(H) x 54.2mm(W) x 59mm(D)

Weight: 90g

Viewfinder Bottom Cover

Product number: 2389

Application: Provides protection for finders and finder prisms

Autofocus Finder DX-1

Product number: 2381

Application: 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

Focusing screen: Fixed, built-in Fresnel/matte screen and focusing field

Viewfinder field: Approximately 92%

Power source: Two 1.5v, type-AAA (penlight) alkaline batteries

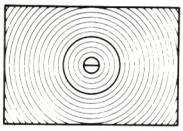
Dimensions: 55.5mm(W) x 62.5mm(H) x 90mm(D)

Weight: 365g (with batteries)

Anti-cold Battery Pack DB-4

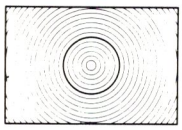
Product Number: 2032

Application: 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



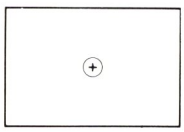
Product number: 2552

Description: Focusing Screen A
Focusing screen with matte Fresnel field; 12mm center reference circle and split-image rangefinder



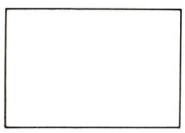
Product number: 2553

Description: Focusing Screen B
Focusing screen with matte Fresnel field and 12mm center reference circle; for macro photography and use with telephoto lenses



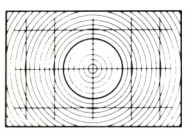
Product number: 2554

Description: Focusing Screen C
Fine matte focusing screen with clear center circle, crosshairs in 4mm center circle; for high magnifications



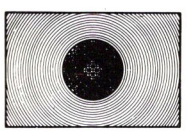
Product number: 2555

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

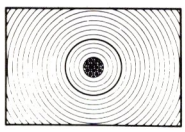


Product number: 2557 (G1)
2558 (G2)
2559 (G3)
2560 (G4)

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)
2562 (H2)
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

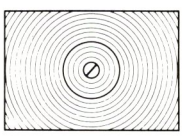


Product number: 2565

Description: Focusing Screen J
Focusing screen with matte Fresnel field, 4mm microprisms in 12mm center reference circle; excellent for general photography

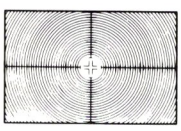
Product number: 2551

Description: Focusing Screen K
Combination of types A and J; excellent for general photography; provided as standard with Nikon F3HP



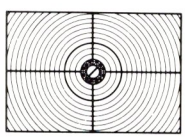
Product number: 2566

Description: Focusing Screen L
Corresponds to type A, but with diagonal (45°) split-image rangefinder; facilitates focusing on horizontal lines



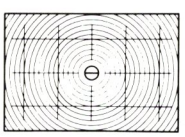
Product number: 2567

Description: Focusing Screen M
Clear glass with double crosshairs and millimetre scales; excellent for photomicrography with 6x High Magnification Finder DW-4



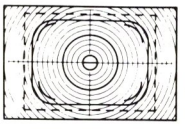
Product number: 2568

Description: Focusing Screen P
Focusing screen with matte Fresnel field, diagonal split-image, microprisms and 12mm center reference circle; also provided with vertical and horizontal central lines



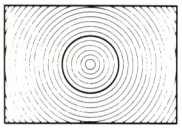
Product number: 2569

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



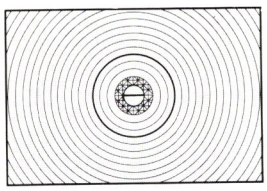
Product number: 2571

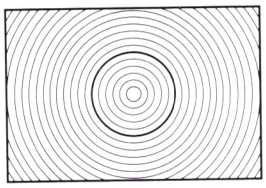
Description: Focusing Screen U
Similar to Focusing Screen B, but specially designed for lenses of 100mm or longer

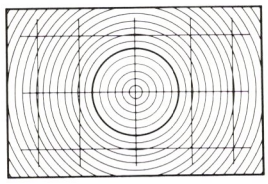
Combination Table for Lenses & Focusing Screens

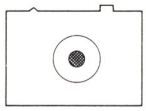
○	***Excellent:***	Fully compatible
◉	***Possible:***	The image is bright over the entire focusing screen but the microprism center or center of thed crosshairs is dark.
○	***Possible:***	Slight vignetting is visible on the focusing screen; however, this has no effect on the image quality.
△	***Possible:***	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

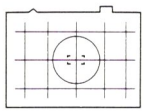
Lens Type	Focal Length	A/L/T	K/P	B/E	U	J	R	C	D	G1	G2	G3	G4	H1	H2	H3	H4
Fisheye	6 mmf/2.8	◎	◎	◎		◎	△	◉	◎	◎	○			◎	◎		
	8 mm f/2.8	◎	◎	◎		◎	△	◉	◎	◎	◎			◎	◎	◎	
	16 mm f/2.8	◎	◎	◎		◎	△			◎				◎			
Wide Angle	13 mm f/5.6	◉	◉	◎		◎	◎				○				◎		
	15 mm f/3.5	◎	◎	◎		◎	◎				○				◎		
	18 mm f/3.5	◎	◎	◎		◎	◎								○		
	20 mm f/2.8	◎	◎	◎		◎	◎							◎			
	24 mm f/2	◎	◎	◎		◎	△				◎			◎	○		
	24 mm f/2.8	◎	◎	◎		◎	△				◎			○	◎		
	28 mm f/2	◎	◎	◎		◎	△			◎	◎			○	◎		
	28 mm f/2.8	◎	◎	◎		◎	△			◎				◎			
	28 mm f/3.5	◎	◎	◎		◎	◎			○	○			○	◎		
	35 mm f/1.4	◎	◎	◎	○	◎	△				◎			○	◎		
	35 mm f/2	◎	◎	◎		◎	△			○	◎			○	◎		
	35 mm f/2.8	◎	◎	◎		◎	△				◎			○	◎		
Normal	50 mm f/1.2	◎	◎	◎	◎	◎	△				◎				◎		
	50 mm f/1.4	◎	◎	◎	◎	◎	△				◎				◎		
	50 mm f/1.8	◎	◎	◎		◎	△			◎	◎			◎	◎		
Telephoto	85 mm f/1.4	◎	◎	◎	◎	◎	△			○	◎			○	◎		
	85 mm f/2	◎	◎	◎	○	◎	△				◎			○	◎		
	105 mm f/1.8	◎	◎	◎	◎	◎	△				◎			○	◎		
	105 mm f/2.5	◎	◎	◎	◎	◎	△				◎			○	◎		
	135 mm f/2	◎	◎	◎	◎	◎	△	○	○		◎				◎		
	135 mm f/2.8	◎	◎	◎	◎	◎	△	○	○		◎				◎		
	135 mm f/3.5	◎	◎	◎	◎	◎	◎				◎				◎		
	180 mm f/2.8 ED	◎	◎	◎	◎	◎	△	○	○		◎				◎		
	200 mm f/2 IF-ED	◎	◎	◎	◎	◎	△	◎	◎		◎				◎		
	200 mm f/4	◎	◎	◎	◎	◎	◎	○	○		◎				◎		
	*300 mm f/2.0 IF-ED	◎	◎	◎	◎	◎	△	○	○			◎	◎				○
	300 mm f/2.8 IF-ED	◎	◎	◎	◎	◎	△	◎	◎		○	◎	○		◎	◎	○
	300 mm f/4.5	◎	◎	◎	◎	◎	◎	○	○			◎			○	◎	○
	300 mm f/4.5 IF-ED	◎	◎	◎	◎	◎	◎	○	○			◎			○	◎	○
	400 mm f/3.5 IF-ED	◎	◎	◎	◎	◎	◎	◎	◎			◎	○			◎	◎
	400 mm f/5.6 IF-ED	◉	◉	◎	◎	◎	◎	○	○			◎	○			◎	○
	600 mm f/4 IF-ED	◎	◎	◎	◎	◎	◎	○	○			○	○			○	○
	600 mm f/5.6 IF-ED	◉	◉	◎	◎	◎	◎	◎	◎				◎				◎
	800 mm f/8 IF-ED	◉	◉	◎	◎	◉	◉	◎	◎				◎				◎
	1200 mm f/11 IF-ED	◉	◉	◎	◎	◉	◉	◎	◎				○				◎
Zoom	25–50 mm f/4	◎	◎	◎		◎	◎								○		
	28–50 mm	◎	◎	◎		◎	◎										
	35–70 mm f/3.3–4.5	◎	◎	◎		◎	◎										
	35–70 mm f/3.5	◎	◎	◎		◎	◎				◎				◎		
	35–105 mm f/3.5–4.5	◎	◎	◎	○	◎	◎										
	35–135 mm f/3.5–4.5	◎	◎	◎	○	◎	◎										
	50–135 mm f/3.5	◎	◎	◎	○	◎	◎					○			○	○	
	50–300 mm f/4.5 ED	◎	◎	◎	○	◎	◎					○			◎	○	
	80–200 mm f/2.8 ED	◎	◎	◎	○	◎	△				○	◎	○		○	◎	○
	80–200 mm f/4	◎	◎	◎	○	◎	◎					○				◎	○
	100–300 mm f/5.6	◉	◉	◎	◎	◎	◎										
	180–600 mm f/8 ED	◉	◉	◎	◎	◉	◉	◎	◎			○	◎			○	◎
	360–1200 mm f/11 ED	◉	◉	◎	◎	◉	◉	◎	◎				○				○
AF	80 mm f/2.8 AF	◎	◎	◎	○	◎	△				◎	○			○	○	
	200 mm f/3.5 AF-ED	◎	◎	◎	◎	◎	◎	○	○		○	◎			○	○	○
PC	28 mm f/3.5	◉	◉	◎		◎	◎										
	35 mm f/2.8	◉	◉	◎		◎	◎										
Noct.	50 mm f/1.2	◎	◎	◎	◎	◎	△				◎			○	◎		
Micro	55 mm f/2.8	◎	◎	◎		◎	△			○	◎			○	◎		
	105 mm f/2.8	◎	◎	◎	◎	◎	◎				◎			○	◎		
	200 mm f/4 IF	◎	◎	◎	◎	◎	◎	○	○			○				○	○
Medical	120 mm f/4 IF	◎	◎	◎	◎	◎	◎	○	○			○			◎	○	
Reflex	500 mm f/8	◉	◉	◎	◎	◉	◉	○	○								
	1000 mm f/11	◉	◉	◎	◎	◉	◉	○	○							○	○
	2000 mm f/11	◉	◉	◎	◎	◉	◉	◎	◎			○	◎				◎
Series E	28 mm f/2.8	◎	◎	◎		◎	△			◎				◎			
	35 mm f/2.5	◎	◎	◎		◎	△			◎	◎			◎	○		
	50 mm f/1.8	◎	◎	◎		◎	△			◎	◎			◎	◎		
	100 mm f/2.8	◎	◎	◎	◎	◎	△				◎			○	◎		
	135 mm f/2.8	◎	◎	◎	◎	◎	△	○	○		◎				◎		
	75–150 mm f/3.5	◎	◎	◎	○	◎	◎				○				○		
	70–210 mm f/4	◎	◎	◎	○	◎	◎								○		

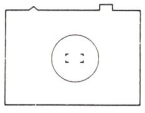












Focusing Screens for Nikon FA, FE2, FM2 Cameras

Product number: 2420

Description: Focusing Screen K2
Focusing screen with matte Fresnel field with split-image rangefinder and microprism collar; 12mm center reference circle; for general photography; provided as standard with camera

Product number: 2421

Description: 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: 2422

Description: 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 FE2/FM2 (focusing screens K2, B2/E2) are brighter than those for FE and 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 FE/FM2 (flash synchronization X200) are used in an FE2) the exposure must be corrected by -1/3 aperture.
If the focusing screens for FE2 are used in an FE/FM2 (flash synchronization X200), the exposure must be corrected by +1/2 aperture in the case of FE and by +1/3 aperture in the case of the FM2

Focusing Screens for Nikon N2020 Cameras

Product number: 2423

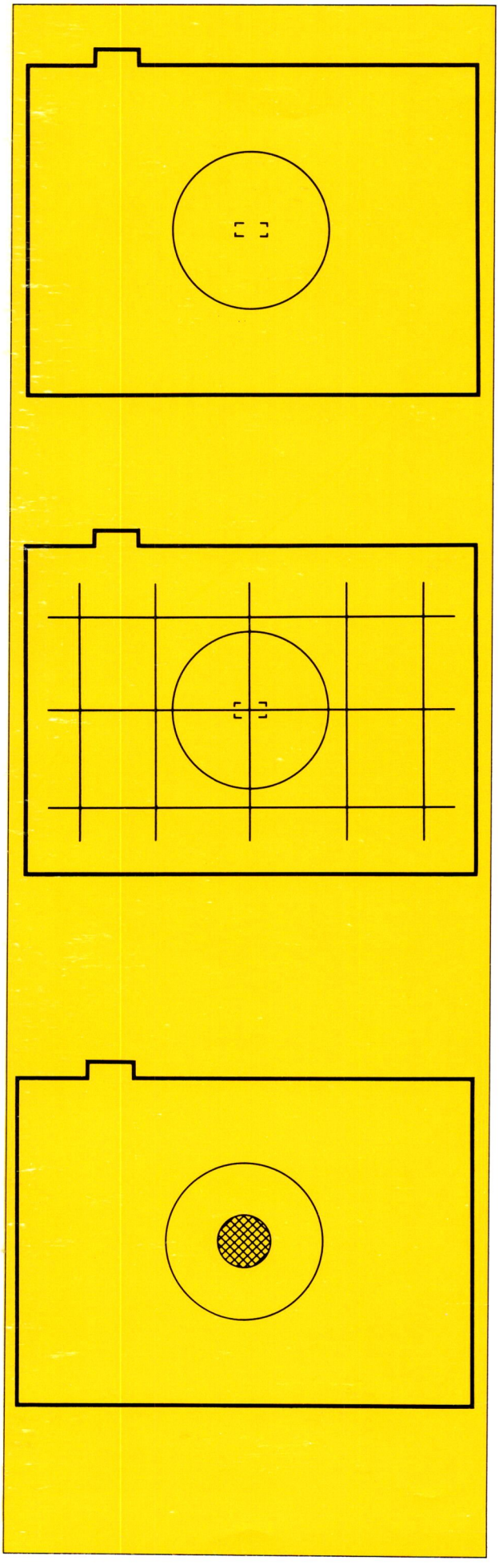
Description: Focusing screen with matte Fresnel field and 12mm center reference circle and focusing zone; for general photography; provided as standard with the camera

Product number: 2424

Description: Focusing Screen E
Focusing screen with matte Fresnel field, 12mm center reference circle; vertical and horizontal grid lines and focusing zone; excellent for architectural photography and reproduction

Product number: 2425

Description: Focusing Screen J
Focusing screen with matte Fresnel field, 4mm microprisms in 12mm center reference circle, excellent for general photography



Focusing Screens for Nikon N8008

Product number: 2426

Description: 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 the Nikon N8008 camera

Product number: 2427

Description: Type E 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: 2428

Description: 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

Rubber Eyecup for Nikon N2000, N2020

Product number: 2939

Rubber Eyecup DK-3 for Nikon FA, FE2, FM2

Product number: 2362

Rubber Eyecup DK-4 for Nikon F3, F3/T

Product number: 2379

Rubber Eyecup DK-2 for Nikon F3HP, F3IT

Product number: 2406

Eyepiece Magnifier DG-2

Product number: 2355

Description: 2x magnification of the central portion of the finder image; diopter adjustment of from -5 to +1 provided; rubber eyecup built-in

Special characteristics: 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 and N2020

Right-angle Viewing Attachment DR-3

Product number: 2326

Description: 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

Eyepiece Adapter for Nikon N2000, N2020

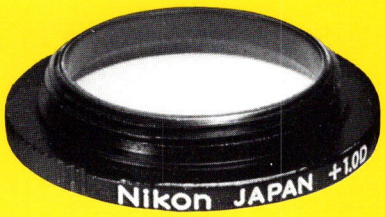
Product number: 2370

Application: For attaching all eyepiece accessories (e.g., Eyepiece Magnifier DG-2) to Nikon N2000 and N2020 cameras

Eyepiece Adapter DK-1 for Nikon F3HP, F3/T

Product number: 2388

Application: 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



Nikon F3, F3AF

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 Eyepiece

Nikon F3HP, F3/T

Product number:	Correction
2953	— 2 diopter
2950	0 diopter
2951	+ 1 diopter
2952	+ 2 diopter
	Replacement Eyepiece

Nikon FA, FE2, FM2

Product number:	Correction
2938	— 5 diopter
2937	— 4 diopter
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

Nikon N2000, N2020

Product number:	Correction
2948	— 5 diopter
2947	— 4 diopter
2946	— 3 diopter
2945	— 2 diopter
2940	0 diopter
2941	+ 0.5 diopter
2942	+ 1 diopter
2943	+ 2 diopter
2944	+ 3 diopter

DK-6 Rubber Eyecup for Nikon N8008

Product number: 2393

DK-7 Eyepiece Mounting Adapter for Nikon N8008

Product number: 2394

Application: 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

DK-8 Eyepiece Cap for Nikon N8008 (repl.)

Product number: 2395

Application: Prevent stray light from entering the camera's finder; excellent for unmanned/remote shooting; supplied with camera

Finder Eyepiece (repl.) & Eyepiece Correction Lenses for Nikon N8008

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.)

Data Back MF-14

Product number:	4411
Description:	Data Back MF-14
Possible data:	Three options only one of which is selectable at time: Year/month/day/hour/minute or reference numbers to 2000
Data imprinting:	Via six red LEDs
Data display:	Via LCD at rear of unit
Audible warning:	Provided; sounds for 20 sec. at the time set
Power source:	Two 1.5v silver-oxide button-cell type batteries
Dimensions:	148.5mm(W) x 53.5mm(H) x 26mm(D)
Weight:	85g (without batteries)
Optional accessories:	Case Base Portion CF-23D

250-Exposure Data Back Set MF-17

Product number:	140 (Includes P/N 134 and 4419)
Application:	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
Possible data:	Three possible, simultaneously: Year/month/day/hour/minute/second and hand-written data display
Power source:	Four 1.5v AA-type penlight alkaline batteries
Number of flashes:	Flash recycling time: 1 per second, 6 per second. Alkaline batteries: About 3000 flashes, About 500 flashes
Dimensions:	299mm(W) x 69mm(H) x 78mm(D)
Weight:	690g (MF-17 only)

Data Back MF-18

Product number:	4568
Application:	Provides for data imprinting between frames for all Nikon F3-Series cameras; enables auto film stop operation with optional Motor Drive MD-4
Possible data:	Three options only one of which is selectable at time: Year/month/day/hours/minutes/seconds or reference numbers to 2000
Data imprinting:	Via six red LEDs
Data display:	Via LCD at rear of unit
Power source:	Two 1.5v silver-oxide button-cell type batteries
Dimensions:	148.5mm(W) x 68.5mm(H) x 30.2mm(D)
Weight:	100g (without batteries)

Data Back MF-16 for FA, FE2, FM2 Cameras

Product number:	4526
Possible data:	Three options only one of which is selectable at time: Year/month/day/hour/minute or reference numbers to 2000
Data imprinting:	Via six red LEDs
Data display:	Via LCD at rear of unit
Audible warning:	Provided; sounds for 20 sec. at the time set
Power source:	Two 1.5v silver-oxide button-cell type batteries
Dimensions:	142.7mm(W) x 53.2mm(H) x 26.5mm(D)
Weight:	90g (without batteries)
Optional accessories:	Case Base Portion CF-27D

Multi Data Back MF-19 for Nikon N2000/N2020

Product number:	4569
Possible data:	Five possible, only one of which is selectable at time: year/month/day/hour/minute or reference numbers to 999999
Interval function:	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
Timeswitch function:	Maximum 99 shots daily at the time set, for up to 99 days, or monthly on a fixed day for up to 99 months
Alarm function:	Provided; can be set to operate daily, if desired
Data imprinting:	Via six red LEDs (seven-segment type)
Data display on back:	Via LCD panel
Power source:	Two 1.5v silver-oxide button-cell type batteries
Dimensions:	147.4mm(W) x 53.2mm(H) x 24.5mm(D) (5.7″ x 2.1″ x 1.0″)
Weight:	90g (3.2 oz.) (without batteries)

MF-20 Data Back

Product number:	4620
Usable camera:	Nikon N8008 camera
Application:	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
Usable film speed:	ISO 32-3200
Power source:	One CR2050 battery (supplied)
Dimensions:	5.5" x 2.4" x 1.0" (WxHxD)
Weight:	2.5 oz. (without battery)

MF-21 Multi-Control Back

Product number:	4621
Usable camera:	Nikon N8008 camera
Application:	Provides for data imprinting on film and other special control functions in combination with the Nikon N8008 camera
Data imprint:	Imprinting of date, time, sequence #, frame number, shutter/aperture information or fixed number possible via selection; data imprinted within the picture frame
Other functions:	Interval/timer, automatic exposure bracketing, long-time exposure control and "Freeze" focus 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 99hr., 59 min., 59 sec.
Usable film speed:	ISO 25-3200
Power source:	Two CR2050 batteries (supplied)
Dimensions:	5.5" x 2.4" x 1.1" (WxHxD)
Weight:	3.2 oz. (without batteries)

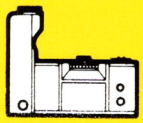
Motor Drive/Remote Control Accessories

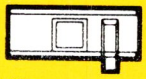
Nikon F3

Nikon F3HP

Nikon F3/T

Nikon F3AF


MD-4
Motor Drive


MF-6B
Auto-Rewind-Stop Back

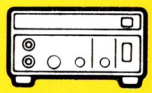
MH-2NiCd
Battery Charger

MC-11
Power Connecting Cord

MK-1
Firing Rate Converter

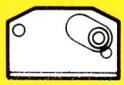
AH-3
Tripod Mounting Adapter

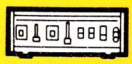
MN-2
NiCd Battery Unit



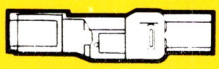
MF-4
250-exposure Magazine Back

MZ-1
250-exposure Film Cassette


Bulk Film Loader

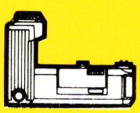

MT-2
Intervalometer

MC-12A
Motor Remote Trigger Cord


MF-17
Data Back (250-exposure)

MR-3
Motor Terminal Release

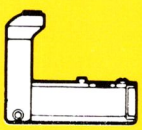
Nikon FA


MD-15
Motor Drive

Nikon FE2

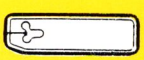
MC-10
Motor Remote Trigger Cord

Nikon FM2


MD-12
Motor Drive

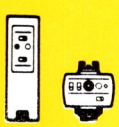
MC-4A
Motor Remote Cord (3 ft.)

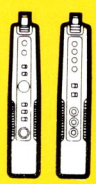
Nikon N2020


AH-3
Tripod Mounting Adapter

Nikon N2000

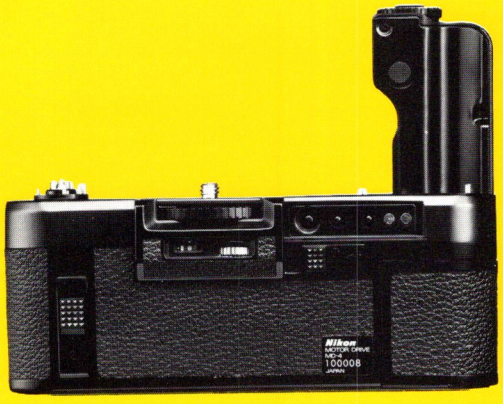
Nikon FG-20


ML-1
Modulite Remote Control Set


MW-2
Wireless Remote Control Set

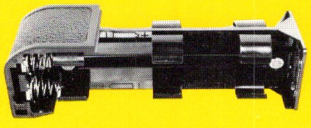
Pistol Grip Model II

MC-3A
Coiled Cord for Pistol Grip



Motor Drive MD-4 for Nikon F3 Series

Product number:	120
Compatible cameras:	Nikon F3 Series
Shooting speeds:	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:	Single frame (S) continuous (C) via S-C mode selector; lock (L) position provided
Exposure meter power:	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:	16.9 oz (480g)
Dimensions:	155mm (W) x 146.5mm (H) x 71mm (H)



AA Battery Holder MS-3

Product number:	127
Application:	Holder for eight AA-type (penlight) batteries used to power the Motor Drive MD-4

NiCd Battery Charger MH-2

Product number:	126
Application:	Quick-charge unit for NiCd Battery MN-2
Dimensions:	127mm(W) x 78mm(H) x 57mm(D)
Weight:	560g

NiCd Battery Unit MN-2

Product number:	125
Application:	Rechargeable power source for Motor Drive MD-4
Recharging time:	3½ hours continuous charging
Dimensions:	114mm(W) x 43mm(H) x 37mm(D)
Weight:	250g

Auto-Rewind-Stop Camera Back MF-6B

Product number:	136
Application:	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
Other accessories:	AC/DC Converter Misc. Remote Control Cords MC-4A, MC-10, MC-12A

250-Exposure Magazine Back MF-4

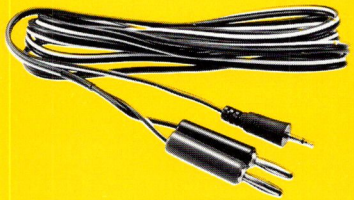
Product number:	134
Compatible camera:	All Nikon F3-Series camera bodies without modification
Compatible Motor Drive:	Nikon Motor Drive MD-4
Film cassette:	Film Cassette MZ-1 (2 each)
Shooting mode:	Single frame (S) or continuous (C) via mode switch on hand grip at front of MF-4
Shooting speed:	Max. 6 fps (at a shutter speed of 1/125 sec or faster) with the mirror in the "up" position and using NiCd Battery Unit MN-2
Shutter speeds:	8 sec to 1/2000 sec, A (Auto), X (1/80), T and B
Automatic film stop:	Film advance stops automatically when the subtractive frame counter reaches "O" setting; in the event of defective film advance operation, Motor Drive MD-4 senses the film tension and stops automatically
Battery check:	If both LEDs light up, full battery power is available; if only one LED lights up drop in power is indicated; no LED lights up indicates batteries should be replaced immediately
Power supply:	AA-type (penlight) batteries (8 x 1.5v DC) via AA Battery Holder MS-3 of motor drive; NiCd Battery Unit MN-2 (16.8 VDC) with motor drive; AC power via AC/DC Converter MA-4 with motor drive
Remote control:	Suitable for operation with remote control cords MC-4A or MC-12A, with wireless remote control MW-2, with Modulite Remote Control Set ML-1 or with Intervalometer MT-2
Dimensions:	303.2mm(W) x 98.5mm(H) x 84mm(D)
Weight:	About 1.1 kg (MF-4 only, without film cassettes)

250-Exposure Film Cassette MZ-1

Product number:	2077
Application:	Operation with 250-Exposure Magazine Back MF-4

Bulk Film Loader

Product number:	2080
Application:	For use loading 250-Exposure Film Cassette MZ-1 with up to 250 frames



External Signal Connecting Cord MC-14

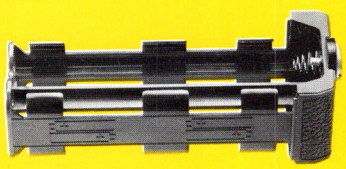
Product number:	135
Application:	For remote operation with Magazine Back MF-4, it may be useful to know when the film is at an end or when the desired number given by the frame counter has been reached; the External signal connecting cord MC-14 is used for this purpose; One end of this cord fitted with 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

Motor Drive MD-12 for Nikon FE2/FM2 & FA

Product number:	102
Compatible cameras:	Nikon FE2, Nikon FM2 and Nikon FA
Shooting speeds:	Up to about 3.5 fps (at shutter speeds of 1/123 sec. faster)
Shooting modes:	Single frame (S), continuous (C) via selector dial at top of grip on motor drive
Usable shutter speeds:	With "S" setting, 1-4000 sec (FM2); 8-1/4000 sec, Auto, M250 (FE2). With "C" setting, 1/2-1/4000 sec (FM2); 8-1/4000 sec, Auto, M250 (FE2)
Pilot light:	LED lights up during each film advance operation
Motor power switch:	On/Off switch provided at rear of MD-12
Exposure meter power:	The motor release button also serves as camera On/Off switch; power switches off automatically after approximately 50 seconds
Remote control:	Possible via integral 3-pin jack at front of motor drive
Power source:	AA-type (penlight) batteries (8 x 1.5VDC) via battery holder
Weight:	410g (without batteries)
Dimensions:	144mm(W) x 109.5mm(H) x 68.5mm(D)
Other accessories:	Miscellaneous Remote Control Cords MC-4A, MC-10, MC-12A

AA Battery Holder (for MD-12)

Product number:	104
Application:	Holder for eight AA-type (penlight) batteries used to power the Motor Drive MD-12



AA Battery Holder MS-4

Product number:	113
Application:	Holder for eight AA-type (penlight) batteries used to power the Motor Drive MD-14/15

Motor Drive MD-15 (for Nikon FA)

Product number:	115
Compatible cameras:	Nikon FA
Shooting speeds:	Up to about 3.2 fps (at shutter speeds of 1/125 sec. and faster)
Shooting modes:	Single frame (S) and continuous (C) and locked mode (L) via selector dial a top of grip on motor drive
Exposure meter power:	The motor shutter release button also serves as camera On/Off switch; power switches off automatically after approximately 16 seconds
Remote control:	Possible via integral 3-pin jock at front of motor drive
Power source:	AA-type (penlight) batteries (8 x 1.5 VDC) via AA Battery Holder MS-4
Weight:	About 390g (without batteries)
Dimensions:	147.5mm(W) x 99mm(H) x 73mm(D)
Other accessories:	Miscellaneous Remote Control Cords MC-4A, MC-10, MC-12A

Modulite Remote Control Set ML-1

Product number:	72
Operating range:	Up to 60m (100 ft) maximum
Operating modes:	Single-frame (S) and continuous (C), as well as either of two channels (1 and 2) via selector
Power source:	Transmitter, four 1.5V AA-type (penlight) batteries; Receiver, one 9V alkaline battery
Operation life:	Approximately 750 firing cycles per set of fresh batteries
Camera connection:	Via MC-8A Motor Connection Cord (supplied) connected to remote control terminal provided on motor drive
Dimensions:	Transmitter, 40mm x 40mm x 130mm; Receiver, 50mm x 62mm x 80mm
Weight:	Transmitter, 130g (without batteries); Receiver, 170g (without battery)

Note: Receiver and transmitter units are also available separately.

Wireless Remote Control Set MW-2

Product number:	141
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
Power source:	Four 1.5V AA-type (penlight) batteries for each unit
Dimensions:	Transmitter, 36mm x 70mm x 203mm Receiver, 36mm x 70mm x 203mm
Weight:	Transmitter, 364g (without batteries); Receiver, 354g (without batteries)

Motor Connecting Cord MC-8A (replacement)

Product number: 4585

Application: For connecting Modulite Remote Control Set ML-1 to motor drive remote terminal

Motor Remote Trigger Cord MC-10

Product number: 131

Application: 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: 132

Application: For connecting AC/DC converter MA-4 and Motor Drive MD-4

Motor Remote Triggering Cord MC-12A

Product number: 4586

Application: 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: 4563

Application: 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: 137

Application: Simultaneous triggering of two motorized SLR cameras; cord length 3m (10 ft.)

Multi-Motor Connecting Cord MC-17S

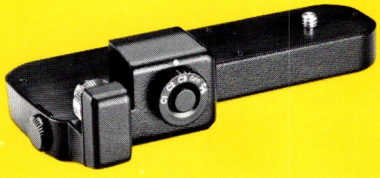
Product number: 138

Application: Simultaneous triggering of two motorized SLR cameras; cord length 0.4m (15 in.)

Tripod Mounting Adapter AH-3

Product number: 4580

Application: 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

Product number: 121

Application: Enable the selection of specific firing rates for operation of Motor Drie MD-4

Shooting speeds: Selector provides firing choice of 1fps (C1), 2fps, (C2), 3fps (C3) or unrestricted speed as determined by motor operation (C/S)

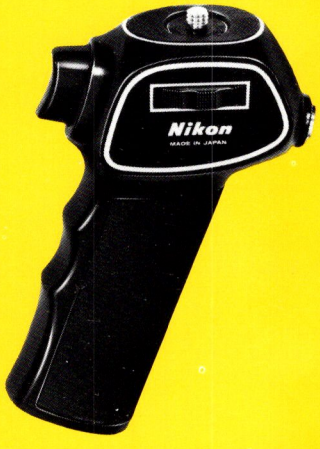
Dimensions: 146.5mm x 33.5mm x 75mm

Weight: 150g

AA Battery Holder MB-3

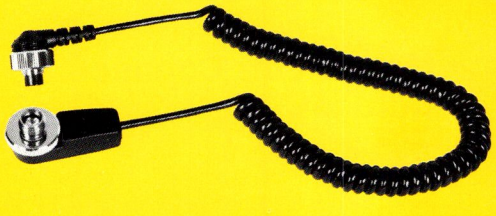
Product number: 4570

Application: 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

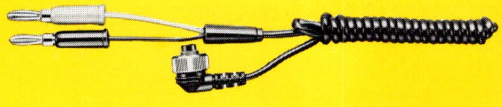
Product number: 45



Coiled Cord MC-3A for Pistol Grip

Product number: 4582

Application: 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



Motor Remote Cord MC-4A

Product number: 4583

Application: 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

AC/DC Converter MA-4

Product number: 42

Application: 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

Dimensions: 70mm(H) x 135mm(W) x 140mm(D)

Weight: 2400g

Power Connecting Cord MC-2

Product number: 25

Application: For connecting AC/DC Converter MA-4 and Motor Drive MD-1/2/3

Intervalometer MT-2

Product number: 128

Application: Provide precisely timed firing of motorized SLR cameras for technical applications such as time-lapse and work-sampling photography; Motor Connecting Cord MC-16A provided

Pulse duration: 0.1 sec to 30 min

Shooting interval: 0.1 sec to 27 hours

Power source: Four 1.5V AA-type (penlight) batteries

Battery tester: Provided

Remote trigger: Possible

Dimensions: 60mm(H) x 150mm(W) x 130mm(D)

Weight: 730g

Motor Connecting Cord MC-16A (replacement)

Product number: 4587

Application: For connecting Intervalometer MT-2 to motorized camera

Speedlight/Flash Accessories

Nikon F3

Nikon F3HP

Nikon F3T

Nikon F3AF

Nikon FA

Nikon FE2

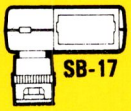
Nikon FM2

Nikon N2000

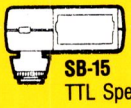
Nikon N2020

Nikon FG-20

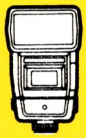
SB-21A/B
TTL Macro Speedlight


SB-17

SW-6


SB-15
TTL Speedlight

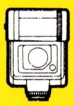
SW-7
Wide-Flash Adapter


SB-16A/B
TTL Speedlight

SB-18
TTL Speedlight

SC-15
Coiled Sync Cord

SB-19
TTL Speedlight


SB-20/22
AF TTL Speedlight

AS-8
Flash Unit Coupler

AS-9
Flash Unit Coupler

SB-11
TTL Speedlight

SW-3
Wide-Flash Adapter

SK-4
Flash Mounting Bracket

SW-5/SW-5V/SW-5VY/
SW-51R
Wideangle attachment

SB-14/140
Speedlight

SC-18
Connecting cord

SD-7
Battery Pack

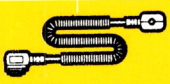
SK-5
Flash Mounting Bracket

SC-11
Sync cord

SB-6
Repeating Flash

SU-1
Sensor Unit

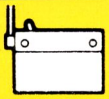
SC-9
Sensor Remote Cord


SC-17
TTL cord

SC-18/19
TTL Multiflash
Connecting Cord

AS-10
TTL Multiflash Adapter

AS-11
Tripod Adapter


DC-1
Battery Pack

AS-3
Flash Unit Coupler

AS-4
Flash Unit Coupler

SC-14
TTL Sensor Remote
Cord

AS-5
Flash Unit Coupler

AS-6
Flash Unit Coupler

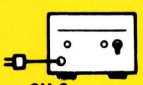
SC-13
Sensor Remote Cord

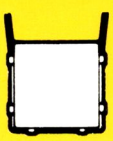
AS-7
Extension Coupler

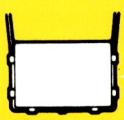
SC-23
Cord for TTL Metering

SC-12
Cord for TTL Metering

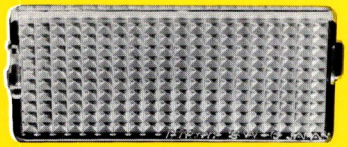
SU-13
Sensor Unit

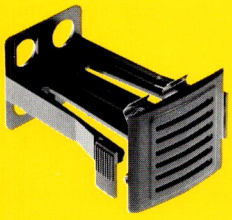

SH-3
Battery charger


SA-3
AC Unit


SD-5
Batterieteil
Alimentation réseau

SN-3
Batterie NiCd
Pile NiCd





SW-6 Wide Flash Adapter

Product number:	4521
Application:	Provides diffusion sufficient to enable use of speedlight unit with 28mm lens; operable with SB-15/17 Speedlights

SB-17 TTL Speedlight

Product number:	4547
Light output control:	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
Guide number:	GN 25 or GN 18 with SW-6 wide-flash adapter (ISO 100 and meters)
Angle of coverage:	60° horizontal and 45° vertical as normal; 70° horizontal and 53° vertical with diffusion; SW-6 Wide-Flash Adapter provided
Number of flashes:	Approximately 160 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
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 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:	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:	Four 1.5V AA-type (penlight) batteries
Other features:	Open-flash button; sync flash terminal; TTL multi-flash terminal; bounce head pivots to 90°; supplied with SS-17 Pouch Case, MS-6 Battery Holder and SW-6 Wide-Flash Adapter
Dimensions:	101mm x 90mm x 42.5mm
Weight:	300g (11 oz.), without batteries

MS-6 AA Battery Holder

Product number:	4553
Application:	Provides mounting for four AA-type penlight batteries; operable with SB-15/17 Speedlights

SW-7

AS-8

MS-5

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 possible at one time

Dimensions (WxHxD): 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

Product number: 4550

Application: 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

Product number: 4552

Application: Provides mounting for batteries used to power SB-16

AS-8 Flash Unit Coupler

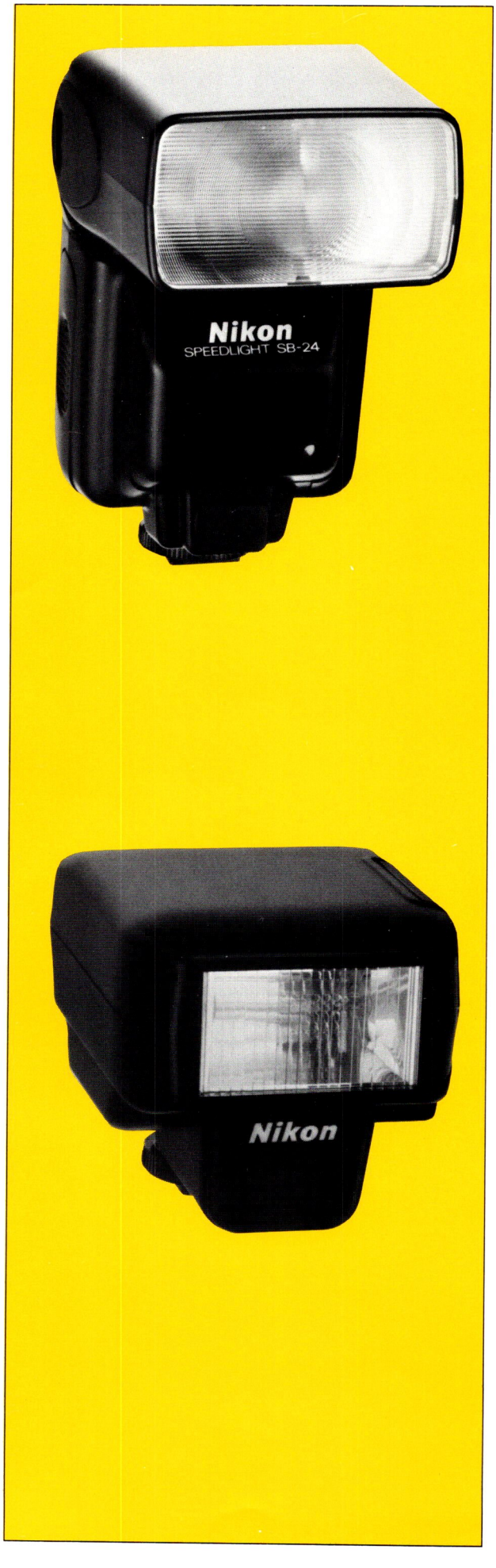
Product number: 4544

Application: 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 cameras

AS-9 Flash Unit Coupler

Product number: 4545

Application: 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

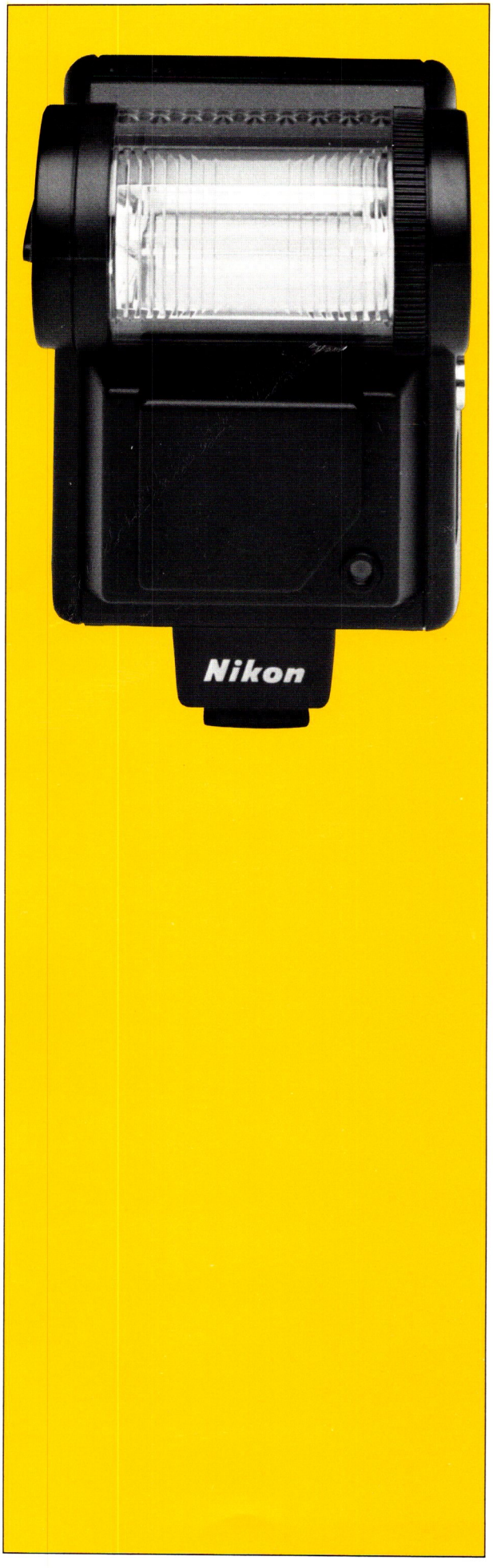


SB-24 AF TTL Speedlight

Product number:	4705
Type of unit:	High-power dedicated electronic flash unit equipped with AF illuminator and capable of TTL automatic flash operation with most Nikon SLR cameras
Guide number:	98 to 164 (24mm to 85mm lens coverage) via power zoom head mechanism (ISO 100, feet)
Number of flashes:	Approximately 100 full-power flashes with one set of fresh alkaline-manganese batteries
Special features:	Equipped with zoom/bounce flash head, rear-curtain sync (N8008), manual flash settings to 1/16 power level and stroboscopic operation
Autofocus illuminator:	Provided for low-light AF operation with Nikon N2020, N4004 and N8008 autofocus SLR cameras
Power source:	Four AA-type (penlight) batteries; external power usable via special socket connection provided
Dimensions:	3.1" x 5.2" x 3.9" (WxHxD)
Weight:	13.8 oz. (without batteries)

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:	Four AA-type (penlight) batteries
Dimensions:	2.5" x 2.6" x 3.3" (WxHxD)
Weight:	4.9 oz. (without batteries)



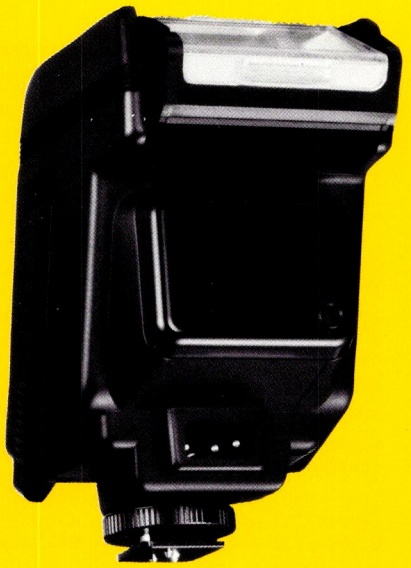
SB-20 AF TTL Speedlight

Product number:	4700
Type of unit:	High-power dedicated electronic flash unit equipped with AF illuminator and capable of TTL automatic flash operation with most Nikon SLR cameras
Guide number:	72 to 118 (28mm to 85mm lens coverage) via rotatable flashtube mechanism (ISO 100, feet)
Number of flashes:	Approximately 150 full-power flashes with one set of fresh alkaline-manganese batteries
Special features:	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
Autofocus illuminator:	Provided for low-light AF operation with Nikon N2020, N4004 and N8008 autofocus SLR cameras
Power source:	Four AA-type (penlight) batteries; external power usable via special socket connection provided
Dimensions:	2.8" x 4.3" x 2.7" (WxHxD)
Weight:	9.2 oz. (without batteries)

AS-15 Sync Terminal Adapter

Product number:	3066
Application:	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

SB-22 AF TTL Speedlight



Product number:	4703
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 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 and meters)
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)
Number of flashes:	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) 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:	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
Power switch:	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
Power source:	1.5V AA-type (penlight) batteries or rechargeable NiCd batteries; optional SD-7 Battery Pack 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

SB-11 Speedlight Set

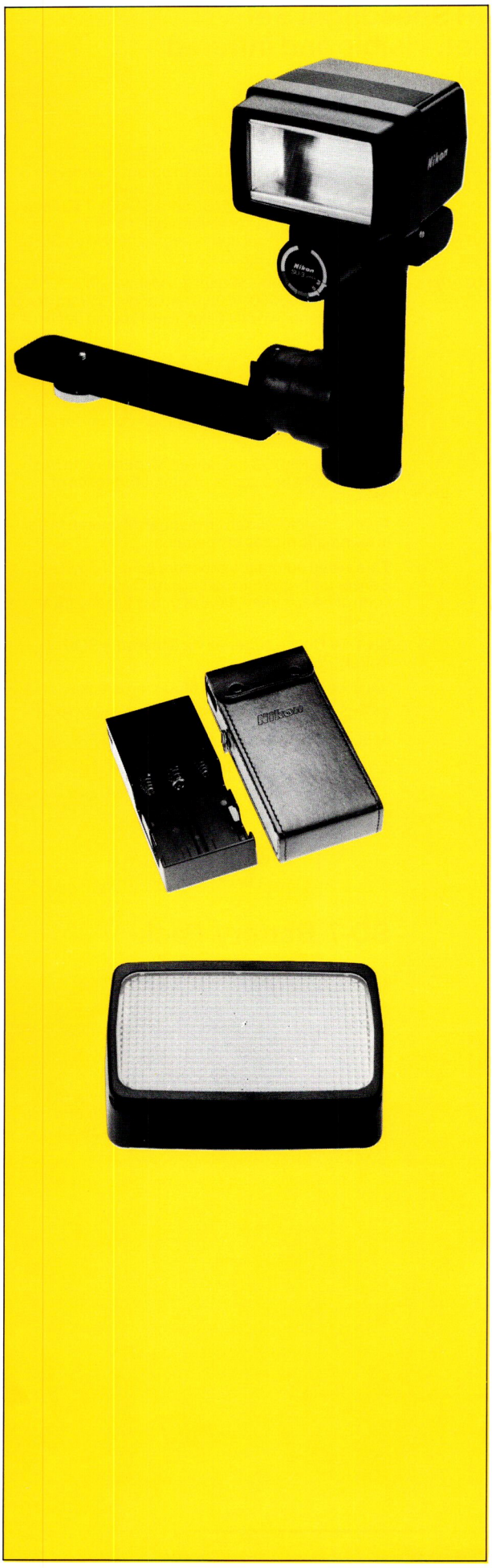
Product number:	311
Light output control:	Silicon thyristor-controlled rectifier and series circuitry; automatic TTL flash output control with Nikon F3-series (via cord SC-12) and Nikon FA/FE2/N2020/N2000 (via cord SC-23); non-TTL automatic exposure control with other Nikon SLR cameras, via SU-2 Sensor Unit
Guide number:	GN 36, or GN 25 with SW-3 Wide-Flash Adapter (ISO 100 and meters)
Angle of coverage:	56° horizontal and 40° vertical as normal; 67° horizontal and 48° vertical with diffusion; SW-3 Wide-Flash Adapter provided
Number of flashes:	Approximately 150 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
Flash ready indicator:	Via flash "ready-light" at rear of flash unit and in camera viewfinder via accessory cords
Automatic operation:	Three-step automatic exposure control via SU-2 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
Power source:	Eight 1.5V AA-type (penlight) batteries
Camera mounting:	Via accessory SK-4 Flash Mounting Bracket
Dimensions:	276mm(H) x 104mm(W) x 118mm(D), without SK-4
Weight:	860g (31 oz.), flash unit only

SW-3 Wide-Flash Adapter (repl.)

Product number:	3057
Application:	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:	4525
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/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

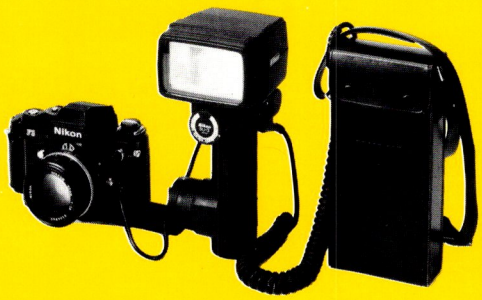
Product number:	4520
Application:	Provides power for operation of SB-14/140 speedlight; alternate power source for SB-11/20/22
Dimensions:	95mm x 200mm x 45mm
Weight:	440g (15 oz.), without batteries

SW-5 Wide-Flash Adapter

Product number:	4522
Application:	Provide diffusion for operation with lenses to 24mm wide angle coverage; operable with SB-14 Speedlight

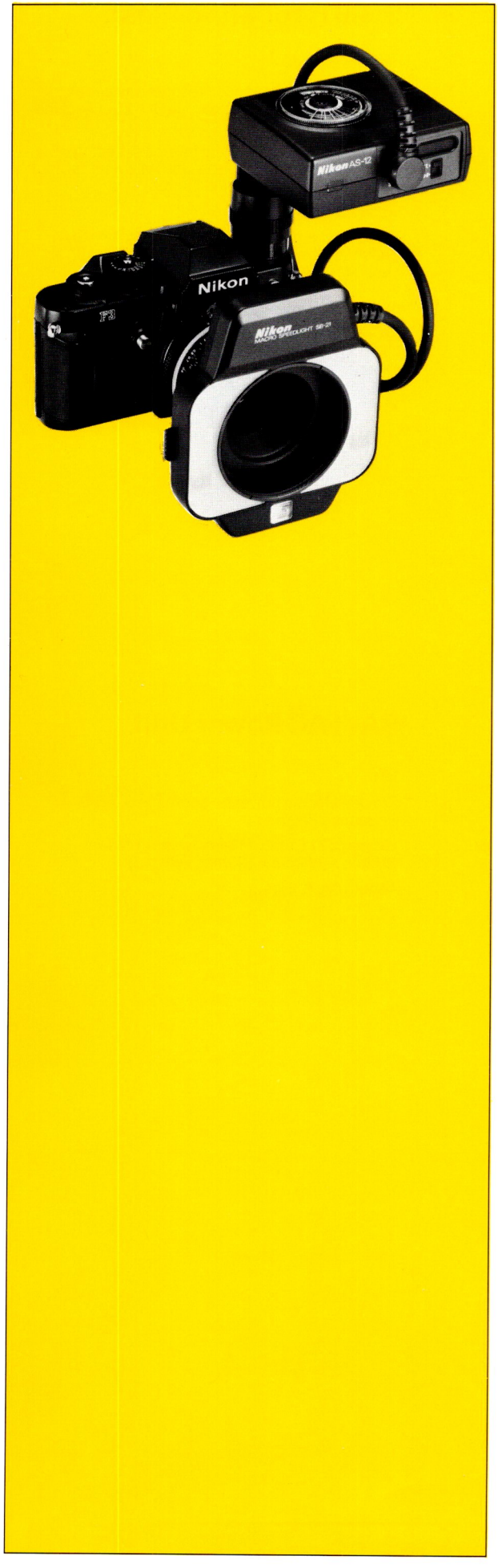
SB-140 UV-IR Speedlight Set (For ultraviolet, visible and infrared photography)

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 light)
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 lenses
Number of flashes:	Approximately 270 full-power (M) bursts with fresh alkaline batteries; more in automatic modes of operation
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 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
Weight:	515g (18 oz.), flash unit only



SD-7 Battery Pack

Product number:	4520
Application:	Provide diffusion for operation with lenses to 24mm wide angle coverage; operable with SB-14 Speedlight
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.



SB-21 TTL Macro Speedlight

Product number:	4701 (SB-21A for F3-series cameras) 4702 (SB-21B for other models)
Light output control:	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
Guide number:	GN 13 (ISO 100 and meters)
Number of flashes:	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
Recycling time:	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
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 film speed range:	ISO 25-1000 with Nikon N2000/N2020; ISO 25-400 with Nikon F3/FA/FE2
Power source:	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
Dimensions:	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
Weight:	145g (5 oz.), SB-21 flash head; (9.8 oz.), AS-12 without batteries; 250g (8.8 oz.), AS-14 without batteries

SB-6 Repeating Flash

Product number:	290
Light output control:	Silicon thyristor-controlled rectifier and series circuitry; non-TTL automatic via SU-1 Sensor Unit and SC-9 Sensor Remote Cord
Guide number:	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)
Angle of coverage:	56° horizontal and 40° vertical
Automatic operation:	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,
Dimensions:	190mm x 128mm dia.
Manual operation:	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
Weight:	1100g (39 oz.), flash head only

SA-3 AC Power Unit

Product number:	291
Application:	Provide electric power for operation of SB-6 Repeating Flash
Dimensions (HxWxD):	191mm x 211mm x 116mm, without case; 218mm x 284mm x 125mm, with case
Weight:	About 10kg (22 lbs.)

Flash Compatability Chart

Flash \ Camera	F3 Series	FA/FE2/N2000	FM2	N2020
SB-11	Via SC-12	Via SC-23		Via SC-23
		Via SC-13	Via SC-13	Via SC-13
SB-14	Via SC-12	Via SC-23		Via SC-23
		Via SC-13	Via SC-13	Via SC-13
SB-140	Via SC-12	Via SC-23		Via SC-23
		Via SC-13	Via SC-13	Via SC-13
SB-16A	Direct or Via SC-14			Via SC-13
		Via Coupler AS-6	Via Coupler AS-6	
SB-16B		Direct or Via SC-17		
	Via Coupler AS 4/7		Direct or Via SC-17	
SB-17	Direct or Via SC-14			Direct or Via SC-17
		Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6
SB-20/22		Direct or Via SC-17		Direct or Via SC-17
	Via Coupler AS-4/7			
SB-21A	Direct			
		Via Coupler AS-6	Via Coupler AS-6	Via Coupler AS-6
SB-21B		Direct		Direct
	Via Coupler AS-4/7		Direct	
SB-6				
	Via SC-9	Via SC-9	Via SC-9	Via SC-9

TTL Automatic Control

Sensored Automatic Control

Manual Control

AF-Illumination

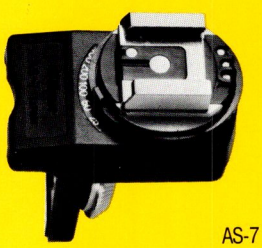
AS-2

AS-3

AS-4

AS-5

AS-6



AS-7

AS-8

AS-11

AS-10

AS-1 Flash Unit Coupler

Product number: 362

Application: Couples Speedlights with ISO-type mounting foot to hot shoe of Nikon F/F2-series cameras

AS-2 Flash Unit Coupler

Product number: 363

Application: Couples Nikon F/F2-dedicated Speedlights to ISO-type hot shoe of Nikon FA/FE/FM/FG/N2020/ N2000/N4004/cameras

AS-3 Flash Unit Coupler

Product number: 353

Application: Couples Nikon F/F2-dedicated Speedlights to hot shoe of Nikon F3-series cameras

AS-4 Flash Unit Coupler

Product number: 354

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: 3059

Application: Couples Nikon F3-dedicated speedlights to hot shoe of Nikon F/F2-series cameras

AS-6 Flash Unit Coupler

Product number: 3060

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: 3065

Application: Provides offset mounting of speedlights for Nikon F3-series cameras to facilitate film rewind operation; maintain full coupling for F3-dedicated speedlights

AS-8 Flash Coupler

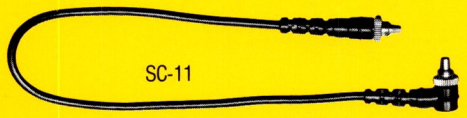
Product number: 4544

Application: 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 cameras

AS-9 Flash Coupler

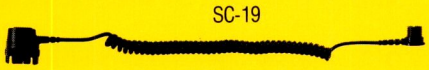
Product number: 4545

Application: 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



SC-11

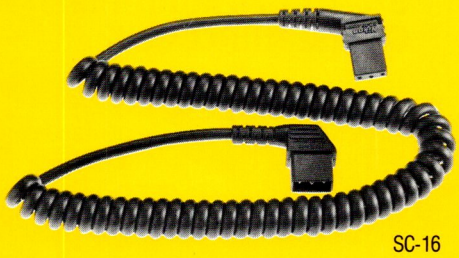
SC-15



SC-19

SU-1

SD-7



SC-16

SK-4

AS-10 TTL Multiflash Adapter

Product number: 4560

Application: Provides convenient connection point for TTL flash system components such as speedlight and multi-flash cords

AS-11 Tripod Adapter

Product number: 4561

Application: 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: 3056

Application: General-purpose flash sync cord; fitted with PC-type connector at both ends; connectors threaded for secure mounting; 15 inch length

SC-15 Coiled Sync Cord

Product number: 4524

Application: General-purpose flash sync cord providing identical function as SC-11; 3 ft. length (coiled cord)

SC-9 Sensor Remote Cord

Product number: 307

Application: 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

SU-1 Sensor Unit

Product number: 306

Application: Provide non-TTL automatic exposure control with SB-6 repeating flash

SU-2 Sensor Unit

Product number: 3055

Application: Provide non-TTL automatic exposure control with SB-11/14 speedlight units

SD-7 Battery Pack

Product number: 4520

Application: Provide power for operation of SB-14/140 speedlights; alternate power source for SB-11/20/22

Dimensions: 95mm x 200mm x 45mm

Weight: 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.

SC-16 Power Connecting Cord

Product number: 4523

Application: Provide connection for SD-7 to speedlight unit

SK-4 Flash Mounting Bracket

Product number: 369

SK-5 Flash Mounting Bracket

Product number: 4539

SC-12 TTL Connecting Cord

Product number: 356

Application: Enables TTL automatic flash operation of SB-11/14/140 speedlights with Nikon F3-series cameras

SC-23 TTL Connecting Cord

Product number: 4562

Application: 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: 313

Application: 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: 3061

Application: 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: 4557

Application: Provides for off-camera positioning of speedlights fitted with ISO-type hot shoe; provides full TTL flash coupling

SC-18 TTL Multi-FLash Connecting Cord

Product number: 4557

Application: 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: 4559

Application: Provides identical function as SC-18 cord; 10 ft. length

Close Up Accessories

Nikon F3

Nikon F3 HP

Nikon F3/T

Nikon F3AF*

Nikon FA

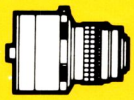
Nikon FE2

Nikon FM2

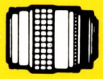
Nikon F-301

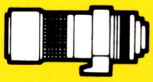
Nikon F-501

Nikon FG-20


120 mm f/4 IF Micro-Nikkor

55 mm f/2.8 Micro-Nikkor

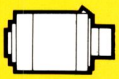

105 mm f/2.8 Micro-Nikkor

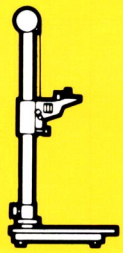

200 mm f/4 IF Micro-Nikkor

LD-2 Battery Pack

PK-13 Extension Tube

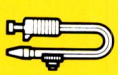
PN-11 Extension Tube

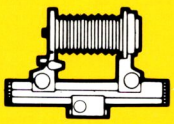

TC-301 Teleconverter

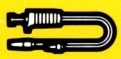

PF-4 Repro Copy Outfit

PC-3 Table Clamp

GRK 18% Grey Card


AR-10 Double Cable Release

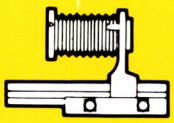

PB-6 Bellows Focus Attachment


AR-7 Double Cable Release

BR-6 Auto Ring

BR-2 A Reversing Ring

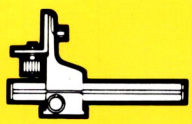
PH-4 MD Holder


PB-6 E Extension Bellows

PS-6 Sude Copier

PB-6 M Macro Stand

PD-6D Bellows Spacer


PG-2 Focusing Stage

PK-11 A Extension Tube

PK-12 Extension Tube

PK-13 Extension Tube

BR-2 A/BR-5 Reversing Ring

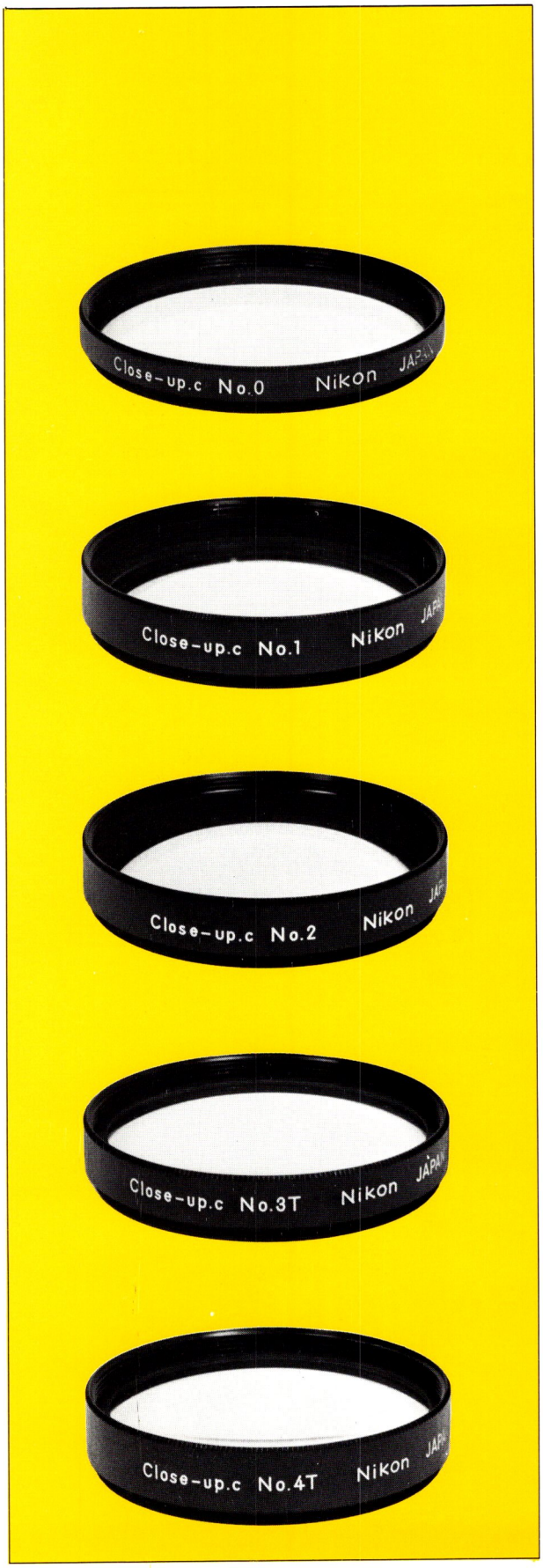
BR-3 Adapter Ring

No 0. 1. 2. Close up attachment Lenses

No 3T, 4T Close up attachment Lenses

No 5T, 6T Close up attachment Lenses

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. 3T and 4T 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
Application: Mounts to front of lens for general-purpose close-up 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: 2733
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)
Refractive power: 3.0 diopters

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: 2737
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)
Refractive power: 2.9 diopters

Close-up Attachment Lens no. 5T

Product number: 4536
Application: Close-up photography with telephoto lenses; may be used in combination with no. 6T lens for even greater effects
Mounting thread: 62mm (P = 0.75mm)
Refractive power: 1.5 diopters

Close-up Attachment Lens no. 6T

Product number: 4537
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

	Lens	Lens-to-Subject Distance	Reproduction Ratio	Subject Area
Nr. 0	50 mm f/1.4	46 –147	7,1–27	26 ×17 –97 ×65
	50 mm f/1.8	38,1–150	5,4–27,4	19,3×12,9–98,5×65,7
	50 mm f/1.2	41,6–151	6,2–27,4	22,2×14,8–98,5×65,6
	85 mm f/2.0	60 –152	5,3–16,6	19,1×12,7–59,8×39,9
	105 mm f/2.5	70 –153	5,0–13	18 ×12 –48 ×32
	135 mm f/2.8	85 –156	4,6–10	17 ×11 –38 ×25
	135 mm f/3.5	85 –155	4,6–10	17 ×11 –36 ×24
	200 mm f/4.0	102 –162	3,2– 7,1	11,4× 7,6–25,4×16,9
	50 mm f/1.8 E	46,1–149	7,0–27	25,2×16,8–98,5×65,7
	100 mm f/2.8 E	65,9–151	4,8–14	17,4×11,6–50,8×33,9
Nr. 1	50 mm f/1.4	40 –78	5,7–13	20 ×14 –47 ×31
	50 mm f/1.8	33,3–76,9	4,4–13	15,9×10,6–47 ×31,3
	50 mm f/1.2	35,9–77,9	5,0–13	18 ×12 –46,9×31,3
	85 mm f/2.0	47,2–78,4	3,9– 7,9	13,9× 9,3–28,5×19
	105 mm f/2.5	53 –80	3,5– 6,4	13 × 8,4–23 ×15
	135 mm f/2.8	62 –82	3,0– 5,0	11 × 7,3–18 ×12
	135 mm f/3.5	61 –81	3,0– 5,0	11 × 7,2–18 ×12
	50 mm f/1.8 E	37,8–75,6	5,4–13	19,6×13 –47 ×31,3
	100 mm f/2.8 E	50,2–78,1	3,4– 6,7	12,3× 8,2–24,2×16,2
Nr. 2	50 mm f/1.4	31 –44	4,0– 6,5	14 × 9 –23 ×16
	50 mm f/1.8	27,3–43,2	3,3– 6,6	11,9× 7,9–23,6×15,7
	50 mm f/1.2	29,2–44,3	3,7– 6,6	13,2× 8,8–23,6×15,7
	85 mm f/2.0	35,1–44,8	2,6– 4,0	9,2× 6,1–14,3× 9,6
	105 mm f/2.5	39 –46	2,2– 3,2	8,0× 5,3–12 × 8
	135 mm f/2.8	44 –49	1,8– 2,5	6,6× 4,4– 9 × 6
	135 mm f/3.5	43 –48	1,8– 2,5	6,5× 4,3– 9 × 6
	50 mm f/1.8 E	29 –41,9	3,8– 6,6	13,7× 9,1–23,6×15,7
	100 mm f/2.8 E	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
3T	85 mm f/2	46 –77	3,8 –7,8	13,7× 9 –28 ×18,6
	100 mm f/2.8 E	49,4–76,6	3,4 –6,7	12,2× 8,1–23,9×16,0
	105 mm f/2.5	51 –78	3,3 –6,3	12 × 8 –22,7×15
	135 mm f/2.8	57 –80	2,7 –4,9	10 × 6,6–17,6×11,7
	135 mm f/3.5	57 –80	2,7 –4,9	10 × 6,5–17,6×11,7
	200 mm f/4	64 –83	2,0 –3,3	7,2× 4,8–12 × 8
	75–150 mm f/3.5 (75 mm) E	54,9–83,2	4,2 –8,7	15,2×10,2–31,8×21,1
	75–150 mm f/3.5 (100 mm) E	54,9–83,2	3,2 –6,7	11,5× 7,7–23,9×15,9
	75–150 mm f/3.5 (150 mm) E	54,9–83,2	2,2 –4,6	7,8× 5,3–16,1×10,9
4T	85 mm f/2	35 –44	2,5 –4,0	9 × 6 –14,2× 9,5
	100 mm f/2.8 E	36,1–44,2	2,2 –3,4	7,9× 5,3–12,3× 8,2
	105 mm f/2.5	38 –46	2,2 –3,2	7,8× 5,2–11,6× 7,7
	135 mm f/2.8	41 –47	1,7 –2,5	6,1× 4,1– 9 × 6
	135 mm f/3.5	41 –47	1,7 –2,5	6,1× 4,1– 9 × 6
	200 mm f/4	48 –51	1,2 –1,7	4,2× 2,8– 6,1× 4,1
	75–150 mm f/3.5 (75 mm) E	42,2–50,8	2,8 –4,5	9,9× 6,7–16,2×10,8
	75–150 mm f/3.5 (100 mm) E	42,2–50,8	2,1 –3,4	7,5× 5,1–12,2× 8,2
	75–150 mm f/3.5 (150 mm) E	42,2–50,8	1,5 –2,3	5,1× 3,5– 8,3× 5,6
3T+4T	85 mm f/2	29,2–33,5	1,9 –2,7	6,8× 4,6– 9,4× 6,2
	100 mm f/2.8 E	29,8–33,1	1,6 –2,3	5,8× 3,9– 8,2× 5,4
	105 mm f/2.5	31,8–35,1	1,6 –2,2	5,8× 3,8– 7,7× 5,1
	135 mm f/2.8	34,6–36,6	1,2 –1,7	4,4× 2,9– 6 × 4
	135 mm f/3.5	34,7–36,5	1,3 –1,7	4,6× 3,1– 6 × 4
	200 mm f/4	40 –40	0,38–1,1	3 × 2 – 4 × 2,7

	Lens	Lens-to-Subject Distance	Reproduction Ratio	Subject Area
5T	35– 70 mm f/3.5 (35 mm)	45 –81	9,4–18,5	34 ×23 –67 ×44
	35– 70 mm f/3.5 (50 mm)	45 –81	6,9–13,5	25 ×17 –47 ×31
	35– 70 mm f/3.5 (70 mm)	45 –81	4,9– 9,7	18 ×12 –35 ×23
	105 mm f/1.8	52 –79	3,3– 6,3	12 × 8 –23 ×15
	80–200 mm f/4 (80 mm)	62 –87	4,4– 8,3	16 ×11 –30 ×19
	80–200 mm f/4 (105 mm)	62 –87	3,3– 6,3	12 × 8 –23 ×15
	80–200 mm f/4 (135 mm)	62 –87	2,6– 4,9	9,4× 6,2–18 ×12
	80–200 mm f/4 (200 mm)	62 –87	1,8– 3,4	6,5× 4,3–12 × 8,2
	70–210 mm f/4 (70 mm) E	61,5–83	5,6– 9,3	20 ×13 –34 ×22
	70–210 mm f/4 (105 mm) E	61,5–83	3,8– 6,3	14 × 9 –23 ×15
	70–210 mm f/4 (135 mm) E	61,5–83	3,0– 4,9	11 × 7 –18 ×12
	70–210 mm f/4 (210 mm) E	61,5–83	2,0– 3,3	7 × 4,8–12 × 8
6T	35– 70 mm f/3.5 (35 mm)	36 –49	6,6– 9,5	24 ×16 –23 ×34
	35– 70 mm f/3.5 (50 mm)	36 –49	4,8– 6,9	17 ×12 –25 ×17
	35– 70 mm f/3.5 (70 mm)	36 –49	3,4– 5	12 × 8,2–18 ×12
	105 mm f/1.8	38 –47	2,2– 3,3	8 × 5,3–12 × 8
	80–200 mm f/4 (80 mm)	47 –54	2,8– 4,3	10 × 6,7–15 ×10
	80–200 mm f/4 (105 mm)	47 –54	2,1– 3,2	7,6× 5 –12 × 7,7
	80–200 mm f/4 (135 mm)	47 –54	1,7– 2,5	6 × 4 – 9 × 6
	80–200 mm f/4 (200 mm)	47 –54	1,1– 1,8	4 × 2,6– 6,5× 4,3
	70–210 mm f/4 (70 mm) E	44,5–51	3,5– 4,8	13 × 8,4–17 ×11,5
	70–210 mm f/4 (105 mm) E	44,5–51	2,4– 3,3	8,6× 5,8–12 × 8
	70–210 mm f/4 (135 mm) E	44,5–51	1,8– 2,5	6,5× 4,3– 9 × 6
	70–210 mm f/4 (210 mm) E	44,5–51	1,2– 1,7	4,3× 2,9– 6 × 4

	Lens	Lens-to-Subject Distance	Reproduction Ratio	Subject Area
5T+6T	35– 70 mm f/3.5 (35 mm)	31 –38	5,0 –6,3	18 ×12 –23 ×15
	35– 70 mm f/3.5 (50 mm)	31 –38	3,7 –4,6	13 × 9 –17 ×11
	35– 70 mm f/3.5 (70 mm)	31 –38	2,6 –3,3	9,4× 6,2–12 × 7,9
	105 mm f/1.8	32 –36	1,6 –2,2	5,8× 3,8– 8 × 5,3
	80–200 mm f/4 (80 mm)	41 –43	2,1 –2,8	7,6× 5 –10 × 6,7
	80–200 mm f/4 (105 mm)	41 –43	1,5 –2,2	5,4× 3,6– 8 × 5,3
	80–200 mm f/4 (135 mm)	41 –43	1,2 –1,7	4,3× 2,9– 6,1× 4
	80–200 mm f/4 (200 mm)	41 –43	0,84–1,2	3 × 2 – 4,3× 2,9
	70–210 mm f/4 (70 mm) E	37,5–40	2,5 –3,2	9 × 6 –11,5× 7,7
	70–210 mm f/4 (105 mm) E	37,5–40	1,7 –2,2	6 × 4 – 8 × 5,3
	70–210 mm f/4 (135 mm) E	37,5–40	1,3 –1,7	4,7× 3,1– 6 × 4
	70–210 mm f/4 (210 mm) E	37,5–40	0,9 –1,1	3,2× 2,2– 4 × 2,6

PF-4 Repro-Copy Outfit
This useful accessory converts your camera into a professional copying unit with excellent stability. The camera cradle travels along a robust column which has a rectangular cross-section to ensure precise axial alignment. A built-in counterweight facilitates height adjustment. A separate control is provided for fine focusing. The camera can be inclined 45° or 90° to the right or left to increase the subject field. The black surface finish of the entire unit helps to reduce scattered light and flare. This unit is very useful for copying flat or three-dimensional subjects in schools, design workshops, etc. The PF-4 is suitable for all Nikon cameras, with or without motor drive.

PF-4 Repro-Copying Outfit

Product number:	2757
Maximum subject distance:	888mm (film plane to baseboard)
Column clearance:	192.6mm (front of column to lens, with F3-series camera)
Camera cradle travel:	Coarse 604mm; fine 70mm
Useful baseboard area:	475mm x 335mm
Dimensions:	475mm(D) x 445mm(W) x 1053mm(H)
Weight:	9kg (19.8 lbs.)

18% Grey Card

Product number:	2754

PH-4 Motor Drive Holder

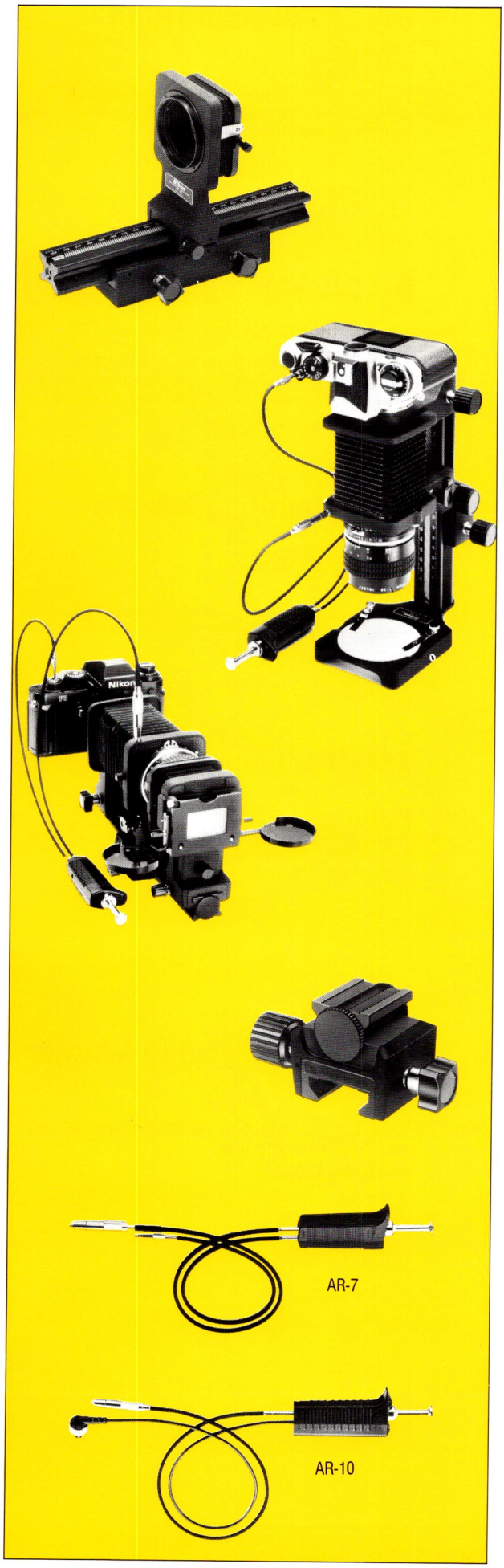
Product number:	2758
Application:	Enables mounting of all motor-equipped cameras to repro-copy outfit

PC-3 Table Clamp

Product number:	2753
Application:	Enables use of the column mechanism of the repro-copy outfit without the baseboard

PB-6 Bellows Focusing Attachment

Product number:	2660
Suitable lenses:	20mm-200mm
Bellows extension:	48mm-208mm
Magnification:	See accompanying table
Dimensions:	98mm(W) x 155m(H) x 238mm(L)
Weight:	1000g (2.2 lbs.)



PB-6E Extension Bellows

Product number:	2663
Bellows extension:	83mm-438mm (PB-6/PB-6E combined)
Magnification:	See accompanying table
Dimensions:	82mm(W) x 155mm(H) x 230mm(L)
Weight:	800g (1.8 lbs.)

PB-6M Macro Copy Stand

Product number:	2662
Magnification:	See accompanying table
Dimensions:	90mm(W) x 144mm(D) x 27mm(H)
Weight:	177g (6.2 oz.)

PS-6 Slide Copying Adapter

Product number:	2661
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:	2664
Application:	Mounts between bellows standard and rail to provide sufficient clearance to enable motorized cameras to operate with bellows system; two required

AR-4 Double Cable Release

Product number:	2636
Application:	For use with cameras equipped with Nikon-type shutter release button mounting thread

AR-7 Double Cable Release

Product number:	668
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

BR-2

BR-2A Reversing Ring

Product number: 2657

Application: Enables reverse mounting of lenses with 52mm attachment thread; provides for direct connection to camera or bellows lens mount

BR-5

BR-5 Reversing Ring

Product number: 2631

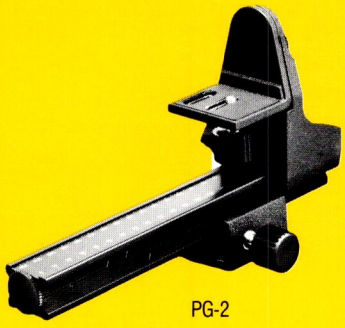
Application: Enables reverse mounting of lenses with 62mm attachment thread; must be used in combination with BR-2/2A for connection to camera or bellows

BR-3

BR-3 Mounting Adapter Ring

Product number: 2629

Application: Converts the bayonet mount of reverse-mounted lenses to the 52mm thread for accessories such as filters and hoods



PG-2

PG-2 Focusing Stage

Product number: 2756

Application: 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

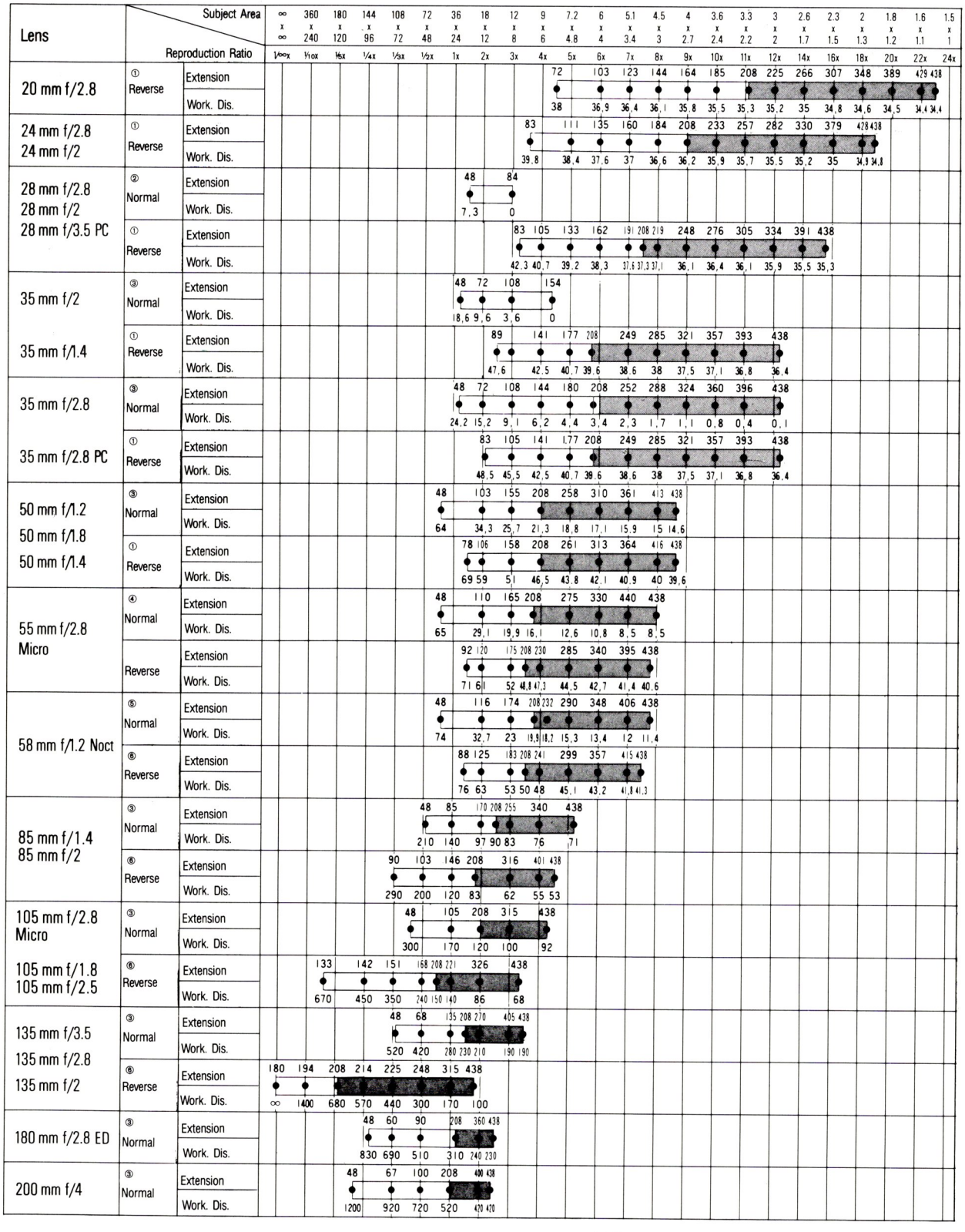
Product number: 3213

Application: Enables slide duplication with Micro-Nikkor 55mm and PK-13 extension tube

Dimensions: 72mm dia. x 80mm

Weight: 150g (5 oz.)

Reproduction Ratios Obtainable with PB-6/6E



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.

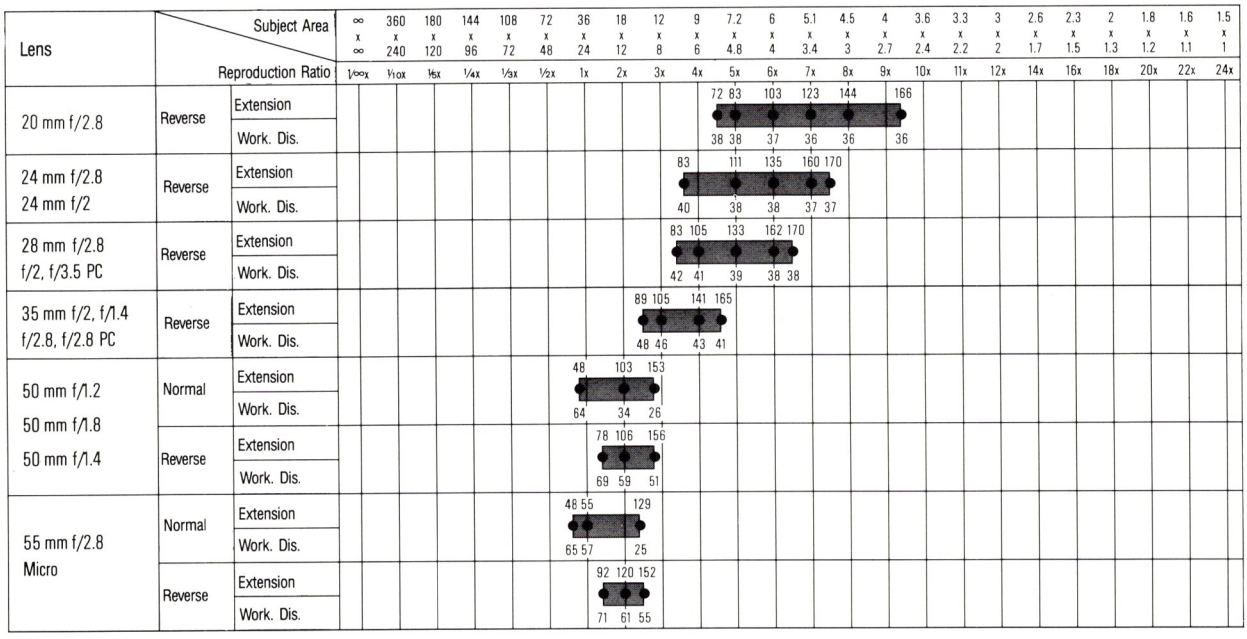
= only with PB-6

= with PB-6 and PB-6E in combination

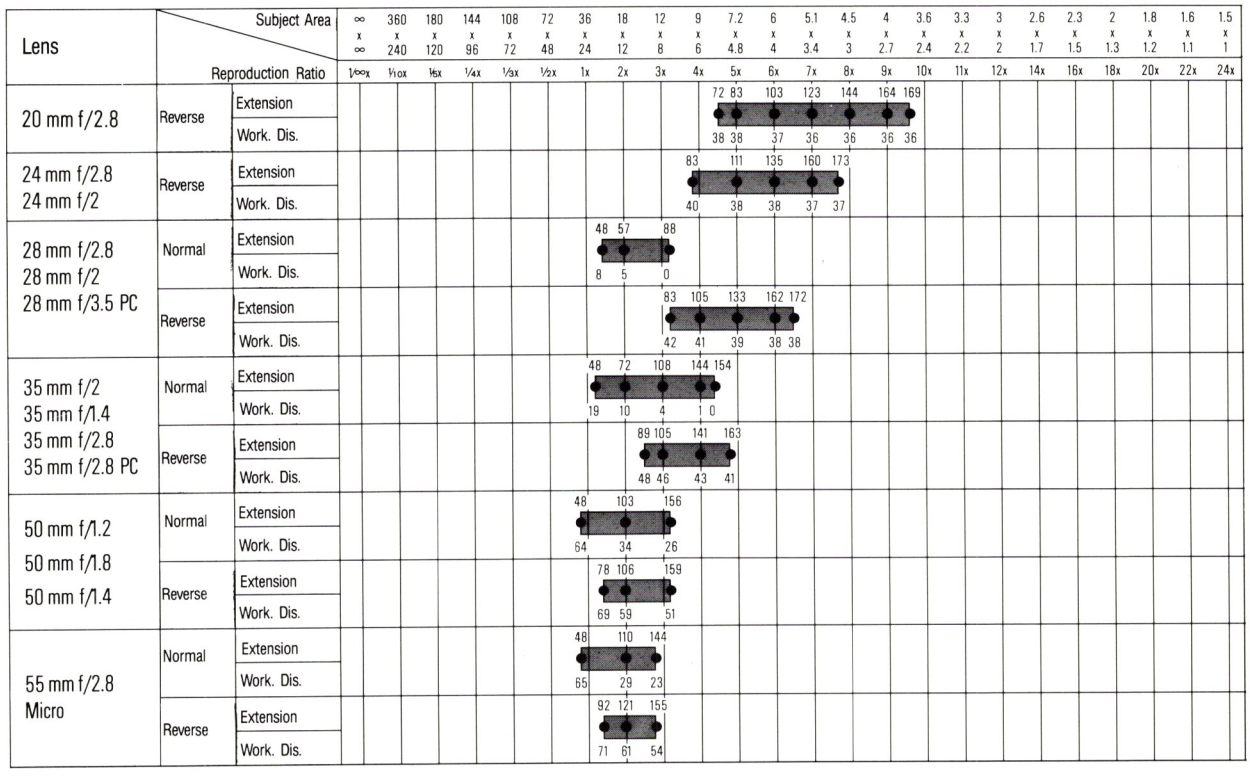
Notes:
1) Magnification at Infinity setting.
2) If there are several lenses, the magnification data applies only to the first lens (e.g. for 24mm f/2.8 and F/2, it applies to 24mm f/2.8).
3) The 135mm f/2 and PC-Nikkor 28mm f/3.5 lenses cannot be reverse-mounted since the diameters of the front rings 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.

Notes:
1) Optimum picture quality with f/8
2) 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

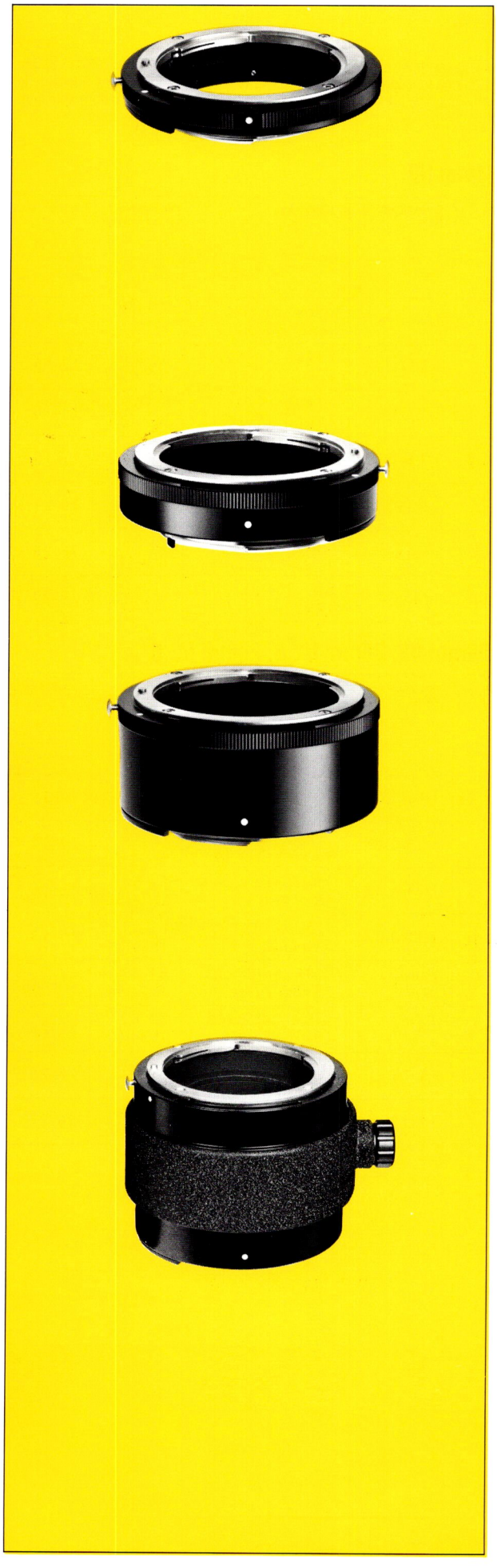


Reproduction Ratios Obtainable with PB-6M



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 f/2.8 and F/2, it applies to 24mm f/2.8).
3) The 135mm f/2 and PC-Nikkor 28mm f/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.



PK-11A Extension Tube

Product number: 2656
Extension: 8mm
Dimensions: 64.4mm dia. x 17.8mm
Weight: 50g (2 oz.)

PK-12 Extension Tube

Product number: 2652
Extension: 14mm
Dimensions: 64.4mm dia. x 23.6mm
Weight: 75g (2 oz.)

PK-13 Extension Tube

Product number: 2653
Extension: 27.5mm (for Micro-Nikkor 55mm)
Dimensions: 64.4mm dia. x 30.5mm
Weight: 3 oz.

PN-11 Extension Tube

Product number: 2647
Extension: 52.2mm (for Micro-Nikkor 105mm)
Dimensions: 70.5mm dia. x 67mm
Weight: 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	6,7–6,3 16,9–16,0	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

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

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 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

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 52,5–45,6	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

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	∞×∞–7,1×10,6 ∞×∞–18,0×27,0	∞–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	∞×∞–7,0×10,5 ∞×∞–17,8×26,7	∞–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	1/25,0–1/1,8	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	∞×∞–9,8×14,7 ∞×∞–24,8×37,2	∞–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

General Camera Accessories

AP-2
Panorama Head

AR-3
Cable Release

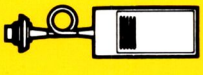
AR-8
Cable Release Adapter

AR-2
Cable Release

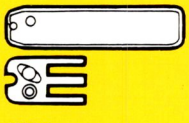
Pistol Grip
Model II

AR-6
Cable Release
for Pistol Grip

AR-9
Soft Shutter Release



DB-2
Anti Cold Battery Pack



MB-3
AA Battery Holder

Miscelleneous Lens
Filter

AF-1/2
Gelatine Filter Holder

Miscellaneous Lens
Hoods

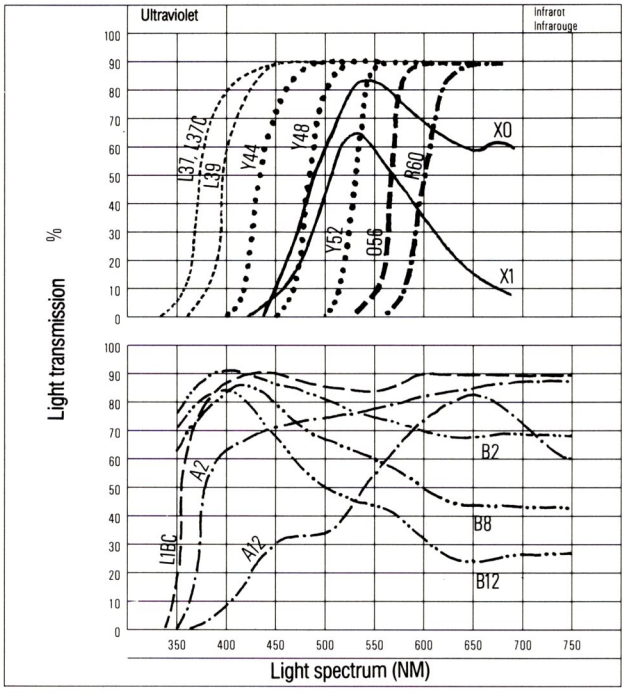
Miscellaneous Lens
Caps/Covers

LF-1
Rear Lens Cap

Filter Selector Chart

Film	Filter Typ		Description	Filter Factor		Product number (indicated in boxes below)								
				Daylight	Artificial light	Threaded mounting								Bayonet mounting
	Skylight		L1BC	1		2238		2402	2371	2413				2366
	Ultraviolet		L37	1			2403							
			L37C	1		2237		2399	2372	2415	2494	2440	2441	
			L39	1							2450			
	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		O56	3,5	2	2253		2231	2374	2274	2274	2281		2363
	Red		R60	6	5	2259		2249	2375	2273	2286	2282		2368
	Green	Light	X0	2	1,7			2297						
		Dark	X1	5	3,5			2230						
	Polarizing		Polar	2–4	2–4			2250	2376	2300				
	Neutral		ND4	4		2258		2243		2410				
			ND8	8		2319		2244						
			ND400	400				2409						
	Amber	Light	A2	1,2		2239		2266	2430	2416				2364
		Dark	A12	2		2256		2264	2431					
	Blau Bleu	Light	B2	1,2		2240		2235	2432	2417				2365
		Medium	B8	1,6		2241		2267						
		Dark	B12	2,2		2242		2268	2433					
	Ft. Focus No. 1							2407	2434	2418				
	Ft. Focus No.2							2408	2435	2419				
					Filter Diameter	39 mm	46 mm	52 mm	62 mm	72 mm	95 mm	122 mm	160 mm	

Filter Size	
39 mm	500/8, 1000/11, 300/2.8 IF-ED, 400/3.5 IF-ED, 600/4.0 IF-ED, 600/5.6 IF-ED, 800/8 IF-ED, 1200/11 IF-ED
46 mm	zu L35AF
52 mm	20/3.5, 24/2.0, 24/2.8, 28/2.0, 28/2.8, 28/3.5, 35/1.4, 35/2.0, 35/2.8, 50/1.2, 50/1.4, 50/1.8, 85/2.0, 105/2.5, 135/2.8, 135/3.5, 200/4.0, 300/2.8 IF-ED, 400/2.8 IF-ED, 35–70/3.3–4.5, 35–105/3.5, spez. Objektive: Micro Nikkor 55/2.8, 105/2.8, 105/4.0, 200/4.0, Noct 55/1.2, PC 35/2.8, Serie 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
62 mm	20/2.8, 105/1.8, 35–70/3.5, 35–135/3.5–4.5, 50–135/3.5, 80–200/4.0, 100–300/5.6, Serie E: 70–210/4.0, Autofocus: AF 200/3.5 IF-ED
72 mm	PC 28/3.5, 18/3.5, 135/2.0, 180/2.8 ED, 300/4.5, 300/4.5 IF-ED, 400/5.6 IF-ED, Zoom 25–50/4.0
95 mm	Zoom 50–300/4.5 ED, 80–200/2.8 ED, 180–600/8.0 ED
122 mm	200/2.0 IF-ED, 300/2.8 IF-ED, 400/3.5 IF-ED, 600/5.6 IF-ED, 800/8.0 IF-ED, 1200/11 IF-ED, 200–400/4.0 ED
160 mm	600/4.0 IF-ED
Bayonet	13/5.6, 15/3.5, 16/2.8

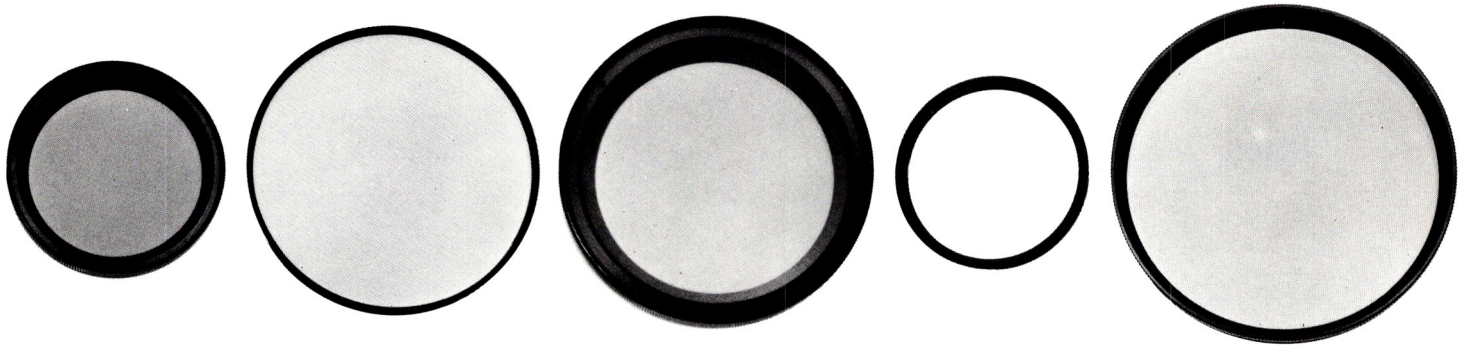


Filters for Black-and-White Film

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 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°K; 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.



AF-1 Gelatine Filter Holder

Product number: 2278
Mounting thread: 52mm dia. (P = 0.75mm)
Application: Enables use of gelatine filters (3''x3'') with lenses equipped with 52mm accessory mounting thread
Optional accessory: Lens Hood HN-12

AF-2 Gelatine Filter Holder

Product number: 2279
Mounting thread: 72mm dia. (P = 0.75mm)
Application: Enables use of gelatine filters (4''x4'') with lenses equipped with 72mm accessory mounting thread; equipped with accessory hood
Optional accessories: 62mm-72mm Filter Adapter Ring UR-1

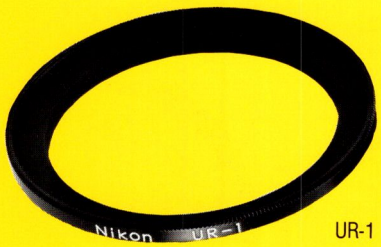
CA-1

CA-1 Filter Pouch

Product number: 2307
Application: Storage for up to six filters or close up attachment lenses of 52/62mm diameter

Filter Pouch CA-2

Product number: 2305
Application: Storage for up to six filters of 39mm diameter



UR-1

UR-1 62-72mm Filter Adapter Ring

Product number: 2377
Application: Enables mounting of accessories with 72mm mounting thread to lenses equipped with 62mm accessory mounting thread

Slip-in 39mm Filter Holder

Product number: 2220
Application: Provides filter mount for 300/2.8, 400/3.5, 600/4, 600/5.6 ED-IF Lenses; threaded to accept 39mm screw-in filters

39mm Filter Holder

Slip-in 39mm Gelatine Filter Holder

Product number: 2443
Application: Provides mount for using gelatine filters with 300/2.8, 400/3.5, 600/4, 600/5.6 ED-IF lenses

52mm Filter Holder

Slip-in 52mm Filter Holder

Product number: 2445
Application: Provides filter mount for 300/2, 400/2.8, 800/5.6 ED-IF lenses; threaded to accept 52mm screw-in filters

Slip-in 52mm Gelatine Filter Holder

Product number: 2446
Application: Provides mount for using gelatine filters with 300/2, 400/2.8, 800/5.6 ED-IF lenses

MC-3A Coiled Cord for Pistol Grip

Product number: 4582

Application: 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: 667

Application: 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: 660

Application: 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: 664

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

Product number: 669

Application: 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

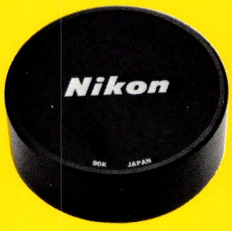
Product number: 4417

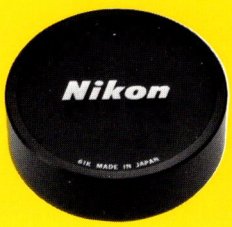
Application: Soft shutter release for mounting on shutter buttons fitted with ISO-type tappered thread; for operation with F3/FA/FE2/FM2/FG/FG-20/EM cameras

DK-5 Eyepiece Shield

Product number: 2380

Application: Provides eyepiece shielding for unmanned photography with N4004/N2020/N2000





DB-2 Anti-Cold Battery Pack

Product number: 3062

Application: 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

Product number: 4570

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

Product number: 626

88mm Front Lens Cap for 500mm f/8 (repl.)

Product number: 620

122mm Screw-on Front Lens Cap

Product number: 621

Front Lens Cover for 300mm f/2.8 (repl.)

Product number: 570

LF-1 Rear Lens Cap

Product number: 607

BF-2 Front Mount Cap (repl.)

Product number: 598

Application: Protects the front optical elements of TC-2/300/301 teleconverters

F-to-C Lens Mounting Adapter

Product number: 2360

Application: Adapts Nikon F-bayonet mount lenses for use on video or cine cameras fitted with C-type threaded mount

AP-2 Panorama head

Product number:	2028
Application:	Provides for panoramic shooting with 28mm to 105mm lenses; fitted with built-in bubble level for precise tripod setup

Lens Scope Converter

Product number:	1399
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 55mm Micro-Nikkor lens with 1/2x magnification, the resulting loupe magnification is 12.5x
Exit pupil:	2.5mm
Eyepoint:	11mm from the eyepiece
Eyepiece adjustment:	-5 to ± 3 diopter
Eyecup:	Folding rubber eyecup provided
Dimensions:	65.4mm dia. x 56mm
Weight:	200g (7 oz.)

ES-1 Slide Copying Adapter

Product number:	3213
Application:	Enables side copying with 55mm Micro-Nikkor lens and PK-13 Extension Tube
Dimensions:	72mm dia. x 80mm
Weight:	150g (5.4 oz.)

Len Hoods

Lens	Lens Hood/Product Number
13mm f/5.6	Built-in
15mm f/3.5	Built-in
18mm f/3.5	**HK-9** (P/N 563)
20mm f/2.8	**HK-14** (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	**HN-3** (P/N 510)
50mm f/1.2	**HR-2** (P/N 538)
	HS-12 (P/N 547)
50mm f/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	**HS-7** (P/N 541)
85mm f/1.4	**HN-20** (P/N 562)
85mm f/2	**HK-10** (P/N 545)
105mm f/1.8	Built-in
105mm f/2.5	Built-in
135mm f/2	Built-in
135mm f/2.8	Built-in
180mm f/2.8	Built-in
200mm f/2N	Built-in + **HE-4** Extension (P/N 6A)
200mm f/3.5 AF-ED-IF	Built-in
200mm f/4	Built-in
300mm f/2 ED-IF	Built-in + **HE-1** Extension (P/N 605)
300mm f/2.8 ED-IF + AF	Built-in **HE-4** + Extension (P/N 614)
300mm f/4.5	Built-in
400mm f/2.8 ED-IF	Built-in + **HE-3** Extension
400mm f/3.5 ED-IF	Built-in
400mm f/5.6 ED-IF	Built-in
600mm f/4 ED-IF	Built-in + **HE-5** Extension
600mm f/5.6 ED-IF	Built-in + **HE-4** Extension (P/N 614)
800mm f/5.6 ED-IF	Built-in + **HE-3** Extension
500mm f/8	**HN-27** (P/N 558)
1000mm f/11	Built-in
2000mm f/11	Built-in
28-85mm f/3.5-4.5	**HK-16** (P/N 4601)
28-85mm f/3.5-4.5 AF	**HB-1** (P/N 4602)
35-70mm f/3.5-4.5	**HN-22** (P/N 566)
35-70mm f/3.3-4.5 + AF	**HN-2** (P/N 509)
35-105mm f/3.5	**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	**HB-1** (P/N 4602)
35-200mm f/3.5-4.5	**HK-15** (P/N 4600)
70-210mm f/4 AF	**HN-24** (P/N 567)
100-300mm f/5.6	**HN-24** (P/N 567)
80-200mm f/4	**HN-23** (P/N 565)
50-300mm f/4.5 ED	**HK-5** (P/N 554)
200-400mm f/4 ED	Built-in + **HE-2** 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)

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, 50/1.8	**HR-1** (P/N 537)
50/1.2, 58/1.2 Noct	**HR-2** (P/N 538)
50/1.4 AF	
50/1.8 E, 50/1.8N	**HR-4** (P/N 548)
28/2.8 E	**HR-6** (P/N 550)

Lens	Metal Screw Mount/Product Number
24/2.8, 28/2	**HN-1** (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, 35/2.8	**HN-3** (P/N 510)
55/2.8 Micro	
28/3.5 PC	**HN-9** (P/N 523)
52mm Polar Filter	**HN-12** (P/N 518)
72mm Polar Filter	**HN-13** (P/N 539)
85/1.4	**HN-20** (P/N 562)
35-70/3.5,	**HN-22** (P/N 566)
35-135/3.5-4.5	
80-200/4	**HN-23** (P/N 565)
70-210/4,	**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	**HK-2** (P/N 551)
50-300/4.5 ED	**HK-5** (P/N 554)
18/3.5	**HK-9** (P/N 563)
50-135/3.5	**HK-10** (P/N 544)
35-105/3.5-4.5	**HK-11** (P/N 553)
28-50/3.5	**HK-12** (P/N 556)
20/2.8	**HK-14** (P/N 559)
35-200/3.5-4.5	**HK-15** (P/N 4600)
28-85/3.5-4.5	**HK-16** (P/N 4601)

Lens	Metal Bayonet Mount/Product Number
28-85/3.5-4.5 AF	**HB-1** (P/N 4602)
35-135/3.5-4.5 AF	
35-105/3.5-4.5 AF	**HB-2** (P/N 4603)

Lens	Extension/Product Number
300/2 ED-IF	**HE-1** (P/N 605)
200-400/4 ED	**HE-2** (P/N 606)
200/2N ED-IF	**HE-4** (P/N 614)
300/2.8N ED-IF	
600/5.6N ED-IF	

AN-10
Neck Straps

AN-11
Neck Straps

AN-16
Neck Straps

AN-1
Neck Straps

AN-4B
Neck Straps

AN-4Y
Neck Straps

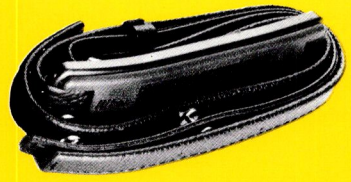
AN-6Y
Neck Straps

AN-6W
Neck Straps

AN-8
Neck Straps

AN-9
Neck Straps

N2000
Neck Straps



(not pictured)

Leather Neck Strap AN-1

Product number: 635
Width: 10mm/25mm
Color: Black
Material: Leather with removeable rubber neck pad

N2000 Nylon Neck Strap

Product number: 683
Width: 12mm/30mm
Color: Black with embroidered "N2000"
Material: Woven nylon fabric with non-slip pad

Nylon Neck Strap AN-4B

Product number: 639
Width: 12mm/25mm
Color: Black
Material: Woven nylon fabric with non-slip pad

Nylon Neck Strap AN-4Y

Product number: 638
Width: 12mm/25mm
Color: Yellow with black stripes
Material: Woven nylon fabric with non-slip pad

Nylon Wide Neck Strap AN-6Y

Product number: 4507
Width: 12mm/50mm
Color: Yellow with black stripes and embroidered "Nikon"
Material: Woven nylon fabric with non-slip pad

Nylon Wide Neck Strap AN-6W

Product number: 4508
Width: 12mm/50mm
Color: Wine with yellow stripes and embroidered "Nikon"
Material: Woven nylon fabric with non-slip pad

Nylon Wide Neck Strap AN-8 for Action-Touch (replacement)

Product name: 648
Width: 10mm/25mm
Color: Grey with embroidered "Nikon"
Material: Woven nylon fabric with non-slip pad

Neck Strap for One-Touch, Action-Touch, Tele-Touch

Product number:	647
Width:	7mm
Color:	Black
Material:	Woven nylon fabric

Eveready Camera Cases

Nikon F3

CF-22

CF-21

CF-21A

CS-15

CF-23D

CF-22H

Nikon FA

CF-30

CF-31

CF-28A

CF-30D

CF-30H

Nikon FE2 · FM2

CF-27/28

CF-29

CF-28A

CS-16

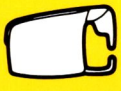
CF-27D

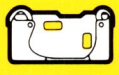
CF-27H

Nikon N2000/N2020

CF-35

CF-36

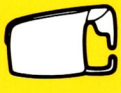

CF-36 A

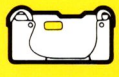

CF-35 D

Nikon FG-20

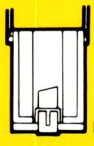
CF-32

CF-33

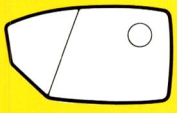

CF-18A


CF-32H

General Cases


CB-

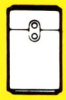
CS-7, 8, 9, 10


CS-13

CF-34
Utility Case

Lens/Camera Cases

Pouch Cases

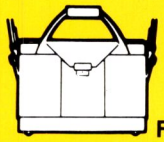

Hard Lens
Cases

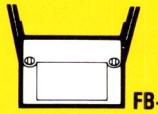
Compartment Cases

FB-8

FB-16

FB-15


FB-11A


FB-17

FB-14

CF-21 Eveready Camera Case

Product number: 4409
Storage for: Camera with most lenses from wideangle to short telephoto, plus 35-70/3.3-4.5 zoom lens
Finish: Wine leather with brown nylon fabric neck strap

CF-21A Front Flap for Eveready Case

Product number: 4410
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 base sections
Finish: Wine leather

CF-22 Eveready Camera Case

Product number: 4422
Storage for: Camera with most lenses from wideangle to 85/2 telephoto
Finish: Wine leather with brown nylon fabric neck strap

CF-23D Case Base for Data Back

Product number: 4538
Storage for: Camera with Data Back MF-14; for use with CF-20/21/21A/22/24 case front flaps
Finish: Wine leather

CF-24 Eveready Camera Case

Product number: 4424
Storage for: Nikon F3AF with 80mm autofocus lens
Finish: Wine leather with brown nylon fabric neck strap

CF-30 Eveready Camera Case

Product name: 4436
Storage for: Camera with normal lens
Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

CF-30D Case Base for Data Back

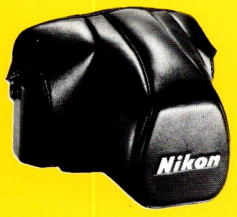
Product number: 4439
Storage for: Camera with Data Back MF-16; for use with CF-30/31 case front flaps
Finish: Black leatherette

CF-31 Eveready Camera Case

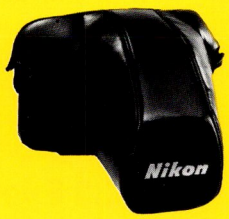
Product number: 4438
Storage for: Camera with most lenses from wideangle to short telephoto, plus 35-70/3.3-4.5 zoom lens
Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

CF-28A Front Flap for Eveready Case

Product number: 4431
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
Finish: Black leatherette



CF-27

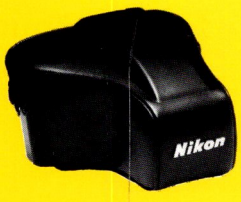


CF-28

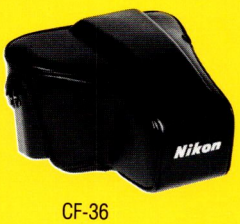
CF-29

CF-28A

CF-27D



CF-35



CF-36

CF36A

CF-35D

CF-27 Eveready Camera Case

Product number: 4427

Storage for: Camera with normal lens

Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

CF-27D Case Base for Data Back

Product number: 4430

Storage for: Camera with Data Back MF-16; for use with CF-27/28/28A case front flaps

Finish: Black leatherette

CF-28 Eveready Camera Case

Product number: 4428

Storage for: Camera with most lenses from wideangle to short telephoto, plus 35-70/3.3-4.5 zoom lens

Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

CF-28A Front Flap for Eveready Case

Product number: 4431

Storage for: 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

Finish: Black leatherette

CF-29 Eveready Camera Case

Product number: 4429

Storage for: Camera with Motor Drive MD-12 and most lenses from wide angle to short telephoto, plus 28-85/3.5-4.5 zoom lens

Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

CF-35 Eveready Camera Case

Product number: 4576

Storage for: Camera with most lenses from wideangle to short telephoto, plus 35-70/3.3-4.5 zoom lens

Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

CF-35D Case Base for Data Back

Product name: 4578

Storage for: Camera with Multi Data Back MF-19; for use with CF-35/36/36A case front flaps

Finish: Black leatherette

CF-36 Eveready Camera Case

Product number: 4577

Storage for: Camera with most lenses from wideangle to medium telephoto, plus 35-105/3.5-4.5 zoom lens

Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

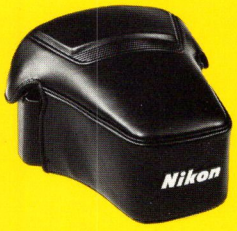
CF-36A Front Flap for Eveready Case

Product number: 4579

Storage for: Camera with lens as big as 35-135/3.5-4.5 zoom lens; for use with CF-35/36 case base sections

Finish: Black leatherette

CF-32



CF-33

CF-32H

CF-32 Eveready Camera Case

Product number: 4432
Storage for: Camera with normal lens
Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

CF-33 Eveready Camera Case

Product number: 4433
Storage for: Camera with most lenses from wideangle to short telephoto, plus 35-70/3.3-4.5 zoom lens
Finish: Black leatherette with black Nylon Fabric Neck Strap AN-7

Camera Pouch Case for Tele-Touch Deluxe/ One-Touch/Fun-Touch

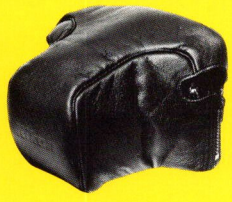
Product number: 690
Finish: Black leatherette

Camera Pouch Case with Strap for Action-Touch

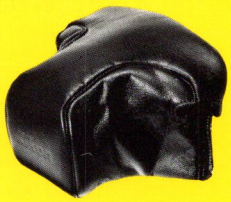
Product number: 691
Finish: Black leatherette

CS-L35TW Semi-Soft Case for Tele-Touch

Product number: 4572
Finish: Black leatherette



CS-7



CS-8

CS-7 Camera/Lens Pouch Case

Product number: 422

Storage for: Camera (except F3-Series) with normal lens

Finish: Black leatherette, one-piece construction; case must be removed completely before shooting

CS-8 Camera/Lens Pouch Case

Product name: 425

Storage for: Camera (except F3AF) with normal lens

Finish: Black leatherette, one-piece construction, case must be removed completely before shooting

CS-9

CS-10

CS-9 Camera/Lens Pouch Case

Product number: 426

Storage for: Camera (except F3AF) with lens as big as 35-135/3.5-4.5 zoom lens

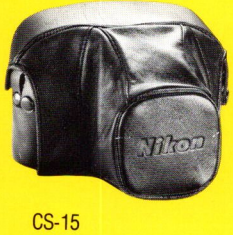
Finish: Black leatherette, one-piece construction; case must be removed completely before shooting

CF-10 Camera/Lens Pouch Case

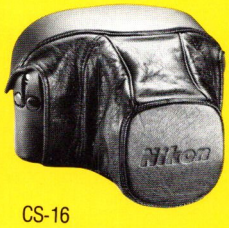
Product number: 427

Storage for: Camera (except F3AF) with lens as big as 80-200/4 zoom lens

Finish: Black leatherette, one-piece construction; case must be removed completely before shooting



CS-15



CS-16

CS-15 Camera/Lens Pouch Case

Product number: 4414

Storage for: F3-series cameras (except F3AF) with normal lens

Finish: Black leather, two-piece (flap and base) construction

CS-16 Camera/Lens Pouch Case

Product number: 4415

Storage for: FE/FM-series cameras with normal lens

Finish: Black leather, two-piece (flap and base) construction

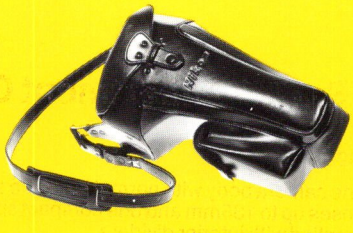
CS-13

CS-13 Camera Blimp Case

Product number: 4484

Storage for: Camera with motor drive and any lens mounted; case dampens camera and motor noise during shooting

Finish: Black leatherette



CS-34

CF-34 Camera/Lens Utility Case

Product number: 4434

Storage for: Camera with lens as big as 100-300/5.6 zoom lens

Finish: Black leatherette in semi-rigid construction; belt or shoulder use possible

Dimensions: 320mm(L) x 180mm(W) x 130mm (D)

Compartment Case FB-8

Product number: 496

Storage for: 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

Finish: Black leatherette

Weight: 2 kg (4 lbs. 6 oz.)

Dimensions: 280mm(W) x 210mm(H) x 150mm(D) (11" x 8.3" x 5.9")

Compartment Case FB-11A

Product number: 500

Storage for: Large quantity of cameras, lenses, and accessories; lower level storage area provided, supplied with Filter Case CA-1

Finish: Brown leather

Weight: 3.2 kg (7 lbs.)

Dimensions: 355mm(W) x 255mm(H) x 200(D) (14" x 10" x 7.9")

Compartment Case FB-14

Product number: 503

Storage for: One camera body with normal lens and two additional lenses, one up to 300mm; supplied with interior dividers

Finish: Black leather

Weight: 0.9 kg (2 lbs.)

Dimensions: 280mm(W) x 230mm(H) x 110mm(D) (11" x 9.1" x 4.3")

Compartment Case FB-15

Product number: 477

Storage for: One camera body with motor and lens up to 135mm, one camera body with lens up 135mm, and several addition lenses (or accessories); lower level storage area provide; supplied with pouch for bulky items

Finish: Brown leather

Weight: 2.1 kg (4 lbs. 10 oz.)

Dimensions: 305mm(W) x 210mm(H) x 175mm(D) (12" x 8.3" x 6.9")

FB-16 Compartment Case

Product number: 492

Storage for: One camera body with motor and normal lens, one additional lens to 200mm, and one speedlight

Finish: Brown leatherette with adjustable strap

Weight: 0.9 kg (2 lbs.)

Dimensions: 190mm(W) x 175mm(H) x 150mm(D) (7.5" x 6.9" x 5.9")

FB-17 Compartment Case

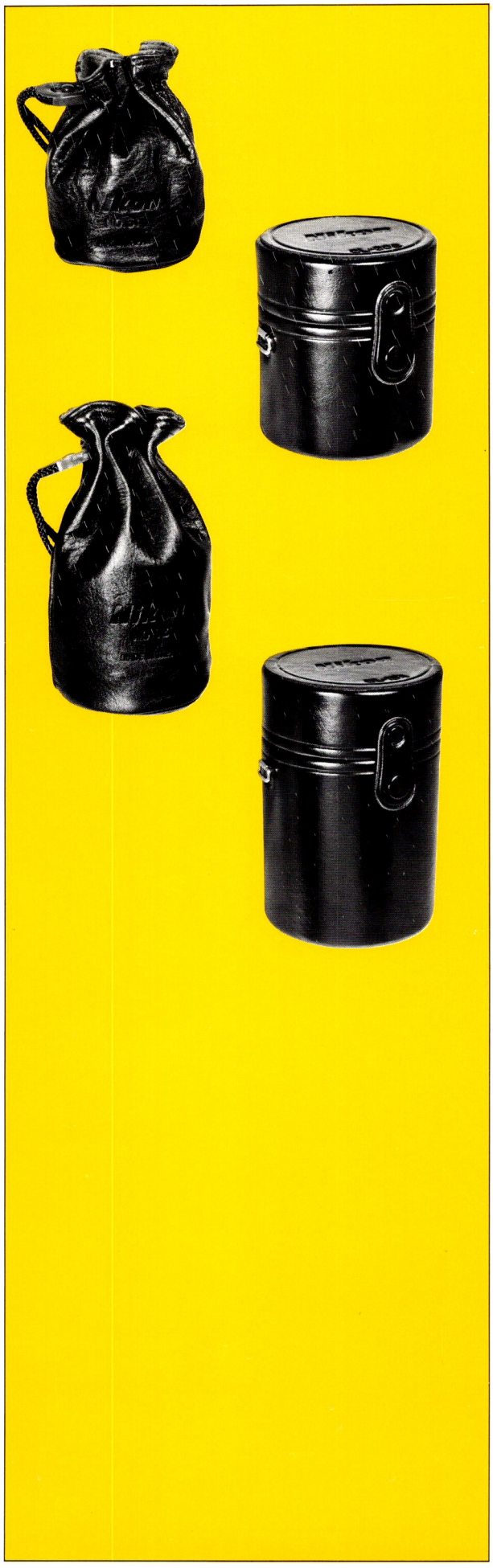
Product number: 4498

Storage for: One camera body with normal lens, two additional lenses up to 135mm and one compact speedlight; supplied with interior dividers

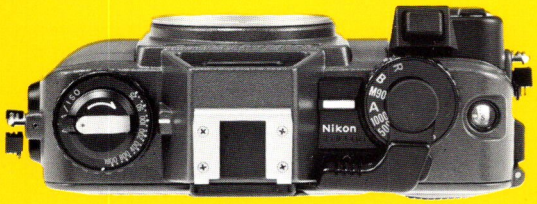
Finish: Dark brown leatherette with adjustable strap

Weight: 0.9 kg (2 lbs.)

Dimensions: 280mm(W) x 155mm(H) x 110mm(D) (11" x 6.1" x 4.3")

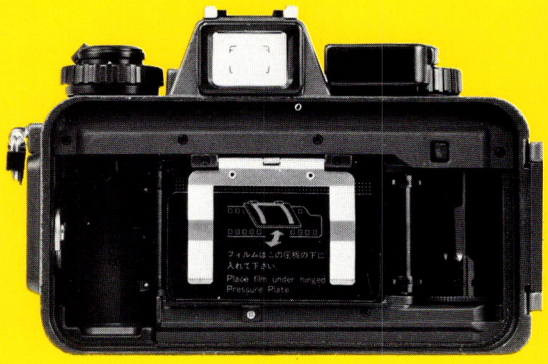


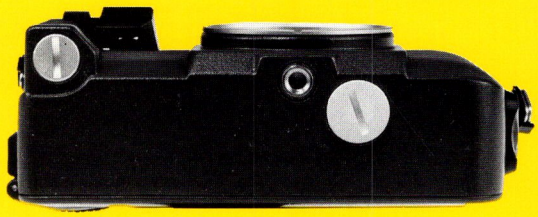
Lens	Hard Lens Case (Product Number)	Soft Leather Pouch Case (Product Number)
15mm f/3.5	**CL-17** (P/N 485) (Supplied)	
18mm f/3.5	**CL-37** (P/N 4470) (Supplied)	
20mm f/2.8	**CL-30S** (P/N 4501)	#61 (P/N 4301)
24mm f/2	**CL-31S** (P/N 4502)	#61 (P/N 4301)
24mm f/2.8 + AF	**CL-30S** (P/N 4501)	#61 (P/N 4301)
28mm f/2	**CL-31S** (P/N 4502)	#61 (P/N 4301)
28mm f/2.8 + AF	**CL-30S** (P/N 4501)	#61 (P/N 4301)
35mm f/1.4	**CL-31S** (P/N 4502)	#61 (P/N 4301)
35mm f/2	**CL-31S** (P/N 4502)	#61 (P/N 4301)
35mm f/2.8	**CL-30S** (P/N 4501)	#61 (P/N 4301)
50mm f/1.2	**CL-31S** (P/N 4502)	#61 (P/N 4301)
50mm f/1.4 + AF	**CL-30S** (P/N 4501)	#61 (P/N 4301)
50mm f/1.8 + AF	**CL-30S** (P/N 4501)	#61 (P/N 4301)
80mm f/2.8AF	**CL-32S** (P/N 4503)	#62 (P/N 4302)
85mm f/1.4	**CL-34A** (P/N 4474)	#62 (P/N 4302)
85mm f/2	**CL-31S** (P/N 4502)	#61 (P/N 4301)
105mm f/1.8	**CL-15S** (P/N 4453)	#62 (P/N 4302)
105mm f/2.5	**CL-32S** (P/N 4503)	#62 (P/N 4302)
135mm f/2	**CL-15S** (P/N 4453)	#62 (P/N 4302)
135mm f/2.8	**CL-32S** (P/N 4503)	#62 (P/N 4302)
135mm f/3.5	**CL-32S** (P/N 4503)	#62 (P/N 4302)
180mm f/2.8 ED + AF	**CL-38** (P/N 4471)	#63 (P/N 4303)
200mm f/3.5AF ED-IF	**CL-35A** (P/N 4479)	#63 (P/N 4303)
200mm f/4	**CL-13/**(P/N 448)	#63 (P/N 4303)
300mm f/2 ED-IF	**CT-300** (P/N 4420)	
300mm f/2.8N ED-IF	**CT-302** (P/N 4306)	
300mm f/4.5 + ED-IF	**CL-20A** (P/N 441)	
400mm f/2.8 ED-IF	**CT-400** (P/N 4440)	
400mm f/3.5 ED-IF	**CL-61A** (P/N 4472)	#57 (P/N 396)
400mm f/5.6 ED-IF	**CL-27A** (P/N 4458)	
500mm f/8	**CL-39** (P/N 4476)	
1000mm f/11	**CL-29** (P/N 475)	
2000mm f/11	Trunk Case (P/N 454)	
28-85mm f/3.5-4.5 + AF	**CL-33S** (P/N 4504)	#62 (P/N 4302)
35-70mm f/3.5	**CL-33S** (P/N 4504)	#62 (P/N 4302)
35-70mm f/3.3-4.5	**CL-31S** (P/N 4502)	#61 (P/N 4301)
35-70mm f/3.3-4.5 AF	**CL-32S** (P/N 4503)	#62 (P/N 4302)
35-105mm f/3.5-4.5 + AF	**CL-33S** (P/N 4504)	#62 (P/N 4302)
35-135mm f/3.5-4.5 + AF	**CL-41** (P/N 4460)	#62 (P/N 4302)
35-200mm f/3.5-4.5	**CL-13A** (P/N 486)	#63 (P/N 4303)
70-210mm f/4 AF	**CL-35A** (P/N 4479)	#63 (P/N 4303)
80-200mm f/4	**CL-35A** (P/N 4479)	#63 (P/N 4303)
50-300mm f/4.5 ED	**CL-64** (P/N 4527)	#57 (P/N 396)
100-300mm f/5.6	**CL-40** (P/N 4478)	
200-400mm f/4 ED		#58 (P/N 4303)
8mm f/2.8	**CL-11** (P/N 439)(Supplied)	
16mm f/2.8	**CL-30S** (P/N 4501)(Supplied)	#61 (P/N 4301)
28mm f/3.5 PC	**CL-34A** (P/N 4474)(Supplied)	#61 (P/N 4301)
35mm f/2.8 PC	**CL-34A** (P/N 4474)(Supplied)	#61 (P/N 4301)
58mm f/1.2 Noct	**CL-31S** (P/N 4502)	#61 (P/N 4301)
55mm f/2.8 Micro	**CL-31S** (P/N 4502)	#61 (P/N 4301)
55mm Micro w/PK-13	**CL-33S** (P/N 4504)	
55mm f/2.8 AF Micro	**CL-32S** (P/N 4503)	#62 (P/N 4302)
105mm f/2.8 Micro	**CL-33S** (P/N 4504)	#62 (P/N 4302)
105mm Micro w/PN-11	**CL-35A** (P/N 4479)	
200mm f/4 Micro	**CL-36** (P/N 4480)	
TC-14A	**CL-30S** (P/N 4501)	#61 (P/N 4301)
TC-14B	**CL-30S** (P/N 4501)	#61 (P/N 4301)
TC-16 AF		#61 (P/N 4301)
TC-16A AF		#61 (P/N 4301)
TC-201	**CL-30S** (P/N 4501)	#61 (P/N 4301)
TC-301	**CL-33S** (P/N 4504)	#62 (P/N 4302)



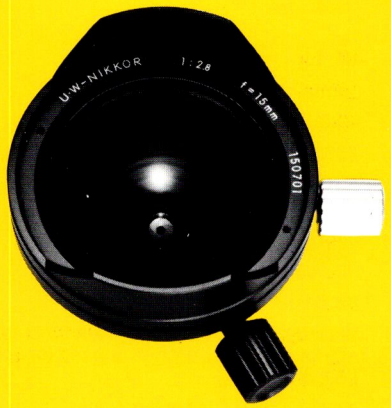
Nikonos-V

Product number:	10070 (orange) 10071 (green)
Type of camera:	Electronically-controlled 35mm underwater and all-weather camera with focal plane shutter
Construction:	Body made of cast aluminum alloy partially covered with rubber; water-proof sealing via O-ring
Operation range:	Can be used down to a pressure of approximately 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
Camera viewfinder:	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
Exposure control:	Via selector dial which provided for both manual and automatic exposure control for general and flash photography
Exposure metering:	Through-the-lens (TTL), centerweighted metering with two silicon photodiodes (SPDs); one of the SPDs for TTL flash control with SB-102, SB-103 and other units
Metering range:	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)
Film speed range:	ISO 25 to 1600





Accessory shoe:	Built into top of viewfinder
Flash synchronication:	X-synchronication only, via flash socket in camera base; synchronizes at 1/90 sec. or slower; Nikonos 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
Flash ready-light:	Lightening symbol in viewfinder lights up when SB-102, SB-103 or another flash unit has recycled; 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
Frame counter:	Additive type; resets automatically when camera back is opend
Film rewind:	Manually via film rewind crank after shutter speed selector dial has been set to "R"; shutter release button remains locked during rewinding
Camera back:	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
Dimensions:	146mm(W) x 99mm(H) x 58mm (D) (5.7″ x 3.9″ 2.3_0), body only
Weight:	700g (24.6 oz.), body only
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:	Manual aperture diaphragm
Aperture scale:	f/2.8-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:	87mm diameter
Dimensions:	93mm dia. x 90.6mm (3.7″ x 3.6″)
Weight:	665g (23 oz.)

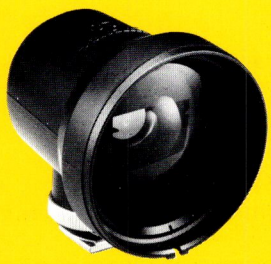
DF-11 Viewfinder for UW- Nikkor 15mm f/2.8

Product number:	10758
Optical system:	Inverted Galilean telescope; usable only 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
Focal length:	20mm
Maximum aperture:	f/2.8
Picture angle:	78° (underwater)
Optical construction:	9 elements in 7 groups (including front protective glass port)
Minimum focusing distance:	0.4m (16 in.)
Aperture:	Manual aperture diaphragm
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, f/5.6 and f/11
Lens mount:	Nikonos spring-loaded bayonet
Attachment size:	67mm diameter
Dimensions:	70mm dia. x 74mm (2.7″ x 2.9″)
Weight:	350g (12 oz.)



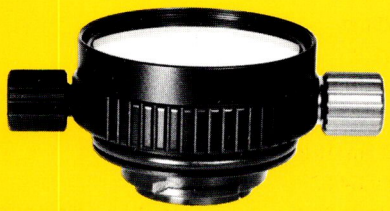
DF-12 Viewfinder for UW-Nikkor 20mm f/2.8 and 28mm f/3.5

Product number:	10759
Optical system:	Inverted Galilean telescope; usable only underwater
Optical construction:	3 elements in 3 groups
Magnification:	0.35x
Field of view:	85% picture coverage
Parallax compenstion marks:	20mm, fixed setting at estimated distance 1.5m (4.5 ft.); 28mm, fixed setting at estimated distance 2.0m (6 ft.)
Close-up parallax marks:	20mm, focusing distance 40cm (16 in.); 28mm, focusing distance 60cm (24 in.)
Mounting:	With clamping screw in camera acccessory shoe
Dimensions:	61.5mm dia. x 71mm
Weight:	160g

UW-Nikkor 28mm f/3.5

This lens is intended exclusively for underwater photography

Product number:	10310
Focal length:	28mm
Maximum aperture:	f/3.5
Picture angle:	59° (underwater)
Optical construction:	6 elements in 5 groups (including front protective glass plate)
Minimum focusing distance:	0.6m (24 in.)
Aperture:	Manual aperture diaphragm
Aperture scale:	f/3.5-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 43.8mm (2.4″ x 1.7″)
Weight:	175g (6 oz.)

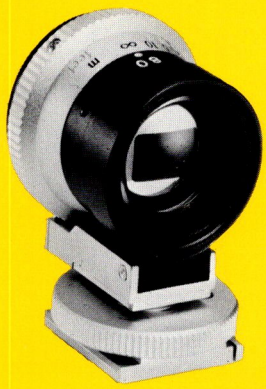


W-Nikkor 35mm f/2.5

Product number:	10311
Focal length:	35mm
Maximum aperture:	f/2.5
Optical construction:	6 elements in 4 groups (including front protective glass plate)
Picture angle:	62° on land, 46° 30′ underwater
Minimum focusing distance:	0.8m (30 in.)
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
Attachment size:	58mm diameter
Dimensions:	62mm dia. x 39.5mm (2.4″ x 1.5″)
Weight:	160g (6 oz.)

W-Nikkor 80mm f/4

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 (3 ft.)
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:	35g

LW-Nikkor 28mm f/2.8

This lens is intended exclusively for on land photography

Product number:	10313
Focal length:	28mm
Maximum aperture:	f/2.8
Picture angle:	74° (on land)
Optical construction:	5 elements in 5 groups
Minimum focusing distance:	0.5m (18 in.)
Aperture scale:	f/2.8-f/22
Depth of field display:	Via indicators on lens barrel; blue display for f/11 and orange display for f/22
Lens mount:	Nikonos spring-loaded bayonet
Attachment size:	52mm diameter
Dimensions:	68.5mm dia. x 57mm (2.7″ x 2.2″)
Weight:	240g (8 oz.)

TTL UW Speedlight Set SB-102

Product number:	10102
Application:	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:	High-performance thyristor in series circuit controlled via internal camera TTL sensor or optional Flash Sensor Unit SU-101
Guide number:	Full output 32 on land (16 underwater), 1/4 output 16 on land (8 underwater), 1/16 output 8 on land (4 underwater), with ISO 100 film in meters
Operating range:	TTL, ISO 25-400; f/2.8-f/22 at ISO 100 non-TTL
Operating distance:	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:	139mm (W) x 152.5mm (H) x 212mm (D), head only
Weight:	1670g (59 oz.), head only without batteries

Wide Flash Adapter SW-102 for SB-102 (replacement)

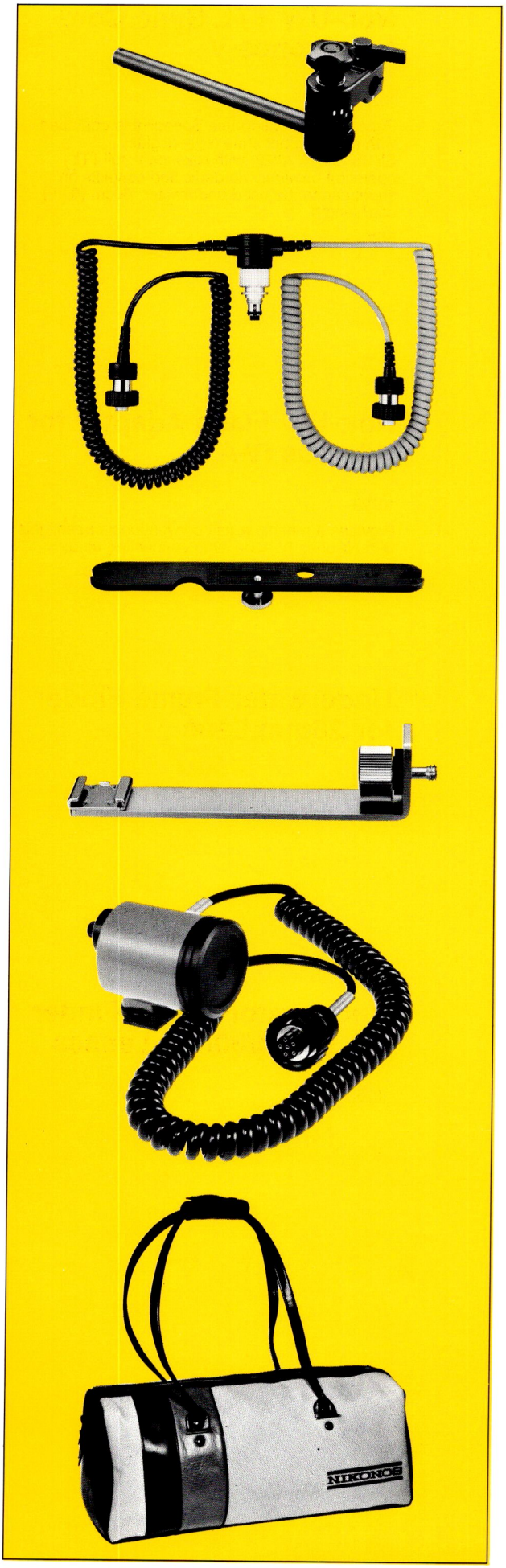
Product number:	10207

TTL UW Speedlight Set SB-103

Product number:	10103
Application:	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 Nikonos-V
Guide number:	Full output 20 on land (14 underwater), 1/4 output 10 on land (7 underwater), 1/16 output 5 on land (3.5 underwater), with ISO 100 film in meters
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 alkaline-manganese batteries
Operating range:	TTL, ISO 25-400; f/2.8-f/22 at ISO 100, non-TTL
Operating distance:	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:	175mm (W) x 130mm (H) x 99mm (D), head only
Weight:	780g (27 oz.), head only without batteries

Wide Flash Adapter SW-103 for SB-103 (replacement)

Product number:	10216



Extension Arm Set

Product Number: 10203

Application: For extending the bracket arm of TTL UW Speedlights SB-102/SB-103

TTL UW Double Sync Cord

Product number: 10204

Application: For Nikonos V to provide underwater TTL operation with two TTL UW Speedlights SB-102/103

Double Flash Bracket

Product number: 10214

Application: For mounting two TTL UW speedlights SB-102/103 on the Nikonos V

Sensor Holder for SB-102

Product number: 10202

Flash Sensor Unit SU-101

Product number: 10746

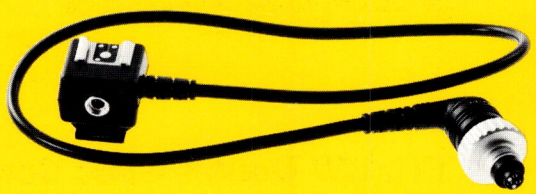
Application: To provide non-TTL automatic flash operation with UW Speedlights SB-101/102

Speedlight Carrying Case SS-101 (replacement)

Product number: 10741

Application: Spacious carrying case to transport complete speedlight with camera; inside pockets provided for film, O-rings, etc.

Construction: Beige-patterned leatherette with dark brown and black decorative panels

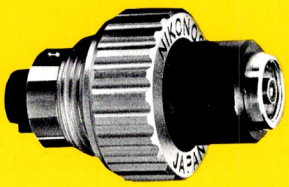


Non-UW TTL Sync Cord for Nikonos-V

Product number: 10205

Application: 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

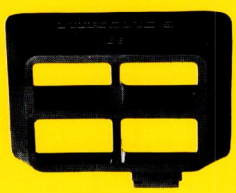
Weight: 65g



Non-UW Flash Adapter for Nikonos IV-A

Product number: 10729

Application: Provides a means to use conventional speedlights with Nikonos IV-A via sync connecting cord; cannot be used underwater

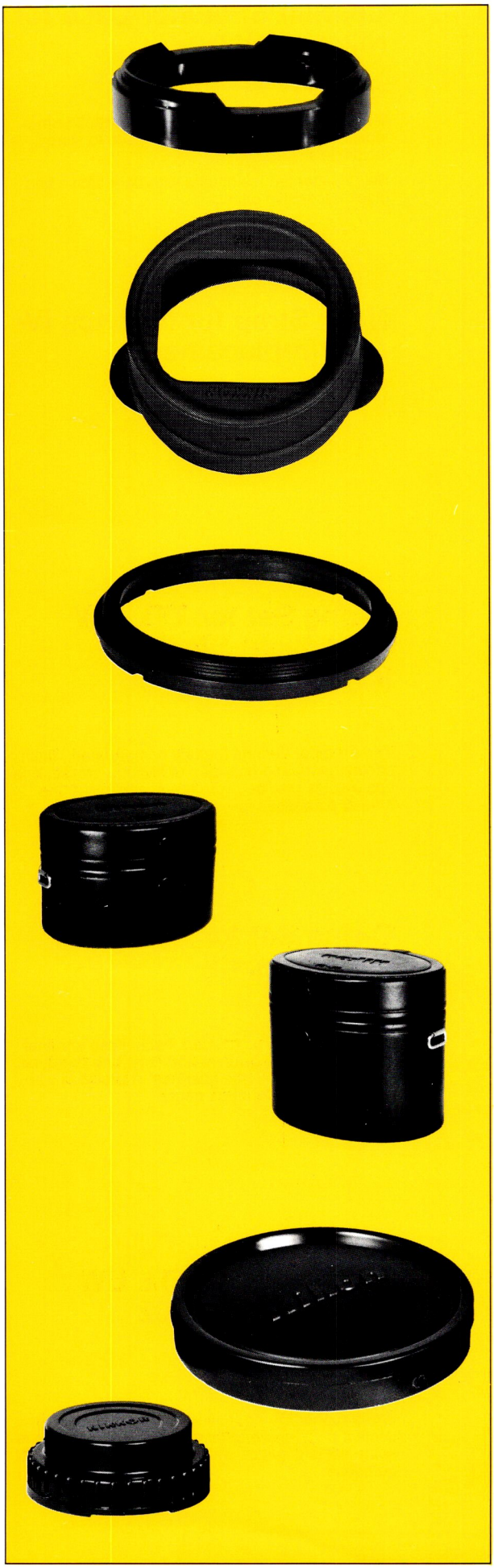


Underwater Frame Finder for 28mm Lens

Product number: 10751

Underwater Frame Finder for 35mm/80mm Lenses

Product number: 10753



Rigid Lens Hood/Filter Adapter 52mm

Product number: 10625

Application: Enables mounting of 52mm diameter threaded filters on 35mm and 80mm lenses

Rubber Lens Hood for 35mm Lens

Product number: 10626

Application: Slip-over design protects entire lens; for W-Nikkor 35mm f/2.5 lens only

Plastic Lens Protector

Product number: 10620

Application: 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

Product number: 10418

CL-51 Hard Lens Case for 80mm Lens

Product number: 10419

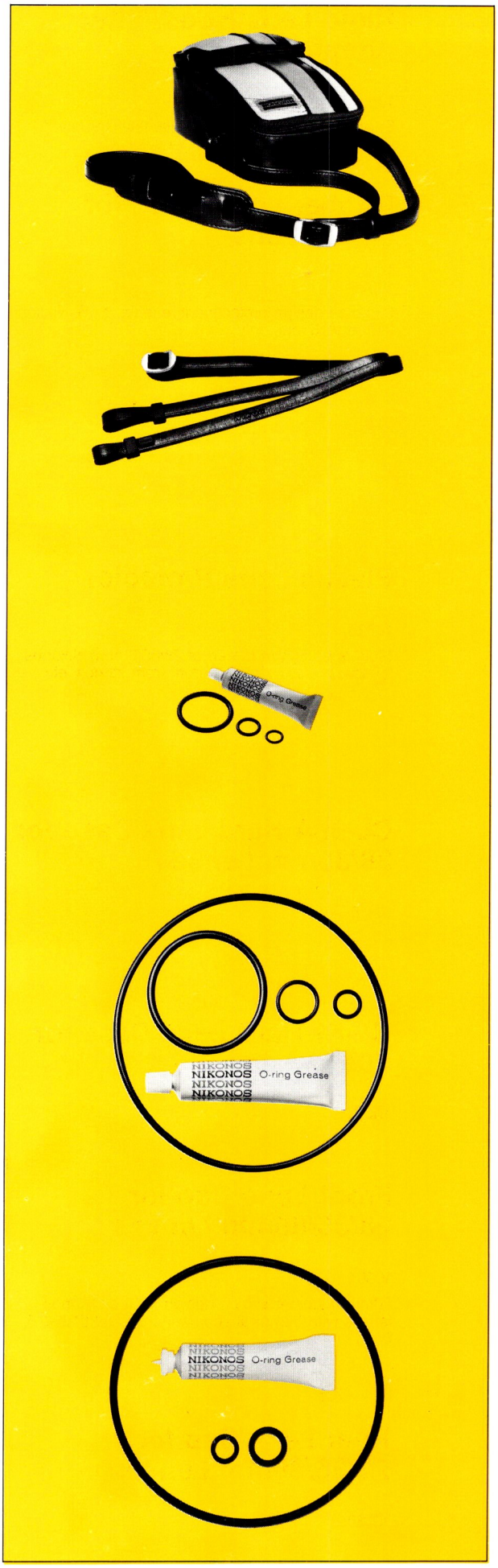
Front Lens Cap for 28/35/80mm Lenses

Product number: 10804

Application: 60mm diameter slip-on design for the Nikonos lenses with 58mm attachment size (28/35, 35/2.5, 80/4)

Rear Lens Cap for 28/35/80mm Lenses

Product number: 10730



Custom Shoulder Case for Nikonos IV-A, V

Product Number: 10420

Application: Shoulder carrying case for camera with 35mm lens; zippered pocket provides space to store incidentals

Construction: 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 TTL UW Speedlight SB-103 (replacement)

Product number: 10711

Consisting of: 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

O-ring Set for Nikonos V (replacement)

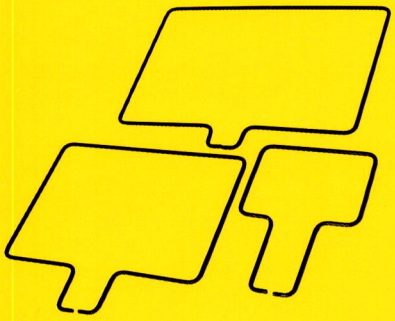
Product number: 10713

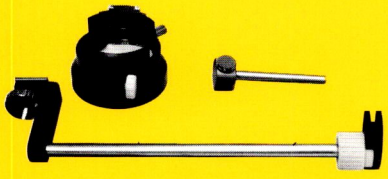
Consisting of: Four rubber O-rings (camera back, flash terminal cap, battery compartment and lens) and one tube of silicone grease; one spare set is provided with the camera at time of purchase

O-ring Set for TTL UW Speedlight SB-102 (replacement)

Product number: 10712

Consisting of: 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





Close-up Outfit for Nikonos III, IVA and V

Product number: 10705

Consisting of: 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

Working distance: 235mm from front of lens to field frame

Focus setting: At infinity focus on the lens

Exposure control: 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

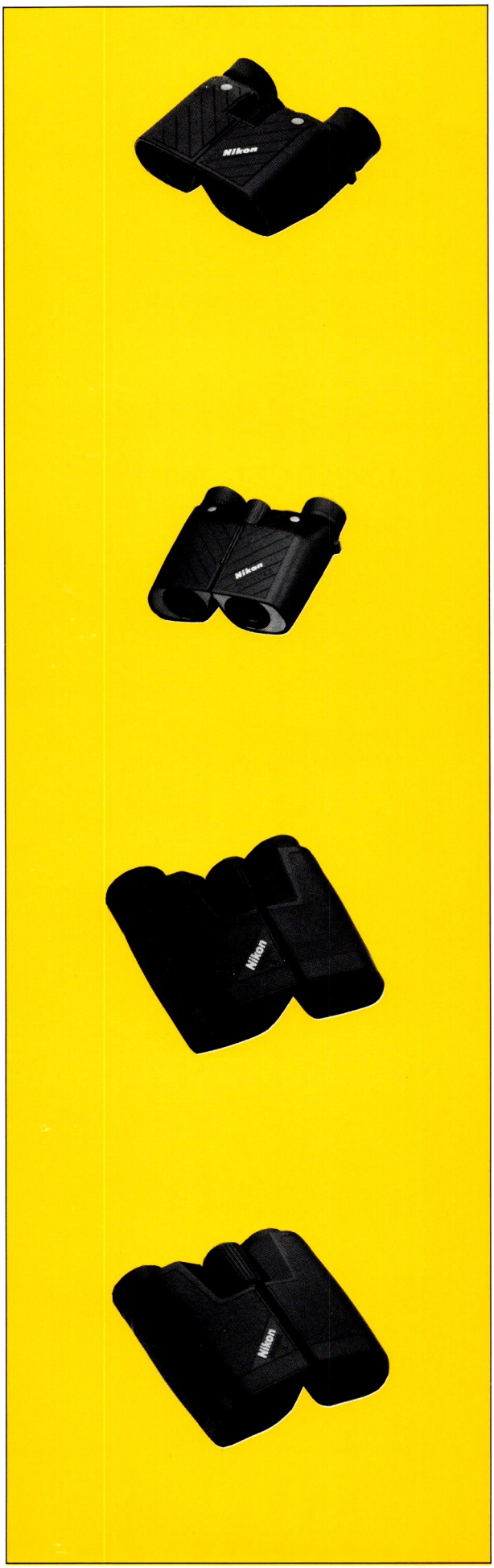
Weight: 570g (with 28mm field frame)

Magnification: 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: 10706

Application: Fitted foam-lined case with pre-cut space for complete close-up outfit with camera



7x20 CF Travelite II

Product number:	7840
Magnification:	7x
Objective diameter:	20mm
Angular field of view:	Real, 7.1°; Apparent 50°
Field of view:	373 feet at 1000 yards
Exit pupil:	2.9mm
Relative brightness:	8.4
Twilight factor:	11.8
Weight:	212.6g (7.5 oz.)
Dimensions:	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:	7703
Magnification:	8x
Objective diameter:	23mm
Angular field of view:	Real, 6.3°; Apparent, 50.4°
Field of view:	358 feet at 1000 yds
Exit pupil:	2.9mm
Relative brightness:	8.4
Twilight factor:	13.6
Weight:	260g (8.9 oz.)
Dimensions:	101mm (L) x 104mm (W) (3.6″ x 3.7″)

10x25 CF Venturer II

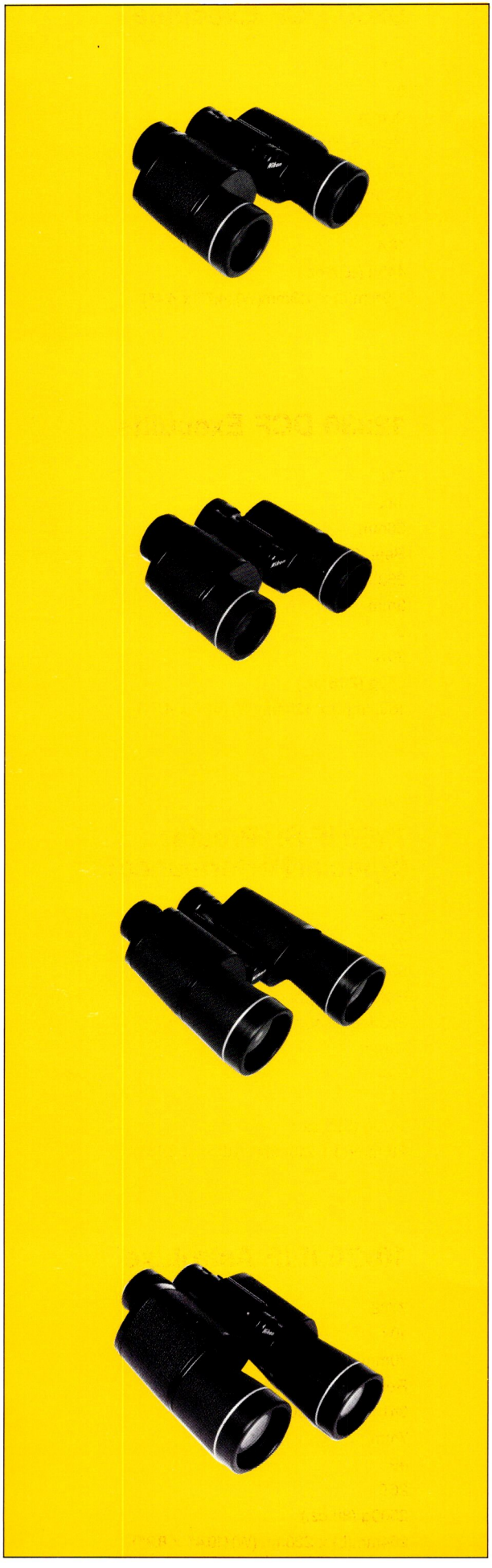
Product number:	7704
Magnification:	10x
Objective diameter:	25mm
Angular field of view:	Real, 5°; Apparent, 50.4°
Field of view:	285.4 feet at 1000 yards
Exit pupil:	2.5mm
Relative brightness:	6.25
Twilight factor:	15.8
Weight:	290g (9.8 oz.)
Dimensions:	111mm (L) x 104mm (W) (4.0″ x 3.7″)

8x20D CF LeTour

Product number:	7827
Magnification:	8x
Objective diameter:	20mm
Angular field of view:	Real, 6.5°; Apparent, 52°
Field of view:	341 feet at 1000 yards
Exit pupil:	25mm
Relative brightness:	6.3
Twilight factor:	12.6
Weight:	195g (6.9 oz.)
Dimensions:	97mm (L) x 100mm (W) (3.8″ x 3.9″)

10x25D CF LeTour

Product number:	7828
Magnification:	10x
Objective diameter:	25mm
Angular field of view:	Real, 5.2°; Apparent, 52°
Field of view:	273 feet at 1000 yards
Exit pupil:	2.5mm
Relative brightness:	6.3
Twilight factor:	15.8
Weight:	240g (8.5 oz.)
Dimensions:	117mm (L) x 106mm (W) (4.6″ x 4.2″)



7x35 CF Sporter

Product number:	7855
Magnification:	7x
Objective diameter:	35mm
Angular field of view:	Real, 9.3°; Apparent, 65.1°
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:	7856
Magnification:	8x
Objective diameter:	35mm
Angular field of view:	Real, 8.2°; Apparent, 65.6°
Field of view:	431 feet at 1000 yards
Exit pupil:	4.4mm
Relative brightness:	19.4
Twilight 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

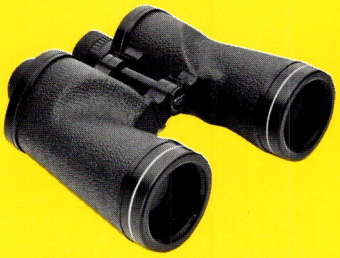
Product number:	7858
Magnification:	10x
Objective diameter:	50mm
Angular field of view:	Real, 6.5°; Apparent, 65°
Field of view:	341 feet at 1000 yards
Exit pupil:	5mm
Relative brightness:	25
Twilight factor:	22.4
Weight:	1030g (36.4 oz.)
Dimensions:	183mm(L) x 211mm(W) (7.2″ x 8.4″)

9x30 DCF Execulite

Product number:	711
Magnification:	9x
Objective diameter:	30mm
Angular field of view:	Real, 6.7°; Apparent, 60.3°
Field of view:	352 feet at 1000 yards
Exit pupil:	3.3mm
Relative brightness:	10.9
Twilight factor:	16.4
Weight:	445g (15.7 oz.)
Dimensions:	119mm(L) x 113mm(W) (4.7″ x 4.4″)

12x36 DCF Execulite

Product number:	714
Magnification:	12x
Objective diameter:	36mm
Angular field of view:	Real, 5°; Apparent, 60°
Field of view:	263 feet at 1000 yards
Exit pupil:	3mm
Relative brightness:	9
Twilight factor:	20.8
Weight:	580g (20.5 oz.)
Dimensions:	160mm(L) x 120mm(W) (6.3″ x 4.7″)



✳ 7x50 IF SP Prostar (Special Performance)

Product number:	7789
Magnification:	7x
Objective diameter:	50mm
Angular field of view:	Real, 7.3°; Apparent, 51.1°
Field of view:	383 feet at 1000 yards
Exit pupil:	7.1mm
Relative brightness:	50.4
Twilight factor:	18.7
Weight:	1470g (51.5 oz.)
Dimensions:	216mm(L) x 210mm(W) (8.5″ x 8.46″)

10x70 II IF Astroluxe

Product number:	7788
Magnification:	10x
Objective diameter:	70mm
Angular field of view:	Real, 5.1°; Apparent, 51°
Field of view:	341 feet at 1000 yards
Exit pupil:	7mm
Relative brightness:	49
Twilight factor:	26.5
Weight:	2500g (88 oz.)
Dimensions:	264mm(L) x 226mm(W) (10.4″ x 8.9″)

8x40DCF Classic Eagle

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″)

8x30D IF RC Trailblazer camouflage rubber armored waterproof/fogproof

Product number:	7782 (camo)
Magnification:	8x
Objective diameter:	30mm
Angular field of view:	Real, 7.5°; Apparent, 60°
Field of view:	394 feet at 1000 yards
Exit pupil:	3.8mm
Relative brightness:	14.4
Twilight factor:	15.5
Weight:	680g (23.9 oz.)
Dimensions:	130mm(L) x 124mm(W) (5.1″ x 4.9″)

7x50 IF RC (rubber-armored, waterproof/fogproof)

Product number:	7785 (black, Seafarer) 7794 (orange, Yachtsman)
Magnification:	7x
Objective diameter:	50mm
Angular field of view:	Real, 7.3°; Apparent, 51.1°
Field of view:	383 feet at 1000 yards
Exit pupil:	7.1mm
Relative brightness:	50.4
Twilight factor:	18.7
Weight:	1360g (48 oz.)
Dimensions:	190mm(L) x 210mm(W) (7.5″ x 8.3″)

10 x 25 CF RC Mountaineer (rubber armored, waterproof/fogproof)

Product number:	7845
Magnification:	10x
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″)

20x60 Scoutmaster Spotting Scope (water resistant)

Product number:	7709 (with ED extra low dispersion glass for maximum resolution and color)
Magnification:	20x eyepiece as standard; optional eyepieces 15x, 30x, 40x, and 60x (for ED scope only) available as accessories
Objective diameter:	60mm
Angular field of view:	Real, 3° (at 20x); Apparent, 60° (at 20x)
Field of view:	158 feet at 1000 yards (at 20x)
Exit pupil:	3mm (at 20x)
Relative brightness:	9 (at 20x)
Twilight factor:	34.6 (at 20x)
Weight:	860g (30.3 oz.), standard; 965g (34 oz.), ED
Dimensions:	321.5mm(L) x 72mm(D) (12.6″ x 2.8″)

Special Photo Attachment

Product number:	7770
Application:	converts spotting scope 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.

Eyepieces for Spotting Scope 15x Eyepiece

Product number: 7772

20x Eyepiece (repl.)

Product number: 7775

30x Eyepiece

Product number: 7773

40x Eyepiece

Product number: 7774

60x Eyepiece (for ED model)

Product number: 7811

Lens Hood for Spotting Scope

Product number: 7783

623 Stewart Ave., Garden City, NY 11530-4763, 516-222-0200